DRAFT ENVIRONMENTAL IMPACT STATEMENT

For

Cornwall Logistics, LLC

Proposed Industrial Warehouse Development

2615 US Route 9 West
Section 9, Block 1, Lot 25.22
Town of Cornwall
Orange County
New York

Prepared by:

DYNAMIC ENGINEERING

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Town of Cornwall Planning Board

Date of Acceptance: _____

Date of Public Hearing: _____

Due Date of Public Comments: _____

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Last Revised November 2023
DEC# 2803-99-012

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Appendix D – Town of Cornwall Planning Board Notice of Determination of Acceptance of DEIS, prepared by Town of Cornwall Planning board, adopted 11/06/2023
Appendix E – Lead Agency Written SEQR Findings Statement – Cornwall Commons, prepared by the Town of Cornwall Planning Board, adopted 12/01/2008
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Appendix U – Preliminary Survey Water Utility Markup, prepared by Michael P. Trainor, Sr., Water Superintendent of Village of Cornwall-on-Hudson Water Department
Appendix V – Correspondence with Jason Malizia, Central Hudson Electric & Gas Company, dated 07/07/2023
Appendix W – Central Hudson Gas & Electric Utility Applications, submitted 06/26/2023

Reports prepared under separate cover

- Draft Environmental Impact Statement Traffic Impact Study, prepared by Dynamic Traffic, LLC, dated 01/20/2023, last revised 12/01/2023;
- Report of Preliminary Geotechnical and Stormwater Basin Area Investigation, prepared by Dynamic Earth, LLC, dated 01/04/2023;
- Report of Supplemental Geotechnical and Stormwater Basin Area Investiation, prepared by Dynamic Earth, LLC, dated 07/12/2023;
- Stormwater Management and Pollution Prevention Plan, prepared by Dynamic Engineering, P.C., dated January 2023, last revised October 2023;
- Phase I Environmental Site Assessment Report, prepared by Dynamic Earth, LLC, dated January 28, 2021;

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- Wetlands Map, prepared by Lanc & Tully Engineering and Surveying, PC, dated May 18, 2021;
- Tree Plot Area Survey, prepared by Dynamic Survey, LLC, dated December 16, 2022;
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- Alternative Site Plan Exhibits (A-D), prepared by Dynamic Engineering, P.C., dated 01/18/2023;
- Overall Water and Sewer Utility Exhibit, prepared by Dynamic Engineering, P.C., dated 01/18/2023, last revised 07/12/2023;
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- Potential Blasting Monitoring Exhibit, prepared by Dynamic Engineering, P.C., dated 10/20/2023, last revised 11/30/2023;
- Visual Analysis Exhibits, prepared by Dynamic Engineering, P.C., dated January 2023;
- Visual Analysis Exhibits, prepared by ARCO, dated 01/19/2023;
- Visual Analysis Exhibits, prepared by ARCO, dated 05/19/2023;
- Roadway Survey Drawings, prepared by Dynamic Survey, LLC, dated 08/15/2023;
- Architectural Drawings (including floor plans and elevations), prepared by ARCO, dated January 2023;
- Preliminary and Final Site Plan Drawings, prepared by Dynamic Engineering, P.C., dated 01/18/2023, last revised 11/09/2023;

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I. EXECUTIVE SUMMARY

This Draft Environmental Impact Statement (DEIS) has been prepared for the Town of Cornwall Planning Board, Cornwall, Orange County, New York, the lead agency, in accordance with the requirements described in 6 NYCRR Part 617.9€ (1) through (7) and the NYS Department of Environmental Conservation SEQR Handbook 4th Edition, Chapter 5, in support of the Special Permit and Site Plan Application for the proposed development on Section 9, Block 1 in Lot 25.22, as shown on the official Tax Maps of the Town of Cornwall, Orange County, New York. The purpose of this report is to convey general and technical information regarding the potential environmental impacts of the proposed Project to the Town of Cornwall Planning Board, as well as other agencies involved in the review of the proposed Project. This DEIS is also intended to provide this information to the interested public. This report addresses existing site conditions, proposed site improvements, and evaluation of the Project with respect to the Town of Cornwall Land Use Ordinance and existing natural resources.

The Applicant, Treetop Development, LLC, ("Treetop") submitted an application to the Town of Cornwall Planning Board for the development of a Planned Industrial Development (PID) located at 2615 US Route 9W, Cornwall, New York (Section 9, Bock 1, Lot 25.22) for development of five (5) Class A Modern Warehouse Facilities. The subject property is located on the northwest side of NYS Route 9W, identified as Tax Map No. 9-1-25.22.

Treetop submitted a Full Environmental Assessment Form with the application package to the Planning Board on January 25, 2022 to initiate the SEQR process. On February 7, 2022 the Town of Cornwall Planning Board declared its Intent to be Lead Agency for review of the Project. A Notice of Intent was circulated to the Involved Agencies on February 24, 2022. After waiting the required 30 days, and receiving no written objections, the Town of Cornwall Planning Board declared itself Lead Agency and adopted a Positive Declaration requiring the preparation of an Environmental Impact Statement on April 4, 2022. A public scoping session was held in person on May 2, 2022. The final version of the Scoping document, which included the Planning Board's modifications, was accepted by the Town of Cornwall Planning Board on June 7, 2022. As part of the agency review of the scoping document, Orange County Planning Department and the Department of Transportation provided comment letters and feedback which was incorporated into the final scoping document. This document follows the approved scoping outline. All SEQR documents are included in Appendix Items A-D. As the Lead Agency for review of the Project, the Town of Cornwall Planning Board adopted the Notice of Determination of Acceptance

of Draft Environmental Impact Statement and Notice of Public Hearing on November 6, 2023 (Appendix D). As stated in the Notice, the Board has accepted this Draft Environmental Impact Statement as being prepared in accordance with Article 8 of the Environmental Conservation Law and Title 6 of the New York State Code of Rules and Regulations, Part 617, the Planning Board has determined that the DEIS is adequate for public review.

A. Summary of Previous Site Approvals

The subject site was previously approved by the Town of Cornwall Town Board and Planning Board in June and September 2005 and a Conditional Final Subdivision Approval was issued in March 2012, for a 10-lot Planned Adult Community Project, herein after referred to as "Cornwall Commons". The Cornwall Commons project consisted of 490 total dwelling units and a mix of commercial uses including a 45,000 square-foot retail shopping center, a 15,500 square-foot restaurant, a 50,000 square-foot office building, an 80-room hotel and a 70-bed congregate care facility. A copy of the Town Board and Planning Board approvals for Cornwall Commons is included in Appendix Item E.

On October 26, 2022, Zarin & Steinmetz LLP, a representative of the Cornwall Commons Applicant, formally requested that the Town of Cornwall Planning Board re-issue the Preliminary Subdivision Approval under the same conditions granted in the Final Approval. The reason for this request is that under the Town's subdivision regulations as amended in 2021, the Planning Board cannot grant another extension of Conditional Final Subdivision Approval and the current extension will expire after January 30, 2023. As such, the Cornwall Commons Applicant desires to maintain approvals, as granted in the Preliminary Subdivision Approval, for the Cornwall Commons Project throughout the SEQR process for the Treetop Project. At its December meeting, the Planning Board re-issued the requested Preliminary Subdivision Approval for the Cornwall Commons project.

B. Project Site Existing Conditions

The Project site is an undeveloped, wooded parcel approximately 197.7 acres in size. The Project site is located on the northwest side of Route 9W, a state highway and has frontage along Route 9W. The municipal boundary with the Town of New Windsor is located along the northern site property boundary. The Project site wraps around an approximately 35-acre parcel along Rt. 9W to the southeast owned by the New York Military Academy. The Project site abuts residential development to the south. Moodna Creek borders the site to the

north and west. The Project Site is primarily undisturbed, however minor historic disturbance has occurred within the northeast and northern portions of the Project Site. Within the northeastern portion of the Project Site, historic access roads were developed to gain entry to the adjacent property. Further disturbance entailed the limited clearing of trees within the northern portion of the Project Site. Wetlands and waters of the U.S. were identified on and adjacent to the site. Four of the six delineated wetlands are jurisdictional as they are wetlands that directly abut a relatively permanent water that flows indirectly to a traditional navigable water (Moodna Creek). The two remaining wetlands are isolated. The site lies on a hillside with existing topography ranging from relatively flat to moderately steep slopes. These slopes overlie a mixture of moderately drained to poorly drained soils. The majority of the site drains to the Moodna Creek, which lies off-site, the west and north. In the eastern portion of the site, minor swales flow eastward to a stream that is tributary to Moodna Creek.

Based on aerial photographs from 1940, 1942, 1973 and 1985, the Project Site or portions of it were used for agricultural purposes. On the 1947 topographic map, one structure, whose use is not known, was located in the northeastern portion of the Project Site. Between 1958 and 1962 the Project Site was predominantly wooded with agricultural use in the northeastern portion. In 1973, the Project Site remained heavily wooded with an area in the northern portion cleared for agricultural use. In 1995, the northern portion of the Project Site was no longer used for agricultural purposes and the Project Site remained heavy wooded. Between 1995 to date, the Project Site remained unchanged.

C. Brief Description of the Action

The Treetop Project proposes the construction of five (5) Class A Modern Warehouse Facilities totaling 1,726,106 square feet of floor area on the approximately 197.7-acre site. Below is a breakdown of each proposed warehouse building and the associated square footage:

- Building A: 362,277 SF
- Building B: 145,381 SF
- Building C: 753,125 SF
- Building D: 273,568 SF
- Building E: 191,755 SF

Two access points to the site are proposed from US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-ups. The Project will be served by municipal water supply and sewer service. Utility lines will ultimately need to be extended from existing access points to the Project site. A majority of the site is classified in the Planned Commercial Development (PCD) Zoning District with the balance classified in the Highway Commercial (HC) Zoning District. PIDs are permitted by special permit in the PC zoning district subject to Site Plan Approval by the Planning Board. The Applicant will petition the Town of Cornwall Town Board for an amendment to the Town of Cornwall Zoning Map to re-map the entire site PCD. The Applicant will also seek a minor text amendment from the Town Board to allow a maximum height of 50-feet in PCD zoning district, or, seek an area variance from the Town of Cornwall Zoning Board of Appeals for the height of the proposed 44-foot-tall warehouse building where 40-feet is permitted in the PCD zoning district.

D. Purpose, Public Need and Benefit

The purpose of the Treetop Development (the "Applicant") Project is to construct five Class A warehouse facilities totaling approximately 1.7 million to 2.0 million square-feet of surface space on a 197.7-acre parcel located at 2615 US Route 9W, Town of Cornwall, NY (the "Site"). The Project is expected to have significant economic and fiscal benefits for the Town of Cornwall and on Orange County, NY, resulting from approximately 1,333 workers on-site upon buildout and $200.0 million of construction spending. An analysis was conducted by Camion Associates to estimate the total economic and fiscal impact of the Project. The proposed industrial use will result in significant tax revenue without any direct impact to the local school populations.

The following is a brief listing of the benefits of the Project. This information is explored in greater detail in Section III.

- Construction of the Project will result in 120 jobs, $12.2 million in associated employee earnings, and nearly $30.9 million in sales in the Town of Cornwall during the construction period. Within Orange

County, impacts of construction will be 619 jobs, $48.9 million in associated employee earnings, and nearly $137.1 million in sales.

- Upon buildout, on-site activity will result in ongoing, annual impacts for the town and county. In total, 1,388 jobs, $83.5 million in associated employee earnings, and nearly $175.7 million in annual sales are expected in the Town of Cornwall as a result of the Project. In Orange County, the total annual economic impact is estimated to be 1,876 jobs, $110.5 million in associated employee earnings, and over $235.5 million in sales.
- In total, the net fiscal impact across all jurisdictions is positive, representing an overall benefit of over $12.5 million.
- Orange County will benefit from a positive annual fiscal impact of over $1.2 million.
- The Town of Cornwall's general fund will benefit from a positive annual fiscal impact of nearly $200,000.

E. Involved and Interested Agencies and Required Approvals, Permits and Notices

The proposed action involves the following permits and approvals from the involved agencies listed below:

1. Town of Cornwall Planning Board

- Special Permit and Site Plan Approval for the proposed PID
- SEQRA Findings

2. Town of Cornwall Town Board

- Zoning Map Amendment to re-map the portion of the site in the HC zoning district to the PCD zoning district
- Minor Zoning Code Amendment to allow a maximum height of 50-feet for PID projects in the PCD zoning district
- Approval of the design and connection for the proposed sanitary service

3. Town of Cornwall Zoning Board of Appeals

- Area variance to permit a building height of 44-feet in the PCD zoning district where 40-feet is the maximum as an alternative to the Minor Zoning Code Amendment for maximum height for PID projects in the PCD zoning district

4. Village of Cornwall-on-Hudson

- Village Board of Trustees review of a request from the Applicant to provide water service for the Project

5. Village of Cornwall-on-Hudson – Water Department

- Approval of the design and connection for the proposed water service extension

6. Orange County Department of Health – Division of Environmental Permits

- Extension of the water system from the Village of Cornwall-on-Hudson

7. New York State Department of Transportation – Region 8

- Highway work permit for the proposed site access to US Route 9W
- Highway work permit for any work in a State-owned roadway right-of-way necessary to extend municipal water and sewer services to the Project site

8. New York State Department of Environmental Conservation – Region 3

- State Pollutant Discharge Elimination System (SPDES) permit for the Stormwater Management and Erosion Plan
- Extension of the existing municipal sewer system to the site should the Town Board grant access to the Cornwall sewage treatment plant
- Jurisdictional approval or letter of no interest for the proposed water main crossing across the New York State Catskill Aqueduct

9. New York State Office of Parks, Recreation and Historic Preservation

- Review Stage 1A/1B Cultural Resources Survey for the entire Project site

10. US Army Corps of Engineers

- Jurisdictional delineation approval of the wetlands on and adjacent to the site

Referral to the following agencies for comments pursuant to the General Municipal Law:

- Orange County Department of Planning
- Orange County Department of Public Works
- Town of New Windsor
- City of Newburgh
- Town of Newburgh
- Town of Woodbury
- Village of Woodbury
- Cornwall Volunteer Ambulance (CoVAC)
- Canterbury Fire Company
- Vails Gate Fire Department

F. Summary of Potential Environmental Impacts and Proposed Mitigation Measures

1. Soils, Geology and Topography

The Project site lies on a hillside with existing topography ranging from relatively flat to moderately steep slopes. These slopes overlie a mixture of moderately drained to poorly drained soils. The majority of the site drains to the Moodna Creek, which lies off-site, to the west and north. In the eastern portion of the site, minor swales flow eastward to a stream that is tributary to Moodna Creek.

Grading and earthwork operations are required to prepare the site for the proposed site improvements. Finished grading will be provided with acceptable slopes to minimize erosion and allow for ease of maintenance on the roadways. Grading of the site shall be conducted in a manner to limit the amount of material leaving the site, and displaced soils will be used, to the extent practical, on site in areas where fills may be required.

The proposed development will increase the impervious area of the site through the construction of buildings, roads, parking areas, and sidewalks. In the absence of mitigation, the increase in impervious area would increase

the volume rate of runoff draining to the Moodna Creek. This increase will be less severe due to the fact that the existing soils have a fairly low rate of infiltration and a high existing rate of runoff.

Based on the existing site topography and preliminary anticipated grading plans, retaining walls are anticipated as part of the proposed site development. The specific type and layout of retaining walls have not been defined at this time; however, the walls are preliminarily expected to be located around the perimeter of proposed pavement areas, and will have maximum exposed wall heights on the order of 20 to 30 feet. Granular (sandy) portions of the on-site soils are generally expected to be suitable for use as retaining wall backfill, provided they meet the required gradation and they are properly tested and inspected during construction.
Additional information regarding existing soils, geology and topography can be found within the accompanying reports and plan drawings.

2. Surface Water

Based on a *Public Wells, Aquifers, and Risk Sites* provided in the *Cornwall Natural Resources Inventory 2019*, no aquifers are mapped at the site. Two public wells are identified on the order of approximately 500 feet to the southwest of the site, to the south of Route 9W. Well data for one of the wells was obtained from a *Water Wells: Beginning in 2000 Map.* Based on the published data, the depth to groundwater in the well was approximately 20 feet and the final depth of the well was reported as 310 feet below the ground surface. The depth to bedrock was not reported. Further detail regarding surface waters can be found in Section III.F below.

3. Wastewater Management

The site is located within the Cornwall Sewer District which is served by a wastewater treatment plant (WWTP) located on Shore Road and discharging into the Moodna Creek. The WWTP is jointly owned by the Town and the Village, and the WWTP is operated by the Town. The Town recently completed an Infiltration and Inflow (I&I) reduction program to protect sewer capacity at the WWTP and in the conveyance system. This includes increasing the capacity of the sewer conveyance infrastructure downstream of the site, from the intersection of Mailler Avenue and Halvorsen Road to the Shore Road WWTP. Further detail regarding wastewater management for the Project can be found in Section III.I below.

4. Water Supply

The site is located in the Cornwall Water District. The Cornwall Water District serves the Village of Cornwall and a portion of the Town as the Town has contracted with the Village of Cornwall-on-Hudson to provide water to the site. The supply of water to the Project site will require an extension of the existing water system. The Applicant is working closely with the Village to coordinate the requested 12-inch diameter water main extension through the site to create a loop to strengthen the existing water system. Further detail regarding water supply for the Project can be found in Section III.I below.

5. Ecology

A landscape plan will be prepared showing the location, approximate number and type of landscaping proposed for several locations throughout the site. It is expected the proposed landscape treatments within the developed areas will minimize any potential adverse impacts of the visual change of the property. Further detail regarding flora and fauna can be found in Section III.C below.

6. Traffic and Transportation

The Project proposes two (2) access points along Route 9W. Based upon the Traffic Impact Study, prepared by Dynamic Traffic, LLC (prepared under separate cover) it is the professional opinion of Dynamic Traffic LLC that the adjacent street system of the Town of Cornwall and the surrounding communities will not experience any significant degradation in operating conditions with the construction of the Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs. Further detail regarding traffic and transportation can be found in Section III.B below as well as the DEIS Traffic Impact Study (prepared under separate cover).

7. Air Quality and Noise Impacts

No significant air quality impacts are anticipated as a result of the buildout of the Project. 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/or blasting operations. Best construction management practices will be employed to reduce sources and extent of such emissions.

The majority of the noise contributing to the ambient conditions at the site come from U.S. Route 9W and local traffic. In addition, potential noise impacts from the Project may result from the increase in traffic from the proposed Project (traffic impacts) and from the operational use of the site (operational impacts – e.g., HVAC, internal traffic, etc.). There will be a temporary increase in noise levels due to construction activities including the use of heavy equipment for excavation, grading, paving and removal of vegetation. It is not anticipated that there will be any noticeable increase in the amount of noise generated on the site following the completion of the proposed action. Internal traffic circulation or other noise generating activities and the impact on outside residences will be considered by the Planning Board during site plan review of the overall development. Further detail regarding air quality and noise can be found in Sections III.D and III.G as well as the Air Quality and Sound Level Analysis reports (Appendix Items K-M).

8. Visual Resources and Cultural Resources

Dynamic Engineering and ARCO have prepared visual renderings (prepared under separate cover) depicting the view of the Project from various view points throughout the Town of Cornwall as previously reviewed with the Board. Based on the visual renderings, no negative visual impact is anticipated to the surrounding area as a result of the Project. Further detail regarding the individual view points can be found in Section III.H below.

9. Community Services

The Proposed Action is expected to introduce approximately 1,876 full-time and part-time employees throughout construction and upon buildout. With the introduction of a new employment center at the Project site during and after construction, an increased demand for police protection services is expected. During site plan review, the Cornwall Police Department and Ambulance Corps will have the opportunity to comment on site-specific items that may aid in more effective emergency service access to the site.

The introduction of new employees and activity to the Project Site is expected to result in increased demand for fire services. The Proposed Project is designed to provide adequate site access to fire apparatus and emergency response vehicles. Primary access to the Project Site would be provided from U.S. Route 9W. This access road is compliant with the dimensional requirements, regulations and standards for firefighting equipment and emergency service vehicle access, and full vehicular circulation is provided throughout the Project Site.

Additionally, the proposed buildings will be constructed to meet the latest New York State Uniform Fire Prevention and Building Code and would be equipped with sprinklers and fire alarms as needed.

With the introduction of new employees at the Project Site, a significant jump in personnel and activity is expected to result in an increased demand for emergency medical services. As detailed above, the Proposed Project is designed to provide adequate site access to emergency response vehicles.

The nature of the Project as a warehouse center would not generate significant new demand on local recreational facilities. In addition, there would be no new residential population on the Project Site, which is the population that would most heavily make use of nearby recreational resources. Therefore, it is the Applicant's belief that no significant adverse impacts on recreational facilities are expected due to the Project.

G. Summary of Alternatives to the Proposed Action

In accordance with the Adopted Scoping Document, numerous alternatives were evaluated in the design consideration throughout the SEQR process for the Treetop Project.

1. No Action Alternative

The No Action Alternative is required by the New York State Environmental Quality Review Act (SEQRA) regulations to be described in a draft environmental impact statement. This alternative assumes the Project Site would remain in its existing condition, with no site improvements and no new site development. With this alternative, none of the adverse, or positive, impacts of the Proposed Action would occur. No noise or traffic would emanate from the site. No disturbance to the site, including no soil disturbance, tree clearing or grading would occur. Community services and emergency personnel would remain unaffected and as currently exists, and the Town of Cornwall along with Orange County would continue to generate taxes based on the current assessed value of the property.

The development potential would remain the same and the site would be able to be developed with industrial development.

2. Absence of Zoning Map Amendment Alternative

The site is split zoned with a majority of the site located in the Planned Commercial Development (PCD) Zoning District and a smaller portion of the site located in the Highway Commercial (HC) Zoning District. Due to the fact that the HC district only permits warehouses as an *incidental* use to a primary commercial business/office use, a zoning map amendment petition to the Town Board to re-map the entire site within the PCD zoning district is proposed. The Alternate Site Plan Exhibit 'C' (prepared under separate cover) has been developed to provide multiple warehouse buildings within the PCD Zoning District only, with the HC Zoning District line remaining as is.

For the purposes of this analysis, it has been assumed that the HC Zoning District line will remain, and no warehouse use will be permitted to be constructed on the portion of the parcel that lies outside of the PCD Zoning District. Approximately 41 acres of land within the property currently exists outside the bounds of the existing HC Zoning District line. Should the zoning boundaries remain as they currently exist, the entirety of Proposed Building E, as shown in the Overall Site Plan (included in the Preliminary and Final Site Plan Drawings prepare under separate cover), would be lost, resulting in a decreased yield of potential warehouse square-footage.

3. Absence of Building Height Variance Alternative

If an area variance to allow a maximum height of 49-feet within the PCD zoning district is not approved by the Town of Cornwall Zoning Board of Appeals, or, the Town Board does not amend the Zoning Code to allow a maximum height of 50-feet for PID projects in the PCD zoning district, an alternative to the Overall Site Plan will be provided that complies with the zoning code as it exists. At this time, this alternative is considered a viable option, however in the Applicant's opinion, the increased building height will not negatively impact the overall visual appeal of the redevelopment of the Project Site.

Under this alternative, the aesthetic character of the Project Site would not change significantly compared to the Proposed Project. The site would maintain its character with large warehouse buildings, and the new buildings would still be visible from most surrounding areas. The buildings would be capped at a height of 40-feet should the area variance or zoning code amendment not be approved.

Overall, this alternative would not result in measurably different impacts than the Proposed Project.

4. Increased Residential Buffer Alternative

Alternate Site Plan Exhibit 'D' (prepared under separate cover) has been developed to depict an iteration of the proposed development with a larger buffer area along the southern and western property boundaries adjacent to residential properties located on or near Knoll Crest Court and Frost Lane. This Proposed Action was designed to initially minimize the potential environmental adverse impacts on surrounding residential dwellings adjacent to the site. As such, the proposed alternative layout is designed with a minimum of 100-feet of buffer area between the property line and areas of disturbance along the southern and western property boundaries.

Under this alternate layout, the Project's limit of disturbance would be minimized as to avoid adverse impacts to adjacent residential developments. As a result, the overall yield of warehouse space would be decreased by approximately 8 acres. There would be no substantial change to traffic, transportation, noise, air, or other environmental aspects as compared to the Proposed Project.

5. Maximized Yield Alternative

Alternate Site Plan Exhibit 'A' (prepared under separate cover) has been developed to depict an iteration of development that maximizes potential building footprint. This Proposed Action was designed to initially maximize the usable site area, however it does not avoid or reduce, to the maximum extent practicable, environmentally sensitive lands.

Under this alternate layout, an overall increase in development coverage will be required as compared to the Proposed Project. Approximately 20 additional acres of overall development coverage and 4.5 additional acres of building coverage is proposed in Alternate 'A'. As a result, an increased demand in sewer and waste services may be required along with additional utility infrastructure. The aesthetic character of the project along with noise and air quality, community services, and fiscal impacts will remain unchanged. This alternative may have impacts on increased traffic volumes due to the availability of additional loading docks for each warehouse building.

6. Additional Fire Access Alternative

Alternate Site Plan Exhibit 'B' (prepared under separate cover), has been developed to depict an iteration of development that maximizes potential building footprint and provides additional fire safety access and circulation throughout the site. Per a letter from The Canterbury Fire District, dated May 2nd, 2022, two means of fire apparatus access for each structure must be provided. As such, the proposed alternative layout is designed to provide additional access routes to each proposed structure and to facilitate truck circulation with regards to fire access.

The Proposed Project will require a significant increase in full-time and part-time employees on the job site during construction and throughout warehouse operations. As such, on-site population (comprised of construction workers, warehouse workers, and miscellaneous visitors) could result in an increase in the demand for police, fire, and emergency services. Under this alternative, complete and efficient full-site circulation is provided in order to meet the necessary emergency vehicle demands, including fire access. It should be noted the Site Plan drawings, prepared by Dynamic Engineering and prepared under separate cover, incorporate the additional fire access depicted on this alternate layout to promote safe and efficient access for fire emergency services.

H. Issues Not Relevant the Proposed Action

In accordance with the previously submitted EAF Comparison Report (Appendix Item F), various issues considered in the initial scoping review were determined to be non-significant or not relevant to the Project due to the scope of the development. Issues not directly discuss in the body of this Statement narrative are considered to be non-significant given the nature of the Project. Should the Board find during their review of the DEIS, that issues not directly discussed are relevant to the Project, the Applicant will coordinate with their team of professionals to review and provide analysis of the identified issues during the preparation of subsequent revisions to the DEIS.

II. PROJECT DESCRIPTION

The Treetop Project involves the development of a 197.7-acre parcel located at 2615 US Route 9W in the Town of Cornwall for a Planned Industrial Development or PID consisting of five (5) Class A modern warehouse

buildings. The project proposes two access points from US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other site improvements. Access to the NYMA property adjacent to the site is proposed from the northern access driveway. This DEIS examines the potential environmental impacts associated with the proposed PID project and development of the 197.7-acre parcel.

The project will utilize existing municipal water and sewer services that have capacity to serve the project site. Existing municipal water service will be extended to serve the project. The roads to be constructed on the interior of the lot will be constructed by the developer. The access to the site will be from NYS Route 9W. Stormwater runoff generated from the project will be collected on site through a series of catch basins and storm drainage piping. The runoff will then be conveyed to stormwater ponds located on site, where it will be treated for quality, and then released at a rate equal to or lower than predevelopment runoff rates.
The Project will consist of the construction of five (5) Class A Modern Warehouse Facilities, as seen in the Overall Site Plan. The building sizes are as follows:

Building A	+/- 362,277 SF
Building B	+/- 145,381 SF
Building C	+/- 753,125 SF
Building D	+/- 273,568 SF
Building E	+/- 191,755 SF

A majority of the site is classified in the Planned Commercial Development (PCD) Zoning District with the balance classified in the Highway Commercial (HC) Zoning District. PIDs are permitted by special permit in the PC zoning district subject to Site Plan Approval by the Planning Board. The Applicant will petition the Town of Cornwall Town Board for an amendment to the Town of Cornwall Zoning Map to re-map the entire site as PCD. The Applicant will also seek a minor zoning text amendment from the Town Board to allow a maximum height of 50-feet for PIDs located in the PCD zoning district, or, seek an area variance from the Town of Cornwall Zoning Board of Appeals for the height of the proposed 44-foot-tall warehouse building where 40-feet is permitted in the PCD zoning district.

This DEIS has been prepared by the applicant to address the overall development of the Planned Industrial Development, including specifically the Special Permit and Site Plan applications with zoning map and zoning code amendments and the cumulative effects of developing the entire site, to determine whether any of the necessary approvals and construction would have impacts exceeding the conditions and thresholds of the Final Scope, adopted by the Town of Cornwall Planning Board on June 7, 2022 (Appendix Item C).

A. Project Site Background and History

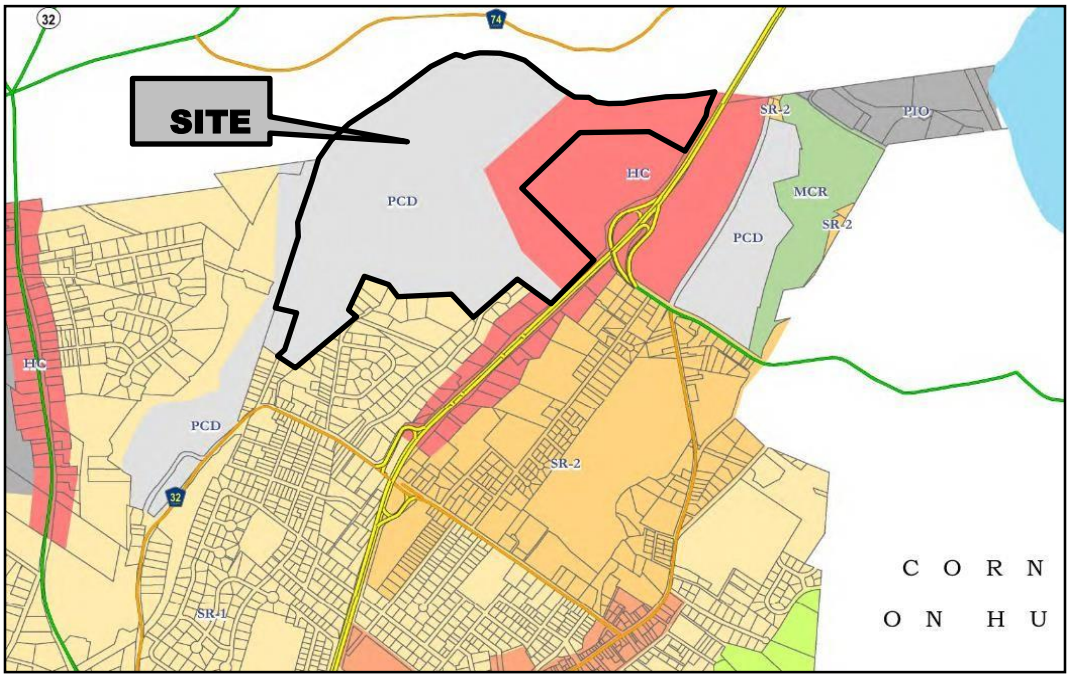
1. Prior Cornwall Commons Project

The subject site was previously approved by the Town of Cornwall Town Board and Planning Board in June and September 2005 and a Conditional Final Subdivision Approval was issued in March 2012, for a 10-lot Planned Adult Community Project, herein after referred to as "Cornwall Commons". The Cornwall Commons project consisted of 490 total dwelling units and a mix of commercial uses including a 45,000 square-foot retail shopping center, a 15,500 square-foot restaurant, a 50,000 square-foot office building, an 80-room hotel and a 70-bed congregate care facility. A copy of the Town Board and Planning Board approvals for Cornwall Commons is included in Appendix Item E.

2. 2020 Zoning Amendments

Per Town of Cornwall Local Law 1-2020, the zoning of the Project Site was formally changed from Planned Residential Development (PRD) to Planned Commercial Development (PCD). Additionally, the HC Zoning District boundaries of the Site were amended as shown in Figure II-1 below.

Figure II-1 - Zoning Map



B. Applicant Information

1. Applicant's Qualifications

Treetop Companies is a real estate investment firm co-founded in 2005 by Adam Mermelstein and Azi Mandel. Renowned for its ability to identify trends in growing neighborhoods, Treetop develops new and rehabilitates existing properties in those areas. Treetop's portfolio consists of approximately 7,000 units and 3.63 million square feet of industrial, with a value exceeding $1 billion. Treetop's 300 employees control all aspects of the process from construction to rehabilitation to property management. Senior management has over 160 years of experience, of which 80 has been at Treetop.

2. Purpose of the Project

The purpose of the Project is to develop five Class A warehouse facilities totaling approximately 1.7 million to 2.0 million square-feet of surface space on a 197.7-acre parcel located at 2615 US Route 9W, Town of Cornwall,

NY (the "Site"). The Project will address the growing demand for warehouse space, create jobs and result in significant tax revenue.

3. Applicant's Goals and Objectives

The Applicant's goal is to construct and eventually manage approximately 1.7 million to 2.0 million square-feet of Class A warehouse space spread over 5 buildings on the 197.7-acre parcel. The Applicant's objective is to lease 100% of the warehouse space to various entities seeking warehouse facilities. The Applicant seeks to develop the Project in a way that minimizes and mitigates and potential adverse environmental impacts.

C. Site Description

1. Location, Tax Map Designation and Acreage

The subject site consists of approximately 197.7 acres identified on the Town of Cornwall Tax Map as Section 9, Block 1, Lot 25.22. A majority of the site is located within the Planned Commercial Development (PCD) Zoning District with the balance of the site located within the Highway Commercial (HC) Zoning District. The site is vacant wooded land located on the northwest side of US Route 9W and adjoining the former O&W Railway line. The site wraps around an approximately 35-acre parcel along Route 9W to the southeast owned by the New York Military Academy ("NYMA").

2. Zoning and Surrounding Land Uses

a. PCD and HC Zoning Districts

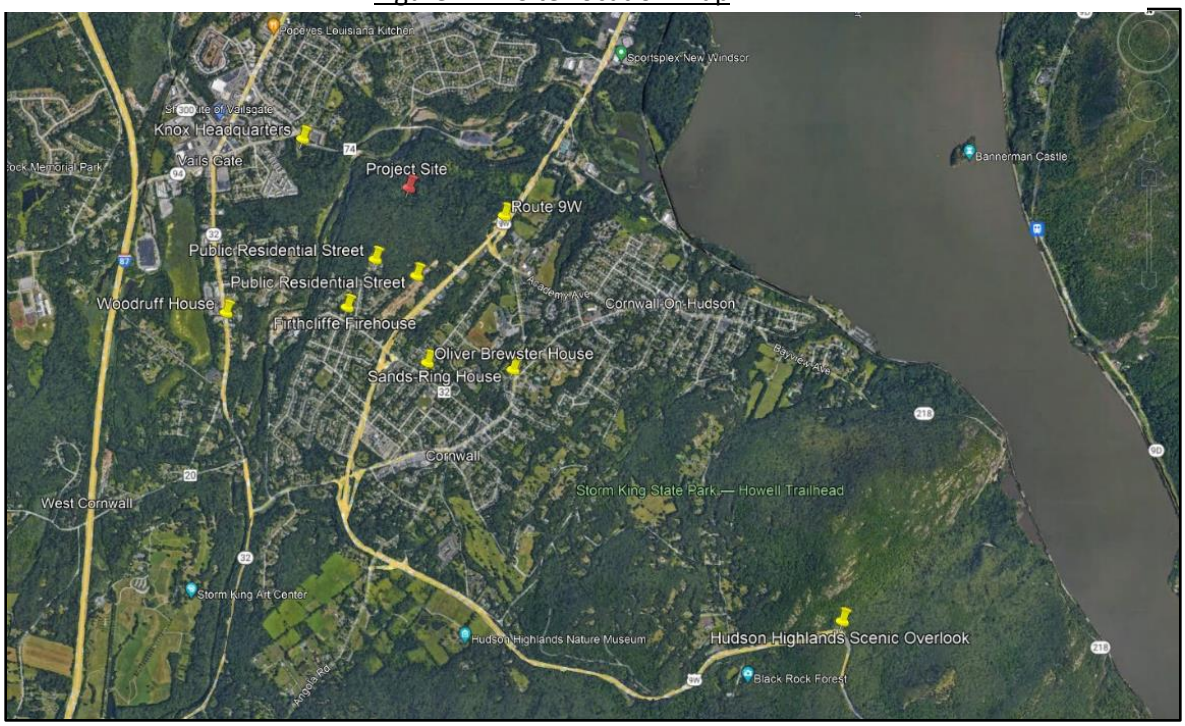
The parcel lies in the northeast portion of the Town of Cornwall abutting the Town of New Windsor. The Moodna Creek, a major local drainage tributary of the Hudson River, flows below the western limits of the property, and the creek is bounded on the southwest by single family homes along Schofield Land and Front Lane. The Funny Child Brook, although not located adjacent to the project, is located to the southeast of the project site.

3. Context with Surrounding Area

The site is bounded on the south and southeast by vacant land. The site wraps around an approximately 35-acre parcel to the southeast which is owned by the New York Military Academy. Route 9W borders the site to the south and southeast. Figure II-2 below provides a visual reference for the project site and the surrounding uses as described in this section.

a. Site Location Map

Figure II-2 - Site Location Map



4. Site Access and Surrounding Road Network

The segment of Route 9W with frontage on the project site is a four-lane divided highway featuring scattered commercial structures. Beyond the commercial businesses along Route 9W, residential dwellings exist to the West and South beyond. To the northeast of the Project Site exists the intersection of Route 9W and Sloop Hill Road (Route 74). To the southeast of the Site is the intersection of Academy Avenue and Route 9W. Directly south of the Project Site exists the Willow Avenue (Route 32) overpass (passing over Route 9W), and to the southwest are residential streets such as Frost Lane, Hampton Place, Knoll Crest Court, Stately Oaks, Schofield Lane and Howard Street.

5. Existing Uses and Structures

Knox's Headquarters and the Palisades Interstate Park Commission ("PIPC") gorge trails are located to the northwest of the site. Farmland is utilized on the south side of Forge Hill Road, approximately 2,200 feet from the intersection with Route 9W and Forge Hill Road. The area surrounding the farm is improved with very large industrial buildings, similar to those proposed in the Treetop Project. Directly southwest of the Project Site exists the New York Military Academy, which shares a property boundary with the Project Site. The entirety of the Site is vacant and undeveloped, with a majority being wooded areas and the remainder open grass space. There are various walls located throughout a majority of the site which will be demolished/modified to accommodate the Proposed Project. However, there are no significant existing uses or structures on the Project Site that will impact the Proposed Project as designed.

6. Existing Utilities

Water supply to the site will require the extension of water mains onto the site from existing municipal facilities, specifically the owner and operator of such mains: Cornwall on Hudson. Currently, there is an existing 12-inch diameter water main located on the west side of the project site on Mill Street, approximately 300 linear feet south of the intersection at Howard Street and Willow Street. There is a 6-inch diameter water main located at the intersection of Mailler Avenue and Halvorsen Road to the east of the project site. It is proposed that the site will create a loop for the municipal infrastructure. Additionally, an existing sanitary sewer main runs along Mailler Avenue at the intersection of Halvorsen Road, located southwest of the project site, which flows to the Shore Road WWTP. The Shore Road Waste Water Treatment Plan is under the management and operation of the Town of Cornwall.

Gas service to the site will require an extension of gas mains onto the site from the existing Central Hudson Gas & Electric infrastructure. Currently, there is an existing gas main located just south of the site on Knoll Crest Court. The gas main will be extended through the site within the paved roadways, and individual gas services will be provided for each building. In addition, electric service to the site will also require an extension of underground electric onto the site from the existing Central Hudson Gas & Electric infrastructure. Currently, there is existing utility lines located across U.S. Route 9W to the southeast of the site.

7. Existing Easements

The project site contains multiple existing permanent easements, all located on the western tip of the parcel. A 50-foot-wide permanent easement runs northwest to southwest, reserved for the City of New York Catskill Aqueduct. Additionally, there exists is a 12-foot-wide sanitary sewer easement approximately 350 feet east of the western property boundary. The Town of Cornwall retains the rights to a restrictive easement along the northwestern property boundary. The subdivision that created the NYMA parcel abutting the site included a reservation of an undefined easement in favor of the NYMA parcel for access to the NYMA property from Route 9W. Although located on the project site, these easements are not anticipated to negatively impact the Treetop Project, nor will the proposed development hinder the access, use, or efficiency of the existing easements on site.

D. Proposed Development Plan

1. Warehousing

The Treetop Project proposes a Planned Industrial Development (PID), consisting of five (5) Class A Modern Warehouse Facilities totaling approximately 1,726,106 square feet in gross floor warehousing area. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up designated areas. Each warehouse building will be supplemented by associated automobile parking, trailer parking, and loading stalls along the perimeter of the building footprint.

2. Minor Zoning Map Amendment

A majority of the Project Site is classified in the PCD (Planned Commercial Development) Zoning District with the balance classified in the HC (Highway Commercial) Zoning District. Planned Industrial Developments, or PIDs, are a permitted use by Special Permit within the PCD Zoning District, subject to Site Plan Approval from the Town of Cornwall Planning Board. Warehouses are permitted in the HC Zoning District as an accessory use. As such, the Applicant proposes a minor zoning map amendment that shall reclassify the entire site to be within the PCD Zoning District, subject to Approval from the Town of Cornwall Town Board.

3. Area variance or zoning text amendment

In addition to a minor zoning map amendment, the Applicant may seek an area variance from the Zoning Board of Appeals for the height of the proposed 44-foot-tall warehouse buildings where a maximum height of 40-feet is permitted in the PCD Zoning District. A second alternative, the Applicant may seek a minor text amendment of the Town of Cornwall Zoning Code from the Town of Cornwall Town Board to allow a maximum height of 50-feet for PID projects within the PCD Zoning District.

4. Site Access, Driveway, Circulation, Parking, and Loading

The site will be accessed via a signalized driveway and a right-in/right-out driveway located along Route 9W. A main looped road will connect the two access points with additional drive aisles connecting to the main road, providing full access to each warehouse building and associated parking and loading. The Project proposes a total of 716 parking spaces and 378 loading bays for the five (5) proposed warehouse buildings. The main road will be constructed as an internal access drive with twenty (20) foot lanes in either direction. For general site access, circulation, and parking, forty (40) foot wide drive aisles are utilized. For connecting drive aisles utilized for truck loading and trailer parking, sixty-five (65) foot wide drive aisles are utilized to ensure proper truck circulation and turn-around-areas are available. Future access to the adjacent NYMA property, in the form of a cross access easement, is proposed from the northern proposed access drive.

The northern access will to intersect US Route 9W to form a T-intersection controlled by a traffic signal. The signal warrant analysis found that at least one driveway will require a traffic signal. The signal is proposed to utilize a three-phase 80-second background cycle. The northbound approach of US Route 9W is proposed to provide a dedicated left turn lane and two dedicated through lanes, while the southbound approach is proposed to provide two dedicated through lanes and a dedicated right turn lane. The eastbound approach of the site driveway is proposed to provide a dedicated left turn lane and a dedicated right turn lane with shared cross access to the adjacent NYMA property.

The southern access will be a stop-controlled right-in/right-out driveway with the eastbound site driveway consisting of one right turn only lane. The southbound approach will be one through lane and one shared through-right turn lane, while the northbound approach will remain consistent with existing conditions.

5. Utilities

Domestic water service for the proposed development will be provided via a looped connection to the existing 12-inch diameter water main located on the west side of the project site on Mill Street. Per correspondence with Michael Trainor, Water Superintendent, the proposed connection in Mill Street is approximately 300 linear feet southwest of the intersection of Howard Street and Willow Street (Appendix Item T). The service provider for domestic water is the Village of Cornwall-on-Hudson Water Department, which supplies water through their distribution system from a combination of source water from their reservoir system in Black Rock Forest, the Taylor Road wellfield, and the New York City Catskill Aqueduct System. Per coordination with the Village of Cornwall-on-Hudson Water Department, the loop through the site will be a 12-inch diameter water main. The proposed 12-inch diameter main will connect to the existing 12-inch diameter main on Mill Street just west of the site. The main will then extend along Mill Street, Willow Avenue, and Howard Street, then onto the Project Site. From there, the main will be directionally drilled under existing wetlands, loop through the Project Site, cross under U.S. Route 9W via a proposed easement onto Halvorsen Road. The main will connect to the existing 6-inch diameter water main on Mailler Avenue, southeast of the site. Within the project site, a 10-inch diameter main will branch off and be tied into a proposed pump house with a 300,000-gallon fire suppression water tank. This 10-inch diameter main will then extend to the five proposed warehouse buildings and will feed the individual 4-inch diameter water services and 10-inch diameter fire services. The projected preliminary water demand is approximately 24,000 gallons per day, which is an increase in demand compared to the vacant, undisturbed existing conditions. This demand is based on 960 employees (assumed) at 25 gallons per day per employee for factory per distribution warehouse (includes 10 gallons per day for on-site showers).

Sanitary sewer service for the proposed development will be extended to the site across U.S. Route 9W through a proposed easement onto Halvorsen Road and connect to the existing 15-inch diameter gravity sewer main on Mailler Avenue, southeast of the site. An 8-inch diameter gravity sanitary sewer system will be provided on site to provide sanitary sewer service to each of the five proposed warehouse buildings. All buildings will be serviced via gravity service utilizing 8-inch diameter laterals. The service provider for sanitary sewer is the Cornwall Sewer District and the collection center will be the Shore Road Sewage Treatment Plant. Projected preliminary sewer demand is approximately 24,000 gallons per day, which is an increase when compared to the vacant, undisturbed existing conditions. This demand is based on 960 employees (assumed) at 25 gallons per day per employee for an Industrial Facility.

Natural gas service for the proposed development will be provided via an extension of the existing Central Hudson Gas & Electric infrastructure located on Knoll Crest Court, south of the site. The gas main will be extended through the site within the paved roadways, and individual gas services will be provided for each proposed warehouse building. The proposed development would utilize the existing service line along Knoll Crest Court to the best extent practicable.

Electric service for the proposed development will be provided via an extension of existing Central Hudson Gas & Electric underground infrastructure. Underground electric service will be extended across U.S. Route 9W, just southeast of the site, with individual transformer pads located in proximate vicinity to the buildings. Each proposed warehouse building will have individual electric service lines from the proposed transformers.

6. Grading Plan

Grading and earthwork operations are required to prepare the site for the proposed site improvements. Finished grading will be acceptable slopes to minimize erosion and allow for ease of maintenance on the roadways. Grading of the site shall be conducted in a manner to limit the amount of material leaving the site, and displaced soils will be used, to the extent practical, on site in areas where fills may be required.

Grading limits have been established on the Grading Plans and Soil Erosion and Sediment Control Plans (included in the Preliminary and Final Site Plan Drawings prepared under separate cover). The Overall Grading and Heat Map Exhibit (prepared under separate cover) was prepared for the entire Proposed Project to depict areas of cut and fill through colored hatching. Based upon the cut & fill analysis generated for the proposed grading plan, there will be a surplus of approximately 783,000 cubic yards of fill (approximately 48,000 truckloads) required for the Project.

The grading plan has been prepared in such a manner to minimize the need for retaining walls, although several walls will be needed during the construction of the Proposed Project. The first wall is located along the back side of the property along the main loop road. This wall ranges in height from 0 to approximately 30 feet. Additional retaining walls will be required along various wetland and parking areas as depicted on the Grading Plan sheets. The walls are required in order to minimize impacts to wetlands located within internal circulation of the

property. At this time, the walls are proposed to be constructed of concrete systems and will confirmed prior to construction upon preparation of retaining wall design drawings.

Erosion control methods will be employed during construction to mitigate any impacts to isolated wetland, wetlands, or other areas of concern, from sediment runoff as per NYS DEC Requirements. Relatively shallow seasonal high groundwater and water tables were encountered within the soil borings and test pit excavations performed. In addition, perched zones of saturation above the underlying rock stratum may be encountered within the proposed excavations. As such, the contractor should anticipate the need for groundwater control during construction.

7. Stormwater Management

Various measures have been incorporated into the overall project design to minimize the potential for impacts to stormwater, including those detailed below. A Stormwater Pollution Prevention Plan (SWPPP) (prepared under separate cover) has been developed for the Proposed Action.

- The Proposed Project has been designed to limit disturbance to the existing wetlands and watercourses and to maintain preconstruction natural hydrologic conditions of the Project Site to the maximum extent practicable.
- A SWPPP has been prepared for the Proposed Project in accordance with the 2015 New York State Stormwater Management Design Manual, Chapter 121 of the Town of Cornwall Code, and the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity.
- The SWPPP includes a detailed erosion and sediment control plan identifying the specific erosion and sediment control measures to be implemented on the Project Site.
- The proposed Project Site stormwater management system consists of a series of vegetated stormwater infiltration and detention facilities which would release stormwater runoff at a controlled rate through outlet control structures on-site tributaries. The infiltration and detention facilities have been designed to satisfy the channel protection, overbank flood, and extreme storm requirements set forth by the New York State Stormwater Design manual.
- Stormwater runoff generated from the project will be collected on site through a series of catch basins and underground storm drain piping. The runoff will then be conveyed to stormwater ponds located on

site, where it will be treated for quality, and then released at a rate equal to or lower than predevelopment runoff rates.

8. Signage

The Proposed Development will require the construction of various site identification, traffic control, and safety signage. Each sign will be designed in accordance with the Town of Cornwall Municipal Code, Chapter 158.

The Applicant will seek board approval of proposed sign package upon final tenant selection and subsequent completion of final signage design, at which point all specifications will be provided. The signage package is assumed to be compliant at this time.

9. Lighting

A Lighting Plan for the Proposed Project is included in the Preliminary and Final Site Plan Drawings (prepared under separate cover). The Proposed Project lighting would be consistent with the Town of Cornwall Code, Chapter 158. As shown on the Lighting Plan, lighting fixtures not to exceed 25 feet in height would be provided along the building exteriors, roadways, and parking areas. Lighting would be shielded and downward directed such that it will not be visible from beyond any of the property lines, in keeping with dark sky principles. Variable controls for site lighting would be used. The proposed landscaping, retaining walls, and sound barrier walls on the Project Site would further shield any lighting from view from the surrounding areas.

10. Construction Phasing, Sequencing, and Duration

The Proposed Project would be developed in 3 overall phases, as depicted on the Overall Phasing Plan Exhibit (prepared under separate cover). Phase 1 is considered the main circulation drive aisle throughout the site including underground utilities, grading, and ancillary stormwater basins adjacent to the roadway. Phase 2 will be considered the main circulation aisle along the rear of the site, including stabilizing regional stormwater basins and the largest retaining wall along the norther property boundary. Phase 3 is broken up into sub-phases A through E, depending on which warehouse building will be constructed first. The phasing operations and sequencing are subject to change based on confirmation of tenants on the Project Site and market conditions at the time of construction. In addition, the phasing can be broken down further into additional phases as needed to comply with required disturbance limitations set forth by the Town. The Construction Phasing, Sequencing

and Duration is further discussed below in Section III.L of this report along with construction noise related activities/mitigations in Section III.D of this report and the Overall Phasing Plan Exhibit (prepared under separate cover).

E. Required Permits and Approvals

Table II-1 below details all required permits and approvals required for the proposed Treetop Project.

Table II-1 - Involved and Interest Agencies/Adjoining Municipalities

Involved or Interested Agency/ Adjoining Municipality	**Approval or Permitting Required**
Town of Cornwall Planning Board	Special permit and Site Plan Approval for the proposed PID and SEQRA findings.
Town of Cornwall Town Board	Zoning Map Amendment to re-map the entire site as PCD, minor zoning code amendment to allow a maximum building height of 50-feet for PID projects, access to the Cornwall Sewage Plant, and review of Road Opening Permits for utility connections.
Town of Cornwall Zoning Board of Appeals	Area variance to permit a building height of 44-feet in the PCD zoning district where 40-feet is the maximum.
Village of Cornwall-on-Hudson	Village Board of Trustees review of a request from the Applicant to provide water service for the proposed project.
Village of Cornwall-on-Hudson – Water Department	Approval for the design and connection of the proposed water service extension.
New York State Department of Transportation – Region 8	Highway work permits for the proposed site access to US Route 9W and for any work in a State-owned roadway right-of-way necessary to extend municipal water and sewer services to the project site.

New York State Department of Environmental Conservation – Region 3	State Pollutant Discharge Elimination System (SPDES) permit for the Stormwater Management and Erosion Plan and extension of the existing municipal sewer system to the Site.
New York State Office of Parks, Recreation, and Historic Preservation	Review Stage 1A/1B Cultural Resources Survey for the entire project site.
US Army Corps of Engineers	Jurisdictional delineation approval of the wetlands on and adjacent to the site.
Town of New Windsor	Pursuant to General Municipal Law Section 239-nn, the Town of Cornwall Planning Board is required to provide a copy of the notice of hearing for the site plan application to the Town of New Windsor Town Clerk at least ten days prior to any such hearing.
Orange County Department of Heath	Approval for the proposed water main extension associated with the site utility improvements.

F. Summary of Project Public Need and Benefits

The Treetop Project proposes a new Planned Industrial Development, or PID, to an essentially vacant, undeveloped site. The Applicant proposes to redevelop the site, constructing industrial warehouse buildings that are consistent with the existing PCD Zoning District wherein warehousing is a permitted use, subject to Special Use Permit and Site Plan Approvals from the Town of Cornwall Planning Board. The Proposed Action would provide jobs and tax income without applying unwanted pressures on adjacent residential communities and services within the Town of Cornwall. The Proposed Action is consistent with the re-zoning of the Site in 2020 from Planned Residential District (PRD) to Planned Commercial District (PCD) to encourage commercial and industrial development of the site.

Significant interest in this site over the years can be attributed to the site's prime location in Orange County with convenient access to US Route 9W, proximity to I-87, and a robust regional labor force. The Proposed Project has been designed to provide a significant public benefit to the Town of Cornwall community. The Applicant

proposes sustainable redevelopment of the site, implementing green technologies and energy efficiency throughout the design, development and site operations as detailed in Section V of this DEIS report.

While the eventual redevelopment of this property may be inevitable, as proposed, the Proposed Project will improve visual and economic aspects of the site from the surrounding community. The Proposed Project would reactivate the site for industrial and warehouse purposes while preserving the natural wooded landscape setting along US Route 9W to the maximum extent feasible. The overall height of the proposed warehouse buildings will not deter from the visual appeal of the surround area, nor will it interfere with existing natural buffer areas to residential dwellings to the east and west of the Project Site.

Perhaps the most significant regional and Town benefits from this project would come from the tax benefits and project employment including the following (see Economic & Fiscal Impact Analysis included as Appendix Item I):

- Construction of the Project will result in 120 jobs, $12.2 million in associated employee earnings, and nearly $30.9 million in sales in the Town of Cornwall during the construction period. Within Orange County, impacts of construction will be 619 jobs, $48.9 million in associated employee earnings, and nearly $137.1 million in sales.
- Upon buildout, on-site activity will result in ongoing, annual impacts for the town and county. In total, 1,388 jobs, $83.5 million in associated employee earnings, and nearly $175.7 million in annual sales are expected in the Town of Cornwall as a result of the Project. In Orange County, the total annual economic impact is estimated to be 1,876 jobs, $110.5 million in associated employee earnings, and over $235.5 million in sales.
- In total, the net fiscal impact across all jurisdictions is positive, representing an overall benefit of over $12.5 million.
- Orange County will benefit from a positive annual fiscal impact of over $1.2 million.
- The Town of Cornwall's general fund will benefit from a positive annual fiscal impact of nearly $200,000.
- The total new property tax revenue to be generated is estimated to be nearly $12.2 million (based on current tax rates and estimated taxable value upon completion).

- The current total taxable value of property in the Town of Cornwall is nearly $1.5 billion. This means that the Project will result in an estimated 10.3% increase in taxable value in the town.
- In Orange County, the total taxable value is nearly $48.1 billion. This means that the Project will result in an estimated 0.31% increase in the county's taxable value.

III. EXISTING CONDITIONS, POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

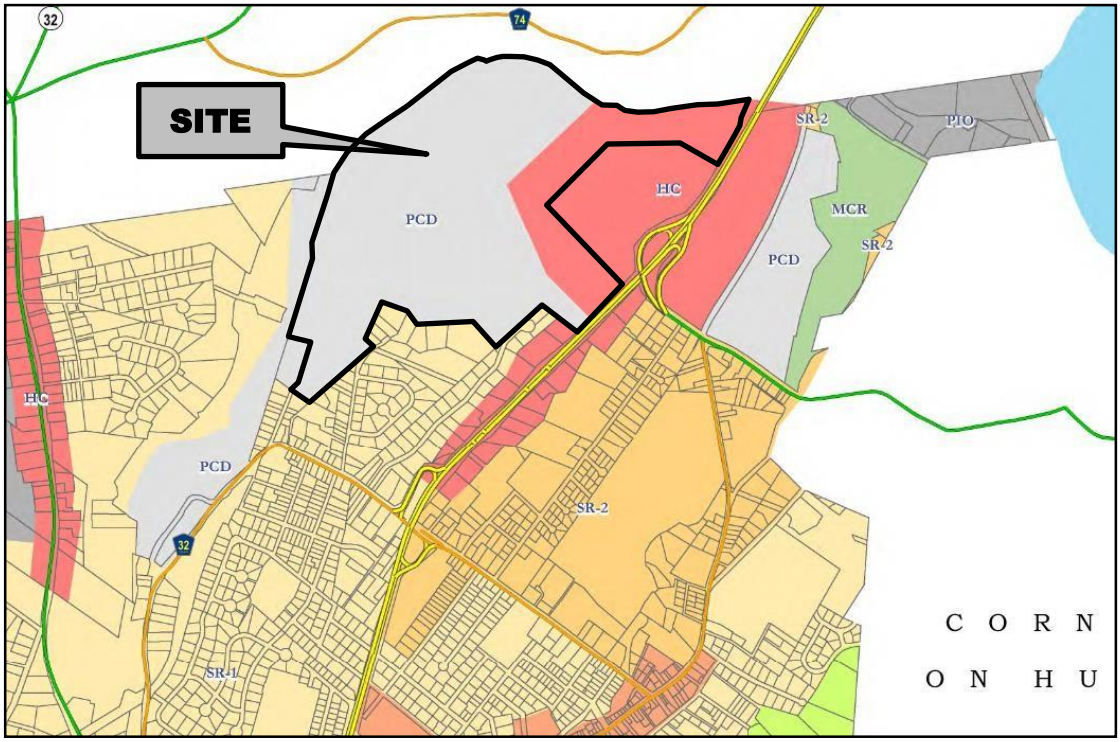
A. Land Use and Zoning

1. Existing Conditions

a. Existing Zoning Surrounding the Site

The majority of the Project Site is located in the Planned Commercial Development (PCD) Zoning District with the balance located within the Highway Commercial (HC) Zoning District. Planned Industrial Developments (PID) are permitted within the PCD Zoning District subject to Special Permit and Site Plan Approvals from the Town of Cornwall Planning Board. PIDs are not permitted in the HC Zoning District, however, warehouse uses are permitted accessory uses in the HC Zoning District. The surrounding properties are zoned Highway Commercial, SR-1 Suburban Residential, and SR-2 Suburban Residence. Figure III-3 below illustrates the Project Site's existing zoning and zoning within one half mile of the Site.

Figure III-3 - Zoning Map



b. Surrounding Land Uses

The parcel lies in the northeast portion of the Town of Cornwall abutting the Town of New Windsor. The Moodna Creek, a major local drainage tributary of the Hudson River, flows below the western limits of the property, and the creek is bounded on the southwest by single family homes along Schofield Lane and Frost Lane.

The property is bounded on the south and southeast by vacant land. The site wraps around an approximately 35-acre parcel to the southeast, which is owned by the New York Military Academy. Properties adjacent to the Site to the south and southeast are vacant. The abutting NYMA property is also undeveloped. The Site has frontage on the Route 9W southbound side. This segment of Route 9W is a four-lane divided highway featuring scattered commercial structures. Following Route 9W southbound for approximately half of a mile, the Project Site is neighbored by primarily residential developments and some commercial office buildings.

Along the northbound side of Route 9W, directly adjacent to the property exists a mixture of residential and commercial developments such as restaurants, service stations, and office buildings. Continuing along the

northbound side of Route 9W, a self-storage center use, the Moodna Creek, and industrial uses beyond are primarily present.

On the easterly side of Willow Avenue and northerly side of Route 9W is a development called Stone Hollow at Cornwall, consisting of 29 residential building lots with access to said lots by a cul-de-sac road entering from Willow Avenue. To the north, the Project Site is neighbored by various industrial uses along Route 74 and the Moodna Creek with residential communities beyond.

c. 2020 Rezoning

Per Town of Cornwall Local Law 1-2020, the zoning of the Project Site was formally changed from Planned Residential Development (PRD) to Planned Commercial Development (PCD). Additionally, the HC Zoning District boundaries of the Site were amended as shown in the above zoning map image. The Cornwall Commons Project, as mentioned in Section II of this DEIS report, included a mix of residential and commercial uses. At the time of the Cornwall Commons Project approvals, the Site was classified in the Planned Residential Zoning District (PRD). Since the Town amended the zoning district of the Site PRD to PCD/HC to all commercial and industrial uses to encourage the commercial and industrial development of the Site, the proposed Treetop Project is in accord with the intent of the Town.

d. Use, Density, Bulk, Site Plan and Special Permit Provisions

Per Section 158 Attachment 11:1 of the Town of Cornwall Zoning Code, the PCD Zoning District allows Planned Industrial Developments (PID) as a use by Special Permit review and approval by the Town of Cornwall Planning Board.

Zoning Code Section 158-3 defines PID as:

> A building or group of building and accessory structures and uses thereto designed and managed as a unit containing a variety of industrial, manufacturing, research and office facilities, subject to performance standards and approval by the Town Board. Where individual sites within the development are to be leased or sold, arrangements approved by the Town Board for the operation and maintenance of such sites must be incorporated in continuing covenants or development restrictions.

In a determination dated November 15, 2021, the Town of Cornwall Building Inspector confirmed that the term "industrial" as used in the definition of PID includes general warehousing. This determination also clarified that the Planning Board, not the Town Board, is the permitting board with respect to the Special Permit for PIDs. A copy of the Building Inspector's November 15, 2021 Determination is included at the end of Appendix Item B.

As such, within the PCD Zoning District, the PID proposed by the Treetop Project will require Special Use Permit and Site Plan Approvals from the Town of Cornwall Planning Board. For the portion of the Site within the HC zoning district, the Applicant will seek a zoning map amendment from the Town Board to map the entire Premises within the PCD zoning district.

Article X of the Zoning Code includes the following standards for Special Permit uses:

- Is readily accessible to fire and police protection;
- Will be in harmony with the appropriate and orderly development of the district;
- The locations, size, nature and intensity of the use is not hazardous or inconvenient to or incongruous with or conflicts with the normal traffic of the neighborhood;
- The mass of the buildings will not hinder or discourage appropriate development of adjacent land and buildings; and
- The impact of such use shall not engender avoidable impacts upon the environment of the site and are the minimum necessary to accommodate the proposed use.

Zoning Code Section 158-21J sets forth the supplemental use regulations for PIDs as follows:

- Exterior walls of adjacent buildings shall be located no closer than 1.5 times the height of the higher building wall, but in no case closer than 50 feet.
- The standards set forth for light manufacturing uses, Subsection G, shall be adhered to, except that the maximum floor space in one structure may be increased 50%.
- All facilities shall be serviced by approved sewer and water supply systems and the Planning Board may, as a condition of approval of such developments, require the improvement of any necessary services and facilities off-site, including access roads necessary to serve such development.

- Shared commercial accessways may be used to provide access to planned industrial development groups. Public road frontage requirements set forth in the bulk regulations of this chapter shall not apply to planned industrial development facilities fronting on shared accessways. In all cases, dimensions used in determining compliance with zoning bulk, frontage and setback regulations shall be measured from or along the right-of-way lines indicated for the shared commercial accessways.

The area and bulk dimensional requirements for the PCD and HC zoning districts are set forth in Zoning Code Section 158, Attachment 12 and are summarized in Table III-2 below.

Table III-2 - Bulk Zoning Requirements for PCD and HC Zoning Districts

	PCD[1]	**HC**[2]
Minimum Useable Lot Area (defined p. 17)	3 acres	40,000 SF
Required Lot Width	500 feet	200 feet
Minimum Front Yard Depth	100 feet	55 feet
Required Minimum Side/Total Side Yard	50 feet/100 feet	20 feet / 40 feet
Required Minimum Rear Yard	50 feet	75 feet
Minimum Required Road Frontage	100 feet	200 feet
Maximum Building Height	40 feet	35 feet
Maximum Development Coverage	70%	60%
Maximum Building Coverage	35%	30%
Floor Area Ratio	0.70	0.60
Total Parking Spaces Required	1,726	1,726

[1] Assumes the dimensional requirements applicable to Planned Industrial Developments, Use Group B.

[2] Assumes the dimensional requirements applicable to "Business which combine office space with a warehouse or center for distribution of products wherein such warehouse or distribution center is incidental to the main purpose of the business," Use Group E.

For special permit uses which abut or are within 300 feet of or are set back 300 feet from any lot line of any residential use or district a residential district, the Planning Board is authorized to require screening and/or plantings for buffering per Zoning Code Section 158-41I.

Warehouses require one parking space for each two employees in the maximum working shift or every 1,000 SF of floor area, whichever is greater, and offices require one parking space per 200 square feet of floor area per Zoning Code Sections 158-16B(41) & 158-16B(26). The Planning Board is authorized to approve reductions in required off-street parking requirements where it is demonstrated that the use does not require the number of parking spaces required by the Zoning Code.

For loading requirements, Zoning Code Section 158-16C(4) provides that the Planning Board, in consultation with the applicant, determine the appropriate number of loading berths specific to the proposed use.

The project site contains multiple existing permanent easements, all located on the western tip of the parcel. A 50-foot-wide permanent easement runs northwest to southwest, reserved for the City of New York Catskill Aqueduct. Additionally, there exists is a 12-foot-wide sanitary sewer easement approximately 350 feet east of the western property boundary. The Town of Cornwall retains the rights to a restrictive easement along the northwestern property boundary. The subdivision that created the NYMA parcel abutting the site included a reservation of an undefined easement in favor of the NYMA parcel for access to the NYMA property from Route 9W. Although located on the project site, these easements are not anticipated to negatively impact the Treetop Project, nor will the proposed development hinder the access, use, or efficiency of the existing easements on site.

Additionally, per Section 158 Attachment 12:2 of the Town of Cornwall Zoning Code, the maximum allowable building height in the PCD Zoning District for PIDs is 40-feet. As such, the five (5) Class A Modern Warehouse Facilities proposed by the Treetop Project at 44-feet in height will require either the Applicant's petition to the Town Board for a minor zoning text amendment to allow a maximum building height of 50-feet for PIDs within the PCD Zoning District or an area variance subject to approval by the Town of Cornwall Zoning Board of Appeals.

e. Easements and Covenants

The project site contains multiple existing permanent easements, all located on the western tip of the parcel. A 50-foot-wide permanent easement runs northwest to southwest, reserved for the City of New York Catskill Aqueduct. Additionally, there exists is a 12-foot-wide sanitary sewer easement approximately 350 feet east of the western property boundary. The Town of Cornwall retains the rights to a restrictive easement along the northwestern property boundary. The subdivision that created the NYMA parcel abutting the site included a reservation of an undefined easement in favor of the NYMA parcel for access to the NYMA property from Route 9W. Although located on the project site, these easements are not anticipated to negatively impact the Treetop Project, nor will the proposed development hinder the access, use, or efficiency of the existing easements on site.

2. Potential Impacts

a. Conformance with Town of Cornwall Zoning

The Project is designed to conform to the zoning requirements to the greatest extent practicable. With respect to the criteria for special permit uses, access to the Site and the layout of the warehouse buildings are designed for accessibility by fire and police protection. The proposed PID use furthers the Town's intent to encourage commercial/industrial uses for the property and as such, is in harmony with the appropriate and orderly development of the district. As demonstrated below in Section III.B, the proposed traffic mitigation measures will alleviate any potential significant adverse impacts to traffic in the area or surrounding neighborhoods. While the proposed warehouse buildings will include approximately 1,726,106 square feet in total, the large size of the Site in conjunction with the existing terrain and landscaping will not hinder the appropriate development of the adjacent lands. Finally, potential environmental impacts will be mitigated as detailed herein.

Except for building height, the Project will comply with the area and bulk requirements of the PCD and HC zoning districts. Regarding the proposed building height, the Applicant will either seek a minor zoning code amendment from the Town Board or an area variance from the Zoning Board of Appeals. See Table III-3 below for additional proposed bulk design parameters.

Table III-3 – Proposed Bulk Zoning Chart for PCD and HC Zoning Districts

	PCD[3]	**HC**[4]	**Overall**
Minimum Useable Lot Area (defined p. 17)	136.5 acres	39.3 acres	175.8 acres
Required Lot Width	1,980 feet	1,276 feet	2,780 feet
Minimum Front Yard Depth	100 feet	100 feet	100 feet
Required Minimum Side/Total Side Yard	122.8 feet/307.6 feet	184.8 feet /386.4 feet	307.6 feet
Required Minimum Rear Yard	239.4 feet	N/A	239.4 feet
Minimum Required Road Frontage	202 feet	1,334 feet	1,536 feet
Maximum Building Height	49 feet (variance)	49 feet (variance)	49 feet (variance)
Maximum Development Coverage	32.7%	38.3%	34.0%
Maximum Building Coverage	24.1%	17.1%	22.5%
Floor Area Ratio	0.30	0.20	0.23
Total Parking Spaces Proposed	716 (waiver)	716 (waiver)	716 (waiver)

The Applicant will also seek a waiver of the required off-street parking spaces from the Planning Board pursuant to Zoning Code Section 158-16A(7)(C).

b. Consistency with Surrounding Easements and Covenants

As previously noted, the project site contains multiple existing permanent easements, all located on the western tip of the parcel. A 50-foot-wide permanent easement runs northwest to southwest, reserved for the City of New York Catskill Aqueduct. Additionally, there exists is a 12-foot-wide sanitary sewer easement approximately 350 feet east of the western property boundary. The Town of Cornwall retains the rights to a restrictive easement along the northwestern property boundary. The subdivision that created the NYMA parcel abutting

[3] Assumes the dimensional requirements applicable to Planned Industrial Developments, Use Group B.

[4] Assumes the dimensional requirements applicable to "Business which combine office space with a warehouse or center for distribution of products wherein such warehouse or distribution center is incidental to the main purpose of the business," Use Group E.

the site included a reservation of an undefined easement in favor of the NYMA parcel for access to the NYMA property from Route 9W. Although located on the project site, these easements are not anticipated to negatively impact the Treetop Project, nor will the proposed development hinder the access, use, or efficiency of the existing easements on site.

As seen in the Overall Water and Sewer Utility Exhibit (prepared under separate cover), the site is proposed to be serviced by water and sewer main extensions. The main extensions will cross under Route 9W, continue through the adjacent southeastern property (Section 15, Block 1, Lot 1.2), and ultimately connect to the existing infrastructure within Halvorsen Road (sanitary sewer) and Mailler Avenue (water). As such, a 20-foot-wide Utility Easement will be required for the utility extensions to service the Proposed Project. Please refer to the accompanying Preliminary and Final Site Plan Drawings for further detail on the proposed utility easement (prepared under separate cover).

c. Zoning Map Amendment

The majority of the Site is classified in the PCD Zoning District (approximately 136.5 acres) with the balance of the Site (approximately 39.3 acres) located in the HC Zoning District. PIDs, which include general warehousing per the November 15, 2021 Building Inspector determination, are permitted in the PCD Zoning District as a special permit use. Because warehouses are only permitted as accessory uses in the HC Zoning District, the Applicant will petition the Town Board for a zoning map amendment to re-map the entire Site in the PCD Zoning District. Re-mapping the entire Site within the PCD Zoning District will facilitate the productive commercial use of the Site as intended by its rezoning from residential to commercial.

d. Potential Area Variance

The proposed building maximum height is 49 feet, which exceeds the maximum permitted building height of 45 feet in the PCD Zoning District. The proposed 49-foot building height is consistent with the height needs of modern warehouse buildings for racks to store products on pallets. The Applicant will petition the Town Board for a minor zoning code amendment to allow a maximum building height of 50 feet only for PIDs in the PCD Zoning District. If the petition is unsuccessful, the Applicant will seek an area variance from the Zoning Board of Appeals for building height. As shown in the Visual Analysis Exhibits (prepared under separate cover), given the

size of the Site, the existing and proposed plantings, and the elevation of the Site in relation to surrounding areas, the proposed buildings will not result in a significant visual impact from their height.

e. Compatibility with Surrounding Land Uses

The approximately 197.7-acre Site is undeveloped. It has frontage on Rt. 9W, near the Route 218 exchange. The municipal boundary with the Town of New Windsor runs along the eastern and northern property boundary as well as part of the western boundary. The segment of Route 9W with frontage on the Site is a four-lane divided highway with scattered commercial structures. Residential development exists to the south and west., Knox headquarters and the Palisades Interstate Park Commission trails are located to the northwest of the Site. Farmland is located on the south side of Forge Hill Road, approximately 2,200 feet from the intersection of Route 9W and Forge Hill Road. The area surrounding the farm is improved with large industrial style buildings, similar to the warehouse buildings proposed.

Given the mix of surrounding land uses, including commercial, industrial (farm), residential and open space, the Project is computability with the variety of land uses in the area. The large size of the Site allows the proposed commercial/industrial warehouse use and allows buffering to protect natural resources and nearby residential uses.

f. Consistency with Town and County Comprehensive Plans

Planning Documents

The *Town of Cornwall Comprehensive Plan Update 2019*, states that:

> The main goal of the Land Use Plan is to promote a harmonious balance between protecting and preserving the Town's small town character, scenic beauty and open space, the regulation of new residential development, and the encouragement of commercial growth.
>
> The Town's character and natural resources can be preserved while developing the Town's economic base, retaining existing businesses ana attracting new businesses to round out a vital and active commercial community. The Land Use Plan envisions the Town making efforts to

> limit the rise of property and school taxes through developing and supporting economic growth opportunities that do not require town expenditure. (Section V(F), pg. 35)

In order to accomplish this main goal, several recommendations are set forth, including updates to the zoning tables of general use, review of parking requirements for commercial and industrial land uses to avoid creating unnecessary impervious surface areas. The Project is consistent with this goal of encouraging commercial growth. Indeed, as noted above, the town re-zoned the Site from residential to commercial/industrial in order to support economic growth opportunities and develop the Town's economic base without any strain on schools. The Project proposes significant economic benefits both direct and indirect to the Town while remaining compatible with surrounding areas.

The Town of Cornwall's Natural Resource Inventory is a comprehensive compilation of the Town's natural and man-made features which was undertaken by the Cornwall Conservation Advisory Council in conjunction with the Town. This inventory provides a baseline of information on the Town's natural, historical and cultural resources. It includes several land use and planning recommendations to protect the inventoried resources. The inventory recommends that future development on steep slopes should be discouraged. While the code does provide specific steep slope requirements, the definition of usable lot area excludes *"All areas of a lot with over 5,000 square feet of contiguous land having a slope in excess of 25%."*. As part of the proposed grading design, construction and engineering methods will be employed to prevent erosion during the construction process and upon completion of the constructed improvements. The inventory also notes that farmland, which is a significant part of the economy and character of the Orange County and New York State communities are rapidly diminishing. The proposed Site is currently not being farmed and will have no adverse impact to the nearby farm. Another recommendation includes the adoption of tree preservation legislation. At this time, an updated tree ordinance has not been adopted. While the Project includes clearing for the proposed improvement, the Project also includes proposed landscaping to mitigate the planned tree removal and will include species native to the area, as depicted on the Landscaping Plan provided in the Appendix of this report. Further, significant screening vegetation would remain after construction, specifically at critical buffering locations, such as along freshwater wetland boundaries and at the Project Site's property lines along the western and southern boundaries of the Project Site. Additional buffer screening vegetation

is proposed along the limits of the proposed drive aisles and parking areas. These plantings will serve as a transitional area between the proposed development and the preserved land outside of the limit of disturbance. The inventory recommends protection measures for wetlands and streams and the project has been designed to comply with those measures. Further discussion of wetland and stream mitigation can be found in Section III.F. Further, the Army Corp of Engineers will review the proposed development in regards to the wetlands located onsite, which are within their jurisdiction. Green infrastructure practices are encouraged in the Inventory and the Project includes several energy efficient measures such as solar panels, efficient HVAC equipment and state of the art facilities within each of the proposed buildings.

It is also noteworthy that since the publication of the Inventory in December 2019, the Town re-zoned the Site from PRD (planned residential district) to PCD to balance economic growth and development impacts.

The Orange County Comprehensive Plan maps out "Growth Areas" within the County to encourage additional growth such as higher density residential, commercial, certain industrial uses and other community services. The Project is consistent with this plan as it is located within one of the Growth Areas identified in the plan.

The *Orange County Economic Development Strategy* was adopted on July 1, 2015 and one of the stated goals is to balance economic growth by attracting outside businesses with assisting existing businesses. The Project fulfills this goal as an outside business that will improve the economic climate for existing businesses through indirect and induced positive economic impacts. Indirect impacts include businesses within the town and county that supply goods and services to the Project and then re-spend a portion of that revenue within the region. Induced impacts include Project workers spending part of their wages at local businesses.

The *Orange County Water Master Plan* was prepared by the Orange County Department of Planning and Orange County Water Authority in August 2010 as an amendment to the Orange County Comprehensive Plan. The purpose of this plan is to address issues of concern and recommend actions to foster cooperation between the County and municipalities to assure availability of water in the County. The

plan makes projections to 2018 and the Town of Cornwall was not identified as a community that will experience a water deficit.

The *Orange County Open Space Plan* was prepared by the Orange County Department of Planning and issued in July 2004. This plan inventories open spaces, water resources, agriculture, recreation, landforms and landmarks, and biological diversity and makes recommendations for protection of each of these resources. This plan also supports the "Priority Growth Areas" enumerated in the Orange County Comprehensive Plan. As noted above, the Site is included in a growth area.

The Moodna Creek Watershed and Management Plan (the Watershed Plan) was prepared by the Orange County Water Authority and issued in March 2010. The purpose of the Watershed Plan was to summarize existing conditions in the Moodna Creek Watershed, identify issues important to local communities and develop a list of action items and recommendations to address the issues identified. For the area of the Moodna Creek Watershed that borders the Site to the north and west, the Watershed Plan recommends mitigation measures to prevent erosion of the steep streambank. The Project includes mitigation measures at the proposed stormwater outfall locations, including rip rap aprons and scour holes. Further mitigation in areas of steep slopes onsite will be employed in the design of the proposed retaining walls upon preparation of design drawings for same.

The proposed project is compatible with existing land uses, the Town Comprehensive Plan, Town Zoning Code and Orange County Comprehensive Plan. The Town Board adopted a local law to revise Chapter 158 of the Town Code entitled "Zoning" pursuant to the terms and provisions of the Comprehensive Plan of 2019 which rezoned the site from PRD to PRC, allowing the development of a Planned Industrial Development on the Project Site. Since the zoning district of the Project Site was changed from PRD to PRC to allow commercial and industrial uses, the Applicant respectfully notes that the proposed Treetop Project is in accord with the intent of the Town to encourage commercial and industrial development of the Site.

The proposed project is compatible with existing land uses, the Town Comprehensive Plan, Town Zoning Code and Orange County Comprehensive Plan. The Town Board adopted a new Town Comprehensive Plan recommended by the Comprehensive Plan Committee and Planning Board which allows for the development of

a Planned Industrial Development on the Treetop Project property. The Town Board prepared and accepted a positive declaration, notifying the Applicant of the intent to prepare this Draft Environmental Impact Statement and Lead Agency Determination of Significance.

3. Proposed Mitigation Measures

a. Mitigation Measures

Various mitigation measures during construction and under the permanent constructed condition will be employed as described throughout the DEIS, including but not limited to soil erosion mitigation, slope stabilization and additional measures recommended by the Project professionals and Board during review of the project. Section III.F of this report provides additional information regarding proposed mitigation measures to surface waters. As seen on the Landscaping Plans (included in the Preliminary and Final Site Plan Drawings prepared under separate cover), the Proposed Project utilizes various species of plantings, shrubs and trees to properly buffer the development from adjacent uses. In general, there is approximately fifty (50) feet of landscaped screening between the Proposed Site and adjacent residential developments that are abutting.

With regards to the proposed 20-foot-wide utility easement, the layout and orientation of same has been designed to disturb the least amount of land as possible. Furthermore, the portion of the utility easement that crosses through the adjacent southeastern property (Section 15, Block 1, Lot 1.2) has been located in close proximity to the property line to minimize the disturbance and impact to future development of the property to the maximum extent possible.

B. Traffic and Transportation

1. Existing Conditions

a. Access to the Site

Access to the site is proposed to be provided via one signalized full-movement driveway with shared cross access to the adjacent NYMA property and one right in/right turn out driveway along U.S. Route 9W.

b. Surrounding Roadways and Intersections

The following are descriptions of the roadways in the study area:

US Route 9W is an Urban Principal Arterial roadway under New York State Department of Transportation (NYSDOT) jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 45 MPH north of Angola Road (CR 9) and 55 MPH south of Angola Road (CR 9) and the roadway provides two travel lanes in each direction. Curb and sidewalk are not provided along either side of the roadway. US Route 9W provides a curving horizontal alignment and a downgrade from south to north. A steep downgrade exists north of the proposed northern site driveway location with a posted Hill & Use Low Gear sign assembly (W7-1 & W7-2P). The land uses along US Route 9W in the vicinity of The Project are mixed commercial, residential, and open land.

Forge Hill Road (CR 74) is an Urban Major Collector under Orange County jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Forge Hill Road provides a curving horizontal alignment and a downgrade from west to east. The land uses along Forge Hill Road in the vicinity of The Project are mixed commercial, residential, and open land.

Sloop Hill Road is a local roadway under the Town of New Windsor jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Sloop Hill Road provides a curving horizontal alignment and a downgrade from west to east. The land uses along Sloop Hill Road in the vicinity of The Project are mixed commercial, residential, and open land.

Academy Avenue (NYS Route 218) is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 35 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Academy Avenue provides a curving horizontal alignment and a rolling vertical alignment. The land uses along Academy Avenue in the vicinity of The Project are mixed commercial, residential, and open land.

Union Avenue (CR 69) is an Urban Major Collector roadway under Orange County jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Union Avenue

(CR 69) provides a straight horizontal alignment with the exception of one reverse curve located halfway between US Route 9W and NYS Route 32 and an upgrade from east to west. The land uses along Union Avenue (CR 69) are a mix of residential, commercial, and religious.

Old US Route 9W is an Urban Minor Arterial roadway under NYSDOT jurisdiction south of River Road and a local roadway north of River Road under Town of New Windsor jurisdiction with a general east/west orientation. In the vicinity of the site the speed limit is 40 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Old US Route 9W provides a curved horizontal alignment and a rolling vertical alignment. Land uses along Old US Route 9W are a mix of commercial and residential.

Mailler Avenue is a local roadway under Town of Cornwall jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along the eastern side of the roadway. Mailler Avenue provides a straight horizontal alignment and an upgrade from north to south. Land uses along Mailler Avenue are primarily residential.

Main Street (CR 9) is an Urban Major Collector roadway under Orange County jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along the western side of the roadway. Main Street provides a curved horizontal alignment and an upgrade from north to south. Land uses along Main Street are a mix of residential and commercial.

Faculty Road is a local roadway under Town of Cornwall jurisdiction with a general north/south orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Faculty Road provides a curved horizontal alignment and an upgrade from north to south. Land uses along Faculty Road are primarily educational.

Willow Avenue (CR 32) is an Urban Major Collector roadway under Orange County jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one

travel lane in each direction. Curb is intermittently provided along both sides of the roadway, and sidewalk is provided along the northern side of the roadway and intermittently along the southern side of the roadway. Willow Avenue (CR 32) provides a slightly curved horizonal alignment and a rolling vertical alignment. Land uses along Willow Avenue (CR 32) are a mix of residential and educational.

Laurel Avenue is a local roadway under Town of Cornwall jurisdiction with a general east/west orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction. Curb is provided along both sides of the roadway while sidewalk is provided along the southern side of the roadway. Laurel Avenue provides a straight horizontal alignment and a downgrade from north to south. Land uses along Laurel Avenue are a mix of residential and medical.

Quaker Avenue (CR 107) is an Urban Major Collector roadway east of US Route 9W and an Urban Minor Arterial roadway west of US Route 9W under Orange County jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Quaker Avenue (CR 107) provides a slightly curved horizontal alignment and an upgrade from east to west to the east of US Route 9W and a downgrade from east to west to the west of US Route 9W. Land uses along Quaker Avenue (CR 107) are a mix of commercial and residential.

Angola Road (CR 9) is an Urban Major Collector roadway under Orange County jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. Angola Road (CR 9) provides a curving horizontal alignment and an upgrade from north to south. Land uses along Angola Road (CR 9) are a mix of residential and agricultural.

NYS Route 32 is an Urban Minor Arterial roadway south of NYS Route 94 and an Urban Principal Arterial Roadway north of NYS Route 94 under NYSDOT jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 40 MPH south of NYS Route 94 and 30 MPH north of NYS Route 94. The roadway provides one travel lane in each direction south of Quaker Avenue and one travel lane in the southbound direction and two travel lanes in the north direction north of Quaker Avenue. Curb is provided intermittently

along both sides of the roadway while sidewalk is not provided along either side of the roadway. NYS Route 32 provides a curved horizontal alignment and rolling vertical alignment. Land uses along NYS Route 32 are a mix of commercial, residential, and open space.

NYS Route 300 (Temple Hill Road) is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. NYS Route 300 provides a curving horizontal alignment and a rolling vertical alignment. Land uses along NYS Route 300 are a mix of commercial, industrial, residential, and open space.

NYS Route 94 (Blooming Grove Turnpike) is an Urban Principal Arterial Roadway east of NYS Route 32 under NYSDOT jurisdiction with a general east/west orientation and an Urban Minor Arterial roadway west of NYS Route 32. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction. Curb is provided along both sides of the roadway and sidewalk is provided along the northern side of the roadway in the vicinity of the intersection of NYS Route 32, NYS Route 300, and NYS Route 94. NYS Route 94 provides a curving horizontal alignment and an upgrade from east to west. Land uses along NYS Route 94 are a mix of commercial and residential.

River Road is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are not provided along either side of the roadway. River Road provides a curving horizontal alignment and a rolling vertical alignment. Land uses along River Road are a mix of industrial and residential.

Interstate 84 (I-84) is an Urban Principal Interstate roadway under NYSDOT jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 65 MPH and the roadway provides three travel lanes in each direction. Curb and sidewalk are not provided along either side of the roadway. I-84 provides an intermittently curved horizontal alignment and an upgrade from east to west. Land uses in the vicinity of the I-84 Ramp to NYS Route 32 are primarily commercial.

North Plank Road is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides two lanes of travel in each direction to the east of the I-84 westbound ramps and one lane of travel in each direction to the west of the I-84 westbound ramps. Curb and sidewalk are not provided along either side of the road. North Plank Road provides a curved horizontal alignment and an upgrade from east to west. Land uses along North Plank Road are primarily commercial.

Harris Lane is a local roadway under Town of Cornwall jurisdiction with a general north/south orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one lane of travel in each direction. Curb and sidewalk are not provided along either side of the road. Harris Lane provides a straight horizontal alignment and a downgrade from north to south. Land uses along Harris Lane are primarily residential.

Robinson Avenue (US Route 9W) is an Urban Principal Arterial roadway under City of Newburgh jurisdiction within the municipal limits with a general north/south orientation. In the study area the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Robinson Avenue (US Route 9W) provides a straight horizontal alignment and a downgrade from south to north. The land uses along Robinson Avenue (US Route 9W) in the vicinity of The Project are mixed commercial and residential.

South William Street is an Urban Major Collector roadway under City of Newburgh jurisdiction with a general east/west orientation. In the study area the posted speed limit is 25 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. South William Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along South William Street in the vicinity of The Project are mixed commercial and residential.

Washington Street is an Urban Major Collector roadway under City of Newburgh jurisdiction with a general east/west orientation. In the study area the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Washington Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Washington Street in the vicinity of The Project are mixed commercial, residential, and religious.

Ann Street is a local roadway under City of Newburgh jurisdiction with a general east/west orientation. In the study area the jurisdictional speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Ann Street provides a straight horizontal alignment and a slight upgrade from west to east. The land uses along Ann Street in the vicinity of The Project are primarily residential.

Broadway (NYS Route 17K) is designated a state highway, west of US Route 9W but is designated a local roadway between US Route 9W and Colden Street. It has a general east/west orientation. In the vicinity of the site the speed limit is not posted and the roadway provides two lanes of travel in each direction. Curb and sidewalk are provided along both sides of the road. Broadway provides a relatively straight horizontal alignment and a downgrade from west to east. Land uses along Broadway are primarily commercial.

Carter Street is a local roadway under City of Newburgh jurisdiction with a general east/west orientation. In the study area the jurisdictional speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Carter Street provides a straight horizontal alignment and a rolling vertical alignment. The land uses along Carter Street in the vicinity of The Project are primarily residential.

Third Street is a local roadway under City of Newburgh jurisdiction with a general east/west orientation. In the study area the jurisdictional speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. Third Street provides a straight horizontal alignment and a steep upgrade from east to west that begins at Robinson Avenue. The land uses along Third Street in the vicinity of The Project are primarily residential.

South Street is an Urban Major Collector roadway under NYSDOT jurisdiction designated as Reference Route 980P with a general east/west orientation. In the study area the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction. Curb and sidewalk are provided along both sides of the roadway. South Street provides a straight horizontal alignment and a rolling vertical alignment. The land uses along South Street in the vicinity of The Project are primarily residential.

Continental Road is a local roadway under Town of Cornwall jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one lane of travel in each direction. Curb and sidewalk are provided along the western side of the roadway. Continental Road provides a curved horizontal alignment and an upgrade from north to south. Land uses along Continental Road are primarily residential.

Hasbrouck Avenue is a local roadway under Town of Cornwall jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one lane of travel in each direction. Curb is not provided along either side of the roadway and sidewalk is provided along the eastern side of the roadway for approximately 1500' between the intersections with Continental Road and Robert Road. Hasbrouck Avenue provides a curved horizontal alignment and a rolling vertical alignment. Land uses along Hasbrouck Avenue are primarily residential.

Plank Road is Urban Minor Arterial roadway under NYSDOT jurisdiction designated as reference route 980T to the east of US Route 9W and a local roadway under City of Newburgh/Town of Newburgh jurisdiction to the west of US Route 9W with a general east/west orientation. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one lane of travel in each direction. Curb and sidewalk are provided along both sides of the roadway to the east of US Route 9W but are not provided along either side of the roadway to the west of US Route 9W. Plank Road provides a curved horizontal alignment and a downhill vertical alignment from east to west. Land uses along Plank Road are mixed commercial and residential.

c. Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on the following days:

- Tuesday, June 14, 2022
- Tuesday, January 17, 2023
- Wednesday, January 18, 2023
- Thursday May 11, 2023
- Tuesday May 23, 2023

All MTM counts took place from 7:00 AM to 9:00 AM and from 4:30 PM to 6:30 PM. In addition, automatic traffic recorder (ATR) counts were conducted along US Route 9W south of Academy Avenue (NYS Route 218) from Tuesday, June 14, 2022 to Monday, June 20, 2022.

Review of the MTM-collected traffic data reveals that the weekday morning network peak street hour (PSH) occurs between 7:30 AM and 8:30 AM and the weekday evening network PSH occurs between 4:30 PM and 5:30 PM. When the MTM counts were compared to the ATR data collected, the weekday evening network PSH was found to have occurred outside of the MTM count period. Therefore, the weekday evening PSH volumes were increased by 10% to correspond with the ATR-collected peak hour volumes.

a) US Route 9W and Forge Hill Road (CR 74) / Sloop Hill Road

Forge Hill Road (CR 74) and Sloop Hill Road intersect US Route 9W to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase variable background cycle is utilized.

The northbound approach of US Route 9W provides a dedicated left turn lane and a shared through/right turn lane, while the southbound approach provides a dedicated left turn lane, a dedicated through lane, and a shared through/right turn lane. The eastbound approach of Forge Hill Road provides a shared lane for all movements. The westbound approach of Sloop Hill Road provides a shared left turn/through lane and a dedicated right turn lane.

A review of the existing analysis reveals that the intersection operates at overall levels of service “D” or better and all movements operate at levels of service “E” or better during the analyzed peak periods, with the exception of the US Route 9W northbound left turn movement, which operates at level of service “F” during the weekday evening peak hour.

b) US Route 9W and Academy Avenue (NYS Route 218)

The US Route 9W Northbound on-ramp from Academy Avenue (NYS Route 218) intersects US Route 9W Northbound with the on-ramp operating under yield control. US Route 9W provides two lanes of travel in the northbound direction, while the on-ramp provides one travel lane in the northbound direction. A review of the

existing analysis reveals that the merge movement operates at levels of service "B" or better during the analyzed peak periods.

The US Route 9W Southbound on-ramp from Academy Avenue (NYS Route 218) intersects US Route 9W Southbound with the on-ramp operating under yield control. US Route 9W provides two lanes of travel in the southbound direction, while the on-ramp provides one travel lane in the southbound direction. A review of the existing analysis reveals that the merge movement operates at level of service "B" during the analyzed peak periods.

The US Route 9W Northbound off-ramp exits to Academy Avenue (NYS Route 218) and forms a diverge along US Route 9W Northbound. US Route 9W provides two lanes of travel in the northbound direction, while the off-ramp provides one travel lane in the northbound direction. A review of the existing analysis reveals that the diverge movement operates at levels of service "B" or better during the analyzed peak periods.

The US Route 9W Southbound off-ramp exits to Academy Avenue (NYS Route 218) and forms a diverge along US Route 9W Northbound. US Route 9W provides two lanes of travel in the southbound direction, while the off-ramp provides one travel lane in the southbound direction. A review of the existing analysis reveals that the diverge movement operates at level of service "A" during the analyzed peak periods.

c) US Route 9W and Union Avenue (CR 69)

Union Avenue (CR 69) and Old Route 9W intersect US Route 9W to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase variable background cycle is utilized.

The northbound and southbound approaches of US Route 9W both provide a dedicated left turn lane, a dedicated through lane, and a shared through/right turn lane. The eastbound approach of Union Avenue provides a shared left turn/through lane and a dedicated right turn lane. The westbound approach of Old Route 9W provides a shared lane for all movements. A review of the existing analysis reveals that the intersection operates at overall level of service "B" and all movements operate at levels of service "D" or better during the analyzed peak periods.

d) Academy Avenue (NYS Route 218) and Mailler Avenue

Mailler Avenue intersects Academy Avenue (NYS Route 218) to form an unsignalized T-intersection with the northbound approach of Mailler Avenue operating under stop control. The eastbound approach of Academy Avenue (NYS Route 218) provides a shared through/right turn lane while the westbound approach provides a shared left turn/through lane. The northbound approach of Mailler Avenue provides a shared left turn/right turn lane. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "B" or better during the analyzed peak periods.

e) Academy Avenue (NYS Route 218) and Main Street (CR 9)

Main Street (CR 9) and Faculty Road intersect Academy Avenue to form an unsignalized four-leg intersection with the northbound approach of Main Street (CR 9) and the southbound approach of Faculty Road operating under stop control. The eastbound and westbound approaches of Academy Avenue (NYS Route 218), the northbound approach of Main Street (CR 9) and the southbound approach of Faculty Road all provide a shared lane for all movements. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "C" or better during the analyzed peak periods.

f) US Route 9W and Willow Avenue (CR 32)

The US Route 9W Northbound Ramp intersects Willow Avenue (CR 32) to provide an unsignalized T-intersection with the northbound approach of the US Route 9W Northbound Ramp operating under stop control. The eastbound approach of Willow Avenue (CR 32) provides a shared through/right turn lane while the westbound approach provides a shared left turn/through lane. The northbound approach of the US Route 9W Northbound Ramp provides a dedicated left turn lane and a dedicated channelized right turn lane controlled by a stop sign. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "B" or better during the analyzed peak periods.

g) US Route 9W and Laurel Avenue

Laurel Avenue intersects US Route 9W to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase variable background cycle is utilized. The northbound and southbound approaches of US Route 9W both provide a dedicated left turn lane and a dedicated through lane. It should be noted that the MTM counts revealed the northbound and southbound

dedicated through lanes were utilized for right turn movements. Therefore, those lanes were considered shared through/right turn lanes for the purpose of this analysis. The eastbound and westbound approaches of Laurel Avenue both provide a shared lane for all movements. A review of the existing analysis reveals that the intersection operates at overall levels of service "C" or better and all movements operate at levels of service "D" or better during the analyzed peak periods.

h) US Route 9W and Quaker Avenue (CR 107)

The US Route 9W Northbound Ramp intersects Quaker Avenue (CR 107) to provide an unsignalized T-intersection with the northbound approach of the US Route 9W Northbound Ramp operating under stop control. The eastbound approach of Quaker Avenue (CR 107) provides a shared through/right turn lane while the westbound approach provides a shared left turn/through lane. The northbound approach of the US Route 9W Northbound Ramp provides a dedicated left turn lane and a dedicated channelized right turn lane controlled by a stop sign. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "C" or better during the analyzed peak periods, with the exception of the northbound US Route 9W Northbound Ramp approach, which operates at level of service "F" during the weekday evening peak period.

The US Route 9W Southbound Ramp intersects Quaker Avenue (CR 107) to provide an unsignalized T-intersection with the northbound approach of the US Route 9W Southbound Ramp operating under stop control. The eastbound approach of Quaker Avenue (CR 107) provides a shared through/right turn lane while the westbound approach provides a shared left turn/through lane. The northbound approach of the US Route 9W Southbound Ramp provides a dedicated left turn lane and a dedicated channelized right turn lane controlled by a stop sign. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "C" or better during the analyzed peak periods, with the exception of the northbound left turn movement, which operates at level of service "F" during the weekday evening peak period.

i) US Route 9W and Angola Road (CR 9)

The US Route 9W Northbound Ramp intersects Angola Road to provide an unsignalized T-intersection with the westbound approach of the US Route 9W Northbound Ramp operating under stop control. The northbound approach of Angola Road (CR 9) provides a shared through/right turn lane while the southbound approach provides a shared left turn/through lane. The westbound approach of the US Route 9W Northbound Ramp

provides a shared lane for all movements. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "B" or better during the analyzed peak periods.

The US Route 9W Southbound Ramp and Timberline Drive intersect Angola Road (CR 9) to provide an unsignalized four-leg intersection with the eastbound approach of Timberline Drive and the westbound approach of the US Route 9W Southbound Ramp operating under stop control. The northbound and southbound approaches of Angola Road (CR 9), the eastbound approach of Timberline Drive, and the westbound approach of the US Route 9W Southbound Ramp all provide a shared lane for all movements. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "C" or better during the analyzed peak periods.

j) NYS Route 32 and Quaker Avenue (CR 107)

Quaker Avenue (CR 107) intersects NYS Route 32 to form a T-intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase variable background cycle is utilized. The northbound approach of NYS Route 32 provides a shared through/right turn lane while the southbound approach provides a dedicated left turn lane and a dedicated through lane. The westbound approach of Quaker Avenue (CR 107) provides a dedicated left turn lane and a dedicated right turn lane. A review of the existing analysis reveals that the intersection operates at overall level of service "D" and all movements operate at levels of service "D" or better during the analyzed peak periods, with the exception of the northbound through/right turn movement, which operates at level of service "F" during the weekday evening peak hour.

k) Main Street (CR 9) and Willow Avenue (CR 32)

Willow Avenue (CR 32) intersects Main Street (CR 9) to form a T-intersection controlled by a traffic signal. The signal timing directive was obtained from Orange County which indicates that a two-phase 60-second background cycle is utilized. The northbound and southbound approaches of Main Street (CR 9) as well as the eastbound approach of Willow Avenue (CR 32) all provide a shared lane for all movements. A review of the existing analysis reveals that the intersection operates at overall level of service "A" and all movements operate at level of service "A" during the analyzed peak periods.

l) Main Street (CR 9) and Quaker Avenue (CR 107)

Main Street (CR 9), Broadway, Quaker Avenue (CR 107), Hasbrouck Avenue/Continental Road, and Angola Road (CR 9) intersect to form a five-leg roundabout operating under yield control. A review of the existing analysis reveals that the individual approaches operate at level of service "A" during the analyzed peak periods.

m) NYS Route 32, NYS Route 300 (Temple Hill Road), and NYS Route 94 (Blooming Grove Turnpike)

NYS Route 94 (Blooming Grove Turnpike) and NYS Route 300 (Temple Hill Road) intersect NYS Route 32 to form a five-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a five-phase variable background cycle is utilized. The northbound approach of NYS Route 32 provides a dedicated hard left turn lane, a dedicated left turn lane, and a shared through/right turn lane while the southwest bound approach provides a dedicated through lane and a dedicated right turn lane. The southbound approach of NYS Route 300 (Temple Hill Road) provides a dedicated left turn lane and a shared right turn lane. The eastbound and westbound approaches of NYS Route 94 (Blooming Grove Turnpike) both provide a dedicated left turn lane and a shared through/right turn lane.

A review of the existing analysis reveals that the intersection operates at overall level of service "E" during the weekday morning peak hour and level of service "F" during the weekday evening peak hour. Additionally, all movements operate at levels of service "E" or better during the analyzed peak periods, with the exception of the NYS Route 94 (Blooming Grove Turnpike) eastbound left turn movement and westbound through/right turn movement, southbound NYS Route 300 (Temple Hill Road) through/right turn movement, and the southwest bound NYS Route 32 movement, which operate at level of service "F" during both peak hours, as well as the eastbound NYS Route 94 (Blooming Grove Turnpike) through/right turn movement, northbound NYS Route 32 left turn and through movements, and the southbound NYS Route 300 left turn movement, which operate at level of service "F" during the weekday evening peak hour.

n) Mailler Avenue and Willow Avenue (CR 32)

Mailler Avenue intersects Willow Avenue (CR 32) to form an unsignalized T-intersection with the southbound approach of Mailler Avenue operating under stop control. The eastbound approach of Willow Avenue (CR 32) provides a shared left turn/through lane while the westbound approach provides a shared through/right turn lane. The southbound approach of Mailler Avenue provides a shared left turn/right turn lane. A review of the

existing analysis reveals that the individual intersection movements operate at levels of service "B" or better during the analyzed peak periods.

o) Old Route 9W and River Road

Old Route 9W intersects River Road to form an unsignalized four-leg intersection with the eastbound and westbound approaches of Old Route 9W operating under stop control. The northbound approach of River Road provides a shared left turn/through lane and a dedicated channelized right turn lane controlled by a stop sign while the southbound approach provides a shared lane for all movements. The eastbound approach of Old Route 9W provides a shared lane for all movements while the westbound approach provides a shared left turn/through lane and a dedicated channelized right turn lane controlled by a stop sign. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "C" or better during the analyzed peak periods, with the exception of the eastbound Old Route 9W left turn/through/right turn movement, which operates at level of service "F" during the weekday evening peak period.

p) US Route 9W and I-84 ramps (Newburgh)

The I-84 Eastbound Ramps intersect US Route 9W to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase 90-second background cycle is utilized. The northbound approach of US Route 9W provides two dedicated through lanes and a dedicated right turn lane while the southbound approach provides two dedicated left turn lanes and two dedicated through lanes. The eastbound approach of the I-84 Eastbound Off Ramp provides a dedicated left turn lane, a shared left turn/through lane, and a dedicated right turn lane. A review of the existing analysis reveals that the intersection operates at overall level of service "C" or better and all movements operate at levels of service "E" or better during the analyzed peak periods.

The I-84 Westbound Ramp and North Plank Road intersect US Route 9W to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase 90-second background cycle is utilized. The northbound approach of US Route 9W provides two dedicated left turn lanes and two dedicated through lanes while the southbound approach provides two dedicated through lanes and a dedicated right turn lane. The eastbound approach of North Plank Road provides a dedicated left turn lane and two dedicated right turn lanes. The I-84 Westbound Ramp provides a channelized

dedicated right turn lane controlled by a yield sign. A review of the existing analysis reveals that the intersection operates at overall level of service "B" and all movements operate at levels of service "D" or better during the analyzed peak periods.

q) Forge Hill Road (CR 74) and NYS Route 94 (Blooming Grove Turnpike)

Forge Hill Road (CR 74) intersects NYS Route 94 (Blooming Grove Turnpike) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a two-phase variable background cycle is utilized. Forge Hill Road (CR 74) has a general east/west orientation, but at this intersection provides a north/south orientation and will be referred to as such when discussing this intersection within this report. The northbound and southbound approaches of Forge Hill Road (CR 74) as well as the eastbound and westbound approaches of NYS Route 94 (Blooming Grove Turnpike) all provide a shared lane for all movements. A review of the existing analysis reveals that the intersection operates at overall levels of service "C" or better and all movements operate at levels of service "C" or better during the analyzed peak periods.

r) Willow Avenue (CR 32) and Main Street (CR 9)

Willow Avenue (CR 32) intersects Main Street (CR 9) to form a T-intersection controlled by a traffic signal. The signal timing directive was obtained from Orange County which indicates that a two-phase 60-second background cycle is utilized. The northbound and southbound approaches of Main Street (CR 9) as well as the eastbound approach of Willow Avenue (CR 32) all provide a shared lane for all movements. A review of the existing analysis reveals that the intersection operates at overall level of service "A" and all movements operate at level of service "A" during the analyzed peak periods.

s) US Route 9W and Plank Road

US Route 9W and Plank Road intersect to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the NYSDOT which indicates that a three-phase 90-second background cycle is utilized. The northbound approach of US Route 9W provides one through lane and one shared right turn/through lane while the southbound approach provides two dedicated left turn lanes and one dedicated through lane, and one shared through/right turn lane. The eastbound approach of Plank Road provides a dedicated right turn lane. The westbound approach of Plank Road provides a dedicated right turn lane. A review

of the existing analysis reveals that the intersection operates at overall levels of service "C" or better and all movements operate at levels of service "D" or better during the analyzed peak periods.

t) Robinson Avenue (US Route 9W) and South William Street

South William Street intersects Robinson Avenue (US Route 9W) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase, 90-second fixed cycle is utilized. The northbound and southbound approaches of Robinson Avenue (US Route 9W) and the eastbound and westbound approaches of South William Street all provide one full-movement lane. A review of the existing analysis reveals that the intersection operates at level of service "B" and all movements operate at levels of service "C" or better during the analyzed peak periods.

u) Robinson Avenue (US Route 9W) and Washington Street

Washington Street intersects Robinson Avenue (US Route 9W) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase, 90-second fixed cycle is utilized. The northbound and southbound approaches of Robinson Avenue (US Route 9W) and the eastbound and westbound approaches of Washington Street all provide one full-movement lane. A review of the existing analysis reveals that the intersection operates at level of service "B" and all movements operate at levels of service "C" or better during the analyzed peak periods.

v) Robinson Avenue (US Route 9W) and Ann Street

Ann Street intersects Robinson Avenue (US Route 9W) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase, 90-second fixed cycle is utilized. The northbound and southbound approaches of Robinson Avenue (US Route 9W) and the eastbound and westbound approaches of Ann Street all provide one full-movement lane. A review of the existing analysis reveals that the intersection operates at levels of service "B" or better and all movements operate at levels of service "B" or better during the analyzed peak periods.

w) Robinson Avenue (US Route 9W) and Broadway (NYS Route 17K)

Broadway (NYS Route 17K) intersects Robinson Avenue to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase,

110-second fixed cycle is utilized. However, both field timings and the Transportation Analysis, prepared by WSP, dated December 10, 2020, indicate that a 90-second cycle is utilized. As such, a 90-second cycle was utilized in the analysis. The northbound and southbound approaches of Robinson Avenue each provide a dedicated left turn lane and a shared through/right turn lane. The eastbound and westbound approaches of Broadway (NYS Route 17K) each provide one shared left turn/through lane and one shared through/right turn lane. A review of the existing analysis reveals that the intersection operates at level of service "B" and all movements operate at levels of service "C" or better during the analyzed peak periods.

x) Robinson Avenue (US Route 9W) and Third Street

Third Street intersects Robinson Avenue (US Route 9W) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase, 90-second fixed cycle is utilized. However, field timings indicate a 60-second fixed cycle is utilized. As such, a 60-second cycle was utilized in the analysis. The northbound and southbound approaches of Robinson Avenue (US Route 9W) and the eastbound and westbound approaches of Third Street all provide one full-movement lane. A review of the existing analysis reveals that the intersection operates at level of service "B" and all movements operate at levels of service "B" or better during the analyzed peak periods.

y) Robinson Avenue (US Route 9W) and South Street

Third Street intersects Robinson Avenue (US Route 9W) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Newburgh which indicates that a two-phase, 87-second fixed cycle is utilized. However, field timings indicate a 110-second fixed cycle is utilized. As such, a 110-second cycle was utilized in the analysis. A review of the existing analysis reveals that the intersection operates at levels of service "C" and all movements operate at levels of service "D" or better during the analyzed peak periods.

z) Robinson Avenue (US Route 9W) and Carter Street

Carter Street intersects Robinson Avenue (US Route 9W) to form an unsignalized four-leg intersection with the eastbound and westbound approaches of Carter Street operating under stop control. The northbound and southbound approaches of Robinson Avenue (US Route 9W) and the eastbound and westbound approaches of

Carter Street all provide one full-movement lane. A review of the existing analysis reveals that the individual intersection movements operate at levels of service "D" or better during the analyzed peak periods.

d. NYSDOT Data Comparison to Covid-19 Counts

Various traffic impacts associated with the COVID-19 pandemic were in effect as of the time of the traffic counts. As a result, current traffic volumes on the surrounding roadways may be atypically low at this time and would not be representative of "existing" traffic conditions. Therefore, historical traffic volume data has been reviewed and compared with current with current traffic volumes in order to account for this effect. Specifically, the peak hour volumes along Route 9W from the NYSDOT Traffic Data Viewer were compared to the MTM counts. The historical traffic volumes were found to be within 5% of the current MTM counts. Additionally, the peak hour volumes along Academy Avenue south of the US Route 9W interchange from the NYSDOT Traffic Data viewer were found to be lower than the current MTM counts. Therefore, no adjustment factor was applied to the MTM counts.

The existing peak hour traffic volumes were then modified to utilize the volumes specified in the memorandum entitled Treetop Development Warehouse, Route 9W, Town of Cornwall, prepared by Colliers Engineering & Design, dated November 22, 2022 to reflect other historical traffic volume information available to Colliers (see Appendix F of the DEIS Traffic Impact Study prepared under separate cover).

e. Traffic Accident Data

A full crash analysis was completed for each of the intersections within the study network. No fatal crashes were observed within the last 5 years. The complete crash analysis is located in Appendix G in the DEIS *Traffic Impact Study for Cornwall Logistics, LLC*, prepared by Dynamic Traffic (prepared under separate cover).

f. Public Transportation Surrounding the Site

CoachUSA provides bus service in the nearby area via the Shortline Hudson line. The nearest CoachUSA bus stop is located approximately one mile north of the site along US Route 9W. Transit Orange also provides bus service in the nearby area via the Newburgh Crosstown North line. The nearest Transit Orange bus stop is located at Cornwall Hospital approximately 1.4 miles south of the site along US Route 9W.

NJ Transit provides train service in the nearby area. Train service is provided via the Port Jervis Line, which runs from Port Jervis to Hoboken with transfers to New York City and Trenton at Secaucus Junction. The nearest train station is located approximately 5.3 miles from the site at the Salisbury Mills/Cornwall Station.

g. Existing Levels of Service

Existing levels of service are summarized in Table III-4 below.

Table III-4 – Existing Levels of Service and Vehicle-to-Capacity Ratios

Intersection	Direction/ Movement		AM PSH		PM PSH	
			LOS	v/c	LOS	v/c
US Route 9W & Forge Hill Road (CR 74) / Sloop Hill Road	EB	LTR	C (20)	0.61	D (54)	0.83
	WB	LT	C (26)	0.14	D (39)	0.18
		R	A (9)	0.24	B (11)	0.33
	NB	L	C (31)	0.41	F (137)	1.10
		TR	B (14)	0.59	D (42)	0.96
	SB	L	C (35)	0.27	E (63)	0.56
		TR	B (16)	0.57	B (14)	0.43
	Overall		**B (17)**	-	**D (42)**	-
US Route 9W & Union Avenue (CR 69) / Old Route 9W	EB	LT	B (18)	0.22	C (23)	0.28
		R	B (19)	0.30	C (26)	0.43
	WB	LTR	B (17)	0.20	C (23)	0.33
	NB	L	A (6)	0.12	A (7)	0.36
		TR	A (8)	0.13	A (8)	0.23
	SB	L	A (6)	0.07	A (7)	0.08
		TR	B (14)	0.26	B (18)	0.39
	Overall		**B (13)**	-	**B (14)**	-
US Route 9W & Laurel Avenue	EB	LTR	B (16)	0.12	C (26)	0.15
	WB	LTR	B (11)	0.26	B (15)	0.52
	NB	L	C (33)	0.02	D (43)	0.17
		TR	B (20)	0.45	D (46)	0.97
	SB	L	C (30)	0.35	D (47)	0.58
		TR	B (14)	0.52	B (13)	0.47
	Overall		**B (17)**	-	**C (32)**	-
NYS Route 32 & Quaker Avenue (CR 107)	WB	L	E (63)	0.69	E (63)	0.66
		R	A (2)	0.41	C (27)	0.86
	NB	TR	E (55)	0.82	E (56)	0.89
	SB	L	C (31)	0.88	C (28)	0.80
		T	A (5)	0.26	A (4)	0.21

	Overall		**C (26)**	**-**	**C (31)**	**-**
Main Street (CR 9) & Willow Avenue (CR 32)	EB	LR	B (12)	0.18	A (10)	0.17
	NB	LT	A (7)	0.29	A (9)	0.34
	SB	TR	A (7)	0.39	A (9)	0.34
	Overall		**A (8)**	**-**	**A (9)**	**-**

NYS Route 32, NYS Route 94, & NYS Route 300	EB	L	F (96)	0.84	F (113)	0.94
		TR	E (79)	0.79	F (87)	0.73
	WB	L	E (76)	0.54	E (76)	0.35
		TR	F (95)	0.81	F (117)	0.91
	NB	L	D (52)	0.45	F (87)	0.82
		T	E (73)	0.70	F (126)	1.00
		R	C (21)	0.33	D (46)	0.69
	SB	L	D (49)	0.38	E (79)	0.75
		TR	F (114)	1.01	F (328)	1.59
	SWB	L	F (98)	0.81	F (118)	0.94
		R	B (17)	0.47	E (79)	0.93
	Overall		**E (76)**	**-**	**F (127)**	**-**
US Route 9W & I-84 EB Ramps	EB	L	D (39)	0.61	D (45)	0.77
		LT	D (39)	0.62	D (45)	0.77
		R	C (23)	0.66	C (32)	0.73
	NB	T	C (23)	0.56	C (21)	0.66
		R	B (13)	0.73	B (15)	0.80
	SB	L	E (57)	0.90	D (46)	0.77
		T	A (6)	0.49	A (7)	0.56
	Overall		**C (25)**	**-**	**C (24)**	**-**
US Route 9W & I-84 WB Ramp/ North Plank Road	EB	L	C (29)	0.13	C (32)	0.31
		R	A (6)	0.69	B (13)	0.84
	WB	R	A (1)	0.25	C (22)	0.75
	NB	L	C (21)	0.50	C (26)	0.72
		T	A (3)	0.31	A (3)	0.36
	SB	T	C (29)	0.66	C (25)	0.53
		R	A (6)	0.62	A (6)	0.62
	Overall		**B (12)**	**-**	**B (15)**	**-**
Forge Hill Road (CR 74) & NYS Route 94	EB	LTR	B (15)	0.65	C (26)	0.78
	WB	LTR	B (12)	0.52	C (21)	0.69
	NB	LTR	B (17)	0.47	C (31)	0.69
	SB	LTR	B (15)	0.37	C (31)	0.73
	Overall		**B (14)**	**-**	**C (26)**	**-**
US Route 9W and Plank Road	EB	R	A (1)	0.03	A (1)	0.03
	WB	R	B (18)	0.84	B (20)	0.82

	NB	TR	B (18)	0.37	C (34)	0.72
	SB	L	D (37)	0.78	D (51)	0.92
		TR	A (6)	0.28	B (11)	0.44
	Overall		**B (19)**	**-**	**C (28)**	**-**

Robinson Avenue (US Route 9W) and South William Street	EB	LTR	B (19)	0.29	C (24)	0.52
	WB	LTR	B (20)	0.31	C (21)	0.52
	NB	LTR	B (15)	0.35	B (18)	0.55
	SB	LTR	B (14)	0.48	B (16)	0.58
	Overall		**B (16)**	**-**	**B (19)**	**-**
Robinson Avenue (US Route 9W) and Washington Street	EB	LTR	C (21)	0.33	C (26)	0.57
	WB	LTR	B (20)	0.24	C (21)	0.33
	NB	LTR	B (12)	0.47	B (18)	0.76
	SB	LTR	A (8)	0.49	A (6)	0.51
	Overall		**B (13)**	**-**	**B (16.7)**	**-**
Robinson Avenue (US Route 9W) and Ann Street	EB	LTR	B (18)	0.10	B (20)	0.22
	WB	LTR	B (18)	0.11	B (19)	0.63
	NB	LTR	A (7)	0.35	B (12)	0.63
	SB	LTR	A (8)	0.42	B (10)	0.54
	Overall		**A (9)**	**-**	**B (13)**	**-**
Robinson Avenue (US Route 9W) and Broadway	EB	LTR	C (20)	0.32	C (24)	0.55
	WB	LTR	B (20)	0.28	C (23)	0.54
	NB	L	A (6)	0.14	B (11)	0.36
		TR	A (6)	0.34	A (10)	0.54
	SB	L	B (14)	0.18	C (21)	0.45
		TR	B (19)	0.54	B (20)	0.61
	Overall		**B (17)**	**-**	**B (19)**	**-**
Robinson Avenue (US Route 9W) and Third Street	EB	LTR	B (16)	0.07	B (16)	0.17
	WB	LTR	B (16)	0.14	B (17)	0.19
	NB	LTR	A (9)	0.34	B (12)	0.55
	SB	LTR	B (11)	0.50	B (14)	0.64
	Overall		**B (11)**	**-**	**B (14)**	**-**
Robinson Avenue (US Route 9W) and South Street	EB	LTR	D (40)	0.58	D (45)	0.69
	WB	LTR	D (36)	0.43	D (49)	0.75
	NB	LTR	B (11)	0.33	B (14)	0.52
	SB	LTR	B (13)	0.46	B (15)	0.56
	Overall		**C (22)**	**-**	**C (27)**	**-**
Academy Avenue (NYS Route 218) & Mailler Avenue	WB	L	a (8)	0.021	a (8)	0.027
	NB	LR	b (12)	0.141	b (12)	0.06
Academy Avenue (NYS Route 218) & Main Street (CR 9)/	EB	L	-	-	a (8)	0.006
	WB	L	a (9)	0.061	a (8)	0.005

Faculty Road	NB	LTR	c (16)	0.296	b (12)	0.124
	SB	LTR	c (19)	0.063	b (11)	0.011
US Route 9W NB Ramp & Willow Avenue (CR 32)	WB	L	a (8)	0.032	a (8)	0.024
	NB	L	b (11)	0.007	b (10)	0.013
US Route 9W SB Ramp/ Harris Lane & Willow Avenue (CR 32)	EB	L	a (8)	0.011	-	-
	WB	L	a (9)	0.001	a (8)	0.002
	NB	LTR	a (10)	0.025	a (9)	0.022
	SB	LT	b (14)	0.030	b (12)	0.035
		R	a (9)	0.042	a (9)	0.071
US Route 9W NB Ramp & Quaker Avenue (CR 107)	WB	L	a (8)	0.001	a (8)	0.014
	NB	L	c (16)	0.314	f (131)	1.138
		R	b (11)	0.008	b (11)	0.034
US Route 9W SB Ramp & Quaker Avenue (CR 107)	WB	L	a (10)	0.036	a (9)	0.024
	NB	L	c (24)	0.237	f (52)	0.572
		R	b (12)	0.002	b (12)	0.046
US Route 9W NB Ramp & Angola Road (CR 9)	WB	LR	a (10)	0.044	b (11)	0.264
	SB	L	a (8)	0.001	a (8)	0.002
US Route 9W SB Ramp/ Timberline Drive & Angola Road (CR 9)	EB	LTR	b (11)	0.002	-	-
	WB	LTR	b (13)	0.149	c (17)	0.305
	NB	L	a (7)	0.001	-	-
	SB	L	a (8)	0.031	a (9)	0.027
Mailler Avenue & Willow Avenue (CR 32)	EB	L	a (8)	0.063	a (8)	0.022
	SB	LR	b (10)	0.055	a (10)	0.072
Old Route 9W & River Road	EB	LTR	c (23)	0.291	f (55)	0.593
	WB	LT	c (17)	0.111	c (21)	0.144
		R	b (11)	0.302	b (14)	0.534
	NB	L	a (9)	0.009	a (9)	0.01
	SB	L	a (8)	0.006	a (8)	0.01
Hasbrouck Avenue and Continental Road	WB	R	a (7)	0.075	a (7)	0.114
	NB	T	a (8)	0.053	a (8)	0.035
	SB	LT	a (8)	0.079	a (8)	0.212
Main St/Angola Rd (CR 9), Broadway, Quaker Ave (CR 107) & Hasbrouck Ave/Continental Rd Roundabout	EB		a (6)	0.242	a (7)	0.345
	WB		a (7)	0.306	a (7)	0.321
	NB		a (5)	0.130	a (6)	0.168
	SB		a (5)	0.033	a (5)	0.037
	NEB		a (5)	0.118	a (7)	0.232
US Route 9W NB & SB Off-Ramps	SB	L	b (12)	0.040	b (12)	0.042
Robinson Avenue (US Route 9W) and Carter Street	EB	LTR	b (11)	0.033	b (14)	0.054
	WB	LTR	c (18)	0.119	e (37)	0.238
	NB	L	a (8)	0.009	a (9)	0.012

	SB	L	a (8)	0.008	a (9)	0.024
US Route 9W NB & Academy Ave Merge	NB	R	a (9.3)*	0.18	b (14.3)*	0.33
US Route 9W SB & Academy Ave Merge	SB	R	b (10.3)*	0.19	b (10.2)*	0.19
US Route 9W NB & Academy Ave Diverge	NB	R	a (5.6)*	0.12	b (10.7)*	0.25
US Route 9W SB & Academy Ave Diverge	SB	R	a (6.8) *	0.18	a (6.4) *	0.18

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)
a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)
a (#) * – Merge/Diverge Level of Service (density in passenger cars per mile per lane)

h. Restrictions and Design Controls

In the Town of Cornwall, a five-ton weight limit on Laurel Avenue between NYS Route 9W and Elm Street, except for local deliveries.

Within the City of Newburgh, trucks, tractors, and tractor-trailer combinations greater than five tons may utilize the following roadway segments:

- Broadway from the western city limits to NYS Route 9W (Robinson Avenue)
- South Street from the western city limits to NYS Route 9W (Robinson Avenue)

2. Future No-Build Conditions

a. No-Build Conditions and Future Traffic Volumes

Traffic volumes and operational analyses were developed for both the No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below. Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate of 2.0% per year was used for roadways within the study area.

b. Anticipated Changes to Transportation Network

NYSDOT has either completed or is planning several roadway constructions projects that have or will improve roadway conditions within the study area. The following is a description of each project:

- Route 9W Bridge Replacements and Rehabilitations – Several bridges along US Route 9W were replaced or refurbished to repair structural deficiencies. The bridges at River Road, Quaker Avenue, Willow Avenue, and Angola Road were all replaced, while the bridge at Academy Avenue was refurbished. Notably, the US Route 9W bridge over Quaker Avenue was raised, eliminating a 12'9" vertical clearance. Construction was completed in November of 2021.
- Crack Sealing and Mastic – Pavement cracks along US Route 9W were cleaned and sealed and mastic was applied to prevent water infiltration into the pavement. This project is intended to improve and preserve pavement integrity along US Route 9W. Construction was completed in November of 2021.
- Route 9W Subsurface and Pavement Repair – In the Town of Newburgh where US Route 9W intersects with the I-84 ramps, subsurface soil instability has led to pavement failure. The subsurface problem and drainage issues are planned to be addressed and the road surface is to be repaved, reducing the occurrence of lane departures to avoid uneven pavement surfaces. This project is in development with construction anticipated to begin in the summer of 2023.
- Broadway Pedestrian & Traffic Signal Upgrades - The City of Newburgh is planning to provide ADA and traffic signal upgrades along Broadway as shown on the Broadway Pedestrian and Traffic Signal Improvement Final Plans, prepared by WSP, dated May 2022. It is proposed to replace the non-standard traffic signals and construct new curb ramps at each corner of the intersection of Robinson Avenue and Broadway. Additionally, as detailed in the Transportation Analysis, prepared by WSP, dated December 10, 2020, it is proposed to reduce the yellow time from four seconds to three seconds and increase the all-red time from one second to two seconds for all peak periods, as well as reallocate three seconds from the eastbound/westbound Broadway ROW phase to the northbound/southbound Robinson Avenue (US Route 9W) phase during the weekday morning peak hour. These signal timing changes have been incorporated into the No-Build and Build analysis.

c. Traffic Generation in Surrounding Areas

Through consultation with the Orange County Planning Board staff, there are several developments in the vicinity of the site that have been approved but not yet constructed that are identified as potential significant traffic generators, shown below. It was assumed that the background growth rate was adequate to account for the traffic associated with all developments not listed hereafter.

- A development consisting of 4 sound stage and studio buildings totaling 104,007 SF known as Prop Productions, located at 2922, 2934, 2975, and 3026 US Route 9W, New Windsor, has been approved. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 110 – General Light Industrial.
- A development consisting of 74,460 SF of warehousing known as Vails Gate Business Center, located at 1073 NYS Route 94, New Windsor, has been approved. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 150 - Warehousing.
- A development consisting of 62 multi-family dwellings known as Lafayette Ridge Apartments, located at 27 Lafayette Drive, New Windsor, has been approved. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 220 – Multifamily Housing (Low-Rise).
- A development consisting of 328 residential dwelling units known as Biagini Woods, located along NYS Route 94, Cornwall is currently under review by the Town of Cornwall Planning Board and has been conservatively included in this analysis. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 220 – Multifamily Housing (Low-Rise).
- A development consisting of an expansion to the existing Star Warehouse, located along NYS Route 32 south of Angola Road, Cornwall. Projections of the associated traffic volumes were obtained from the Transportation Study, prepared by Tim Miller Associates, Inc., dated June 28, 2022.
- A development consisting of a warehouse/distribution center known as the Teitelbaum Warehouse, located at 321 Temple Hill Road, New Windsor is currently under review by the Town of New Windsor Planning Board and has been conservatively included in this analysis. Projections of the associated traffic

volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 130 – Industrial Park as the tenant remains unknown.

- A development consisting of a 55,600 SF warehouse building, inclusive of 4,970 SF of office space, known as Warriner Plumbing, located on Wembley Road off of NYS Route 300, New Windsor is currently under review by the Town of New Windsor Planning Board and has been conservatively included in this analysis. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 150 - Warehousing.
- A development consisting of a proposed gas station and convenience store known as the Bearington Auto Care Redevelopment, located at 884 Blooming Grove Turnpike (NYS Route 94), New Windsor is currently under review by the Town of New Windsor Planning Board and has been conservatively included in this analysis. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication Trip Generation, 11th Edition for Land Use Code (LUC) 945 – Convenience Store/Gas Station.
- A development consisting of an 80-room boutique hotel, 100-seat restaurant, spa facility, rooftop deck & bar, and event space with a 500-guest capacity, known as the Urban Resort Hotel, located at 48, 54, and 62 Grand Street, has been approved. Projections of the associated traffic volumes were obtained from the Transportation Analysis, prepared by WSP, dated December 10, 2020.

Future No Build traffic volumes were developed by applying the background growth rate of 2.0% for two (2) years to the study area roadways existing traffic volumes and adding the adjacent development traffic volumes.

3. Future Build Conditions / Potential Impacts

a. Anticipated Trip Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code 150 – Warehousing in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition.* This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. Table III-5 below details the anticipated trip generation for The Project. The breakdown of automobile and truck trips were developed based on the truck trip generation rates as published in the *Trip Generation Manual, 11th Edition*.

Table III-5 – Proposed Site Trip Generation

Trip Type		AM PSH			PM PSH			Saturday PSH			Weekday Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Building A – 362,277 SF Warehouse	**Total**	**52**	**15**	**67**	**20**	**50**	**70**	**12**	**6**	**18**	**306**	**305**	**611**
	Trucks	4	3	7	2	2	4	-	-	-	109	108	217
	Cars	48	12	60	18	48	66	-	-	-	197	197	394
Building B – 145,381 SF Warehouse	**Total**	**32**	**9**	**41**	**12**	**32**	**44**	**4**	**3**	**7**	**134**	**134**	**268**
	Trucks	2	1	3	2	2	4	-	-	-	44	43	87
	Cars	30	8	38	10	30	40	-	-	-	91	91	181
Building C – 753,125 SF Warehouse	**Total**	**99**	**29**	**128**	**38**	**98**	**136**	**24**	**14**	**38**	**614**	**614**	**1,228**
	Trucks	8	7	15	12	11	23	-	-	-	226	226	452
	Cars	91	22	113	26	87	113	-	-	-	388	388	776
Building D – 273,568 SF Warehouse	**Total**	**43**	**13**	**56**	**17**	**42**	**59**	**9**	**5**	**14**	**236**	**235**	**471**
	Trucks	3	2	5	4	4	8	-	-	-	82	82	164
	Cars	40	11	51	13	38	51	-	-	-	154	153	307
Building E – 191,755 SF Warehouse	**Total**	**36**	**11**	**47**	**14**	**35**	**49**	**6**	**4**	**10**	**170**	**170**	**340**
	Trucks	2	2	4	3	3	6	-	-	-	58	57	115
	Cars	34	9	43	11	32	43	-	-	-	113	113	225
Total	**Total**	**262**	**77**	**339**	**101**	**257**	**358**	**55**	**32**	**87**	**1,460**	**1,458**	**2,918**
	Trucks	19	15	34	23	22	45	0	0	0	519	516	1,035
	Cars	243	62	305	78	235	313	0	0	0	943	942	1,883

As can be seen above, the proposed site is projected to generate 19 entering trips and 15 exiting trips for trucks during the weekday morning peak hour, 243 entering trips and 62 exiting trips for cars during the weekday morning peak hour, 23 entering trips and 22 exiting trips for trucks during the evening peak hour, and 78 entering trips and 235 exiting trips for cars during the evening peak hour that are "new" to the adjacent roadway network. The site is also projected to generate 55 entering trips and 32 exiting trips during the weekend peak hour. The number of trips generated during the Saturday peak hour is no more than 28% of the trips generated during the weekday peak hours. Additionally, the ATR counts conducted show that the weekday daily and peak hour traffic volumes are approximately 75% of the weekday daily and peak hour traffic volumes. Therefore, it is anticipated that the impact of the proposed site will be significantly less pronounced on the weekend then on weekdays. As such, the weekend peak hour was not analyzed.

b. Land Use Code 130

As requested, additional trip generation projections were prepared using LUC 130 – Industrial Park, as published by ITE. Note, based on data published by the ITE in the 5th Edition of the Parking Generation Manual, LUC 130 has an average peak parking demand of 1.20 vehicles per 1,000 SF which translates to a projected parking demand of 2,429 vehicles. The site as currently proposed provides a total of 703 parking stalls, less than 30% of the ITE's average peak parking demand. Therefore, it is not anticipated the current development proposal could support an industrial park development. However, in an effort to present a conservative assessment as the tenant for the proposed warehouse development, traffic generations utilizing the industrial park trip generation will be utilized in the analysis. Table III-6 summarizes the trip generation for each of the proposed buildings as well as the total trip generation for The Project under LUC 130.

Table III-6 – Trip Generation – LUC 130 (Industrial Park)

Trip Type		AM PSH			PM PSH			Saturday Peak			Weekday Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Building A – 362,094 SF Warehouse	**Total**	**100**	**23**	**123**	**27**	**96**	**123**	**51**	**108**	**159**	**611**	**610**	**1,221**
	Trucks	6	8	14	5	9	14	-	-	-	103	103	206
	Cars	94	15	109	22	87	109	-	-	-	508	507	1,015
Building B – 145,281 SF Warehouse	**Total**	**40**	**9**	**49**	**11**	**38**	**49**	**20**	**44**	**64**	**245**	**245**	**490**
	Trucks	3	3	6	2	4	6	-	-	-	41	42	83
	Cars	37	6	43	9	34	43	-	-	-	204	203	407
Building C – 752,943 SF Warehouse	**Total**	**207**	**49**	**256**	**56**	**200**	**256**	**106**	**225**	**331**	**1,269**	**1,269**	**2,538**
	Trucks	14	16	30	11	19	30	-	-	-	215	214	429
	Cars	193	33	226	45	181	226	-	-	-	1,055	1,055	2,110
Building D – 273,495 SF Warehouse	**Total**	**75**	**18**	**93**	**20**	**73**	**93**	**38**	**82**	**120**	**461**	**461**	**922**
	Trucks	5	6	11	4	7	11	-	-	-	78	78	156
	Cars	70	12	82	16	66	82	-	-	-	383	383	766
Building E – 191,663 SF Warehouse	**Total**	**53**	**12**	**65**	**14**	**51**	**65**	**27**	**57**	**84**	**323**	**323**	**646**
	Trucks	4	4	8	3	5	8	-	-	-	55	54	109
	Cars	49	8	57	11	46	57	-	-	-	268	269	537
Total	**Total**	**475**	**111**	**586**	**128**	**458**	**586**	**242**	**516**	**758**	**2,909**	**2,908**	**5,817**
	Trucks	32	37	69	25	44	69	-	-	-	492	491	983
	Cars	443	74	517	103	414	517	-	-	-	2,418	2,417	4,835

As previously stated, the development proposal could not support the applications associated with an industrial development. Therefore, it is unlikely the roadway network would need to support the trips attributed to an industrial park.

Saturday trips are provided for information purposes only. ITE only compiles data from two study sites for the Saturday peak hour generator. If Saturday trip generation is to be considered in this application, more research for appropriate trip generation rates will be needed.

c. Build Levels of Service

Operational conditions at the study intersections and merge and diverge roadway sections were analyzed for the No Build, Build, and Build with Mitigation conditions and are summarized for the AM and PM peak street in the tables below.

Signalized, Unsignalized, and Roundabouts

Table III-7 – Future Levels of Science and Volume-to-Capacity Ratios – AM Peak Street Hour

Intersection	Direction/ Movement		No Build		Build		Build w/ Mit.	
			LOS	v/c	LOS	v/c	LOS	v/c
US Route 9W & Forge Hill Road (CR 74) / Sloop Hill Road	EB	LT	C (27)	0.69	C (30)	0.76	D (54)	0.47
		R					B (15)	0.64
	WB	LT	C (31)	0.19	D (50)	0.54	E (55)	0.50
		R	B (10)	0.27	B (11)	0.28	B (15)	0.39
	NB	L	D (40)	0.51	D (46)	0.58	E (70)	0.77
		TR	B (18)	0.67	B (19)	0.71	A (7)	0.31
	SB	L	D (43)	0.33	D (47)	0.36	E (58)	0.45
		TR	B (18)	0.64	B (19)	0.70	D (40)	0.96
	Overall		**C (21)**	**-**	**C (23)**	**-**	**C (30)**	**-**
US Route 9W & Union Avenue (CR 69)/ Old Route 9W	EB	LT	C (21)	0.26	C (24)	0.31	-	-
		R	A (9)	0.21	B (12)	0.32	-	-
	WB	LTR	C (21)	0.24	C (24)	0.28	-	-
	NB	L	C (22)	0.28	C (25)	0.33	-	-
		TR	A (8)	0.13	A (7)	0.14	-	-
	SB	L	C (23)	0.15	C (26)	0.18	-	-
		TR	B (14)	0.31	B (15)	0.44	-	-
	Overall		**B (14)**	**-**	**B (12)**	**-**	**-**	**-**
US Route 9W & Laurel Avenue	EB	LTR	B (19)	0.13	C (21)	0.14	-	-
	WB	LTR	B (12)	0.29	B (14)	0.32	-	-
	NB	L	D (36)	0.02	D (39)	0.02	-	-
		T	C (20)	0.52	C (22)	0.63	-	-
	SB	L	C (32)	0.37	D (37)	0.41	-	-
		T	B (13)	0.54	B (13)	0.55	-	-

	Overall		**B (17)**	**-**	**B (19)**	**-**	**-**	**-**
NYS Route 32 & Quaker Avenue (CR 107)	WB	L	E (71)	0.75	E (78)	0.81	-	-
		R	A (3)	0.44	A (3)	0.45	-	-
	NB	TR	E (57)	0.86	E (61)	0.90	-	-
	SB	L	D (48)	0.96	E (67)	1.03	-	-
		T	A (5)	0.29	A (6)	0.29	-	-
	Overall		**C (34)**	**-**	**D (43)**	**-**	**-**	**-**
Main Street (CR 9) & Willow Avenue (CR 32)	EB	LR	B (12)	0.20	B (12)	0.22	-	-
	NB	LT	A (7)	0.32	A (8)	0.42	-	-
	SB	TR	A (8)	0.41	A (8)	0.42	-	-
	Overall		**A (8)**	**-**	**A (8)**	**-**	**-**	**-**
NYS Route 32, NYS Route 94, & NYS Route 300	EB	L	F (114)	0.95	F (127)	0.99	-	-
		TR	F (84)	0.83	F (93)	0.88	-	-
	WB	L	E (76)	0.51	E (75)	0.48	-	-
		TR	F (105)	0.88	F (106)	0.89	-	-
	NB	L	E (67)	0.62	E (69)	0.63	-	-
		T	F (102)	0.92	F (111)	0.95	-	-
		R	C (25)	0.37	C (26)	0.38	-	-
	SB	L	E (63)	0.59	E (70)	0.68	-	-
		TR	F (186)	1.23	F (177)	1.21	-	-
	SWB	L	F (109)	0.85	F (113)	0.86	-	-
		R	C (22)	0.52	C (23)	0.52	-	-
	Overall		**F (98)**	**-**	**F (101)**	**-**	**-**	**-**
US Route 9W & I-84 EB Ramps	EB	L	D (42)	0.66	D (43)	0.67	-	-
		LT	D (42)	0.66	D (43)	0.67	-	-
		R	C (32)	0.76	D (51)	0.91	-	-
	NB	T	C (23)	0.58	C (22)	0.60	-	-
		R	B (15)	0.77	B (17)	0.79	-	-
	SB	L	E (59)	0.92	E (58)	0.92	-	-
		T	A (6)	0.51	A (6)	0.54	-	-
	Overall		**C (26)**	**-**	**C (28)**	**-**	**-**	**-**
US Route 9W & I-84 WB Ramp/ North Plank Road	EB	L	C (29)	0.14	C (29)	0.14	-	-
		R	A (8)	0.74	B (10)	0.79	-	-
	WB	R	A (1)	0.26	A (1)	0.26	-	-
	NB	L	C (22)	0.54	C (23)	0.58	-	-
		T	A (3)	0.32	A (3)	0.32	-	-
	SB	T	C (29)	0.67	C (28)	0.66	-	-
		R	A (6)	0.63	A (6)	0.63	-	-
	Overall		**B (13)**	**-**	**B (13)**	**-**	**-**	**-**

Forge Hill Road (CR 74) & NYS Route 94	EB	LTR	B (17)	0.71	B (19)	0.74	-	-
	WB	LTR	B (13)	0.56	B (13)	0.55	-	-
	NB	LTR	B (20)	0.50	C (22)	0.54	-	-
	SB	LTR	B (17)	0.39	B (18)	0.39	-	-
	Overall		**B (16)**	**-**	**B (17)**	**-**	**-**	**-**
US Route 9W & Plank Road	EB	R	A (1)	0.03	A (1)	0.03	-	-
	WB	R	B (20)	0.86	C (21)	0.87	-	-
	NB	TR	B (19)	0.41	B (20)	0.45	-	-
	SB	L	D (41)	0.82	D (43)	0.83	-	-
		TR	A (7)	0.32	A (7)	0.37	-	-
	Overall		**C (21)**	**-**	**C (21)**	**-**	**-**	**-**
Robinson Avenue (US Route 9W) & South William Street	EB	LTR	B (20)	0.31	B (20)	0.31	C (33)	0.61
	WB	LTR	B (20)	0.33	B (20)	0.33	D (35)	0.65
	NB	LTR	B (15)	0.39	B (16)	0.45	A (7)	0.33
	SB	LTR	B (13)	0.54	B (17)	0.66	A (6)	0.49
	Overall		**B (16)**	**-**	**B (18)**	**-**	**B (14)**	**-**
Robinson Avenue (US Route 9W) & Washington Street	EB	LTR	C (21)	0.35	C (21)	0.35	D (36)	0.65
	WB	LTR	B (20)	0.25	B (20)	0.25	C (30)	0.48
	NB	LTR	B (13)	0.52	B (14)	0.61	A (7)	0.46
	SB	LTR	A (8)	0.56	B (11)	0.70	A (8)	0.53
	Overall		**B (13)**	**-**	**B (14)**	**-**	**B (14)**	**-**
Robinson Avenue (US Route 9W) & Ann Street	EB	LTR	B (18)	0.11	B (18)	0.11	C (35)	0.35
	WB	LTR	B (18)	0.12	B (18)	0.12	D (35)	0.39
	NB	LTR	A (7)	0.38	A (8)	0.44	A (5)	0.28
	SB	LTR	A (9)	0.48	A (10)	0.61	A (5)	0.39
	Overall		**B (14)**	**A (9)**	**-**	**B (10)**	**-**	**A (9)**
Robinson Avenue (US Route 9W) & Broadway (NYS Route 17K)	EB	LTR	C (23)	0.40	C (23)	0.40	C (33)	0.68
	WB	LTR	C (22)	0.34	C (22)	0.34	C (30)	0.56
	NB	L	A (7)	0.15	A (9)	0.20	A (7)	0.13
		TR	A (7)	0.35	A (8)	0.42	A (8)	0.34
	SB	L	B (12)	0.18	B (12)	0.19	A (7)	0.15
		TR	B (17)	0.57	C (22)	0.72	B (11)	0.59
	Overall		**B (18)**	**-**	**B (19)**	**-**	**B (19)**	**-**
Robinson Avenue (US Route 9W) and Third Street	EB	LTR	B (16)	0.07	B (16)	0.07	C (33)	0.19
	WB	LTR	B (17)	0.15	B (17)	0.15	D (39)	0.40
	NB	LTR	A (10)	0.38	B (11)	0.44	A (4)	0.29
	SB	LTR	B (12)	0.56	B (15)	0.69	A (10)	0.46
	Overall		**B (12)**	**-**	**B (14)**	**-**	**B (10)**	**-**

Robinson Avenue (US Route 9W) and South Street	EB	LTR	D (41)	0.60	D (41)	0.60	D (44)	0.76
	WB	LTR	D (37)	0.45	D (37)	0.45	C (35)	0.58
	NB	LTR	B (12)	0.37	B (13)	0.43	A (7)	0.42
	SB	LTR	B (14)	0.52	B (17)	0.65	B (13)	0.63
	Overall		**C (23)**	**-**	**C (23)**	**-**	**C (20)**	**-**
US Route 9W & Northern Site Driveway	EB	L	-	-	C (35)	0.43	-	-
		R	-	-	A (9)	0.11	-	-
	NB	L	-	-	D (47)	0.79	-	-
		T	-	-	A (6)	0.35	-	-
	SB	T	-	-	C (28)	0.85	-	-
		R	-	-	A (3)	0.22	-	-
	Overall		**C (21)**	**-**	**-**	**C (21)**	**-**	**-**
Academy Avenue (NYS Route 218) & Mailler Avenue	WB	L	a (8)	0.023	a (8)	0.023	-	-
	NB	LR	b (13)	0.169	b (15)	0.219	-	-
Academy Avenue (NYS Route 218) & Main Street (CR 9)/ Faculty Road	EB	L	-	-	-	-	-	-
	WB	L	a (9)	0.066	a (9)	0.067	-	-
	NB	LTR	c (18)	0.400	d (26)	0.593	-	-
	SB	LTR	c (21)	0.072	c (24)	0.083	-	-
US Route 9W NB Ramp & Willow Avenue (CR 32)	WB	L	a (8)	0.050	a (10)	0.017	-	-
	NB	L	b (12)	0.008	b (14)	0.009	-	-
		R	a (10)	0.017	a (10)	0.017	-	-
US Route 9W SB Ramp/ Harris Lane & Willow Avenue (CR 32)	EB	L	a (8)	0.011	a (8)	0.011	-	-
	WB	L	a (9)	0.001	a (9)	0.001	-	-
	NB	LTR	a (10)	0.027	a (10)	0.027	-	-
	SB	LT	b (14)	0.057	b (15)	0.074	-	-
		R	a (9)	0.043	a (9)	0.043	-	-
US Route 9W NB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	-	A (6)	0.66
	WB	LT	a (8)	0.008	a (8)	0.030	A (6)	0.57
	NB	L	c (18)	0.354	c (21)	0.402	D (45)	0.23
		R	b (11)	0.010	b (11)	0.011	B (17)	0.01
	Overall		**-**	**-**	**-**	**-**	**B (12)**	**-**
US Route 9W SB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	-	A (7)	0.67
	WB	L	a (10)	0.039	b (10)	0.041	A (3)	0.08
		T					A (4)	0.35
	NB	L	d (28)	0.311	e (35)	0.358	D (49)	0.52
		R	b (12)	0.013	b (13)	0.023	B (19)	0.05
	Overall		**-**	**-**	**-**	**-**	**A (9)**	**-**
US Route 9W NB Ramp & Angola Road (CR 9)	WB	LR	b (10)	0.046	b (10)	0.048	-	-
	SB	L	a (8)	0.001	a (8)	0.001	-	-

US Route 9W SB Ramp/ Timberline Drive & Angola Road (CR 9)	EB	LTR	b (11)	0.002	b (11)	0.002	-	-
	WB	LTR	b (14)	0.171	b (15)	0.202	-	-
	NB	L	a (7)	0.001	a (7)	0.001	-	-
	SB	L	a (8)	0.032	a (8)	0.034	-	-
Mailler Avenue & Willow Avenue (CR 32)	EB	L	a (8)	0.067	a (8)	0.070	-	-
	SB	LR	b (11)	0.062	b (11)	0.070	-	-
Old Route 9W & River Road	EB	LTR	c (24)	0.319	c (24)	0.319	-	-
	WB	LT	c (17)	0.119	c (17)	0.119	-	-
		R	b (11)	0.317	b (11)	0.317	-	-
	NB	L	a (9)	0.009	a (9)	0.009	-	-
	SB	L	a (8)	0.006	a (8)	0.006	-	-
Hasbrouck Avenue & Continental Road	WB	R	a (7)	0.086	a (7)	0.104	-	-
	NB	T	a (8)	0.065	a (8)	0.092	-	-
	SB	LT	a (8)	0.095	a (8)	0.104	-	-
Main St/Angola Rd (CR 9), Broadway, Quaker Ave (CR 107) & Hasbrouck Ave/Continental Rd Roundabout	EB		a (6)	0.261	a (6)	0.265	-	-
	WB		a (8)	0.332	a (8)	0.348	-	-
	NB		a (6)	0.157	a (6)	0.202	-	-
	SB		a (5)	0.035	a (5)	0.036	-	-
	NEB		a (6)	0.133	a (6)	0.151	-	-
US Route 9W NB & SB Off-Ramps	SB	L	b (12)	0.055	b (13)	0.079	-	-
Robinson Avenue (US Route 9W) and Carter Street	EB	LTR	b (12)	0.038	b (13)	0.042	-	-
	WB	LTR	c (21)	0.144	d (26)	0.181	-	-
	NB	L	a (9)	0.010	a (9)	0.011	-	-
	SB	L	a (8)	0.008	a (8)	0.008	-	-
US Route 9W & Southern Site Driveway	EB	R	-	-	b (13)	0.043	-	-

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)
a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

Table III-8 – Future Levels of Service and Volume-to-Capacity Ratios – PM Peak Street Hour

Intersection	Direction/ Movement		No Build		Build		Build w/ Mit.	
			LOS	v/c	LOS	v/c	LOS	v/c
US Route 9W & Forge Hill Road (CR 74) / Sloop Hill Road	EB	LT	E (57)	0.86	E (59)	0.88	E (57)	0.62
		R					C (22)	0.60
	WB	LT	D (39)	0.21	D (42)	0.29	D (45)	0.33
		R	B (10)	0.33	B (10)	0.33	B (13)	0.42
	NB	L	F (167)	1.19	F (246)	1.41	F (97)	0.99
		TR	E (78)	1.09	F (164)	1.30	B (14)	0.66
	SB	L	E (65)	0.58	E (65)	0.58	E (63)	0.59
		TR	B (15)	0.48	B (16)	0.53	D (54)	1.00
	Overall		**E (59)**	**-**	**F (105)**	**-**	**D (37)**	**-**
US Route 9W & Union Avenue (CR 69) / Old Route 9W	EB	LT	C (27)	0.31	C (30)	0.35	-	-
		R	A (8)	0.19	A (9)	0.20	-	-
	WB	LTR	C (28)	0.38	C (32)	0.43	-	-
	NB	L	C (24)	0.53	C (27)	0.61	-	-
		TR	A (9)	0.23	A (9)	0.32	-	-
	SB	L	C (30)	0.19	C (33)	0.22	-	-
		TR	B (19)	0.41	C (22)	0.51	-	-
	Overall		**B (17)**	**-**	**B (18)**	**-**	**-**	**-**
US Route 9W & Laurel Avenue	EB	LTR	C (26)	0.15	C (26)	0.15	C (33)	0.19
	WB	LTR	B (15)	0.54	B (15)	0.54	B (20)	0.59
	NB	L	D (43)	0.17	D (43)	0.17	D (51)	0.20
		T	E (69)	1.05	F (98)	1.14	E (74)	1.07
	SB	L	D (47)	0.59	D (47)	0.59	E (59)	0.66
		T	B (15)	0.55	B (19)	0.70	B (16)	0.65
	Overall		**D (43)**	**-**	**E (58)**	**-**	**D (47)**	**-**
NYS Route 32 & Quaker Avenue (CR 107)	WB	L	E (71)	0.74	F (90)	0.90	E (76)	0.83
		R	C (32)	0.93	C (33)	0.93	C (34)	0.93
	NB	TR	E (61)	0.91	E (67)	0.94	E (64)	0.93
	SB	L	D (37)	0.86	D (46)	0.91	D (46)	0.89
		T	A (5)	0.24	A (5)	0.24	A (6)	0.25
	Overall		**D (38)**	**-**	**D (44)**	**-**	**D (43)**	**-**
Main Street (CR 9) & Willow Avenue (CR 32)	EB	LR	A (9)	0.20	A (8)	0.26	-	-
	NB	LT	A (9)	0.38	B (12)	0.49	-	-
	SB	TR	A (9)	0.37	B (11)	0.47	-	-
	Overall		**A (9)**	**-**	**B (11)**	**-**	**-**	**-**

NYS Route 32, NYS Route 94, & NYS Route 300	EB	L	F (150)	1.09	F (150)	1.09	-	-
		TR	F (107)	0.90	F (110)	0.91	-	-
	WB	L	E (75)	0.33	E (75)	0.33	-	-
		TR	F (132)	1.01	F (162)	1.13	-	-
	NB	L	F (96)	0.87	F (97)	0.87	-	-
		T	F (166)	1.15	F (183)	1.20	-	-
		R	D (53)	0.75	D (55)	0.77	-	-
	SB	L	F (97)	0.85	F (99)	0.87	-	-
		TR	F (461)	1.91	F (460)	1.91	-	-
	SWB	L	F (136)	1.01	F (136)	1.01	-	-
		R	F (108)	1.04	F (108)	1.04	-	-
	Overall		**F (167)**	**-**	**F (172)**	**-**	**-**	**-**
US Route 9W & I-84 EB Ramps	EB	L	D (52)	0.83	F (161)	1.23	E (70)	0.96
		LT	D (52)	0.83	F (161)	1.23	E (70)	0.96
		R	D (42)	0.84	F (132)	1.18	E (62)	0.97
	NB	T	C (21)	0.68	D (38)	0.74	C (25)	0.79
		R	C (29)	0.85	E (80)	0.97	C (23)	0.92
	SB	L	D (45)	0.78	D (47)	0.82	E (72)	0.98
		T	A (6)	0.57	A (5)	0.60	A (8)	0.66
	Overall		**C (28)**	**-**	**E (66)**	**-**	**D (36)**	**-**
US Route 9W & I-84 WB Ramp/ North Plank Road	EB	L	C (32)	0.31	C (33)	0.34	D (38)	0.40
		R	B (17)	0.89	C (22)	0.93	B (19)	0.91
	WB	R	C (27)	0.80	C (27)	0.80	C (28)	0.83
	NB	L	C (30)	0.82	F (109)	1.17	C (32)	0.91
		T	A (3)	0.38	A (4)	0.42	A (3)	0.40
	SB	T	C (25)	0.54	C (23)	0.50	C (24)	0.54
		R	A (5)	0.63	A (5)	0.61	A (9)	0.67
	Overall		**B (18)**	**-**	**C (33)**	**-**	**B (19)**	**-**
Forge Hill Road (CR 74) & NYS Route 94	EB	LTR	C (29)	0.81	D (36)	0.86	-	-
	WB	LTR	C (23)	0.71	C (27)	0.73	-	-
	NB	LTR	D (42)	0.82	D (50)	0.88	-	-
	SB	LTR	D (41)	0.82	D (35)	0.76	-	-
	Overall		**C (32)**	**-**	**D (36)**	**-**	**-**	**-**
US Route 9W & Plank Road	EB	R	A (1)	0.04	A (1)	0.05	A (1)	0.05
	WB	R	C (28)	0.90	F (84)	1.09	C (32)	0.88
	NB	TR	C (33)	0.74	C (31)	0.79	C (32)	0.80
	SB	L	D (55)	0.95	E (63)	1.02	D (54)	0.92
		TR	A (4)	0.46	B (12)	0.46	A (5)	0.46
	Overall		**C (30)**	**-**	**D (45)**	**-**	**C (29)**	**-**

Robinson Avenue (US Route 9W) & South William Street	EB	LTR	C (25)	0.54	C (26)	0.58	D (45)	0.85
	WB	LTR	C (21)	0.38	C (22)	0.43	C (28)	0.60
	NB	LTR	B (20)	0.62	C (31)	0.85	B (17)	0.72
	SB	LTR	B (17)	0.64	C (23)	0.81	B (14)	0.66
	Overall		**B (20)**	**-**	**C (27)**	**-**	**C (22)**	**-**
Robinson Avenue (US Route 9W) & Washington Street	EB	LTR	C (27)	0.59	C (30)	0.68	E (77)	1.00
	WB	LTR	C (21)	0.34	C (22)	0.39	C (31)	0.60
	NB	LTR	C (25)	0.86	F (159)	1.29	D (39)	0.99
	SB	LTR	A (7)	0.57	B (12)	0.74	A (8)	0.62
	Overall		**B (20)**	**-**	**E (75)**	**-**	**D (36)**	**-**
Robinson Avenue (US Route 9W) & Ann Street	EB	LTR	B (20)	0.23	B (20)	0.21	D (37)	0.54
	WB	LTR	B (19)	0.20	B (19)	0.19	C (34)	0.47
	NB	LTR	B (15)	0.71	E (61)	0.88	A (7)	0.58
	SB	LTR	B (10)	0.60	B (11)	0.63	A (4)	0.42
	Overall		**B (14)**	**-**	**D (36)**	**-**	**B (10)**	**-**
Robinson Avenue (US Route 9W) & Broadway (NYS Route 17K)	EB	LTR	C (26)	0.64	C (26)	0.65	C (34)	0.78
	WB	LTR	C (25)	0.61	C (26)	0.63	C (31)	0.75
	NB	L	B (12)	0.43	B (12)	0.50	B (12)	0.41
		TR	B (10)	0.61	C (21)	0.89	C (22)	0.83
	SB	L	C (25)	0.54	D (48)	0.76	C (24)	0.61
		TR	C (22)	0.66	C (26)	0.76	B (18)	0.71
	Overall		**C (21)**	**-**	**C (25)**	**-**	**C (26)**	**-**
Robinson Avenue (US Route 9W) & Third Street	EB	LTR	B (17)	0.18	B (18)	0.22	D (40)	0.49
	WB	LTR	B (17)	0.19	B (17)	0.20	D (38)	0.45
	NB	LTR	B (13)	0.62	C (27)	0.87	A (8)	0.59
	SB	LTR	B (15)	0.69	B (19)	0.77	A (4)	0.53
	Overall		**B (15)**	**-**	**C (23)**	**-**	**B (10)**	**-**
Robinson Avenue (US Route 9W) & South Street	EB	LTR	D (47)	0.73	D (52)	0.80	D (50)	0.85
	WB	LTR	D (52)	0.79	E (61)	0.87	E (61)	0.91
	NB	LTR	B (16)	0.58	D (36)	0.91	C (34)	0.93
	SB	LTR	B (16)	0.61	C (22)	0.76	B (20)	0.78
	Overall		**C (28)**	**-**	**D (38)**	**-**	**D (36)**	**-**
US Route 9W & Northern Site Driveway	EB	L	-	-	D (36)	0.74	-	-
		R	-	-	B (14)	0.42	-	-
	NB	L	-	-	D (47)	0.64	-	-
		T	-	-	B (15)	0.72	-	-
	SB	T	-	-	C (33)	0.88	-	-
		R	-	-	A (1)	0.11	-	-
	Overall		**-**	**-**	**C (24)**	**-**	**-**	**-**

Academy Avenue (NYS Route 218) & Mailler Avenue	WB	L	a (8)	0.029	a (9)	0.033	-	-
	NB	LR	b (13)	0.072	c (16)	0.099	-	-
Academy Avenue (NYS Route 218) & Main Street (CR 9) / Faculty Road	EB	L	a (8)	0.007	a (8)	0.007	-	-
	WB	L	a (8)	0.005	a (8)	0.006	-	-
	NB	LTR	b (14)	0.168	c (16)	0.239	-	-
	SB	LTR	b (12)	0.012	b (13)	0.013	-	-
US Route 9W NB Ramp & Willow Avenue (CR 32)	WB	L	a (8)	0.037	a (8)	0.054	-	-
	NB	L	b (11)	0.016	b (12)	0.018	-	-
		R	a (9)	0.019	a (10)	0.020	-	-
US Route 9W SB Ramp/ Harris Lane & Willow Avenue (CR 32)	EB	L	-	-	-	-	-	-
	WB	L	a (8)	0.002	a (8)	0.002	-	-
	NB	LTR	a (9)	0.024	a (9)	0.024	-	-
	SB	LT	b (13)	0.078	b (14)	0.176	-	-
		R	a (9)	0.074	a (9)	0.074	-	-
US Route 9W NB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	-	B (12)	0.66
	WB	LT	a (8)	0.020	a (9)	0.031	C (27)	0.89
	NB	L	f (195)	1.299	f (251)	1.428	C (28)	0.46
		R	b (11)	0.037	b (12)	0.039	A (8)	0.15
	Overall		**-**	**-**	**-**	**-**	**C (21)**	**-**
US Route 9W SB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	-	A (9)	0.67
	WB	L	a (9)	0.026	a (9)	0.027	A (3)	0.07
		T					C (26)	0.88
	NB	L	f (84)	0.783	f (540)	1.972	E (67)	0.81
		R	b (12)	0.069	b (14)	0.140	B (12)	0.20
	Overall		**-**	**-**	**-**	**-**	**C (23)**	**-**
US Route 9W NB Ramp & Angola Road (CR 9)	WB	LR	b (11)	0.280	b (12)	0.286	-	-
	SB	L	a (8)	0.002	a (8)	0.002	-	-
US Route 9W SB Ramp/ Timberline Drive & Angola Road (CR 9)	EB	LTR	-	-	-	-	-	-
	WB	LTR	c (19)	0.360	c (24)	0.480	-	-
	NB	L	-	-	-	-	-	-
	SB	L	a (9)	0.028	a (9)	0.029	-	-
Mailler Avenue & Willow Avenue (CR 32)	EB	L	a (8)	0.024	a (8)	0.024	-	-
	SB	LR	b (10)	0.084	b (11)	0.113	-	-
Old Route 9W & River Road	EB	LTR	f (70)	0.685	f (70)	0.685	-	-
	WB	LT	c (22)	0.160	c (22)	0.160	-	-
		R	b (15)	0.561	b (15)	0.561	-	-
	NB	L	a (9)	0.010	a (9)	0.010	-	-
	SB	L	a (8)	0.011	a (8)	0.011	-	-

Hasbrouck Avenue & Continental Road	WB	R	a (8)	0.126	a (8)	0.136	-	-
	NB	T	a (8)	0.044	a (8)	0.055	-	-
	SB	LT	a (9)	0.241	a (9)	0.287	-	-
Main St/Angola Rd (CR 9), Broadway, Quaker Ave (CR 107) & Hasbrouck Ave/Continental Rd Roundabout	EB		a (7)	0.357	a (7)	0.389	-	-
	WB		a (7)	0.356	a (8)	0.387	-	-
	NB		a (7)	0.185	a (7)	0.206	-	-
	SB		a (6)	0.041	a (6)	0.043	-	-
	NEB		a (7)	0.246	a (8)	0.265	-	-
US Route 9W NB & SB Off-Ramps	SB	L	b (12)	0.068	b (12)	0.150	-	-
Robinson Avenue (US Route 9W) and Carter Street	EB	LTR	c (15)	0.062	c (17)	0.077	-	-
	WB	LTR	e (47)	0.302	f (90)	0.491	-	-
	NB	L	a (9)	0.013	a (9)	0.014	-	-
	SB	L	a (9)	0.027	a (10)	0.034	-	-
US Route 9W & Southern Site Driveway	EB	R	-	-	b (14)	0.210	-	-

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)
a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

d. Adequacy of Existing Road Infrastructure

Queue length conditions at the study intersections were analyzed under the No Build and Build conditions. The 95th percentile queues for each study peak hour are summarized for the AM peak street hour and for the PM peak street hour on the following tables.

Table III-9 – Future Queue Analysis, AM Peak Street Hour

Intersection	Direction/ Movement		Storage Length	No Build	Build	Build w/ Mit.
US Route 9W & Forge Hill Road (CR 74)/ Sloop Hill Road	EB	LT	-	148’	170’	76’
		R	25’			67’
	WB	LT	-	55’	88’	83’
		R	50’	40’	41’	44’
	NB	L	400’	172’	211’	198’
		TR	-	411’	475’	137’
	SB	L	210’	61’	63’	61’
		TR	-	227’	286’	931’
US Route 9W & Union Avenue (CR 69)/ Old Route 9W	EB	LT	-	56’	62’	-
		R	60’	51’	79’	-
	WB	LTR	-	50’	55’	-
	NB	L	410’	54’	64’	-
		TR	-	46’	54’	-
	SB	L	150’	26’	29’	-
		TR	-	74’	103’	-
US Route 9W & Laurel Avenue	EB	LTR	-	37’	37’	-
	WB	LTR	-	50’	50’	-
	NB	L	150’	12’	12’	-
		T	-	318’	537’	-
	SB	L	230’	107’	107’	-
		T	-	453’	545’	-
NYS Route 32 & Quaker Avenue (CR 107)	WB	L	-	197’	253’	209’
		R	220’	51’	54’	85’
	NB	TR	-	359’	422’	447’
	SB	L	275’	824’	888’	655’
		T	-	109’	109’	98’
Main Street (CR 9) & Willow Avenue (CR 32)	EB	LR	-	27’	28’	-
	NB	LT	-	73’	91’	-
	SB	TR	-	86’	88’	-
NYS Route 32, NYS Route 94, & NYS Route 300	EB	L	275’	514’	526’	-
		TR	-	603’	646’	-
	WB	L	255’	229’	232’	-
		TR	-	407’	460’	-
	NB	L	410’	147’	147’	-
		T	-	672’	686’	-
		R	-	196’	200’	-
	SB	L	250’	158’	180’	-

		TR	-	867’	852’	-
	SWB	L	-	323’	328’	-
		R	-	109’	111’	-
US Route 9W & I-84 EB Ramps	EB	L	140’	265’	265’	-
		LT	140’	265’	265’	-
		R	-	296’	393’	-
	NB	T	-	130’	128’	-
		R	240’	281’	289’	-
	SB	L	230’	273’	275’	-
		T	-	70’	72’	-
US Route 9W & I-84 WB Ramp/ North Plank Road	EB	L	570’	48’	48’	-
		R	-	75’	106’	-
	WB	R	-	0’	0’	-
	NB	L	115’	130’	139’	-
		T	-	36’	35’	-
	SB	T	-	218’	218’	-
		R	205’	68’	68’	-
Forge Hill Road (CR 74) & NYS Route 94	EB	LTR	-	241’	275’	-
	WB	LTR	-	181’	192’	-
	NB	LTR	-	133’	155’	-
	SB	LTR	-	102’	114’	-
US Route 9W & Plank Road	EB	R	-	0’	0’	-
	WB	R	-	143’	159’	-
	NB	TR	-	210’	216’	-
	SB	L	-	196’	201’	-
		TR	-	126’	139’	-
Robinson Avenue (US Route 9W) & South William Street	EB	LTR	-	120’	120’	125’
	WB	LTR	-	123’	123’	129’
	NB	LTR	-	184’	209’	138’
	SB	LTR	-	183’	229’	144’
Robinson Avenue (US Route 9W) & Washington Street	EB	LTR	-	131’	131’	134’
	WB	LTR	-	99’	99’	102’
	NB	LTR	-	114’	122’	107’
	SB	LTR	-	72’	112’	229’
Robinson Avenue (US Route 9W) & Ann Street	EB	LTR	-	51’	51’	62’
	WB	LTR	-	58’	58’	70’
	NB	LTR	-	49’	74’	148’
	SB	LTR	-	77’	89’	178’
Robinson Avenue (US Route 9W) & Broadway (NYS Route 17K)	EB	LTR	-	134’	134’	131’
	WB	LTR	-	114’	114’	111’
	NB	L	100’	14’	13’	34’

		TR	-	57’	60’	147’
	SB	L	130’	50’	51’	36’
		TR	-	276’	385’	275’

Robinson Avenue (US Route 9W) & Third Street	EB	LTR	-	26’	26’	40’
	WB	LTR	-	43’	43’	66’
	NB	LTR	-	107’	124’	87’
	SB	LTR	-	192’	261’	379’
Robinson Avenue (US Route 9W) & South Street	EB	LTR	-	260’	260’	225’
	WB	LTR	-	197’	196’	159’
	NB	LTR	-	166’	195’	159’
	SB	LTR	-	281’	390’	296’
US Route 9W & Northern Site Driveway	EB	L	-	-	75’	-
		R	-	-	34’	-
	NB	L	300’	-	266’	-
		T	-	-	104’	-
	SB	T	-	-	343’	-
		R	200’	-	34’	-
Academy Avenue (NYS Route 218) & Mailler Avenue	WB	L	-	3'	3'	-
	NB	LR	-	15'	20'	-
Academy Avenue (NYS Route 218) & Main Street (CR 9)/ Faculty Road	EB	L	-	0'	0'	-
	WB	L	-	5'	5'	-
	NB	LTR	-	48'	93'	-
	SB	LTR	-	5'	8'	-
US Route 9W NB Ramp & Willow Avenue (CR 32)	WB	L	-	5'	8'	-
	NB	L	-	0'	0'	-
		R	75’	3'	3'	-
US Route 9W SB Ramp/ Harris Lane & Willow Avenue (CR 32)	EB	L	-	0'	0'	-
	WB	L	-	0'	0'	-
	NB	LTR	-	3'	3'	-
	SB	LT	-	5'	5'	-
		R	100’	3'	3'	-
US Route 9W NB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-		147’
	WB	LT	-	0'	3'	117’
	NB	L	-	40'	48'	133
		R	150’	0'	0'	11’
US Route 9W SB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	245’
	WB	L	50’	3'	3'	9’
		T	-			93’
	NB	L	-	33'	50'	106’

		R	160’	0'	3'	16’
US Route 9W NB Ramp & Angola Road (CR 9)	WB	LR	-	3'	5'	-
	SB	L	-	0'	0'	-

US Route 9W SB Ramp/ Timberline Drive & Angola Road (CR 9)	EB	LTR	-	0'	0'	-
	WB	LTR	-	15'	18'	-
	NB	L	-	0'	0'	-
	SB	L	-	3'	3'	-
Mailler Avenue & Willow Avenue (CR 32)	EB	L	-	5'	5'	-
	SB	LR	-	5'	5'	-
Old Route 9W & River Road	EB	LTR	-	33'	33'	-
	WB	LT	-	10'	10'	-
		R	50’	35'	35'	-
	NB	L	-	0'	0'	-
	SB	L	-	0'	0'	-
Hasbrouck Avenue & Continental Road	WB	R	-	8'	8'	-
	NB	T	-	5'	8'	-
	SB	LT	-	8'	8'	-
Main St/Angola Rd (CR 9), Broadway, Quaker Ave (CR 107) & Hasbrouck Ave/Continental Rd Roundabout	EB		-	25'	25'	-
	WB		-	25'	50'	-
	NB		-	25'	25'	-
	SB		-	0'	0'	-
	NEB		-	0'	25'	-
US Route 9W NB & SB Off-Ramps	SB	L	-	5'	8’	-
Robinson Avenue (US Route 9W) & Carter Street	EB	LTR	-	3'	3'	-
	WB	LTR	-	13'	15'	-
	NB	L	-	0'	0'	-
	SB	L	-	0'	0'	-
US Route 9W & Southern Site Driveway	EB	R	-	-	3’	-

Table III-10 – Future Queue Analysis, PM Peak Street Hour

Intersection	Direction/ Movement		Storage Length	No Build	Build	Build w/ Mit.
US Route 9W & Forge Hill Road (CR 74)/ Sloop Hill Road	EB	LT	-	282’	305’	125’
		R	25’			97’
	WB	LT	-	66’	78’	76’
		R	50’	49’	49’	49’
	NB	L	400’	359’	420’	352’
		TR	-	1192’	1504’	408’
	SB	L	210’	97’	97’	94’
		TR	-	233’	260’	956’
US Route 9W & Union Avenue (CR 69)/ Old Route 9W	EB	LT	-	63’	70’	-
		R	60’	99’	66’	-
	WB	LTR	-	77’	85’	-
	NB	L	410’	76’	226’	-
		TR	-	100’	127’	-
	SB	L	150’	12’	33’	-
		TR	-	103’	119’	-
US Route 9W & Laurel Avenue	EB	LTR	-	40’	40’	46’
	WB	LTR	-	76’	76’	93’
	NB	L	150’	39’	39’	43’
		T	-	1112’	1221’	1258’
	SB	L	230’	134’	134’	151’
		T	-	473’	766’	765’
NYS Route 32 & Quaker Avenue (CR 107)	WB	L	-	224’	364’	318’
		R	220’	909’	908’	908’
	NB	TR	-	566’	619’	619’
	SB	L	275’	642’	667’	632’
		T	-	100’	100’	115’
Main Street (CR 9) & Willow Avenue (CR 32)	EB	LR	-	38’	44’	-
	NB	LT	-	176’	189’	-
	SB	TR	-	166’	179’	-
NYS Route 32, NYS Route 94, & NYS Route 300	EB	L	275’	745’	745’	-
		TR	-	579’	596’	-
	WB	L	255’	187’	187’	-
		TR	-	667’	770’	-
	NB	L	410’	331’	327’	-
		T	-	831’	831’	-
		R	-	633’	633’	-
	SB	L	250’	249’	278’	-

		TR	-	1333’	1333’	-
	SWB	L	-	622’	622’	-
		R	-	626’	626’	-
US Route 9W & I-84 EB Ramps	EB	L	140’	406’	458’	410’
		LT	140’	406’	458’	410’
		R	-	374’	467’	423’
	NB	T	-	191’	175’	256’
		R	240’	287’	327’	419’
	SB	L	230’	155’	162’	208’
		T	-	77’	91’	120’
US Route 9W & I-84 WB Ramp/ North Plank Road	EB	L	570’	92’	93’	101’
		R	-	171’	240’	202’
	WB	R	-	197’	214’	213’
	NB	L	115’	309’	281’	286’
		T	-	50’	40’	35’
	SB	T	-	185’	187’	187’
		R	205’	67’	70’	137’
Forge Hill Road (CR 74) & NYS Route 94	EB	LTR	-	630’	665’	-
	WB	LTR	-	513’	533’	-
	NB	LTR	-	286’	346’	-
	SB	LTR	-	287’	288’	-
US Route 9W & Plank Road	EB	R	-	0’	0’	0’
	WB	R	-	449’	560’	653’
	NB	TR	-	237’	274’	283’
	SB	L	-	301’	290’	289’
		TR	-	108’	130’	62’
Robinson Avenue (US Route 9W) & South William Street	EB	LTR	-	227’	238’	269’
	WB	LTR	-	158’	166’	164’
	NB	LTR	-	344’	588’	390’
	SB	LTR	-	227’	280’	155’
Robinson Avenue (US Route 9W) & Washington Street	EB	LTR	-	261’	272’	337’
	WB	LTR	-	145’	149’	158’
	NB	LTR	-	533’	791’	575’
	SB	LTR	-	80’	111’	79’
Robinson Avenue (US Route 9W) & Ann Street	EB	LTR	-	93’	89’	102’
	WB	LTR	-	86’	83’	95’
	NB	LTR	-	140’	92’	37’
	SB	LTR	-	111’	132’	126’
Robinson Avenue (US Route 9W) & Broadway (NYS Route 17K)	EB	LTR	-	208’	207’	254’
	WB	LTR	-	226’	228’	275’
	NB	L	100’	13’	15’	40’

		TR	-	67’	78’	193’
	SB	L	130’	52’	59’	96’
		TR	-	230’	409’	266’

Robinson Avenue (US Route 9W) & Third Street	EB	LTR	-	51’	55’	82’
	WB	LTR	-	52’	55’	81’
	NB	LTR	-	174’	223’	290’
	SB	LTR	-	216’	270’	80’
Robinson Avenue (US Route 9W) & South Street	EB	LTR	-	323’	381’	331’
	WB	LTR	-	366’	410’	348’
	NB	LTR	-	319’	705’	537’
	SB	LTR	-	355’	498’	383’
US Route 9W & Northern Site Driveway	EB	L	-	-	218’	-
		R	-	-	147’	-
	NB	L	300’	-	147’	-
		T	-	-	330’	-
	SB	T	-	-	375’	-
		R	200’	-	11’	-
Academy Avenue (NYS Route 218) & Mailler Avenue	WB	L	-	3'	3'	-
	NB	LR	-	5'	8'	-
Academy Avenue (NYS Route 218) & Main Street (CR 9)/ Faculty Road	EB	L	-	0'	0'	-
	WB	L	-	0'	0'	-
	NB	LTR	-	15'	23'	-
	SB	LTR	-	0'	0'	-
US Route 9W NB Ramp & Willow Avenue (CR 32)	WB	L	-	3'	5'	-
	NB	L	-	0'	3'	-
		R	75’	3'	3'	-
US Route 9W SB Ramp/ Harris Lane & Willow Avenue (CR 32)	EB	L	-	0'	0'	-
	WB	L	-	0'	0'	-
	NB	LTR	-	3'	3'	-
	SB	LT	-	8'	15'	-
		R	100’	5'	5'	-
US Route 9W NB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	312’
	WB	LT	-	3'	3'	384’
	NB	L	-	448'	505'	331’
		R	150’	3'	3'	17’
US Route 9W SB Ramp & Quaker Avenue (CR 107)	EB	TR	-	-	-	199’
	WB	L	50’	3'	3'	8’
		T	-			451’

	NB	L	-	123'	273'	277’
		R	160’	5'	10'	37’
US Route 9W NB Ramp & Angola Road (CR 9)	WB	LR	-	28'	30'	-
	SB	L	-	0'	0'	-

US Route 9W SB Ramp/ Timberline Drive & Angola Road (CR 9)	EB	LTR	-	0'	0'	-
	WB	LTR	-	40'	63'	-
	NB	L	-	0'	0'	-
	SB	L	-	3'	3'	-
Mailler Avenue & Willow Avenue (CR 32)	EB	L	-	3'	3'	-
	SB	LR	-	8'	10'	-
Old Route 9W & River Road	EB	LTR	-	98'	98'	-
	WB	LT	-	15'	15'	-
		R	50’	90'	90'	-
	NB	L	-	0'	0'	-
	SB	L	-	0'	0'	-
Hasbrouck Avenue & Continental Road	WB	R	-	10'	13'	-
	NB	T	-	3'	5'	-
	SB	LT	-	23'	30'	-
Main St/Angola Rd (CR 9), Broadway, Quaker Ave (CR 107) & Hasbrouck Ave/Continental Rd Roundabout	EB		-	50'	50'	-
	WB		-	50'	50'	-
	NB		-	25'	25'	-
	SB		-	0'	0'	-
	NEB		-	25'	25'	-
US Route 9W NB & SB Off-Ramps	SB	L	-	5'	13’	-
US Route 9W & Southern Site Driveway	EB	R	-	-	20’	-
Robinson Avenue (US Route 9W) & Carter Street	EB	LTR	-	5'	5'	-
	WB	LTR	-	30'	50'	-
	NB	L	-	0'	0'	-
	SB	L	-	3'	3'	-

For the intersection of US Route 9W and Forge Hill Road (CR 74) / Sloop Hill Road, there is anticipated to be a significant decrease in queues for the northbound left turn and through/right turn movements, which would reduce the instance of vehicles queued along northbound US Route 9W along the downgrade to the south of the intersection where sight distance issues are present. Additionally, a 50-foot eastbound right turn lane is proposed. This will not adequately accommodate the expected 95th percentile queue; however, the proposed

lane will improve the delay. A longer turn lane is not feasible due to limited right-of-way and impacts on residential properties.

At the intersection of NYS Route 32 and Quaker Avenue (CR 107), the 95th percentile queue exceeds the available storage length in southbound left turn lane by nearly 550-feet in the No Build conditions. With the proposed signal timing modifications, the queue will be reduced by more than 9 vehicles. While the queue will still exceed the available storage, this is an overall reduction, when compared to the No Build condition.

At the intersection of NYS Route 32, NYS Route 94 and NYS Route 300, the 95th percentile queue for the eastbound left turn lane is exceeded in the No Build condition. Under the build conditions, the queue increases by less than one vehicle; therefore, no mitigation is proposed.

For the intersection of US Route 9W and the I-84 Eastbound Ramps, the 95th percentile queue exceeds the available storage length of the for the eastbound left turn lanes, the southbound left turn lanes, and the northbound right turn lane in the No Build conditions. During the AM peak hour, the queues under the Build conditions are consistent with the No Build queues. During the PM peak hour, traffic signal timing modifications will reduce the queues to be consistent with No Build conditions, with the exception of the northbound right turn lane. The queues are expected to be better than analyzed since the right turning movement is yield-controlled.

For the intersection of US Route 9W and I-84 Westbound Ramp / North Plank Road (NYS Roue 32), the 95th percentile queue exceeds the available storage for the northbound left turn lanes under the No Build and Build conditions. However, traffic signal timing modifications during the PM peak hour will reduce the anticipated queue to No Build conditions.

At the intersection of Old Route 9W and River Road, the 95th percentile queue for the westbound right turning movement will exceed the available storage length in the No Build and Build conditions. However, there is no volume increase for this movement attributed to the proposed industrial warehousing development. Therefore, no mitigation is proposed.

The remainder of the intersections within the study have a 95th percentile queue that is consistent with No Build lengths or is contained within the available lane storage. Full results are shown in the DEIS *Traffic Impact Study for the Cornwall Logistics, LLC*, completed by Dynamic Traffic (prepared under separate cover).

e. Site Traffic on Route 9W

Table III-11 – Distribution of Site Generated Traffic

Trip Type	Direction	Roadway	Location	Distribution	
				Enter	Exit
Car	West	Union Ave (CR 69)	Town of Cornwall	10%	10%
	West	Interstate 84 EB via US Route 9W	Town of Newburgh	10%	10%
	East	Interstate 84 WB via US Route 9W	Town of Newburgh	10%	10%
	East	Academy Ave (NYS Route 218)	Cornwall-On-Hudson	10%	10%
	South	US Route 9W	Town of Cornwall	10%	10%
	South	NYS Route 32	Town of New Windsor	10%	10%
	South	Angola Rd (CR 9)	Town of Cornwall	8%	8%
	South	Main St (CR 9) via Quaker Ave (CR 107)	Town of Cornwall	5%	5%
	South	Main St (CR 9) via Academy Ave (NYS Route 218)	Town of Cornwall	5%	5%
	South	Willow Ave (CR 32) via Mailler Ave	Town of Cornwall	5%	5%
	East	Sloop Hill Rd	Town of Cornwall	5%	5%
	South	Continental Rd	Town of Cornwall	4%	4%
	South	Hasbrouck Ave	Town of Cornwall	3%	3%
	West	NYS Route 300	Town of New Windsor	2%	2%
	West	NYS Route 94	Town of New Windsor	2%	2%
	West	Old Forge Hill Rd	Town of New Windsor	1%	1%
Truck	North	Interstate 84 EB via US Route 9W	Town of Newburgh	25%	25%
	North	Interstate 84 WB via US Route 9W	Town of Newburgh	25%	25%
	South	NYS Route 32	Town of Cornwall	25%	25%
	West	NYS Route 300	Town of New Windsor	20%	20%
	South	Angola Rd (CR 9)	Town of Cornwall	5%	5%

f. Employee Traffic Impact

Employee trips will utilize the major routes within the region including I-84, US Route 9W and NYS Route 32. The full employee trip distribution is shown in the previous table. While no employee shift time have been established, typical warehouse shifts are scheduled as follows:

- First shift – 9:00 am to 5:00 pm
- Second shift – 3:00 pm to 11:00 pm

- Third shift – 11:00 pm to 7:00 am

g. Parking and Loading Compliance

The Town of Cornwall Ordinance sets forth a parking requirement of the greater of 1 parking space per 2 employees on the maximum shift or 1 parking space per 1000 SF for warehouse uses. This equates to a parking requirement of 1,727 spaces for the proposed 1,726,106 SF warehouse facility. The site as proposed provides 689 parking spaces. It should be noted that ITE identifies a peak parking demand of 0.39 spaces per 1000 SF for warehouse uses. This equates to a total demand for the site of 673 spaces, which is exceeded as designed. It is also proposed to provide 378 loading spaces and 244 trailer storage spaces, both of which are anticipated to be sufficient to meet the demands of the site.

It is proposed to provide parking stalls with dimensions of 10'x20', which exceed the Ordinance minimum requirement of 9'x18'.

h. Construction Traffic Volume, Routing, Phasing, and Traffic Control

Traffic volumes and operational analyses were developed for traffic conditions during construction activities of the site. The number of vehicles entering and existing the construction site would vary each day depending on the stage and intensity of construction activity. The number of vehicles entering and existing the construction site would vary each day depending on the stage and intensity of construction activity. Based on coordination with the application team, the construction of The Project is expected to utilize 250-300 workers on site over the entire duration of the construction with approximately 90 workers on site each day. Approximately 150 workers are expected on site during the peak activity times.

The applicant indicates that no more than 50 trucks would access the construction site on a daily basis. This would represent less than 10% of the number of trucks anticipated to access the site during Build conditions under LUC 150.

As no ITE data is available for trip generation projections of a construction site, data for LUC 710 – General Office Building was utilized. Specifically, trip generation projections were estimated utilizing the number of employees. It was also conservatively estimated that 20% of the daily construction truck traffic would anticipate the site

during the weekday morning and evening peak hours. Table III-12 details the trip generation during peak construction activities.

Table III-12 – Construction Trip Generation

Trip Type	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
Total	**118**	**25**	**143**	**27**	**92**	**119**
Trucks	10	10	20	10	10	20
Cars	108	15	123	17	82	99

Construction vehicles will access the site via the northern driveway location. The full movement access provides the most options for construction personnel, as vehicles can make left turns into and out of the site. Construction of the full movement driveway, including the installation of the traffic signal, will take place during the initial stages. As site work progresses, the southern access may be used for construction vehicles; however, the access will be restricted to right turns, only. For the purposes of this analysis, it is assumed that the proposed traffic signal at the northern site driveway will be active and operational.

Traffic conditions during peak construction activities are anticipated to be generally consistent with No Build conditions. It should be noted that the analysis conducted represents a "worst-case" scenario for construction traffic. Construction activities will vary within each stage and can be impacted by several factors such as weather, availability of materials, etc. The complete analysis of the impact of the construction vehicles is contained within the *DEIS Traffic Impact Study for the Cornwall Logistics, LLC*, completed by Dynamic Traffic (prepared under separate cover).

As coordinated with NYSDOT, OCDPW, and the town of Cornwall, off-site improvements, such as widening at intersections, and utility relocations may begin, as any point during the on-site construction. No off-site improvements are needed for construction vehicle traffic. Final construction vehicle routes will be determined by the prime contractor; however, preliminary routes will include the use of US Route 9W, I-84, I-87, Broadway (NYS Route 17K), NYS Route 32 and Quaker Avenue (CR 107).

Traffic control for any anticipated shoulder and lane closures will be coordinated during the NYSDOT Highway Work Application process and the Orange County Department of Public Works (OCDPW), particularly for the proposed improvements at US Route 9W ramps and Quaker Avenue (CR 107).

i. Truck Turning and Vehicle Circulation

Truck turning templates for the following intersections are included in this submission (see Truck Turning Plan Drawings, prepared by Dynamic Traffic, LLC, prepared under separate cover):

- US Route 9W and Northern Site Driveway (See Preliminary and Final Major Site Plan)
- US Route 9W and Southern Site Driveway (See Preliminary and Final Major Site Plan)
- Quaker Avenue (CR 107) and US Route 9W Ramps (See Truck Turning Plan)
- NYS Route 32 and Quaker Avenue (CR 107) (See Truck Turning Plan)
- US Route 9W and I-84 Ramps (See Truck Turning Plan)
- Angola Road (CR 9) and US Route 9W Ramps[5] (See Truck Turning Plan)
- US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road (See Truck Turning Plan)
- NYS Route 32, NYS Route 94, and NYS Route 300 (See Truck Turning Plan)
- NYS Route 94 and Forge Hill Road (CR 97) (See Truck Turning Plan)

Each exhibit clearly depicts preliminary requirements for widening, impacts to utilities, impacts to the guiderail, and encroachments outside of the right-of-way. Survey and deed research will be needed to finalize the impacts of the proposed changes. The following preliminary improvements have been identified:

- The Quaker Avenue (CR 107) northbound on-ramp and the southbound off-ramp will require shoulder improvements with guiderail replacement;
- The concrete median at northbound US Route 9W and the I-84 eastbound on-ramp shall be reconstructed;
- Angola Road (CR 9) and the US Route 9W northbound ramp will require widening along the right turn radius and the US Route 9W southbound off ramp toward Angola Road (CR 9) will require widening and guiderail improvements.

[5] Improvements at this intersection will be coordinated and approved by NYSDOT and OCDPW.

j. Traffic Signal Warrant Analysis

This Traffic Signal Warrant Analysis has been prepared for various intersections along US Route 9W. The intersections are located in the Town of Cornwall, Orange County, New York. US Route 9W currently exists and will serve as the major road (north/south orientation). The intersections analyzed are as follows:

- US Route 9W & Northern Site Driveway
- Quaker Avenue (CR 107) & US Route 9W Northbound Ramps
- Quaker Avenue (CR 107) & US Route 9W Southbound Ramps
- Angola Road (CR 9) & US Route 9W Northbound Ramps
- Angola Road (CR 9) & US Route 9W Southbound Ramps

A traffic signal is warranted at the Northern Site Driveway, as well as the both Quaker Avenue (CR 107) intersections with the US Route 9W Ramps. The full analysis for each intersection is included in Appendix D of the DEIS *Traffic Impact Study for Cornwall Logistics, LLC*, prepared by Dynamic Traffic (prepared under separate cover).

k. Emergency Access

Both site driveways are designed so emergency vehicles, including fire trucks, can access the site quickly and efficiently. The wide aisles designed to accommodate tractor-trailer combinations will also be sufficient to accommodate fire truck turning. The site plan has been prepared to comply with the requirements outlined within the Canterbury Fire District review letter, dated May 2, 2022 and the revised site plan is currently under review by the Fire District Chief.

An E.S.O. compliance letter, dated October 19, 2023, was received from the Chief of Police of the Town of Cornwall Police Department, indicating the Police Department had no objections to the project. The E.S.O. compliance letter can be found in Appendix F of the DEIS *Traffic Impact Study for Cornwall Logistics, LLC*, prepared by Dynamic Traffic (prepared under separate cover).

l. Capacity Analysis and Ramp Movements

Merge and Diverge Sections

Table III-13 – Future Levels of Science and Volume-to-Capacity Ratios – AM Peak Street Hour

Intersection	Direction/ Movement		No Build		Build	
			LOS	v/c	LOS	v/c
US Route 9W NB & Academy Ave Merge	NB	R	b (10.8) *	0.22	b (11.6) *	0.25
US Route 9W SB & Academy Ave Merge	SB	R	b (10.9) *	0.21	b (12.0) *	0.24
US Route 9W NB & Academy Ave Diverge	NB	R	a (6.6) *	0.14	a (7.5) *	0.17
US Route 9W SB & Academy Ave Diverge	SB	R	a (7.5) *	0.20	a (8.1) *	0.21

a (#) * – Merge/Diverge Level of Service (density in passenger cars per mile per lane)

Table III-14 – Future Levels of Science and Volume-to-Capacity Ratios – PM Peak Street Hour

Intersection	Direction/ Movement		No Build		Build	
			LOS	v/c	LOS	v/c
US Route 9W NB & Academy Ave Merge	NB	R	b (15.4) *	0.36	b (15.7) *	0.37
US Route 9W SB & Academy Ave Merge	SB	R	b (11.2) *	0.21	b (12.0) *	0.24
US Route 9W NB & Academy Ave Diverge	NB	R	b (11.6) *	0.28	b (12.0) *	0.29
US Route 9W SB & Academy Ave Diverge	SB	R	a (7.4) *	0.21	a (8.0) *	0.24

The Academy Avenue Ramps will not experience truck traffic related to the proposed industrial development. Car trips are expected to utilize the southbound US Route 9W ramps for Academy Avenue (NYS Route 218). The daily volume for the southbound on ramp will be 532 entering trips and 532 exiting trips. While large wheel-based vehicles are likely not utilizing the ramps, single-unit trucks and delivery vehicles may be traveling on them. A turning template for an SU-30 has been added to the Truck Turning Plans, prepared by Dynamic Traffic (under separate cover).

m. Alternate Signalized Intersection Plan

As requested, the need for traffic signal at the southern site access was investigated. The traffic volumes were computed such that all traffic arriving from the south via US Route 9W, would utilize the southern site driveway. The northern driveway would be restricted in right turns only. Based on this distribution of site trips, a traffic signal would be warranted. However, a traffic signal is only required for one of the two site driveways.

The final location for the proposed traffic signal must be reviewed with NYSDOT and the town of Cornwall. In our initial review of the site development, the northern site driveway is a more favorable location for the

proposed traffic signal. Approximately 75% of the car traffic and 80% of the truck traffic is anticipated to utilize the signalized northern driveway it to access the site. With the increased volumes at the signal, left and right turn lanes are warranted along US Route 9W. There is sufficient right-of-way along US Route 9W to accommodate the roadway widening for the required turn lanes. Furthermore, the northern site access abuts the NYMA property. While still undeveloped, this study contemplates the property to be developed into a combination of lodging and office uses. Installing the traffic signal closer to the NYMA property gives the future development the maximum flexibility for access.

The signal warrant analysis can be found in Appendix D of the DEIS *Traffic Impact Study for Cornwall Logistics, LLC*, prepared by Dynamic Traffic (prepared under separate cover).

n. Potential Impacts of Facility Automation

As technology advances, automation is anticipated to become more prevalent in warehouse operations. It is assumed that an increase in automation would result in a reduction in employees, which may result in a reduction of trips generated by the site over time.

o. Significant Impacts to Truck Circulation

Through coordination with the town of Cornwall, the truck routes to and from the site have been established. The majority of the trucks (50%) will access the site from I-84 and I-87 via US Route 9W. The remainder of the trucks will utilize other New York state highways to access the site including NYS Route 32, NYS Route 94, and NYS Route 300, which are qualifying highways, as well as a few county routes including Angola Road (CR 9), Forge Hill Road (CR 74) and Quaker Avenue (CR 107), which are not qualifying routes.

There is a steep downgrade north of the proposed northern site driveway location on US Route 9W with a posted Hill & Use Low Gear sign assembly (W7-1 & W7-2P). However, traffic volume counts confirmed that trucks routinely navigate this segment of highway. Just south of Quaker Avenue (CR 107), there is a truck pull off area on the southbound side of NYS Route 32. No other truck restrictions exist along these routes.

A horizontal curve along Forge Hill Road (CR 74) just west of US Route 9W, near Staples Lane, restricts the ability of a WB-67 to navigate this roadway as a reasonable speed. Because of the narrowed lanes and significant curve, Forge Hill Road (CR 74) should be restricted to trucks larger than a WB-40.

p. Potential Impacts to Adjacent NYMA Property

Traffic volume projections were generated for the future development of the New York Military Academy (NYMA) property adjacent to the site. The latest proposed development for the property was for a 150-room hotel and a medical office/clinic building. The medical building was assumed to have 20,000 SF of medical office space and 20,000 SF of clinic space as these are approximately the average size of the buildings identified by ITE. Projections of the associated traffic volumes were developed using Institute of Transportation Engineers (ITE) publication *Trip Generation, 11th Edition* for Land Use Code (LUC) 310 - Hotel, LUC 630 – Clinic, and LUC 720 – Medical-Dental Office Building. These projected traffic volumes are included in both the No Build and Build conditions for the traffic analysis.

4. Proposed Mitigation Measures

a. Traffic Access Improvements

The Northern Site Driveway is proposed to intersect US Route 9W to form a T-intersection controlled by a traffic signal. The signal is proposed to utilize a three-phase 80-second background cycle.

The northbound approach of US Route 9W is proposed to provide a dedicated left turn and two through lanes, while the southbound approach is proposed to provide two through lanes and a dedicated right turn lane. The eastbound approach of the site driveway is proposed to provide a dedicated left turn lane and a dedicated right turn lane with shared cross access to the adjacent NYMA property.

As designed, the site driveway is anticipated to operate at overall level of service “C” and the individual intersection movements are anticipated to operate at levels of service “D” or better during the analyzed peak hours.

To accommodate the signalized access at the northern site driveway, the northbound left lane merge will begin approximately 775-feet north of the proposed driveway location. A conceptual improvement plan is included in this submission.

The Southern Site Driveway is proposed to intersect US Route 9W to form a T-intersection with the eastbound approach of the site driveway operating under stop control. The northbound approach of US Route 9W is proposed to provide two dedicated through lanes, while the southbound approach is proposed to provide a dedicated through lane and a shared through/right turn lane. The eastbound approach of the site driveway is proposed to provide a dedicated right turn lane.

As designed, the site driveway is anticipated to operate at level of service "B" during the analyzed peak hours. Refer to the DEIS *Traffic Impact Study for Cornwall Logistics*, *LLC* prepared by Dynamic Traffic, last revised July 2023 (prepared under separate cover). Additionally, refer to the Driveway Concept "A" prepared by Dynamic Traffic (included in the Truck Turning Plan Drawings prepared under separate cover).

b. Roadway and Intersection Modifications

With the addition of the site generated traffic, the intersection of US Route 9W and Forge Hill Road (CR 74) / Sloop Hill Road is anticipated to operate at overall levels of service "F" or better during the analyzed peak hours and the individual intersection movements are anticipated to operate at levels of service "E" or better during the analyzed peak hours, with the exception of the northbound left turn and through/right turn movements, which are anticipated to operate at level of service "F" during the weekday evening peak hour.

In order to mitigate the added delay, it is proposed to restripe the northbound and southbound approaches of US Route 9W such that the northbound approach would provide a dedicated left turn lane, a dedicated through lane, and a shared through/right turn lane while the southbound approach would provide a shared left turn/through lane and a dedicated right turn lane. Two northbound through lanes will be carried across the Moodna Creek Bridge while a lane drop will be installed in the southbound direction prior to the Moodna Creek Bridge. Additionally, it proposed to expand the northwestern and southwestern corners of the intersection to facilitate truck movements in and out of Forge Hill Road (CR 74). As part of the widening on the southwestern corner of the intersection, it is proposed to construct a dedicated eastbound right turn lane. To further mitigate

the added delay during the weekday evening peak hour, it is proposed to reallocate five seconds from the southbound ROW phase (Phase 6) to the northbound lead left phase (Phase 5).

With the proposed roadway improvements and signal timing modifications, it is anticipated that the intersection will operate at overall No-Build level of service "C" during weekday morning peak hour and overall level of service "D" during the weekday evening peak hour, which is an improvement from No-Build conditions. Additionally, the individual intersection movements will operate at levels of service "E" or better during the analyzed peak hours, with the exception of the northbound left turn movement, which will continue to operate at level of service "F" but with improved delay and lower volume-to-capacity ratio when compared to No-Build conditions. With the addition of the site generated traffic, the intersection is anticipated to operate at overall levels of service "D" or better and the individual intersection movements are anticipated to operate at levels of service "E" or better during the analyzed peak hours.

A traffic signal is recommended for the intersections of Quaker Avenue (CR 107) with the US Route 9W Ramps. Both intersections met the criterial set forth by the *Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition (MUTCD)* published by the Federal Highway Administration (FHWA). Both traffic signals shall operate on a two-phase 90-second cycle. The northbound approaches of the US Route 9W Ramps will have a dedicated left turn lane and a channelized right turn lane, consistent with current conditions.

The following intersections will require traffic signal timing adjustments:

- US Route 9W and Laurel Avenue
- NYS Route 32 and Quaker Avenue (CR 107)
- US Route 9W and I-84 Eastbound Ramps
- US Route 9W and I-84 Westbound Ramps / North Plank Road (NYS Route 32)
- US Route 9W and Plank Road
- US Route 9W (Robinson Avenue) and South Williams Street
- US Route 9W (Robinson Avenue) and Washington Street
- US Route 9W (Robinson Avenue) and Ann Street
- US Route 9W (Robinson Avenue) and Broadway (NYS Route 17K)
- US Route 9W (Robinson Avenue) and Third Street

- US Route 9W (Robinson Avenue) and South Street

Full details of the traffic signal modifications are detailed in DEIS *Traffic Impact Study for Cornwall Logistics, LLC* prepared by Dynamic Traffic (prepared under separate cover).

c. Summary of Mitigation Measures

In summary, the following mitigation measures are proposed:

- Install a traffic signal at the proposed northern site access with US Route 9W
- Install a northbound left turn lane for the proposed northern site access
- Install a southbound right turn lane for the proposed northern site access
- Install a northbound left turn lane on US Route 9W at Forge Hill Road (CR 74) / Sloop Hill Road
- Install an eastbound right turn lane on Forge Hill Road (CR 74) at US Route 9W
- Install a southbound left turn lane on US Route 9W at Forge Hill Road (CR 74) / Sloop Hill Road
- Restripe US Route 9W between the Moodna Creek Bridge and Forge Hill Road (CR 74) / Sloop Hill Road to provide two northbound lanes and one southbound lane
- Install traffic signals at Quaker Avenue (CR 107) and the US Route 9W Ramps
- Revise traffic signal timings at the following intersections:
    - US Route 9W and Laurel Avenue
    - NYS Route 32 and Quaker Avenue (CR 107)
    - US Route 9W and I-84 Eastbound Ramps
    - US Route 9W and I-84 Westbound Ramps / North Plank Road (NYS Route 32)
    - US Route 9W and Plank Road
    - US Route 9W (Robinson Avenue) and South Williams Street
    - US Route 9W (Robinson Avenue) and Washington Street
    - US Route 9W (Robinson Avenue) and Ann Street
    - US Route 9W (Robinson Avenue) and Broadway (NYS Route 17K)
    - US Route 9W (Robinson Avenue) and Third Street
    - US Route 9W (Robinson Avenue) and South Street

It will be the responsibility of the Applicant to complete the proposed mitigation measures in coordination with the Town of Cornwall, the Town of Newburgh, Orange County, and NYSDOT.

d. Construction Traffic Plan

The applicant will coordinate any traffic control plans with NYSDOT, the Town of Cornwall, and Orange County, as needed. Construction vehicles are able to access the site via US Route 9W. As part of the NYSDOT Highway Work Application process, a temporary traffic control plan is to be submitted for the site driveway construction and off-site improvements.

e. Potential Future Expansion of Public Transportation

There are not any noted future projects to expand public transportation within the vicinity of the site at this time.

f. Food Service Options

Midday lunch time trips were evaluated to determine if there are significant impacts to the surrounding roadway network. Using the daily distribution rates for LUC 150 Warehousing and the daily trip generation volumes for the proposed industrial development, the midday peak was found to occur from 12:00 pm to 1:00 pm. This includes truck traffic that would be related to the daily operations of an industrial development. When compared to the peak hour traffic for the site, the midday peak was found to only be 83% of the overall peak hour. Traffic volumes on the adjacent roadway network are notably less during the midday peak when compared with the weekday morning and evening peaks. Further, mitigation measures proposed throughout the study network would be anticipated to counteract any traffic impacts that occur during the midday period. The full analysis is contained in the DEIS *Traffic Impact Study for the Cornwall Logistics, LLC*, completed by Dynamic Traffic (prepared under separate cover).

g. Existing Public Transit Services for Employees

CoachUSA provides bus service in the nearby area via the Shortline Hudson line. The nearest CoachUSA bus stop is located approximately one mile north of the site along US Route 9W. Transit Orange also provides bus service in the nearby area via the Newburgh Crosstown North line. The nearest Transit Orange bus stop is located at Cornwall Hospital approximately 1.4 miles south of the site along US Route 9W.

NJ Transit provides train service in the nearby area. Train service is provided via the Port Jervis Line, which runs from Port Jervis to Hoboken with transfers to New York City and Trenton at Secaucus Junction. The nearest train station is located approximately 5.3 miles from the site at the Salisbury Mills/Cornwall Station.

h. NYSDOT Mitigation Measures

Final improvements and mitigation measures required by NYSDOT will be determined during the Highway Work Application process. Based on the DEIS Traffic Impact Study, prepared by Dynamic Traffic (submitted under a separate cover), the roadway improvements that require coordination and approval will be:

- Widening and modifications to the grass median along US Route 9W for proposed turn lanes which includes, changes to the guiderail at US Route 9W and the northern site access, as well as installation of the signal equipment.
- The proposed right turn lane and shoulder improvements, modifications to the traffic signal and changes to the lane configuration at US Route 9W and Forge Hill Road (CR 74) / Sloop Hill Road.
- The revised lane configuration between US Route 9W between Forge Hill Road (CR 74) / Sloop Hill Road and Moodna Creek Bridge
- The installation of two traffic signals along Quaker Avenue (CR 107) for the northbound and southbound ramps for US Route 9W
- Widening and shoulder improvements along the Quaker Avenue (CR 107) ramps from US Route 9W
- Reconstruct the existing concrete island at the channelized northbound right turn from US Route 9W on the I-84 eastbound ramp
- Widening and shoulder improvements along the Angola Road (CR 9) ramps from US Route 9W
- Moving the stop bars for the northbound and westbound approaches at the intersection of NYS Route 94 and Forge Hill Road (CR 74)

C. Flora and Fauna

This section describes the existing flora and fauna within the Study Area on the basis of existing information and the results of reconnaissance field surveys: vegetation and ecological communities, wildlife, threatened, endangered, and special concern species, and significant natural communities and animal assemblages (see

Figure III-4 for study area boundaries). A total of nineteen sample points were situated along five transects mapped throughout the Study Area as depicted on Figure III-5.

Figure III-4 – Study Area Boundaries

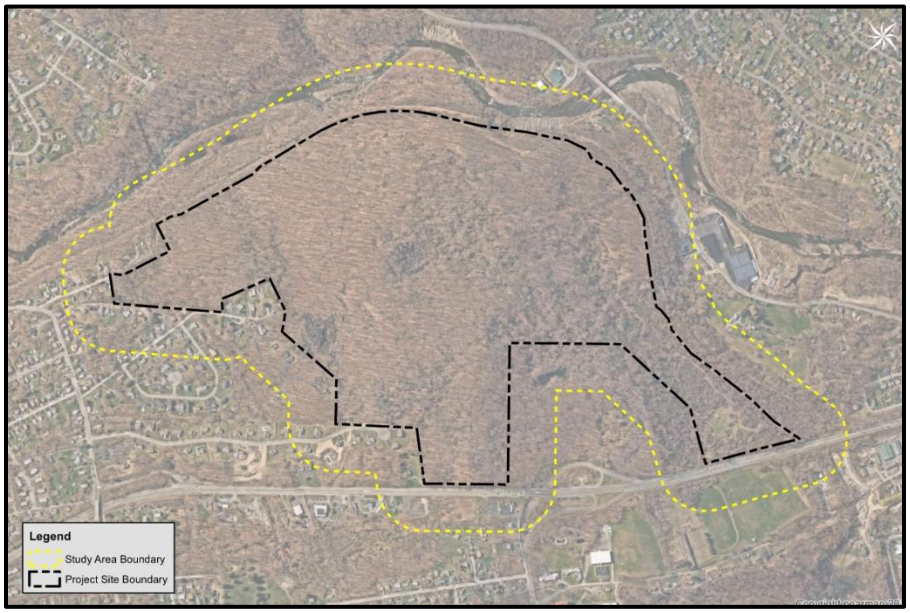
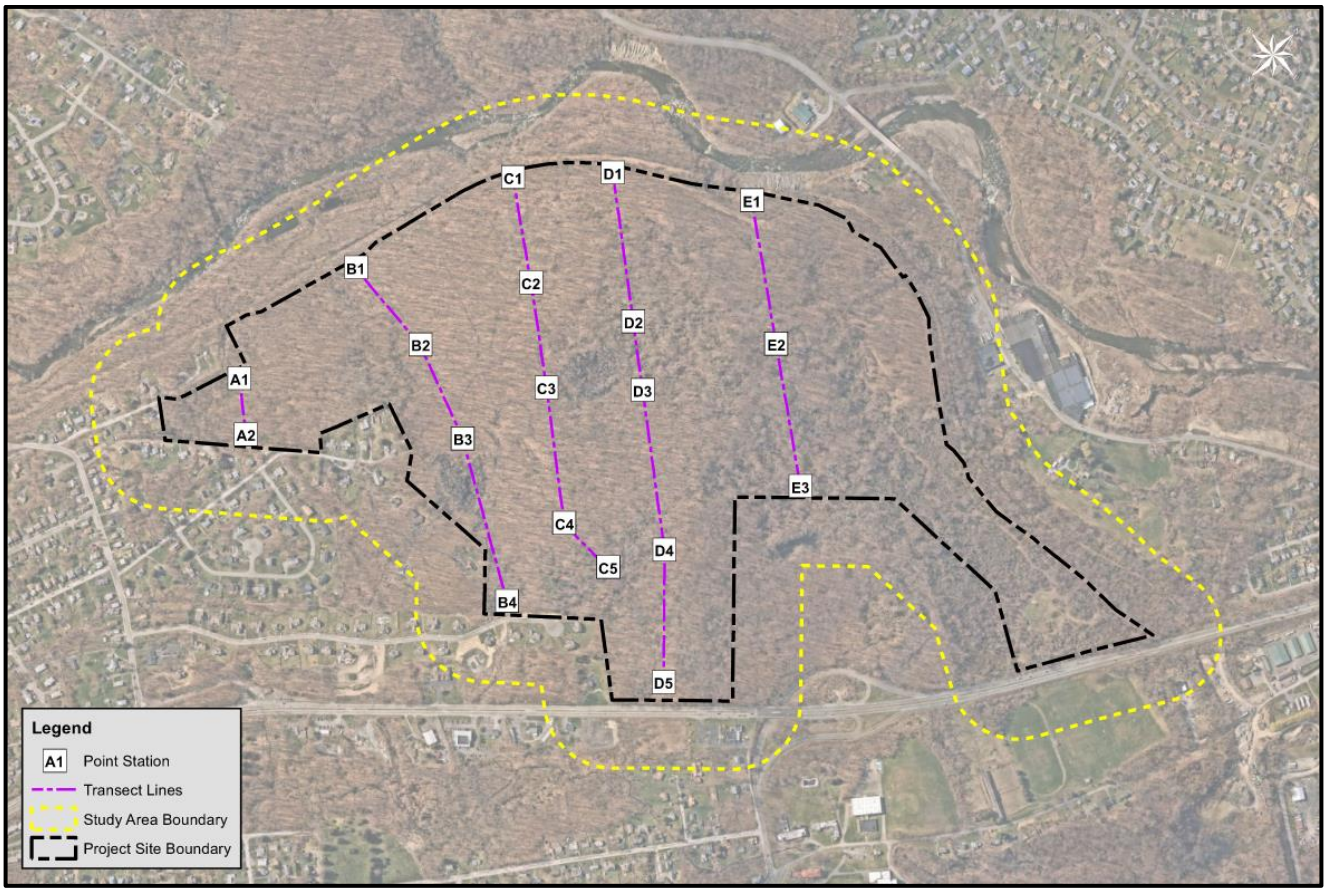


Figure III-5 – Transect Map



1. Existing Conditions

a. Biological Assessment

Vegetation and Ecological Communities

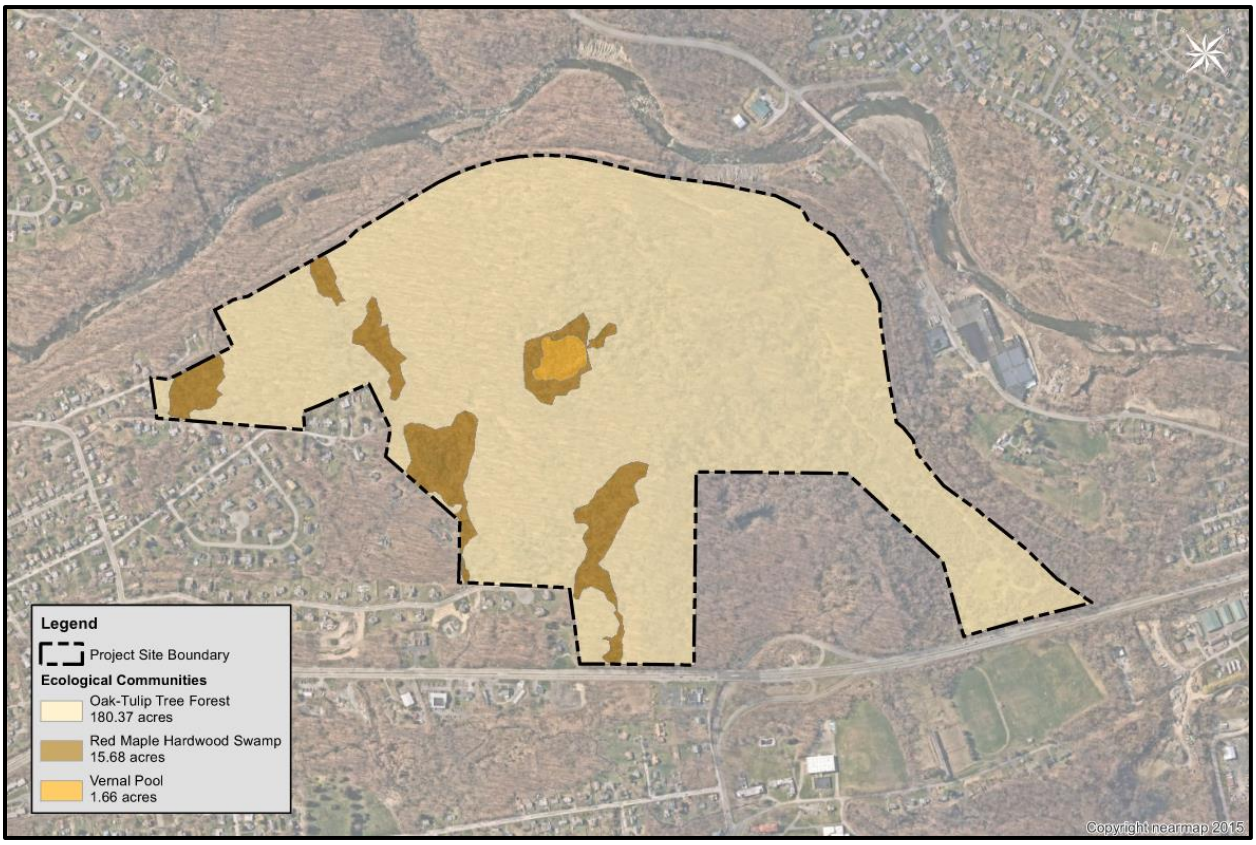
Ecological communities are characterized according to their vegetation, potential for wildlife habitat, current use, and, as appropriate, the environmental systems that support it. Ecological communities, of varying size and characteristics were identified based on the Natural Resource inventory (NRI) surveys; wetland delineations (Appendix Item J), classification system outlined in the *Ecological Communities of New York State* (Edinger *et al.* 2014);[6] and the investigating team's experience and familiarity with the site.[7] A total of three (3) terrestrial and palustrine ecological communities were identified on the Study Area based on the *Ecological Communities of*

6 Edinger et al. 2014

7 NRI Field Surveys March 2022 to present; Other site visits March 26, October 9, 2019, and August 12, 2021.

New York State and the various vegetative cover types found throughout the Study Area.[8] Utilizing the NRI and tree species density data collected at the Project Site, a detailed ecological communities map was generated (Figure III-6).

Figure III-6 – Ecological Communities



The terrestrial community identified on-site includes oak-tulip tree forest. The palustrine communities identified on-site include red maple hardwood swamp and vernal pool. The characterizations were based on the *Ecological Communities of New York State* (Edinger et al. 2014). Hydrology, hydric soil characteristics, vegetation and landscape position were the determinant factors in establishing upland and wetland community types. Provided below is a description of each of the ecological communities, their location, and an inventory of the vegetative species observed within each of these community types during site surveys.

8 Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, NYSDEC, Albany, NY.

Oak-Tulip Tree Forest

The oak-tulip tree forest community is found throughout the Study Area. This community is characterized as a mesophytic hardwood forest that occurs on moist, well-drained sites. This community is fairly undisturbed, except for the periphery associated with Route 9W to the east, and residential development to the south. As depicted in Figure III-6**,** Ecological Communities, approximately 180.37 acres (91.2 percent) of the Project Site is classified as the oak-tulip tree forest community.

Species noted included, but were not limited to, American beech (*Fagus grandifolia*), American sycamore (*Platanus occidentalis*), black oak (*Quercus velutina*), eastern white pine (*Pinus strobus*), pignut hickory (*Carya glabra*), red maple (*Acer rubrum*), red oak (*Quercus rubra*), red pine (*Pinus resinosa*), shagbark hickory (*Carya ovata*), sugar maple (*Acer saccharum*), tulip poplar (*Liriodendron tulipifera*), white oak (*Quercus alba*), with an understory composed of American witch-hazel (*Hamamelis virginiana*), highbush blueberry (*Vaccinium corymbosum*), Japanese barberry (*Berberis thunbergii*), lowbush blueberry (*Vaccinium angustifolium*), northern spicebush (*Lindera benzoin*), mapleleaf viburnum (*Viburnum acerifolium*), Christmas fern (*Polystichum acrostichoides*), Japanese stiltgrass (*Microstegium vimineum*), multiflora rosa (*Rosa multiflora*), New York fern (*Thelypteris noveboracensis*), spotted wintergreen (*Chimaphila maculata*), and wineberry (*Rubus phoenicolasius*).

Red Maple-Hardwood Swamp

The red maple-hardwood swamp community is found in the wetland areas located in the central, eastern, and southern portions of the Study Area. This community is characterized as a hardwood swamp that occurs in poorly drained depressions or basins, usually on inorganic soil, but occasionally on muck or shallow peat, that is typically acidic to circumneutral. As depicted in Figure III-6**,** Ecological Communities, approximately 15.68 acres (7.9 percent) of the Project Site is classified as the red maple-hardwood swamp.

Species noted included, but were not limited to, American elm (*Ulmus americana*), black tupelo (*Nyssa sylvatica*), red maple (*Acer rubrum*), red oak (*Quercus rubra*), sugar maple (*Acer saccharum*), swamp white oak (*Quercus bicolor*), white oak (*Quercus alba*), with an understory composed of blackhaw (*Viburnum prunifolium*), flowering dogwood (*Cornus florida*), highbush blueberry (*Vaccinium corymbosum*), northern Spicebush (*Lindera benzoin*),

American jumpseed (*Persicaria virginiana*), Japanese stiltgrass (*Microstegium vimineum*), mulitflora rose (*Rosa multiflora*), sensitive fern (*Onoclea sensibilis*), and tussock sedge (*Carex stricta*).

Vernal Pool

The vernal pool community is found within the central portion of the isolated wetland located within the central portion of the Study Area. This community is characterized as an aquatic community of small, shallow depressions that are intermittently to ephemerally flooded that occur within an upland forest, but may be surrounded by a narrow fringe of red maple-hardwood swamp that quickly transitions to upland forest. As depicted in Figure III-6, Ecological Communities, approximately 1.66 acres (0.8 percent) of the Project Site is classified as a vernal pool.

Species noted included, but were not limited to, American elm (*Ulmus americana*), black tupelo (*Nyssa sylvatica*), pin oak (*Quercus palustris*), red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), swamp white oak (*Quercus bicolor*) with an understory composed of flowering dogwood (*Cornus florida*), Arrowwood viburnum (Viburnum dentatum), northern Spicebush (*Lindera benzoin*), Japanese barberry (*Berberis thunbergii*), American jumpseed (*Persicaria virginiana*), false nettle (*Boehmeria cylindric*a), fowl mannagrass (*Glyceria striata*), Japanese stiltgrass (*Microstegium vimineum*), multiflora rosa (*Rosa multiflora*), sensitive fern (*Onoclea sensibilis*), soft rush (*Juncus effusus),* spotted touch-me-not (*Impatiens capensis*), and tussock sedge (*Carex stricta*).

Table III-15 lists the observed species of vegetation identified within the wetland and terrestrial ecological communities during the natural resource inventory.

Table III-15 – Observed Vegetation Species

Common name (*Scientific name*)

Trees	
American beech (*Fagus grandifolia*)	Pignut hickory (*Carya glabra*)
American elm (*Ulmus americana*)	Pin oak (*Quercus palustris*)
American sycamore (*Platanus occidentalis*)	Red maple (*Acer rubrum)*
Basswood (*Tilia americana*)	Red oak (*Quercus rubra*)
Black cherry (*Prunus serotina*)	Red pine (*Pinus resinosa*)
Black locust (*Robinia pseudoacacia*)	Sassafrass (*Sassafras albidum*)
Black oak (*Quercus velutina*)	Shagbark hickory (*Carya ovata*)
Black tupelo (*Nyssa sylvatica*)	Silver maple (*Acer saccharinum*)

Black walnut (*Juglans nigra*)	Staghorn sumac (*Rhus typhina*)
Crabapple (*Malus* spp.)	Sugar maple (*Acer saccharum*)
Eastern cottonwood (*Populus deltoides*)	Swamp white oak (*Quercus bicolor*)
Eastern white pine (*Pinus strobus*)	Sweet birch (*Betula lenta)*
Green ash (*Fraxinus pennsylvanica*)	Tree of heaven (*Ailanthus altissima*)
Ironwood (*Carpinus caroliniana*)	Tulip poplar (*Liriodendron tulipifera*)
Northern catalpa (*Catalpa speciosa*)	White ash (*Fraxinus americana*)
Norway maple (*Acer platanoides*)	White Oak (*Quercus alba*)
Shrubs/Saplings	
American beech (*Fagus grandifolia*)	Japanese angelica tree (*Aralia elata*)
American elm (*Ulmus americana*)	Japanese barberry (*Berberis thunbergii*)
American witch-hazel (*Hamamelis virginiana*)	Lowbush blueberry (*Vaccinium angustifolium*)
Amur honeysuckle (*Lonicera maackii*)	Northern Spicebush (*Lindera benzoin*)
Ash (*Fraxinus* spp.)	Red maple (*Acer rubrum)*
Black cherry (*Prunus serotina*)	Sassafrass (*Sassafras albidum*)
Black tupelo (*Nyssa sylvatica*)	Shagbark hickory (*Carya ovata*)
Blackhaw (*Viburnum prunifolium*)	Smooth arrowwood (*Viburnum dentatum* var. *lucidum*)
Border privet (*Ligustrum obtusifolium*)	Sugar maple (*Acer saccharum*)
Common buckthorn (*Rhamnus cathartica*)	Sweet birch (*Betula lenta)*
Flowering dogwood (*Cornus florida*)	Tulip poplar (*Liriodendron tulipifera*)
Gray dogwood (*Cornus racemosa*)	White Oak (*Quercus alba*)
Highbush blueberry (*Vaccinium corymbosum*)	Winged euonymus (*Euonymus alatus*)
Ironwood (*Carpinus caroliniana*)	Winterberry (*Ilex verticillata*)
Herbaceous	
American hogpeanut (*Amphicarpaea bracteata*)	Onion grass (*Allium vineale*)
American jumpseed (*Persicaria virginiana*)	Orchard grass (*Dactylis glomerata*)
American Wintergreen (*Gaultheria procumbens*)	Partridge berry (*Mitchella repens*)
Bird's-foot trefoil (*Lotus corniculatus*)	Pennsylvania smartweed (*Polygonum pensylvanicum*)
Bramble (*Rubus* spp.)	Pointed broom sedge (*Carex scoparia*)
Bristlegrass (*Setaria spp.)*	Poison Ivy (*Toxicodendron radicans*)
Canadian clearweed (*Pilea pumila*)	Queen Anne's lace (*Daucus carota*)
Christmas fern (*Polystichum acrostichoides*)	Ragweed (*Ambrosia* spp.)
Common bedstraw (*Galium aparine*)	Royal fern (*Osmunda regalis*)
Common dandelion (*Taraxacum officinale*)	Rue-anemone (*Thalictrum thalictroides*)
Common greenbrier (*Smilax rotundifolia*)	Sensitive fern (*Onoclea sensibilis*)
Common milkweed (*Asclepias syriaca*)	Soft rush (*Juncus effusus*)
Daisy fleabane (*Erigeron annuus*)	Sphagnum moss (*Sphagnum* spp.)
Deer-tongue grass (*Dichanthelium clandestinum*)	Spotted knapweed (*Centaurea stoebe*)

Dutchman's breeches (*Dicentra cucullaria*)	Spotted touch-me-not (*Impatiens capensis*)
False nettle (*Boehmeria cylindrica*)	Spotted wintergreen (*Chimaphila maculata*)
Flat-top goldenrod (*Euthamia graminifolia*)	Spring beauty (*Claytonia virginica*)
Fowl mannagrass (*Glyceria striata*)	Stick seed (*Hackelia virginiana*)
Garlic mustard (*Alliaria petiolata*)	Trout lily (*Erythronium americanum*)
Goldenrod (*Solidago* spp.)	Tussock sedge (*Carex stricta*)
Haircap moss (*Polytrichum commune*)	Upland grasses (*Poa* spp.)
Hay scented fern (*Dennstaedtia punctilobula*)	Violet (*Viola* spp.)
Japanese knotweed (*Reynoutria japonica*)	Virginia creeper (*Parthenocissus quinquefolia*)
Japanese stiltgrass (*Microstegium vimineum*)	White clover (*Trifolium repens*)
Kentucky blue grass (*Poa pratensis*)	White snakeroot (*Ageratina altissima*)
Lowbush blueberry (*Vaccinium angustifolium*)	White wood aster (*Eurybia divaricata*)
Mapleleaf viburnum (*Viburnum acerifolium*)	Wild geranium (*Geranium maculatum*)
Mint (*Mentha* spp.)	Wineberry (*Rubus phoenicolasius*)
Mugwort (*Artemisia vulgaris*)	Wood fern (*Dryopteris* spp.)
Multiflora rosa (*Rosa multiflora*)	Wood sorrel (*Oxalis* spp.)
Narrow leaf bittercress (*Cardamine impatiens*)	Woolgrass (*Scirpus cyperinus*)
New York fern (*Thelypteris noveboracensis*)	
Vines	
Japanese honeysuckle (*Lonicera japonica*)	Raspberry (*Rubus idaeus*)
Oriental bittersweet (*Celastrus orbiculatus*)	Summer grape (*Vitis aestivalis*)
Fungi	
Amber jelly fungus (*Exidia recisa*)	

Wildlife

Prior to initiating field efforts, a literature search was performed to identify wildlife species common to the area that might be expected to utilize the Project Site.[9,10,11] NYS Natural Heritage Program (NHP) and the U.S. Fish and Wildlife Service (USFWS) were also contacted for a listing of wildlife species of concern which have been reported within the area. A wildlife survey of the Study Area was performed focusing on the presence/absence of avian, mammalian, reptilian, and amphibian species.[12] The assessment was conducted in conjunction with

[9] NYSDEC New York Nature Explorer; County – Orange.
[10] NYSDEC Breeding Bird Atlas 2000-2005; Block 5758A and 5758B Summary; https://www.dec.ny.gov/cfmx/extapps/bba/index.cfm?RequestTimeout=250.
[11] Draft Supplemental Environmental Impact Statement for Cornwall Commons Planned Adult Community, prepared for Cornwall Commons, LLC, prepared by Jacobowitz & Gubits, LLP, et al., June 2008.
[12] NRI Field Surveys; March 2022 to Present.

vegetation identification using the same transects and sampling protocols. Survey methods included direct and indirect observations (i.e., tracks, droppings, hair, feathers, etc.). Visual observations using binoculars, spotting scopes and detailed inspections under logs, forest floor litter, and rocks were conducted. Audible indicators were also used to identify both avian and amphibian species. All observations were identified by staff scientists and recorded. Surveys were conducted on March 25, April 15, May 13, June 7, July 26, August 12, September 21, and October 27, December 2 , and December 13, 2022.

The various ecological communities that exist within the Study Area provide habitat for a variety of wildlife. Based on the location, environmental characteristics, and site surveys, wildlife species that inhabit or are expected to inhabit the aforementioned ecological communities are listed below.

Birds

Large bird species observed on, above, and adjacent to the Study Area include but were not limited to barred owl (*Strix varia*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), and wild turkey (*Meleagris gallopavo*).

Smaller passerine and piciforme species of birds observed within the Study Area include the American crow (*Corvus brachyrhynchos*), American goldfinch (*Spinus tristis*), American robin (*Turdus migratorius*), Baltimore oriole (*Icterus galbula*), black-capped chickadee (*Poecile atricapillus*), bluejay (*Cyanocitta cristata*), chipping sparrow (*Spizella passerina*), dark-eyed junco (Junco hyemalis), downy woodpecker (*Picoides pubescens*), eastern bluebird (*Sialia sialis*), eastern phoebe (*Sayornis pheobe*), gray catbird (*Dumetella carolinensis*), hairy woodpecker (*Leuconotopicus villosus*), house finch (*Haemorhous mexicanus*), northern cardinal (*Cardinalis cardinalis*), northern flicker (*Colaptes auratus*), pileated woodpecker (*Dryocopus pileatus*), red-bellied woodpecker (*Melanerpes carolinus*), red-breasted nuthatch (*Sitta canadensis*), red-winged blackbird (*Agelaius phoeniceus*), scarlet tanager (*Piranga olivacea*), song sparrow (*Melospiza melodia*), tree swallow (*Tachycineta bicolor*), and tufted titmouse (*Baeolophus bicolor*).

Other common bird species that should be expected to be present on-site include flycatchers, various sparrows, thrushes, meadowlark, and various warblers. Other common species to New York State may also utilize the Project Site for various reasons, including foraging and breeding.

Mammals

White-tailed deer (*Odocoileus virginianus*) were observed during most site visits. Coyote (*Canis latrans*) was also observed on-site.

Smaller mammals regularly observed on-site include the following: eastern gray squirrels (*Sciurus carolinensis*) and chipmunks (*Tamias striatus*).

Other mammals which should be expected to be present based on the ecological characteristics of the Study Area include striped skunk (*Mephitis mephitis*), groundhog (*Marmota monax*), opossum (*Didelphidae spp*.), raccoons (*Procyon lotor*), meadow vole (*Microtus pennsylvanicus*), deer mouse (*Peromuscus spp*.) and various other species of mice, voles, and shrews (*Sorex spp*.).

Reptiles and Amphibians

Reptiles and amphibians observed on-site include the eastern garter snake (*Thamnophis sirtalis*), gray treefrog (*Dryophytes versicolor*), spring peeper (*Pseudacris crucifer*), and wood frog (*Lithobates sylvaticus*).

The observed wildlife population densities at the Study Area are considered to be in the average range.[13] The eastern and southern boundaries of the oak-tulip tree community exhibited a lower variety and density of wildlife species. This is attributable to historic disturbances and human activity within these areas of the site. The northern and central portions of the site exhibited the highest variety and density of wildlife species attributable to the distance from roadways and development, proximity to Moodna Creek, and the diversity of vegetation. The dominant bird and mammal species identified onsite are considered to be highly mobile and generally adaptable to the existing natural and suburban areas surrounding the Project Site.

Table III-16 provides a complete listing of the wildlife species identified within the Study Area. No federal or state-listed rare plant or animal species, habitats or significant natural communities were identified on the Project Site by staff biologists. However, the bald eagle, a threatened bird species, was observed over Moodna Creek during the December 2022 NRI field visit. Further discussion of the bald eagle is provided below.

[13] Based on best professional judgement from observations of wildlife in similar landscape settings throughout Cornwall.

Table III-16 – Observed Wildlife Species

Mammals	
Chipmunk (*Tamias striatus*)	Gray squirrel (*Sciurus carolinensis*)
Coyote (*Canis latrans*)	White Tail Deer (*Odocoileus virginianus*)
Birds	
American crow (*Corvus brachyrhynchos*)	House wren (*Troglodytes aedon*)[b]
American goldfinch (*Spinus tristis*)	Indigo bunting (*Passerina cyanea*)[a]
American redstart (*Setophaga ruticilla*)[a]	Killdeer (*Charadrius vociferus*)[a]
American robin (*Turdus migratorius*)	Least flycatcher (*Empidonax minimus*)[b]
Bald eagle (*Haliaeetus leucocephalus*)	Louisiana waterthrush (*Seiurus motacilla*)[a]
Baltimore oriole (*Icterus galbula*)	Mallard (*Anas platyrhynchos*)[a]
Barn swallow (*Hirundo rustica*)[a]	Mockingbird (*Mimus polyglottos*)
Barred owl (*Strix varia*)	Mourning dove (*Zenaida macroura*)[a]
Belted kingfisher (*Megaceryle alcyon*)[a]	Northern cardinal (*Cardinalis cardinalis*)
Black-billed cuckoo (*Coccyzus erythropthalmus*)[a]	Northern flicker (*Colaptes auratus*)
Black-capped chickadee (*Poecile atricapillus*)	Northern mockingbird (*Mimus polyglottos*)[a]
Blue jay (*Cyanocitta cristata*)	Ovenbird (*Seiurus aurocapilla*)[a]
Blue-winged warbler (*Vermivora pinus*)[a]	Peregrine falcon (*Falco peregrinus*)[a]
Brown thrasher (*Toxostoma rufum*)[a]	Pileated woodpecker (*Dryocopus pileatus*)
Brown-headed cowbird (*Molothrus ater*)[a]	Red-bellied woodpecker (*Melanerpes carolinus*)
Canada goose (*Branta canadensis*)[a]	Red-breasted nuthatch (*Sitta canadensis*)
Carolina wren (*Thryothorus ludovicianus*)[b]	Red-eyed vireo (*Vireo olivaceus*)[a]
Cedar waxwing (*Bombycilla cedrorum*)[a]	Red-tailed hawk (*Buteo jamaicensis*)
Chimney swift (*Chaetura pelagica*)[a]	Red-winged blackbird (*Agelaius phoniceus*)
Chipping sparrow (*Spizella passerina*)	Rock pigeon (*Columba livia*)[a]
Common grackle (*Quiscalus quiscula*)	Rose-breasted grosbeak (*Pheucticus ludovicianus*)[a]
Common raven (*Corvus corax*)[a]	Ruby-crowned kinglet (*Regulus calendula*)[b]
Common yellowthroat (*Geothlypis trichas*)[a]	Scarlet tanager (*Piranga olivacea*)
Dark-eyed junco (*Junco hyemalis*)	Song sparrow (*Melospiza melodia*)
Downy woodpecker (*Picoides pubescens)*	Tree swallow (*Tachycineta bicolor*)
Eastern bluebird (*Sialia sialis*)	Tufted titmouse (*Baeolophus bicolor*)
Eastern kingbird (*Tyrannus tyrannus*)	Turkey vulture (*Cathartes aura*)
Eastern phoebe (*Sayornis pheobe*)	Veery (*Catharus fuscescens*)[a]
Eastern towhee (*Pipilo erythrophthalmus*)[a]	Warbling vireo (*Vireo gilvus*)[a]

Eastern wood-pewee (*Contopus virens*)	White-breasted nuthatch (*Sitta carolinensis*)
European starling (*Sturnus vulgaris*)[a]	White-throated sparrow (*Zonotrichia albicollis*)
Golden-crowned kinglet (*Regulus satrapa*)	Wild turkey (*Meleagris gallopavo*)
Gray catbird (*Dumetella carolinensis*)	Wood duck (*Aix sponsa*)[a]
Great blue heron (*Ardea herodias*)	Wood thrush (*Hylocichla mustelina*)
Great crested flycatcher (*Myiarchus crinitus*)[a]	Worm-eating warbler (*Helmitheros vermivorum*)[a]
Green heron (*Butorides virescens*)[a]	Yellow-rumped warbler (*Setophaga coronata*)
Hairy woodpecker (*Leuconotopicus villosus*)	Yellow warbler (*Dendroica petechia*)[a]
House finch (*Haemorhous mexicanus*)	Yellow-throated vireo (*Vireo flavifrons*)[a]
House sparrow (*Passer domesticus*)[a]	
Reptiles/Amphibians	
Eastern garter snake (*Thamnophis sirtalis*)	Tadpole spp.
Gray treefrog (*Dryophytes versicolor*)	Wood frog (*Lithobates sylvaticus*)
Spring peeper (*Pseudacris crucifer*)	
Insects	
American giant millipede (*Narceus americanus*)	Pillbugs (*Armadillidiidae* spp.)
Cicada (*Cicadoidea* spp.)	Spicebush swallowtail (*Papilio troilus*)
Cricket (*Grylloidea* spp.)	Tiger swallowtail (*Papilio glaucus*)
Giant leopard moth (*Hypercompe scribonia*)	Water boatman (*Corixidae* spp.)
Mosquito (*Culicidae* spp.)	Wood bee (Xylocopa spp.)
Orb weaver (*Araneidae* spp.)	

Notes:

[a] Species listed in the NYSDEC Breeding Bird Atlas, but not observed
[b] Species identified by sound, but not observed

b. Presence of Threatened and Endangered Species

Agency Consultation

The USFWS Information for Planning and Conservation (IPaC) was consulted in February 2022 for federally listed threatened and endangered species within or adjacent to the Project Site, email correspondence is included in the Appendix of this report. The USFWS IPaC identified one threatened mammal, northern long-eared bat (*Myotis septentrionalis*) (NLEB), one endangered mammal, Indiana bat (*Myotis sodalis*), one threatened reptile, bog turtle (*Clemmys [Glyptemys] muhlenbergii*), the now threatened monarch butterfly (*Danaus plexippus*), and one threatened flowering plant, small whorled pogonia (*Isotria medeoloides*).

In June 2022, consultation with both NYS NHP and the NYSDEC regional office (Region 3) was initiated for the presence of rare or state-listed species within the vicinity of the Project Site (Appendix Item O). Correspondence from NHP was received August 16, 2022, and correspondence from NYSDEC Region 3 was received September 29, 2022. Both correspondence identified two threatened bird species, least bittern (*Ixobrychus exilis*), and bald eagle (*Haliaeetus leucocephalus*), and one endangered mammal, Indiana bat (*Myotis sodalis*). The threatened and endangered species identified in the Appendix are summarized below in Table III-17.

Table III-17 – Threatened and Endangered Species Summary

Resource*	**Species**	**Listing**
USFWS IPaC	Indiana Bat (*Myotis sodalis*)	Federally Endangered
	Northern Long-eared Bat (*Myotis septentrionalis)*	Federally Threatened
	Bog Turtle (*Clemmys muhlenbergii*)	Federally Threatened
	Monarch Butterfly *(Danaus plexippus)*	Federally Endangered
	Small Whorled Pogonia *(Isotria medeoloides)*	Federally Threatened
NYS NHP/NYSDEC Region 3	Indiana Bat (*Myotis sodalis*)	Federally and State Endangered
	Least Bittern (*Ixobrychus exilis*)	State Threatened
	Bald Eagle (*Haliaeetus leucocephalus*)	State Threatened
2008 DSEIS Site Visits	"Mole Salamanders" Marbled Salamander (*Ambystoma opacum*) Jefferson Salamander (*Ambystoma jeffersonianum*) Blue-spotted Salamander (*Ambystoma laterale*)	State Species of Special Concern
	Carex seorsa	State Threatened

Northern Long-Eared Bat (Myotis septentrionalis)

The northern long eared bat, a federally endangered species, is typically found within the interior of mature forests. USFWS identified the potential for this species to be located on or within the vicinity of the Project Site. The northern long-eared bat 4(d) rule prohibits incidental take that may occur from tree removal activities within 150 feet of a known occupied maternity roost tree during the pup season (June 1 to July 31) or within 0.25 miles of a hibernation site, year-round.

No NLEBs were observed within the Study area during the 2021 wetland delineation or 2022 NRI field visits.

Indiana Bat (Myotis sodalis)

In New York, Indiana bats, a federal and state endangered species, show a strong preference for woodland and wooded riparian habitat over cropland. During winter months, Indiana bats hibernate in caves and mines.[14] USFWS identified the potential for this species to be located on or within the vicinity of the Project Site. NYS NHP identified a maternity colony of Indiana bats was within 2 miles of the project site. Individual bats may travel up to 2.5 miles from documented locations.

On July 19, 2006, a site investigation was conducted for the presence of Indiana bat habitat, summer roost habitat, and maternal colony habitat.[15] During the site investigation, trees greater than 9 inches diameter at breast height (dbh) were examined for exfoliating bark, holes, cavities, and cervices that could be used to support Indiana bats. It was determined that the Project Site is not considered to contain potential habitat for the Indiana bat.

No Indiana bats were observed within the Study area during the 2021 wetland delineation or 2022 NRI field visits.

Bog Turtle (Glyptemys muhlenbergii)

Bog turtles, a federally threatened species, occur in low-lying, open wetlands bordered by woodlands, particularly calcareous fens, herbaceous sedge meadows, and pastures. Within these wetlands, bog turtles need a variety of micro-habitats for basking, foraging, nesting, shelter, and hibernation including dry pockets, saturated areas, and areas that are subject to flooding. USFWS identified the potential for this species to be located on or within the vicinity of the Project Site.

A Phase I Bog Turtle Survey for potential bog turtle habitat within the Study Area was conducted on July 19, 2006.[16] During the Phase I Survey, each wetland area was investigated for the habitat requirements that could support a bog turtle population. It was determined that the wetland areas do not contain bog turtle habitat as

[14] [14] New York Natural Heritage Program. 2021. Online Conservation Guide for *Myotis sodalis*. Available from: https://guides.nynhp.org/indiana-bat/. Accessed September 19, 2022.
[15] Draft Supplemental Environmental Impact Statement for Cornwall Commons Planned Adult Community, prepared for Cornwall Commons, LLC, prepared by Jacobowitz & Gubits, LLP, et al., June 2008.
[16] Draft Supplemental Environmental Impact Statement for Cornwall Commons Planned Adult Community, prepared for Cornwall Commons, LLC, prepared by Jacobowitz & Gubits, LLP, et al., June 2008

no fen indicator species were observed, and the hydrology and substrate material were too variable or unstable to support bog turtle specimens.

Further, Capital initiated contact with NYSDEC Region 3 staff to inquire as to their knowledge of any known occurrences of bog turtles or bog turtle habitat within the Study Area. The NYSDEC Region 3 staff did not note any occurrences of bog turtles or bog turtle habitat within the Study Area. Bog turtles were not observed during the 2021 wetland delineation or 2022 NRI field visits and no potential habitat was identified onsite.

Monarch Butterfly (Danaus plexippus)

In New York, monarch butterflies, a federally endangered species, are found in open meadows and fields that usually contain a variety of wildflowers including milkweed, coastal beaches with dunes, and man-made butterfly gardens. 17 Common milkweed is a wildflower most commonly utilized by monarch butterflies. Common milkweed contains a toxic compound that once ingested, makes the monarch caterpillar's flesh distasteful to most predators. Additional wildflower species utilized by monarch butterflies include butterfly weed (*Asclepia tuberosa*), smooth oxeye (*Heliopsis helianthoides*), hairy white oldfield aster (S*ymphyotrichum pilosum*). Wildflower species, inclusive of common milkweed, were observed within the oak-tulip tree ecological community. USFWS identified the potential for this species to be located on or within the vicinity of the Project Site. Monarch butterflies were not observed during the 2021 wetland delineation or 2022 NRI field visits and no potential habitat was identified.

Small Whorled Pogonia (Isotria medeoloides)

Small whorled pogonia, a federally threatened species, grows in a variety of upland, mid-successional, wooded habitats. This species is almost always found in proximity to features that create long-persisting breaks in the forest canopy, where the tree canopy is relatively open.[18] USFWS identified the potential for this species to be located on or within the vicinity of the Project Site. Small whorled pogonia was not observed during the 2021 wetland delineation or 2022 NRI field visits, and potential habitat does not exist on-site.

[17] NYSDEC Watchable Wildlife, 2022. Watchable Wildlife: Monarch Butterfly. Available from https://www.dec.ny.gov/animals/60392.html. Accessed December 7, 2022.
[18] U.S. Fish and Wildlife Service. Small Whorled Pogonia Fact Sheet. Available from https://www.fws.gov/sites/default/files/documents/Small%20whorled%20pogonia_fact%20sheet.pdf. Accessed September 29, 2022.

Least Bittern (Ixobrychus exilis)

In New York, least bitterns, a federal and state threatened species, tend to breed in shallow or deep emergent marshes, freshwater tidal marshes (lower Hudson River), or brackish tidal marshes (Long Island). They prefer stands of cattails or bulrush with bur-reed, sedges, or common reed. NYS NHP and NYSDEC Region 3 staff noted the project site is located 0.3 miles from least bittern breeding habitat.

Least bittern was not observed during the 2021 wetland delineation or 2022 NRI field visits and habitat for this species does not exist onsite.

Bald Eagle (Haliaeetus leucocephalus)

Bald eagles, a state threatened species, are typically found near large bodies of water, such as bays, rivers, and lakes, that support a healthy population of fish and waterfowl, their primary food source. NYSDEC Region 3 staff noted the project site is located 0.75 miles from a known occurrence of breeding bald eagles. Bald eagle foraging and breeding habitat can be found east of the Project Site associated with Newburgh Bay and the Hudson River. A bald eagle was observed during the December 2022 NRI field visit over Moodna Creek. The portion of Moodna Creek to the north of the Project Site does not provide significant foraging habitat due to the shallow nature of the creek in this area. Further, no breeding or foraging habitat for bald eagles exist onsite.

Previous Investigations

The Draft and Final Supplemental Environmental Impact Statement (DSEIS and FSEIS) for Cornwall Commons Planned Adult Community were referenced for discussion of threatened and endangered species observed during site visits conducted by Robert G. Torgersen in June and July 2006.[19,20] During Mr. Torgersen's site visits, mole salamanders, species of special concern, and one threatened species, weak stellate sedge (*Carex seorsa*) were observed within an onsite wetland.

Mole Salamanders (Ambystoma spp.) – Species of Special Concern

Mole salamanders consist of four main species, spotted salamander (*Ambystoma maculatum*), marbled salamander (*Ambystoma opacum*), Jefferson salamander (*Ambystoma jeffersonianum*), and blue-spotted

[19] Draft Supplemental Environmental Impact Statement for Cornwall Commons Planned Adult Community, prepared for Cornwall Commons, LLC, prepared by Jacobowitz & Gubits, LLP, et al., June 2008.
[20] Final Supplemental Environmental Impact Statement for Cornwall Commons Planned Adult Community, prepared for Cornwall Commons, LLC, prepared by Jacobowitz & Gubits, LLP, et al., filed November 8, 2008.

salamander (*Ambystoma laterale*). Mole salamanders are often found in floodplain forests near ponds or other bodies of water. They often live in burrows in moist soils and leaf litter.[21] Mole salamanders were identified in the centrally located vernal pool habitat onsite during Mr. Torgersen's June and July 2006 site visits. Mole salamanders were not observed during the 2021 wetland delineation or 2022 NRI field visits.

Weak Stellate Sedge (Carex soersa)

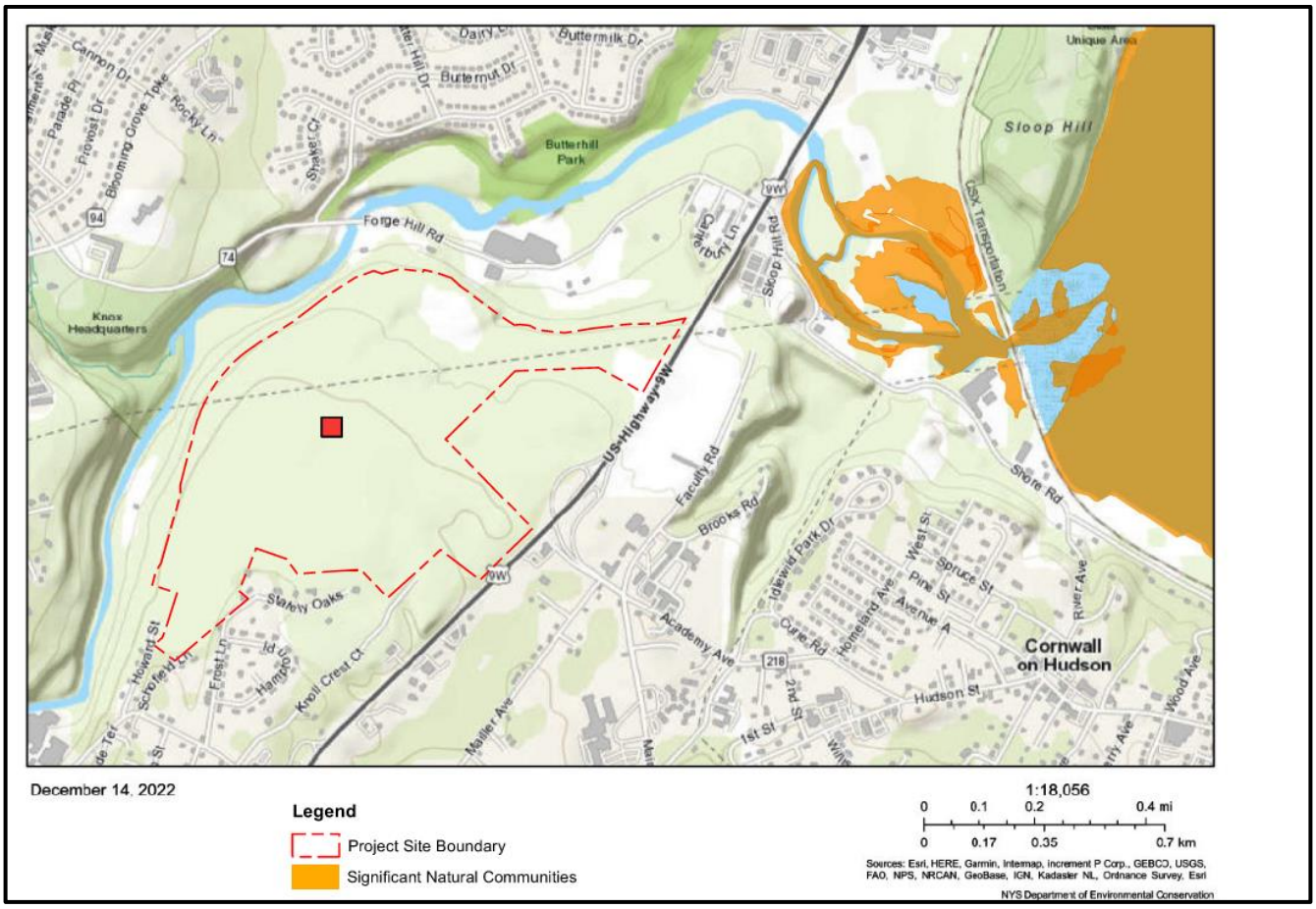
Weak stellate sedge grows in acidic hardwood swamps, seepy wet forests, peaty shrublands, and pond edges. It can often be found in small pocket wetlands dominated by shrubs and some red maple (*Acer rubrum*). It mostly grows in some shade and is restricted to acidic wetlands. Weak stellate sedge has been previously identified within the red maple hardwood swamp community in an isolated wetland during Mr. Torgersen's June and July 2006 site visits. Weak stellate sedge was not observed during the 2021 wetland delineation or 2022 NRI field visits.

c. Designated Significant Natural Communities

Significant Natural Communities include locations of rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas. NY NHP documents only those locations of natural communities where the community type is rare in New York State; or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape. Significant Natural Communities within the Town of Cornwall are depicted on Figure III-7. No Significant Natural Communities are located on the Project Site.

[21] Tennessee Wildlife Resources Agency – Mole Salamander. Available from https://www.tn.gov/twra/wildlife/amphibians/salamanders/mole.html#:~:text=Terrestrial%20Mole%20Salamanders%20are%20most,with%20no%20fish%20in%20them. Accessed September 29, 2022.

Figure III-7 – Significant Natural Communities



Correspondence from the NYS NHP was initiated in June 2022 for the presence of significant natural communities and animal assemblages within the vicinity of the Project Site, included in the Appendix. NHP identified two natural communities within the vicinity of the project site, Brackish Intertidal Mudflats and Brackish Tidal Marsh, and two animal assemblages adjacent to the project site, Waterfowl Winter Concentration Area and Anadromous Fish Concentration Area. All significant natural communities and animal assemblages are associated with Moodna Creek, north of the Project Site, or the confluence of Moodna Creek and the Hudson River.

Brackish Intertidal Mudflats

Brackish intertidal mudflat community is sparsely vegetated community, characterized by low-growing, rosette-leaved aquatics. This community occurs on exposed intertidal mudflats where water salinity ranges from 0.5 to

18 parts per thousand (ppt). This community is best developed where mudflats are nearly level so that broad expanses are exposed at low tide. The rosette-leaved aquatics are completely submerged at high tide, and they are usually coated with mud.[22] NYNHP notes that this community is documented within 1/4 mile east of the project site. This is a small occurrence in good condition within a relatively good landscape context. The brackish intertidal mudflat community is located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River (Figure III-7).

Brackish Tidal Marsh

Brackish tidal marsh is a marsh community that occurs where water salinity ranges between 0.5 to 18 parts per thousand (ppt) and water is less than 2 m (6 feet) at high tide. This community consists of a diverse mixture of salt marsh and freshwater tidal marsh species, with no species attaining dominance over extensive areas (although some species are locally abundant in patches). The vegetation in a brackish tidal marsh is dense and dominated by tall graminoids.[23] NYNHP notes that this community is documented within 1/4 mile east of the project site. The marsh is moderate to small-sized, in good condition within a moderate quality landscape. The brackish tidal marsh community is located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River (Figure III-7).

Waterfowl Winter Concentration Area

The waterfowl winter concentration area was documented along a stretch of the Moodna Creek that flows near the western edge of the project site. In 1984, this area was documented as a large, medium gradient stream with lower mile of stream in tidal range with emergent marsh and wooded islands and tidal flat. The described habitats are located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. The waterfowl winter concentration area was not observed within Moodna Creek within the vicinity of the Study Area during the 2021 wetland delineation or 2022 NRI field visits.

[22] Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State.* Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, NYSDEC, Albany, NY.
[23] Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State.* Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, NYSDEC, Albany, NY.

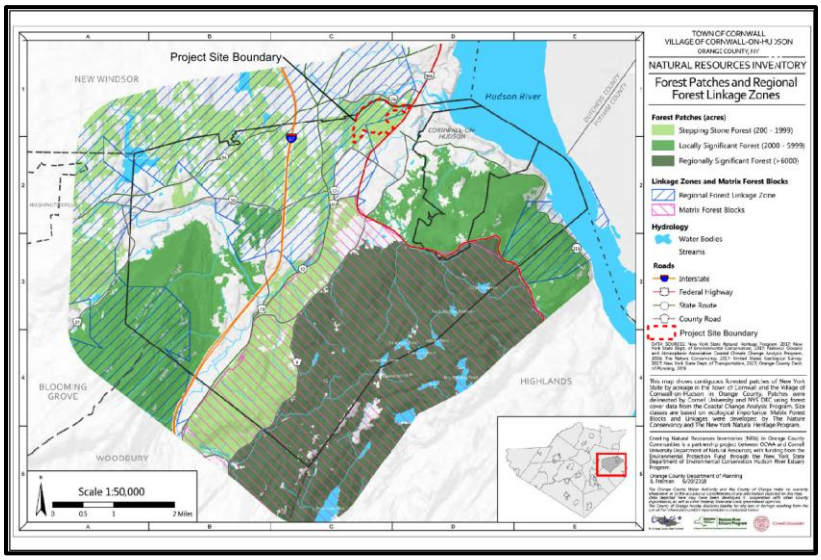
Anadromous Fish Concentration Area

The anadromous fish concentration area was documented along a stretch of the Moodna Creek that flows near the western edge of the project site. In 1987, this area was documented as a large medium gradient stream with lower mile of stream in tidal range with emergent marsh and wooded islands and tidal flats. The described habitats are located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River.

d. Moodna Creek Corrdior

In 2019 the Cornwall Conservation Advisory Council (Cornwall CAC) prepared the 2019 Cornwall Natural Resource Inventory (NRI) to document and summarize the Town of Cornwall's natural, historic, and cultural resources.[24] The Cornwall NRI notes that the forested habitat bordering the Moodna Creek provides a wildlife corridor that allows native wildlife species the move from one patch of forest to another. Undisturbed forested habitats provide ecological benefits, such as water filtration, air pollution mitigation, flood control, habitat and movement corridors for wildlife and is located within the Project Site, adjacent to the Moodna Creek, as depicted on Figure III-8.

Figure III-8 – Forest Map



24 Cornwall Conservation Advisory Council, Cornwall Natural Resources Inventory: Informing the Management of Our Natural, Historic, and Cultural Resources, Town of Cornwall and Village of Cornwall-on-Hudson, NY, 2019.

The Project Site is located within a "Stepping Stone" forest patch and a "Regional Forest Linkage Zone". According to the 2019 Cornwall NRI, a Stepping Stone Forest, 200-1,999 acres in size, is important because it provides a bridge between larger patches of biodiverse forest and allows for the establishment of ecological networks or corridors that help lessen the fragmentation of forest habitat, maintain the integrity of migratory pathways, and generally increase the viability of plant and animal wildlife.[25] Regional Forest Linkage Zones provide linkages between matrix forests for animals and plants. As largely intact forested areas, they facilitate connections between larger forest blocks as well as support healthier species populations by enabling genetic exchange.[26] However, due to the residential development and major roadways to the south and east, and the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Project Site functions as a primary pathway for wildlife movement among the Moodna Creek corridor.

2. Potential Impacts

The Proposed Action entails construction of five warehouse buildings, totaling approximately 2,020,594 square feet in gross floor area, and associated parking, loading, driveways, stormwater management facilities, lighting, landscaping, and other related site improvements. Potential impacts to the Project Site's flora and fauna from the Proposed Action were evaluated.

a. Impacts to Natural and Ecological Communities

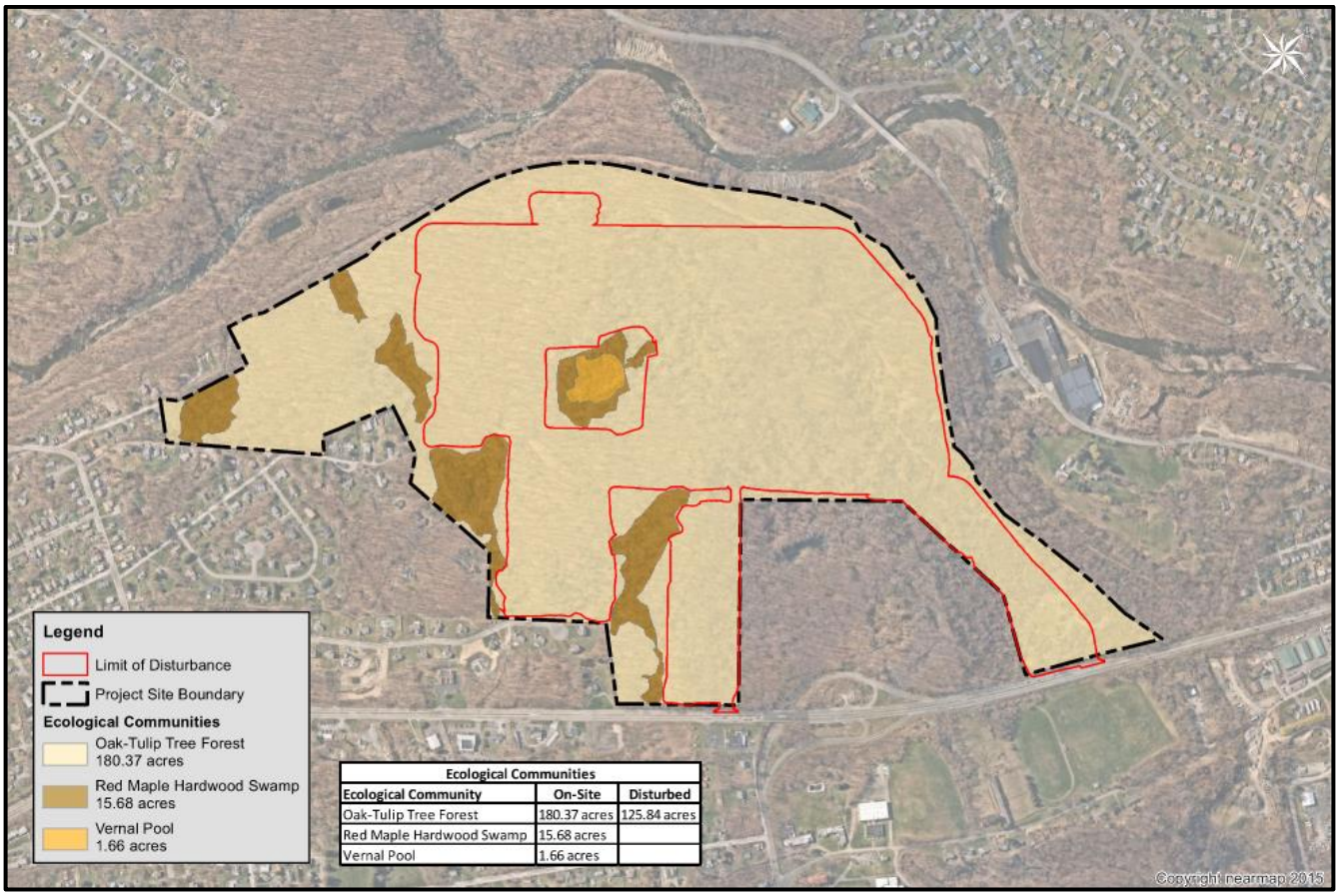
Vegetation and Ecological Communities

The Proposed Action includes development that would permanently disturb approximately 125.84 acres (63.6 percent) of the Project Site. Ecological communities that would be directly impacted by the Proposed Action include oak-tulip tree forest (see Figure III-9). The construction of the Proposed Action would result in the following habitat reductions:

- 125.84 acres of oak-tulip tree forest

25 Cornwall Conservation Advisory Council, Cornwall Natural Resources Inventory: Informing the Management of Our Natural, Historic, and Cultural Resources, Town of Cornwall and Village of Cornwall-on-Hudson, NY, 2019.
26 Cornwall Conservation Advisory Council, Cornwall Natural Resources Inventory: Informing the Management of Our Natural, Historic, and Cultural Resources, Town of Cornwall and Village of Cornwall-on-Hudson, NY, 2019.

Figure III-9 – Ecological Communities with Development Outline



With the Proposed Action, approximately 4,275 trees, 8 inches or greater in diameter at a height of three feet measured from the ground, would be preserved. Additionally, the Proposed Action would result in the loss of approximately 7,484 trees 8 inches or greater in diameter at a height of three feet measured from the ground. Tree protection measures would be implemented to save trees that exist near the limits of disturbance on the boundaries of the development. No trees in healthy condition beyond the field-identified limits of disturbance would be disturbed. Construction crews would be notified to exclude all equipment from these protected areas. If necessary, trees would be protected by tree wells in fill areas and retaining walls in cut areas to the extent practical.

Loss of the oak-tulip tree forest ecological community, a commonly found ecological community within the town of Cornwall and New York State, would not result in a significant adverse impact to the ecological community within its range. This community was observed to provide normal ecological benefits to wildlife as it consists of

an average amount of plant diversity. The red maple-hardwood swamp and vernal pool ecological communities that comprise the onsite wetlands are of high value to wildlife, as they are a more diverse plant community. These high-value palustrine communities will remain undisturbed with the Proposed Action. Remaining undisturbed terrestrial and palustrine ecological communities would continue to provide resident and local wildlife populations the opportunity to move around the development to access other undisturbed wetland and forested lands in the vicinity of the Proposed Action and the Moodna Creek corridor.

Therefore, no significant adverse environmental impacts to vegetation or ecological communities are anticipated with the Proposed Project.

Wildlife

The loss of the oak-tulip tree forested uplands will alter the movement of most wildlife that use the Project Site and result in the loss of habitat for those individuals that currently inhabit the Project Site. However, it will not significantly impact the wildlife's access to the Moodna Creek corridor and adjacent forested areas due to the significant variation in elevation between the Project Site and Moodna Creek.

As noted above, the red maple-hardwood swamp and vernal pool ecological communities located within the onsite wetlands are of high value to wildlife, as they are a more diverse plant community. The Proposed Action will not impact the onsite freshwater wetlands and, therefore, would preserve onsite wildlife habitat within the freshwater wetlands. Due to the mix of natural and suburban landscape that borders the site, the overall diversity of wildlife in the area was observed to be average and dominated by generalist species capable of tolerating human contact. Such species include small mammals like gray squirrel, raccoon, opossum, deer mouse, and woodchuck. With the Proposed Action, it is likely that deer would occur less frequently on the site due to the reduction in browsing and the increased human activity. It is expected that deer would continue to pass through the forested areas to the south and west.

In general, as a site is developed and habitat is reduced, some species would relocate to similar habitats outside of the limit of disturbance or off-site. The areas to be disturbed by the Proposed Action are commonly found throughout the Town of Cornwall and do not represent rare habitat. The composition of the wildlife population on the Project Site may be altered immediately adjacent to developed areas, as species able to adapt to a suburban environment (such as raccoons, opossum, woodchucks, mice, songbirds, etc.) would have a greater ecological advantage in comparison to species that are less tolerant of human activity.

An indirect and unavoidable impact of wildlife dispersal could be increased competitive interactions with other individuals of the same species on adjacent properties. It is not anticipated that there would be a loss of species from the area or significant impacts to existing populations. Therefore, no significant adverse environmental impacts to wildlife are anticipated with the Proposed Project.

Threatened, Endangered, and Special Concern Species

Northern Long-Eared Bat (Myotis septentrionalis)

In instances where USFWS identifies the NLEB on or near a project site, the state NHP should be consulted for locations of hibernaculum and maternity roots. Further, NYSDEC provides self-evaluation guidance to assess the potential for harmful impacts. First, the self-evaluation advises consultation with the NYSDEC Environmental Resource Mapper (ERM) (Appendix). The ERM did not identify the NLEB on or within the vicinity of the project site, however, NYSDEC the Hudson Valley Natural Resources Mapper did identify bat foraging areas within the western portion of the project site. Next, the self-evaluation defers to NHP coordination to determine if the Project Site is within 0.25 miles of a hibernation site or 150 ft of a known roost tree.

In accordance with both USFWS and NYSDEC guidance, both the NHP and NYSDEC Region 3 were contacted, and correspondence specified that the Project Site is not within screening distance of any known (to NYSDEC) records of NLEB hibernaculum and maternity roots. In the absence of known records, NYSDEC advises if tree removal is the primary action that might harm bats at the Project Site, tree cutting for the project occur during the hibernation season when bats are living underground from November 1st - March 31st. Should this be feasible the Proposed Action is unlikely to harm NLEB. Since bats can turn up in almost any forested area, NYSDEC still recommends that you leave any snags and cavity trees standing, but this is voluntary. Nonetheless, if bats are observed flying from a tree that has been cut, NYSDEC recommends stopping activities immediately and contact the regional DEC office.

No northern long-eared bats were observed within the Study Area during the 2021 wetland delineation or 2022 NRI field visits. NHP indicated that there are no known records of NLEB hibernaculum or maternity roosts within the vicinity of the Project Site and NYSDEC Region 3 staff indicated that the Study Area is not within screening distance of any known (to NYSDEC) records of those NLEB. As tree cutting is proposed to occur between November 1st and March 31st, no impacts to the NLEB are anticipated with the Proposed Action.

Indiana Bat (Myotis sodalis)

The NYSDEC Region 3 staff noted, the Project Site is located within 1.9 miles of an Indiana bat maternity colony. As cutting or removal of potential roost trees is the main impact of concern for Indiana bat, NYSDEC recommends that removal of trees for construction activities occur between October 1st and March 31st to avoid direct impacts to individuals. Should this be feasible the Proposed Action is unlikely to harm Indiana bats.

NYSDEC Region 3 further advised that if more than 10 acres of tree removal is required, a review of habitat impacts including an analysis of change in percent forest cover and indirect impacts to the species related to noise, lighting, dust, chemical use, etc. is necessary.

No Indiana bats were observed within the Study Area during the 2006 site investigation, 2021 wetland delineation, or 2022 NRI field visits. Additionally, no potential habitat was identified in 2006 during the survey for presence of Indiana bat summer roost and maternal colony habitat.

While tree cutting is proposed to occur between October 1st and March 31st to limit any potential impact of the Proposed Action on Indiana bat, the Proposed Action will result in more than 10 acres of tree removal. As such, a review of impacts to habitat, including an analysis of change in percent forest cover and indirect impacts to the species related to noise, lighting, dust, chemical use, etc., will be conducted and further consultation with NYSDEC Region 3 staff will occur to ensure the Proposed Action would not result in a significant adverse impact (i.e., in either direct harm or disturbance to listed species, or reduce the amount or quality of occupied habitat) to Indiana bats.

Bog Turtle (Glyptemys muhlenbergii)

No bog turtles or potential habitat were observed within the Study Area during the 2006 site investigation, 2021 wetland delineation, or 2022 NRI field visits. Consultation with NYSDEC Region 3 staff indicated that the Study Area is not within screening distance of any known (to NYSDEC) records of bog turtles. Therefore, no adverse impacts to the bog turtle are anticipated with the Proposed Action.

Monarch Butterfly (Danaus plexippus)

No monarch butterflies were observed within the Study Area during the 2006 site investigation, 2021 wetland delineation, or 2022 NRI field visits. Limited habitat for monarch butterflies exists on site as the Project Site is

dominated by forested upland and wetland areas and lacks the open meadow and field habitat typically used by monarch butterflies. Therefore, no adverse impacts to monarch butterflies are anticipated with the Proposed Action.

Small Whorled Pogonia (Isotria medeoloides)

No small whorled pogonia were observed within the Study Area during the 2021 wetland delineations or 2022 NRI field visits. Consultation with NYSDEC Region 3 Staff indicated that the Study Area is not within screening distance of any known (to NYSDEC) records of small whorled pogonia. Additionally, there is no potential habitat for small whorled pogonia onsite. Therefore, no adverse impacts to the small whorled pogonia are anticipated with the Proposed Action.

Least Bittern (Ixobrychus exilis)

No least bitterns or potential breeding habitat were observed within the Study Area during the 2006 site investigation, 2021 wetland delineation, or 2022 NRI field visits. NYSDEC Region 3 staff noted the project site is located 0.3 miles from least bittern breeding habitat and that there is a potential for noise impacts from the proposed project. High value habitat for least bitterns exists northeast of the Project Site, downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River where there are sources of open water, food sources, and stands of vegetation present year-round. As the project site is cited a great distance from known habitat and no potential nesting habitat is located on site, the project is not anticipated to have potential impacts to least bitterns.

For construction activities that occur during the nesting season, April 15th to August 15th, additional information will be submitted to the NYSDEC Region 3 Bureau of Wildlife to ensure the Proposed Action would not result in a significant adverse impact related to construction or operational noise impacts (i.e., in either direct harm or disturbance to listed species, or reduce the amount or quality of occupied habitat) to least bitterns.

Bald Eagle (Haliaeetus leucocephalus)

A bald eagle was observed during the December 2022 NRI field visit over Moodna Creek. Consultation with NYSDEC Region 3 Staff indicated that the Project Site is located within 0.75 miles from an active bald eagle nest. High value foraging and breeding habitat for bald eagles exists northeast of the Project Site, downstream from

the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. As the project site is located a great distance from known habitat and no potential nesting habitat is located on site, the project is not anticipated to have potential impacts to bald eagles.

NYSDEC recommends that construction activities occur between October 1st and December 31st to avoid direct impacts to breeding individuals. Should this be feasible the Proposed Action is unlikely to harm bald eagles. For construction activities that occur from January 1st through September 30th, additional information will be submitted to the NYSDEC Region 3 Bureau of Wildlife to ensure the Proposed Action would not result in a significant adverse impact related to construction or operational noise impacts (i.e., in either direct harm or disturbance to listed species, or reduce the amount or quality of occupied habitat) to bald eagles.

Mole Salamanders (Ambystoma spp.) – Species of Special Concern

Habitat for mole salamanders exists onsite within the vernal pool ecological community within the isolated wetland within the center of the Project Site. The Proposed Action will preserve the vernal pool ecological community in its entirety as well as preserve the surrounding red-maple hardwood swamp and portions of the surrounding oak-tulip tree forest. Therefore, the wetland and upland habitat potentially used by mole salamanders will be preserved with the Proposed Action. Therefore, no adverse impacts to mole salamanders are anticipated with the Proposed Action.

Weak Stellate Sedge (Carex seorsa)

Weak stellate sedge was identified onsite within the isolated wetland within the center of the Project Site during the 2006 site investigations and, to a limited extent, within other wetlands. Although habitat for weak stellate sedge exists onsite, no weak stellate sedge were observed within the Study Area during the 2021 wetland delineation or 2022 NRI field visits. Habitat for weak stellate sedge exists onsite, however, the Proposed Action does not entail disturbance to onsite freshwater wetlands. Therefore, no potential adverse impacts to weak stellate sedge are anticipated with the Proposed Action.

Significant Natural Communities and Animal Assemblages

Brackish Intertidal Mudflats

The brackish intertidal mudflats identified by NYS NHP are located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. Due to the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Proposed Action will result in impacts to the downstream habitats of Moodna Creek. Further, as discussed in Section III.F, the Proposed Action will not result in significant adverse impacts to Moodna Creek (i.e., sediment quality, water quality, etc.). Therefore, no significant adverse environmental impacts to the downstream brackish intertidal mudflats are anticipated with the Proposed Action.

Brackish Tidal Marsh

The brackish tidal marsh identified by NYS NHP is located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. Due to the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Proposed Action will result in impacts to the downstream habitats of Moodna Creek. Further, as discussed in Section III.F, the Proposed Action will not result in significant adverse impacts to Moodna Creek (i.e., sediment quality, water quality, etc.). Therefore, no significant adverse environmental impacts to the downstream brackish tidal marsh are anticipated with the Proposed Action.

Waterfowl Winter Concentration Area

The waterfowl winter concentration area identified by NYS NHP is located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. At a minimum, Moodna Creek is located approximately 250 feet from the Project Site. Due to the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Proposed Action will result in impacts to the wildlife within Moodna Creek. Further, as discussed in Section III.F, the Proposed Action will not result in significant adverse impacts to Moodna Creek (i.e., sediment quality, water quality, etc.). Therefore, no significant adverse environmental impacts to the waterfowl winter concentration area within Moodna Creek are anticipated with the Proposed Action.

Anadromous Fish Concentration Area

The anadromous fish concentration area identified by NYS NHP is located downstream from the Study Area at Moodna Creek's estuary, between Route 9W and the Hudson River. At a minimum, Moodna Creek is located approximately 250 feet from the Project Site. Due to the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Proposed Action will result in impacts to the wildlife that utilize Moodna Creek. Further, as discussed in Section III.F, the Proposed Action will not result in significant adverse impacts to Moodna Creek (i.e., sediment quality, water quality, etc.). Therefore, no significant adverse environmental impacts to the anadromous fish concentration area are anticipated with the Proposed Action.

Moodna Creek Corridor

As a result of the Proposed Action, the loss of forested habitat would alter the movement of wildlife that may use the Project Site. Wildlife currently use the Project Site to access and travel between undeveloped forested areas to the north and west of the site. [27] However, due to the residential development and major roadways to the south and east, and the significant variation in elevation between the Project Site and Moodna Creek, it is not anticipated that the Project Site functions as a primary pathway for wildlife movement among the Moodna Creek corridor. It is anticipated that upon completion of the Proposed Action, wildlife would continue to utilize the undisturbed forested habitat to the south, west, and north of the Project Site to access adjacent forested habitat to the limited extent they currently do. Additionally, due to the mix of forest and suburban landscape that borders the site, the overall diversity of wildlife in the area is expected to be dominated by generalist species capable of tolerating human contact. Therefore, it is anticipated that the wildlife within the Moodna Creek Corridor will not be significantly impacted and will continue to utilize the undisturbed habitat to the south, west, and north of the Project Site to access adjacent forested habitat.

3. Proposed Mitigation Measures

The Proposed Project has been designed to avoid existing mature landscape features, including freshwater wetlands, to the maximum extent possible. The limit of disturbance, as depicted on Figure III-9 Ecological Communities with Development Outline, represents the limit of all clearing and grading activities associated

[27] Cornwall Conservation Advisory Council, *Cornwall Natural Resources Inventory: Informing the Management of Our Natural, Historic, and Cultural Resources*, Town of Cornwall and Village of Cornwall-on-Hudson, NY, 2019.

with the Proposed Action. The limit of disturbance will be clearly demarcated in the field prior to any site disturbance.

a. Mitigation for Adverse Environmental Impacts

Vegetation

Landscaping Plan

The Landscaping Plan, as provided in the Appendix to the Draft Environmental Impact Statement, depicts the proposed tree and shrub planting areas, and details their design intent and function. These species and their intent are summarized in Table III-18. Approximately 490 trees and 382 shrubs will be throughout the proposed project. Tree and shrub species of plants native to New York have been selected to the extent practicable for landscaping, soil stabilization, and stormwater mitigation features. Proposed plantings were chosen for their hardiness to the local climate conditions, including temperature, precipitation, and length of the growing season and to the proposed settings on the site.

Many native species selected for planting may also be beneficial to indigenous wildlife, especially birds, by providing wildlife benefits such as nesting, cover, and food. With the Proposed Action there would be substantial tree plantings that would provide a variety of foraging, nesting, and shelter benefits for the wildlife throughout the development. Trees that are planted would mature in the long-term and would provide roosting and nesting opportunities for birds that are adaptable to urban conditions. In addition to their value as hardy plantings, some of the native plant species are berry and seed-bearing trees and shrubs that would offer songbirds and mammals seasonal food sources incidental to their use as landscape plantings.

Significant screening vegetation would remain after construction, especially at critical buffering locations, such as along freshwater wetland boundaries, and at the site's property lines along the western and southern boundaries of the Project Site. Additional buffer screening vegetation is proposed along the limits of the proposed roadways and parking areas. These plantings would serve as a transitional area between the proposed development and the preserved habitat outside of the limit of disturbance.

The proper bedding and positioning of plantings is important, as each of the species used would not thrive in all of the soils or exposures presented by the developed site. Particular plant requirements regarding planting, soil, water, and sun/shade preferences would be used in determining final plant positioning.

Any invasive plant species identified within the landscape area will be targeted for removal using physical and if necessary, approved chemical management. Fertilizers, pesticides, herbicides, fungicides and other chemicals are not proposed to be used in the landscape area of the Project Site, except for very limited and targeted potential use of herbicides to control very aggressive invasive vegetation in accordance with State and Federal laws and by licensed professionals. Before the use of fertilizers, pesticides, herbicides, and fungicides, any identified invasive species will be first be targeted for physical removal. Should physical removal not suffice, and the use of fertilizers, pesticides, herbicides, or fungicides be required, the Applicant will consult the appropriate regulating authority. It is not anticipated that the Applicant will need to regularly control invasives, however, as part of adaptive management, the Applicant will consult with any regulatory agencies necessary before controlling invasives with fertilizers, pesticides, herbicides, or fungicides. Further, the potential usage of fertilizers, pesticides, herbicides, fungicides and other chemicals in the Proposed Action portions of the Project Site would also be conducted in accordance with State and Federal laws and by licensed professionals.

Table III-18 – Landscaping Schedule

Type/Species		**Quantity**	**Size**
Common Name	***Scientific Name***		
Shade Trees			
Red maple	*Acer rubrum*	89	2.5-3" caliper
Japanese Katsura tree	*Cercidiphyllum japonicum*	101	2.5-3" caliper
Tulip poplar	*Liriodendron tulipifera*	92	2.5-3" caliper
Sawtooth oak	*Quercus acutissima*	95	2.5-3" caliper
Total		*377*	
Ornamental Trees			
Stellar pink dogwood	*Cornus rutgan*	64	2-2.5" caliper
Total		*64*	
Evergreen Trees			
Leyland cypress	*Cupressocyparis leylandii*	49	6-7' tall
Total		*49*	
Evergreen Shrubs			
Inkberry Holly	*Ilex glabra*	115	24-30” tall
Total		*115*	
Deciduous Shrubs			
Hydrangea	*Hydrangea aborescens*	36	3-5’ tall
Garnet Sweetspire	*Itea virginica*	107	24-30” tall
Spicebush	*Lindera benzoin*	124	30-36’ tall

Total		*267*	

Threatened, Endangered, and Special Concern Species

Indiana and Long-Eared Bats

Tree cutting is proposed to occur between October 1st and March 31st to limit any potential impact of the Proposed Action on Indiana and long-eared bats. Where appropriate, snags or dead/dying trees beyond the field-identified limits of disturbance will be left in place to offer potential habitat to bat species.

Proposed Measures to Protect Trees to Remain

No trees in healthy condition beyond the field-identified limits of disturbance would be disturbed. Tree protection measures would include tree protection fencing. This would include delineating limits of disturbance, limiting equipment operation and pruning, and irrigating as necessary. Additionally, trees near working areas may be wrapped at the base by snow fencing to avoid accidental damage to trunks and roots. Snow fencing or other highly visible means of marking should be placed around the maximum area of the root system to prevent the destruction of roots by exposure or through the compaction of soils. Construction crews would be notified to exclude all equipment from these protected areas. If necessary, trees would be protected by tree wells in fill areas and retaining walls in cut areas.

Therefore, the proposed landscaping plantings, vegetated stormwater management practices, and buffer screening vegetation would serve to reduce potential significant impacts to vegetation, ecological communities, and wildlife within and adjacent to the Project Site.

D. Noise

1. Existing Conditions

a. Noise Analysis and Measurements

Sound/noise measurements on and around the project site were made using a Cirrus Research plc CR:171A 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 four (4) locations on and adjacent to the Project Site. Figure III-10 represents the mapped measured locations on a current aerial. Table III-19 depicts the measured locations and their descriptions with relation to the Project Site.

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 straightforward, taken within 10-minute durations and were monitored at the listed locations for existing ambient conditions. The measurements occurred between August 10 and August 11, 2022, during the peak-AM, Midday, and PM scenarios in cloudy conditions with wind no greater than 5 knots and an average temperature of 81 degrees Fahrenheit (F) (i.e., ideal weather conditions for monitoring ambient sound pressure levels).

The measured levels generally relate to the traffic associated with U.S. Route 9W. 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.

Table III-19 – Noise Sampling Locations and Descriptions

MONITORING ID	LOCATION	DESCRIPTION
LOCATION 1A (AUGUST 2022)	US Route 9W, North	East side of Route 9W, North Bound at proposed northern site access, north of interchange with Academy Ave
LOCATION 1B (FEBRUARY 2023)	US Route 9W, North	West side of Route 9W, at Canterbury Lane.
LOCATION 1C (FEBRUARY 2023)	US Route 9W, North Property Line (See footnote)	West side of Route 9W, at Pipeline ROW South Bound (down 30'+ scree slope)[5]
LOCATION 1D (FEBRUARY 2023)	North Property Line (See footnote)	Pipeline ROW – 800 ft. West – opposite Residence north of Site (see footnote)[6]
LOCATION 2 (AUGUST 2022)		West side of Route 9W, at NY Military Academy
LOCATION 3 (AUGUST 2022) (FEBRUARY 2023)	Knoll Crest Ct.	Residential approach at end of Knoll Crest Court
LOCATION 4 (AUGUST 2022)	Frost Ln.	Residential approach at end of Frost Lane at intersection of Stately Oaks

[5] Locations at the Site's northern boundary (on the west side of Route 9W) were deemed **unsafe** and unsuitable for exiting condition monitoring. NYS Route 9W (with high speed and commercial traffic) at or about that location lacks a shoulder, has a guard rail immediately followed (to the west) by a steep, boulder-fill slope (scree) and drop off. Instead, B Laing Associates' personnel monitored the closest safe location at Route 9W at the pipeline ROW (Location 1C) and west 800' opposite (Location 1D) opposite the closest northerly house. See Monitoring Locations Figure with 03-2023 edits. A location north of the site and adjacent to Route 9W, southbound traffic was also monitored as it lacked an intervening slope (providing a representative result) and helps to represent that neighborhood in other analyses. The northern property boundary (with direct line-of-sight to Route 9W) is represented by sound levels corrected for Canterbury Lane, Route 9W west side – southbound AM and PM samples. Per Lanc Tully,E&S, P.C. – February 2, 2023 Item 18, referencing DEIS scope.

[6] Ibid.

b. Sensitive Noise Receptors Surrounding the SIte

A search for "sensitive" noise receptors within 1,500 feet of the site was undertaken for this sound analysis. Sensitive receptors are defined by the EPA to "…include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities." This is consistent with NYSDEC's Guideline as well. Two notable potentially-sensitive receptors exist within the 1,500-foot radium of the Project Site: the New York Military Academy is separated from the site by approximately 1,000-feet as it is directly across U.S. Route 9W from the Project Site. Additionally, Cornwall Central Middle School is approximately 1,450-feet from the Project Site. These receptors are noted on Figure III-10 below.

Figure III-10 – Ambient Sound Sampling and Analysis Locations

2. Potential Impacts

a. Anticipated Noise Generation

The majority of the noise contribution to the ambient conditions at the Project Site come from U.S. Route 9W and local traffic. In addition, potential noise impacts from the Project may result from the increase in traffic from the Proposed Project and from the operational use of the site.

Noise levels associated with vehicular traffic are a function of primarily traffic speed, vehicle mix (automobiles, medium trucks, heavy trucks) and volume. Posted vehicle traffic speeds will not be affected by the Proposed Action. Vehicle mixtures 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 change) equates to an increase in noise of 3 dB(A) utilizing this screening type approach. A 3 dB(A) increase is unnoticed to tolerable according to the NYSDEC noise evaluation guidelines in "Assessing and Mitigating Noise Impacts." An increase in 5-10 decibels would result in an intrusive sound. A 10 dB(A) increase is required before a sound is perceived to be twice as loud.

Information regarding the proposed/anticipated traffic can be found in the "Traffic Impact Study" for the project, prepared by Dynamic Traffic, LLC (prepared under separate cover). That report, has calculated that, following construction, the site will generate, at most, 335 trips in the busiest PM hour. This does not result in doubled traffic volumes at the intersection of U.S. Route 9W. As such, the Proposed Project will have less than 3 dB(A) and will have no significant impact on traffic operating sound levels.

The Proposed Warehouse/Office Facility Project Site, consist of parcels totaling 197.7 acres which front along Route 9W and somewhat east of the NY State thruway I-87. As indicated above, the sound environment adjacent to Route 9W is elevated and in the mid-70's dB(A). As the site is currently unused and wooded, the sound environment on its eastern side has an ambient level that more typical for a commercial use as it is in the in the mid-70's dB(A). Residential neighborhood to the west (and east) has a more typical, residential use sound level of 44 to 51 dB(A).

The proposed Warehouse Facility will be a distribution operation facility center for the products that the owning or leasing company wholesales to contractors and manufacturers with some 10 to 15 percent office space. The

proposed site plan includes five (5) general warehouse/office buildings. The longest/largest of these will be Building C the northeast, approximately 1,205 feet long by 625 feet deep and the smallest, Building B will be in the west-central area, approximately 410 feet long by 365 feet deep. Spaces will be provided for up to 134 truck loading bays (67 facing north and 67 facing south) for the largest warehouse and 22 (facing north) for the smallest. The main entry road way (which will operate at a somewhat lesser speed and so dB-dB(A) level) will run from Route 9W northwestward across the parcel's southeastern acreage to access the warehouses in the parcel's northern and western acreage.

Several items of note will result from the proposed action:

- The facility will occur on a rather large parcel (197.7 acres) of property. Distance always acts to ameliorate sound levels.
- The three warehouse/office buildings on the eastern side of the property will all have their truck loading bays on the western side of the buildings. Since those buildings will be 44 feet high (with a 4 foot "parapet" wall above the roof surface), they will act as barriers to truck sound transmission to residences south of the site with the exception of the southeastern corner of Building D.
- Building D will have an employee, vehicle-only parking lot opposite and 25 northwest from Knoll Crest Road.
- The western side of the three warehouse/office buildings on the southern side of the property will all also have wetlands on their western side. These preserved green spaces eliminate commercial activity on the southern sides of these buildings and will also act to reduce sound transmission to residences south and east of the site.
- The longest warehouse/office building on the eastern side of the property will have 134 truck loading bays total. However, half of which, will occur on the western side of the building. Since the building will be 44 feet high, it will act as barrier to some sound transmission to open space properties and (more distantly) residences northeast of the site.
- However, this building will also have 67 truck bays on the eastern side of the building, opposite wooded/open space properties to the northeast. It will be some 500 plus feet from the northeastern boundary. The potential impact of the trucks associated with these truck bays is

shown in Table 17 and is discussed below.

- The facility may operate up to 24 hours a day.
- The facility will include long-haul trucks and trailers. These equipment types have elevated exhaust systems (as opposed to smaller, box or delivery trucks).
- It is assumed that all loading/unloading activities will occur at the loading bays and inside the warehouse buildings.
- The facility plan will create a main driveway from Route 9W to the site along its southeastern corner and the driveway would be a combined ingress/egress.
- Regular, daily, truck noise resulting from the site's ingress/egress will occur in but it will also be 950 feet south of the closest northern residences (which are also proximate to Route 9W).
- However, the roadway will occur with 78 feet of the easterly property line (as currently planned) and so, will impact sound levels at that boundary (see below).
- Conceptual mitigation proposals for the site's western and eastern property boundary locations are discussed below.

Operational sounds were subjected to an analysis as provided in the spreadsheet presented in Tables III-20 and III-21. Table III-20 "normalizes" the sound levels to dB(A) or weighted as the human ear would perceive them. Table III-21 analyzes the sound levels in distinct octave bands at the closest receptor or boundary at what is expected to be the most "impacted" of locations. In general, the need for sound reduction with the newly-proposed site plan will be fulfilled by the distances involved and the "soft" mature" of the intervening ground/vegetative mix. However, some significant impacts would occur to east, and south. The need for mitigating measures is presented below. Please refer to the Sound Level Analysis and Review included in the Appendix for rationale behind the noise analysis approach.

Table III-20 – Sound Propagation – Impact Screening dB(A)

PROPOSED WAREHOUSE FACILITY - ROUTE 9W, CORNWALL, NY

SOUND PROPAGATION - IMPACT SCREENING
(rev. 01-17-2023)

SOURCE																
	Distance (feet):	32	64	128	256	512	1024									
Vehicles (approx. 20 mph)	Level(dB(A)):	59	53	47	41	35	29									
	Distance (feet):	32	64	128	256	512	1024									
Trucks - Idling*	Level(dB(A)):	67	61	55	49	43	37									
	Distance (feet):	32	64	128	256	512	1024									
Trucks - Forward/level at grade	Level(dB(A)):	72	66	60	54	48	42									
Back-up Beepers*	Distance:	4	8	16	32	64	128	256		512	1024					
Without Reflection:	Level(dB(A)):	87	81	75	69	63	57	51		45	39					
With Reflection:		90	84	78	72	66	60	54		48	42					
	Distance (feet):	10	20	40	80	160	320	640		1280						
Rooftop HVAC (4 units -w barrier)	Level(dB(A)):	86	86	80	74	62	56	50		44						
		Rooftop														

RECEPTORS	Existing Day	Existing Night	Moving Veh's	Moving Trucks	Delta-Day	Delta-Night	Backup Beepers	Delta-Day	Delta-Night	Rooftop HVAC	Delta-Day	Delta-Night	Standards - Chapter 158 Day/Night	DEC-FHWA
Point #1 South Residential Property Line (Closest Approach)	**50.8**	**43.9**	60	72	21.2	28.1	70	19.2	26.1	38	-12.8	-5.9	60.6/55.4	65 -67
Point #2 Northwest Residential Property Line	**50.8**	**43.9**	38	51	0.2	7.1	48	-2.8	4.1	55	4.2	11.1	60.6/55.4	65 -67
Point #3 Northwest Apartment Complex - (Closest Approach)	**50.8**	**43.9**	32	45	-5.8	1.1	45	-5.8	1.1	49	-1.8	5.1	60.6/55.4	65 -67
Point #4A Eastern Ppty Line Entry Rd Closest Approach (at 78 feet)	**50.8**	**43.9**	53	65	14.2	21.1	NA	NA	NA	NA	NA	NA	60.6/55.4	65 -67
Point #4B Eastern Ppty Line NE Bldg C Approach (at 525 feet)	**50.8**	**43.9**	35	47	-3.8	3.1	48	-2.8	4.1	52	1.2	8.1	60.6/55.4	65 -67

RESULTS **WITH SOUND MITIGATION** FENCES (8') AND BERM/FENCE COMBINATIONS (12'), PARAPET WALLS (4') AND ABSORBING COVER (Truck Bays Only)***

RECEPTORS	Existing Day	Existing Night	Moving Veh's	Moving Trucks	Delta-Day	Delta-Night	Backup Bepers	Delta-Day	Delta-Night	Rooftop HVAC	Delta-Day	Delta-Night	Standards - Chapter 158 Day/Night	DEC-FHWA
Point #1 South Residential Property Line (Closest Approach)	**50.8**	**43.9**	47	49	-1.8	5.1	47	-3.8	3.1	32	-18.8	-11.9	60.6/55.4	65 -67
Point #2 Northwest Residential Property Line	**50.8**	**43.9**	38	51	0.2	7.1	48	-2.8	4.1	49	-1.8	5.1	60.6/55.4	65 -67
Point #3 Northwest Apartment Complex - (Closest Approach)	**50.8**	**43.9**	32	45	-5.8	1.1	45	-5.8	1.1	43	-7.8	-0.9	60.6/55.4	65 -67
Point #4A Eastern Ppty Line Entry Rd Closest Approach (at 78 feet)	**50.8**	**43.9**	40	49.2	-1.6	5.3	NA	NA	NA	NA	NA	NA	60.6/55.4	65 -67
Point #4B Eastern Ppty Line NE Bldg C Approach (at 525 feet)	**50.8**	**43.9**	35	47	-3.8	3.1	48	-2.8	4.1	46	-4.8	2.1	60.6/55.4	65 -67

Notes: Distances in feet. Sound levels in decibels- A-weighted (dB(A), sources rounded up to next integer.
* Truck measurements from Oakland, NJ - Proximate to I 287.
*** Echo Barrier or equivilent at 12 feet high on exterior southern wall and around truckloading bays.
Results are calculated at the property line (unless indicated otherwise). Chapter 158 normailzed to dB(A); d(B) are calculated seperately.

Yellow cells = largest predicted increase in sound levels WITHOUT mitigation reductions.
Pink cells = exceeds Town standard.
Differential -13 dB(A) Truck Wall (no echo barrier) and 8 dB(A) sound fence!- barrier insertion calculations.

TTDCWL01 SOUND SCREENING NOVEMBER-DECEMBER 2022 PLAN - JANUARY 2023 REVISIONS

Table III-21 – Sound Propagation – Impact Screening dB(B)

SOURCE	Distance (feet):	32	64	128	256	512	1024						
Trucks - Forward/level at grade	Level(dB(A)):	72	66	60	54	48	42						
APPLICABLE LEVEL			Existing		Moving Trucks	Delta							
Point #1 South Residential Property Line (Closest Approach)		Day	50.8		**72**	21.2	dB(A)	**Without Mitigation**					
Without Mitigation		Night	43.9		**72**	28.1	dB(A)	**Sound Fence*****					
	Moving Truck Data: *	64	dB(A)							Chapter 158	Chapter 158		
			Day		**Without**					DAY	NIGHT		
Octave Band		Source -Unweighted**			Sound Fence***			Proposed		Unweighted	Unweighted		
20Hz		68.9	76.9	dB	0			**76.9**	dB	72	67	dB	
70 Hz		67.2	75.2	dB	0			**75.2**	dB	72	67	dB	
125 Hz		61.2	69.2	dB	0			**69.2**	dB	71	66	dB	
250 Hz		60.4	68.4	dB	0			**68.4**	dB	66	61	dB	
500 Hz		59.2	67.2	dB	0			**67.2**	dB	59	54	dB	
1 kHz		61.6	69.6	dB	0			**69.6**	dB	52	47	dB	
2 kHz		55.1	63.1	dB	0			**63.1**	dB	44	39	dB	
4 kHz		40.9	48.9	dB	0			**48.9**	dB	34	29	dB	
8 kHz		35.7	43.7	dB	0			**43.7**	dB	25	20	dB	
APPLICABLE LEVEL			Existing		Moving Trucks	Delta							
Point #1 South Residential Property Line (Closest Approach)		Day	50.8		**72**	21.2	dB(A)						
With Mitigation		Night	43.9		**72**	28.1	dB(A)						
	Moving Truck Data: *	64	dB(A)							Chapter 158	Chapter 158		
			Day		**Mitigation**					DAY	NIGHT		NIGHT
Octave Band		Source -Unweighted**			**Sound Fence*** **			Proposed		Unweighted	Unweighted		Delta
20Hz		68.9	76.9	dB	22.9			**54.0**	dB	72	67	dB	-13.0
70 Hz		67.2	75.2	dB	22.9			**52.3**	dB	72	67	dB	-14.7
125 Hz		61.2	69.2	dB	22.9			**46.3**	dB	71	66	dB	-19.7
250 Hz		60.4	68.4	dB	22.9			**45.5**	dB	66	61	dB	-15.5
500 Hz		59.2	67.2	dB	22.9			**44.3**	dB	59	54	dB	-9.7
1 kHz		61.6	69.6	dB	22.9			**46.7**	dB	52	47	dB	-0.3
2 kHz		55.1	63.1	dB	22.9			**40.2**	dB	44	39	dB	1.2
4 kHz		40.9	48.9	dB	22.9			**26.0**	dB	34	29	dB	-3.0
8 kHz		35.7	43.7	dB	22.9			**20.8**	dB	25	20	dB	0.8

Notes: Distances in feet. Sound levels in decibels, sources rounded up to next integer.
* Truck measurements from Oakland, NJ - Proximate to I287.
** 8' Fence at east side of parking lot.
*** 4' berm+8' fence NE Corner - Building D.
Pink cells = exceedance of Town standards.
Yellow = Highest increases.
TTDCWL01 SOUND SCREENING JANUARY 2023 OCTAVE BAND DB ONLY

SOURCE	Distance (feet):	32	64	128	256	512	1024						
Trucks - Forward/level at grade	Level(dB(A)):	72	66	60	54	48	42						
APPLICABLE LEVEL			Existing		Moving Trucks	Delta							
Point #4 **Southeastern** Property Line (Closest Approach)		Day	50.8		**65**	14.2	dB(A)	**No** Boundary					
		Night	43.9		**65**	21.1	dB(A)	Sound Fence***					
	Moving Truck Data: *	64	dB(A)							Chapter 158	Chapter 158		
			Day		**No** Boundary					DAY	NIGHT		
Octave Band		Source -Unweighted**	65	dB(A)	Sound Fence***			Proposed		Unweighted	Unweighted		
20Hz		68.9	69.9	dB	0			**69.9**	dB	72	67	dB	
70 Hz		67.2	68.2	dB	0			**68.2**	dB	72	67	dB	
125 Hz		61.2	62.2	dB	0			**62.2**	dB	71	66	dB	
250 Hz		60.4	61.4	dB	0			**61.4**	dB	66	61	dB	
500 Hz		59.2	60.2	dB	0			**60.2**	dB	59	54	dB	
1 kHz		61.6	62.6	dB	0			**62.6**	dB	52	47	dB	
2 kHz		55.1	56.1	dB	0			**56.1**	dB	44	39	dB	
4 kHz		40.9	41.9	dB	0			**41.9**	dB	34	29	dB	
8 kHz		35.7	36.7	dB	0			**36.7**	dB	25	20	dB	
APPLICABLE LEVEL			Existing		Moving Trucks	Delta							
Point #4 **Southeastern** Property Line (closest Approach)		Day	50.8		**65**	14.2	dB(A)						
With Mitigation		Night	43.9		**65**	21.1	dB(A)						
	Moving Truck Data: *	64	dB(A)							Chapter 158	Chapter 158		
			Day		**Mitigation**					DAY	NIGHT		NIGHT
Octave Band		Source -Unweighted**			**Sound Fence*** **			Proposed		Unweighted	Unweighted		Delta
20Hz		68.9	69.9	dB	13.6			**56.3**	dB	72	67	dB	-10.7
70 Hz		67.2	68.2	dB	13.6			**54.6**	dB	72	67	dB	-12.4
125 Hz		61.2	62.2	dB	13.6			**48.6**	dB	71	66	dB	-17.4
250 Hz		60.4	61.4	dB	13.6			**47.8**	dB	66	61	dB	-13.2
500 Hz		59.2	60.2	dB	13.6			**46.6**	dB	59	54	dB	-7.4
1 kHz		61.6	62.6	dB	13.6			**49.0**	dB	52	47	dB	2.0
2 kHz		55.1	56.1	dB	13.6			**42.5**	dB	44	39	dB	3.5
4 kHz		40.9	41.9	dB	13.6			**28.3**	dB	34	29	dB	-0.7
8 kHz		35.7	36.7	dB	13.6			**23.1**	dB	25	20	dB	3.1

Notes: Distances in feet. Sound levels in decibels, sources rounded up to next integer.
* Truck measurements from Oakland, NJ - Proximate to I287.
** At Property Line.
*** As currently proposed.
Pink cells = exceedance of Town standards.
Yellow = Highest increases.
TTDCWL01 SOUND SCREENING SEPTEMBER 2022 OCTAVE BAND DB ONLY

b. Compliance with Town Noise Requirements

The Town of Cornwall regulates standards noise/sound pressure levels in Chapter 101 of their Town Code "Noise". Further, sound produced by commercial activity is regulated through the Zoning Code Chapter 158-17 "Dangerous and objectionable elements; performance standards." Per the Town of Cornwall, Chapter 101-2 no construction or demolition related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday.

Chapter 158-17 reads that noise radiated continuously, to a property line, from a facility at nighttime (7 p.m. to 7 a.m.) shall not exceed the values for octave bands lying within the frequency limits given in Table III-22 below. These values are considered after applying applicable corrections found in Table III-23 below, which allow for variability in sound character, timing, and frequency of occurrence.

Table III-22 – Table I from Town of Cornwall Code, Chapter 158-17

Maximum permissible sound-pressure levels at specified points of measurement for noise radiated continuously from a facility between the hours of 7:00 p.m. and 7:00 a.m.

Frequency Ranges Containing Standard Octave Bands (cycles per second)		Octave Band Sound-Pressure Level (decibels) (re 0.0002 dyne/cm)
20	75	67
75	150	66
150	300	61
300	600	54
600	1,200	47
1,200	2,400	39
2,400	4,800	29
4,800	10,000	20

Table III-23 – Table II from Town of Cornwall Code, Chapter 158-17

Type of Operation or Character of Noise	Correction (decibels)
Daytime operation only	Plus 5
Noise source operates less than 20% of any one-hour period	Plus 5*
Noise source operates less than 5% of any one-hour period	Plus 10*
Noise of impulsive character (hammering, etc.)	Minus 5
Noise of periodic character (hum, screech, etc.)	Minus 5

*NOTE: Apply one of these corrections only.

c. Hours of Operations

The proposed facilities may operate up to 24 hours a day, dependent on the ultimate tenants and their operations for each building.

d. Public Address Systems

Information regarding public address systems for each facility is to be confirmed with the respective tenant for each building. At this time, the only anticipated public address systems for the site will be implemented for emergency announcement purposes only.

e. Construction Noise Impacts

Per the Town of Cornwall, Chapter 101-2, no construction or demolition related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday. No construction activities will occur on site during these times.

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 noise levels for development 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, Table 2.2-measured at 50 feet). Per the Construction Chapter in this report, the proposed construction schedule includes several phases spanning a

period of several years from notice to proceed (NTP) to completion once all permits and approvals are granted. In a typical construction schedule, 3 to 5 months of outdoor equipment operations would occur for each building.

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 form some common equipment used in construction can be found in Tables III-24 and III-25 below. Additional noise generation during construction will originate from the use of jack-hammering and blasting equipment during the site clearing and site work stages of construction. As a result of dB and dB(A) sound analyses, no significant impacts are anticipated from these activities. Furthermore, the noise generation during construction will be primarily dependent on the hours of operation dictated by the Town Code rather than sound levels from various construction activities. As mentioned above, no regulated construction activities such as jack-hammering and blasting will occur outside of the Town Code's permitted hours of operation. Please refer to the Blasting Addendum included in the Appendix of this report for additional noise generation information related to blasting activities.

Table III-24 – Projected Noise Levels for Construction Equipment

Noise 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)

Source: The Aggregate Handbook, 1991

Table III-25 – Common Equipment Sound Levels

Equipment	Decibel Level dB(A)	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)		

Elevated sound levels during excavation, building foundation and shell plus site work will include both mobile and stationary sources. As an example, these sources could include 2 excavators, front end loader, Lattice crane, and generator.

Once the “rough grading” has been finalized and foundations have been poured, peak upper sound levels will decline as the construction use tools which are (1) smaller, (2) less continuous in use and (3) begin to move “indoors”. At the second phase of construction, heavy equipment is generally replaced by internal work and hand-equipment on external work.

The Project Site covers a significantly large area. The actual sound levels which will be experienced by existing off-site residential uses surrounding the site will be a function of distance, the equipment in operation at any give time, and the speed at which the equipment engines are operating. As such, there is no one single sound level that will occur during construction, and no one existing residential use will be exposed to the same sound levels over a period of time, as construction progress through the site. The construction noise levels described

above are assumed for people outside. A building or structure will provide significant attenuation for those who are indoors. Sound levels can be expected to be up to 27 dB(A) lower indoors with the windows closed. Even in homes with windows open, indoor sound levels can be reduced by up to 17 dB(A) (USEPA 1978).

3. Proposed Mitigation Measures

a. Mitigation for Minimizing Noise Impacts

The three warehouse/office buildings on the southwestern side of the property will all have their truck loading bays on the northern side of the buildings. Since those buildings will be 44 feet high, they will act as barriers to sound transmission to residences south of the site, with the exception of the southeastern corner of Building D (which will be mitigated as described below). Buildings B and D will have employee vehicle-only parking on their southern sides which will be mitigated by sound fencing described below. The western side of the three warehouse/office buildings on the southwestern side of the property will all also have wetlands on their southern side. These preserved green spaces eliminate the possibility of commercial activity on the southern sides of these buildings and will also act to reduce sound transmission to residences south of the site.

The longest/largest of these will be Building C the northeast, approximately 1,205 feet long by 625 feet deep. Spaces will be provided for up to 134 truck loading bays; 67 facing north - mitigated by a 500 foot plus separation from the northeastern property boundary and 67 facing south – a mitigating feature in itself for the largest warehouse.

The facility plan will create a single driveway from Route 9W to the site along its southeastern corner and the driveway would be a combined ingress/egress. Thus, regular, daily, truck noise resulting from the site's vehicular ingress/egress will occur on the northerly boundary. The roadway will occur within 78 feet of the northerly property boundary line and so, there may be impacts to sound levels at that boundary. However, these impacts will also be mitigated by a berm/sound fence combination described below.

The analysis revealed that several significant noise impacts would occur as a result of the proposed project. The measures necessary to mitigate these potential impacts will include:

- The construction of a sound wall fence on the southern and western sides of Vehicle only parking located south of Buildings B and D.

- The construction of 4 foot berm/8 foot fence sound barrier combination (for total height of 12 feet) to the southeastern corner of Building D (approximately 240 feet long). The mitigation will add echo barrier padding (or equivalent) to the interior/north-face upper edge of the fence.
- Move the secondary entry/exit for truck traffic on Building D's eastern side so that it is 300 feet north of the southeastern property boundary where it abuts Knoll Crest Road and close off Building D's southerly entry/exit for truck traffic. Allow vehicular access only.
- Include sound-absorbent padding around Building A's northern plus Building C's and D's eastern truck loading bays.
- A 4 foot high "parapet" wall will extend above the buildings' roof levels (40 feet) and surround HVAC equipment to be located there to reduce the transmission of sounds from these units.
- Move the main entry road as westward as possible (and in consideration of zoning setbacks).
- Add a 4 foot berm/8 foot fence sound barrier combination (for a total height of 12 feet) to the east of the entry roadway (after it is moved southward). This would extend northwestward to survey station 13+00.
- Monitor the site just before, during and following construction to ensure compliance.

E. Geology, Soils and Topography

1. Existing Conditions

a. Topographic Mapping

Existing site conditions and topographic information are depicted on a May 18, 2021 Wetlands Map prepared by Lanc & Tully Engineering and Surveying (prepared under separate cover). The topography at the site includes several hills within the southern portion of the property; with local peaks typically ranging in elevation between approximately 230.0 feet and 244.0 feet. Existing site grades generally slope downward towards the north and east; eventually reaching low elevations of approximately 136.0 feet near the northern and eastern property boundaries. A relatively steep slope is located within the northeastern portion of the site, where vertical elevation change on the order of 20 to 25 feet occurs over a relatively short horizontal distance of approximately 50 to 75 feet.

b. Significant Geological Features

The site is a relatively heavily wooded parcel with existing topography ranging from moderately steep to relatively steep slopes. Wetland areas are identified in the within the central and southern portions of the site; and rock outcrops are present throughout the site. The majority of the site drain towards the northern and western property boundaries, in the direction of Moodna Creek.

Dynamic Earth previously performed soil borings and test pits at the site to preliminarily investigate subsurface conditions as related to the proposed site development; including the physical/textural characteristics of the soil, geologic structure of the underlying weathered rock/rock, seasonal high groundwater levels and permeability of the in-situ soils. The subsurface soil profile typically included glacial till and alluvial deposits overlying weathered rock/bedrock. Based on the preliminary testing performed, it is anticipated that the proposed structures may be supported on a conventional shallow foundation system bearing within approved portions of the underlying natural soils, weathered rock/rock and/or newly placed structural fill.

Per the field work completed by Dynamic Earth, aside from the general topography and existing soil conditions onsite, there did not appear to be any significant geological features that would negatively impact development of the Project.

c. Soil Types and Characteristics

The geologic site setting includes the Manhattan Prong Physiographic Province of New York. Specifically, the site is underlain by Quaternary Aged Glacial and Alluvial Deposits that is reported to be underlain by bedrock of unknown origin. Graywacke and shale bedrock are mapped underlying a relatively small area within the southeastern portion of the site.

Based on a review of the United States Department of Agriculture – Natural Resources Conservation Services (USDA-NRCS) soil survey, the soil resources mapped within the area of subject site are summarized in the figures and descriptions below.

Figure III-11 - USDA-NRCS Soil Survey

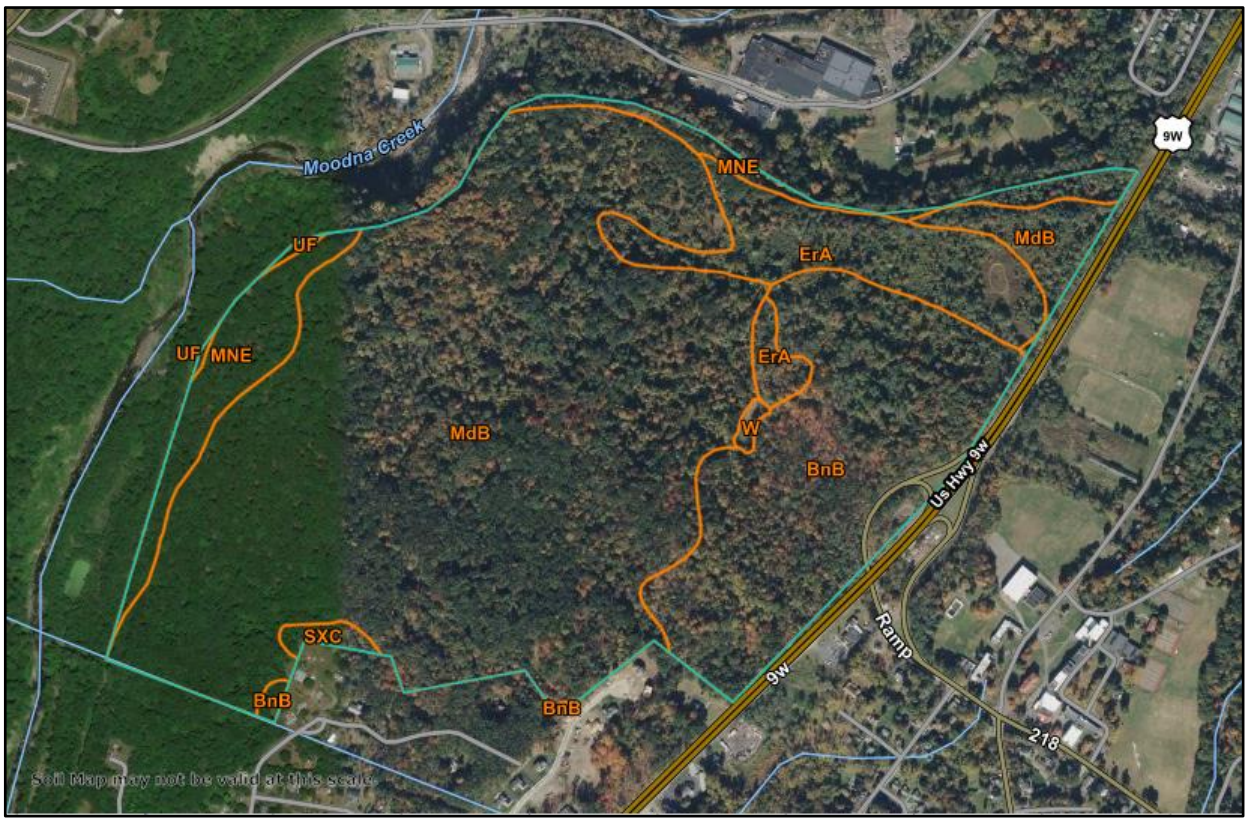


Table III-26 - Soil Type and Areas

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BnB	Bath-Nassau channery silt loams, 3 to 8 percent slopes	47.5	20.0%
ErA	Erie gravelly silt loam, 0 to 3 percent slopes	19.9	8.4%
MdB	Mardin gravelly silt loam, 3 to 8 percent slopes	153.1	64.5%
MNE	Mardin soils, steep	14.5	6.1%
SXC	Swartswood and Mardin soils, sloping, very stony	1.3	0.5%
UF	Udifluvents-Fluvaquents complex, frequently flooded	0.4	0.2%
W	Water	0.5	0.2%
Totals for Area of Interest		**237.1**	**100.0%**

Bath-Nassau channery silt loams, 3 to 8 percent slope (BnB): This soil series is mapped within the eastern portions of the site. The typical soil profile (as reported in the soil survey) generally consists of channery silt loam to a depth of 29 inches; very channery silt loam to a depth of 53 inches; underlain by unweathered bedrock to a depth of 57 inches below the natural ground surface (limit of the report). Groundwater is reported to be between 24 to 30 inches below the natural ground surface.

Erie gravelly silt loam, 0 to 3 percent slope (ErA): This soil series is mapped within a relatively small area within the northeast portion of the site. The typical soil profile (as reported in the soil survey) generally consists of gravelly silt loam to a depth of ten inches; underlain by channery silt loam to a depth of 70 inches below the natural ground surface. Groundwater is reported to be approximately between six to 18 inches below the natural ground surface.

Mardin gravelly silt loam, 3 to 8 percent slope (MdB): This soil series is mapped within the central portion of the site (covering majority of the site). The typical soil profile (as reported in the soil survey) generally consists of gravelly silt loam to a depth of 72 inches below the natural ground surface. Groundwater is reported to be approximately 13 to 24 inches below the natural ground surface.

Mardin soils, steep (MNE): This soil series is mapped within a small area within the northeastern and western portions of the site, near the edge of the property. The typical soil profile (as reported in the soil survey) generally consists of gravelly silt loam to a depth of 72 inches below the natural ground surface. Groundwater is reported to be approximately between 13 to 24 inches below the natural ground surface.

Swartswood and Mardin soils, sloping, very stony (SXC): This soil series is mapped within the northern portion of the site. The typical soil profile (as reported in the soil survey) generally consists of gravelly loam to a depth of 3 inches; underlain by gravelly fine sandy loam to a depth of 60 inches below the natural ground surface. Groundwater is reported to be between 23 to 31 inches below the natural ground surface.

Udifluvents-Fluvaquents complex, frequently flooded (UF): This soil series is mapped within a relatively small area within the western portion of the site. The typical soil profile generally consists of very gravelly loam to a depth of four inches; underlain by very gravelly sand to a depth of 70 inches. Groundwater is reported to be approximately between 24 to 72 inches below the natural ground surface.

d. Existing Drainage Conditions

The site has been evaluated using the TR-55 'Urban Hydrology for Small Watersheds' standards with the following existing drainage sub-watershed area as depicted on the Existing Drainage Area Map, included in the Appendix of the SWPPP Report (prepared under separate cover).

Ex. Study Area North (Moodna Creek): This study area consists of the majority of the project site. Under existing conditions this study area consists of large wooded areas, wetland C, stone walls, and steep slopes. Stormwater in this study area flows north overland and is ultimately tributary to the Moodna Creek located just outside of the property boundaries.

Ex. Study Area South (Route 9W): This study area consists of the southern portion of the site. Under existing conditions this study area consists of large wooded areas, stone walls, and steep slopes. Stormwater in this study area flows south overland and is ultimately tributary to an existing culvert located within U.S. Route 9W before discharging to a tributary of the Moodna Creek offsite.

2. Potential Impacts

a. Grading Plan

Relatively shallow seasonal high groundwater and groundwater were encountered within the soil borings and test pit excavations performed. In addition, perched zones of saturation above the underlying rock stratum may be encountered within proposed excavations. As such, the contractor should anticipate the need for groundwater control during construction.

b. Cut and Fill Estimates

As previously noted, grading limits have been established on the Grading Plans and Soil Erosion and Sediment Control Plans. The Overall Grading and Heat Map Exhibit (prepared under separate cover) was prepared for the entire Proposed Project to depict areas of cut and fill through colored hatching. Based upon the cut & fill analysis generated for the proposed grading plan, there will be a surplus of approximately 783,000 cubic yards of fill (approximately 48,000 truckloads and including select fill material) required for the Project. It should be noted any proposed export material will be relocated offsite and disposed of in accordance with local and State

requirements. The final location of export material will be determined prior to construction and is expected to be as localized to the Project Site as feasible to minimize the travel distance necessitated to export.

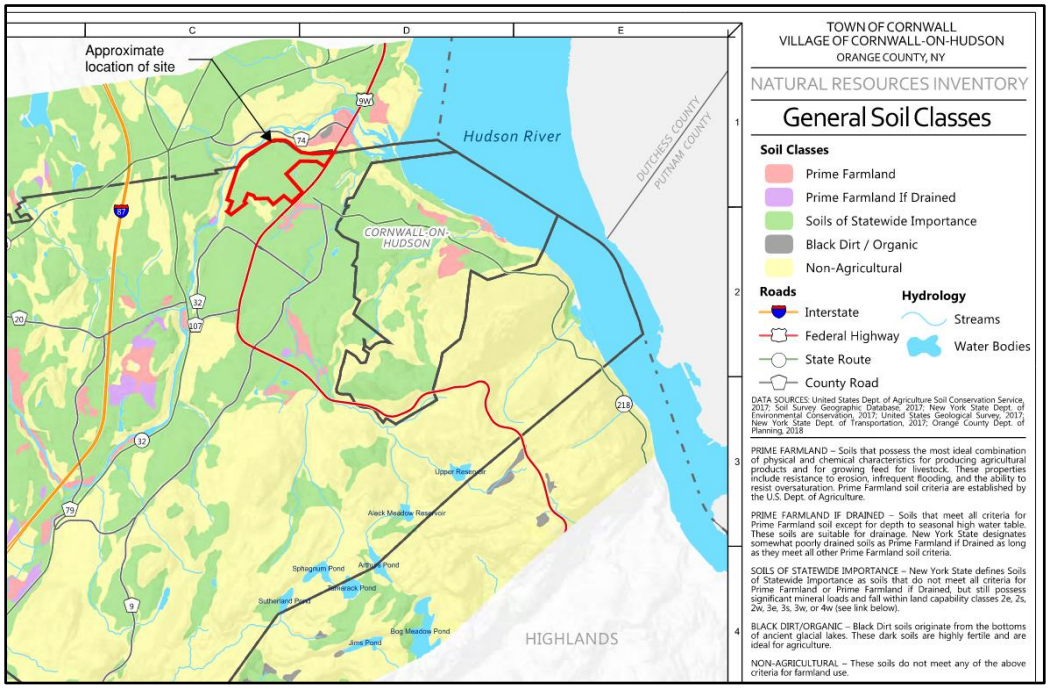
c. Removal of Rock

Based on a subsurface investigation performed at the site by Dynamic Earth (see Supplemental Dynamic Earth report prepared under separate cover), relatively shallow weathered rock/rock was encountered throughout the site. Therefore, specialty excavation equipment (i.e. pneumatic hammers and rock ripping excavator buckets) is expected as part of the proposed site development to remove upper portions of the weathered rock. Blasting of rock may be required where relatively deeper earth cuts are proposed into the underlying sound bedrock. If blasting is required, the appropriate permits will be filed with the local Building Department and all applicable blasting procedures and regulations will be followed. Please refer to the accompanying Conceptual Blasting Plan and Geotechnical Report for additional information regarding required Blasting (included in the Appendix of the Geotechnical Report prepared under separate cover).

d. Soils of Statewide Importance

Based on a General Soil Classes map provided in the Cornwall Natural Resources Inventory 2019 (Figure III-12 below), the site is underlain by both non-agricultural soils and soils of statewide importance. Soils of Statewide Importance do not meet the criteria for Prime Farmland, but still possess significant mineral loads that can support agriculture under the right conditions.

Figure III-12 - Cornwall Natural Inventory Soil Classes Map



e. Proposed Retaining Walls

Based on the existing site topography and preliminary anticipated grading plans, retaining walls are anticipated as part of the proposed site development. The specific type and layout of retaining walls have not been defined at this time; however, the walls are preliminarily expected to be located around the perimeter of proposed pavement areas, and will have maximum exposed wall heights on the order of 20 to 30 feet. Granular (sandy) portions of the on-site soils are generally expected to be suitable for use as retaining wall backfill, provided they meet the required gradation and they are properly tested and inspected during construction.

f. Impacts to Slope Stabilization

Construction on steep slopes and other environmental features on the Project Site has been avoided to the greatest extent practicable. Construction phasing will be prepared to ensure that construction is sequenced to minimize the amount of exposed area and slopes at any one given time. The proper implementation of the Erosion and Sediment Control Plan will ensure soils and slopes are properly protected and stabilized during construction.

g. Removal of Vegetation

Localized clearing and grading would result in disturbance to presently stable soils and removal of vegetation, which could result in water quality impacts due to raised sedimentation levels. Minor temporary impacts to flora and fauna would occur due to the removal of vegetation and disturbance of certain habitat areas. Portions of these communities would be renaturalized following construction activity through the establishment of an abundance and diversity of native trees, shrubs and groundcovers and through the control of invasive vegetation.

3. Proposed Mitigation Measures

a. Erosion and Sediment Control Plan

An Erosion and Sediment Control Plan has been prepared for the Project, as seen in the Preliminary and Final Site Plan Drawings (prepared under separate cover). The Erosion and Sediment Control Plan would be implemented at the start of construction and would continue throughout the construction period, as outlined in the New York State Standards and Specifications for Erosion and Sediment Control. The proper implementation of the Erosion and Sediment Control Plan will ensure soils and slopes are properly protected and stabilized during construction. Throughout the construction phasing process, various soil erosion and sediment control measures will be implemented to ensure the proper and safe build-out of the Proposed Action is achieved. These measures include but are not limited to the following: inlet filters around proposed drainage and utility structures, haybale sediment barriers, silt fencing around proposed limits of disturbance and proposed stockpile areas, stockpile areas for temporary soil stockpiling, and tree protection actions.

b. Summary of Blasting Plan

The proposed grading design has been prepared to minimize the amount of blasting required for the Project. Based upon soils testing performed to date, significant blasting is not anticipated. If rock is encountered in deeper excavations, it is likely to be weathered and accordingly will be ripable with the use of large excavation equipment. Please refer to the accompanying Conceptual Blasting Plan and Geotechnical Report for additional information regarding required Blasting (included in the Appendix of the Geotechnical Report prepared under separate cover).

A vibration monitoring program will be conducted during rock blasting operations at the site. As indicated on the Potential Blasting Monitoring Exhibit, nine locations have preliminarily been identified for monitoring within/near the perimeter of the site. The vibration monitoring may be performed concurrent with the noise monitoring at these locations.

The vibration monitoring program will include monitoring locations adjacent to US Route 9 W (near the southern and eastern property boundaries); adjacent to the southern and southwestern property boundary (near the residential developments along Knoll Crest Court and Frost Lane); within the southern portion of the site (adjacent to the Catskill Aqueduct); to the west and northwest of the site (near Moodna Creek and the neighboring Knox Village); and adjacent to the northeastern property boundary (near Forge Hill Road and the adjacent commercial/residential development).

The vibration monitoring program will include installation of seismograph sensors to record vibration levels and air overpressure monitoring using a microphone. The vibration levels will be compared versus the allowable threshold and the contractor will be notified of any exceedances. The results of the vibration monitoring, including blast/monitoring locations, seismograph records and air overpressure data, will be presented in a summary report and distributed to the project team.

Additional correspondence may be required to determine the vibration monitoring methodology for the Catskill Aqueduct in the southwestern portion of the site. If required due to the depth of the Aqueduct, vibration monitoring sensors may be installed via boreholes to gather data from a relatively deeper elevation. In addition, a pre-construction and post-construction survey are recommended to document the condition of the adjacent structures prior and subsequent to blasting activities.

c. Excess Cut and Imported Fill

As previously noted, grading limits have been established on the Grading Plans and Soil Erosion and Sediment Control Plans. The Overall Grading and Heat Map Exhibit (prepared under separate cover) was prepared for the entire Proposed Project to depict areas of cut and fill through colored hatching. Based upon the cut & fill analysis generated for the proposed grading plan, there will be a surplus of approximately 783,000 cubic yards of fill (approximately 48,000 truckloads) required for the Project. As such, any excess cut throughout the site will be

utilized for construction on another portion of the site, if suitable. Proposed stockpile areas have been identified on the Erosion and Sediment Control Plan sheets throughout the project site. These areas have the ability to store all excess, excavated material in a stockpile. The stockpiled soil shall be appropriately stabilized and protected with erosion control measures as per details found on the Site Plan drawings. The Applicant will coordinate with the Town Engineer to review potential fill locations that might require a Town Clearing & Grading Permit prior to construction.

d. Construction Phasing and Staging

As previously noted, the Proposed Project would be developed in 3 overall phases, as depicted on the Overall Phasing Plan Exhibit (prepared under separate cover). Phase 1 is considered the main circulation drive aisle throughout the site including underground utilities, grading, and ancillary stormwater basins adjacent to the roadway. Phase 2 will be considered the main circulation aisle along the rear of the site, including stabilizing regional stormwater basins and the largest retaining wall along the norther property boundary. Phase 3 is broken up into sub-phases A through E, depending on which warehouse building will be constructed first. The phasing operations and sequencing are subject to change based on confirmation of tenants on the Project Site. In addition, the phasing can be broken down further into additional phases as needed to comply with required disturbance limitations set forth by the Town. However, please note given the Proposed Project scope, it efforts to effectively construct each phase in a timely manner, a waiver from the NYSDEC 5 acre disturbance limitation will be required and is requested for the Project. Approval of the waiver to disturb areas larger than 5 acres will increase the speed in which the improvements can be constructed to mitigate the overall impact to the adjacent roadway network and surrounding properties during construction.

e. Alternatives to Mitigate Slope Stabilization

Proposed slope stabilization methods will be provided in accordance with New York State Standards and Specifications for Erosion and Sediment Control. No negative impact to the adjacent Moodna Creek is anticipated to result from the proposed development.

f. Others Required

This section is intentionally left blank at this time.

F. Subsurface and Surface Waters

1. Existing Conditions

This section describes the following existing natural resources within the Study Area on the basis of existing information and the results of the reconnaissance field survey: groundwater, surface waters, floodplains, and wetlands based on the Natural Resource Inventory (NRI) surveys, wetland delineation, and the investigating team's experience and familiarity with the site.[28]

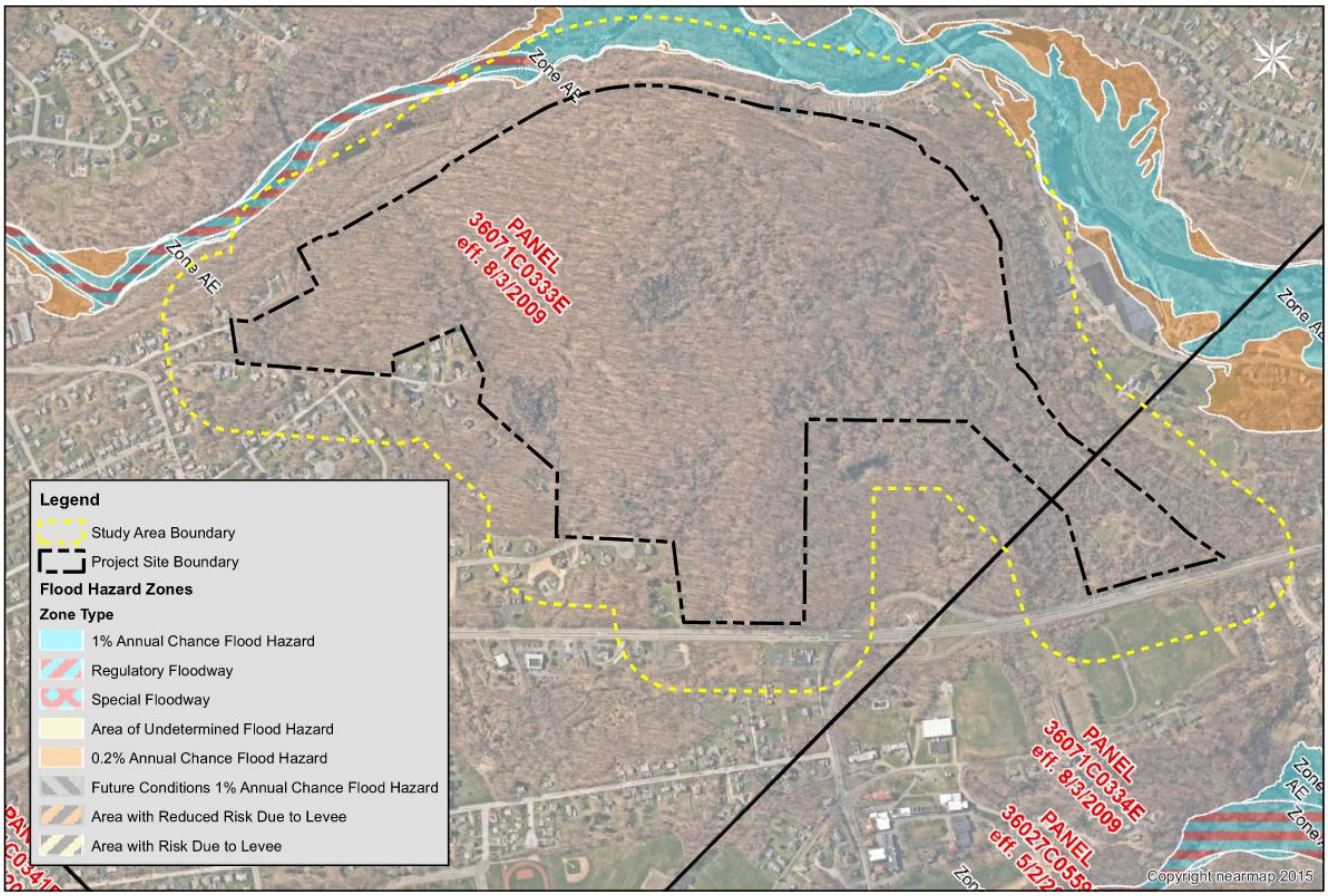
a. FEMA Floodplains and Floodways

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) are official maps of a community on which FEMA has delineated both the special hazard areas and, for insurance purposes, the risk premium zones applicable to the community. The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area (SFHA). A base flood is the flood having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the 100-year flood. Most floods fall into three major categories: riverine flooding, coastal flooding, and shallow flooding.

The Project Site is located entirely outside of the currently effective floodplain boundaries, including the floodway of Moodna Creek, located north and west of the Project Site as depicted on Figure 13 (FIRM). No coastal flood zones are mapped on the Project Site.

[27] NRI Field Surveys March 2022 to present; Other site visits March 17, March 24, and March 30, 2021.

Figure III-13 – FEMA Flood Insurance Rate Map



b. Existing Drainage Patterns

The existing drainage leaving the site runs through several culverts along the back portion of the site that run under the abandoned railroad bed. These culverts range from 12" to 36", and are either cast iron or corrugated metal pipe. These culverts were found to be in good structural condition. The water draining from the front portion of the Project Site drains through a 48" reinforced concrete pipe that runs under Route 9W, which is in good structural condition. Full existing drainage patterns can be seen on the Existing Drainage Area Map Exhibit included in the accompanying SWPPP Report (prepared under separate cover).

c. Existing Runoff to Moodna Creek

A major part of the site drains to the Moodna Creek, which lies just offsite, to the west and north of the Project Site. The surface drainage to the Moodna Creek flows across the site via sheet flow, and eventually collects in

less defined drainage channels. In the eastern part of the site, similar channels flow eastward to a small stream which lies about 500 feet east of NYS Route 9W, and which is tributary to the Moodna Creek.

d. State and Town Stormwater Regulations

In 1972, the Clean Water Act was established to regulate "Point Source" discharges of pollutants to the "Water of the U.S." Amendments were made to the act in 1987 in which a phased approach to regulating stormwater discharges would be required. In 1990, the U.S. Environmental Protection Agency (EPA) established a Phase I of the National Pollutant Discharge Elimination System (NPDES) stormwater program. This regulation established requirements for a stormwater permit application process. In New York State, Phase I became effective in 1992, in which regulated stormwater activities are covered by a State Pollutant Discharge Elimination System (SPDES) permit. Phase I regulated 11 types of industrial activities, and medium to large municipalities with populations greater than 10,000 and 250,000 respectively. In December of 1999, the second half of the program was put into place to control stormwater. Phase II expanded the scope of activities to be regulated and increased the number of municipalities and businesses that required permits. Under Phase II regulations, construction activities disturbing one acre or more are required to file for permit coverage. To comply with Phase II, New York State, in January 2003, issued non-industrial Stormwater Management General Permits under the SPDES. The state regulation requires operators of regulated construction sites to obtain coverage under General Permit GP-0-20-001. Under this permit, construction site operators must notify the state of any project disturbing one acre or more, prepare a formal written Stormwater Pollution Prevention Plan (SWPPP) and adhere to the provisions of the plan during and after construction.

The Town of Cornwall Town Code includes general legislation pertaining to the proposed Stormwater Management measures implemented with an associated site development. As stated in Chapter 121 of the Town Code, the purpose and objective of the Stormwater Management regulations is to ensure all proposed stormwater management facilities are being designed to meet the minimum acceptable standards of the SPDES general permit for MS4s. This includes, but is not limited to, development activities conforming to the requirements of New York State SPDES general permit for construction activities (GP-0-20-001), minimizing increases in stormwater runoff, minimizing increases to pollution cause by stormwater runoff, and reducing stormwater runoff rates and volumes, soil erosion and nonpoint source pollution. Additionally, the Town Code provides Stormwater Management and Stormwater Runoff requirements to protect public welfare of the

citizens of the Town of Cornwall, prevent damage from flooding, protect the integrity of community waters, encourage protection of natural drainage systems, protect and maintain habitat of fish and wildlife, and assure the attainment of these objectives through required approvals and the implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all regulated activities adversely impacting the surrounding areas.

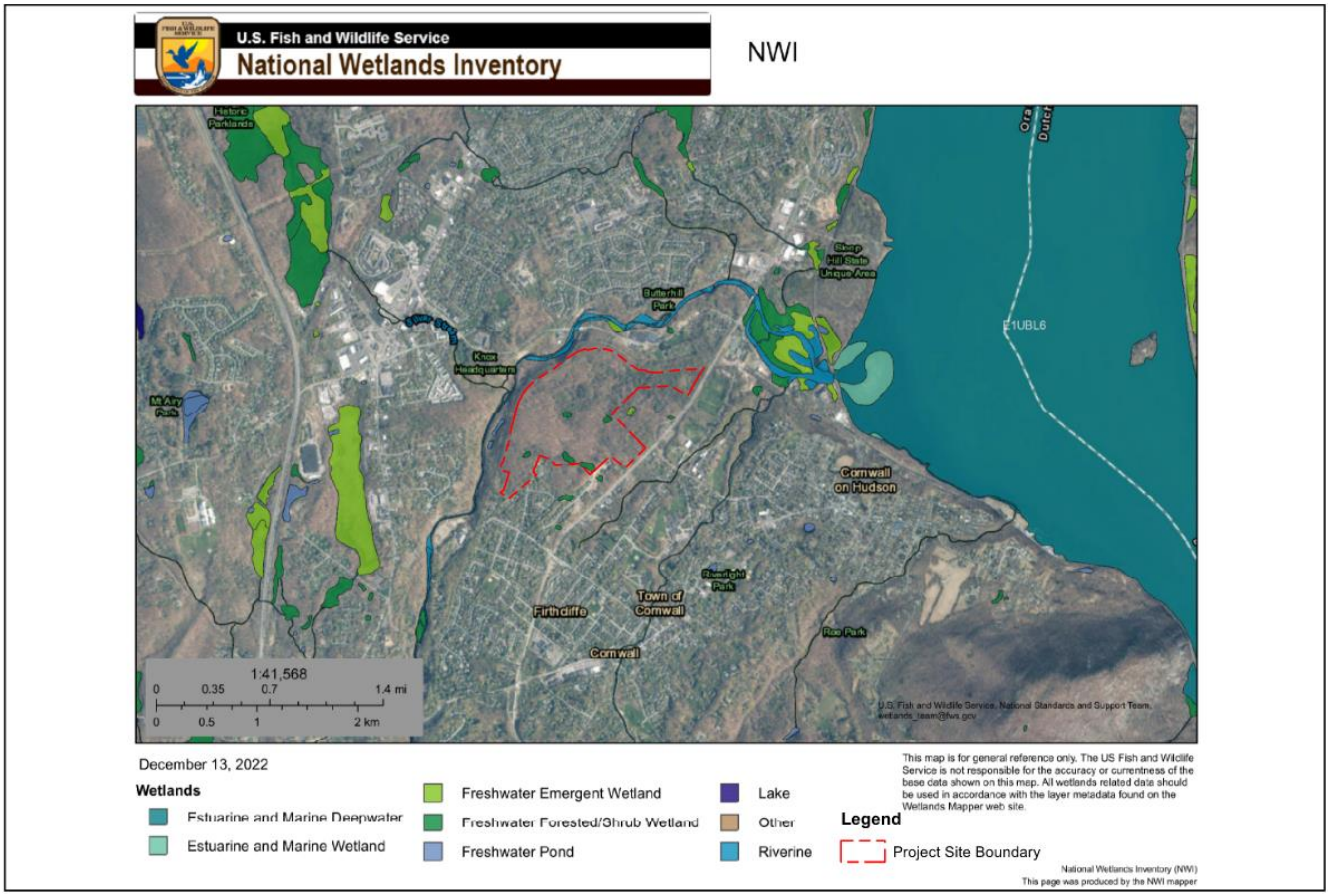
e. Surface Water Resources

The Project Site is located within the USGS Hudson-Wappinger Watershed (HUC 02020008). No mapped rivers, streams, or creeks are located on the Project Site. Funny Child Creek is located, at a minimum, approximately 450 feet east of the Project Site. As depicted on Figure III-14, the portion of Funny Child Creek within the vicinity of the Project Site is mapped by the NWI as:

- PFO1A (Palustrine, Forested, Broad-Leaved Deciduous, Temporary Flooded)

Offsite, Funny Child Creek meanders northeast 5,000 feet to Moodna Creek and the Hudson River estuary.

Figure III-14 – National Wetlands Inventory



Moodna Creek is located, at a minimum, approximately 250 feet to the north and west of the Project Site. As depicted on Figure III-14, the portion of Moodna Creek within the vicinity of the Project Site is mapped by the NWI as freshwater reached defined as:

- R3RBH (Riverine, Upper Perennial, Rock Bottom, Permanently Flooded), and
- R1UBV (Riverine, Tidal, Unconsolidated Bottom, Permanently Flooded-Tidal)

Based on the above descriptions, this portion of Moodna Creek is marginally tidally influenced by the Hudson River as it encompasses the upstream limit of tidal fluctuations. Offsite, Moodna Creek meanders east 3,000 feet to the Newburgh Bay and the Hudson River estuary.

Water Quality

Title 6 of the New York Code of Rules and Regulations (NYCRR) Part 701 includes classifications for surface waters and groundwater. The NYSDEC classification of Funny Child Creek and Moodna Creek at points adjacent to the project site is 'C'. The best usage for class C fresh surface waters is fishing. Class C waters are suitable for fish, shellfish and wildlife propagation and survival and for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Aquatic Biota

Moodna Creek supports a diverse and productive aquatic community. The following sections provide a brief description of the primary groups of aquatic biota found within Moodna Creek within the vicinity of the Project Site.

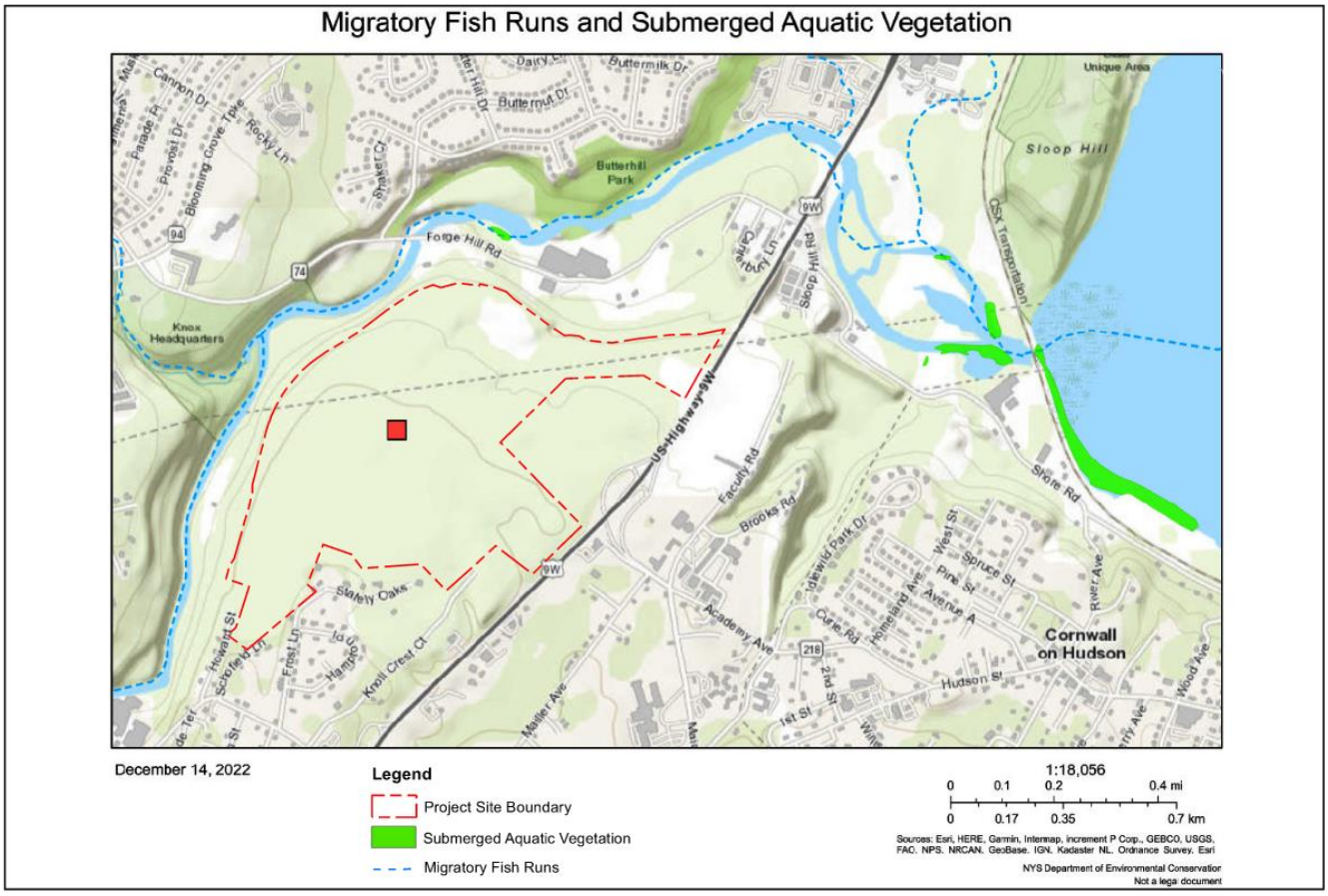
Submerged Aquatic Vegetation

Submerged aquatic vegetation consists of plants that grow under water. Submerged aquatic vegetation improves water quality by trapping fine sediment and organic matter and adding oxygen to the water. It also provides essential habitat for organisms like insects, worms, and snails that feed fish and birds. Aquatic vegetation within Moodna Creek consists primarily of species that inhabit the intertidal mudflats and tidal marsh at the mouth of Moodna Creek associated with the confluence of Moodna Creek and the Hudson River. Aquatic vegetation at the mouth of Moodna Creek is dominated by water celery (*Vallisneria americana*).[29] Submerged

[29] New York State Department of State - Coastal Fish and Wildlife Rating Form for Moodna Creek, dated August 15, 2012.

aquatic vegetation was documented north of the Project Site within Moodna Creek, and downstream of the Project Site at Moodna Creek's estuary and the Hudson River (Figure III-15).

Figure III-15 – Migratory Fish Runs and Submerged Aquatic Vegetation



Migratory Fish

Adjacent to the Project Site, Moodna Creek has been documented as a migratory fish run (Figure III-15). Migratory fish runs are stream reaches providing important passage for fish traveling between ocean and freshwater habitat. Routes were modeled to the Atlantic Ocean from tributary stream reaches with documented migratory fish presence based on DEC Bureau of Fisheries surveys and other studies completed in

New York since 1980. Migratory fish identified within the Moodna Creek to the north and west of the Project Site include Alewife (*Alosa pseudoharengus*) and American eel (*Anguilla rostrata*).[30]

Benthic Invertebrates

Invertebrate organisms that inhabit bottom sediments and surfaces of submerged objects (such as rocks, pilings, or debris) are commonly referred to as benthic invertebrates. These organisms are important to an ecosystem's energy flow because they convert detrital and suspended organic material into carbon (or living material). They are also integral components of the diets of ecologically and commercially important fish and waterfowl species. Benthic invertebrates are also essential in promoting the exchange of nutrients between the sediment and water column. Substrate type (rocks, pilings, sediment grain size, etc.), salinity, and dissolved oxygen (DO) levels are the primary factors influencing benthic invertebrate communities; secondary factors include currents, wave action, predation, succession, and disturbance. Benthic organisms are anticipated to occur offsite, within the submerged aquatic vegetation beds within Moodna Creek, located north and east of the Project Site. [31] The submerged aquatic vegetation provides both food and refuge for benthic invertebrates within Moodna Creek. There are no benthic invertebrates located within the Project Site.

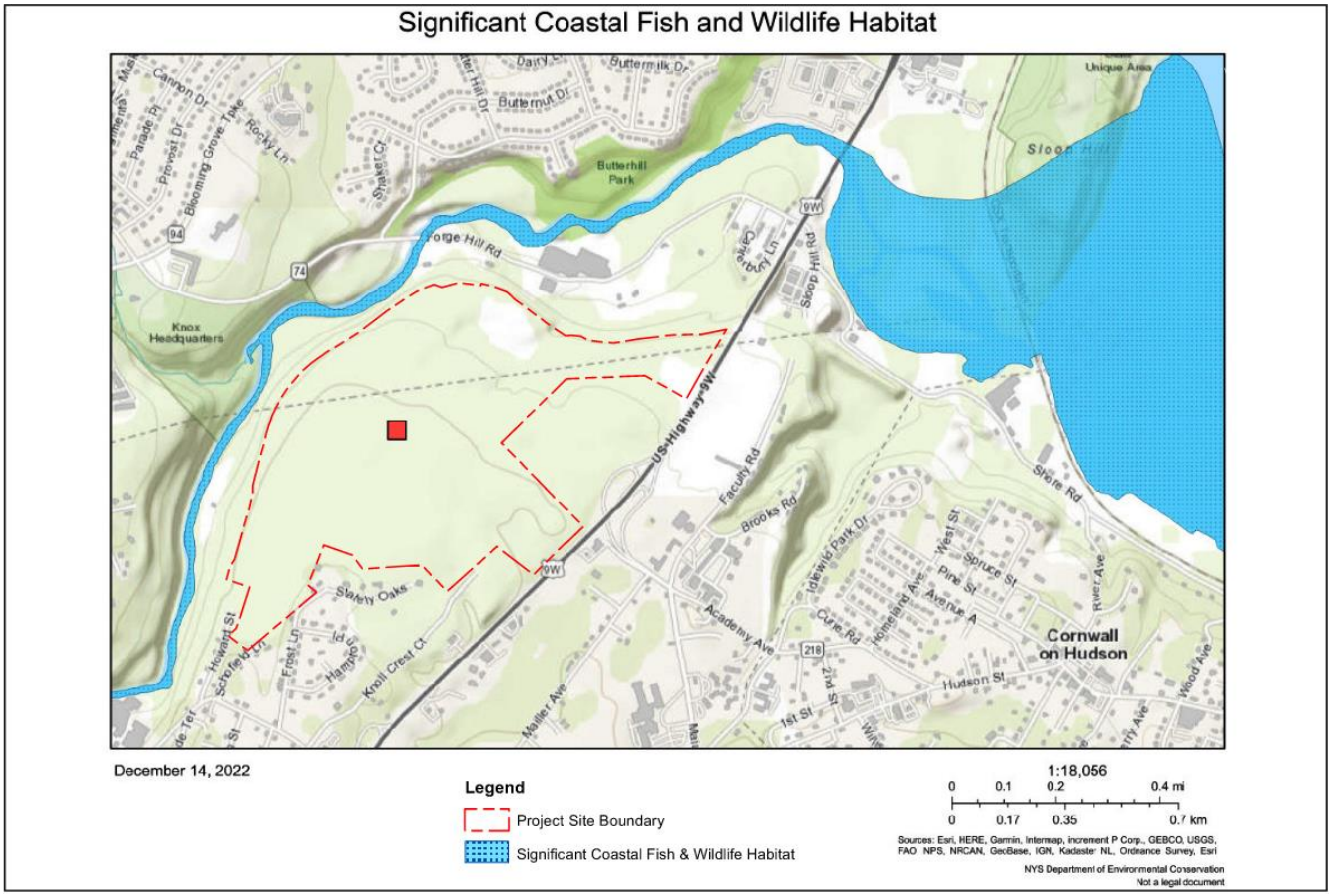
NYSDOS Significant Coastal Fish and Wildlife Habitat

Significant Coastal Fish and Wildlife Habitats are the most important coastal habitats throughout New York State's coastal regions. As identified and evaluated by New York State Department of Environmental Conservation (NYSDEC), Significant Coastal Fish and Wildlife Habitats are designated for protection by the New York State Department of State (NYSDOS) in accordance with the Waterfront Revitalization and Coastal Resources Act. Moodna Creek within the vicinity of the Project Site has been designated as a Significant Coastal Fish and Wildlife Habitat (Figure III-16). This Significant Coastal Fish and Wildlife Habitat encompassing approximately 300 acres, is an approximate three and one-half mile segment of this freshwater tributary extending from its mouth on the Hudson River to a dam located just upstream from the N.Y.S. Route 32 bridge at Orrs Mill. The lower mile of the creek, within the vicinity of the project site, is within the tidal range of the Hudson River and is relatively deep with a silt and clay substrate. The considerable length of Moodna Creek that

[30] White, E.L., J.J. Schmid, T.G. Howard, M.D. Schlesinger, and A.L. Feldmann. 2011. New York State freshwater conservation blueprint project, phases I and II: Freshwater systems, species, and viability metrics. New York Natural Heritage Program, The Nature Conservancy. Albany, NY. 85 pp. plus appendix.
[31] New York State Department of State - Coastal Fish and Wildlife Rating Form for Moodna Creek, dated August 15, 2012.

is accessible to coastal migratory fishes and the extensive wetland area at the mouth of the creek provide favorable habitat conditions for a variety of fish and wildlife species. In addition to its importance as a fisheries resource, Moodna Creek provides valuable habitats for many wildlife species. Many species of shorebirds, wading birds, waterfowl and songbirds are found in this habitat. [32]

Figure III-16 – Significant Coastal Fish and Wildlife Habitat



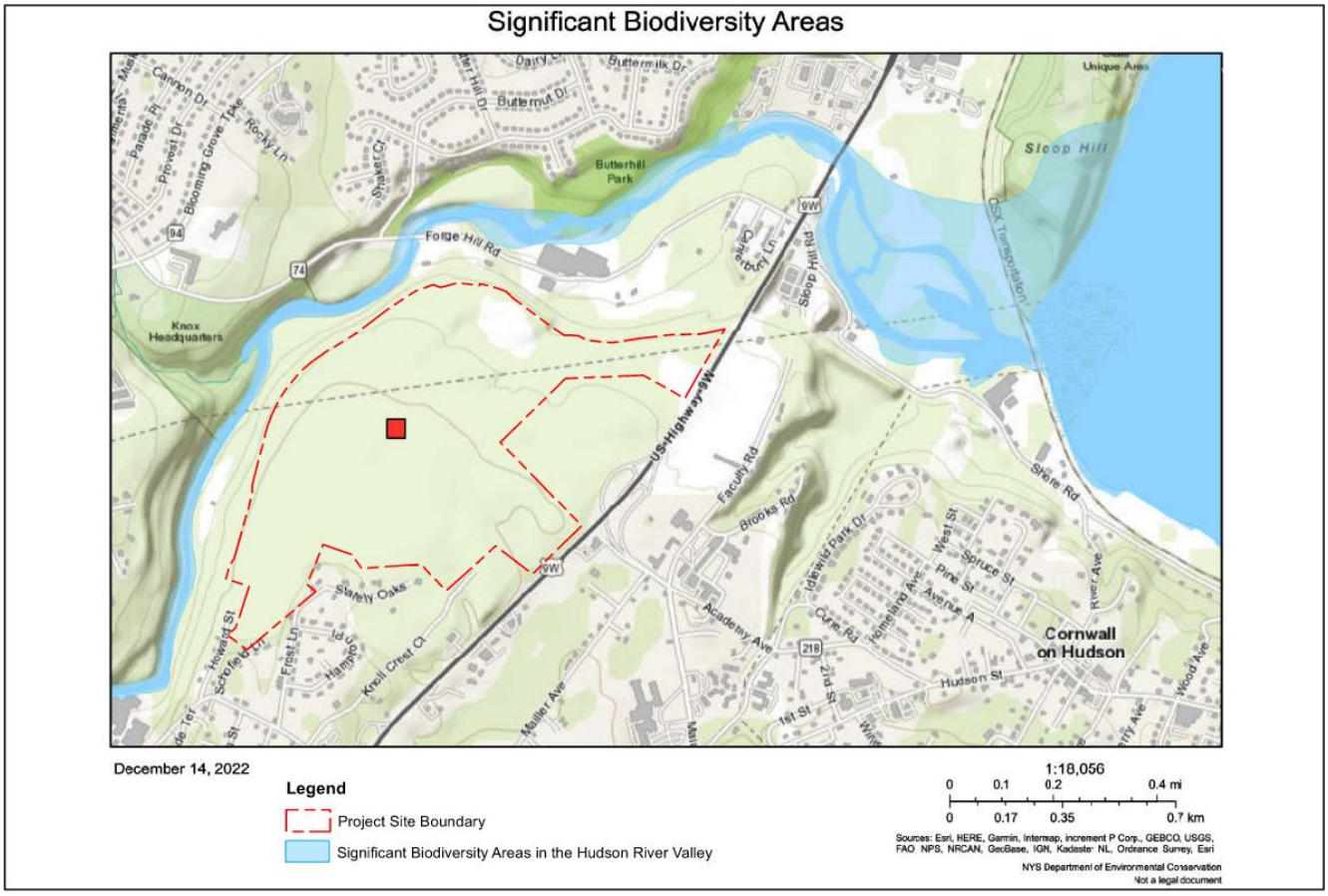
Significant Biodiversity Areas (SBA)

Significant Biodiversity Areas (SBAs) are landscape areas in the Hudson River estuary watershed that contain high concentrations of biodiversity or unique ecological features. The Mid-Hudson River Significant Biodiversity Area was identified within Moodna Creek (Figure III-17). The Mid Hudon River Significant Biodiversity Area encompasses significant spawning migratory and nursery habitat for anadromous, estuarine, and freshwater

[32] New York State Department of State - Coastal Fish and Wildlife Rating Form for Moodna Creek, dated August 15, 2012.

fish, important winter feeding and roosting areas for the bald eagle, and brackish and freshwater tidal communities and plants.[33] The portion of Moodna Creek designated as the Mid-Hudson River Significant Biodiversity Area is located adjacent to the Project Site. This Significant Biodiversity Area extends south and north of the Project Site to the confluence of Moodna Creek and the Hudson River.

Figure III-17 – Significant Biodiversity Areas



f. Wetlands

Available data related to wetlands on and adjacent to the Project Site were obtained from US Geological Survey quadrangle maps, U.S. Fish and Wildlife Service National Wetlands Inventory Maps (NWI), NYSDEC Freshwater

[33] Wildlife and Habitat Conservation Framework: An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor, prepared by M.E. Penhallow, et al., 2006.

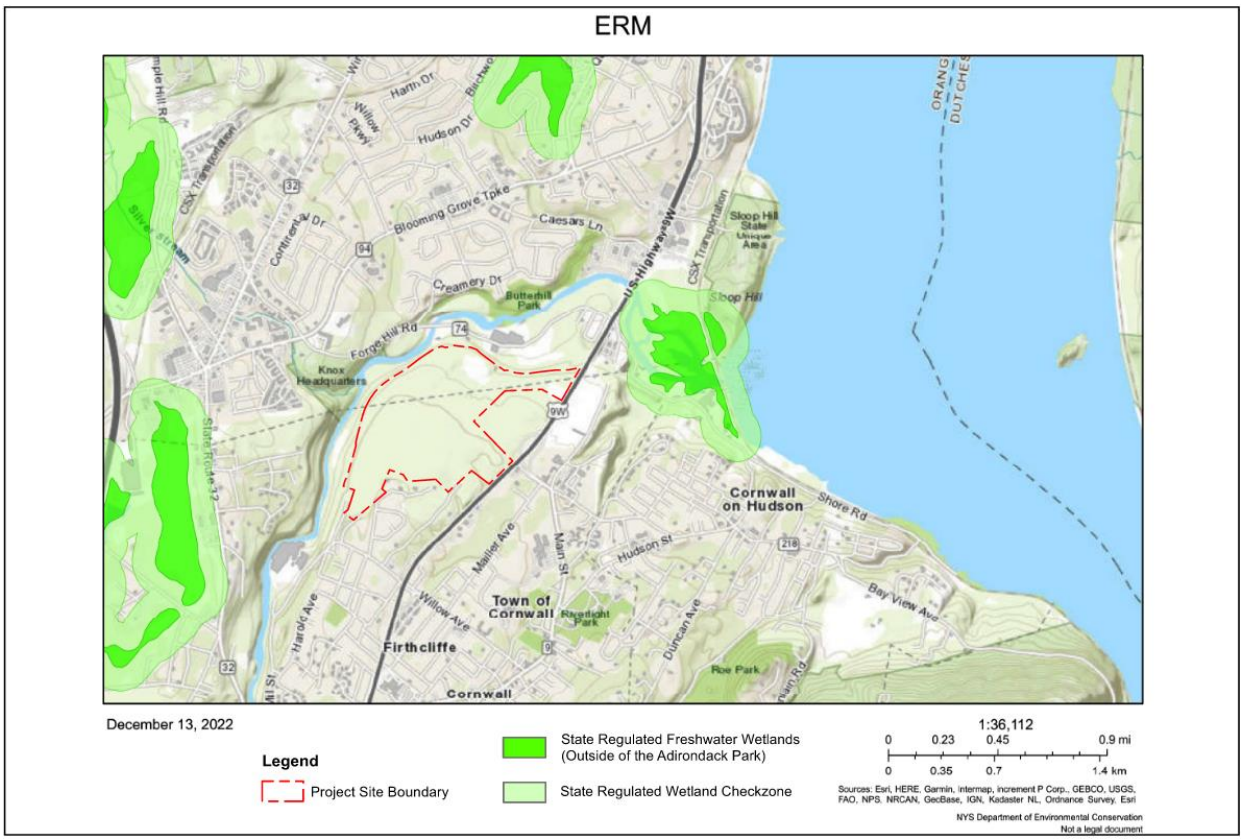
and Tidal Wetland Maps, US Department of Agriculture—Natural Resource Conservation Service (NRCS) Web Soil Survey, aerial imagery, and other relevant sources.[34,35,36,37]

The NWI maps show the general configuration, location, and category of wetlands found within a given area of coverage.[38] A NWI wetland map depicting the location of the Project Site can be seen in Figure III-18. Because the NWI maps are limited in precision by their scale and by the identification method used, the presence and boundaries of wetlands shown on the NWI maps need to be more precisely verified in the field. Commonly, small wetland areas, and, less frequently, large wetland areas are not precisely located on NWI maps and may not be wetlands that exhibit the three parameters set forth in USACE guidance.

The NYSDEC is responsible for mapping larger freshwater wetlands that are 12.4 acres in size or greater, or some smaller wetlands that are of unusual local importance (Environmental Conservation Law, Article 24). A NYSDEC Environmental Resources Map depicting no freshwater wetlands on the Project Site is included in Figure III-18.

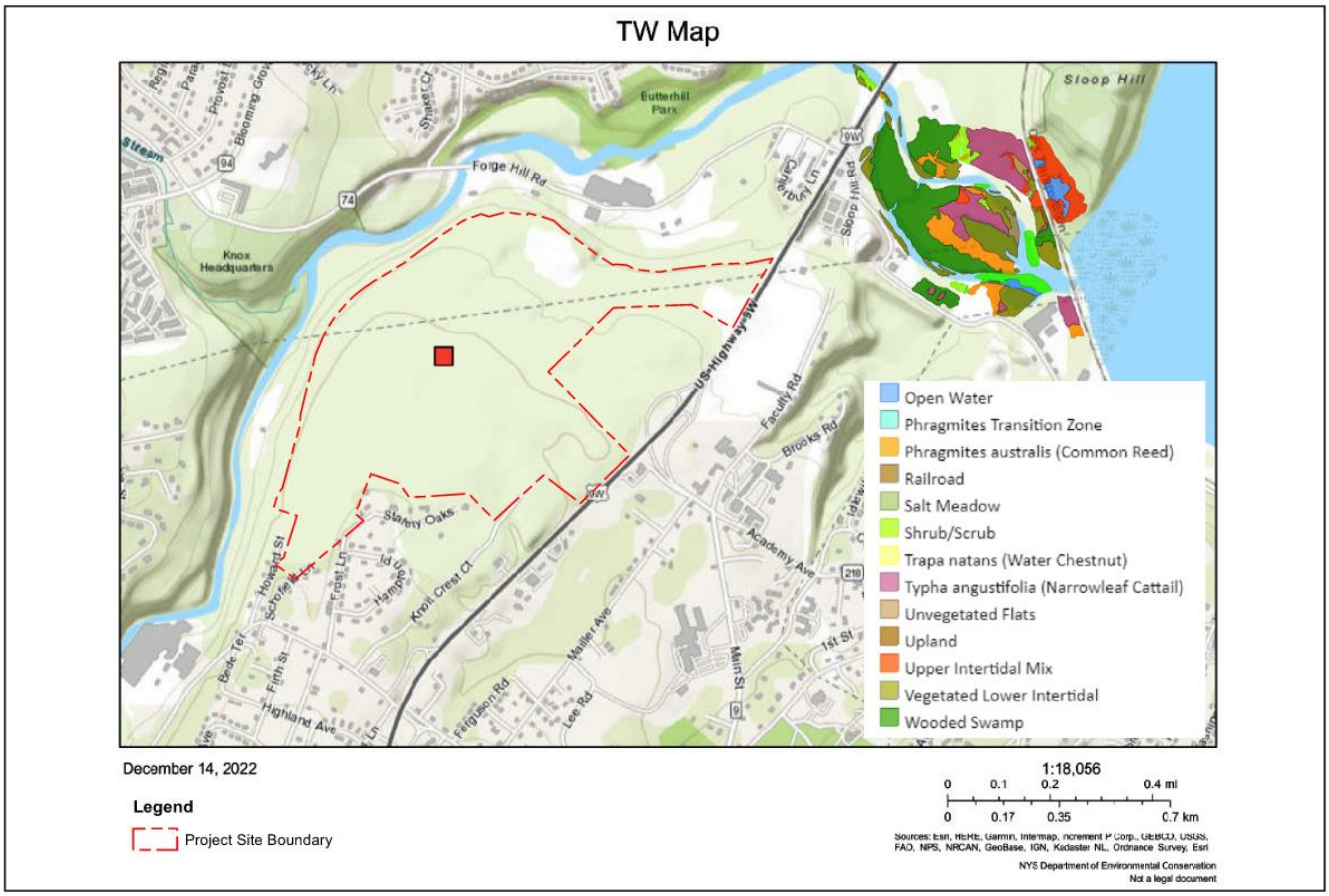
[34] USGS 7.5 Min. Quadrangle Map –Cornwall, New York.
[35] U.S. Fish and Wildlife Service – National Wetlands Inventory; Wetlands Mapper; http://www.fws.gov/wetlands/data/Mapper.html.
[36] New York State Department of Environmental Conservation; Online Environmental Resource Mapper; http://www.dec.ny.gov/gis/erm/.
[37] New York State Department of State – Geographic Information Gateway; https://opdgig.dos.ny.gov/#/home.
[38] Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Figure III-18 – Environmental Resource Mapper



The NYSDEC is also responsible for mapping tidal wetlands which border on or lie beneath tidal waters or reside in the intertidal and high marsh areas subject to tidal action (Environmental Conservation Law, Article 25). The NYSDEC Tidal Wetlands Maps were reviewed and no NYSDEC regulated tidal wetlands reside on or adjacent to the Project Site. However, there are tidal wetlands located to the northeast of the Project Site, associated with the confluence of Moodna Creek and the Hudson River as depicted on Figure III-19.

Figure III-19 – Tidal Wetland Map

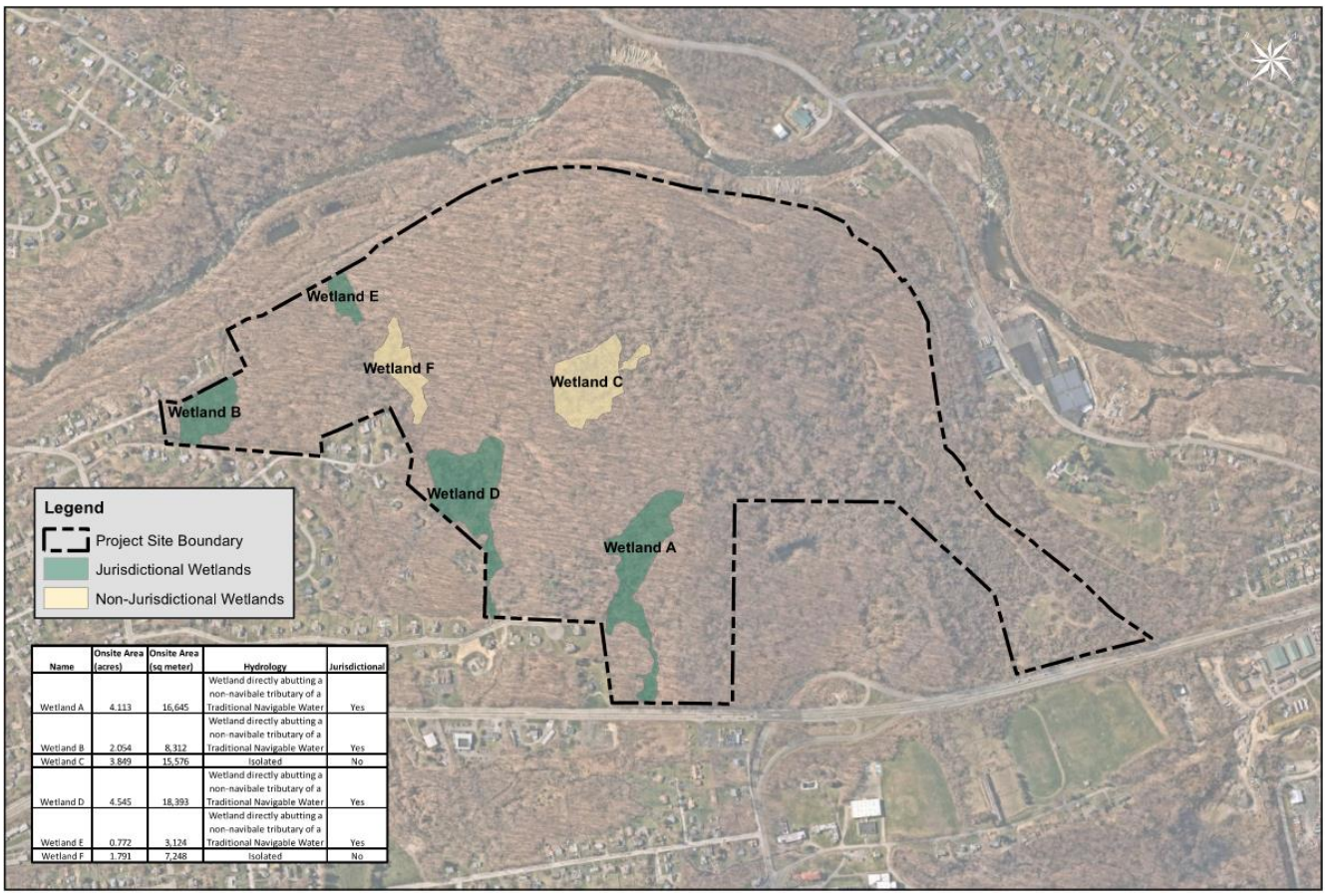


The limits of the USACE regulated wetlands and watercourses within the boundaries of the Study Area are depicted on Figure III-20, Waters of the U.S. The extent of the freshwater wetlands and tributaries were delineated by Robert Torgersen, and confirmed by USACE staff, as detailed in the Approved Jurisdictional Determination dated May 29, 2018. The limits of the USACE regulated wetlands and watercourses were most recently delineated by Capital Environmental Consultants, Inc. in March 2021. The delineation was performed in accordance with the three-parameter methodology outlined in the ACOE 1987 Wetland Delineation Manual (TR-Y-87-1) and Northcentral and Northeast Regional Supplement.[39,40] The wetland line was physically marked using flagging with alphanumeric labeling. Data sheets were created using information collected by Capital on

[39] Environmental Laboratory. (1987). Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
[40] U.S. Army Corps of Engineers. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

data point locations along the wetland/upland interface pertaining to site soils, vegetation, and hydrology. Areas along the delineated line were designated as representative locations and data was evaluated along the line transecting the upland/wetland boundary. Following the onsite wetland delineation, an Approved Jurisdictional Determination Request was submitted to the United States Army Corps of Engineers (USACE) in March 2022 (Appendix – Wetland Delineation Report).

Figure III-20 – Waters of the U.S. Map



Name	Onsite Area (acres)	Onsite Area (sq meter)	Hydrology	Jurisdictional
Wetland A	4.113	16,645	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland B	2.054	8,312	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland C	3.849	15,576	Isolated	No
Wetland D	4.545	18,393	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland E	0.772	3,124	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland F	1.791	7,248	Isolated	No

There are a total of six (6) freshwater wetland areas delineated within the boundaries of the Project Site. Two (2) of the freshwater wetlands are isolated and are therefore considered “non-jurisdictional wetlands” by the USACE. Four (4) of the freshwater wetlands are considered to be “jurisdictional wetlands” subject to the policies, regulations, and procedures established by 33 CFR Parts 320, 323, and 325, respectively, all as administered by the USACE. There are no NYSDEC regulated freshwater or tidal wetlands located on the Project Site.

The Town of Cornwall regulates lands and waters lying within the boundaries of the Town of Cornwall, as shown on a freshwater wetlands map. A freshwater wetland map, according to Chapter 90 of the town code, is a map on which are indicated the boundaries of any freshwater wetland and which has been filed with the Clerk of the Town of Cornwall by the State Department of Environmental Conservation pursuant to § 24-0301 of the State Environmental Conservation Law, as the same may be amended from time to time. The onsite wetlands are not regulated by the State Department of Environmental Conservation pursuant to § 24-0301 of the State Environmental Conservation Law, and therefore are not regulated by the Town of Cornwall. Additionally, the Town of Cornwall regulates the adjacent area, or any land in the Town of Cornwall immediately adjacent to a freshwater wetland or lying within 100 feet, measured horizontally, of the boundary of a freshwater wetland. Per the Town Code, the Town's freshwater wetlands mirror the DEC wetland maps. The DEC determined that there are no DEC regulated wetlands on the Project Site, therefore, there are no Town of Cornwall regulated freshwater wetlands onsite and no regulated wetland adjacent areas located within the boundaries of the Project Site.

Wetland A

Wetland A, which comprises 4.113 acres of USACE jurisdictional wetland, is located within the southeastern portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is not mapped by NWI. Capital determined the wetland to be a PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by silver maple (*Acer saccharinum*) (FACW), sugar maple (*Acer saccharum*) (FACU), red maple (*Acer rubrum*) (FAC), black tupelo (*Nyssa sylvatica*) (FAC), northern spicebush (*Lindera benzoin*) (FACW), American jumpseed (*Persicaria virginiana*) (FAC), Japanese stilt grass (*Microstegium vimineum*) (FAC), tussock sedge (*Carex stricta*) (OBL), water-purslane (*Lythrum portula*) (OBL), and moss species (*Sphagnum spp.*).

Wetland A is located along the southeastern border of the subject property and contains an intermittent stream that drains to the southeast and into a culvert below Route 9W. The culvert drains to a wetland on the easterly side of Route 9W and is then conveyed to an unnamed tributary, locally known as Funny Child Creek, which drains to Moodna Creek. Moodna Creek then drains to the Hudson River. The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

Wetland B

Wetland B, which comprises 2.054 acres of USACE jurisdictional wetland, is located within the southwestern portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is not mapped by NWI. Capital determined the wetland to be a PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by American elm (*Ulmus americana*) (FACW), American sycamore (*Platanus occidentalis*) (FACW), sugar maple (*Acer saccharum*) (FACU), red maple (*Acer rubrum*) (FAC), gray dogwood (*Cornus racemosa*) (FAC), highbush blueberry (*Vaccinium corymbosum*) (FACW), northern spicebush (*Lindera benzoin*) (FACW), Japanese stilt grass (*Microstegium vimineum*) (FAC), multiflora rosa (*Rosa multiflora*) (FACU), New York fern (*Thelypteris noveboracensis*) (FAC), sensitive fern (*Onoclea sensibilis*) (FACW), and moss species (*Sphagnum* spp.).

Wetland B contains an intermittent stream that drains west towards Moodna Creek. Moodna Creek drains to the Hudson River. The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

Wetland C

Wetland C, which comprises 3.849 acres USACE isolated, non-jurisdictional wetland, is located within the central portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is mapped by NWI as PSS1E (Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by American elm (*Ulmus americana*) (FACW), pin oak (*Quercus palustris*) (FACW), red maple (*Acer rubrum*) (FAC), sugar maple (*Acer saccharum*) (FACU), swamp white oak (*Quercus bicolor*) (FACW), arrowwood viburnum (Viburnum dentatum) (FAC), flowering dogwood (*Cornus florida*) (FACU), highbush blueberry (*Vaccinium corymbosum*) (FACW), northern spicebush (*Lindera benzoin*) (FACW), American jumpseed (*Persicaria virginiana*) (FAC), blueridge blueberry (*Vaccinium corymbosum*) (FACW), false nettle (*Boehmeria cylindrica*) (OBL), fowl mannagrass (*Glyceria striata*) (OBL), Japanese stilt grass (*Microstegium vimineum*) (FAC), sensitive fern (*Onoclea sensibilis*) (FACW), soft rush (*Juncus effusus*) (OBL), and tussock sedge (*Carex stricta*) (OBL).

Wetland C is an isolated wetland with no connectivity to Wetlands A, B, D, E, F, or other offsite wetlands and waterbodies. The wetlands hydrology is maintained by groundwater and seasonal runoff/precipitation.

Wetland D

Wetland D, which comprises 4.545 acres USACE jurisdictional wetland, is located within the eastern portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is mapped by NWI as PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by American elm (*Ulmus americana*) (FACW), red maple (*Acer rubrum*) (FAC), sugar maple (*Acer saccharum*) (FACU), blackhaw (*Viburnum prunifolium*) (FACU), flowering dogwood (*Cornus florida*) (FACU), Winterberry (*Ilex verticillata*) (FACW), American jumpseed (*Persicaria virginiana*) (FAC), Japanese stilt grass (*Microstegium vimineum*) (FAC), pointed broom sedge (*Carex scoparia*) (FACW), sensitive fern (*Onoclea sensibilis*) (FACW), and tussock sedge (*Carex stricta*) (OBL).

Wetland D is the source of the intermittent stream that forms in the southeastern portion of the Project Site. The stream within Wetland D drains to the southeast through a narrow stream course to a stormwater drain outside of the property border. It is assumed this storm drain eventually drains to Moodna Creek, which drains to the Hudson River. The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

Wetland E

Wetland E, which comprises 0.772 acres of USACE jurisdictional wetland, is located within the western portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is not mapped by NWI. Capital determined the wetland to be a PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by American elm (*Ulmus americana*) (FACW), red maple (*Acer rubrum*) (FAC), sugar maple (*Acer saccharum*) (FACU), swamp white oak (*Quercus bicolor*) (FACW), common buckthorn (*Rhamnus cathartica*) (FAC), gray dogwood (*Cornus racemosa*) (FAC), Japanese barberry (*Berberis thunbergii*) (FACU), northern spicebush (*Lindera benzoin*) (FACW), American hogpeanut (*Amphicarpaea bracteata*) (FAC), goldenrod (*Solidago* spp.), multiflora rosa (*Rosa multiflora*) (FACU), and Japanese stilt grass (*Microstegium vimineum*) (FAC).

Wetland E contains an intermittent stream associated with a groundwater seep. Wetland E drains northwest towards Moodna Creek which drains to the Hudson River. The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

Wetland F

Wetland F, which comprises 1.791 acres USACE isolated, non-jurisdictional wetland, is located within the eastern portion of the Project Site. This wetland has dominant freshwater wetland characteristics and is not mapped by NWI. Capital determined the wetland to be a PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was dominated by red maple (*Acer rubrum*) (FAC), sugar maple (*Acer saccharum*) (FACU), American elm (*Ulmus americana*) (FACW), northern spicebush (*Lindera benzoin*) (FACW), goldenrod (*Solidago* spp.), multiflora rosa (*Rosa multiflora*) (FACU), and moss species (*Sphagnum spp.*).

Wetland F is an isolated wetland with no connectivity to Wetlands A, B, C, D, E, or other offsite wetlands and waterbodies. Wetland hydrology is maintained by groundwater and runoff/precipitation.

g. Underlying Aquifers and Wells

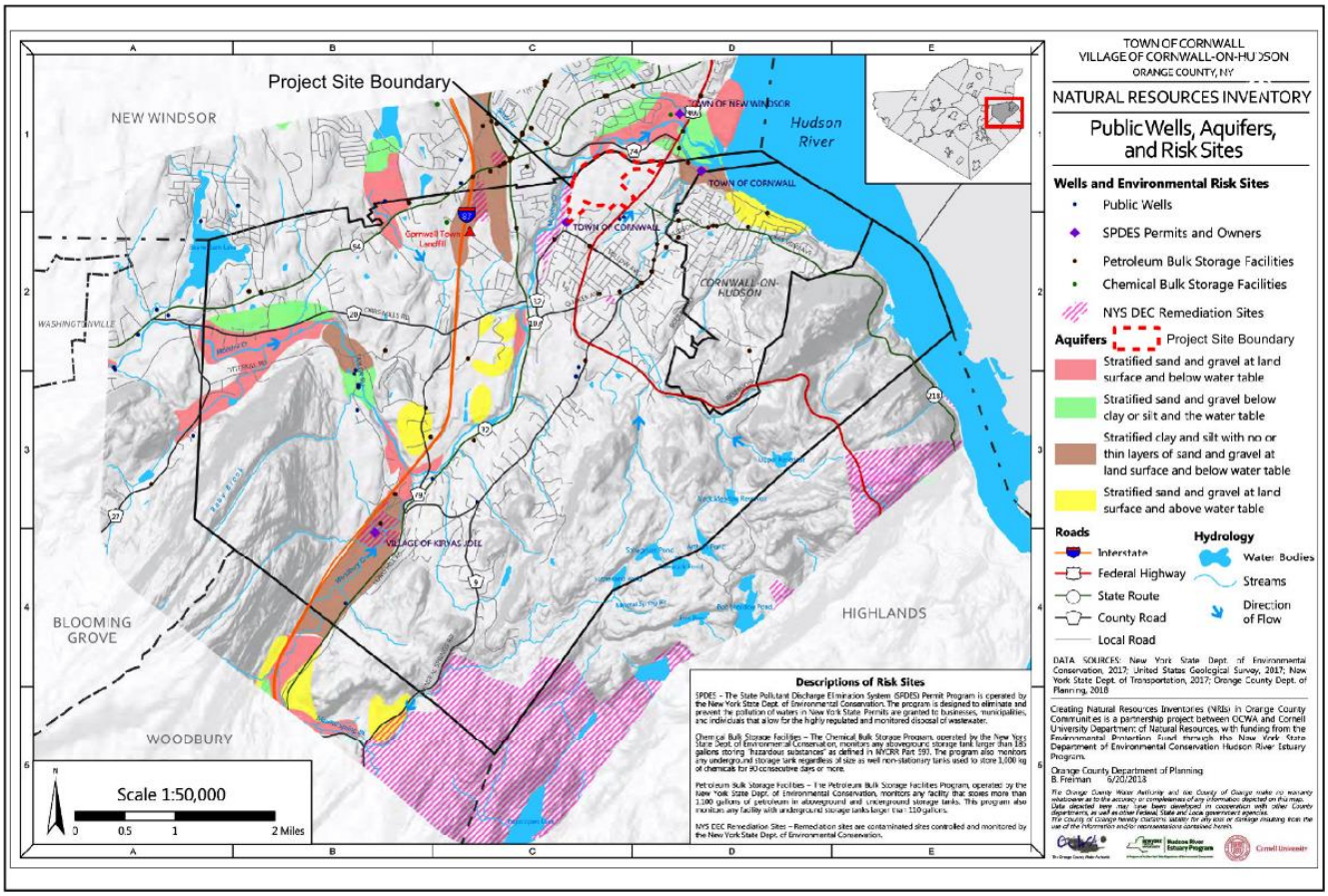
Groundwater is first encountered between 2.8 feet and 15 feet below ground surface (bgs) throughout the Study Area. Fluctuations in groundwater levels can occur due to variations in topography, season, rainfall, snowmelt, surface infiltration, temperature, construction activities, pumping of dewatering systems, leakage from utilities and other factors.

There are multiple overburden aquifers, sand and gravel aquifers that lie above bedrock, within the Town of Cornwall. As depicted on Figure III-21, there are no aquifers underlaying the Project Site, and as such, groundwater within the vicinity of the Project Site is not a source of potable water. The Town of Cornwall receives drinking water from the Village of Cornwall and the Town of New Windsor's municipal water supply, private domestic wells, and public water system wells. Public water system sources include wells within the Village of Cornwall-on-Hudson, local surface water from Black Rock Forest reservoirs, the Ashokan Reservoir, and public water wells within the Village of Kiryas Joel and the Village/Town of Woodbury.

The Town of New Windsor's potable water supply system delivers approximately 2,323,000 gallons of water per day to over 18,000 water customers. According to the 2022 Annual Water Quality Report, presented by the Town of New Windsor Consolidated Water District, the Town of New Windsor residents received water from a variety of primary sources including the Catskill Aqueduct. As the aqueduct passes through the town, a tap on the large pipeline delivers water to the Riley Road Filtration Plant. Residents also received water from the Kroll

Well, where water is properly chlorinated at the well site, then blended with water in the system to supply water to the Town residents. The Butterhill Filtration Plant located at 181 Forge Hill Road in New Windsor is supplied by three production wells with a combined well field capacity of 6.45 million gallons per day (mgd). To address detections of per- and polyfluoroalkyl substances (PFAS), including perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), in the wells, the New York State Department of Environmental Conservation (NYSDEC) installed a temporary granular activated carbon (GAC) treatment system. The system can treat a portion of the well water (up to 1,500 gallons per minute (gpm) or 2.16 mgd). As previously noted, the remaining Town demands are met by the Town's Kroll Well and Riley Road Treatment Plan treating Catskill Aqueduct water. During Catskill Aqueduct maintenance shutdowns, the Riley Road output is replaced by water purchased through interconnections with Town and City of Newburgh.

Figure III-21 - Cornwall Natural Resources Inventory Public Wells, Aquifers and Risk Sites



Based on the above referenced map and a New York State Department of Environmental Conservation public well search, no public wells are reportedly present at the site. Two public wells are identified on the order of approximately 500 feet to the southwest of the site, to the south of Route 9W. Well data for one of the wells (DEC Well # 06481) was obtained from a Water Wells: Beginning in 2000 Map. Based on the published data, the depth to groundwater in the well was approximately 20 feet and the final depth of the well was reported as 310 feet below the ground surface. The depth to bedrock was not reported.

2. Potential Impacts

a. Encroachment of Site Surface Waters

New development projects may influence the quality of aquatic resources, including surface water resources, water quality, aquatic biota, and sensitive resources. The hydrology of a site changes both during and post-construction due to clearing, grading, and increased impervious cover, among other factors. The Proposed Action includes development that would permanently disturb approximately 125.84 acres (63.6 percent) of the Project Site, converting tree canopy to impervious surfaces. The proposed change in land use can increase pollutant loadings and flow rates in receiving waters both during and post-construction if not mitigated properly.

The Proposed Action would require a NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-0-20-001) as more than one acre of land would be disturbed. In accordance with NYSDEC SPDES (GP-0-20-001), a Stormwater Pollution Prevention Plan (SWPPP) consisting of both temporary erosion and sediment controls and post-construction stormwater management practices would be prepared to mitigate potential impacts to aquatic resources, and is detailed in Section D.

In developing the proposed site plan, avoidance of the onsite wetlands was achieved. The Proposed Action is located outside of all jurisdictional and non-jurisdictional freshwater wetland boundaries and will not disturb the onsite wetlands. In accordance with the NYSDEC GP-0-20-00, the SWPPP consists of both temporary erosion and sediment controls and post-construction stormwater management practices. The proposed erosion and sediment control devices will ensure that construction activities will not impact the onsite wetlands. Further, the proposed post-construction stormwater management practices will ensure that the quality and functionality of the onsite wetlands are maintained. Therefore, the Proposed Action will not result in significant adverse impacts to the onsite jurisdictional and non-jurisdictional freshwater wetlands.

b. Impacts to Moodna Creek

The Applicant has conducted a drainage study and prepared a Stormwater Pollution Prevention Plan (SWPPP) for the entire project site. The SWPPP (prepared under separate cover) was prepared including the design of proposed drainage systems, erosion and sediment control, and construction phasing plans using "Best Management Practices" as recommended by the New York State Department of Environmental Conservation, as indicated in their Stormwater Management Design Manual. Based upon the drainage study, a total of seven stormwater basins will be located on site. All seven of the drainage basins will be located on site and will be discharging stormwater from the site, that will ultimately drain into the Moodna Creek. The drainage basins have been designed to treat the runoff from the site for quality, and to provide for a "no net increase" in the rate of flow leaving the site, and will actually reduce the rate of flow to below the predevelopment runoff rates. Please refer to Section III.F.2.f below for additional information regarding erosion and sediment control measures which will be implemented to mitigate stream bank erosion within the Moodna Creek.

c. Pesticides and Pollutants

Based on the Phase I Environmental Site Assessment Report prepared by Dynamic Earth, dated January 28, 2021 (prepared under separate cover), there were no encounters of pesticides or pollutants within on-site soils that breached the allowable ambient groundwater standards. Based upon data collected at the site, the contaminants of concern were primarily chlorinated VOCs. In addition, sampling determined that metals, VOCs, PCBs, and pesticides were not contaminants of concern for past, present, or future site development. Additional information can be found within the **Fertilizer, Pesticide, Herbicide, and Fungicide Use** section below.

d. Pre- and Post-Development Stormwater Volumes

Water quantity control practices for the channel protection volume, overbank flood and extreme flood conditions in the pre and post-construction condition are detailed below. Further analysis can be found in the SWPPP Report (prepared under separate cover).

Table III-27 – Existing and Proposed Stormwater Runoff Flow Rates

Study Area North (Moodna Creek) (CFS)		
Design Storm	**Existing Combined Runoff Rates (cfs)**	**Proposed Combined Runoff Rates (cfs)**
1-Year (channel protection)	61.64	53.91
10-Year (overbank flood)	190.15	151.30
100-Year (extreme flood)	445.06	382.84

Study Area South (Route 9W) (CFS)		
Design Storm	**Existing Combined Runoff Rates (cfs)**	**Proposed Combined Runoff Rates (cfs)**
1-Year (channel protection)	25.95	25.61
10-Year (overbank flood)	83.82	68.14
100-Year (extreme flood)	200.42	162.74

Overall Runoff Rates (CFS)		
Design Storm	**Existing Combined Runoff Rates (cfs)**	**Proposed Combined Runoff Rates (cfs)**
1-Year (channel protection)	84.06	77.70
10-Year (overbank flood)	264.24	215.05
100-Year (extreme flood)	622.73	544.19

e. Proposed Drainage System

The proposed Project Site stormwater management system consists of a series of vegetated stormwater infiltration and detention facilities which would release stormwater runoff at a controlled rate through outlet control structures which are ultimately tributary to the aforementioned study areas. The infiltration and detention facilities have been designed to satisfy the channel protection, overbank flood, and extreme storm requirements set forth by the New York State Stormwater Design manual. Further details regarding the proposed drainage system can be found within the SWPPP Report (prepared under separate cover).

f. Components of SWPPP and Erosion and Sediment Control Plan

As previously noted, an Erosion and Sediment Control Plan has been prepared for the Project, as seen in the Preliminary and Final Site Plan Drawings (prepared under separate cover). As such, erosion and sedimentation would be controlled during the construction period by temporary devices in accordance with a construction Erosion and Sediment Control (ESC) plan developed specifically for the Project Site. The Erosion and Sediment

Control Plan would be implemented at the start of construction and would continue throughout the construction period, as outlined in the New York State Standards and Specifications for Erosion and Sediment Control. Erosion and sediment controls to be implemented with the Proposed Project include haybales, silt fencing, and inlet protection. Haybales and silt fencing will prevent sediment laden runoff from running offsite throughout the duration of construction. Inlet protection prevents sediment laden runoff from entering storm drains. The proper implementation of the Erosion and Sediment Control Plan will ensure soils and slopes are properly protected and stabilized during construction. Please refer to Section III.F.2.e above for additional information as well as the accompanying SWPPP Report (prepared under separate cover) regarding proposed stormwater management facilities.

As presented in Table III-27 above, the peak discharge rates during the 1-, 10-, and 100-year storms to both Moodna Creek and the culvert at Route 9W will decrease with the Proposed Project. To prevent the potential for stream bank erosion due to the proposed upgradient point source discharges to Moodna Creek, energy dissipation devised, such as scour holes, have been incorporated at the basin outfalls. Scour holes are often utilized where conditions dictate the impractical use of flat aprons. These devices will function to ensure that stormwater is safely conveyed to the Moodna Creek at non-erosive velocities across stabilized surfaces. Therefore, in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, stormwater management practices have been designed to account for potential impacts to receiving waters and include stable discharge elements.

Throughout the construction phasing process, various soil erosion and sediment control measures will be implemented to ensure the proper and safe build-out of the Proposed Action is achieved. These measures include but are not limited to the following: inlet filters around proposed drainage and utility structures, haybale sediment barriers, silt fencing around proposed limits of disturbance and proposed stockpile areas, stockpile areas for temporary soil stockpiling, and tree protection actions.

g. Impacts to Flood Elevations

Based upon FIRM (Flood Insurance Rate Mapping) maps prepared for the Town of Cornwall, and dated September 30, 1982, and FIRM maps for the Town of New Windsor, dated December 15, 1978, the project site

does not lie within any floodways or flood plains. As such, there are no anticipated impacts to flood elevations due to the development of the Proposed Project.

The Project Site is located entirely outside of the mapped floodplain boundaries, including the floodway or floodplain of Moodna Creek to the north and west of the Project Site. Therefore, the Proposed Action will not result in significant adverse impacts to the floodplains.

h. Impacts to Town of New Windsor Groundwater Wells

While there are multiple aquifers located within the Town of Cornwall, there are no aquifers underlaying the Project Site. The main source of drinking water within the Town of Cornwall is the municipal water supply, private domestic wells, and public water system wells. No private or public wells are located on the Project Site. As previously mentioned in Section III.F.1.g, the Town of New Windsor potable water system is supplied by three public groundwater wells. The groundwater wells, adjacent to the Town of New Windsor Butterhill Filtration Plant, are located at a range of approximately 500-1,500 feet from the Project Site, across the Moodna Creek to the north and east. The groundwater on the subject property site would not be used as a source of drinking water and would continue to flow towards Moodna Creek, ultimately discharging to the Hudson River.

Implementation of the Stormwater Pollution Prevention Plan, consisting of infiltration and detention practices in conformance with NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-0-20-001), described below, will ensure no impacts to the contributing watershed or to aquifer recharge.

The Proposed Action is not anticipated to affect on-site groundwater flow due to stormwater management practices, private or public groundwater wells, nor result in impacts to the aquifer recharge area so as to create a significant hazard to public health. Therefore, the Proposed Action will not result in significant adverse impacts to groundwater.

The Proposed Project will be utilizing and connecting to the existing Town of Cornwall water supply system, operated and managed by the Village of Cornwall on Hudson water company. No private wells will be drilled on

site. Furthermore, due to the intervening Moodna Creek between the project site and the Butterhill Wells, there are no anticipated negative impacts to the Town of New Windsor's potable water supply system.

3. Proposed Mitigation Measures

a. Permitting Standards

The New York State Department of Envrionmental Conservation (NYSDEC or Deparment) Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Proposed Project in accordance with the NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity General Permit Number (GP-0-20-001) and the 2015 New York State Stormwater Management Design Manual.

b. Summary of SWPPP

With the Proposed Action, erosion and sediment control devices and post-construction stormwater management practices will prevent significant impacts to the water quality of the stormwater discharging from the project site. As such, the Proposed Action would not cause or contribute to a violation of Class C fresh surface waters when the Proposed Action is in operation. A violation of Class C fresh surface waters occurs when the waterbody is no longer suitable for fish, shellfish, and wildlife propagation and survival, or for primary and secondary contact recreation.[41]

Current water quality will be maintained through the implementation of a number of infiltration and filtration facilities. Additionally, detention facilities will release stormwater runoff at a controlled rate through outlet control structures to ensure no downstream impacts to either Moodna Creek or Funny Child Creek would occur with the Proposed Action. With the Proposed Action, the existing wetlands will continue to receive stormwater runoff from the Project Site and will continue to discharge to Moodna Creek.

c. Ownership and Maintenance of Stormwater Management Systems

Erosion and sedimentation would be controlled during the construction period by temporary devices in accordance with a construction Erosion and Sediment Control (ESC) plan developed specifically for the Project Site (Appendix D of the SWPPP Report, prepared under separate cover). Erosion and sedimentation would be

[41] Title 6 CRR-NY 701.8. Class C fresh surface waters.

controlled during the construction period by temporary devices designed and installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. Construction activities will be phased to limit areas of disturbance to the maximum extent practicable and soil management practices will be implemented to minimize the potential for increased pollution of stormwater runoff. All disturbed areas will be permanently stabilized post construction with vegetation or hard surfaces to prevent potential for erosion following construction. Upon completion of construction, a stormwater management agreement between the owning entity and leasing tenants will be developed to maintain stormwater management facilities.

d. Others Required

Surface Water Resources

There are no surface waters located on the Project Site. However, all stormwater falling onsite drains to the existing wetlands that eventually discharge to either Moodna Creek or Funny Child Creek. Through implementation of the erosion and sediment control devices and post-construction stormwater management practices, detailed below, the Proposed Action will not impact hydrological inputs to Moodna Creek or Funny Child Creek and, therefore, would not result in a significant adverse impact to surface water resources.

Post-Construction Permanent Control Measures

Post-construction stormwater management measures that would be integrated into the Proposed Project would include a number of infiltration and detention facilities which will release stormwater runoff at a controlled rate through outlet control structures. The infiltration and detention facilities have been designed to satisfy the water quality volume (WQv), channel protection, overbank flood, and extreme storm requirements set forth by the New York State Stormwater Design Manual. The WQv requirement is intended to improve water quality by capturing and treating runoff from small, frequent storm events that tend to contain higher pollutant levels. With the proposed project, the WQv is reduced to the maximum extent practical through the proposed site design and any remaining WQv is treated prior to site discharge. All stormwater discharged from the stormwater management devices would flow in a pattern similar to the pre-development drainage condition of the site.

The implementation of the post-construction measures included in the SWPPP would mitigate discharge of stormwater to the wetlands and downstream waterbodies (i.e., Moodna Creek and Funny Child Creek) and maintain their quality.

Therefore, the Proposed Action will not result in significant adverse impacts to the water quality of the onsite wetlands or the downstream waters during construction or operation.

Fertilizer, Pesticide, Herbicide, and Fungicide Use

Fertilizers, pesticides, herbicides, fungicides and other chemicals are not proposed to be used throughout the Project Site, except for very limited and targeted potential use of herbicides to control any very aggressive invasive vegetation in accordance with State and Federal laws and by licensed professionals. Before the use of fertilizers, pesticides, herbicides, and fungicides, any identified invasive species will be first be targeted for physical removal. Should physical removal not suffice, and the use of fertilizers, pesticides, herbicides, or fungicides be required, the Applicant will consult the appropriate regulating authority. It is not anticipated that the Applicant will need to regularly control invasives, however, as part of adaptive management, the Applicant will consult with any regulatory agencies necessary before controlling invasives with fertilizers, pesticides, herbicides, or fungicides. Further, the potential usage of fertilizers, pesticides, herbicides, fungicides and other chemicals in the Proposed Action portions of the Project Site would also be conducted in accordance with State and Federal laws and by licensed professionals. Stormwater runoff from these developed areas of the property would be collected and treated using the Proposed Action's post-construction stormwater management practices. As such, significant impacts to wetlands are not anticipated from the potential use of fertilizer, pesticides, herbicides, fungicides and other chemicals on the Project Site. Therefore, the Proposed Action will not result in significant adverse impacts to water quality due to fertilizer, pesticide, herbicide, fungicide and other chemical use.

Snow Removal

Upon use of the Proposed Action, pollutants carried within snowmelt runoff, including pollutants that may be found within deicing agents, will be flowing to the Project Site's post-construction stormwater management practices and will be treated accordingly. Additionally, snowmelt areas will be provided in and around the parking lots and driveways to ensure snow melt is directed to the post-construction stormwater management practices and is not discharged directly to the on-site wetland systems. The proposed post-construction stormwater management practices, inclusive of infiltration and detention systems, are designed to maintain current water quality through treatment of the water quality storm. The water quality storm can significantly impact the quality of receiving waters as it is the first 1.5" of stormwater generated from a rainfall event and

tends to contain the highest pollutant levels. Therefore, the proposed post-construction stormwater management practices are designed to manage pollutants such as those carried within snowmelt runoff, dicing agents, and chlorides. Salt applied to roads and parking lots in the winter months may be a source of chlorides. The Applicant will consider using a low salt application for on-site snow management. Additionally, all debris, ice dams, or debris from plowing operations that restrict the flow of runoff and meltwater, shall be removed. As such, impacts to wetlands or receiving waterbodies are not anticipated from deicing agents and snow removal. Therefore, the Proposed Action will not result in significant adverse impacts to water quality due to snow removal.

Proposed Action Operation

As a result of the Proposed Action, there will be an increase in car, truck, and machinery traffic on the Project Site. Pollutants associated with vehicle and machinery traffic, such as oil and hydraulic fluids, may occur onsite more frequently do to the increase of onsite traffic. As discussed above, the proposed post-construction stormwater management practices, inclusive of infiltration and detention systems, are designed to manage pollutants, such as those resulting from vehicle and machinery traffic. The post-construction stormwater management practices are designed to maintain current water quality of the onsite wetlands. As such, impacts to wetlands or receiving waterbodies are not anticipated from pollutants resulting from the increase of vehicle and machinery traffic. Therefore, the Proposed Action will not result in significant adverse impacts to water quality due to operation of the Proposed Action.

Aquatic Biota

As detailed above, through proper implementation of stormwater management practices both during construction and upon operations of the Proposed Action, no impacts to the water quality of the onsite wetlands and downstream waters (i.e., Moodna Creek and Funny Child Creek) are anticipated. As such, the current water quality of the onsite wetlands and downstream waters will be maintained and no impacts to the existing aquatic biota, such as aquatic vegetation, benthic invertebrates are anticipated.

Therefore, the Proposed Action would not result in significant adverse impacts to the aquatic biota of onsite wetlands or downstream waters.

NYSDOS Significant Coastal Fish and Wildlife Habitat

The portion of Moodna Creek designated as a Significant Coastal Fish and Wildlife Habitat is located adjacent to the Project Site. As detailed above, through proper implementation of stormwater management practices both during construction and upon operations of the Proposed Action, no impacts to the water quality of the onsite wetlands and downstream waters (i.e., Moodna Creek) are anticipated. Therefore, the Proposed Action will not result in significant adverse impacts to the Significant Coastal Fish and Wildlife Habitat.

Significant Biodiversity Areas (SBA)

The portion of Moodna Creek designated as the Mid-Hudson River Significant Biodiversity Area is located adjacent to the Project Site. As detailed above, through proper implementation of stormwater management practices both during construction and upon operations of the Proposed Action, no impacts to the water quality of the onsite wetlands and downstream waters (i.e., Moodna Creek) are anticipated. Therefore, the Proposed Action will not result in significant adverse impacts to the Mid-Hudson River Significant Biodiversity Area.

G. Air

1. Existing Conditions

a. Ambient Air Quality Conditions

Per the Air Quality Analysis and Impact Review (Appendix M), existing air quality good for the Project Site. The median air quality index (AQI) in 2021 for Orange County, New York was 34. An AQI between 0 and 50 is excellent and air pollution poses little or no risk. An AQI between 51 and 100 is categorized as moderate and air pollution is acceptable; however, the U.S. Environmental Protection Agency (EPA) notes there may be minor health issues associated with this air quality. Existing air quality standards for New York State are found in the New York State Ambient Air Quality Standards (NYSAAQS) 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 tracked as provided in NYSDOT's The Environmental Manual (TEM). The table below depicts the National/State Ambient Air Quality Standards.

Table III-28 - 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

Per the NYSDEC 2022 Ozone Exceedances in New York State, no exceedances were recorded for ground level ozone in Orange County.

2. Potential Impacts

a. Evaluation and Summary of Impacts

No significant air quality impacts are anticipated as a result of the buildout of the Proposed Project. Eighteen (18) existing and proposed intersections were analyzed for the first level of screening in the AM and PM scenarios in the Traffic Impact Report. These analyses were utilized to determine the impacts, if any, to air quality as a result of the Proposed Action.

The site plan for the warehouse facility will provide for truck-trailer parking spaces. For parked trucks at the Project Site, the New York State Environmental Conservation Law (ECL) prohibits heavy duty vehicles, including diesel trucks and buses, from idling for more than five minutes at a time. This law was enacted to prevent air pollution, excessive noise, and reduce fuel use; thus, there will be no extended periods of truck idling at the site.

As a result of the Traffic Impact Study findings, no significant change in delays will occur, thus no significant changes in the Level of Service will result from the Proposed Project. Further, mobile analysis is not required for the Project as it would not result in a significant air quality impact based upon traffic changes. Per The Environmental Manual, the analyzed intersections run at LOS A, B and C, and are not required to perform additional microscale analyses each year. Thus, no significant impacts are anticipated.

Additionally, local topography and meteorological characteristics at the site suggest that climatic inversions are not anticipated. When warm layers of air rise and trap cooler air at the ground level, there could be a prevention of pollutant dispersion should the inversion last multiple days. Due to the relatively flat and moderate slope conditions on site, these climatic inversions are not anticipated to occur and pollutant dispersion will occur at regular and safe levels.

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/or blasting operations. It is anticipated that fugitive dust emissions will arise from wind erosion of the exposed topsoil.

The New York State Department of Environmental Conservation (NYSDEC) considers potential impacts as a result of blasting in the State Environmental Quality Review Act in the Environmental Assessment Form. If blasting occurs more than 1,500 feet from any residence, hospital, school, day care or nursing home, then no significant impacts are anticipated. A small impact may occur if blasting only occurs during the construction phase of the project. If blasting occurs within 1,500 feet of the above-mentioned residence receptors, no significant impacts will be anticipated as mitigating measures will be taken.

3. Proposed Mitigation Measures

a. Mitigation Measures for Adverse Environmental Impacts

Measures will be taken to prevent air quality impacts to the surrounding environment, if blasting is required. Blasting mats will be utilized at the construction site. These mats will control the blast, as well as prevent high velocity fragments from damaging structures, prevent dust exposure and will suppress noise. Further, blasting

blankets will be used in combination with the mats to provide further suppression of material. Vibration and air blasts as a result of blasting will not create a significant impact to surrounding residential receptors. The energy levels produced by blasting events decrease rapidly with distance.

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 swiping at the entrances as needed and adherence to the operations and maintenance instructions described in the Stormwater Pollution Prevention Plan (SWPPP Report prepared under separate cover).

Increase in pollutant emissions can, in some cases, result from construction traffic enroute to the Project Site. Construction traffic, specific to the Proposed Project, is temporary, self-correcting and is not anticipated to decrease overall existing air quality. 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 Proposed Project. Trucks, compressors, cranes, excavators and other equipment will be maintained and in good working condition and turned off when not in use. In addition to the above, The Environmental Manual (TEM) will be utilized as an additional source of guidance for reducing potential impacts to air quality.

The Proposed Project will construct over 2 million of gross square feet of warehouse building space. Assuming that 75 percent of the roof space is available for solar panel installation, then approximately 1.5 million square-feet of panels could be installed. Given the northeastern latitude and average weather patterns, 150 W/d/square-meter of solar insolation occurs on average. In other words, the use of solar panels on the rooftops of each building would save approximately 2.3 million pounds of both carbon dioxide and GHG equivalents per year.

H. Visual and Cultural Resources

1. Existing Conditions

a. Viewshed and Visibility of the Site

Dynamic Engineering and ARCO have prepared visual renderings (prepared under separate cover) depicting the view of the Project from various view points throughout the Town of Cornwall as determined in consultation with the Planning Board. As seen in the Visual Analysis Exhibits (prepared under separate cover), the following locations have been analyzed for projected visibility of the site in the Existing Condition:

- Willow Avenue (FCFH-TB) – little visibility of existing wooded areas on-site due to highly grown trees and existing residential structures along Willow Avenue
- Frost Lane (FL-TB) - little visibility of existing wooded areas on-site due to highly grown trees and existing residential structures along the end of Frost Lane
- Knoll Crest Court (KC-TB) – clear visibility of existing wooded areas on-site
- Knox Headquarters Back (KHQ-TB) – clear visibility of existing wooded areas on-site
- Willow Avenue Elementary (OBH-TB) – little to no visibility of existing wooded areas on-site due to highly grown trees along Willow Avenue Elementary and Brewster House properties
- Sands Ring Homestead (SR-TB) – little to no visibility of existing wooded areas on-site due to highly grown trees along Sands Ring Homestead property
- Route 9 West (TH-TB) – Little to no visibility of Project Site from Storm King Trail Head due to existing grade differential and extended proximity (+/- 2.5 miles from closest proposed building)
- Storm King State Park (Trail Peak-TB) – Clear aboveground visibility of existing wooded areas on-site from Howell Trail view due to extended proximity (+/- 2.25 miles from closest proposed building)
- New York State Route 32 (WH-TB) – Little visibility of existing wooded areas on site due to highly grown tree line along New York State Route 32 (adjacent to Woodruff House)

b. Town, County and State Designated Scenic and Historic Resources

Visual renderings providing views of the subject property have been prepared per significant Town, County and State resources identified by the Board below.

c. Leaf-on and Leaf-off Visual Characteristics

a) Route 9W

As can be seen on the leaf-on/leaf-off renderings, prepared by ARCO, visibility of the subject property is generally buffered by existing vegetation along Route 9W under both leaf-on/leaf-off conditions. Further, proposed landscaping will be installed to mitigate the removal of existing vegetation to maintain the buffer as feasible along the roadway corridor.

b) Knox Headquarters

As can be seen on the leaf-on/leaf-off renderings, prepared by ARCO, visibility of the subject property is limited from the Knox Headquarters site due to the significant difference in elevation to and distance from the subject property. As such, no negative visual impact is anticipated.

c) Firthcliffe Firehouse

As can be seen on the leaf-on/leaf-off renderings, prepared by ARCO, visibility of the subject property is limited from the Firthcliffe Firehouse site due to the significant difference in elevation to and distance from the subject property. As such, no negative visual impact is anticipated.

d) Public and Residential Roadways

As can be seen on the leaf-on/leaf-off renderings, prepared by ARCO, visibility of the subject property is generally buffered by existing vegetation along the adjacent residential roadways (Frost Lane and Knoll Crest Court) under both leaf-on/leaf-off conditions. Further, proposed evergreen landscaping will be installed to mitigate the removal of existing vegetation to maintain the buffer as feasible along the residential roadways.

d. Phase 1A/1B Cultural Resources Surveys

A Phase 1A Cultural Resources Survey was prepared for the previously proposed Cornwall Commons project (Appendix Item N). The report concluded that there is no evidence of potentially significant cultural resources on the site. Based on the findings of the Cornwall Commons DEIS and the fact that the Area of Potential Effect (APE) remains unchanged from the Cornwall Commons, it is the Applicant's opinion that an updated survey is not required for the Project.

e. Results of New York State Historic Preservation Office (SHPO) Review

As noted above, a Phase 1A Cultural Resources Survey was prepared for the previously proposed Cornwall Commons project (Appendix Item N). The report concluded that there is no evidence of potentially significant cultural resources on the site. Based on the findings of the Cornwall Commons DEIS, it is the Applicant's opinion that an updated survey is not required for the Project. Therefore, further review from SHPO is not anticipated to be required for the Project at this time.

2. Potential Impacts

a. Architectural and Physical Design

In the Applicant's opinion, the proposed building and associated off-street parking design will provide an aesthetic improvement to the interior and perimeter of the site through the implementation of the new buildings and a variety of proposed landscaping throughout the site. Same provides a benefit when compared to the overgrown and unmaintained nature of the existing tree coverage on-site. As reflected in the accompanying Architectural Drawings, prepared by ARCO under separate cover, façade treatment will be handled through a variety of paint colors and glazing treatments. The overall design has been prepared to generally be compatible with the surrounding area, including the use of earthy color templates to mimic the surrounding wooded areas.

b. Project Visibility

As previously noted, visibility of the Project is anticipated to be minimal from various view points along the property boundary. Further, proposed landscaping will be installed to mitigate the removal of existing vegetation to maintain the buffer along the property boundaries to alleviate visibility of the Project. As seen in the Visual Analysis Exhibits (prepared under separate cover), the following locations have been analyzed for projected visibility of the site in the Proposed Condition:

- Willow Avenue (FCFH-TB) – little to no visibility of proposed warehouse buildings on-site due to highly grown trees and existing residential structures along Willow Avenue
- Frost Lane (FL-TB) - little to no visibility of proposed warehouse buildings on-site due to highly grown trees and existing residential structures along the end of Frost Lane
- Knoll Crest Court (KC-TB) – clear visibility of proposed warehouse buildings on-site that is mitigated with a hefty landscape buffer and berm consisting of trees and shrubbery

- Knox Headquarters Back (KHQ-TB) – little to no visibility of proposed warehouse buildings on-site
- Willow Avenue Elementary (OBH-TB) – little to no visibility of proposed warehouse buildings on-site due to highly grown trees along Willow Avenue Elementary and Brewster House properties
- Sands Ring Homestead (SR-TB) – little to no visibility of proposed warehouse buildings on-site due to highly grown trees along Sands Ring Homestead property
- Route 9 West (TH-TB) – Little to no visibility of Project Site from Storm King Trail Head due to existing grade differential and extended proximity (+/- 2.5 miles from closest proposed building)
- Storm King State Park (Trail Peak-TB) – Clear bird's eye visibility of proposed warehouse buildings on-site from Howell Trail view due to existing grade differential (+/- 2.25 miles from closest proposed building)
- New York State Route 32 (WH-TB) – Little to no visibility of proposed warehouse buildings on-site due to highly grown tree line along New York State Route 32 (adjacent to Woodruff House)

The Visual Analysis Exhibits, prepared by ARCO (under separate cover), dated 01/19/2023, provide further clarification on the analysis of leaf-off visual impacts in the proposed conditions. The following locations have been analyzed for same:

- Knox Headquarters – Visibility of the subject property is limited from the Knox Headquarters site due to the significant difference in elevation to and distance from the subject property. In the Leaf-Off conditions, there is still little to no visibility of the Proposed Development due to similar reasons.
- Firthcliffe Firehouse - Visibility of the subject property is limited from the Firthcliffe Firehouse site due to the significant difference in elevation to and distance from the subject property. In the Leaf-Off conditions, there may be slight visibility of Proposed Warehouse Building B, however this will be mitigated via the existing wooded areas and proposed landscaping. As such, no negative visual impact is anticipated even in the Leaf-Off conditions.
- Frost Lane – In Leaf-Off conditions, there is likely visibility of the Proposed Warehouse Buildings B and D, which is mitigated via the dense existing wooded areas and the on-site

landscape buffer and berm consisting of trees and shrubbery. Due to the size and quantity of existing trees between Frost Lane and the Project Site, there is little negative visual impact anticipated even in the Leaf-Off conditions.

- Knoll Crest Court – In the Leaf-Off conditions, visibility of Proposed Warehouse Buildings D and E will be increased slightly. Visibility will be mitigated to the maximum extent feasible via existing and proposed vegetation along the adjacent residential roadway along with the hefty existing wooded areas consisting of thick, highly grown trees.
- Route 9W – In the Leaf-Off conditions, visibility of Proposed Warehouse Building E will be increased slightly. However, the dense existing wooded area is expected to provide a natural visual screening, therefore no major negative impacts are anticipated. Proposed vegetation will provide additional buffering.

c. Visual Impacts to Surrounding Locations

No significant visual impacts to the surrounding locations are anticipated due to the implementation of perimeter buffering, including proposed fences and landscaping.

d. Determination of Effect Review from SHPO

As noted above, a Phase 1A Cultural Resources Survey was prepared for the previously proposed Cornwall Commons project (Appendix Item N). The report concluded that there is no evidence of potentially significant cultural resources on the site. Based on the findings of the Cornwall Commons DEIS, it is the Applicant's opinion that an updated survey is not required for the Project. Therefore, further review from SHPO is not anticipated to be required for the Project at this time.

e. Impacts to Archeological Resources

No significant impacts to archeological resources are anticipated.

f. Impacts to Historic Visual Resources

No significant impacts to historic visual resources are anticipated.

g. Proposed Lighting

The proposed lighting design has been prepared to minimize spillover to adjacent properties and to incorporate house side shielding to alleviate glare onto adjacent properties. The lighting design has been prepared to maintain required minimum light levels onsite and provide safe lighting throughout the development. As seen in the Preliminary and Final Site Plan Drawing Lighting Plans (prepared under separate cover), light levels surrounding the property boundaries have been reduced to the maximum extent practicable. On-site light fixtures include a mixture of building mounted and freestanding area lights with independent foundations. All area lights and foundations are proposed at a maximum height of 25 feet. A majority of on-site lighting is proposed through LED Outdoor Area Lights consisting of typical Evolve fixtures and Evolve Low Wattage fixtures. The average illuminance level on all paved areas on-site has been minimized to not exceed the allowable levels, specifically an average illuminance level of 5.46.

3. Proposed Mitigation Measures

a. Visual Mitigation Measures

Proposed landscaping and fencing along property boundaries will be provided to mitigate any negative visual impacts to the surrounding areas.

b. Limits of Clearing and Vegetation

The proposed limit of disturbance and clearing has been designed to minimize removal of vegetation to the maximum extent feasible. Localized clearing and grading would result in disturbance to presently stable soils and removal of vegetation, which could result in water quality impacts due to raised sedimentation levels. Minor temporary impacts to flora and fauna would occur due to the removal of vegetation and disturbance of certain habitat areas. Portions of these communities would be re-naturalized following construction activity through the establishment of an abundance and diversity of native trees, shrubs and groundcovers and through the control of invasive vegetation.

c. Mitigation Required by SHPO

As noted above, a Phase 1A Cultural Resources Survey was prepared for the previously proposed Cornwall Commons project (Appendix Item N). The report concluded that there is no evidence of potentially significant cultural resources on the site. Based on the findings of the Cornwall Commons DEIS, it is the Applicant's opinion

that an updated survey is not required for the Project. Therefore, mitigation from SHPO is not anticipated to be required for the Project at this time.

d. US Army Corps of Engineers Required Mitigation Measures

Review from the Army Corps of Engineers is currently pending. However, the Applicant will coordinate with their office to implement any required mitigation measures.

e. Others Required

This section is intentionally left blank at this time.

I. Utilities

1. Existing Conditions

a. Public Water Supply and Sewer Systems

The existing undeveloped site is not currently served by public water supply and sanitary sewer systems. Public water supply and sanitary sewer is located within the general area. The public water supply is located within the Cornwall Water District which is supplied water by the Village of Cornwall-on-Hudson Water Department, the Village supplies water through their distribution system from a combination of source water from their reservoir system in Black Rock Forest, the Taylor Road wellfield, and the New York City Catskill Aqueduct system. Based on correspondence with Michael P. Trainor, Sr., the Water Superintendent of The Village of Cornwall-on-Hudson Water Department (Appendix Item T), the Department's current system has the capacity to service this project and anticipated connection points have been provided. As seen in the Preliminary Survey Water Utility Markup, prepared by Michael P. Trainor, Sr. (Appendix Item U), distribution infrastructure is located in the vicinity of the site, but water main extensions will be required. Sanitary sewer service for the project site is provided by the Cornwall Sewer District via the Shore Road Sewage Treatment Plant, with sewer collection infrastructure proximate to the site. A more detailed visual layout of existing water and sewer utility infrastructure can be referenced in the Trunk Line Sewer Main Replacement As-Built Drawings, prepared by MHE Consulting Engineers (Appendix Item S), the Preliminary Survey Water Utility Markup, prepared by Michael P. Trainor, Sr. (Appendix Item U), and the Roadway Survey Drawings, prepared by Dynamic Survey, LLC (included under separate cover).

b. Closure, Removal and Reclamation of Existing Water Supply

Existing wells and/or existing water supply system(s) were not identified at the site. If wells are encountered during construction, the owner of the well should be contacted. If required, wells to be abandoned in-place should be performed in accordance with NYDEC requirements.

Since there is no existing water supply system on the site, there are no requirements for closure and removal and reclamation of existing water supply systems including wells.

c. Existing Electric and Gas Infrastructure

Electric and gas infrastructure is located in the immediate vicinity of the Project Site. Electric infrastructure is available along Route 9W. Gas infrastructure is available on Knoll Crest Court. Please refer to the Roadway Survey Drawings (included under separate cover) for additional information regarding existing electric and gas infrastructure.

d. Solid Waste Management

The property is located in the Town of Cornwall Refuse and Garbage District. There is currently no solid waste generated at the site as it is vacant, undeveloped land.

2. Potential Impacts

a. Sewer, Water and Electric Demand for the Project Site

The projected demand for sanitary sewer is 24,000 gallons per day. The flow projection is based on an assumed 960 Employees combined within the five buildings at 25 GPD/Employee for Factory / Distribution Warehouse, which includes 10 GPD for showers.

The projected water demand is 24,000 gallons per day. This is based on 960 Employees (assumed) combined within the five buildings at 25 GPD/Employee for an Industrial Facility.

The projected combined electrical service requirement for the site is 13,500 Amps. The electrical projections are based on the following:

- Building A: 3,000 Amps
- Building B: 2,000 Amps
- Building C: 4,000 Amps
- Building D: 2,500 Amps
- Building E: 2,000 Amps

b. Fire Suppression Impacts

The 12-inch water supply loop within the site will provide adequate flow and pressure to supply the proposed 300,000-gallon on-site water tank to be utilized for fire suppression. A 10-inch diameter water main will branch off and be tied into a proposed pump house and 300,000-gallon fire suppression water tank. This 10-inch diameter main will then extend to five proposed buildings and will feed the individual 10-inch diameter fire services for each building. Fire hydrants will be provided throughout the site in accordance with NFPA requirements.

Hydrant flow tests have been conducted by MSGFire, Inc. through coordination with the Township of Cornwall's Water Superintendent for the two connections to the existing water system (Appendix R). Needed fire flow calculations, in accordance with Section 507.3 of the 2020 Fire Code of NYS, will be provided at a later date. In addition, the method of compliance with the needed fire flow will be analyzed and provided.

c. Utility Connections

The water system will be extended from Mill Street, approximately 300 feet south of the intersection of Howard Street and Willow Street, through Howard Street and across Route 9W to the intersection of Mailler Avenue and Halvorsen Road. This will be routed through Halvorsen Road but will also require an easement. For additional information regarding proposed off-site utility connections, please reference the Offsite Utility Plans, Sheets 121 and 122, of the Preliminary and Final Site Plan Drawings (included under separate cover) and correspondence with Michael P. Trainor, Water Superintendent for the Village of Cornwall-on-Hudson Water Department (Appendix Item T).

The sanitary sewer system has two options for tie-in:

1. Cornwall Sewer District/Shore Road Sewage Treatment Plant – tie in to the sanitary sewer system at the intersection of Mailler Avenue and Academy Avenue. This will be routed through Halvorsen Road but will also require an easement. The downstream sanitary sewer system flows via gravity to the Shore Road Sewage Treatment Plant.

2. Firthcliffe District/Firthcliffe Sewage Treatment Plant – tie in to the sanitary sewer system on Knoll Crest Court. The Knoll Crest Court Pump Station conveys the sewage to the Firthcliffe Sewage Treatment Plant. This will also require an easement.

Since the site is located within the Cornwall Sewer District and a recent Infiltration and Inflow (I&I) reduction program was completed by the Town to protect sewer capacity at the wastewater treatment plant and increase conveyance capacity of the gravity sewers, Option 1 was determined to be favorable for sanitary sewer connection as opposed to the Firthcliffe connection option. For additional information regarding the proposed sewer utility connection, please reference the Overall Water and Sewer Utility Exhibit (included under separate cover) and Trunk Line Sewer Main Replacement As-Built Drawings (Appendix Item S).

Per correspondence with Jason Malizia of Central Hudson Electric & Gas Company (Appendix Item V), the Proposed Project is located within the service franchise area of Central Hudson Gas & Electric Corp. Gas and electric services will be supplied by Central Hudson in compliance with the New York State filed tariff. Additionally, the respective Central Hudson Gas & Electric Utility Applications (Appendix Item W) have been filed with the operator. It should be noted that the gas and electric utility “will-serve”, provided by Central Hudson, as included in Appendix Item T, details the respective utility provider and operator for the proposed utility connections.

The proposed electric service is intended to be extended onto the site via the existing utility infrastructure located across U.S. Route 9W. Specific determinations regarding the potential for offsite utility upgrades will ultimately be determined by Central Hudson, however should upgrades be deemed necessary, Central Hudson has advised that they will coordinate the design of these upgrades. The Applicant will

comply with payments as invoiced through the rules within the tariff to New York State. Infrastructure upgrades such as substation improvements are not anticipated based on proposed loads, however, if deemed necessary, the Applicant will work with Central Hudson to meet the financial terms of said improvements.

Given that it is unknown whether natural gas service is available along the property frontage from Route 9W based on current survey information, gas service is proposed to be extended onto the site from Knoll Crest Court. An application has been filed with Central Hudson Gas and Electric and the proposed improvements are currently under review. For additional gas utility information, please reference the Correspondence with Jason Malizia of Central Hudson Electric & Gas Company (Appendix Item V) and the Central Hudson Gas Utility Application (Appendix Item W). Should the proposed gas utility connection through Knoll Crest Court be deemed not feasible by Central Hudson, an alternative approach can be employed. One potential alternative is to extend the existing gas infrastructure within Mailler Avenue across Route 9W and connect to the Project Site. Additionally, the existing gas main within Mill Street can potentially be extended to provide a connection to the Project Site.

For further clarification on the proposed utility connections, please reference the accompanying Preliminary and Final Site Plan Drawings (included under separate cover).

d. Necessary and Required Permits and Approvals

The utility work will require the following permits and approvals:

Town of Cornwall Town Board

- Access to the Cornwall Sewage Treatment Plant
- Extension of the existing municipal sewer system to the site should the Town Board recommend and grant access to the Firthcliffe sewer district

Village of Cornwall-on-Hudson

- Village Board of Trustees review of a request from the Applicant to provide water service for the proposed project

Village of Cornwall-on-Hudson Water Department

- Approval of the design of the water service extension

Orange County Department of Health – Division of Environmental Permits

- Extension of the water system from the Village of Cornwall-on-Hudson

New York State Department of Transportation – Region 8

- Highway work permit for any work in a State-owned roadway right-of-way necessary to extend municipal water and sewer services to the project site

New York State Department of Environmental Conservation – Region 3

- Extension of the existing municipal sewer system to the site should the Town Board grant access to the Firthcliffe sewer district

e. Town of Cornwall Firthcliffe Sanitary Sewer Collection System

The Proposed Project is within the Cornwall Sewer District which flows to the Shore Road Sewage Treatment Plant. Due to proximity to the Town's Firthcliffe Sewage Treatment Plant to the site, there is an alternative to obtain sanitary sewer service through the Town's Firthcliffe sanitary sewer collection system. However, since the Firthcliffe Sewer District does not currently have the capacity to take on the Proposed Project's sanitary sewer needs, a full Infiltration and Inflow (I&I) reduction program would be required. Furthermore, a recent Infiltration and Inflow (I&I) reduction program was completed by the Town of Cornwall to protect sewer capacity at the Shore Road Wastewater Treatment Plant and increase conveyance capacity of the gravity sewer downstream of the Project Site. Therefore, the option to connect to the Town's Sewer District #1 (Shore Road Sewer Treatment Plant) was ultimately determined to be favorable as it was recently upgraded to ensure capacity for the Proposed Project is available.

f. Anticipated Electric and Gas Usage

The projected combined electrical service requirement for the site is 13,500 Amps. The electrical projections are based on the following:

- Building A: 3,000 Amps
- Building B: 2,000 Amps
- Building C: 4,000 Amps
- Building D: 2,500 Amps
- Building E: 2,000 Amps

The projected combined gas service required for the site is 19,400,000 BTU. The estimate gas services requirements are based on the following:

- Building A: 4,200,000 BTU
- Building B: 1,600,000 BTU
- Building C: 8,500,000 BTU
- Building D: 3,000,000 BTU
- Building E: 2,100,000 BTU

g. Solid Waste Disposal Projections

Solid waste disposal projections are pending and will ultimately be dependent on prospective tenants for each of the proposed buildings. It is anticipated a local solid waste disposal company will be engaged to provide solid waste disposal services for the Project.

3. Proposed Mitigation Measures

a. Water Conservation Measures

The proposed buildings will be constructed with state of the art, energy efficient, water conservation measures that will developed further during preparation of the building construction drawings.

b. Wastewater Flow Mitigation

Based on the increased wastewater flows into the system from the Proposed Project, there was previous concerns that the existing sanitary sewer infrastructure may not have available capacity. As such, the Town has recently implemented a mitigation measure via an I&I reduction program for the gravity conveyance system of the sanitary sewer service area upstream of the Shore Road Wastewater Treatment Plant to accommodate additional flows. This includes increasing the size of the gravity sewer downstream of the Project Site which will provide additional conveyance capacity and reduce I&I from the aged sewer infrastructure. The Town has also decided to progress with an I&I study within the Firthcliffe Sewer District. The Town has identified areas of concern and are actively addressing these areas through I&I reduction programs.

c. Power Conservation Measures

The proposed buildings will be constructed with state of the art, energy efficient, power conservation measures that will developed further during preparation of the building construction drawings.

d. Solid Waste Handling and Odor Minimization

As previously noted, solid waste disposal projections are pending and will ultimately be dependent on prospective tenants for each of the proposed buildings. It is anticipated trash compactors will be provided in the proposed loading areas within proposed loading spaces to accommodate solid waste handling and minimize the release of odors.

e. Others Required

This section is intentionally left blank at this time.

J. Fiscal and Economic Considerations

1. Existing Conditions

a. Current Taxes and Jurisdiction

The economic impacts of construction and Project operation were calculated on the Town of Cornwall and on Orange County in the enclosed Economic and Fiscal Impact Analysis, prepared by Camoin Associates (Appendix Item I). Fiscal impacts are examined at each local taxing jurisdiction where impacts would be expected, including the Town of Cornwall and Orange County. Please refer to Table III-29 below for total taxes currently paid by the Project Site broken down by various taxing jurisdictions.

Table III-29 Current Property Tax Revenue

Current Property Tax Revenue for All Jurisdictions, Project Site

Jurisdiction	Tax Rate	Current Property Tax Revenue
County	3.6857	$4,983
Town	1.4512	$1,962
Highway	0.3229	$437
PT Town	1.0322	$1,396
Canterbury Fire	1.0567	$1,429
Cornwall Hydrant	0.1804	$244
Cornwall LT	0.1719	$232
Cornwall Refuse	43.6354	$131
Cornwall SWR O&M	2.0095	$2,717
Cornwall SWR Cost	0.3472	$469
Cornwall School	26.14273	$35,348
Library Tax	0.711403	$962
Total for all Jurisdictions		**$50,310**

Source: Town of Cornwall - Town and County 2022 Tax Bill, Cornwall School District 2022 Tax Bill

b. Current Economic Activity on Project site

Due the nature of the existing site condition, there is no significant economic activity under the current condition.

2. Potential Impacts

a. Anticipated Project Property Taxes

The projected increase in taxable value of the Site is a key variable used throughout the fiscal impact analysis. To estimate this, Camoin Associates assumes that the market value of the Site will increase in value equivalent to the amount spent on construction ($200.0 million). Cornwall's equalization rate of 75.45% is applied to the projected increase in market value to calculate the estimated increase in taxable value of the Site. This is estimated to be $150.9 million.

b. Construction Employment

The economic impact of the construction phase is displayed in Table III-30 below with further analysis provided in the Economic and Fiscal Impact Analysis, prepared by Camoin Associates (Appendix Item I).

Table III-30 Economic Impact of Construction

Economic Impact of Construction

Town of Cornwall			
	Jobs	**Earnings**	**Sales**
Direct	115	$11,902,707	$30,000,000
Indirect	3	$203,857	$505,981
Induced	2	$127,867	$352,965
Total	**120**	**$12,234,431**	**$30,858,946**
Orange County			
	Jobs	**Earnings**	**Sales**
Direct	415	$36,481,811	$100,000,000
Indirect	93	$5,858,010	$19,683,380
Induced	111	$6,578,803	$17,401,191
Total	**619**	**$48,918,624**	**$137,084,571**

Source: Lightcast (formerly Emsi)

c. Operational Employment

Upon full buildout, the Developer estimates that there will be 1,333 permanent jobs on-site. These jobs and the associated on-site operations activity will have an ongoing, annual economic impact on the Town of Cornwall and Orange County in terms of associated employee earnings and annual sales. Table III-31 displays these impacts.

Table III-31 Economic Impact of Operations

Economic Impact of Operations

Town of Cornwall			
	Jobs	**Earnings**	**Sales**
Direct	1,333	$80,326,355	$165,632,403
Indirect	48	$2,602,917	$8,376,330
Induced	7	$569,315	$1,657,905
Total	**1,388**	**$83,498,587**	**$175,666,638**
Orange County			
	Jobs	**Earnings**	**Sales**
Direct	1,333	$80,326,355	$165,632,403
Indirect	338	$18,306,968	$56,594,049
Induced	205	$11,868,530	$31,289,157
Total	**1,876**	**$110,501,853**	**$253,515,609**

Source: Lightcast (formerly Emsi)

d. Secondary Economic Benefits

Secondary economic benefits include an increase in annual revenue (sales plus property tax) to the surrounding area. Further analysis is provided in the Revenue Summary of the Economic and Fiscal Impact Analysis, prepared by Camoin Associates (Appendix Item I).

e. Future of Project Site

The project site will generate revenue for the area and promote a general increase in jobs both during the construction and full build-out phases. There is a net positive in economic activity expected from the project.

f. Induced Economic Activity

As noted above, the project site will generate revenue for the area and promote a general increase in jobs both during the construction and full build-out phases. Therefore, a positive induced economic impact is expected for the surrounding areas as workers at the Project are expected to spend a portion of their wages at businesses within the Town and County for items such as retail goods and services.

3. Proposed Mitigation Measures

a. As Required

As the project will promote positive economic activity, no mitigation measures are anticipated to be required at this time.

K. Emergency Services

1. Existing Conditions

a. Existing Police, Fire and Ambulance Services

The Project Site is located within the New Windsor Emergency Medical Service (NWEMS) area. NWEMS provides official ambulance services for the Town of New Windsor, Town of Cornwall, and Village of Cornwall-on-Hudson. The medical service agency operates out of two locations; the Headquarters in New Windsor is located at 555 Union Avenue in New Windsor, and the Cornwall Station is located at 1 Clinton Street, Cornwall. NWEMS covers approximately 95 square miles of territory, including part of Stewart International Airport, and provides medical services to over 45,000 people. After reviewing the official NWEMS website, it appears the unit is made up of

two divisions: the NWEMS Special Operations Team and Paramedic Division. There are a total of 40 volunteers on staff, and the unit operates on a 24/7 basis. NWEMS operates a total of 12 emergency response vehicles, including over 110 trained operators for same. The Cornwall unit has two (2) new ambulances that will be the primary emergency response vehicles for the Town of Cornwall and Village of Cornwall-on-Hudson. In total, NWEMS received approximately 4,000 medical emergency calls in the year 2022, and held an average response time of six (6) minutes.

The Project Site is located in the Vails Gate Fire District and the Canterbury Fire District. The property in the Vails Gate Fire District contains 53.8 acres of land. The adjacent property in the Canterbury District contains 143.68 acres of land. The portion of this property in the Vails Gate Fire District was originally located in the Town of New Windsor. The boundary line between the two Fire Districts coincides with the former Town boundary line between New Windsor and Cornwall. The onsite fire water system will serve to supplement the existing manpower and equipment provided by the Canterbury Fire District. The Canterbury Fire District/Cornwall Fire Department is a 100% volunteer force. The department operates out of two stations, Highland Engine Company #1 located at 1 Quaker Avenue and Mountainville Engine Company #3 located off of Station Road in the Mountainville Hamlet. The Department currently has 62 active members. The Highland Engine Company Fire Station is located approximately 1.5 miles from the Project Site. Response time from the fire station to the Site would be approximately 4 minutes. The Mountainville Engine Company Station is located approximately 5.1 miles from the Project Site with an approximately 9-minute response time. The Highland Engine Company consists of a 1996 Sutphen Engine (1,500 gpm pm pump with 1,000-gallon water tank), a 2008 Spartan Heavy Rescue, a 2014 Pierce 100 Foot Aerial Ladder Truck (2,000 gpm pump with 500-gallon water tank), a 2017 Pierce Engine (1,500 gmp pump with 1,000-gallon water tank), and a 2000 Ford F550 (brush/utility). The Mountainville Engine Company consists of a 1990 Seagrave FWD 4Wheel Drive Engine (1,000 gpm pump with 750-gallon water tank), a 2007 Seagrave Tanker (1,500 gpm pump with 2,500-gallon water tank), and a 2008 Ford F350 (brush/utility). The number of annual fire calls per year for the last 3 years are as follows: 271 calls in 2020, 278 calls in 2021, 279 calls in 2022, and 251 calls in 2023 (year-to-date). The Canterbury Fire District will in the near future look to replace either the 1996 Sutphen Pumper or the 1990 Seagrave FWD Pumper. Time frames for this have yet to be established as currently each of these units are “second due/reserve apparatus”. The Fire District has identified a need to install a new automatic standby generator at the Highland Engine Company Station to replace the original 1970 generator which is located within the structure. Replacement cost for a frontline engine

are approximately 1.1 million dollars and a new generator installation to serve the entire Highland Engine Company Station would cost approximately $300,000.

The Canterbury Fire District is a signatory to the Orange County Mutual Aid Agreement. Additionally, as the jurisdictional emergency service agency, the District will respond to all calls for service within the proposed project. The District maintains adequate equipment and personnel to respond to emergencies within the Proposed Project. As identified above, the District is a signatory to the Orange County available to the Department on an as requested basis.

The Project Site is located within the jurisdiction of the Town of Cornwall Police Department. The Cornwall Police Department (CPD) headquarters is located at 183 Main Street, Cornwall, NY, approximately 1.0 mile driving distance from the Project Site. The Department currently employs 9 full-time police officers and 3 part-time police officers. Additionally, a full-time dispatcher, 2 part-time dispatchers, and a full-time secretary of records are employed. The estimated response time to the Project Site is approximately 3-6 minutes. The Department consists of 9 marked police vehicles in addition to typical police duty equipment, energy weapons, shotguns, and rifles.

2. Potential Impacts

a. Circulation, Access and Building Height Compliance

The Canterbury Fire District submitted a letter to the Town of Cornwall Planning Board dated May 2, 2022, providing comments on the Proposed Project. The main issue identified is that each proposed building or structure must have at least two means of fire apparatus access. In response to the Canterbury Fire District's concerns, the Applicant has revised the site layout to include additional circulation and fire access points to each building. Additionally, an Alternative Site Plan has been created to provide an option for additional site circulation to address the concerns of fire access posed by the Canterbury Fire District.

b. Fire Suppression and Water Storage Requirements

The proposed fire suppression system has been designed to include a fire storage tank onsite. The storage tank will be designed to service two of the proposed building's fire suppression requirements in the event of an emergency. If one fire emergency occurs, the tank will guarantee the necessary fire suppression for a second

incident. The chances of a second fire within the timing of a first is low, however, the redundancy would be built into the tank design to improve safety onsite. Should there be a third, fourth, or fifth fire in the time where the tank was being refilled, we would recommend that the property maintenance manager hold a contract with a local water supply company to refill the tank within an 8-24 hour time period. This design will be reviewed further by the Fire Marshal before implementation.

c. Impact to Service Providers

There will be an unavoidable minimal increase in municipal services. Local law enforcement and fire department services may be required, but are anticipated to be characteristic of a warehouse development. The Applicant will coordinate as needed with local services to implement safety plans for the overall development.

3. Proposed Mitigation Measures

a. As Required

No additional mitigation measures in regards to emergency services have been identified at this time.

L. Construction

1. Construction Schedule and Activities

The Project Site's construction activities are anticipated to last about 30 months (see Figure III-22 Construction Schedule and Activities). Activities would consist of clearing, demolishing, and blasting areas on site within the first six (6) months of construction. It would be followed by importing fill material for approximately seven (7) months. It should be noted that dependent on-site conditions and progression of construction, fill import and various other site work may be performed in conjunction with clearing/blasting. From Months 2 to 10, the site work activities will commence including but not limited to: construction of retaining walls, stormwater infrastructure, installation of utilities including water pipes, sanitary, and electric and gas, pavement placement, site landscaping, etc. The pavement for the asphalt parking areas and landscaping features would be constructed in the latter months of this period. Starting in approximately Month 7, Buildings A and C would begin construction followed by Buildings B, D, and E with full build-out of the Project Site occurring in Month 30. Construction would occur in three stages with subphases, as detailed in the Overall Phasing Plan Exhibit (included under separate cover) and discussed below:

a. Stage 1

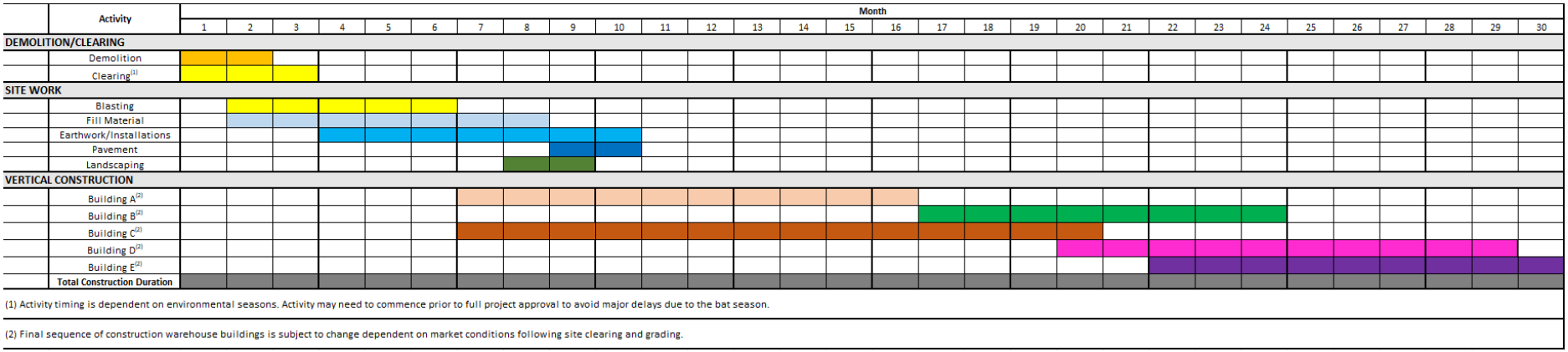
Prior to the start of construction, the Project Site will be prepared by installing public safety and erosion control measures such as: orange construction fencing, permitting, and temporary construction and traffic control signs.

Stage 1 would also involve clearing, blasting, and the demolition of approximately 24.2 acres. Sediment laden debris will be stockpiled within designated material stockpile areas. Cleared debris may also be temporarily stockpiled until it is transported offsite for disposal. The Proposed Project will require regrading of the Project Site. To the maximum extent practicable, the required clean suitable soil/fill material will be placed immediately, however, in the event stockpile of material is necessary, designated stockpile areas will be demarcated with silt fencing. Fill material will be spread and compacted in layers of a maximum of one foot in thickness.

Additionally, during Stage 1 the main site circulation drive aisle will be constructed. This will involve the regrading of approximately 24.2 acres. Excavation will occur for the installation of all proposed underground utility services. The construction of temporary sediment basins G and H and the proposed pump house and water tank will also be included in this Stage of Construction.

Figure III-22 below details the proposed construction schedule and activities for the Proposed Action.

Figure III-22 – Construction Schedule and Activies



b. Stage 2

During Stage 2 of Construction, the remaining internal drive aisle that connects the rear circulation of the site will be constructed. This will include the proposed retaining wall along the northern property boundary. Additionally, construction of temporary sediment basins A, B and C will occur along with all storm drainage systems and underground utility services. Following installation of the temporary sediment basins and finalized drive aisle grading, temporary sediment basins G and H will be converted to fully functioning aboveground bioretention stormwater basins.

c. Stage 3

The final stage of Construction, Stage 3, will encompass the construction of each of the five (5) proposed warehouse buildings and the conversion of remaining sediment basins into fully functioning aboveground bioretention stormwater basins. Stage 3 has been separated into five (5) subphases to denote the sequence of construction for each proposed building. Stage 3 will begin with the construction of Buildings A and C and will then be followed by the construction of Buildings B, D and E. Along with the construction of Buildings D and E (Stages 3-D and 3-E, respectively), the construction of three (3) underground infiltration basins will take place. Furthermore, the installation of all remaining utilities, storm drainage piping, and asphalt drive aisles will be constructed in conjunction with each proposed building.

Following complete construction of each of the five (5) proposed warehouse buildings, all sidewalks, curbs, drive aisles, loading docks and parking lots will be applied with pavement striping as needed. Additionally, stormwater infrastructure including the aboveground and belowground infiltration basins will be put online for the capture, conveyance, and discharge of onsite stormwater as designed.

2. Construction Related Impacts

The Project Site is located adjacent to the New York Military Academy to the southeast and Route 9W beyond. The Moodna Creek borders the site to the north and west. Residential developments occur to the south of the Project Site and beyond, however are located a distance away from the Project Site. These land uses may be temporarily affected by several of the impacts outlined above, including fugitive dust emissions. However, with the exception of the adjacent New York Military Academy, the uses are at a distance away so as not to be an acoustical concern. The Traffic section below details the proposed signal timing modifications and, if required, additional traffic control measures in the adjacent roadways and Route 9W will be installed in accordance with NYSDOT and the Town of Cornwall requirements. It is anticipated that rock chipping and blasting will be required

for proper construction of the Project Site. However, impacts to the surrounding neighborhoods will be minimal and temporary in time. No construction equipment or vehicles will utilize adjacent residential streets for ingress/egress to the Project Site. With the implementation of proposed mitigation measures as detailed below, significant impacts to adjacent land uses are not anticipated.

Potential construction-related impacts to specific technical areas are discussed below in further detail.

a. Geology and Soils

Construction on steep slopes and other environmental features on the Project Site have been avoided to the maximum extent practicable. Construction during Stage 1 would result in the disturbance of approximately 24.2 acres for the proposed impervious and pervious surfaces such as access roads, parking areas, walkways, driveways, and aboveground bioretention stormwater basins. Localized clearing and grading would result in disturbance to presently stable soils and removal of vegetation, which could result in water quality impacts due to raised sedimentation levels which will be mitigated to ensure that there are no adverse impacts. However, the project has been designed as such to limit disturbance to the existing wetlands and watercourses and to maintain preconstruction natural hydrologic conditions of the site to the maximum extent practicable.

Blasting and Rock Crushing

Based on the construction activities discussed above, blasting is anticipated for proper build-out of the Project Site. Specifically, blasting will be required for rock that is encountered in deeper excavations, and is likely to not weather over time. If rock is encountered during site excavation that may not require blasting, the Applicant will attempt alternate methods of rock removal, which may include chipping or ripping.

Due to the fact that rock blasting is anticipated, the Applicant will comply with all regulations set forth in the Town of Cornwall Blasting Ordinance (Chapter A161, clearing; subbase construction; rolling; stabilization fabrics; blasting, of the Town of Cornwall Code). Specifically, no blasting will occur without the employment of a licensed blaster; blasting activities will be limited to the hours of 7:00 AM and 7:00 PM per the Town code; and blasting activities will be conducted such that ground vibration, airborne noise, and the maximum total energy ratio measured at the nearest structure or building not owned or leased by the Applicant does not exceed the standards set forth in Chapter A161. In addition, blasting records will be maintained at the construction site at

all times, and appropriate notice will be given to the Superintendent of Public Works at least 24 hours prior to any scheduled blast. With adherence to these regulations, no adverse impacts to adjacent structures will occur for proposed blasting operations. Please refer to the Conceptual Rock Blasting Plan, included in the Appendix of the Supplemental Geotechnical Report (prepared under separate cover) for further information.

b. Ecology and Natural Resources

Minor temporary impacts to flora and fauna would occur due to the removal of vegetation and disturbance of certain habitat areas. Portions of these communities would be re-naturalized following construction activity through the establishment of an abundance and diversity of native trees, shrubs, and groundcovers and through the control of invasive vegetation. See Section C, Flora and Fauna, for further detail.

c. Stormwater Management

As detailed in the Stormwater Management & Pollution Prevention Plan (prepared under separate cover), sediment and erosion control devices will be placed around and throughout the Project Site and would consist of:

- Construction fence demarcating the limit of disturbance;
- Stabilized construction entrance established along the access road to the site;
- Delineation of a vehicle and equipment staging area with flags, tape and/or spray paint;
- Field office trailers for the construction engineers and managers, portable toilets, and dumpsters for trash will be installed within this area, as necessary;
- Delineation of material stockpile area with silt fencing;
- Haybales;
- Catch basin inlet protection;
- Geotextile filtering bags;
- Concrete truck washout;
- Spill kits

These measures would be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. Therefore, erosion and sedimentation would be controlled during the construction period by

temporary devices in accordance with a construction Erosion and Sediment Control (ESC) plan developed specifically for the Project Site.

d. Hazardous Materials

All efforts will be undertaken to prevent spills or respond to spills in an efficient manner. Regarding spill prevention, refueling equipment shall be located at least 100 feet from all wetlands, streams, and other surface waters. All construction vehicles will be inspected daily for visible leaks of automotive fluid. If a leak is identified, immediate actions, as detailed in the spill prevention and control plan, will be taken to contain and clean up spilled fluids.

The trained contractor is responsible for maintaining all necessary Material Safety Data Sheets (MSDS) for all materials to be stored on-site. All state and federal regulations shall be followed for the storage, handling, application, usage, and disposal of pesticides, fertilizers, and petroleum products. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Informational material regarding proper handling, spill response, spill kit location, and emergency actions to be taken, will be posted and available to all construction personnel.

20-gallon spill kits for fast response for emergency oil, water-based and chemical liquid spills will be distributed around active construction areas. Under New York State law, all petroleum and most hazardous material spills must be reported to DEC Hotline (1-800-457-7362). If a spill is discovered and the responsible party cannot be located, the person who discovers the spill shall report the spill. Parties responsible for spills will be informed of their responsibilities by the trained contractor. In the event of additional on-scene assistance is required, local authorities shall be contacted.

Petroleum spills must be reported to DEC under specified criteria typically limited in capacity and if the spill is contained or cleaned up promptly. For spills not deemed reportable, it is strongly recommended that the facts concerning the incident and cleanup methods implemented be documented by the spiller and a record maintained for one year.

e. Traffic

Traffic would be generated related to construction activities and equipment, routing of construction vehicles and equipment/trucking, employee arrival/departure, and construction staging and storage. The number of vehicles entering and leaving the Project Site would vary based on the stage of construction. Traffic control measures would be implemented in accordance with all state and local requirements, and construction trucks would be required to use local truck routes as designated by the Town of Cornwall. The development of the site will require truck trips for every operation, but the operations do not become cumulative. Truck traffic can be separated into two categories, regular deliveries and bulk deliveries which are further divided into phases which are associated with; 1) site work, 2) building superstructure construction and 3) finish work.

Regular deliveries related to import of construction materials such as; drainage, water and sewer pipe, sewer and drainage structures, silt fence, trap rock, seed, and mulch during the site development phase and then rebar, building components and landscape materials in later phases. These truck trips occur regularly at scheduled times because they require careful off-loading and storage of materials. These trips do not occur multiple times in the same day.

The construction activities that generate the greatest number of daily trips typically occur over the course of a limited number of days, sometimes weeks but, as noted above, do not occur simultaneously.

Based on the DEIS Traffic Impact Study, prepared by Dynamic Traffic, LLC (prepared under separate cover) and Section B.3 of this report, Traffic and Transportation Potential Impacts, it is anticipated that the traffic volumes during construction will be smaller than those under the Build Conditions. Therefore, the conclusions of the Build Option analysis can be applied to the conditions during the construction of the Project. Traffic control for any anticipated shoulder and lane closures will be coordinated during the NYSDOT Highway Work Application process.

Truck routes will be established with input from the Town of Cornwall, County, and State. However, limitations on the surrounding roadway infrastructure indicate that all trips will travel to and from the site via Route 9W. Thus, timing modifications are proposed at the intersections along the truck route that would mitigate the

largest impacts to traffic operations at the intersections prior to the beginning of site construction to accommodate the increase in construction traffic.

Furthermore, the Developer will comply with all applicable sections of the Town of Cornwall Code Chapter 143, "Vehicles and Traffic."

Therefore, construction-related traffic is not expected to be significant.

f. Noise

While construction noise impacts are short duration such activities can produce high sound levels. The Town of Cornwall's Noise Code ordinance minimized the acoustical impact of construction activities by limiting construction to daytime hours when ambient is high in level and sensitivity is low. The Developer will follow all applicable construction noise codes and mitigation measures are provided below to offset any potential short-term impacts. All applicable codes will be followed and proper notice will be given for blasting operations. Given the temporary nature of construction and blasting, provided all codes are complied with, no long-term noise impacts are expected.

g. Air Quality

Construction activities associated with Stages 1-3 of construction could result in temporary increases of air quality pollutants. The primary source of potential emissions is from fugitive dust resulting from construction operations (e.g., clearing, grading) and tailpipe emissions from equipment. Fugitive dust consists of soil particles that become airborne when disturbed by heavy equipment operations or through wind erosion of exposed soil after groundcover (e.g., lawn, pavement) is removed. Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures, idling restriction, and the use of ULSD. To minimize fugitive dust emissions, construction activities will be phased to minimize the amount of area disturbed at one time. For disturbed areas, not subject to traffic, vegetation will be utilized to stabilize the exposed surfaces. For disturbed areas subject to traffic dust control methods utilizing water or wind breakers will be used as necessary. Additionally, to provide short term dust control the Project Site may be sprayed with water until the surface is wet. No surface runoff will be generated from spraying activities.

This construction related air quality impact (i.e., fugitive dust) associated with construction would be temporary and geospatially diversified as different areas of the Project Site are developed. During construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling onsite. The construction vehicles would adhere to the State's anti-idling law.

Overall, the impacts on ambient air quality from construction activities associated with site-specific development are not expected to be significant.

3. Proposed Mitigation Measures

All protocols and measures will be followed to ensure proper removal of rock and other debris following demolition activities. Furthermore, applicable codes and protocols will be followed to dispose of excess soils at approved off-site facilities. Based on the measures outlined in the above sections, significant construction impacts as it relates to soils, natural resources, stormwater management, hazardous materials, and traffic are not anticipated.

a. Noise

Based on the noise assessment discussed in Section D of this report, "Noise", in addition to following the allowable construction hours, the following measures are recommended to mitigate potential temporary noise impacts during construction:

- Construction equipment back-up alarms can sometimes be the cause of noise complaints, even when occurring during allowable code hours. Should such complaints arise, alternate methods of OSHA approved safe back-up methodologies can be explored which may include using specialized back-up alarms, a spotter, or another option that allows for safe back-up movements if feasible. The safety of the construction workers is paramount;
- Heavy equipment will operate during non-noise-sensitive daytime hours and will follow allowable town construction hours as applicable;
- Whenever possible, the number of equipment operating near one receptor at a given time will be limited;
- Exposing any one receptor to high sound levels for an extended period of time will be avoided;
- Construction parking or laydown areas will be located away from receptors;

- Any high sound level construction activities will be coordinated with town representatives and the Developer will provide advance notice to residences as feasible; and
- When scheduled blasting shall occur, applicable code directives will be followed.

Based on the mitigation measures discussed above, significant adverse impacts on noise from construction activities are not anticipated.

b. Air Quality

Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures and idling restrictions. To minimize fugitive dust emissions, a water truck would be utilized (as needed) during construction activities where land surfaces would be disturbed. During construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling onsite. Overall, with implementation of proposed mitigation measures, the impacts on ambient air quality from construction activities are not expected to be significant.

With implementation of the proposed mitigation measures outlined, significant impacts resulting from construction of the Proposed Action are not anticipated.

IV. ALTERNATIVE SITE LAYOUTS

A. No Action Alternative

The No Action Alternative is required by the New York State Environmental Quality Review Act (SEQRA) regulations to be described in a draft environmental impact statement. This alternative assumes the Project Site would remain in its existing condition, with no site improvements and no new site development. With this alternative, none of the adverse, or positive, impacts of the Proposed Action would occur. In this case, the Project Site would remain developed with the existing undeveloped, vacant, wooded land overlay. The Site would not be redeveloped with five (5) new Class A Warehouse Facilities. The Project Site would remain as it exists now. No grading or alteration of topography, no loss of existing vegetation, no impacts to existing wetlands, and no new site generated traffic would occur. However, while this alternative would eliminate any potential adverse impacts of the Proposed Action, it would not yield any beneficial effects expected to result from the construction of the development, such as increased property tax revenues for the Town and Count; increased job

opportunities, no improvement in the views of the Site. In the Applicant's opinion, this Alternative is not considered a viable alternative development scenario because it is inconsistent with the development objectives of the Applicant, as well as the overall goals as described in the Town of Cornwall Comprehensive Plan.

B. Absence of Zoning Map Amendment Alternative

Alternate Site Plan Exhibit 'C' has been developed to provide multiple warehouse buildings within the PCD Zoning District only, with the HC Zoning District line remaining as is. In March of 2021, the project attorney conducted a zoning analysis of the property in question to identify the Town of Cornwall zoning parameters and determine issues that are relevant for the Treetop Project to construct a warehouse distribution facility consisting of multiple proposed warehouse buildings. The zoning analysis found that the site is split zoned and located in both the Planned Commercial Development (PCD) Zoning District and the Highway Commercial (HC) Zoning District. Due to the fact that the HC district only permits warehouses as an *incidental* use to a primary commercial business/office use, a zoning amendment application will ultimately be required for the proposed development and must be reviewed by the Town of Cornwall Zoning Board of Appeals.

For the purposes of this analysis, it has been assumed that the HC Zoning District line will remain, and no warehouse use will be permitted to be constructed on the portion of the parcel that lies outside of the PCD Zoning District. Approximately 41 acres of land within the property currently exists outside the bounds of the existing HC Zoning District line. Should the zoning boundaries remain as they currently exist, the entirety of Proposed Building E, as shown in the Overall Site Plan, would be lost, resulting in a decreased yield of potential warehouse square-footage.

Under Alternative C, only four (4) Class A Modern Warehouse Facilities are proposed as to not encroach upon the existing HC Zoning district line and trigger a use variance. As such, the overall development yield is decreased significantly with less loading, parking, trailer storage, and overall warehouse space. The Absence of Zoning Map Amendment Alternative is examined in this DEIS for compliance with the adopted SEQRA Scope for this Project. In the Applicant's opinion, this Alternative is not considered a viable option for development because it is inconsistent with the development objectives of the Applicant as well as the Town of Cornwall's recent re-zoning of the site from the PRD to PDC.

C. Absence of Building Height Variance Alternative

As described in Section I of this DEIS report, the Applicant will require approval form the Town of Cornwall Zoning Board of Appeals for a minor text amendment to permit a building height of 49-feet in the PCD Zoning District where 40-feet is the maximum. Should the Town of Cornwall Zoning Board of Appeals find that the area variance shall not be permitted, an alternative to the Overall Site Plan will be provided that complies with the zoning code as it exists.

Under this alternative, the aesthetic character of the Project Site would not change significantly compared to the Proposed Project. The site would maintain its character with large warehouse buildings, and the new buildings would still be visible from most surrounding areas. The buildings would be capped at a height of 40-feet should the area variance or zoning code amendment not be approved.

Overall, this alternative would not result in measurably different impacts than the Proposed Project. Furthermore, even with a lower building height, each warehouse building will still require similar sewage and waste demands, as employee counts and building footprints will remain unchanged.

The Absence of Building Height Variance Alternative is examined in this DEIS for compliance with the adopted SEQRA Scope for this Project. This alternative is considered a viable option, however in the Applicant's opinion, the increased building height will not negatively impact the overall visual appeal of the redevelopment of the Project Site. Therefore, this alternative will only be under consideration should the appeal for a variance or zoning text amendment be denied by the Town of Cornwall Zoning Board of Appeals.

D. Increased Residential Buffer Alternative

Alternate Site Plan Exhibit 'D' has been developed to show an iteration of development with a larger buffer area along the southern and western property boundaries adjacent to residential developments. This Proposed Action was designed to initially minimize the potential environmental adverse impacts on surrounding residential dwellings adjacent to the site. As such, the proposed alternative layout is designed with a minimum of 100-feet of buffer area between the property line and areas of disturbance along the southern and western property boundaries.

Under this alternative, the project's limit of disturbance would be minimized as to avoid adverse impacts to adjacent residential developments. As a result, the overall yield of warehouse space would be decreased by approximately 8 acres. There would be no substantial change to traffic, transportation, noise, air, or other environmental aspects as compared to the Proposed Project.

The Increased Residential Buffer Alternative is examined in this DEIS for compliance with the adopted SEQRA Scope for this Project. In the Applicant's opinion, the residential developments that exist along the south and western property boundaries will not be adversely impacted by the overall development of the PID. As such, the increased buffer area along these property boundaries will ultimately unnecessarily decrease warehouse yield. Accordingly, this alternative is not considered a viable option at this time.

E. Maximized Yield Alternative

Alternate Site Plan Exhibit 'A' has been developed to show an iteration of development that maximizes potential building footprint. This Proposed Action was designed to initially maximize the usable site area, however it does not avoid or reduce, to the maximum extent practicable, environmentally sensitive lands. This alternative would result in approximately 45.1% of overall development coverage, as compared to the 34.0% of overall development coverage proposed in the Overall Site Plan.

Under Alternative A, in an effort to maximize potential building footprint, proposed Building A is configured as a 794,850 square-foot warehouse building. The building height will remain the same, which will still require a zoning text amendment to allow a 49-foot maximum building height instead of a 40-foot maximum building height. This design of the warehouse building would accommodate for additional loading spaces and therefore accommodate more tractors and trailers.

Under this alternative, an overall increase in development coverage will be required as compared to the Proposed Project. Approximately 2 additional acres of overall development coverage and 1 additional acre of building coverage is proposed in Alternative 'A'. As a result, an increased demand in sewer and waste services may be required along with additional utility infrastructure. The aesthetic character of the project along with noise and air quality, community services, and fiscal impacts will remain unchanged. This alternative may have

impacts on increased traffic volumes due to the availability of additional loading docks for each warehouse building.

The Maximized Yield Alternative is examined in this DEIS for additional options for the Applicant to pursue in the Treetop Project. In the Applicant's opinion, while this Alternative would provide the maximum warehouse yield and loading operational advantages, it is not considered to be a viable alternative development because it lacks the increased internal site circulation and is inconsistent with the development objectives of the Applicant.

F. Additional Fire Access Alternative

Alternate Site Plan Exhibit 'B' has been developed to show an iteration of development that maximizes potential building footprint and provides additional fire safety access and circulation throughout the site. Per a letter from The Canterbury Fire District, dated May 2nd, 2022, two means of fire apparatus access for each structure must be provided. As such, the proposed alternative layout is designed to provide additional access routes to each proposed structure and to facilitate truck circulation with regards to fire access.

Under Alternative B, the maximum development coverage is proposed as 44.0%. The building footprints will remain unchanged from Alternative A (discussed above). Due to the increased traffic circulation within the site, there is a minimal loss of trailer storage spaces on the south side of Proposed Building A.

The Proposed Project will require a significant increase in full-time and part-time employees on the job site during construction and throughout warehouse operations. As such, on-site population (comprised of construction workers, warehouse workers, and miscellaneous visitors) could result in an increase in the demand for police, fire, and emergency services. Under this alternative, complete and efficient full-site circulation is provided in order to meet the necessary emergency vehicle demands, including fire access.

The Additional Fire Access Alternative is examined in this DEIS for compliance with The Canterbury Fire District internal safety and circulation recommendations. As such, the proposed development provides a similar goal to the Maximized Yield Alternative with the addition of approval from the Canterbury Fire District. With that being said, this alternative requires the disturbance of various exiting wetland areas. Accordingly, this Alternative is not a viable option.

V. MEAUSURES TO AVOID OR REDUCE THE PROJECT'S IMPACTS ON CLIMATE CHANGE AND EFFECTS ON THE USE AND CONSERVATION OF ENERGY

As previously noted, the proposed buildings will be constructed with state of the art, energy efficient, energy conservation measures that will developed further during preparation of the building construction drawings. The Project has been designed with considered to the surrounding environment and will be constructed with approved methods to avoid unnecessary environmental impacts.

VI. SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED

Air Pollution

The proposed development does not propose facilities that shall negatively impact the air quality. There may be temporary, localized increases in pollutant levels normally associated with vehicular exhaust. This is typical of all passenger, construction, delivery vehicles and elevated levels will dissipate as traffic disperses off-site. In relation to the highway traffic and the other nearby commercial facilities, any air quality impact due to additional vehicular traffic from the proposed improvements would be negligible.

There may also be temporary airborne dust particulates associated with construction activities, but these will also dissipate with the daily construction schedule. Additionally, soil erosion measures will be employed to mitigate the potential for airborne air quality impacts.

Water Pollution

There will be an unavoidable impact on water quality as the site increases impervious surfaces. However, the proposed development has been designed to meet the applicable local and State stormwater regulations by proposing seven (7) stormwater management basins. Therefore, any impacts associated with the increase in impervious coverage will be mitigated.

Increase to Noise

There will be an unavoidable increase of noise generated by construction equipment. However, this effect is temporary in nature for the duration of construction.

Increase in Sedimentation and Siltation

There will be an unavoidable increase in sedimentation and siltation as a result of construction activities. However, the site has been designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control in order to minimize the impact as much as possible.

Vehicular and Pedestrian Traffic

Additional vehicular traffic by the proposed development will have negligible impacts to the roadway networks that currently service the surrounding use..

Damage to Flora and Fauna

There will be an unavoidable impact regarding the removal of existing vegetation. To minimize the clearing of vegetation to the maximum extent feasible, silt fences and tree protection fences are proposed around the perimeter of the proposed improvements. Furthermore, the landscaping design for the development has been prepared to provide an aesthetic improvement to the interior and perimeter of the site through use of approved native species and other low maintenance vegetation. Landscaping improvement incorporated into the development meet the Town of Cornwall requirements to the maximum extent practicable.

VII. GROWTH INDUCING ASPECTS

Growth from the Project is expected in the commercial sector by providing additional customers to existing local businesses and restaurants. The Project is expected to create approximately 1,333 new permanent jobs and those workers patronize local businesses. In addition, businesses within the Town of Cornwall and Orange County are expected to grow as they will realize additional revenue by supplying goods and services to the Project. Future commercial growth will increase the tax base and provide jobs for local residents.

VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Minor impacts on air quality, water capacity, noise and natural resources are anticipated as a result of the construction and operation of the proposed project. The short-term effects of the construction process are out-weighed by the long-term economic benefits and potential for improved air quality, water quality, noise, and natural features.

The following steps should be taken to avoid/minimize adverse environmental impacts during construction and operation:

- Effective implementation of soil erosion and sediment control measures, including tree preservation, hay bales, silt fencing, and inlet filters, as well as utilization of stormwater best management practices should successfully minimize the site development's impact on existing natural resources.
- Strict adherence to the limits of disturbance parameters and stabilizing construction entrances.
- Every reasonable effort should be made to protect the existing natural environment with the ultimate goal of providing for minimal disruption throughout the course of construction and after completion.

APPENDIX

A – SEQRA Notice of Public Scoping, prepared by Cuddy + Feder LLP, dated May 2, 2022

CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

Hand Delivery

May 2, 2022

Chairman Neil Novesky
And Member of the Town of Cornwall Planning Board
183 Main Street
Cornwall, NY 12518

RE: Treetop Development Notice of Public Scoping Session Notice Packet
Property: 2615 US Route 9W, Cornwall, NY 12518

Dear Chairman Novesky and Planning Board Members:

On behalf of Treetop Development, enclosed please find the following:

1. Affidavit of Mailing with attachments;
2. Date Stamped Certified Receipts;
3. One (1) Undeliverable envelope, received to date;
4. 4-15-22 Affidavit of Publication for The Cornwall Local – Notice of Public Scoping Session SEQRA (address error);
5. 4-18-22 Affidavit of Publication for the Time Herald Record – Notice of Public Scoping Session SEQRA;
6. NYS Department of Environmental Conservation April 20, 2022 Environmental Notice Bulletin;
7. 4-22-22 Affidavit of Publication for The Cornwall Local – Notice of Public Scoping SEQR (corrected); and
8. 4-22-22 Affidavit of Publication for The Cornwall Local – Town of Cornwall Planning Board Legal Notice.

Please incorporate the enclosed as part of the official record of the proceedings.

Very truly yours,

Sandra L. Way
Paralegal

Enclosure

Town of Cornwall Planning Board
Cornwall, New York

In the matter of the application of

Cornwall Logistics, LLC a/k/a
Treetop Development

AFFIDAVIT OF MAILING

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

Sandra L. Way, being duly sworn deposes and says:

1. I am not a party to the action, am over 18 years of age and reside in Fishkill, New York.

2. That on April 13, 2022, I mailed a copy of the annex Legal Notice relating to the above application by mailing the same in a sealed envelope, by Certified Mail with postage prepaid thereon in a post-office or official depository of the U.S. Postal Service within the State of New York, addressed to the addressees indicated on the attached list provided by the Town of Cornwall.

Sandra L. Way

Sworn to before me this
22 day of April, 2022.

NOTARY PUBLIC

KELLIE MCCRAY-GENTLE
NOTARY PUBLIC, STATE OF NEW YORK
NO. 01MC6033171
QUALIFIED IN DUTCHESS COUNTY
COMMISSION EXPIRES: NOVEMBER 15, 2025

LEGAL NOTICE

Notice is hereby given that the Planning Board of the Town of Cornwall, County of Orange, State of New York will hold a hearing at the **Munger Cottage, 40 Munger Drive** Cornwall, New York on **May 2, 2021** at **7:00PM** or as soon thereafter as the matter can be heard, on the **DRAFT SCOPE** for the EIS for the proposed CORNWALL LOGISTICS, LLC a/k/a **TREETOP DEVELOPMENT project** located at **2615 US RTE 9W.**

The draft scope is on file and may be inspected at the **Town Clerk's office, Town Hall, 183 Main Street**, Cornwall, New York 12518, prior to the public hearing.

The draft scope, and other project documents, are available for viewing online at:

https://www.cornwalllogistics.com/team-4

The property is designated on the tax map as **Section: 9 Block: 1 Lot: 25.22.**

Date: April 8, 2022

By Order of Town of Cornwall Planning Board
Neil Novesky, Chairman

Supervisor
Town of Cornwall
183 Main Street
Cornwall NY 12518

Town Clerk
Town of Cornwall
183 Main Street
Cornwall NY 12518

Lane & Tully, PC
Kristen O'Donnell, Planner
PO Box 687
Goshen NY 10924

Gary A. Vinson
Building Inspector
183 Main Street
Cornwall NY 12518

Superintendent of Highways
183 Main Street
Cornwall NY 12518

Dominic Cordisco, Attorney
555 Hudson Valley Ave.
Suite 100
New Windsor NY 12553

Neil Novesky, Chairman
Town Planning Board
16 Clarkwood Drive
Cornwall NY 12518

McGoey Hauser & Edsall
Shawn Arnott, Engineer
33 Airport Center Drive
Suite 202
New Windsor NY 12553

New York State DOT
Resident Engineer
112 Dickson Street
Newburgh NY 12550

Tree Top Development
2615 Route 9W
SEQRA DEIS Scoping Session
Public Hearing
Section: 9 Block: 1 Lot: 25.22

9-1-25.1
9-1-25.3
13-4-79
Research Center on Natural Conservation, Inc.
78 Academy Ave
Cornwall-on-Hudson, NY 12520

15-1-1.1
TPP Realty Holdings, LLC
2640 US Rte 9W
Cornwall, NY 12518

9-1-24
Town of Cornwall
183 Main Street
Cornwall, NY 12518

15-1-1.2
2630 Route 9W, LLC
800 Auto Park Place
Newburgh, NY 12550

14-1-7
Thomas T. Monahan, Jr
2601 US Rte 9W
Cornwall, NY 12518

14-1-27
Rajendra S. & Visheta R. Kothare
30 Knoll Crest Ct
Cornwall, NY 12518

14-1-26
Joseph Thomas Sandoli
Stephanie P. Joseph
29 Knoll Crest Ct
Cornwall, NY 12518

14-1-43
Stonehollow At Cornwall, LLC
100 Summit Lake Dr
Valhalla, NY 10595

14-1-42 Duplicate
Stonehollow At Cornwall, LLC
100 Summit Lake Dr
Valhalla, NY 10595

13-4-4.6
John P. Lukas
31 Stately Oaks
Cornwall, NY 12515

13-4-4.51
Brauer Residence Trust
21 Stately Oaks
Cornwall, NY 12518

13-4-4.4
Margot Cavin
Andre Szyszkowski, Jr
11 Stately Oaks
Cornwall, NY 12518

13-4-4.3
Joseph J. & Theodora DeLorenzo
46 Frost Ln
Cornwall, NY 12518

13-4-4-2
Herbert J. Roach
47 Frost Ln
Cornwall, NY 12518

13-4-1 Duplicate
Herbert J. Roach
47 Frost Ln
Cornwall, NY 12518

13-4-2
Robert Tyson
Lori Pritchard
Patricia Amaro
Attn: Robert & Stephanie Tyson
45 Frost Ln
Cornwall, NY 12518

13-4-3
Domenico & Lucia Dimarzo
43 Frost Ln
Cornwall, NY 12518

13-4-5
Reginald McHugh
36 Frost Ln
Cornwall, NY 12518

13-4-14
Mark & Jay Ann Gaspar
81 Kent Rd
Wassaic, NY 12592

13-3-1
Jeffrey T. Wilson
41 Frost Ln
Cornwall, NY 12518

13-3-2
James R. Mieckowski
P.O. Box 271
9428 Coal Hill Rd
Taberg, NY 13471

13-3-3
Robert D. & Patricia E. Herschberger
35 Frost Ln
Cornwall, NY 12518

13-3-4
David K. Nunnally
Kathy B. Dreseris
33 Frost Ln
Cornwall, NY 12518

13-3-21.32
Erin Fanfair
30 Schofield Ln
Cornwall, NY 12518

13-3-21.31
Rosmil Flores
Genry Valera-Mendez
26 Schofield Ln
Cornwall, NY 12518

13-3-21.2
Raymond P. & Jeanine Czumak
18 Schofield Ln
Cornwall, NY 12518

13-2-7
Tsering Dhoka Lama
22 Howard Street
Cornwall, NY 12518

13-1-11
Marilyn DiMiceli
Louis J. DiMiceli, Jr
21 Howard Street
Cornwall, NY 12518

43-1-1.-1
Cornwall Warehousing Inc.
Issac Landau
P.O. Box 322
Cornwall, NY 12518

37-1-44.22
N & C Land Corp.
433 Jackson Ave
New Windsor, NY 12553

DOT
Jason Brenner
NYS DOT
4 Burnett Blvd
Poughkeepsie, NY 12603

CHGE
Jason Malizia
District Director Newburgh
284 South Ave
Poughkeepie, NY 12602

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Town Planning Board
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Cornwall, NY 12518

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Suite 202
New Windsor, NY 12553

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78 Academy Ave
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Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
APR 13 2022
Postmark Here
USPS

Sent to: 14-1-27
Rajendra S. Kothare
Visheta R. Kothare
30 Knoll Crest Ct
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1061 88

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
APR 13 2022
Postmark Here
USPS

Sent to: 14-1-26
Joseph Thomas Sandoli
Stephanie P. Joseph
29 Knoll Crest Ct
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1061 95

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
APR 13 2022
Postmark Here
USPS

Sent to: 14-1-43/14-1-42
Stonehollow At Cornwall, LLC
100 Summit Lake Dr
Valhalla, NY 10595

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service
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9307 1699 0430 0094 1062 01

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
APR 13 2022
Postmark Here
USPS

Sent to: 13-4.6
John P. Lukas
31 Stately Oaks
Cornwall, NY 12518

Reference Information
39959-2

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U.S. Postal Service®
CERTIFIED MAIL® RECEIPT
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 18

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-4.51
Brauer Residence Trust
21 Stately Oaks
Cornwall, NY 12518

Reference Information
39959-2

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U.S. Postal Service®
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 25

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-4.4
Margot Cavin
Andre Szyszkowski, Jr.
11 Stately Oaks
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service®
CERTIFIED MAIL® RECEIPT
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 32

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-4.3
Jospeh J. DeLorenzo
Theodora DeLorenzo
46 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service®
CERTIFIED MAIL® RECEIPT
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 49

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-4.2/13-4-4.1
Herbert J. Roach
47 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service®
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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 56

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-2
Robert Tyson, Lori Pritchard, Patricia Amaro
Attn.: Robert & Stephanie Tyson
45 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 63

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-3
Domenico Dimarzo
Lucia Dimarzo
43 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

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USPS® ARTICLE NUMBER
9307 1699 0430 0094 1062 70

Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-5
Reginald McHugh
36 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

PS Form 3800, Facsimile, July 2015

U.S. Postal Service®
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USPS® ARTICLE NUMBER
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Certified Mail Fee	$	3.75
Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Postmark Here
FISHKILL, N.Y. 12524
USPS

Sent to: 13-4-14
Mark Gaspar
Jay Ann Gasper
81 Kent Rd
Wassaic, NY 12592

Reference Information
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Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

APR 13 2022
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FISHKILL, N.Y. 12524
USPS

Sent to: 13-5-1
Jeffrey T. Wilson
41 Frost Ln
Cornwall, NY 12518

Reference Information
39959-2

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9307 1699 0430 0044 1063 00

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Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-2
James R. Mieckowski
P.O. Box 271
9428 Coal Hill Rd
Taberg, NY 13471

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Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-3
Robert D. Herschberger
Patricia E. Herschberger
35 Frost Ln
Cornwall, NY 12518

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Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-4
David K. Nunnally
Kathy B. Dreseris
33 Frost Ln
Cornwall, NY 12518

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Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-21.32
Erin Fanfair
30 Schofield Ln
Cornwall, NY 12518

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Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-21.31
Rosmil Flores
Genry Valera-Mendez
26 Schofield Ln
Cornwall, NY 12518

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Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-21.2
Raymond P. Czumak
Jeanine Czumak
18 Schofield Ln
Cornwall, NY 12518

Reference Information
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Return Receipt (Hardcopy)	$	0.00
Return Receipt (Electronic)	$	0.00
Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

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Sent to 135-7
Tsering Dhoka Lama
22 Howard Street
Cornwall, NY 12518

Reference Information
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Certified Mail Restricted Delivery	$	0.00
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Total Postage and Fees	$	4.28

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Sent to 135-11
Marilyn DiMiceli
Louis J. DiMiceli, Jr.
21 Howard Street
Cornwall, NY 12518

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Certified Mail Restricted Delivery	$	0.00
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Total Postage and Fees	$	4.28

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Sent to 134-1.1
Cornwall Warehousing Inc.
Issac Landau
P.O. Box 322
Cornwall, NY 12518

Reference Information
39959-2

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Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
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NYS DOT
Jason Brenner
4 Burnett Blvd
Poughkeepsie, NY 12603

Reference Information
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Total Postage and Fees	$	4.28

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371-44.22
N & C Land Corp.
433 Jackson Ave
New Windsor, NY 12553

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Return Receipt (Hardcopy)	$	0.00
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Certified Mail Restricted Delivery	$	0.00
Postage	$	0.53
Total Postage and Fees	$	4.28

FISHKILL, N.Y. 12524
APR 13 2022
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Sent to:
Central Hudson Gas & Electric
Jason Malizia, District Director Newburgh
284 South Ave
Poughkeepsie, NY 12602

Reference Information
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CUDDY +FEDER LLP

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4-15 unc

Lanc & Tully PC
Kristen O'Donnell, Planner
P.O. Box 687
Goshen, NY 10924

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10524-CE

News of the Highlands Inc.
PO Box 518
Cornwall, New York 12518-0518
845-534-7771

Affidavit of Publication

To: Cuddy & Feder LLP
Attn: Sandy Way
300 Westage Bus Center Suite 380
Fishkill, NY 12524

Re: Legal notice #62621

State of New York }
} *SS:*
County of Orange }

I, Matthew H. Lawney, being duly sworn, depose and say: that I am the Vice President of Cornwall Local, a weekly newspaper of general circulation published in Cornwall, County of Orange, State of New York; and that a notice, of which the annexed is a printed copy, was duly published in Cornwall Local once on 04/15/22.

Matthew H. Lawney

Sworn to before me this 15th day of April, 2022

BOBBI J. TURNER
Notary Public, State of New York
Reg. No. 01TU6078061
Qualified in Orange County
Commission Expires July 22, 2022

NOTICE OF PUBLIC SCOPING SESSION

PLEASE TAKE NOTICE that on Monday, May 2, 2022 at 7:00 p.m. at the Town of Cornwall Town Hall, 183 Main Street, Cornwall, New York, the Planning Board of the Town of Cornwall, as SEQRA Lead Agency, will hold a public scoping session concerning a Planned Industrial Development (PID) application by Cornwall Logistics, LLC a/k/a Treetop Development proposing to develop five (5) Class A Modern Warehouse Facilities totaling 2,053,593 square feet in gross area and is located at 2615 US Route 9W, Cornwall, NY (Section 9, Block 1, Lot 25.22) (the "project site"). The project site is an approximately 197.7-acre parcel located northwest of US Route 9W in the Town of Cornwall.

The proposed project is a Type I action under SEQRA as it may result in one or more significant impacts. The Planning Board has already determined that a Draft Environmental Impact Statement (DEIS) should be prepared and the Board is now conducting this "Scoping" process to determine what issues should be examined in the EIS document.

The purpose of public scoping session is to invite suggestions from residents, neighbors, agencies and the public about what should be included in the EIS, including the issues and impacts to be studied, methodologies to be used, alternatives to the discussed, and mitigations to be considered. Scoping helps to assure that the Planning Board and the public have sufficient information in the EIS document before the public hearing process begins. The Planning Board will adopt a "Final Scope" after it reviews all the comments made during the scoping process.

A copy of the Positive Declaration and Draft Scoping document have been distributed to involved and interested agencies on April 7, 2022 and will also be available at the Town Clerk's Office, Town of Cornwall Town Hall, 183 Main Street, Cornwall, NY 12518 for public review during regular business hours and are posted on the following website: www.cornwalllogistics.com.

In addition to the opportunity to speak at the public session on May 2, 2022, the Planning Board will also accept written comments on the proposed scoping document until 4:00 p.m. on May 24, 2022. Comments may be submitted in person, by postal mail, by fax at (845) 534-2178 or by email dhines@cornwall-ny.gov. Mailed comments should be addressed to: Neil Novesky, Chairman and Members of the Planning Board, Town of Cornwall Town Hall 183 Main Street Cornwall, NY 12518.

By Order of Town of Cornwall Planning Board
Neil Novesky, Chairman
4/15
62621

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Observer-Dispatch
Times Telegram | New Jersey Herald
Times Herald-Record

PO Box 631202 Cincinnati, OH 45263-1202

PROOF OF PUBLICATION

Cuddy & Feder LLP
Sandy Way
Cuddy & Feder LLP
300 Westage Business Ctr DR # 380
Fishkill NY 12524-2237

STATE OF NEW YORK, COUNTY OF ORANGE

The Times Herald-Record, a daily newspaper distributed in the Orange, Ulster, Pike, PA and Sullivan Counties, published in the English language in the City of Middletown, County of Orange, State of New York printed and published and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issues dated on:

04/18/2022

and that the fees charged are legal.
Sworn to and subscribed before on 04/18/2022

Legal Clerk

Notary, State of WI, County of Brown

My commision expires

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VICKY FELTY
Notary Public
State of Wisconsin

Doc#5200681.1

NOTICE OF PUBLIC SCOPING SESSION

PLEASE TAKE NOTICE that on Monday, May 2, 2022 at 7:00 p.m. at the Munger Cottage, 40 Munger Drive, Cornwall, New York, the Planning Board of the Town of Cornwall, as SEQRA Lead Agency, will hold a public scoping session concerning a Planned Industrial Development (PID) application by Cornwall Logistics, LLC a/k/a Treetop Development proposing to develop five (5) Class A Modern Warehouse Facilities totaling 2,053,593 square feet in gross area and is located at 2615 US Route 9W, Cornwall, NY (Section 9, Block 1, Lot 25.22) (the "project site") . The project site is an approximately 197.7-acre parcel located northwest of US Route 9W in the Town of Cornwall.

The proposed project is a Type I action under SEQRA as it may result in one or more significant impacts. The Planning Board has already determined that a Draft Environmental Impact Statement (DEIS) should be prepared and the Board is now conducting this "Scoping" process to determine what issues should be examined in the EIS document.

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www.cornwallogistics.com.

In addition to the opportunity to speak at the public session on May 2, 2022, the Planning Board will also accept written comments on the proposed scoping document until 4:00 p.m. on May 24, 2022. Comments may be submitted in person, by postal mail, by fax at (845) 534-2178 or by email dhines@cornwallny.gov. Mailed comments should be addressed to:

Neil Novesky, Chairman
and Members of the Planning Board
Town of Cornwall Town Hall
183 Main Street
Cornwall, NY 12518

Dated: April 8, 2022 By Order of Town of Cornwall Planning Board
Neil Novesky, Chairman
4/189/2022

NEW YORK STATE | Department of Environmental Conservation

ENB Region 3 Notices 4/20/2022

Negative Declaration

Dutchess County - The Town of Wappinger Planning Board, as lead agency, has determined that the proposed Central Hudson 69kV KM Electric Transmission Line Replacement Project will not have a significant adverse environmental impact. The action involves the replacement and reconstruction of an existing 69kV electric transmission line, known as the "KM Line", including the replacement of damaged and deteriorated poles and equipment within the existing public utility KM transmission right-of-way. The project is located at 167 Myers Corners Road in the Town of Wappinger, New York.

Contact: Beatrice Ogunti, Town of Wappinger, 20 Middlebush Road, Wappinger Falls, NY 12590, Phone: (845) 297-4158, E-mail: bogunti@townofwappingerny.gov.

Rockland County - The Village of Haverstraw Village Board, as lead agency, has determined that the proposed 49 West Broad Street will not have a significant adverse environmental impact. The action involves the application of Village of Haverstraw's Planned Redevelopment Incentive (PRI) Floating District to Village Square at Haverstraw's (Petitioner) property located at 49 West Broad Street, (Property) and Master Development Plan (MDP) and Site Plan approval for the development of a 55 unit multifamily residential development (plus one unit for a building superintendent) with a ground floor café. The action also includes streetscape improvements on West Broad Street and the redevelopment and provision of additional spaces in the municipal parking lot located immediately to the northeast of the Property on West Broad Street. The project is located at West Broad Street in the Village of Haverstraw, New York.

Contact: Carmelina Palumbo, Village of Haverstraw, 40 New Main Street, Haverstraw, NY 10927, Phone: (845) 429-0300, E-mail: carmelina.palumbo@vohny.com.

Positive Declaration

Dutchess County - The Town of Wappinger Planning Board, as lead agency, has determined that the proposed Downey Energy - 199 Old Route 9 may have a significant adverse impact on the environment and a Draft Environmental Impact Statement must be prepared. The action involves the submission by the Applicant for a site plan and special permit approvals for a liquid propane storage facility consisting of two 45,000 gallon tanks. The Applicant is also seeking a zoning text amendment to establish the use of liquid propane storage facility in the Highway Business (HB) and Airport Industrial (AI) zoning districts in the Town of Wappinger. The project is located at 199 Old Route 9 in the Town of Wappinger, New York.

Contact: Beatrice Ogunti, Town of Wappinger, 20 Middlebush Road, Wappinger Falls, NY 12590, Phone: (845) 297-4158, E-mail: bogunti@townofwappingerny.gov.

Positive Declaration, Availability of Draft Scope and Public Scoping Session

Orange County - The Town of Cornwall Planning Board, as lead agency, has determined that the proposed Cornwall Logistics, LLC a/k/a Treetop Development may have a significant adverse impact on the environment and a Draft Environmental Impact Statement must be prepared. The Draft Scope is available from the Town of Cornwall Town Clerk's Office, Town Hall, 183 Main Street, Cornwall, NY 12518 and on line at:

www.cornwallogistics.com. **A public scoping session on the Draft Scope will be held on May 2, 2022 at 7:00 p.m. at the Munger Cottage, 40 Munger Drive, Cornwall, NY 12518.** Written comments on the Draft Scope will be accepted until May 24, 2022.

The action involves a proposal by Cornwall Logistics, LLC a/k/a Treetop Development for a Planned Industrial Development (PID) (project site). The project site is an approximately 197.7 acre parcel located northwest of US Route 9W in the Town of Cornwall. The Applicant is proposing to develop five Class A Modern Warehouse Facilities totaling approximately 2,053,593 square foot in gross floor area. The Project includes two access points along US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The project is located at 2615 US Route 9W in the Town of Cornwall, New York.

Contact: Diane Hines, Town of Cornwall, Town Hall, 183 Main Street, Cornwall, NY 12518, Phone: (845) 534-9428, E-mail: dhines@cornwallny.gov.

Notice of Acceptance of Draft EIS and Public Hearing

Westchester County - The Village of Pelham Board of Trustees, as lead agency, has accepted a Draft Environmental Impact Statement on the proposed Downtown Restoration Initiatives. **A public hearing on the Draft EIS will be held on April 26, 2022 at 7:00 p.m. at the Village of Pelham Village Hall, 195 Sparks Avenue, Pelham, NY.** Written comments on the Draft EIS will be accepted until May 2, 2022. The Draft EIS is available from the contact listed below and on line at: https://www.pelhamgov.com/mayor-village-board-trustees/pages/downtown-restoration-initiatives-dropbox-link.

The action involves restoration Initiatives that are intended to enhance the downtown experience for residents, shoppers, and property owners by upgrading Village infrastructure, increasing access to Village services, and incorporating complete streets components into intersection improvements to make the downtown safer and more welcoming for pedestrians, bicycle riders, transit riders, and automobile users.

A cornerstone of the Restoration Initiatives is a public-private venture that will see the construction of a new 27,754 square foot
centrally located municipal center building designed to house fire, police, and Village administrative services. The proposed municipal center building will be located on the former Capital One Bank Building site at 200 Fifth Avenue. In consideration for constructing the municipal center, the Village issued a Request for Proposals (RFP) and selected a developer to construct the new municipal center building in exchange for three Village-owned parcels (including the current fire house building site). These three sites will be conveyed to the developer to construct "Pelham House" a 127 residential unit mixed-use transit oriented development with approximately 5,000 square foot of commercial development.

The project is located in the downtown corridor in the Village of Pelham, New York, that is within the Business District Floating Zone (BDFZ).

Contact: Chis Scelza, Village of Pelham, 19 Sparks Avenue, Pelham, NY 10803, Phone: (914) 738-2015.

Westchester County - The Westchester Joint Water Works, as lead agency, has accepted a Draft Environmental Impact Statement on the proposed Westchester Joint Water Works (WJWW) Filtration Plant. A **public hearing on the Draft EIS will be held on May 25, 2022 at 5:00 p.m. at the Town of Mamaroneck, Town Center Court Room, 2nd Floor, 740 West Boston Post Road, Mamaroneck, NY 10543.** Written comments on the Draft EIS will be accepted until June 6, 2022. The Draft EIS is available from the WJWW Offices, 1625 Mamaroneck Avenue, Mamaroneck, NY 10543 and on line at: https://wjwwfiltration.org/seqra/.

The action involves the construction of a filtration facility, driveway, parking lot, utilities installation for water and sewer, and stormwater management features on a 13.4 acre project site. The sewer line for the project would tie

into a County trunk line on Westchester County Airport property pursuant to an easement that would be granted by the County.

The facility building would be less than one acre. Proposed impervious features, including a driveway, parking lot walkways, the facility itself and supporting utilities and ancillary facilities, would total approximately 2.4 acres. The proposed location of the Filtration Plant is a 13.4 acre tract of land accessed via Purchase Street, east of the Westchester County Airport. The land is currently owned by Westchester County and is part of the Airport grounds. It is proposed that, in connection with its acquisition of the County land, WJWW would deed to the County a parcel owned by WJWW (parcel ID 0961.-1) located adjacent to, and to be merged with, the Westchester County Airport. The project is located in the Town and Village of Harrison, New York.

Contact: Paul Kutzy, WJWW, 1625 Mamaroneck Avenue, Mamaroneck, NY 10543, Phone: (914) 698-3500, E-mail: pkutzy@wjww.com.

News of the Highlands Inc.
PO Box 518
Cornwall, New York 12518-0518
845-534-7771

Affidavit of Publication

To: Cuddy & Feder LLP
Attn: Sandy Way
300 Westage Bus Center Suite 380
Fishkill, NY 12524

Re: Legal notice #62637

State of New York }
} *SS:*
County of Orange }

I, Matthew H. Lawney, being duly sworn, depose and say that I am the Vice President of Cornwall Local, a weekly newspaper of general circulation published in Cornwall, County of Orange, State of New York; and that a notice, of which the annexed is a printed copy, was duly published in Cornwall Local once on 04/22/22.

Matthew H. Lawney

Sworn to before me this 22nd day of April, 2022

BOBBI J. TURNER
Notary Public, State of New York
Reg. No. 01TU6078061
Qualified in Orange County
Commission Expires July 22, 2022

CORRECTED NOTICE OF PUBLIC SCOPING SESSION

PLEASE TAKE NOTICE that this Corrected Notice of Public Scoping Session is being republished in The Cornwall Local to correct the Notice published in the April 15, 2022 edition of The Cornwall Local wherein the address as to where the Public Scoping will be held erroneously stated 183 Main Street, Cornwall, NY. **PLEASE TAKE FURTHER NOTICE** that on **Monday, May 2, 2022 at 7:00 p.m. at the Munger Cottage, 40 Munger Drive, Cornwall, New York**, the Planning Board of the Town of Cornwall, as SEQRA Lead Agency, will hold a public scoping session concerning a Planned Industrial Development (PID) application by Cornwall Logistics, LLC a/k/a Treetop Development proposing to develop five (5) Class A Modern Warehouse Facilities totaling 2,053,593 square feet in gross area and is located at 2615 US Route 9W, Cornwall, NY (Section 9, Block 1, Lot 25.22) (the "project site"). The project site is an approximately 197.7-acre parcel located northwest of US Route 9W and southeast of Interstate 84 (I-84). The proposed project is a Type I action under SEQRA as it may result in one or more significant impacts. The Planning Board has already determined that a Draft Environmental Impact Statement (DEIS) should be prepared and the Board is now conducting this "Scoping" process to determine what issues should be examined in the EIS document.

The purpose of public scoping session is to invite suggestions from residents, neighbors, agencies and the public about what should be included in the EIS, including the issues and impacts to be studied, methodologies to be used, alternatives to be discussed, and mitigations to be considered.

Scoping helps to assure that the Planning Board and the public have sufficient information in the EIS document before the public hearing process begins. The Planning Board will adopt a "Final Scope" after it reviews all the comments made during the scoping process.

A copy of the Positive Declaration and Draft Scoping document have been distributed to involved and interested agencies on April 7, 2022 and will also be available at the Town Clerk's Office, Town of Cornwall Town Hall, 183 Main Street, Cornwall, NY 12518 for public review during regular business hours and are posted on the following website: www.cornwalllogistics.com.

In addition to the opportunity to speak at the public session on May 2, 2022, the Planning Board will also accept written comments on the proposed scoping document until 4:00 p.m. on May 24, 2022.

Comments may be submitted in person, by postal mail, by fax at (845) 534-2178 or by email dhines@cornwallny.gov. Mailed comments should be addressed to:

Neil Novesky, Chairman
and Members of the Planning Board Town of Cornwall
Town Hall 183 Main Street
Cornwall, NY 12518

Dated: April 8, 2022
By Order of Town of Cornwall Planning Board
Neil Novesky, Chairman
4/22

62637

Doc# 5202728.1

News of the Highlands Inc.
PO Box 518
Cornwall, New York 12518-0518
845-534-7771

Affidavit of Publication

To: Cuddy & Feder LLP
Attn: Sandy Way
300 Westage Bus Center Suite 380
Fishkill, NY 12524

Re: Legal notice #62640

State of New York }
} *SS:*
County of Orange }

I, Matthew H. Lawney, being duly sworn, depose and say that I am the Vice President of Cornwall Local, a weekly newspaper of general circulation published in Cornwall, County of Orange, State of New York; and that a notice, of which the annexed is a printed copy, was duly published in Cornwall Local once on 04/22/22.

Matthew H. Lawney

Sworn to before me this 22nd day of April, 2022

BOBBI J. TURNER
Notary Public, State of New York
Reg. No. 01TU6078061
Qualified in Orange County
Commission Expires July 22, 2022

LEGAL NOTICE

Notice is hereby given that the Planning Board of the Town of Cornwall, County of Orange, State of New York will hold a hearing at the **Munger Cottage, 40 Munger Drive** Cornwall, New York on **May 2, 2021** at **7:00PM** or as soon thereafter as the matter can be heard, on the **DRAFT SCOPE** for the EIS for the proposed CORNWALL LOGISTICS, LLC a/k/a **TREETOP DEVELOPMENT project** located at 2615 US RTE 9W.

The draft scope is on file and may be inspected at the **Town Clerk's office, Town Hall, 183 Main Street**, Cornwall, New York 12518, prior to the public hearing.

The draft scope, and other project documents, are available for viewing online at: https://www.cornwalllogistics.com/team-4

The property is designated on the tax map as **Section: 9 Block: 1 Lot: 25.22.**

By Order of Town of Cornwall Planning Board
Neil Novesky, Chairman
4/22

62640

Doc#5202229.1.

B – Lead Agency Notice and Positive Declaration, dated 04/04/2022 & Building Inspector's Determination, prepared by Gary Vinson, Building Inspector, dated 11/15/2022

State Environmental Quality Review Act

POSITIVE DECLARATION

Notice of Intent to Prepare a Draft Environmental Impact Statement
and Lead Agency Determination of Significance

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law. The Planning Board of the Town of Cornwall has determined that the proposed action described below may have a significant impact on the environment and that a Draft Environmental Impact Statement will be prepared. The Planning Board hereby adopts a Positive Declaration in order to investigate and evaluate the potential environmental impacts of this Proposed Action.

Scoping will be conducted at a public scoping session to be held at Munger Cottage located at 40 Munger Drive on May 2, 2022 at 7:00PM or soon thereafter. Interested parties are invited to be present and provide comments on the attached scoping document or you may provide written comments on this document to the Lead Agency contact provided below until the close of business on May 13, 2022. All project documents can also be reviewed at the following website: www.cornwalllogistics.com

Name of Action: Treetop Planned Industrial Development

Lead Agency: Town of Cornwall Planning Board

Date: April 4, 2022

SEQR Status: Type 1

Location: 2615 US Route 9W, Town of Cornwall

Description of Action: The applicant, Cornwall Logistics, LLC proposes the construction of five warehouse buildings totaling 2,053,593 square feet of floor area. Two access points to the site are proposed from US Route 9W. The project will be served by municipal water supply and sewer service. Lines will need to be extended to the Project Site. The Project Site consists of 197.7 total acres in the Planned Commercial Development (PCD) Zoning District with a portion in the Highway Commercial (HC) Zoning District. Warehouses are an allowed use in the PCD Zoning District. The applicant will petition the Town Board for a zoning map amendment so that the full project site is contained in the PCD Zone.

Reasons Supporting this Determination: Potential environmental impacts associated with the proposed action are identified in the Full Environmental Assessment Form. These impacts, which may be reasonably expected to result from the Project, have been compared to the criteria for determining significance identified in 6 N.Y.C.R.R. § 617.7(c)(1) and in accordance with 6 N.Y.C.R.R. § 617.7(c)(2) and (3). The Planning Board finds that the Proposed Action may result in one or more significant impact on the environment, and an Environmental Impact Statement ("EIS") will be prepared to address, at a minimum, the following elements of the Proposed Action, which may result in potential impacts:

1. The proposed action may involve construction on land where depth to water table is less than 3 feet.

2. The proposed action may involve construction on slopes of 15% or greater.

3. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.

4. The proposed action is likely to involve the excavation and removal of more than 1,000 tons of natural material.

5. The proposed action may involve construction that continues for more than one year or in multiple phases.

6. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal.

7. The proposed action may result in an increase or decrease of over 10% or more than a10 acre increase or decrease in the surface area of any body of water.

8. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.

9. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.

10. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.

11. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.

12. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.

13. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.

14. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.

15. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.

16. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community.

17. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat.

18. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.

19. The proposed action may be visible from publicly accessible vantage points in areas of recreational or tourism based activities.

20. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.

21. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.

22. Projected traffic increase may exceed capacity of existing road network.

23. The proposed action may result in the construction of paved parking area for 500 or more vehicles.

24. The proposed action may alter the present pattern of movement of people or goods.

25. The proposed action will require the creation or extension of an energy transmission or supply system to serve an industrial use.

26. The proposed action may utilize more than 2,500 MWhrs per year of electricity.

27. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.

28. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.

29. The proposed action may create a demand for additional community services (e.g. schools, police and fire)

30. The proposed action is inconsistent with the predominant architectural scale and character.

Lead Agency Contact:
Neil Novesky, Planning Board Chairman
Town of Cornwall Planning Board
Town Hall – 183 Main Street
Cornwall, New York 12518
(845) 534-9429
dhines@cornwallny.gov

Agency Circulation: This notice is being sent to the following Involved and Interested Agencies:

Involved Agencies

NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010
And Environmental Notice Bulletin – via email
enb@gw.dec.state.ny.us

NYS Department of Environmental Conservation – Region 3
Division of Environmental Permits
21 South Putt Corners Road
New Paltz, New York 12561

NYS Department of Transportation, Region 8
4 Burnett Boulevard
Poughkeepsie, New York 12601
Contact: Lance MacMillan, PE, Regional Director

Orange County Department of Health, Division of Environmental Permits
1887 County Building
124 Main Street
Goshen, New York 10924
Contact: Steve Gagnon, M.P.H., P.E.

Town of Cornwall Town Board
183 Main Street
Cornwall, New York 12518
Contact: Josh Wojehowski, Supervisor

Town of Cornwall Zoning Board of Appeals
183 Main Street
Cornwall, New York 12518
Contact: Lenora Ransom, Chair

Village of Cornwall-on-Hudson
325 Hudson Street
Cornwall-on-Hudson, NY 12520
Clerk@cornwall-on-hudson.org

Village of Cornwall-on-Hudson Water Department
325 Hudson Street
Cornwall-on-Hudson, NY 12520
Contact: Mike Trainor, Superintendent

NYS Office of Parks, Recreation and Historic Preservation
Field Services Bureau – Peebles Island
PO Box 189
Waterford, NY 12188-0189
(uploaded via CRIS)

Interested Agencies

U.S. Army Corps of Engineers
26 Federal Plaza
Jacob Javits Building
New York, New York 10278

Orange County Department of Planning
planning@orangecountygov.com

Orange County Department of Public Works
2455-2459 Route 17M
Goshen, New York 10924

Town of New Windsor
555 Union Ave
New Windsor, NY 12553

City of Newburgh
83 Broadway
Newburgh, NY 12550

Town of Newburgh
1496 Route 300
Newburgh, NY 12550

Town of Woodbury
615 Route 32
P.O. Box 1004
Highland Mills, NY 10930

Village of Woodbury
Villageclerk@villageofwoodbury.com

Cornwall Volunteer Ambulance (CoVAC)
PO Box 151
Cornwall, NY 12518

Canterbury Fire Company
PO Box 106
Cornwall, NY 12518

Vails Gate Fire Department
PO Box 173
Vails Gate, New York 12584

Treetop Planned Industrial Development Project
Town of Cornwall
Draft Environmental Impact Statement (DEIS)
Draft Scope
April 7, 2022

This document identifies the issues to be addressed in the Draft environmental Impact Statement (DEIS) proposed by Cornwall Logistics, LLC (a/k/a Treetop Development) (the "Applicant") for the proposed Treetop Planned Industrial Development Project (the "Project" or "Proposed Action") in the Town of Cornwall. This scope contains the items described in 6 NYCRR Part 617.9 (e) (1) through (7).

GENERAL GUIDELINES

- The Draft Environmental Impact Statement ("DEIS") shall address all items in this Scoping Document and conform to the format outlined in this Scoping Document. If appropriate, impact issues listed separately in this outline may be combined in the DEIS, provided all such issues described in this Scoping Document are addressed as fully in a combined format as if they were separately addressed.
- The document should be written in the third person. The terms "we" and "our" should not be used. The Applicant's conclusions and opinions should be identified as those of the "Project Sponsor," "Applicant" or "the Developer."
- Narrative discussions should be accompanied by appropriate charts, graphs, maps and diagrams whenever possible. If a particular subject matter can most effectively described in graphic format, the narrative discussion should merely summarize and highlight the information presented graphically. All plans and maps showing the site shall include adjacent homes, other neighboring uses and structures, roads, water bodies and a legend.
- The entire document should be checked carefully to ensure consistency with respect to the information presented in the various sections.
- Environmental impacts should be described in terms that the layperson can readily understand (e.g., truck-loads of fill and cubic yards rather than just cubic yards).
- All discussions of mitigation measures should consider at least those measures mentioned in the Scoping Outline. Where reasonable and necessary, mitigation measures should be incorporated into the Proposed Action if they are not already included.
- Where specific impacts are currently unknown or where they may vary based on the specific end user of the Project, analysis provided should assess a worst-case scenario.

The DEIS is intended to convey general and technical information regarding the potential environmental impacts of the proposed project to the Town of Cornwall Planning Board (as Lead Agency), as well as the other agencies involved in the review of the proposed project. The DEIS is also intended to convey the same information to the interested public. The Preparer of the DEIS is encouraged to keep this audience in mind as it prepares the document. Enough detail

should be provided in each subject area to ensure that most readers of the document will understand, and be able to make decisions based upon, the information provided.

As the DEIS will become, upon acceptance by the Lead Agency, a document that may, if appropriate, support objective findings on approvals requested under the application, the Preparer is requested to avoid subjective statements regarding potential impacts. The EIS should contain objective statements and conclusions of facts based upon technical analyses. Subjective evaluations of impacts where evidence is inconclusive or subject to opinion should be prefaced by statements indicating that "It is the Applicant's opinion that...". The Town of Cornwall Planning Board reserves the right, during review of the document, to require that subjective statements be removed from the document or otherwise modified to indicate that such subjective statements are not necessarily representative of the findings of the Lead Agency.

Project Description

The Treetop Project is a proposed Planned Industrial Development (PID) located at 2615 US Route 9W, Cornwall, New York (Section 9, Blok 1, Lot 25.22) (the "project site"). The project site is an approximately 197.7-acre parcel located northwest of US Route 9W in the Town of Cornwall. The Applicant is proposing to develop five Class A Modern Warehouse Facilities totaling approximately 2,053,593 square feet in gross floor area. The Project includes two access points along US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval. In addition, the Applicant will petition the Town Board for a minor amendment of the Town of Cornwall Zoning Map to re-map the entire site PCD. The Applicant may potentially seek area variance approval for the height of the proposed 44' tall warehouse buildings where a maximum height of 40' is permitted in the PCD zoning district, or seek a minor zoning text amendment to allow a maximum height of 50' for PID projects within the PCD zoning district. Alternatives to be considered during the SEQR review include; a PID Project without a minor Zoning Map amendment; a PID Project with a minor zoning text amendment to allow the proposed building heights without the need to seek an area variance; and a PID Project with a greater buffer at the southern and western property boundaries that abut residential development. The attached Project Layout Map illustrates the proposal.

SEQRA Status

The proposed project is a Type I Action pursuant to SEQRA Part 617.4 (b) (6) (i). After initiating a coordinated review, the Cornwall Planning Board Declared itself SEQRA Lead Agency on February 7, 2022. On April 4, 2022 the Cornwall Planning Board adopted a resolution issuing a Positive Declaration requiring the preparation of a Draft Environmental Impact Statement.

The Lead Agency set the following procedures to receive Agency and Public comments on this Draft Scope:

A public scoping session was held in-person on _____, 2022 at _____.

In addition, written comments on the Draft Scope were invited. Written comments were accepted by the CONTACT PERSON identified below until ____, 2022 at ___ pm. Written comments were accepted by e-mail or by mail (addresses below).

All Involved Agencies were invited to inform the Lead Agency of each Agency's concerns, permit jurisdictions, and information needs to support such Agency's SEQRA Findings, including, where applicable, any specific techniques or model to be used in studies and analysis for the EIS.

For Further Information

Contact Person: Diane Hines, Assistant to the Building Inspector
Address: Town of Cornwall Planning Board
Cornwall Town Hall
183 Main Street
Cornwall, New York 12518
Telephone: (845) 534-9429
dhines@cornwallny.gov

Contents of the Draft Environmental Impact Statement

Cover Sheet
The cover sheet will contain the following:

- Name and location of the project
- Identification of document as the Draft Environmental Impact Statement
- Date of submittal to the Planning Board and any revision dates
- Lead agency, project sponsor and contact information for each
- Date of acceptance by Lead Agency or placeholder
- Date of public hearing or placeholder
- Date which public comments will be due

Table of Contents

I. Executive Summary

A. An introduction including purpose of the DEIS, summary of previous site approvals, a relevant history of the current SEQRA process that has occurred (*i.e.*, relevant dates establishing Lead Agency, the date of adoption of the Positive Declaration, date of the acceptance of the Scoping Document).

B. Project Site Existing Conditions- provide a short description of the subject property and characterize its location and natural features as well as provide a brief history of the use of the property and where existing changes to its natural state have occurred.

C. Project Description/ Overview of all aspects of the project including project layout, proposed buildings, parking, circulation, traffic or other offsite improvements, utilities, and requested zoning changes.

D. Summary of purpose, including the Applicant's goals and objectives, public need and benefits

E. Required permits and approvals, including list of involved and interested agencies

F. Summary of significant adverse environmental impacts identified and mitigation measures proposed in each subject area identified and discussed further in Section III

G. Description of alternatives analyzed including a table comparing the impacts of the proposed project with the impacts of each alternative analyzed

H. Description of the issues considered in EAF review/Scoping and determined to be non-significant or not relevant, stating reasons why those issues were not included in the Final EIS Scope

II. Project Description

A. Project Site Background and History
   1. Prior Cornwall Commons project Approval
   2. 2020 Zoning Amendments

B. Applicant
   1. Applicant's qualifications to undertake the Project
   2. Purpose of the Project
   3. Applicant's goals and objectives

C. Site Description
   1. Location, tax map designation and acreage
   2. Zoning and discussion of surrounding land uses
      a. PCD/HC Districts
   3. Context with surrounding area including a site location map
   4. Access and discussion of surrounding road network
   5. Existing Uses/Structures
   6. Existing Utilities
   7. Any existing easements

D. Proposed Development Plan
   1. Warehousing
   2. Minor Zoning Map Amendment
   3. Area Variance or Minor Zoning Text Amendment

4. Site Access, Driveway, Circulation, and Parking/Loading
5. Utilities
6. Grading Plan
7. Stormwater Management
8. Signage
9. Lighting
10. Construction Sequencing, phasing and Duration

E. Required Permits and Approvals
F. Summary of Project public need and Benefits

III. Existing Conditions, Potential Impacts as a Result of the Proposed Project and Proposed Mitigation Measures

This section identifies the potentially significant adverse impacts identified in Part 3 of the EAF and to be identified in consultation with involved agencies and the public as part of the scoping process. The discussion in the EIS will identify the aspects of the environmental setting that may be impacted. The Scoping process is intended to identify the extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information, and required new information, including the required methodology(ies) for obtaining new information.

Where appropriate the DEIS will discuss both construction and operation impacts.

A. Land Use and Zoning
   1. Existing Conditions
      a) Discussion and mapping illustrating the site's existing zoning and zoning with one half mile of the Site.
      b) Surrounding land uses within one half mile;
      c) Discussion of the 2020 rezoning of the site from residential to commercial.
      d) Discussion of use, density, bulk, site plan, special permit and other zoning provisions relevant to the Project, including the Building Inspector's determination confirming permissibility of the uses in the PCD zoning district.
      e) Easements and Covenants.
   2. Potential Impacts
      a) Conformance with the Town of Cornwall zoning requirements, including PID special permit criteria and any other standards, laws or regulations relevant to the Project.
      b) Consistency with easements and covenants affecting the property.
      c) Discussion of a minor zoning map amendment to remove the HC zoning district boundary from the Site.

d) Discussion of the potential area variance approval from the ZBA for the building height required and/or minor zoning text amendment to permit 50-foot-tall warehouse buildings pursuant to the § 158-21J PID Supplemental Use Regulations.
e) Compatibility with surrounding land uses
f) Consistency with the Town Comprehensive Plan and Orange County Comprehensive Plan

3. Mitigation Measures
   a) As required.

B. Traffic and Transportation

1. Existing Conditions
   a) Discuss and illustrate access to the site
   b) Discuss any existing or proposed traffic improvements within the vicinity of the site
   c) Determine existing intersection traffic volumes. Counts will be taken for the following intersections:
      a. US Route 9W And Forge Hill Road/Sloop Hill Road
      b. US Route 9W and Academy Avenue (all movements)
      c. US Route 9W and Union Avenue (CR 69)
      d. Academy Avenue and Main Street
      e. US Route 9W and Willow Avenue (CR 32)
      f. US Route 9W and Laurel Avenue
      g. US Route 9W and Quaker Avenue
      h. NYS Route 32 and Quaker Avenue
      i. Main Street and Willow Avenue (CR 32)
      j. Main Street and Quaker Avenue

   d) Comparison of NYSDOT data with any counts taken during Covid-19. Needs to follow NYSDOT guidelines for traffic counts collected during the pandemic.
   e) Analyze available traffic accident data for the last 5 year period
   f) Identify nearest public transportation stops
2. Future no-build conditions
   a) Identify no-build conditions during the design year based on future traffic volumes projected with a growth rate determined in consultation with the Lead Agency.
   b) Discuss any other anticipated changes to transportation by Build Year.
   c) Discussion of other significant developments that would generate traffic in this area as well as any significant developments in other adjacent municipalities that would affect the US Route 9W corridor and included in the analyses.
3. Impacts

a) Develop anticipated trip generation from the Project.
b) Land Use Code 130 – Industrial Park should also be used per NYSDOT because of the variability of the use with a sensitivity analysis conducted with these higher trip rates with corresponding mix of passenger cars and trucks.
c) Determine Build levels of service with Project generated traffic added to the no-build traffic volumes for the above listed intersections. The Build analysis shall be based on capacity and LOS analysis using the latest technology. Determine existing LOS and queuing for each of the above intersections.
d) Analyze adequacy of existing road infrastructure to accommodate increased traffic.
e) Project traffic on Route 9W including a separate distribution of passenger cars and trucks.
f) Employee Project traffic leaving the site during lunch hour/break times.
g) Provide a parking and loading plan and discuss compliance with the Town of Cornwall parking and loading requirements.
h) Discuss construction traffic volumes and routing, phasing and traffic control, if needed.
i) Truck turning diagrams should be provided for all intersections and onsite circulation.
j) Provide a Traffic Signal Warrant Analysis for main site access as an alternative to the proposed site access and consult NYSDOT for their input on preferred access design.
k) Discuss emergency access and discuss with emergency service providers
l) A complete capacity analysis should be prepared for all ramp movements at the Academy Avenue interchange including merge and diverge analyses.
m) The Applicant has proposed two right-turn-in/right-turn-out driveways. Note that these improvements will require a Highway Work Permit from NYSDOT. Due to the size and nature of the development, the analyses should consider an alternate plan with at least one signalized intersection with separate left and right turning lanes. The length of the left turn lane should be reviewed based on the expected truck and other volumes to ensure it is adequate to accommodate the 95th percentile queue length. A Traffic Signal Warrant Analysis should be prepared for the main site access under this signalized alternative.

4. Mitigation Measures

a) Provide a discussion of and conceptual plans for potential traffic improvements, as required.
b) Provide a discussion of and conceptual plans for roadway and intersection modifications, as required.

c) Provide a construction traffic plan to include routes to be used by trucks and heavy vehicles during construction period relating to road construction or relocation.
d) Others, as required.

C. Flora and Fauna
1. Existing Conditions
a) Biological Assessment will be provided to evaluate ecological communities and habitats based on available published data and as verified by site visits
b) Discuss the potential presence of rare, threatened and endangered species based on correspondence with appropriate outside agencies. Assess the potential of the site to support any such species.
c) Discussion of the 'designated significant natural communities' identified by the DEC mapper as being located on the Project Site.
2. Potential Impacts
a) Quantify impacts, if any, to designated significant natural communities, as well as the site's overall ecological communities and discuss impacts, if any, to rare, threatened or endangered species or ecologically significant communities and habitats; including those associated with Moodna Creek. Correspondence with DEC and USFWS will be provided in an appendix.
3. Mitigation Measures (if any)

D. Noise
1. Existing Conditions
a) Existing noise measurements will be taken representative locations around the Project Site including boundaries with residential properties and along the northern boundary with the Town of New Windsor. Analysis of sensitive area receptors based on NYS DEC guidelines should be provided.
b) Map and discuss sensitive noise receptors such as schools, churches and public facilities within 500' of the Project Site, and map nearby, publicly accessible, residential receptors.
2. Impacts
a) Overall anticipated noise generation from the proposed action will be discussed and a comparison to existing conditions will be provided from both construction and operational noise; and
b) If blasting, chipping or hammering of rock may occur, discuss potential impacts to above identified receptors.
3. Mitigation Measures
a) As required.

E. Geology, Soils and Topography

1. Existing Conditions
    a) Provide topographic mapping at 2' control interval and provide a description of site topography.
    b) Describe significant topographic or geological features, if any, on the Project Site or conclude that none are present.
    c) Soil types and characteristics shall be identified as presented in the Orange County Soil Survey or USDA database.
    d) Discuss the general drainage characteristics of the site and also identify sub-catchments within the project site.
2. Impacts
    a) Provide grading plan. Describe potential impacts from site grading with respect to bedrock depth, soil erosion, slope stabilization and rock removal.
    b) Provide estimate of cut and fill. If fill is required, describe amount and potential source(s).
    c) Discuss rock removal, if required. If rock removal is required, discuss method(s) to be used.
    d) Discuss Soils of Statewide Importance.
    e) Discuss proposed retaining walls.
    f) Discuss Impacts to the existing slope stabilization concern located along the Moodna Creek on/ adjacent to the site.
    g) Identify the locations of all areas where existing vegetation will be removed.
3. Mitigation Measures
    a) Provide and discuss erosion and sediment control plan focusing on areas of steep slopes and erodible soils.
    b) Provide blasting plan, if required.
    c) Provide plan for excess cut, or for import fill, if required. If cut is required, identify if a Town clearing and grading permit is needed offsite.
    d) Discuss construction phasing and staging to limit the time periods during which areas of disturbance would be left open. If a waiver from the NYSDEC maximum disturbance is proposed, additional appropriate mitigations will be provided.
    e) Discuss alternatives to mitigate slope stabilization concerns along the Moodna Creek created from the site.
    f) Others required.

F. Subsurface and Surface Waters

1. Existing Conditions
    a) Existing surface waters, including wetlands, streams and other natural water features will be discussed and presented graphically. All resources

will be described in terms of jurisdiction, classification, size and any applicable regulated areas including buffer and floodplains.

b) Map and discuss the extent of FEMA designated floodplains and floodways or conclude that these areas are not present on the site.
c) Discuss existing drainage patterns on Site.
d) Discuss existing runoff into the Moodna Creek.
e) Discuss relevant State and Town stormwater regulations.
f) Map and discuss any aquifers underlying the Site and discuss any groundwater characteristics based on available data, including available well data.

2. Potential Impacts

a) Quantify, map and describe encroachments, if any, into any on Site surface waters or associated regulated areas and discuss the potential effect on the quality and function of these resources.
b) Describe impacts, if any, to the Moodna Creek.
c) Describe impacts from pesticides, deicing agents and/ or pollutants from trucks or other or other onsite machinery.
d) Describe pre- and post-development stormwater volumes and peak discharge rates. Illustrate stormwater flows and discharge including method of collecting, cleaning and reuse or conveyance of treated water.
e) Describe the components and functions of the proposed drainage system. Describe potential impacts to downstream drainage systems
f) Discuss the material components of the SWPPP and proposed erosion and sediment control plan.
g) Discuss impact to floodplain elevations (if any).

3. Mitigation Measures

a) Discuss permitting standards that must be met for impacts to any regulated wetland or waterbody.
b) Summarize the master stormwater pollution prevention plan (SWPPP) including stormwater management practices and erosion and sediment control plan.
c) Discuss ownership and maintenance (both short and long term) of the stormwater management system.
d) Others required.

G. Visual / Cultural Resources

1. Existing Conditions

a) Prepare a viewshed map illustrating those portions of the Site potentially visible from public roads.
b) Provide an inventory of Town, County and State designated scenic and historic resources of significance from which all or portions of the Project Site may be visible.

c) Describe and illustrate, thorough photographs in both leaf-on and leaf-off conditions the visual character of the Project Site from the locations listed below and shown on the attached visual receptor map including:
    a. Route 9W.
    b. All locations identified in '1.b' above including Knox Headquarters.
    c. Firthcliffe Firehouse.
    d. Public roads for surrounding Residential Developments.
d) Perform Stage 1A/1B Cultural Resource Surveys in areas for which surveys were not previously prepared and which have been determined to be potentially sensitive for cultural resources.
e) Provide the results to the New York State Historic Preservation Office (SHPO)

2. Potential Impacts
    a) Description of physical dimensions, architectural design and proposed building material of proposed buildings and discuss the proposed design's compatibility with the surrounding area.
    b) Discuss Project visibility upon build-out in both leaf-on and leaf-off conditions from Route 9W. Provide simulations of the Project at build-out from locations described above under Section III.F.1.c above, if appropriate.
    c) Discuss visual impacts from the above identified locations.
    d) Obtain a Determination of Effect Letter from SHPO.
    e) Discuss impacts to archeological resources, if any.
    f) Discuss impacts to historic visual resources, if any.
    g) Discuss proposed lighting including height, location of fixtures, type of fixture, and lighting levels at property lines.
3. Mitigation Measures
    a) Discuss and illustrate the use of visual mitigation measures, as required. It is not the intent of this section to require detailed, planting, screening or lighting plans.
    b) Illustrate overall limits of clearing and illustrate areas that will remain vegetated.
    c) Provide mitigation, if required and as directed by SHPO.
    d) Coordination with the US Army Corps of Engineers, as needed, under Section 106 of the National Historic Preservation Act.
    e) Others required.

H. Utilities
1. Existing Conditions
    a) Map and discuss public water supply and sewer systems currently serving the Project Site, including source, capacity and distribution infrastructure

b) Describe the need for the closure and removal and reclamation of any existing water supply systems, including capping wells.
c) Identify electric and gas infrastructure in the immediate vicinity of the Project Site.

2. Impacts
a) Describe Project demand for sewer and water;
b) Describe water supply system's ability to serve required fire suppression systems.
c) Describe location of connection to each utility system and any offsite improvements required for the project.
d) Discuss necessary permits. Correspondence from service providers will be included in an appendix.
e) Discuss the use of the Town's Firthcliffe sanitary sewer collection system (instead of the Town's Sewer District #1).
f) Anticipated electricity and gas use, anticipated issues with supply or need to upgrade infrastructure.

3. Mitigation
a) Discuss water conservation measures to be implemented.
b) Others, as required.

I. Fiscal and Economic Considerations
1. Existing Conditions
a) Current taxes paid to each taxing jurisdiction.
b) Summarize current economic activity generated on the Project Site.
2. Impacts
a) Project valuation and property taxes paid to all taxing jurisdictions.
b) Estimate construction employment and construction employment payroll over the life of the Project.
c) Estimate operational employment and payroll at Project completion.
d) Evaluate induced economic activity.
3. Mitigation measures
a) As required.

J. Emergency Services
1. Existing Conditions
a) Describe existing Police, Fire and ambulance services that serve the Project Site in terms of manpower, equipment, approximate number of annual calls for service and location in relation to the site.
2. Impacts
a) Discuss the ability of the above listed service providers to serve the Project Site including site circulation, access, and building height as they relate to emergency services

b) Discuss needs for fire suppression;
c) Service providers should be contacted regarding possible concerns with the project and any correspondence should be provided in an appendix.

3. Mitigation Measures
   a) As required

IV. Alternatives

A. No Action Alternative
B. PID Project with no Zoning Map amendment to remove the HC zoning district boundary from the Site
C. Minor zoning text amendment to permit the proposed building heights without the need for ZBA area variance approval.
D. PID Project with larger buffer area along the southern and western property boundaries adjacent to residential development.

V. Measures to Avoid or Reduce the Project's Impacts on Climate Change and Effects on the Use and Conservation of Energy

This section will describe the Applicant's commitment to environmental sustainability, and it will summarize sustainable and green building practices to be employed. In addition, this section will discuss existing air quality in the and the Project's impact, if any.

VI. Significant Adverse Environmental Impacts That Cannot Be Avoided

This section will identify significant long-term and short-term construction and operation impacts that cannot be avoided, if any.

VII. Growth Inducing Aspects

This section will provide a qualitative discussion of short and long-term growth inducing aspects, as required.

VIII. Irreversible and Irretrievable Commitment of Resources

This section will summarize resource commitments that are irreversible and irretrievable.

Information/data to be included in Appendices

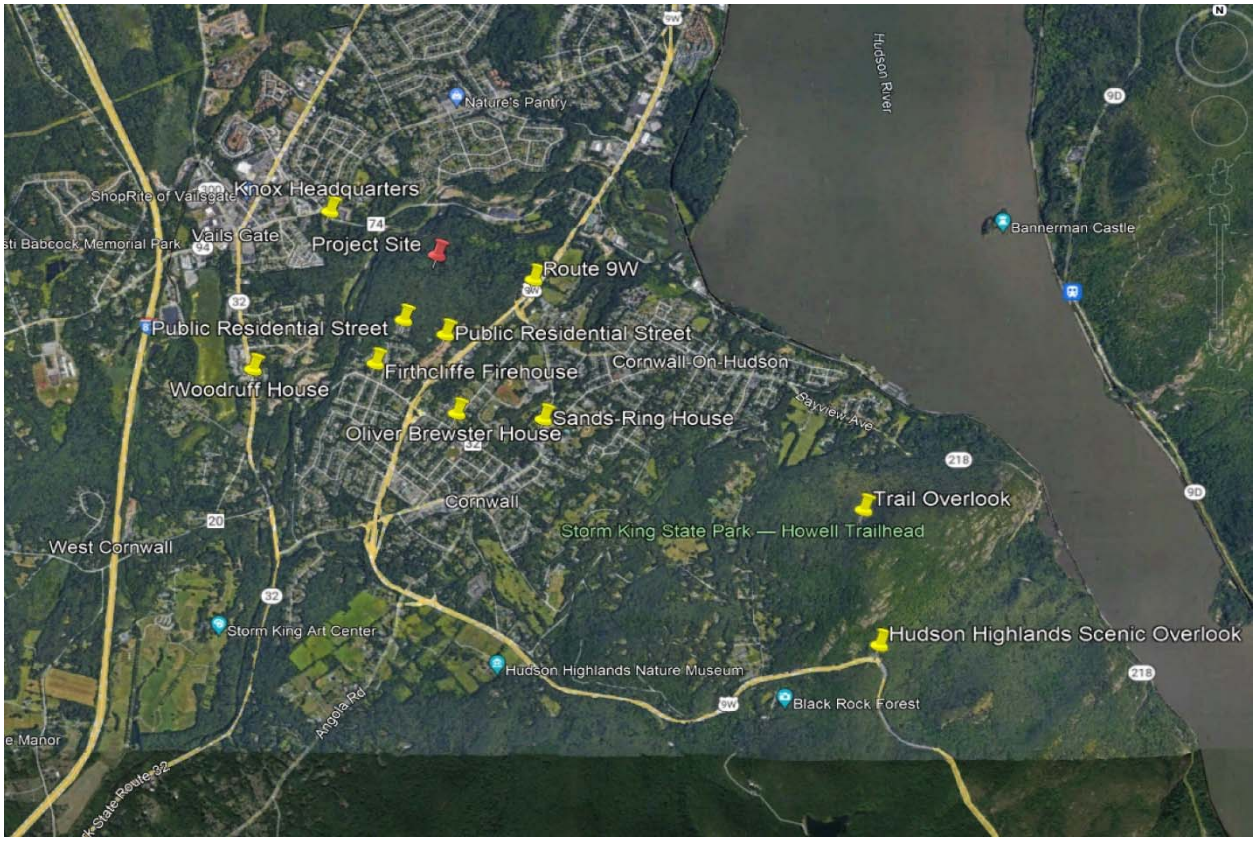
1. Full EAF
2. SEQRA Notices
3. Adopted Scoping Document
4. Correspondence of Record

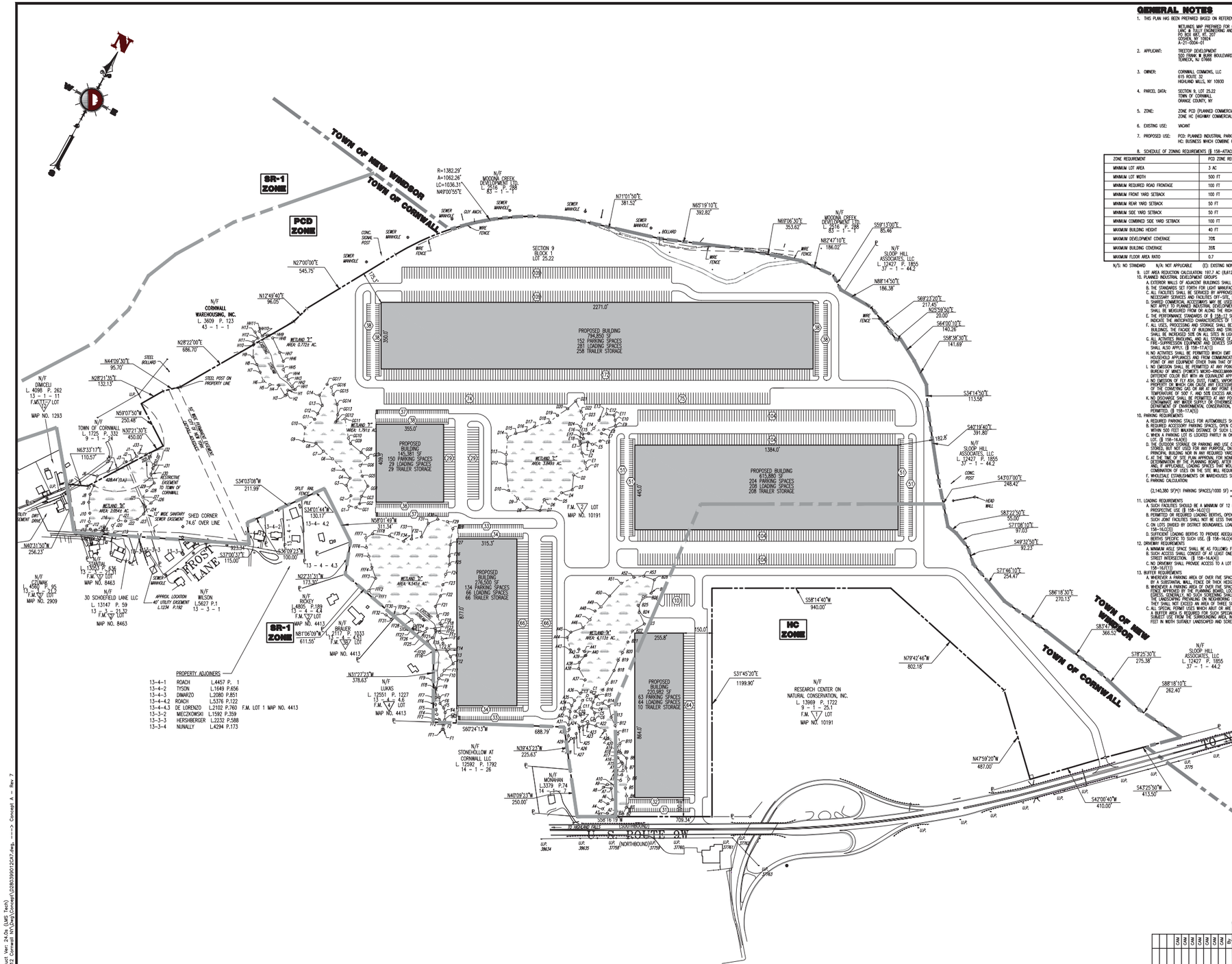
5. Wetlands Delineation Reports
6. Stormwater Management Plan
7. Traffic Impact Study
8. Building Inspector Determination Confirming Use
9. Others

Issues Raised but not Included in the Scope

Discussion pursuant to 6 NYCRR § 617.8(e)(7) of issues considered in the review of the EAF or raised during scoping, or both, and determined to be neither relevant nor environmentally significant or that have been adequately addressed in prior environmental review and the reasons why those issues were not included in the final scope, as required.

Treetop PID Project
Map of Locations for the Visual Analysis





GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:
   WETLANDS MAP PREPARED FOR CORNWALL COMMONS
   LANC & TULLY ENGINEERING AND SURVEYING, PC
   PO. BOX 687, RT. 207
   GOSHEN, NY 10924
   A-21-0004-01
2. APPLICANT: TREETOP DEVELOPMENT
   500 FRANK W. BURR BOULEVARD #47
   TEANECK, NJ 07666
3. OWNER: CORNWALL COMMONS, LLC
   615 ROUTE 32
   HIGHLAND MILLS, NY 10930
4. PARCEL DATA: SECTION 9, LOT 25.22
   TOWN OF CORNWALL
   ORANGE COUNTY, NY
5. ZONE: ZONE PCD (PLANNED COMMERCIAL ZONE)
   ZONE HC (HIGHWAY COMMERCIAL)
6. EXISTING USE: VACANT
7. PROPOSED USE: PCD: PLANNED INDUSTRIAL PARK (SPECIAL PERMITTED USE) (§ 158 – ATTACHMENT 11)
   HC: BUSINESS WHICH COMBINE OFFICE SPACE WITH A WAREHOUSE OR CENTER FOR DISTRIBUTION OF PRODUCTS (PERMITTED USE) (§ 158 – ATTACHMENT 8)
8. SCHEDULE OF ZONING REQUIREMENTS (§ 158-ATTACHMENT 12)

ZONE REQUIREMENT	PCD ZONE REQUIREMENTS	PCD ZONE-PROPOSED	HC ZONE REQUIREMENTS	HC ZONE-PROPOSED	PROPOSED OVERALL
MINIMUM LOT AREA	3 AC	136.5 AC. (5,946,215 SF)	40,000 SF	39.3 AC. (1,709,842 SF)	175.8 AC (7,656,057 SF)
MINIMUM LOT WIDTH	500 FT	1,980 FT	200 FT	1,276 FT	2,780 SF
MINIMUM REQUIRED ROAD FRONTAGE	100 FT	202 FT	200 FT	1,334 FT	1,536 FT
MINIMUM FRONT YARD SETBACK	100 FT	N/A	55 FT	100.0 FT	100.0 FT
MINIMUM REAR YARD SETBACK	50 FT	175.3 FT	75 FT	N/A	175.3 FT
MINIMUM SIDE YARD SETBACK	50 FT	122.8 FT	20 FT	150.0 FT	122.8 FT
MINIMUM COMBINED SIDE YARD SETBACK	100 FT	305.6 FT	40 FT	250.8 FT	305.6 FT
MAXIMUM BUILDING HEIGHT	40 FT	< 40 FT	35 FT	< 40 FT	< 40 FT
MAXIMUM DEVELOPMENT COVERAGE	70%	44.1% (2,624,350 SF)	60%	48.6% (831,513 SF)	45.1% (3,455,863 SF)
MAXIMUM BUILDING COVERAGE	35%	28.4% (1,691,602 SF)	30%	21.2% (361,991 SF)	26.8% (2,053,593 SF)
MAXIMUM FLOOR AREA RATIO	0.7	0.3	0.6	0.2	0.3

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

9. LOT AREA REDUCTION CALCULATION: 197.7 AC (8,612,518 SF) GROSS LOT AREA – 17.1 AC (745,950 SF) WETLANDS AREAS – 4.75 AC (207,018 SF) STEEP SLOPE AREAS (> 25%) = 175.8 AC (7,656,057 SF) NET LOT AREA
10. PLANNED INDUSTRIAL DEVELOPMENT GROUPS
    A. EXTERIOR WALLS OF ADJACENT BUILDINGS SHALL BE LOCATED NO CLOSER THAN 1.5 TIMES THE HEIGHT OF THE HIGHER BUILDING WALL, BUT IN NO CASE CLOSER THAN 50 FEET. (§ 158-21.(1))
    B. THE STANDARDS SET FORTH FOR LIGHT MANUFACTURING USES, SUBSECTION G, SHALL BE ADHERED TO, EXCEPT THAT THE MAXIMUM FLOOR SPACE IN ONE STRUCTURE MAY BE INCREASED 50%.(§ 158-21.(2))
    C. ALL FACILITIES SHALL BE SERVICED BY APPROVED SEWER AND WATER SUPPLY SYSTEMS AND THE PLANNING BOARD MAY, AS A CONDITION OF APPROVAL OF SUCH DEVELOPMENTS, REQUIRE THE IMPROVEMENT OF ANY NECESSARY SERVICES AND FACILITIES OFF-SITE, INCLUDING ACCESS ROADS NECESSARY TO SERVE SUCH DEVELOPMENT. (§ 158-21.(3))
    D. SHARED COMMERCIAL ACCESSWAYS MAY BE USED TO PROVIDE ACCESS TO PLANNED INDUSTRIAL DEVELOPMENT GROUPS. PUBLIC ROAD FRONTAGE REQUIREMENTS SET FORTH IN THE BULK REGULATIONS OF THIS CHAPTER SHALL NOT APPLY TO PLANNED INDUSTRIAL DEVELOPMENT FACILITIES FRONTING ON SHARED ACCESSWAYS. IN ALL CASES, DIMENSIONS USED IN DETERMINING COMPLIANCE WITH ZONING BULK, FRONTAGE AND SETBACK REGULATIONS SHALL BE MEASURED FROM OR ALONG THE RIGHT-OF-WAY LINES INDICATED FOR THE SHARED COMMERCIAL ACCESSWAYS. (§ 158-21.(4))
    E. THE PERFORMANCE STANDARDS OF § 158-17 SHALL BE STRICTLY ADHERED TO. ALL APPLICATIONS UNDER THIS SUBSECTION SHALL DESCRIBE IN DETAIL THE PROCEDURES AND EQUIPMENT TO BE UTILIZED AND SHALL FURTHER INDICATE THE ANTICIPATED CHARACTERISTICS OF THE LIGHT MANUFACTURING PROCESS IN THE FRAMEWORK OF MEASUREMENTS PROVIDED BY § 158-17. (§ 158-21.(5))
    F. ALL USES, PROCESSING AND STORAGE SHALL BE WITHIN FULLY ENCLOSED STRUCTURES, AND NO TANKS, CUPOLAS, VENTS OR OTHER APPURTENANCES PECULIAR TO THE PROCESSING SHALL BE VISIBLE OUTSIDE THE APPROVED BUILDINGS. THE FACADE OF BUILDINGS AND STRUCTURES IN LIGHT MANUFACTURING USES SHALL BE COMPATIBLE WITH ADJACENT DEVELOPMENT AND SHALL BE FULLY LANDSCAPED. THE LANDSCAPING STANDARDS OF § 158-20 SHALL BE INCREASED 50% ON ALL SITES IN LIGHT MANUFACTURING USES. (§ 158-21.(2))
    G. ALL ACTIVITIES INVOLVING, AND ALL STORAGE OF, FLAMMABLE AND EXPLOSIVE MATERIALS SHALL BE PROVIDED WITH ADEQUATE SAFETY DEVICES AGAINST THE HAZARD OF FIRE AND ADEQUATE FIRE-FIGHTING AND FIRE-SUPPRESSION EQUIPMENT AND DEVICES STANDARD IN THE INDUSTRY. BURNING OF WASTE MATERIALS IN OPEN FIRES IS PROHIBITED. THE RELEVANT PROVISIONS OF OTHER STATE AND LOCAL LAWS AND REGULATIONS SHALL ALSO APPLY. (§ 158-17.A(1))
    H. NO ACTIVITIES SHALL BE PERMITTED WHICH EMIT DANGEROUS RADIOACTIVITY AT ANY POINT. NO ACTIVITIES SHALL BE PERMITTED WHICH PRODUCE ELECTRICAL AND/OR ELECTROMAGNETIC DISTURBANCE (EXCEPT FROM DOMESTIC HOUSEHOLD APPLIANCES AND FROM COMMUNICATIONS EQUIPMENT SUBJECT TO CONTROL OF THE FEDERAL COMMUNICATIONS COMMISSION OR APPROPRIATE FEDERAL AGENCIES) ADVERSELY AFFECTING THE OPERATION AT ANY POINT OF ANY EQUIPMENT OTHER THAN THAT OF THE CREATOR OF SUCH DISTURBANCE. (§ 158-17.A(2))
    I. NO EMISSION SHALL BE PERMITTED AT ANY POINT FROM ANY CHIMNEY OR OTHERWISE OF VISIBLE GRAY SMOKE OF A SHADE DARKER THAN NO. 1 ON THE RINGELMANN SMOKE CHART AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES (COPIES OF THIS RINGELMANN CHART, MCGRAW-HILL PUBLISHING COMPANY, 1954, MAY BE USED). THIS PROVISION, APPLICABLE TO VISIBLE GRAY SMOKE, SHALL ALSO APPLY TO VISIBLE SMOKE OF A DIFFERENT COLOR BUT WITH AN EQUIVALENT APPARENT OPACITY. (§ 158-17.A(3))
    J. NO EMISSION OF FLY ASH, DUST, FUMES, VAPORS, GASES AND OTHER FORMS OF AIR POLLUTION SHALL BE PERMITTED WHICH CAN CAUSE ANY DAMAGE TO HEALTH, TO ANIMALS OR VEGETATION OR TO OTHER FORMS OF PROPERTY OR WHICH CAN CAUSE ANY EXCESSIVE SOILING OF ANY PLANE AND IN NO EVENT SHALL ANY EMISSION OF ANY SOLID OR LIQUID PARTICLES IN CONCENTRATIONS EXCEEDING ZERO AND 0.3 GRAIN PER CUBIC FOOT OF THE CONVEYING GAS OR AIR AT ANY POINT BE PERMITTED. FOR MEASUREMENT OF THE AMOUNT OF PARTICLES IN GASES RESULTING FROM COMBUSTION, STANDARD CORRECTIONS SHALL BE APPLIED TO A STACK TEMPERATURE OF 500° F. AND 50% EXCESS AIR. (§ 158-17.A(4))
    K. NO DISCHARGE SHALL BE PERMITTED AT ANY POINT INTO ANY PRIVATE SEWAGE DISPOSAL SYSTEM OR STREET OR INTO THE GROUND OF ANY MATERIALS IN SUCH A WAY OR OF SUCH NATURE OR TEMPERATURE AS CAN CONTAMINATE ANY WATER SUPPLY OR INTERFERE WITH BACTERIAL PROCESS IN SEWAGE TREATMENT OR OTHERWISE CAUSE THE EMERGENCE OF DANGEROUS OBJECTIONABLE CONDITIONS, EXCEPT IN ACTIONS APPROVED BY THE STATE DEPARTMENT OF HEALTH, THE STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WATER POLLUTION CONTROL BOARD OR COUNTY HEALTH DEPARTMENT. NO ACCUMULATION OF SOLID WASTES CONDUCIVE TO THE BREEDING OF RODENTS OR INSECTS SHALL BE PERMITTED. (§ 158-17.A(5))
11. PARKING REQUIREMENTS
    A. REQUIRED PARKING STALLS FOR AUTOMOBILES SHALL BE A MINIMUM OF NINE FEET WIDE AND 19 FEET IN LENGTH (§ 158-16.A(3))
    B. REQUIRED ACCESSORY PARKING SPACES, OPEN OR ENCLOSED, SHALL BE PROVIDED UPON THE SAME LOT AS THE USE TO WHICH THEY ARE ACCESSORY OR ELSEWHERE, PROVIDED THAT ALL SPACES THEREIN ARE LOCATED WITHIN 500 FEET MEASURING DISTANCE OF SUCH LOT. (§ 158-16.A(6))
    C. WHEN A PARKING LOT IS LOCATED PARTLY IN ONE DISTRICT AND PARTLY IN ANOTHER DISTRICT, THE REGULATIONS FOR THE DISTRICT REQUIRING THE GREATER NUMBER OF PARKING SPACES SHALL APPLY TO THE ENTIRE LOT. (§ 158-16.A(8))
    D. NO TRUCK, TRAILER OR PARKING AND USE OF A TRAILER WHICH EXCEEDS 25 FEET IN LENGTH, ANY PERSON, PERSONS IS HEREBY PROHIBITED IN ALL DISTRICTS, EXCEPT THAT ONE SUCH TRAILER ONLY MAY BE STORED, BUT NOT USED FOR ANY PURPOSE, ON AN OCCUPIED LOT OF 40,000 SQUARE FEET OR MORE IN A RESIDENCE DISTRICT, AND PROVIDED THAT SUCH TRAILER IS NOT STORED BETWEEN THE STREET LINE AND THE PRINCIPAL BUILDING NOR IN ANY REQUIRED YARD. (§ 158-16.A(10))
    E. AT THE TIME OF SITE PLAN APPROVAL FOR NONRESIDENTIAL USES LOCATED IN NONRESIDENTIAL DISTRICTS, THE ADEQUACY OF ACCESSORY PARKING AND TRUCK LOADING SPACES SHALL BE SUBJECT TO REVIEW AND DETERMINATION BY THE PLANNING BOARD. AFTER CONSIDERATION OF AN APPROPRIATE PARKING NEEDS ANALYSIS FOR THE PROPOSED SITE USE, THE PLANNING BOARD MAY REDUCE THE ACTUAL NUMBER OF PARKING SPACES AND, IF APPLICABLE, LOADING SPACES THAT WOULD OTHERWISE BE REQUIRED BY THIS SECTION BY UP TO 75% WHERE IT IS DEMONSTRATED TO THE SATISFACTION OF THE PLANNING BOARD THAT THE SPECIFIC USE OR COMBINATION OF USES ON THE SITE WILL REQUIRE LESS PARKING THAN OTHERWISE MANDATED BY THIS SECTION. (§ 158-16.A(7)(c))
    F. WHOLESALE ESTABLISHMENTS OR WAREHOUSES SHALL HAVE ONE SPACE FOR EACH TWO EMPLOYEES IN THE MAXIMUM WORKING SHIFT OR EVERY 1,000 SQUARE FEET OF FLOOR AREA, WHICHEVER IS GREATER. (§ 158-16.B(30))
    G. PARKING CALCULATION

    (2,140,380 SF)(1 PARKING SPACES/1000 SF) = 2141 SPACES REQUIRED
    = 588 SPACES PROVIDED (WAIVER – (§ 158-16.A(7)(c))
12. LOADING REQUIREMENTS
    A. SUCH FACILITIES SHOULD BE A MINIMUM OF 12 FEET BY 20 FEET, WITH SUFFICIENT BACKUP AND TURNING SPACE, OR OF ANY SUCH OTHER DIMENSION AS MAY BE APPROVED BY THE PLANNING BOARD AS ADEQUATE FOR THE PROSPECTIVE USE (§ 158-16.G(1))
    B. PERMITTED OR REQUIRED LOADING BERTHS, OPEN OR ENCLOSED, MAY BE PROVIDED IN SPACES DESIGNED TO SERVE JOINTLY TWO OR MORE ADJACENT ESTABLISHMENTS, PROVIDED THAT THE NUMBER OF REQUIRED BERTHS IN SUCH JOINT FACILITIES SHALL NOT BE LESS THAN THE AGGREGATE OF ALL SUCH REQUIREMENTS. (§ 158-16.G(2))
    C. ON LOTS DIVIDED BY DISTRICT BOUNDARIES, LOADING BERTHS ON SUCH LOT MAY NOT BE LOCATED IN ANY RESIDENCE DISTRICT UNLESS THE USE TO WHICH THEY ARE ACCESSORY IS PERMITTED IN SUCH DISTRICT. (§ 158-16.G(3))
    D. SUFFICIENT LOADING BERTHS TO PROVIDE ADEQUATELY FOR THE PROPOSED USE SHALL BE PROVIDED. THE PLANNING BOARD SHALL, IN CONSULTATION WITH THE APPLICANT, DETERMINE THE APPROPRIATE NUMBER OF LOADING BERTHS SPECIFIC TO SUCH USE. (§ 158-16.G(4))
13. DRIVEWAY REQUIREMENTS
    A. MINIMUM AISLE SPACE SHALL BE AS FOLLOWS FOR NINETY-DEGREE ANGLE PARKING, 25 FEET; FOR SIXTY-DEGREE ANGLE PARKING, 18 FEET; FOR FORTY-FIVE-DEGREE ANGLE PARKING, 15 FEET. (§ 158-16.A(5))
    B. SUCH ACCESS SHALL CONSIST OF AT LEAST ONE TWENTY-FOOT LANE FOR PARKING AREAS WITH 20 SPACES OR MORE. NO ENTRANCE OR EXIT FOR ANY OFF-STREET PARKING AREA SHALL BE LOCATED WITHIN 75 FEET OF ANY STREET INTERSECTION. (§ 158-16.A(4))
    C. NO DRIVEWAY SHALL PROVIDE ACCESS TO A LOT LOCATED IN ANOTHER DISTRICT, WHICH LOT IS USED FOR ANY PURPOSE PROHIBITED, EXCEPT RESIDENTIAL, IN THE DISTRICT IN WHICH SAID DRIVEWAY IS LOCATED. (§ 158-16.F(1))
14. BUFFER REQUIREMENTS
    A. WHEREVER A PARKING AREA OF OVER FIVE SPACES ABUTS OR IS WITHIN 15 FEET OF THE SIDE OR REAR LOT LINES OF A LOT IN ANY RESIDENCE DISTRICT, SAID PARKING LOT SHALL BE SCREENED FROM SUCH ADJOINING LOT BY A SUBSTANTIAL WALL, FENCE OR THICK HEDGE APPROVED BY THE PLANNING BOARD, GENERALLY, SUCH SCREEN SHALL BE NOT LESS THAN THREE NOR MORE THAN EIGHT FEET IN HEIGHT. (§ 158-16.E(1))
    B. WHENEVER A PARKING AREA OF OVER FIVE SPACES IS LOCATED ACROSS THE STREET FROM ANY LOT LINE OF ANY RESIDENCE DISTRICT, IT SHALL BE SCREENED FROM THE VIEW OF SUCH LAND BY A THICK HEDGE, WALL OR FENCE APPROVED BY THE PLANNING BOARD, LOCATED ALONG A LINE DRAWN PARALLEL TO THE STREET LINE AT A DISTANCE OF 20 FEET THEREFROM. SUCH SCREENING SHALL BE INTERRUPTED ONLY AT POINTS OF INGRESS AND EGRESS. GENERALLY, NO SUCH SCREENING SHALL BE LESS THAN THREE FEET NOR MORE THAN EIGHT FEET IN HEIGHT. THE OPEN AREA BETWEEN SUCH SCREENING AND THE STREET SHALL BE LANDSCAPED IN HARMONY WITH THE LANDSCAPING PREVAILING ON NEIGHBORING PROPERTIES FRONTING ON THE SAME STREET. NO IDENTIFICATION AND DIRECTIONAL SIGNS LOCATED ON THE STREET SIDE OF SUCH SCREENING SHALL BE PERMITTED; HOWEVER, THEY SHALL NOT EXCEED AN AREA OF THREE SQUARE FEET EACH. (§ 158-16.E(2))
    C. ALL SPECIAL PERMIT USES WHICH ABUT OR ARE WITHIN 300 FEET OF OR ARE SET BACK 300 FEET FROM ANY LOT LINE OF ANY RESIDENTIAL USE OR DISTRICT SHALL BE REVIEWED BY THE PLANNING BOARD TO DETERMINE IF A BUFFER AREA IS REQUIRED FOR SUCH SPECIAL PERMIT USE. IN GRANTING SITE PLAN APPROVAL, THE PLANNING BOARD MAY REQUIRE SUCH SCREENING AND/OR PLANTINGS AS WILL SUFFICIENTLY ISOLATE AND SCREEN THE SUBJECT USE FROM THE SURROUNDING AREA, INCLUDING VISUAL, ACOUSTIC, SEISMIC OR AIRBORNE EMISSIONS. ANY SPECIAL PERMIT USE FOR WHICH A BUFFER IS REQUIRED SHALL PROVIDE A BUFFER OF NOT LESS THAN 50 FEET IN WIDTH SUITABLY LANDSCAPED AND SCREENED BASED ON THE EXISTING VEGETATION AND TOPOGRAPHY SATISFACTORY TO THE PLANNING BOARD. (§ 158-41.I)

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By
7	09/09/21	REV. PER CLIENT COMMENTS	CAM
6	08/06/21	REV. PER CLIENT COMMENTS	CAM
5	07/07/21	REV. PER CLIENT COMMENTS	CAM
4	04/13/21	REV. PER CLIENT COMMENTS	CAM
3	02/02/21	REV. PER CLIENT COMMENTS	CAM
2	01/15/21	REV. PER CLIENT COMMENTS	CAM
1	04/13/20	Comments	RDM

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TITLE: CONCEPTUAL SITE PLAN 'A'

PROJECT: TREETOP DEVELOPMENT
WAREHOUSE FACILITIES
SECTION 9, BLOCK 1, LOT 25.22
US HIGHWAY 9W
TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK

JOB No: 2803-99-012
DATE: 08/24/2020
DRAWN BY: CAM
SCALE: (H) 1"=200' (V)
DESIGNED BY: RDM
CHECKED BY: JMS
CHECKED BY: –
SHEET No: 1 OF 1

JOSHUA M. SEWALD
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Rev. 7

Plotted: 09/09/21 – 2:09 PM, By: cmacolla, – Product Ver: 24.0s (LMS Tech)
File: P:\2021\PCE_PROJECTS\2803 Treetop Development\99-012 Cornwall, NY\Civil\Concept\L02803990120.dwg, ----> Concept A – Rev. 7

ORANGE COUNTY, NEW YORK

TOWN OF CORNWALL

Code Enforcement Office
183 Main Street
Cornwall NY 12518

GARY A. VINSON
Building Inspector

TEL. (845) 534-9429 FAX. (845) 534-2178

November 15, 2021

ATTN: Lucia Chiocchio, Esq.,
Cuddy & Feder LLP
300 Westage Business Center, Suite 380
Fishkill, New York 12524

Re: Treetop Development Request for Clarification re Planned Industrial Developments
Property Location: 2615 Route 9W (9-1-25.22)

Dear Ms. Chiocchio,

I am in receipt of your letter dated October 4, 2021 in which you ask for clarification on the issue of whether warehousing is encompassed within the definition of "Planned Industrial Developments" ("PIDs") in the Town Code. Particularly, you point out that Code §158-3 defines PIDS as follows:

"[A] building or group of buildings and accessory structures and uses thereto designed and managed as a unit containing a variety of industrial, manufacturing, research and office facilities."

And you ask for clarification as to whether the term "industrial" as used therein encompasses general warehousing. Under the Town of Cornwall Town Code, it clearly does. Thus, general warehousing is a use permitted as a PID.

The other clarification that you request concerns an inconsistency between Town Code §158-3 ("Definitions") which states that a PID is "subject to performance standards and approval by the Town Board" and the Code's Table of Use Regulations which states that a PID is subject to grant of a special use permit and site plan approval by the Planning Board. While these two sections seem to be irreconcilable, I believe that the applicable rule of construction is that when the legislative expression of general intent conflicts with a particular intent subsequently expressed, the latter will prevail. That is, it is my opinion that the Planning Board, not the Town Board, is the permitting board in regard to the special use permit required for PIDs. I will bring the said inconsistency to the Town Board's attention, and I expect that it will eventually be addressed through enactment of an amendment to the language in Code §158-3 regarding the definition of a PID.

I trust that the foregoing adequately addresses your inquiry. If you have any further questions or comments feel free to contact me.

Very truly yours,

Gary Vinson, Building Inspector

cc: Town Board
Planning Board

C – Final Adopted Scope, prepared by Town of Cornwall, dated June 7, 2022

Treetop Planned Industrial Development Project
Town of Cornwall
Draft Environmental Impact Statement (DEIS)
Final Adopted Scope
June 7, 2022

This document identifies the issues to be addressed in the Draft Environmental Impact Statement (DEIS) for the proposed Treetop Planned Industrial Development Project (the "Treetop Project," "Project" or "Proposed Action") proposed by Cornwall Logistics, LLC (a/k/a Treetop Development) (the "Applicant") in the Town of Cornwall. This scope contains the items described in 6 NYCRR Part 617.9 (e) (1) through (7).

GENERAL GUIDELINES

- The Draft Environmental Impact Statement ("DEIS") shall address all items in this Scoping Document and conform to the format outlined in this Scoping Document. If appropriate, impact issues listed separately in this outline may be combined in the DEIS, provided all such issues described in this Scoping Document are addressed as fully in a combined format as if they were separately addressed.
- The document should be written in the third person. The terms "we" and "our" should not be used. The Applicant's conclusions and opinions should be identified as those of the "Project Sponsor," "Applicant" or "the Developer."
- Narrative discussions should be accompanied by appropriate charts, graphs, maps and diagrams whenever possible. If a particular subject matter can most effectively described in graphic format, the narrative discussion should merely summarize and highlight the information presented graphically. All plans and maps showing the site shall include adjacent homes, other neighboring uses and structures, roads, water bodies and a legend.
- The entire document should be checked carefully to ensure consistency with respect to the information presented in the various sections.
- Environmental impacts should be described in terms that the layperson can readily understand (e.g., truck-loads of fill and cubic yards rather than just cubic yards).
- All discussions of mitigation measures should consider at least those measures mentioned in the Scoping Outline. Where reasonable and necessary, mitigation measures should be incorporated into the Proposed Action if they are not already included.
- Where specific impacts are currently unknown or where they may vary based on the specific end user of the Project, analysis provided should assess a worst-case scenario.

The DEIS is intended to convey general and technical information regarding the potential environmental impacts of the proposed project to the Town of Cornwall Planning Board (as Lead Agency), as well as the other agencies involved in the review of the proposed project. The DEIS is also intended to convey the same information to the interested public. The Preparer of the DEIS is encouraged to keep this audience in mind as it prepares the document. Enough detail

should be provided in each subject area to ensure that most readers of the document will understand, and be able to make decisions based upon, the information provided.

As the DEIS will become, upon acceptance by the Lead Agency, a document that may, if appropriate, support objective findings on approvals requested under the application, the Preparer is requested to avoid subjective statements regarding potential impacts. The EIS should contain objective statements and conclusions of facts based upon technical analyses. Subjective evaluations of impacts where evidence is inconclusive or subject to opinion should be prefaced by statements indicating that "It is the Applicant's opinion that...". The Town of Cornwall Planning Board reserves the right, during review of the document, to require that subjective statements be removed from the document or otherwise modified to indicate that such subjective statements are not necessarily representative of the findings of the Lead Agency.

Project Description

The Treetop Project is a proposed Planned Industrial Development (PID) located at 2615 US Route 9W, Cornwall, New York (Section 9, Blok 1, Lot 25.22) (the "Project Site" or "Site"). The project site is an approximately 197.7-acre parcel located northwest of US Route 9W in the Town of Cornwall. The Applicant is proposing to develop five Class A Modern Warehouse Facilities totaling approximately 2,053,593 square feet in gross floor area. The Project includes two access points along US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval. In addition, the Applicant will petition the Town Board for an amendment of the Town of Cornwall Zoning Map to re-map the entire site PCD. The Applicant may potentially seek an area variance from the Zoning Board of Appeals for the height of the proposed 44' tall warehouse buildings where a maximum height of 40' is permitted in the PCD zoning district, or seek a minor zoning text amendment to allow a maximum height of 50' for PID projects within the PCD zoning district. Alternatives to be considered during the SEQR review include; a PID Project without the Zoning Map amendment; a PID Project with a zoning text amendment to allow the proposed building heights without the need to seek an area variance; and a PID Project with a greater buffer at the southern and western property boundaries that abut residential development. The attached Project Layout Map illustrates the Proposed Action.

SEQRA Status

The Proposed Action is a Type I Action pursuant to SEQRA Part 617.4 (b) (6) (i). After initiating a coordinated review, the Town of Cornwall Planning Board declared itself SEQRA Lead Agency on February 7, 2022. On April 4, 2022 the Town of Cornwall Planning Board adopted a resolution issuing a Positive Declaration requiring the preparation of a Draft Environmental Impact Statement.

The Lead Agency set the following procedures to receive Agency and Public comments on this Draft Scope:

A public scoping session was held in-person on May 2, 2022 at Munger Cottage.

In addition, written comments on the Draft Scope were invited. Written comments were accepted by the CONTACT PERSON identified below until close of business on May 24, 2022. Written comments were accepted by e-mail or by mail (addresses below).

All Involved Agencies were invited to inform the Lead Agency of each Agency's concerns, permit jurisdictions, and information needs to support such Agency's SEQRA Findings, including, where applicable, any specific techniques or model to be used in studies and analysis for the EIS.

For Further Information

Contact Person: Diane Hines, Assistant to the Building Inspector
Address: Town of Cornwall Planning Board
Cornwall Town Hall
183 Main Street
Cornwall, New York 12518
Telephone: (845) 534-9429
dhines@cornwallny.gov

Contents of the Draft Environmental Impact Statement

Cover Sheet
The cover sheet will contain the following:

- Name and location of the project
- Identification of document as the Draft Environmental Impact Statement
- Date of submittal to the Planning Board and any revision dates
- Lead agency, project sponsor and contact information for each
- Date of acceptance by Lead Agency or placeholder
- Date of public hearing or placeholder
- Date which public comments will be due

Table of Contents

I. Executive Summary

A. An introduction including purpose of the DEIS, summary of previous site approvals, a relevant history of the current SEQRA process that has occurred (*i.e.*, relevant dates establishing Lead Agency, the date of adoption of the Positive Declaration, date of the acceptance of the Scoping Document).

B. Project Site Existing Conditions- provide a short description of the subject property and characterize its location and natural features as well as provide a brief history of the use of the property and where existing changes to its natural state have occurred.

C. Project Description/ Overview of all aspects of the project including project layout, proposed buildings, parking, circulation, traffic or other offsite improvements, utilities, and requested zoning changes.

D. Summary of purpose, including the Applicant's goals and objectives, public need and benefits

E. Required permits and approvals, including list of involved and interested agencies

F. Summary of significant adverse environmental impacts identified and mitigation measures proposed in each subject area identified and discussed further in Section III

G. Description of alternatives analyzed including a table comparing the impacts of the proposed project with the impacts of each alternative analyzed

H. Description of the issues considered in EAF review/Scoping and determined to be non-significant or not relevant, stating reasons why those issues were not included in the Final EIS Scope

II. Project Description

A. Project Site Background and History
   1. Prior Cornwall Commons project
   2. 2020 zoning amendments

B. Applicant
   1. Applicant's qualifications to undertake the Project
   2. Purpose of the Project
   3. Applicant's goals and objectives

C. Site Description
   1. Location, tax map designation and acreage
   2. Zoning and discussion of surrounding land uses
      a. PCD/HC Districts
   3. Context with surrounding area including a site location map
   4. Access and discussion of surrounding road network
   5. Existing Uses/Structures
   6. Existing Utilities
   7. Any existing easements

D. Proposed Development Plan
   1. Warehousing
   2. Minor Zoning Map Amendment
   3. Area Variance or Zoning Text Amendment
   4. Site Access, Driveway, Circulation, and Parking/Loading

5. Utilities
6. Grading Plan
7. Stormwater Management
8. Signage
9. Lighting
10. Construction, Sequencing, Phasing and Duration including both on and off-site improvements. Discuss hours of construction operations, staging areas, alternate construction traffic access to the site that will minimize the use of Town roadways and discussion of potential impacts (and remedial measures to be taken to correct such damage) to roadways and infrastructure from construction traffic, prevention of mud and gravel from being tracked onto roadways. Estimates of the tons and truck trips necessary to accomplish the construction activities. Means of dust control and protection of onsite wetlands shall be included. Describe methods of recycling waste and natural materials on-site during construction and the building process, and other "green" building techniques employed, so as to minimize the carbon footprint to the extent economically and technologically feasible.

E. Required Permits and Approvals
F. Summary of Project public need and Benefits

III. Existing Conditions, Potential Impacts as a Result of the Proposed Project and Proposed Mitigation Measures

This section identifies the potentially significant adverse impacts identified in Part 3 of the EAF and to be identified in consultation with involved agencies and the public as part of the scoping process. The discussion in the EIS will identify the aspects of the environmental setting that may be impacted. The scoping process is intended to identify the extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information, and required new information, including the required methodology(ies) for obtaining new information.

Where appropriate the DEIS will discuss both construction and operation impacts.

A. Land Use and Zoning

1. Existing Conditions
    a) Discussion and mapping illustrating the site's existing zoning and zoning within one half mile of the Site.
    b) Surrounding land uses within one half mile;
    c) Discussion of the 2020 rezoning of the site from residential to commercial.
    d) Discussion of use, density, bulk, site plan, special permit and other zoning provisions relevant to the Project, including the Building Inspector's determination confirming permissibility of the uses in the PCD zoning district.
    e) Easements and Covenants.
2. Potential Impacts

a) Conformance with the Town of Cornwall zoning requirements, including PID special permit criteria and any other standards, laws or regulations relevant to the Project.
b) Consistency with easements and covenants affecting the property, including the undefined access easement that benefits the abutting parcel owned by the New York Military Academy.
c) Discussion of a zoning map amendment to remove the HC zoning district boundary from the Site.
d) Discussion of the potential area variance approval from the ZBA for the building height required and/or zoning text amendment to permit 50-foot-tall warehouse buildings pursuant to the § 158-21J PID Supplemental Use Regulations.
e) Compatibility with surrounding land uses.
f) Consistency with the Town Comprehensive Plan and the Orange County Comprehensive Plan, and other related planning documents, including the Town of Cornwall's Natural Resources Inventory.

3. Mitigation Measures
   a) As required.

B. **Traffic and Transportation**

1. Existing Conditions
   a) Discuss and illustrate access to the site
   b) Provide a description of each of the surrounding roadways and intersections and discuss any existing or proposed traffic improvements within the vicinity of the site
   c) Determine existing intersection traffic volumes. Counts will be taken for the following intersections for the Weekday AM and PM peak hours. Note that at the US Route 9W interchange locations, the data and analysis should be for both sets of ramps:
      a. US Route 9W And Forge Hill Road/Sloop Hill Road
      b. US Route 9W and Academy Avenue (all movements)
      c. US Route 9W and Union Avenue (CR 69)
      d. Academy Avenue and Mailler Avenue
      e. Academy Avenue and Main Street
      f. US Route 9W and Willow Avenue (CR 32)
      g. US Route 9W and Laurel Avenue
      h. US Route 9W and Quaker Avenue
      i. US Route 9W and Angola Road
      j. NYS Route 32 and Quaker Avenue
      k. Main Street and Willow Avenue (CR 32)
      l. Main Street and Quaker Avenue
      m. NYS Route 32, NYS Route 300, NYS Route 94 (5 Corners)
      n. Mailer Avenue and Willow Avenue
      o. Old Route 9W and River Road

p. US Route 9W and I-84 Ramps (Newburgh)
q. CR 74 and NYS Route 94
r. Willow Avenue and Main Street

d) Provide a comparison of NYSDOT data with any counts taken during Covid-19. Needs to follow NYSDOT guidelines for traffic counts collected during the pandemic.
e) Analyze available traffic accident data for the last 5 year period at each of the study area intersections.
f) Identify nearest public transportation stops and provide analysis based on MTA's April 26, 2022 requirements.
g) Analyze and summarize existing Levels of Service for all locations based on NYSDOT criteria.
h) Identify any weight restrictions, design controls, or other characteristics which may limit use by larger vehicles.

2. Future no-build conditions
   a) Identify no-build conditions during the design year based on future traffic volumes projected with a growth rate determined in consultation with the Lead Agency and NYSDOT.
   b) Discuss any other anticipated changes to the transportation network by Build Year.
   c) Discussion and inclusion of other significant developments that would generate traffic in this area as well as any significant developments in other adjacent municipalities that would affect the US Route 9W or NYS Route 32 corridors. The traffic for these other developments should be included in the traffic projections and analyses. This should, at minimum, include traffic from the industrial project proposed in the Town of New Windsor.
3. Future Build Conditions / Potential Impacts
   a) Develop anticipated trip generation from the Project for Weekday peak hours and daily basis stratified by passenger cars, tractor trailer, and other truck trips based on the Institute of Transportation Engineers (ITE) Trip Generation Handbook latest edition. Saturday estimates should also be provided to determine if additional analyses will be required.
   b) Land Use Code 130 – Industrial Park should also be used per NYSDOT because of the variability of the use. Analysis conducted with these higher trip rates with corresponding mix of passenger cars and trucks should be completed. Identify in both tabular and diagram form the anticipated arrival and departure distribution patterns for both trucks and passenger vehicles to and from the site. This should include a discussion of truck movements into adjacent municipalities.
   c) Determine Build levels of service with Project generated traffic added to the no-build traffic volumes for the above listed intersections. The Build analysis shall be based on capacity and LOS analysis using the latest NYSDOT technology.

Determine existing LOS and queuing for each of the above intersections and summarize in a table along with vehicle delays and v/c ratios.

d) Analyze adequacy of existing road infrastructure to accommodate increased traffic.
e) Project Site traffic on Route 9W and all other intersections identified above including a separate distribution of passenger cars and truck trips.
f) Employee Project traffic leaving the site during lunch hour/break times.
g) Provide a parking and loading plan and discuss compliance with the Town of Cornwall parking and loading requirements.
h) The construction phase of this project will be substantial and the location and treatment for access by construction workers and material deliveries as well as other related trips should be analyzed. This should include a discussion of construction traffic volumes and routing, phasing and traffic control measures, if needed.
i) Truck turning diagrams should be provided for all intersections and onsite circulation.
j) Provide a Traffic Signal Warrant Analysis for main site access as an alternative to the currently proposed right in/right out site access and consult NYSDOT for their input on preferred access design.
k) Discuss emergency access and discuss with emergency service providers regarding their specific requirements.
l) A complete capacity analysis should be prepared for all ramp movements at the Academy Avenue interchange including merge and diverge analyses. Turning tracks and geometric review should also be included. Any modifications to the interchange should be identified. The geometry of the existing interchange connection of US Route 9W and Academy Avenue should be reviewed for the ability to accommodate truck traffic including turning tracks, ramp radii, and other current geometric standards as per AASHTO and NYSDOT.
m) The Applicant has proposed two right-turn-in/right-turn-out driveways. Note that these improvements will require a Highway Work Permit from NYSDOT. Due to the size and nature of the development, the analyses should consider an alternate plan with at least one signalized intersection with separate left and right turning lanes. The length of the left turn lane should be reviewed based on the expected truck and other volumes to ensure it is adequate to accommodate the 95th percentile queue length. Access to and from 2640 US Route 9W opposite the site should be accommodated as part of this. A Traffic Signal Warrant Analysis should be prepared for the main site access under this signalized alternative.
n) Discuss the potential impact to employee trips due to automation of facility.
o) Discuss steep gradients and other roadway geometry issues and the potential impact on truck traffic.
p) Access to the NYMA property and the potential traffic from the development of the adjacent NYMA parcel since it is likely any development will have to be

use at least one the proposed access connections to US Route 9W for their site access.

4. Mitigation Measures
    a) Provide a discussion of and conceptual plans for potential traffic access improvements, as required.
    b) Provide a discussion of and conceptual plans for roadway and intersection modifications, as required.
    c) Provide a summary of all mitigation measures and identify responsibility for completing such improvements including those identified in items a) and b) above.
    d) Provide a construction traffic plan to include routes to be used by trucks and heavy vehicles during construction period relating to road construction or relocation.
    e) Provide a discussion of potential future expansion of public transit to the Project Site.
    f) Identify options for food service on the Project Site.
    g) Identify existing public transit services that could be utilized by employees of the Project.
    h) Others, as required. As per NYSDOT, these may include left turn lanes, guide rail modifications, drainage improvements, etc.

C. **Flora and Fauna**

1. Existing Conditions
    a) Biological Assessment will be provided to evaluate ecological communities and habitats based on available published data and as verified by site visits
    b) Discuss the potential presence of threatened and endangered species based on correspondence with appropriate outside agencies and NYS Species of Special Concern. Assess the potential of the site to support any such species.
    c) Discussion of the 'designated significant natural communities' identified by the DEC mapper as being located on the Project Site.
    d) Describe the relevant context of the site in the Moodna Creek Corridor as discussed in the Town's Natural Resources Inventory
2. Potential Impacts
    a) Quantify impacts, if any, to designated significant natural communities, as well as the site's overall ecological communities and discuss impacts, if any, to rare, threatened or endangered species or ecologically significant communities and habitats; including those associated with Moodna Creek. This should include a discussion of the segmentation of habitat or impact on species migration through the Moodna Creek Corridor. Correspondence with DEC and USFWS will be provided in an appendix.
3. Mitigation Measures (if any)
    a) Mitigation will be proposed for identified adverse environmental impacts as necessary, which may include, if appropriate, preservation, rehabilitation,

relocation, plantings, etc. or a restriction on tree-cutting during specified time periods. Additionally, the selection of any planted vegetation for mitigation should be, to the extent possible, restricted to native, companion and xeriscape compatible vegetation. Unavoidable adverse environmental impacts will be identified.

D. **Noise**

1. Existing Conditions
    a) Existing noise measurements will be taken representative locations around the Project Site including boundaries with residential properties and along the northern boundary with the Town of New Windsor. Analysis of sensitive area receptors based on NYS DEC guidelines should be provided.
    b) Map and discuss sensitive noise receptors such as schools, churches and public facilities within 500' of the Project Site, and map nearby, publicly accessible, residential receptors.
2. Impacts
    a) Overall anticipated noise generation from the proposed action will be discussed and a comparison to existing conditions will be provided from both construction and operational noise;
    b) A discussion of how the anticipated noise levels relate to Town and other noise regulations will be provided. All studies of noise should comply with the NYS Department of Environmental Conservation Program Policy entitled, "Assessing and Mitigating Noise Impacts;"
    c) Identify hours of operation, including shift changes, and outdoor assembly of employees, including picnic areas;
    d) Identify interior and exterior public address systems, including the ability to play music; and
    e) During construction, if blasting, chipping or hammering of rock may occur, discuss potential impacts to above identified receptors.
3. Mitigation Measures
    a) Mitigation will be proposed for identified adverse environmental impacts as necessary. All mitigation proposed to minimize noise impacts to adjacent residences shall be discussed. Unavoidable adverse environmental impacts will be identified.

E. **Geology, Soils and Topography**

1. Existing Conditions
    a) Provide topographic mapping at 2' control interval and provide a description of site topography.
    b) Describe significant topographic or geological features, if any, on the Project Site or conclude that none are present.
    c) Soil types and characteristics shall be identified as presented in the Orange County Soil Survey or USDA database.

d) Discuss the general drainage characteristics of the site and also identify sub-catchments within the project site.

2. Impacts

e) Provide grading plan. Describe potential impacts from site grading with respect to bedrock depth, soil erosion, slope stabilization and rock removal.

f) Provide estimate of cut and fill. If fill is required, describe amount and potential source(s).

g) Discuss rock removal, if required. If rock removal is required, discuss method(s) to be used.

h) Discuss Soils of Statewide Importance.

i) Discuss proposed retaining walls.

j) Discuss Impacts to the existing slope stabilization concern located along the Moodna Creek on/ adjacent to the site.

k) Identify the locations of all areas where existing vegetation will be removed.

3. Mitigation Measures

a) Provide and discuss erosion and sediment control plan focusing on areas of steep slopes and erodible soils.

b) Provide blasting plan, if required.

c) Provide plan for excess cut, or for import fill, if required. If cut is required, identify if a Town clearing and grading permit is needed offsite.

d) Discuss construction phasing and staging to limit the time periods during which areas of disturbance would be left open. If a waiver from the NYSDEC maximum disturbance is proposed, additional appropriate mitigations will be provided.

e) Discuss alternatives to mitigate slope stabilization concerns along the Moodna Creek created from the site.

f) Others required.

F. **Subsurface and Surface Waters**

1. Existing Conditions

a) Existing surface waters, including wetlands, streams and other natural water features will be discussed and presented graphically. All resources will be described in terms of jurisdiction, classification, size and any applicable regulated areas including buffer and floodplains.

b) Map and discuss the extent of FEMA designated floodplains and floodways or conclude that these areas are not present on the site.

c) Discuss existing drainage patterns on Site.

d) Discuss existing runoff into the Moodna Creek.

e) Discuss relevant State and Town stormwater regulations.

f) Map and discuss any aquifers underlying the Site and discuss any groundwater characteristics based on available data, including available well data.

2. Potential Impacts

a) Quantify, map and describe encroachments, if any, into any on Site surface waters or associated regulated areas and discuss the potential effect on the quality and function of these resources.
b) Describe impacts, if any, to the Moodna Creek.
c) Describe impacts from pesticides, deicing agents and/ or pollutants from trucks or other or other onsite machinery.
d) Describe pre- and post-development stormwater volumes and peak discharge rates. Illustrate stormwater flows and discharge including method of collecting, cleaning and reuse or conveyance of treated water.
e) Describe the components and functions of the proposed drainage system. Describe potential impacts to downstream drainage systems
f) Discuss the material components of the SWPPP and proposed erosion and sediment control plan.
g) Discuss impact to floodplain elevations (if any).
h) Identify the distance between the site and the Town of New Windsor public ground water wells and discuss any potential impacts or hydro-geologic connections

3. Mitigation Measures
a) Discuss permitting standards that must be met for impacts to any regulated wetland or waterbody.
b) Summarize the master stormwater pollution prevention plan (SWPPP) including stormwater management practices and erosion and sediment control plan.
c) Discuss ownership and maintenance (both short and long term) of the stormwater management system.
d) Others required.

G. **Air**

1. Existing Conditions

Existing ambient air quality conditions within the study area based on data obtained from the NYSDEC will be described. NYSDEC data will be analyzed and compared to the National Ambient Air Quality Standards in order to characterize the existing air quality at the site.

2. Potential Impacts

A statement and evaluation of the potential impacts shall be set forth at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence, and as otherwise necessary pursuant to the items listed at 6 NYCRR § 617.9(b)(5)(iii)(a)-(h). The effects of emissions from stationary sources at the project site will be qualitatively assessed, and, if necessary, a screening analysis to determine the potential impacts of site generated traffic, including all service vehicles, on air quality will be performed to determine whether any location should undergo a detailed microscale CO and/or micro particulate analysis. This screening analysis should follow the procedures outlined by the New York State Department of Transportation. The Applicant shall include any potential impacts from construction equipment, generators during construction and after construction,

trucks, busses, idling vehicles, traffic entering and exiting the site, and delivery vehicles, as well as all emissions during the operation of the proposed facilities.

3. Proposed Mitigation

Proposed and potential mitigation measures for identified adverse environmental impacts will be discussed. The discussion shall clearly indicate which mitigation measures have been incorporated into the plans. The discussion shall include the potential of using solar energy, bicycle and electric transit, or shuttle technology. Unavoidable adverse Environmental Impacts will also be identified.

H. **Visual / Cultural Resources**

1. Existing Conditions
   a) Prepare a viewshed map illustrating those portions of the Site potentially visible from public roads.
   b) Provide an inventory of Town, County and State designated scenic and historic resources of significance from which all or portions of the Project Site may be visible.
   c) Describe and illustrate, thorough photographs in both leaf-on and leaf-off conditions the visual character of the Project Site from the locations listed below and shown on the attached visual receptor map including:
      a. Route 9W.
      b. All locations identified in '1.b' above including Knox Headquarters.
      c. Firthcliffe Firehouse.
      d. Public roads for surrounding residential developments.
   d) Perform Stage 1A/1B Cultural Resource Surveys in areas for which surveys were not previously prepared and which have been determined to be potentially sensitive for cultural resources.
   e) Provide the results to the New York State Historic Preservation Office (SHPO).
2. Potential Impacts
   a) Description of physical dimensions, architectural design and proposed building material of proposed buildings and discuss the proposed design's compatibility with the surrounding area.
   b) Discuss Project visibility upon build-out in both leaf-on and leaf-off conditions from Route 9W. Provide simulations of the Project at build-out from locations described above under Section III.F.1.c above, if appropriate.
   c) Discuss visual impacts from the above identified locations.
   d) Obtain a Determination of Effect Letter from SHPO.
   e) Discuss impacts to archeological resources, if any.
   f) Discuss impacts to historic visual resources, if any.
   g) Discuss proposed lighting including height, location of fixtures, type of fixture, and lighting levels at property lines.
3. Mitigation Measures

a) Discuss and illustrate the use of visual mitigation measures, as required. It is not the intent of this section to require detailed, planting, screening or lighting plans.
b) Illustrate overall limits of clearing and illustrate areas that will remain vegetated.
c) Provide mitigation, if required and as directed by SHPO.
d) Coordination with the US Army Corps of Engineers, as needed, under Section 106 of the National Historic Preservation Act.
e) Others required.

I. **Utilities**

1. Existing Conditions
   a) Map and discuss public water supply and sewer systems currently serving the Project Site, including source, capacity and distribution infrastructure
   b) Describe the need for the closure and removal and reclamation of any existing water supply systems, including capping wells.
   c) Identify electric and gas infrastructure in the immediate vicinity of the Project Site.
   d) Identify options for the handling of solid waste generated by the Project.
2. Impacts
   a) Describe Project demand for sewer, water and electricity;
   b) Describe water supply system's ability to serve required fire suppression systems.
   c) Describe location of connection to each utility system and any offsite improvements required for the project.
   d) Discuss necessary permits. Correspondence from service providers will be included in an appendix.
   e) Discuss the use of the Town's Firthcliffe sanitary sewer collection system as an alternative to the Town's Sewer District #1 and the Shore Road sewage treatment plant.
   f) Anticipated electricity and gas use, anticipated issues with supply or need to upgrade infrastructure.
   g) Solid waste disposal projections and methods for disposal shall be specifically identified, all recycling and/or composting plans shall be discussed in detail, and all vehicle trips generated and anticipated paths of travel shall be provided.
3. Mitigation
   a) Discuss water conservation measures to be implemented.
   b) Discuss wastewater flow mitigation measures, including the potential to reduce inflow & infiltration as an offset for the increased wastewater flows.
   c) Discuss power conservation measures.
   d) Discuss solid waste handling and minimization and odor control measures.
   e) Others, as required.

J. **Fiscal and Economic Considerations**

1. Existing Conditions
    a) Current taxes paid to each taxing jurisdiction.
    b) Summarize current economic activity generated on the Project Site.
2. Impacts
    a) Discuss the anticipated Project valuation and property taxes to be paid to all taxing jurisdictions.
    b) Estimate construction employment and construction employment payroll over the life of the Project.
    c) Estimate operational employment and payroll at Project completion, including the potential for future employment reduction due to automation.
    d) Estimate secondary economic benefits from the indirect spending of employees of the Project.
    e) Discuss the future of the Project Site with and without the Project.
    f) Evaluate induced economic activity, such as any payment in lieu of taxes agreement, the length of such agreement, and its effect on any potential tax revenue generated by the Project.
3. Mitigation measures
    a) As required.

K. **Emergency Services**

1. Existing Conditions
    a) Describe existing police, fire and ambulance services that serve the Project Site in terms of manpower, equipment, approximate number of annual calls for service and location in relation to the site.
2. Impacts
    a) Discuss the ability of the above listed service providers to serve the Project Site including site circulation, access, and building height as they relate to emergency services
    b) Discuss needs for fire suppression including water storage;
    c) Service providers should be contacted regarding possible concerns with the project and any correspondence should be provided in an appendix.
3. Mitigation Measures
    a) As required

IV. Alternatives

A. No Action Alternative
B. PID Project with no Zoning Map amendment to remove the HC zoning district boundary from the Site
C. Zoning text amendment to permit the proposed building heights without the need for ZBA area variance approval.
D. PID Project with larger buffer area along the southern and western property boundaries adjacent to residential development.

V. Measures to Avoid or Reduce the Project's Impacts on Climate Change and Effects on the Use and Conservation of Energy

This section will describe the Applicant's commitment to environmental sustainability, and it will summarize sustainable and green building practices to be employed. This should include, at minimum an evaluation of the potential use of solar technology and electric vehicle charging stations and their benefits and potential impact on the electrical grid.

VI. Significant Adverse Environmental Impacts That Cannot Be Avoided

This section will identify significant long-term and short-term construction and operation impacts that cannot be avoided, if any.

VII. Growth Inducing Aspects

This section will provide a qualitative discussion of short and long-term growth inducing aspects, as required.

VIII. Irreversible and Irretrievable Commitment of Resources

This section will summarize resource commitments that are irreversible and irretrievable.

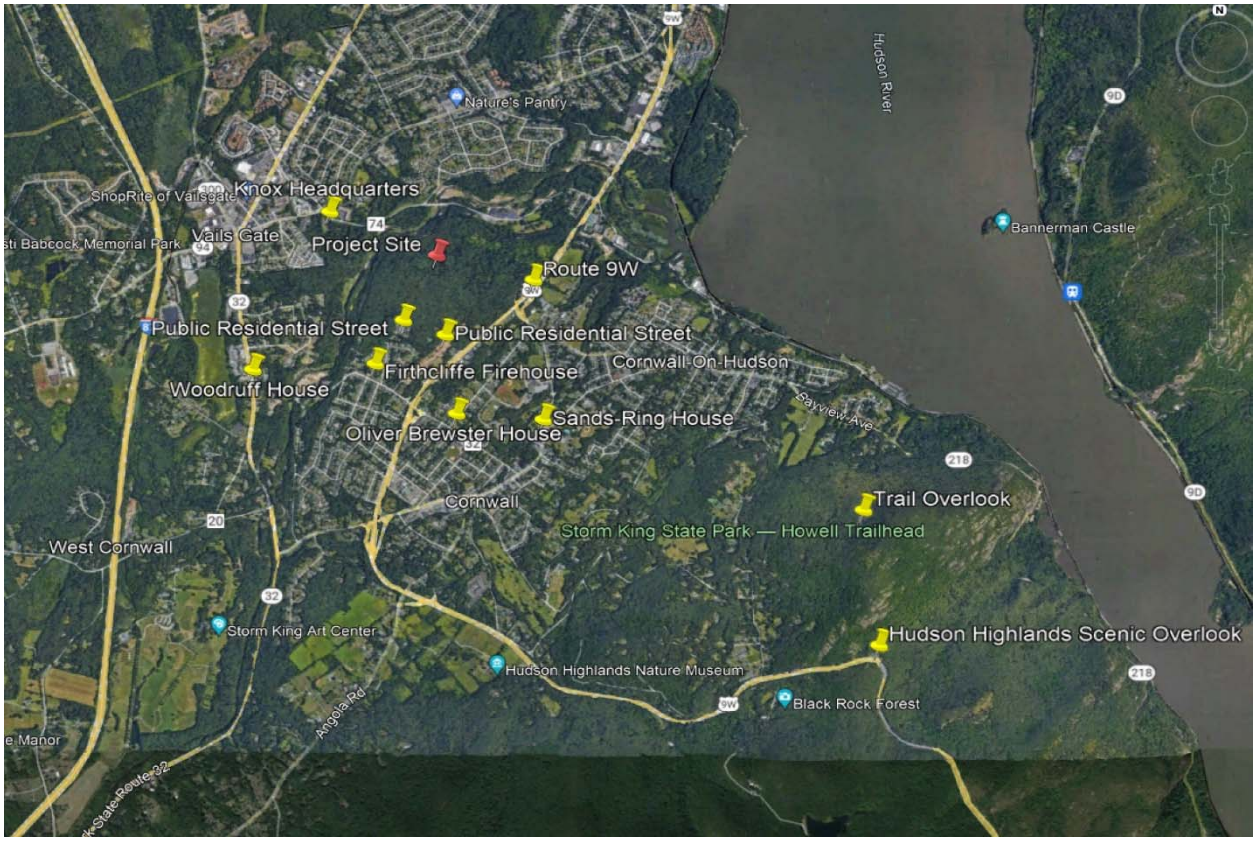
Information/data to be included in Appendices

1. Full EAF
2. SEQRA Notices
3. Adopted Scoping Document
4. Correspondence of Record
5. Wetlands Delineation Reports
6. Stormwater Management Plan
7. Traffic Impact Study
8. Building Inspector Determination Confirming Use
9. Others

Issues Raised but not Included in the Scope

Discussion pursuant to 6 NYCRR § 617.8(e)(7) of issues considered in the review of the EAF or raised during scoping, or both, and determined to be neither relevant nor environmentally significant or that have been adequately addressed in prior environmental review and the reasons why those issues were not included in the final scope, as required.

Treetop PID Project
Map of Locations for the Visual Analysis



D – Town of Cornwall Planning Board Notice of Determination of Acceptance of DEIS, prepared by Town of Cornwall Planning Board, adopted 11/06/2023

TOWN OF CORNWALL PLANNING BOARD
NOTICE OF DETERMINATION OF ACCEPTANCE OF
DRAFT ENVIRONMENTAL IMPACT STATEMENT
AND NOTICE OF PUBLIC HEARING

Determination: A Draft Environmental Impact Statement (DEIS) has been submitted by the project applicant, Cornwall Logistics, LLC (a/k/a Treetop Development) for the project further described below. This document was prepared in accordance with Article 8 of the Environmental Conservation law and upon review by the Town of Cornwall Planning Board, as Lead Agency, in accordance with provisions of Title 6 of the New York State Code of Rules and Regulations, Part 617, the Planning Board has determined that the DEIS is adequate for public review.

The applicant will provide for the placement of digital copies the DEIS and all project documents at: http://www.cornwalllogistics.com and full copies of the DEIS will be made available at the Town Building Department and Town Clerk's Office located 183 Main Street during normal business hours.

Public Hearing: A public hearing on the DEIS, as well as the proposed Site Plan and Special Permit will be held on **January 17, 2024 at 7:00** pm or shortly thereafter at Cornwall Central High School, 10 Dragon Drive, New Windsor, New York. Comments may be made in person at the public hearing and written comments will be received at any time during the comment period in the Town Building Department. The hearing will be live-streamed and recorded, and available for viewing on Youtube at https://www.youtube.com/@townofcornwallny573/streams but **no remote public comments will be permitted**. All comments must be made in person or in writing to the Planning Board. The written comment period will extend for a minimum of 10 days following the closing of the public hearing.

Name of Project:	Treetop Planned Industrial Development
Project Location:	2615 US Route 9W
Public Hearing:	January 17, 2024 Cornwall Central High School 10 Dragon Drive New Windsor, New York
Date of Determination:	November 6, 2023
SEQR Status:	Type 1
Lead Agency:	Town of Cornwall Planning Board
Contact Person/Address:	Town of Cornwall Building Department 183 Main Street Cornwall, New York 12518 (845) 534-9429 dhines@cornwallny.gov

Project Description: The project includes construction of five warehouse buildings totaling 1,726,106 square feet of floor area in a Planned Industrial Development (PID). Two access points are proposed from US Route 9W as well as associated parking, loading and stormwater facilities. The Project will be served by municipal water and sewer services. Utility lines are proposed to be extended to the Project Site. The Project Site consists of 197.7 total acres in the Planned Commercial Development (PCD) Zoning District with a portion in the Highway Commercial (HC) Zoning District. Treetop has petitioned the Town Board per Zoning Code Section 158-43 to amend the Zoning Map to re-map the entire Site within the PCD zoning district, and to amend the zoning code to adjust the maximum height allowed for the proposed warehouse buildings to 50 feet.

This Notice has been circulated to the following Agencies.

Involved Agencies:

NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1750

NYS Department of Environmental Conservation – Region 3
Division of Environmental Permits
21 South Putt Corners Road
New Paltz, New York 12561

New York State Department of Transportation, Region 8
4 Burnett Boulevard
Poughkeepsie, New York 12601
Contact: Lance MacMillan, PE, Regional Director

Orange County Department of Health, Division of Environmental Permits
1887 County Building
124 Main Street
Goshen, New York 10924
Contact: Steve Gagnon, P.E.

Town of Cornwall Town Board
183 Main Street
Cornwall, New York 12518
Contact: Josh Wojehowski, Supervisor

Town of Cornwall Zoning Board of Appeals
183 Main Street
Cornwall, New York 12518
Contact: Lenora Ransom, Chair

Village of Cornwall-on-Hudson
325 Hudson Street
Cornwall-on-Hudson, NY 12520
Clerk@cornwall-on-hudson.org

Village of Cornwall-on-Hudson Water Department
325 Hudson Street
Cornwall-on-Hudson, NY 12520
Contact: Mike Trainor, Superintendent

NYS Office of Parks, Recreation and Historic Preservation
Field Services Bureau – Peebles Island
PO Box 189
Waterford, NY 12188-0189
(uploaded via CRIS)

Interested Agencies:

U.S. Army Corps of Engineers
26 Federal Plaza
Jacob Javits Building
New York, New York 10278

Palisades Interstate Park Commission
Mathew Shook, Director of Development & Special Projects
shookm@pipc.org

Orange County Department of Planning
planning@orangecountygov.com

Orange County Department of Public Works
2455-2459 Route 17M
Goshen, New York 10924

Town of New Windsor
555 Union Ave
New Windsor, NY 12553

City of Newburgh
83 Broadway
Newburgh, NY 12550

Town of Newburgh
1496 Route 300
Newburgh, NY 12550

Town of Woodbury
615 Route 32
P.O. Box 1004
Highland Mills, NY 10930

Village of Woodbury
Villageclerk@villageofwoodbury.com

Canterbury Fire Company
PO Box 106
Cornwall, NY 12518

Vails Gate Fire Department
PO Box 173
Vails Gate, New York 12584

E – Lead Agency Written SEQR Findings Statement – Cornwall Commons, prepared by the Town of Cornwall Planning Board, adopted 12/01/2008

TOWN OF CORNWALL PLANNING BOARD

LEAD AGENCY WRITTEN SEQR FINDINGS STATEMENT

CORNWALL COMMONS

Town of Cornwall Planning Board
Adopted December 1, 2008

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LEAD AGENCY SUPPLEMENTAL WRITTEN SEQR FINDINGS STATEMENT

Cornwall Commons Land Development
Cornwall Commons
Site Plan Application, PAC Lot 10 and Overall PAC
SEQRA – Supplemental Findings Statement

Project Description

The project before the Town of Cornwall Planning Board is the site plan for Lot 10 of the Cornwall Commons Planned Adult Community (PAC), and the overall development of the entire project site and the remaining lots within the Planned Adult Community in a manner consistent with the Planning Board's Lead Agency Generic SEQR Findings Statement adopted April 15, 2003. The intent of this review is to determine the level of consistency of the overall subdivision and the PAC development with the Generic SEQR Findings Statement.

Background

The action in question is a component in a series of actions begun in late 1999 for a 197.7 acre tract of land that at the time was located primarily in the Town of Cornwall in the Planned Industrial Office (PIO) district, and partly in the Town of New Windsor in the R-3 residential district. At that time, the applicant was requesting a zoning amendment for the Cornwall property, which was rejected February of 2000. The applicant opted to pursue the subdivision and environmental review process according to the then-current zoning in both Towns, and examined alternative development scenarios involving re-zoning as part of the generic environmental review process. The Generic SEQR review was completed with the issuance of Generic SEQR Findings on April 15, 2003, and subsequent approvals that were granted for the property were based upon findings of consistency with the GEIS Lead Agency SEQR Findings of 2003.

Since the Planning Board's adoption of the Generic SEQR Findings Statement in 2003, the Town of Cornwall Town has adopted a January 2005 Comprehensive Plan that designated the property for Planned Residential Development (PRD) use, along with zoning amendments establishing the PRD district allowing Planned Adult Communities (PACs). The Comprehensive Plan describes PACs as active adult residential developments of at least one hundred or more units limited to families with at least one adult over 55 years of age and no children under age 19 . In addition:

- the site has been the subject of an annexation: the former New Windsor component of the project site was annexed to the Town of Cornwall, so that the entire 197.7 acres comprising the site are

now located wholly within the Town of Cornwall, and are zoned Planned Residential Development (PRD) consistently throughout the entire site;

- the site was most recently the subject of a preliminary subdivision approval by the Town of Cornwall Planning Board dated September 5, 2006, following a Negative Declaration and Consistency Determination with the 2003 Lead Agency GEIS Findings. The subdivision approval granted in September of 2006 was for a 10-lot subdivision intended to accommodate a Planned Adult Community, modified from a five-lot subdivision that had previously received a preliminary subdivision approval for a 5-lot subdivision in July of 2003 after adopting of the original GEIS Findings in April, 2003;
- the site was granted a PAC special permit from the Town of Cornwall Town Board on June 5, 2006 following a Consistency Determination with the 2003 Lead Agency GEIS Findings.

In relation to the PAC special permit review process, the Planning Board determined that the environmental review for the site needed to be updated in a few particular subject areas, so that when the applicant sought site plan approval for the residential component of the PAC, the applicant would complete a Supplemental Environmental Impact Statement.

Location and Zoning Designations of Site

The application involves a 197.7-acre property which is located in the Town of Cornwall at the New Windsor municipal border, consisting of tax map parcel Section 9, Block 1, Lot 25.22, located in the PRD district in Cornwall. The site includes approximately 53 acres of land that had previously been located in the Town of New Windsor, but was annexed into the Town of Cornwall. The site is located on the northwest side of NYS Route 9W next to the former O&W Railway line.

Filing of Application

The land use application for the PAC project on lot ten of the Cornwall Commons preliminary subdivision plan was submitted on or about October, 2006.

Supplemental DEIS Scoping Procedures

As part of the consideration of the 10-lot subdivision to accommodate the PAC, the applicant had agreed to prepare and submit a Supplemental Environmental Impact Statement speaking to specific overall effects of the PAC site development and of the PAC lot 10 in particular, both updating information from the Generic EIS and also speaking to the specific compliance with the GEIS Findings. In addition, the

Planning Board had requested specific subject areas be addressed for the overall site including views, traffic, stormwater, and rough grading.

The applicant submitted a written scoping outline which was disseminated to the public, and written scoping comments were received by the public. A final written supplemental scope incorporating some changes and additions was adopted by the Planning Board on January 9, 2007.

Draft SEIS Submission, Acceptance and Notices

The applicant submitted copies of a Draft Supplemental EIS on December 3, 2007. The submitted document was not deemed to be acceptable, and various modifications were made to the document and the plans over the next several months, with the revised document ultimately being filed on June 16, 2008. The document was circulated to all Involved and Interested Agencies and made available online.

Joint Public Hearing dates on Draft SEIS and Site Plan

The Town of Cornwall Planning Board scheduled a joint SEQR hearing on the Draft Supplemental EIS and the Site Plan for Lot 10 on July 7, 2008, with a ten-day written comment period. The hearings were closed on July 7, 2008, and the Planning Board requested that a Final Supplemental Environmental Impact Statement be prepared in order to address the body of comments submitted.

FSEIS submission date and filing date

The applicant prepared and submitted copies of a Final Supplemental EIS on August 20, 2008. The Lead Agency considered the document, determined to make revisions, and resolved on November 3, 2008to file it on November 6, 2008. This document was filed and made available both electronically and via surface mail in the same manner as the SDEIS. The ten-day consideration period for the FSEIS expired ten days after the date of filing.

WHEREAS, the Lead Agency Town of Cornwall Planning Board has given due and thorough consideration to the Draft and Final Supplemental Environmental Impact Statements, the transcripts of the public hearing held on the DSEIS, all comments submitted by its professional consultants, all submitted plans and other information submitted by the applicant and its representatives, and all written and oral comments submitted by the public and other Involved and Interested agencies with regard to this application. The Lead Agency considered all of the above-mentioned information with regard to the potentially significant environmental impacts that may be expected from the overall project and reasonable alternatives thereto. These Findings show that the Lead Agency has considered and addressed the subject

areas where the overall plan may create potentially harmful environmental impacts, and has considered the plan's consistency with the original GEIS Findings, including but not limited to where those Findings stated that the matter would be implemented in the course of Site Plan review. Further, although the plans will require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

NOW THEREFORE BE IT DETERMINED that the Lead Agency finds that all requirements of NYCRR Part 617 have been met, and further makes the following findings:

1. Consistent with social, economic, and other essential considerations from among the reasonable alternatives thereto, the action to be carried out, funded or approved is one which minimizes or avoids adverse environmental effects to the maximum extent practicable, consistent with other applicable requirements of law.

2. Consistent with social, economic, and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact review process will be minimized or avoided by incorporating as conditions to the decision those mitigation measures that were identified as practicable, and as are outlined specifically in this document below and in the FSEIS]

Statement of Facts and Findings

Specific Environmental Conditions, Mitigations and Findings

A. Land Use and Zoning/Community Character

Land Use and Planning Issues Relating to the Subdivision Plan, the PAC and the Overall Project

The original Generic EIS prepared for Cornwall Commons subdivision plan had considered the effects of a commercial/industrial development of a proposed 5-lot subdivision and development of 1,000,000 square feet of mixed use industrial of PIO lands in Cornwall, plus the residential use of the R-3-zoned New Windsor lands for 69 single family lots in accordance with the existing zoning laws that had existed at that time for each municipality. That GEIS had also evaluated several alternatives, including one that involved a change to the Town of Cornwall Comprehensive Plan and zoning. Since the Cornwall Commons GEIS Findings were adopted in April 2003, the Town of Cornwall has adopted a new

Comprehensive Plan and implementing zoning regulations, and has also annexed and re-zoned the portion of the site that was formerly in New Windsor.

In this subject area, the 2003 Generic SEQR Findings had established three policies and procedures regarding the site use. None of these are relevant or applicable any more, given the change in events. The 2005 Cornwall Comprehensive Plan and the zoning provisions of 2005, along with the annexation, obviate the need for the level of intermunicipal site plan coordination that had been called for in 2003. While the Town of New Windsor is still an Interested Agency and will continue to receive all SEQR materials, the previous GEIS Findings in the area of land use and planning are no longer applicable. Any preliminary land use approvals that were previously granted for a residential subdivision within the former Town of New Windsor component of the site are no longer valid or applicable.

The applicant now seeks to use the property for a PAC (Planned Adult Community), consistent with the Town of Cornwall Comprehensive Plan and with the current zoning. The property has already received a preliminary subdivision approval, most recently in September, 2006 for a 10 lot subdivision intended to accommodate the PAC. The site was granted a PAC special permit from the Town of Cornwall Town Board on June 5, 2006.

The residential component of the PAC is proposed to contain a total of 490 units, of which 314 are to be single family detached dwellings, 14 are to be single family attached dwellings, and 162 are to be multiple dwellings arrayed in nine separate buildings. There is also proposed to be a clubhouse facility on the lot, an array of recreational facilities to provide for a portion of the residents' recreational needs, and on-site stormwater management facilities.

Allowable unit count and the prescribed mix of units is set forth in Section 158-21-X of the Cornwall Code. The maximum density of a PAC is 3 dwelling units per usable acre. On the entire project site there is a total of 197.716 acres, with a net acreage of 185.456 acres after subtracting the required deductions of 9.530 acres for regulated jurisdictional wetlands and 2.730 acres for existing easements. Accordingly, the maximum potential density is 556 units. However, the applicant has entered into a developer's agreement with the Town of Cornwall Town Board on April 11, 2005, specifying among other things that the total number of dwelling units on the site will not exceed 490. It should be noted that any acreage devoted to the commercial components of the PAC are not deducted from the net acreage, as clarified in the developer's agreement. Also in accordance with the developer's agreement, at the grant of site plan approval, the applicant will record a declaration of covenants and restrictions limiting the development of the remaining property – namely, the lands shown as lots 1 through 9 of the preliminary subdivision plat – to commercial uses, enforceable by the Town Board.

The Cornwall Code also requires a range of different housing types to be provided in a PAC, with detached single family units being not less than 30% and not more than 90% of the units, attached single family units being between zero percent and not more than 30% of the units, and multiple dwelling units being between zero

percent and not more than 30% of the units. In the case of the Cornwall Commons PAC site plan, the plans depict 314 single family detached units, 14 single family attached units, and 162 multiple dwelling units. A question had been raised as to what number of units the percentages should be calculated against, whether the maximum number of units allowed by the Code, or the total number of units provided? The Planning Board attorney confirmed[1] that the unit mix limitation should be calculated against the maximum allowable total unit count; and therefore the proposed unit mix complies with the Code restrictions and requirements.

In addition to the unit count falling within the Code requirements, the lot setback and perimeter buffer requirements of the Code are met by the site plan for lot 10.

Other elements of plan compliance with the Cornwall Code, relative to general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X, were considered, and where these elements relate to SEQR considerations, they are addressed separately in this document according to subject area.

Land Use Approval Being Sought – SEQRA Action

The applicant is seeking site plan approval for Lot 10 of this subdivision, containing 158.994 acres, which is proposed to be used for the residential components of the PAC. Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[2], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within the timeframe set forth in Section 158-19-D(5) of the Cornwall Code . The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Findings Statement.

The site plan incorporates some level of flexibility for the construction and siting of the structures, in recognition of the fact that there will be different housing types and designs offered within the project. However, the plans also incorporate overall limits to the impervious footprint of each unit, and the plans also provide for specific minimum separations and setbacks to be maintained among the units, in order to ensure both that the drainage facilities will be properly sized, that adequate light and air is provided to the buildings, and that adequate access to the buildings is provided.

- *For single family detached dwelling units:* The plans show minimum setbacks from the units and both the sidewalks and the edge of the proposed privately owned internal roadway on Lot 10. The units will have not less than a 25-foot setback from the sidewalk, and not less than 32 feet from the edge of the roadway. These minimum setbacks will ensure that a car can be parked within the driveway without encroaching on the sidewalk or the road.

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1 By memorandum dated March 28, 2008.

2 See Section 158-19-G

Single family detached units will not exceed a maximum of 45 feet in width nor 60 feet in length[3], with not less than 15 feet of side yard separating the structures. Rear yard separations shall not be less than 32 feet from one dwelling to another. Optional decks or patios not exceeding 10 feet in depth by 20 feet in width may be constructed within this 60-foot x 45-foot building envelope, and such decks if built, shall have at least 22 feet of separation from another dwelling. Driveways shall have a 15-foot wide curb opening, widening to 18 feet; and the sizing adequacy of the site's stormwater management facilities will be reviewed by the Town Engineer prior to final site plan approval.

- *For single family attached dwelling units*: The plans show minimum setbacks from the units and the edge of the proposed privately owned internal roadway on Lot 10. The units will have at least a 25-foot setback from the edge of the roadway; where sidewalks serving these units are not proposed to be located directly adjacent to the units. Single family attached units will not exceed a maximum of 30 feet in width nor 74 feet in length, and with every 30 foot unit width, there will be an offset or "jog" in the unit's front setback[4] of not less than 2 feet and not more than 5 feet. Rear yard separations shall not be less than 32 feet from one dwelling to another.
- *For multiple-dwelling units*: The plans show maximum footprints of 83 feet by 160 feet for the multiple dwelling unit structures, with 18 units per building and 18 indoor garage units, one of which is handicapped-accessible, contained in each building.[5] Accessory parking spaces will be provided directly adjacent to the buildings,

All other elements of the site plan, such as the clubhouse, will be built as shown on the plan. Overall, the plan elements appear to preliminarily comply with the Cornwall Code provisions in respect to both general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X. Although the plans may require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

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[3] Including any optional deck or patio, so that the total maximum impervious area per unit would not exceed the 60'x45' figure. The largest single family home will be constructed within the 60' x 45' building envelope depicted on the site plan, excluding cornices, roof overhangs, trim elements, and handicapped ramps.

[4] Including any optional deck or patio, so that the total maximum impervious area per unit would not exceed the 30'x74' figure. The impervious footprint within this envelope does not count cornices, roof overhangs, trim elements, and handicapped ramps.

[5] This calculation excludes cornices, roof overhangs and trim elements.

Mitigation Measures/Policies and Procedures:

A1. The previously adopted GEIS Lead Agency SEQR Findings A1-A3 from April, 2003 are no longer applicable due to changes in circumstance. The 2005 Cornwall Comprehensive Plan and the zoning provisions of 2005, along with the annexation, obviate the need for the level of inter-municipal site plan coordination that had been called for in the 2003 Generic Lead Agency SEQR Findings A1-A3. The site is now wholly contained within the Town of Cornwall, and the zoning is now consistent throughout the site. The Town of New Windsor is now an Interested Agency that will continue to receive all SEQR documents and notices.

A2. In the case of the Cornwall Commons PAC site plan, the plans depict a total of 490 units of which 314 are single family detached units, 14 are single family attached units, and 162 are multiple dwelling units. The Planning Board attorney confirmed that the unit mix limitation should be calculated against the maximum allowable total unit count; and therefore the proposed unit mix complies with the Code restrictions and requirements.

A3. The residential unit count of 490 that is proposed on the site plan is less than the maximum number of units allowed in the PAC pursuant to the zoning code. However, the applicant has entered into a developer's agreement with the Town of Cornwall Town Board on April 11, 2005, specifying among other things that the total number of dwelling units on the site will not exceed 490. In accordance with that developer's agreement, at the grant of site plan approval, the applicant will record a declaration of covenants and restrictions limiting the development of the remaining property – namely, the lands shown as lots 1 through 9 of the preliminary subdivision plat – to commercial uses, with this restriction being enforceable by the Town Board. The aforementioned commercial lots will require site plan review and approval by the Planning Board, and also a consistency determination for the GEIS Findings and this Supplemental Findings Statement.

A4. The PAC use on this site is consistent with surrounding land uses, with the current zoning, and the current Town and County plans, and the setback areas required under the PAC zoning requirements have been provided on the plans. The site plan has been referred to the Orange County Planning Department (OCPD) for mandatory review pursuant to Section 239 of General Municipal Law, but the OCPD's report on the special use permit authorizing the use specifically commented on the suitability of the use in this County-mapped Priority Growth area.

A5. The action that is currently before the Planning Board is the application for site plan approval for Lot 10 of the Cornwall Commons

subdivision, containing 158.994 acres, which is proposed to be used for the residential components of the PAC. Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[6], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within 90 days, pursuant to Section 158-19-D(5) of the Cornwall Code. The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Findings Statement. Overall, the plan elements appear to preliminarily comply with the Cornwall Code provisions in respect to both general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X. Although the plans may require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

The site plan approval that will be acted on by the Planning Board will incorporate some level of flexibility for the construction and siting of the single family residential structures, in recognition of the fact that there will be different housing types and designs offered within the project. However, there are overall limits to the unit sizes/impervious areas, and specific building separations and setbacks are maintained, in order ensure that the drainage facilities will be properly sized, that adequate light and air is provided to the buildings, and that adequate access to the buildings is provided. The specific limits applying to the lot 10 site plan are described above in the bulleted text of this section of these Findings. Other elements of the site plan, such as the clubhouse, will be built as shown on the plan

B. Soils and Topography

As noted in the Generic EIS, the site is a gently rolling property that drops in overall grade towards the north. The highest elevation is a knoll on the western portion of the property at approximately 240 feet above mean sea level; the lowest point is 142 feet on the north side near the bounds of the former railroad ROW. At least 80% of the site is sloped at 10% or less. The rail ROW lies in a steep-sided cut below the rest of the property. None of the former rail ROW is located within the bounds of the site.

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[6] See Section 158-19-G

The GEIS had reported that site soils are primarily deep, moderately well-drained Mardin gravelly silt loams at 3-8% slopes, but with substantial areas of somewhat poorly drained Erie gravelly silt loam in the northern part of the site, and Bath-Nassau shaly silt loam at 3-8% slopes in the front of the site adjacent to Route 9W. The soils have a fragipan, which is associated with a seasonal high water table.

Melick-Tully Associates (MTA) carried out soil testing in October, 2006 at several locations within the site, and reported the following:

- after following the recommended site preparation procedures, the test results indicated that buildings can be supported by conventional shallow foundations in either undisturbed extant soils, shale, or fill material
- shallow perched water seepage could be encountered seasonally, and therefore de-watering operations may need to be carried out during construction
- while basements are feasible throughout large parts of the site, the presence of bedrock and shallow perched water seepage will need to be considered in the planning and design

Erosion and slope failure was encountered on a steeply sloped area in the vicinity of the abandoned railroad ROW in the extreme northern portion of the site. The soils test report, which was included as an appendix to the SDEIS, did not extensively evaluate this slope failure, but it did indicate that the stability problem apparently initiated on the adjacent parcel, and that it might be possible for the unstable slopes to result in additional slope failures extending into the site. The report concluded that the project site planning would need to take into account "the configuration of the perimeter slopes, investigation of their stability, and final grades.[7]".

The GEIS had reported that the underlying bedrock was weathered, rippable shale, and did not anticipate that blasting would be needed in the course of site preparation. However, the MTA report in the SDEIS stated that the shale in the area is typically very sound below a thin fractured layer, and while large areas of excavation extending only a few feet below the bedrock surface could be removed with heavy construction equipment or hydraulic jackhammers, deeper excavations for foundations or utility installations in areas of sound bedrock may require blasting. Because there had been no grading plans developed for the entire site when the soils analysis was completed, MTA reported that it was not possible to determine whether blasting would be needed in the course of site preparation, and if so, to what extent. The study recommended that MTA review the plans to determine the amount of additional testing that would be needed throughout the site to further determine the impact of rock removal on site grading; though this has not been done. In any case, in the event that blasting is needed, the potential for off-site blasting impacts must be evaluated in the context of the relative isolation of the bulk of the project site from other surrounding existing development. The large size of

[7] Melick-Tully Associates report, 11/3/06, DSEIS Appendix C

the project site and its separation from existing development makes it unlikely that any developed offsite property would be significantly harmfully impacted by on-site blasting operations, if and where needed for the project road and lot 10. Further, any blasting operations would be conducted in accordance with NYS regulations which are designed to safeguard adjoining property owners.

MTA's report stated that soil material excavated from the site would likely consist of silty sands, sandy silts, or fractured shale material. Fractured shale would be suitable for use as fill, if properly processed. The silty sands and sandy silts are marginally suitable for use as controlled compacted fill, due to moisture content and compaction, but with aeration and drying this limitation can be overcome, and in such case the material could be used as fill or backfill around building and pavement areas.

The MTA report incorporated several specific recommended design and construction criteria for foundations, floor slabs, basements and pavement. These criteria are considered to be sound design and construction practices for site conditions, and would be the responsibility of the builder to implement during design and construction.

Notwithstanding the timing of the MTA report, grading plans for lot 10 including road profiles for the proposed looped town road access, and a cut and fill analysis were completed for the development of the Lot 10 site plan. The cut and fill analysis indicated that a surplus of approximately 36,800 cubic yards of material would be generated from the looped road grading and construction, with a shortfall of approximately 13,300 cubic yards of fill material for the construction of lot 10. This would result in a net surplus of approximately 23,500 cubic yards of material between the two components of the project. No grading plans have been developed for the remaining lots 1-9 of the subdivision. These lots would need to be evaluated at the time of site plan approval, specific to the uses proposed for each.

The grading plans limit the need for retaining walls, but the walls which are needed are shown on the site plan for lot 10, and most of them range from between 2 to not more than 4 feet in height. One wall ranges from 3 to 5 feet, and two others are up to 8 feet high in portions. The walls are proposed to be modular block construction. Split rail fencing or box beam railings, depending on the location of the walls, are shown on the plans for safety purposes where appropriate.

Erosion is a potential impact wherever land disturbance takes place. To mitigate this impact, erosion control measures are proposed. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared and will be implemented at the site in compliance with state regulations. The SWPPP addresses the needs not only of the site plan for lot 10, but also for the loop road and the maximum potential buildout of the 9 commercial lots. Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs have been pre-planned for.

Based on the limitations to impervious area set forth in the site plan and described more particularly in Section A of these Findings, the SWPPP provides adequately for the maximum amount of impervious area that could be constructed on the entire site.

Mitigation Measures/Policies and Procedures:

B1. Soils analysis showed that, with the incorporation of measures recommended in the Melick-Tully Associates soils report, the limitations imposed by the shallow perched groundwater conditions can be overcome and the soil materials onsite used for controlled compacted fill, and the site can accommodate conventional shallow foundations. Shallow bedrock in some areas of the site can be removed by ripping or hydraulic removal of the surface layer, though deeper excavations in areas of shallow bedrock may require blasting. In the event that blasting is needed, the operation would need to be conducted in compliance with existing state regulations. However, the relative isolation of the bulk of the project site from other surrounding existing development makes it unlikely that any developed offsite property would be significantly harmfully impacted by on-site blasting operations, if and where needed for the project road and lot 10.

If needed, any blasting would be conducted in compliance with New York State requirements [Title 12 of the New York Code of Rules and Regulations (12 NYCRR Part 39)]. Blasting would be conducted by licensed and insured blasting contractors. The minimum required amount of explosives would be used in all blasting operations. Pre-blasting inspections would be conducted of all off-site structures located within 500 feet of the excavation area, if authorized by the off-site property owner. The contractor would conduct test blasting and seismographic monitoring, if necessary, prior to any other blasting to determine appropriate on-site blasting techniques, when blasting is to occur within 500 feet of existing off-site structures. When conducting blasting within 500 feet of existing off-site structures, seismographic monitoring would continue throughout the periods of blasting at the site, and daily logs of seismographic data, explosive use and field conditions would be maintained.

B2. The cut and fill analysis indicated that a surplus of approximately 36,800 cubic yards of material would be generated from the looped road grading and construction, with a shortfall of approximately 13,300 cubic yards of fill material for the construction of lot 10. This would result in a net surplus of approximately 23,500 cubic yards of material between the two components of the project. No grading plans have been developed for the remaining lots 1-9 of the subdivision. These lots would need to be evaluated at the time of site plan approval.

Adequate area exists on the site to provide temporary stockpile areas pending its removal or re-use elsewhere within the overall site[8]. The Planning Board and the Town Engineer will review and approve a final Stormwater Pollution Prevention Plan (SWPPP) before acting upon final site plan approval.

B3. Erosion, siltation and other stormwater pollution impacts will be mitigated by implementing the Stormwater Pollution Prevention Plan (SWPPP) prepared for the site in compliance with state regulations. The SWPPP addresses the needs for the maximum potential buildout of the entire site, including all ten lots and the roadway. Based on the limitations to impervious area set forth in the site plan and described more particularly in Section A of these Findings, the SWPPP provides adequately for the maximum amount of impervious area that could be constructed on the entire site.

Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs will be provided by way of this site plan's SWPPP.

B.4. Grading, cutting and filling shall be limited only to those areas specified for development and will be completed in as short a time as practical in order to reduce the potential for slope and topographic alterations due to erosion. Site disturbance will need to comply with the DEC SPDES General Permit requirement limiting site disturbance to no more than 5 acres at a time pursuant to the DEC SPDES General Permit. If the applicant seeks to waive this five-acre limitation, as is often done for large projects such as Cornwall Commons in order to correctly install the necessary utilities while limiting soil disturbance, it will need to comply with more stringent DEC requirements and receive DEC approval for the same. See also Finding D-7 of this Environmental Findings Statement for related consideration.

C. Water Resources (includes Wetlands)

Most of the site drains to the northwest by way of a series of small undefined streams and sheet surface water flow towards the Moodna Creek. A portion of the site drains eastward, towards a small stream known as the Funny Child Creek, a tributary of the Moodna Creek located just east of Route 9W. Both creeks are designated class "C" streams, and both streams are located offsite.

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[8] such stockpiling must be fully evaluated in the SWPPP and be otherwise consistent with these Findings.

Consistent with current requirements, stormwater runoff from developed areas of the site will be directed to stormwater management basins to address water quality concerns, and the rates of runoff off the site will be moderated so as not to exceed pre-construction conditions. This will avoid creating or exacerbating any off-site drainage or flooding impacts as a result of the increase in impervious area and changes to existing on-site drainage patterns. There are no floodplain areas located on the site.

Due to the originally issued federal wetland Jurisdictional Determination having expired, supplemental study was performed on the site's wetland resources, and additional areas were flagged in the field and discussed in the SDEIS updating the information set forth in the original GEIS. A total of six wetland areas, none of which were New York State jurisdictional wetlands, and two of which were determined to be "isolated" wetlands and thereby ineligible for federal regulation at this time, were determined to be on the site. This updated information revises and replaces the wetland descriptions set forth in the Cornwall Commons GEIS, and a new Jurisdictional Determination was issued December 19, 2007:

- Wetland "A" is a narrow, elongated body that is 3.91 acres in size that incorporates a poorly defined drainage way emptying into a culvert under Rt. 9W, draining to the southeast. It is a red-maple wooded wetland originating on the site. This wetland is located southwest of and parallel to the proposed looped town access road into the site.
- Wetland "B" is 1.401 acres in size and is located in the extreme western part of the site in the vicinity of existing residential development located offsite on Schofield Lane and Howard Street. This wetland lies west of the NYC Aqueduct easement. This area is fed by drainage from both on and off the site, including drainage from the two town roads, and drains offsite to the north.
- Wetland "C" is a 3.59-acre shallow, isolated, non-jurisdictional wetland, containing red maple, swamp white oak, spicebush and tussock sedge and surrounded by mixed hardwood forest upland. This wetland contains vernal pools, and spotted salamander eggs were found within these pools. Despite its large size, it is non-jurisdictional as it has no outlet. It originates on and is wholly contained within the site, at the center of the site.
- Wetland "D" is a 3.698-acre wooded wetland located at the southwest portion of the site, behind existing offsite residential properties at the end of Frost Lane, and tapering off to the east in an undefined, long narrow drainage course towards the Willow Woods/Stone Hollow subdivision. This wetland is dominated by swamp white oak, and was found to contain spotted salamander eggs and wood frog tadpoles. As reported in the DGEIS from studies performed in early spring of 2002, weak stellate sedge (Carex seorsa), which is listed as a threatened species by New York State, was found on the site only at the border of Wetland D.

- Wetland "E" is just over a half-acre in size (0.518 acres). It is located in small depression and flows offsite to the west, towards the former railroad ROW and thence toward the Moodna Creek. It too was found to contain spotted salamander eggs and wood frog tadpoles.
- Wetland "F" is an elongated wooded wetland that is 1.021 acres in size, located northwest of Wetland D. This is an isolated, non-jurisdictional wetland.

Wetlands C and F are both isolated. The regulatory status of Wetland C was much debated after the filing of the original GDEIS, and the Army Corps of Engineers (ACOE) conducted a second field visit in 2003 in order to determine if a hydrologic connection to navigable waters existed for Wetland C. ACOE found that there was no permanent outfall for Wetland C, and that accordingly it was a non-jurisdictional wetland and not subject to federal regulation.

All of the wetlands on the Cornwall Commons property are located on Lot 10, so that no other activities on proposed lots 1-9 would be expected to affect onsite wetlands either directly or indirectly. And as discussed in Section B of these Findings, the SWPPP addresses the needs for the maximum potential buildout of the entire site, including all ten lots and the roadway.

The environmental review of wetland impacts focused on both direct and indirect potential impacts that may harm the wetlands and disrupt their function. *Direct impacts* result from direct disturbance to a wetland, such as grading or placing fill in the wetland. *Indirect impacts* result from other disturbances, such as allowing pollutants to drain into a wetland and to disrupt its functions, or from disrupting a wetland's hydrologic regime.

Direct impacts to on-site wetlands:

- Wetland "A": A stormwater management basin is proposed to be located on an upland area lying southwest of Wetland A. In order to obtain access to the upland area to construct and maintain that basin, there will be minor temporary and permanent disturbances to Wetland A, with a permanent disturbance of 0.004 acres in order to install an arched culvert for an access way, and 0.014 acres of temporary disturbance for the placement of a drainage culvert conveying drainage from the roadway into the basin. The arched culvert is an open bottomed culvert that minimizes direct disturbance to the wetland. The wetland crossing and the pipe placement is proposed for the narrowest part of the wetland, consistent with grades and safe access.

  Consistent with the GEIS mitigation measures, the edge of the grading needed for the stormwater basin is shown 25 feet away from the western bounds of stream course within Wetland A. On the east side, all grading activities associated with the southern leg of the main access road will be separated by not less than 25 feet from the stream course within Wetland A.

This disturbance is minor. Erosion control measures are incorporated in the plan. This disturbance cannot reasonably be avoided because of topography and the inability to access the site directly from Rt. 9W for maintenance purposes.

- Wetland "B": this wetland is not proposed to be directly disturbed.
- Wetland "C": 0.255 acres of direct disturbance is proposed for non-jurisdictional Wetland C. The disturbance is at the southern edges of the wetland and relate to the internal access road construction and grading, as well as drainage connections under the proposed road. An amphibian crossing culvert is proposed to connect Wetland C with upland areas on the south side of proposed road B.
- Wetland "D": no direct disturbance is proposed for this wetland, though some limited grading is proposed close to the northwestern portion of the wetland. The stream at the easternmost portion of the wetland is protected by a 25 foot setback where the stream is present in defined form.
- Wetland "E": 0.006 acres of direct disturbance is proposed at the edge of the wetland, relating to the construction of Road D serving the single family detached units.
- Wetland "F": 0.844 acres of direct disturbance is proposed for non-jurisdictional wetland F. This wetland will be eliminated. Its northwesternmost portion will be incorporated into part of a stormwater management basin, part will be disturbed by the construction of Road D serving the single family detached units, and part will be disturbed by residential units 69 and 70, 89 and 90.

Indirect impacts to on-site wetlands:

Changes to the hydraulic regime of wetlands, significantly altering when the wetland is wet, can affect the health, function and even the very existence of a wetland. Accordingly, consistent with GEIS Finding C-4, the Planning Board required an evaluation of the pre- and post-development drainage into the wetlands, in order to determine compliance with the requirement that the stormwater plan be designed to, in addition to treating water quality, maintain tributary sources of stormwater runoff into the relevant fresh water wetlands in order to maintain their viability.

Pre- and Post-Development Differences in Wetland Inflows (Volume)						
Wetland Area	**Rainfall Peak Flow (cfs)**			**Rainfall Volume (acre-feet)**		
	1-year	**10-year**	**100 year**	**1-year**	**10-year**	**100 year**

Wetland A	-7.23	-29.25	-26.95	-0.058	1.582	3.339
Wetland B	0.00	0.00	0.00	0.00	0.00	0.00
Wetland C (non-jurisdictional)	3.4	2.88	0.43	-0.004	-0.461	-1.052
Wetland D	1.52	1.78	1.21	0.115	0.154	0.131
Wetland E	-5.27	-0.94	13.21	-0.290	1.308	2.725
Wetland F (non-jurisdictional)	-4.16	-14.22	-24.16	-.500	-1.597	-2.714

Pre- and Post-Development Differences in Wetland Inflows (Percent)

Wetland Area	Rainfall Peak Flow (percent)			Rainfall Volume (percent)		
	1-year	10-year	100 year	1-year	10-year	100 year
Wetland A	-55.8%	-53.5%	-27.5%	-3.9%	28.7%	34.7%
Wetland B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wetland C (non-jurisdictional)	57.0%	11.5%	1.0%	-0.6%	-17.4%	-22.4%
Wetland D	20.4%	6.0%	2.3%	14.4%	5.4%	2.6%
Wetland E	-91.8%	4.1%	32.3%	-37.5%	47.6%	56.3%
Wetland F (non-jurisdictional)	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%

Constructing the site plan for Cornwall Commons will alter existing drainage patterns within the site, and will alter the volume and rate of water flowing into most of the wetlands on the site. Water inflows to Wetland B are not being changed at all. Wetland F will be eliminated and no water will be directed to the small portion of Wetland F that is not being filled, graded or otherwise disturbed. However, Wetland F is non-jurisdictional, is not used for amphibian breeding purposes, and contains no plant species of concern, so this would not constitute a significant harmful impact.

Wetland A will see a drainage volume increase in all storm events other than the 1-year storm, as the runoff from an additional 9.8 acres of land area will be directed into Wetland A. However, the peak flow rates will decrease, due to the detention provided by two stormwater ponds (designated as ponds C and E), and water quality protection is provided by these stormwater ponds.

Based on the study completed in the GEIS, Wetlands C, D and E were of greatest interest, due to their amphibian breeding functions, and presence of a plant species of concern. Drainage to these wetlands is affected as follows:

- The drainage area of Wetland C is proposed to decrease by 4.54 acres. This change will decrease the runoff volumes into the wetland under all storm

events, ranging from a slight 0.6% decrease in the annual storm, to 17.4% in the ten-year storm, and 22.4% in the 100-year storm. Peak flow rates into the wetland will increase in most storm events, particularly in the one-year storm at 57%, but only 11.5% in the 10-year storm, and only 1% in the 100-year storm. This decrease in total runoff is less under the plan with the 28-foot roads than with the proposed 24-foot roads, though the rate of increase in the runoff in the one- and ten-year storms is higher. However, the increased peak flow rates to the wetland would not be expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.

- The drainage area of Wetland D is proposed to decrease very slightly, by only 0.65 acre. Notwithstanding, due to the increase in impervious areas, the wetland will experience small to moderate increases in runoff volumes in all storm events, and increases to peak flow rates in all storm events, with the highest (20.4%) in the 1-year storm and small to moderate increases in the 10- and 100-year storms. However, any increases to peak flow rates to the wetland would not expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.
- The drainage area of Wetland E is proposed to increase by 6.66 acres. Notwithstanding this change, the volume of runoff is projected to decrease by 37.5% in the one-year storm event, though it would increase by 47.6% in the 10-year storm and 56.3% in the 100-year storm. Detention provided by stormwater pond D, which discharges toward Wetland E, substantially decreases peak flow rates into the wetland in the more frequent storm events, decreasing by fully 91.8% in the one-year storm and decreasing by 4.1% in the 10-year storm, but in the 100-year storm there would be a 32.3% increase in peak flow rates. However, any increases to peak flow rates to the wetland would not expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.

Mitigation Measures/Policies and Procedures:

C1. Wetland boundaries on the site were re-visited since the completion of the original GEIS, as the original federal wetland Jurisdictional Determination had expired. Additional wetland areas were identified and are shown on the plans, and a revised Jurisdictional Determination has been issued.

C2. A site-specific grading plan has been developed for Lot 10, and a drainage plan for the entire site has been developed. A Stormwater Pollution Prevention Plan (SWPPP) was prepared as part of the DSEIS and provides for the maximum potential buildout of the entire site, including all ten lots and the roadway. This action is consistent

with the GEIS Finding C-1. Stormwater management and water quality protection is provided for using a range of Best Management Practices set forth in NYS DEC's Stormwater Management Design Manual.

Site plan reviews for lots 1-9 will ensure that the overall site drainage plan is complied with. Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs have been pre-planned for. Such determination will not preclude commercial lot site plans from incorporating additional stormwater quality treatment measures.

C3. GEIS Finding C3 stated that the site plans would avoid any disturbance of the federally protected wetland to the maximum extent practicable. It also stated that the Planning Board would encourage the preservation of protected buffer areas of at least 25 feet on both sides of on-site stream corridors and the jurisdictional wetlands.

The site-specific plans comply with this Finding as follows: the plans avoid all but a limited amount of direct disturbance to both jurisdictional and non-jurisdictional wetlands onsite. One of the six wetlands on the site will be completely eliminated, and that is wetland F, which is a small non-jurisdictional wetland. The plans do incorporate 25-foot protected buffer areas from the defined streams within the wetlands.

Not all portions of the protected wetland boundaries are protected from physical disturbance by 25-foot buffers[9]. In the case of wetland D, there are some areas where grading or other disturbance is proposed to take place close to the wetland boundary (such as some pavement area near condo 6, or grading near single family unit 93 and Road G. In the case of Wetland A, pavement disturbance near condo 9 and grading for stormwater management pond E will be within 25 feet of the wetland. And some of the recreational structures and facilities (pool, base of the terrace wall) will be located within 25 feet of the bounds of non-jurisdictional Wetland C.

Specific mitigation measures are proposed and will be followed where construction will take place near to Wetlands A, C, D, and E: prior to any clearing, grading or construction, a four-foot construction barrier fence and silt fence will be installed between the wetland and at the limits of disturbance. These same mitigation measures will be

[9] Of course, this is in addition to the areas where *direct* disturbance is already proposed, as listed in this section.

employed to protect upland areas of undisturbed woodland that are proposed to remain.

Any stormwater runoff that will be released near both wetlands and woodlands will pass through features such as rip-rapped outfalls, level spreaders, grassed swales, or gravel diaphragms, designed to dissipate energy, avoid erosion or scouring, and protect the quality of the discharge. All disturbed areas will be re-planted in native grasses, and near the wetlands, native shrubs and trees will be planted to help restore the native upland habitat.

Additional findings in relation to the wetland impacts are found in Section D of this Findings Statement.

C4. GEIS Finding C4 stated that the stormwater that will enter into any of the federally protected jurisdictional fresh water wetlands, during and after construction, will be routed through water quality features to remove contaminants as required by the NYSDEC. This finding also noted that the stormwater plan will also be designed to maintain tributary sources of stormwater runoff into the relevant fresh water wetlands in order to maintain their viability. The site plan was extensively revised in order to fulfill this requirement, to the greatest extent practicable consistent with the use of the site.

C5. All stormwater facilities require a level of routine inspection and periodic maintenance in order to continue functioning as intended. In order to provide for this maintenance there must be a responsible party. In the case of the Cornwall Commons PAC, a homeowners association (HOA) will be responsible for inspecting and maintaining all of the facilities, and any routine cleaning of sediment or repair. This work will be done in accordance the checklist incorporated in Appendix H of the SWPPP.

D. Ecology

The DGEIS incorporated a description of site vegetation and habitat. The northern third of the site is a nearly impenetrable thicket of non-native invasive species such as black locust, multiflora rose, buckthorn, winged euonymus, greenbriars, and Asiatic bittersweet. The former industrial land near the old railroad ROW at the northern part of the site has been highly disturbed by cuts, drains, and other man-made disturbances. Many decades ago, the southern two-thirds of the site was once used as pastureland. This portion of the site has since grown over into a mixed red and white oak upland forest, containing red maple swamps in the low areas, and abundant hemlock growth in the more mesic areas. The GEIS had reported that the formerly pastured portion of the site contains some older oaks in

the open-grown "cabbage" form, and recommended that these trees should be preserved where possible in a sensitive landscape design.

The DGEIS had expressed a policy that the project plans would minimize clearing of woodland areas to the minimum extent necessary for development of the project, in order to retain as much habitat as possible for the woodland bird species such as the wood thrush and ovenbird. The Planning Board required changes to the proposed plan in order to achieve compliance with this policy. The current plans retain most of the wooded wetland areas intact, and additional wooded areas are retained contiguous to these wooded wetlands, thus increasing the habitat value in the maturely forested areas of the site. In addition, a wooded strip of land is being retained at the northwestern boundary of the site. In its current form, the plan retains a total of 52.8 acres of undisturbed wooded land at the site; however, it must also be noted that the acreage of undisturbed wooded land is not unbroken, but will exist in various sizes and shapes of stands of not less than 3.5 acres in size. The plans incorporate a Naturalistic Planting Plan as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas along edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

The DGEIS had contained a detailed inventory of species using the site, and reported consistent with the vegetation on the site that the degraded scrub area in the northwest portion of the site contains common catbirds, crows, robins, blue jays, and the like, while the more mature forested southern two-thirds of the site contained wood thrushes, veerys, black-capped chickadees, turkey, ovenbirds, red-eyed vireos, tufted titmouse, and a pair of red-tailed hawks. Some of the listed species such as wood thrush and ovenbird are typically associated with large tracts of mature forest and are considered sensitive to forest fragmentation; however, in some areas of its range, the wood thrust can be tolerant of disturbance, and more information is needed on its life cycle. The wood thrush is vulnerable to deforestation in its Central American wintering habitat, and is also sensitive to acid rain deposition, and our area of the northeast United States is subject to high acid deposition due to Midwestern power plant emissions. Predator exposure to raccoons, squirrels, etc., and nest predation by cowbirds can affect forest-dwelling bird species. Higher degrees of nesting success were associated with greater densities of trees, greater degrees of canopy closure, higher density of shrubs, and taller shrub height, and cool forest conditions with leaf litter remaining on the forest floor are important.

Pursuant to the GEIS Findings, the SDEIS had located seven cabbage oaks on the site within or near the areas proposed for disturbance. The SDEIS also evaluated the health and condition of these trees. Only one of the seven trees was determined to be free of any visible rot or decay, and several of the trees were in poor condition with extensive rot or decay. The single rot-free specimen oak (a 38" white oak) is actually located outside the boundaries of Lot 10, in the north side of commercial lot 2 near the intersection of two stone walls. No site development plan has been prepared for this lot, so it is not clear whether its development, or the eventual provision of access to the NYMA property, might result in its disturbance.

This would need to be evaluated in the future, at the time of site plan review for any use of Lot 2. There is a second 48" white oak north of Wetland A that is not within a disturbance area and would be preserved, though any dangerous dead branches should be removed.

At the Planning Board's request, the SDEIS incorporated additional analysis in order to help evaluate the Lot 10 plan and the forested areas to remain. Because these forested areas, particularly in the southwestern two-thirds of the site, contain tracts of contiguous mature forest where multiple trees over 8 inches in diameter as measured three feet above the base of the trunk (DBH), the trees could not be considered to be "isolated" and therefore it would have been futile and unnecessary to map each individual tree over 8 inches DBH, particularly given the nature of the site plan that necessarily involved the disturbance of extensive areas of Lot 10. The SDEIS evaluates the forest areas to remain, and makes recommendations that there be some pruning of trees to remove dangerous dead branches and to remove the invasive vines from the trees in the woodland to remain to enhance the viability of the trees to remain. In addition, a Naturalistic Planting Plan is proposed to be incorporated as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas other edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

In the context of the several large wooded areas to remain, including some that incorporate populations of large, healthy red and white oak, chestnut oak, red maple, black cherry and American beech over 8 inches DBH, the Planning Board concludes that removal or disturbance of five out of the seven "cabbage oaks" discussed in the GEIS and identified on the Lot 10 site plan, would not constitute a significant harmful impact. One oak is located on a commercial lot and will be evaluated at the time of specific site plan review.

The DSEIS incorporated additional site-specific investigation, evaluating the site for habitat suitability and the potential presence of two endangered species, the Indiana Bat (seeking the presence of summer roosts and maternal colonies) and the Bog Turtle. The site did not contain suitable Bog Turtle habitat, nor was it considered likely to contain potential Indiana Bat habitat; but to avoid possible direct impacts to individual Indiana Bats, the DSEIS indicated that clearing and tree removal activities will take place between October 1 and March 30.

As evaluated in the GEIS and updated in the SDEIS, some of the wetlands on the site, both federal jurisdictional wetlands or isolated wetlands, are used for amphibian breeding purposes. The GDEIS had indicated that non-jurisdictional Wetland C was used by spotted salamanders, a type of mole salamander, and the FGEIS had expanded this report to include vernal pools within Wetlands jurisdictional D and E being used for this purpose and also for wood frog reproduction. Mole salamanders are terrestrial and burrow under leaf litter, rocks or locks in wooded areas, burrowing tunnels underground or making use of tunnels excavated by small mammals. They commonly breed in woodland vernal pools. The salamanders observed on the site were listed as species of special concern in

New York State. The GEIS Findings indicated that Wetlands C and D would be undisturbed, thereby protecting a significant amount of habitat would be protected, along with an undisturbed stream corridor buffer of up to 25 feet on either side of surface streams on the site. The GEIS Findings further offered to incorporate consideration for suitable passage under roadways for amphibians in consultation with the appropriate specialists at DEC; and the site plan for Lot 10 does incorporate two amphibian crossings comparable to those incorporated in other projects. The site-specific plan considered in the SDEIS protects the following:

- virtually all of Wetland C except for 0.255 acres at the wetland edge, and also protects additional acres of upland woodland adjacent to Wetland C to the east, west, and north
- all of Wetland D and additional upland woodland adjoining to the south, east and west
- virtually all of Wetland E except for 0.006 acres at the easternmost edge of the wetland, and also protects additional woodland adjoining to the northeast and southwest of the wetland along the property line.

The Planning Board concludes based on the available information, that there will be some harmful impacts on existing flora and fauna resulting from the direct habitat destruction that would enable the use of the site in accordance with the zoning, but these impacts are largely unavoidable. These impacts have been avoided and mitigated to the maximum extent practicable by the layout of the plan, which balances the mix of uses on Lot 10 and their need for safe access and for safe separation, with the preservation of virtually all of the site's wooded wetlands and some additional nearby woodland areas, along with incorporating naturalistic tree and shrub plantings that will help to re-establish and preserve the woodland habitat. The plan not only retains patches of undisturbed woodland in the site, including some upland woodland adjacent to non-jurisdictional Wetland C that may be suitable habitat for the mole salamanders such as the spotted salamander identified as breeding at the site. Amphibian crossings and mountable curbing are provided under road B in the vicinity of Wetland C for the passage of amphibians, in an effort to reduce auto-related mortalities. (Wetlands and drainage impacts to the wetlands are also described in Section C of this document.)

The GEIS had reported no species of flora or fauna listed as "endangered" either federally or in New York State were reported to be present on the site, nor were such species found on the site, nor suitable habitat for the same documented to be present. Special investigation had been undertaken to search for the presence of a rare plant species, the weak stellate sedge, (Carex seorsa), a wetland edge species which is listed as a threatened species in New York State, and according to the State Botanist is fairly common in the region around Cornwall. The DGEIS had reported that this sedge might soon be removed from its status on the threatened species list, though at the time of the Supplemental EIS it was still present on current threatened species listings in the state of New York. The FGEIS had indicated the sedge was prevalent in Wetlands C, D, and E. The plans evaluated in

the SEIS preserve these wetlands with minimal direct disturbance, or in the case of Wetland D, no direct disturbance to the wetland itself, will help to avoid direct impacts on the sedge, retention of adjoining woodlands where possible, and the stormwater drainage flows that sustain the wetland hydrology are being preserved to the maximum extent practical.

None of the site directly adjoins the Moodna Creek, and the site is well set back and above any critical tidal estuaries. Therefore, no such species as would be found in estuarine habitats, including any endangered species, would occur on the site. The water quality of stormwater exiting the site is processed to prevent both significant harmful water quality impacts and to avoid harmful increases in the rate of runoff.

These findings demonstrate compliance with the GEIS Findings, and therefore confirm no significant harmful impacts on threatened or endangered species.

Mitigation Measures/Policies and Procedures:

D1. GEIS Finding D-1 had stated that the older "cabbage" oaks should be preserved where possible in a sensitive landscape design, and that the Planning Board was to require detailed site plans locating and preserving such trees in a natural landscape design wherever possible. Furthermore, the Planning Board was to discourage the fragmentation of the maturely wooded land in the course of detailed site plan review, to the extent that the zoning and site-specific proposed use(s) would allow. In addition, GEIS Finding D-1 stated that the Planning Board shall encourage protection of the wetland areas in its detailed site plan review, including the protection of adjoining upland areas important to amphibian use to the extent that the zoning and site-specific proposed use(s) allow. [Plans shall provide for] protection of an undisturbed stream corridor buffer of up to 25 feet on either side of surface streams on the site.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with GEIS Finding D1. Substantial areas of maturely wooded land on the site, including virtually all of the jurisdictional and non-jurisdictional wooded wetlands on the site except for non-jurisdictional Wetland F, have been identified and are being retained with adjoining upland woodland areas, and amphibian crossings and curbing are provided on Road B. The actual condition of the cabbage oaks has been evaluated, and the five out of seven that are proposed to be removed by these plans are in poor health. The plans incorporate a Naturalistic Planting Plan as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas along edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

D2. GEIS Finding D-2 had stated that any site grading and earth operations that are needed to develop access to the subdivision shall be in a manner than recognizes the intent to protect existing vegetation and wildlife habitat, and that prior to any clearing or grading taking place, snow fencing or other flagging shall be used to cordon off the limits of disturbance, with minor adjustments to the roadway to be encouraged where the same could result in the preservation of specimen trees without creating any safety hazards or non-compliance with municipal road standards.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with GEIS Finding D2. The plans provide for installing silt fence and four-foot construction fencing at the edge of disturbance areas, prior to any grading or clearing taking place. The GEIS reference to "specimen trees" is referencing the cabbage oaks discussed in Finding D1 above. The woodlands occupying the southern two-thirds of the site contain many trees over 8 inches DBH, which is why the Planning Board only focused on the "cabbage oaks" as isolated trees requiring identification pursuant to the site plan requirements of the Cornwall Code. The actual condition of the cabbage oaks has been evaluated, and the five out of seven that are proposed to be removed by these plans are in poor health.

The 38" DBH white oak that is located on the commercial lot will be evaluated at the time of site plan for the lot in question.

D3. GEIS Finding D-3 had stated that site specific landscaping plans for all development in the Town of Cornwall will require the preferential use of native, non-invasive species in order to help protect the biological integrity of the remaining lands. These plans show compliance with that Finding, both with the typical lot landscaping plans and the restoration and supplemental plantings.

Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[10], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within 90 days pursuant to Section 158-19-D(5) of the Cornwall Code. The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Environmental Findings Statement. Prior to finalizing site plan approval, the Planning Board and its consultants will review the Naturalistic Planting Plan to ensure that the final choice of plantings is suitable. This plan provides for minor site specific adjustments of

[10] See Section 158-19-G

individual units in the field, in order to retain individual healthy trees where appropriate.

D4. GEIS Finding D-4 had stated that the weak stellate sedge, currently listed as threatened in New York State, was prevalent in Wetlands C, D and E, and its presence would be considered in leaving federal wetlands "A", "C" and "D" substantially undisturbed. This Finding went on to state that stormwater detention plans will be designed to keep surface water flow near pre-development levels to protect the viability of the weak stellate sedge which may be present in these areas. Any other threatened sedges which may exist in and directly adjacent to such wetlands would, if present, be similarly protected to the maximum extent practicable by such measures.

The site plan for Lot 10 shows compliance with this Finding.

D5. GEIS Finding D-5 had stated with regard to protection of habitat for spotted salamanders, which are listed as species of special concern in NY State, that the FGEIS had proposed no disturbance to Wetlands C and D and offered stream corridor buffers of 25 feet, thereby protecting a significant amount of habitat, and the FGEIS further offered to incorporate consideration for suitable passage under roadways for amphibians in consultation with the appropriate specialists at DEC. The Finding had indicated that the Planning Board would facilitate input by DEC specialists in the drainage, utility and road design for the crossing to the maximum extent practicable, prior to any construction of roadways.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with this GEIS Finding. Wetlands C, D and E were found to be used for spotted salamander breeding. These wetlands are retained virtually in their entirety on the site, including Wetland C which is non-jurisdictional. Roughly a quarter acre of disturbance at the southern edge of Wetland C is proposed, and additional upland woodland areas adjoining this wetland are also being preserved. Two amphibian crossings designed consistent with those provided on other projects are being provided under Road B in the vicinity of Wetland C. Wetland D is being retained undisturbed along with adjoining upland woodland areas, and Wetland E is being disturbed minimally (0.006 acre) and adjoining woodlands along the fringe of the property are being preserved. Stream corridor buffers are being preserved as shown on the plan, and stormwater that has been routed through water quality devices is being directed towards the wetlands (See Section C of these Findings).

D6. GEIS Finding D-6 had discussed the likelihood of site use disrupting drainage patterns on the site in a way that would cut off the surface

waters feeding non-jurisdictional Wetland C[11], and stated that because that non-jurisdictional wetland is not regulated by any other agency, and did not otherwise constitute a significant ecological resource nor endangered species habitat[12], the Planning Board understood that this wetland is subject to alteration, and that such alteration would not constitute a significant harmful environmental impact.

The SEIS and site plan for Lot 10 and the entire site drainage plan substantially improves the situation for non-jurisdictional Wetland C over the impact that had been projected in the GEIS Finding D-6. While a small amount of direct disturbance, roughly a quarter of an acre of filling from Road B, is proposed at the southern and southwestern edge of Wetland C, roughly 75% of the existing drainage volumes into the wetland are being retained, with attention to flow rates and water quality of the runoff.

D7. The DSEIS had indicated that, in order to avoid possible direct impacts to individual Indiana Bats and their habitat, clearing and tree removal activities at the site will take place between October 1 and March 30. This limitation is part of an ACOE Nationwide Permit limitation and applies to the entire site.

D8. The DSEIS had indicated that, in woodland areas to be preserved, invasive vines would be removed from the trees to enhance the viability of the trees to remain, and dead tree limbs would be pruned where they posed a hazard. This work will be implemented in sections as the site plan is constructed.

D9. Coordination with DEC shall take place in regard to the details of the proposed amphibian crossing, which shall employ open-bottomed culverts unless otherwise specified at DEC's request, prior to the actual grant of site plan approval.

E. Traffic & Transportation

A traffic study had been completed for the GEIS and the uses that were allowed on the site at that time[13], along with alternatives. That traffic study determined traffic counts for studied intersections, projected site-generated traffic volumes that were

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11 Wetland C was mistakenly referenced as Wetland E in the GEIS Findings D-6, in a scrivener's error. Wetland C is the large, non-jurisdictional wetland that is of interest because of its habitat functions, in conjunction with adjacent woodlands. Wetland E is a jurisdictional wetland.

12 Notwithstanding its habitat role for the mole salamander species of concern and the presence of threatened vegetation *Carex seorsa*

13 At that time, the project included 69 residential lots in the then-New Windsor portion as-of-right, and one million square feet of light industrial space for the Town of Cornwall as-of-right project.

assigned to the roadway network, and determined operating Levels of Service (LOS) determined for then-existing conditions[14], and to Year 2003 and Year 2005 conditions both without the project being built. The site is to be accessed via a looped road, with two connections to NYS Route 9W.

The following intersections were evaluated:

1. Routes 9W and 218 (Academy Avenue) interchange *
2. Route 218 (Academy Avenue) and Main Street/Faculty Road
3. Route 9W and Caesar's Lane
4. Route 9W and Forge Hill Road
5. Willow Ave (CR 32) and Route 9W interchange
6. Route 9W and southerly site access road (consisting of one entering and two exiting lanes, and requiring the construction of separate left and right turn lanes onto Route 9W)
7. Route 9W and northerly site access road

As discussed in the GEIS, two different access scenarios to the site had been evaluated. Access Scenario 1 considered the construction of a right turn entry and right turn exit at the northerly and southerly sections of the site's road frontage on Route 9W. Under this scenario there would be no median break in 9W. Vehicles wanting access to or from the northbound lanes would need to use the existing Rt. 9W/218 interchange to access the opposite lanes on Route 9W. The DGEIS noted that this alternative relies on the need to develop a signage plan to direct traffic accordingly, with the authorization of NYSDOT. Alternate Access Scenario 2 considered the construction of a full-movement signalized intersection with Route 9W at the site's southerly access point, including the construction of separate right and left turn lanes on Route 9W. The GEIS discussed a variant to this Access Scenario 2 that would allow access to the NYMA property on the west side of 9W in association with the Route 218 interchange area reconstruction. Under this scenario it would be possible to create a road extension to Cornwall Commons with direct access to the Route 218 interchange, if a connection through the NYMA property were possible. Such a connection would make it possible for traffic to enter the site from the south and exit north without involving any left turns on Route 9W. No access scenario has been finalized yet, as of the date of these Supplemental Findings.

A Supplemental Traffic Study was completed to update the GEIS traffic study, based on current traffic counts[15], on the current zoning and mixed use PAC proposal, and on updated future traffic projections for projects such as Willow Woods (aka Stone Hollow), Winding Creek, and Chestnut Woods. The supplemental study used a future design year of 2010, though the study can

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14 Original traffic counts were conducted in the year 2000.

15 2005 and 2006; also included consideration of the recent signal installation and striping improvements at the Laurel Ave. intersection with 9W, and the recent signal installation and left turn lane striping at the Forge Hill Rd intersection with 9W.

account for a longer design period of up to 2015, depending on the construction and occupancy of other background projects. The peak AM traffic hour was identified to be 7:30 to 8:30 AM, while the PM peak hour was 4:30 to 5:30 PM. The Supplemental traffic study assumed the completion of certain long term safety and capacity improvements to the Route 9W corridor, such as the construction of acceleration/deceleration lanes at the Route 218 interchange, and road widening/lane additions in the area of the Forge Hill Road intersection. The supplemental traffic study evaluated operating Levels of Service (LOS) under future "Build" and "No-build" conditions for both access scenarios.

The current study indicated that operating levels of service (LOS) at the Forge Hill Road/9W intersection would fall from "D" to "E" for the northbound movement during the PM peak even without the project in the year 2010. With the project, this peak PM northbound movement would decline to failing LOS "F", with average vehicle delays nearly doubling for all access scenarios, and the overall intersection function would drop from LOS "D" to "E". If signal timing improvements were implemented, the peak PM northbound movement would improve to LOS "C" without the project, and decline only to LOS "D" with the project, with the overall intersection experiencing the same change from "C" to "D". With additional DOT lane improvements, the PM peak northbound movement would improve to LOS "B" in 2010 without the project, and would remain at that improved LOS even with the project.

The 2003 GEIS Findings had indicated that the Forge Hill Road with 9W improvements were already proposed to be completed as part of the planned NYSDOT improvements to Route 9W. However, there is no timetable for the improvements. To mitigate, the applicant will contact DOT to implement signal timing improvements here.

One other intersection is significantly harmfully affected by the project. The Main Street/Faculty Road & Rt 218 intersection was discussed in the GEIS Findings, since even in the year 2000 that intersection was already operating at failing LOS for the northbound movement. Average per-vehicle projected delays in 2010 without the project nearly double in both the AM and PM peak hours, increasing from 157.9 to 300.6 seconds and from 54.8 to 91.3 seconds, respectively. With the project, the delays are more drastically increased over No-Build conditions, with average AM peak delays increasing from 300.6 to 525.7 seconds per vehicle, and PM peak delays more than tripling from 91.3 to 280.4 seconds per vehicle. Signalization would resolve the problem and provide overall LOS B at this intersection, with the northbound movement also operating at LOS B.

Neither the GEIS nor the SDEIS offered to complete this improvement. The FGEIS had indicated that the applicant would offer a fair-share contribution to the installation of a signal at this intersection, as an off-site mitigation measure, and GEIS Finding E-3 had determined that the Lead Agency will require a developer's agreement or some other appropriate device setting forth the mechanism, timing, and amount of such fair-share contribution, In order to ensure that the proffered

contribution will be made to help resolve such severe project-induced off-site impact. The DSEIS recommended as a mitigating measure, that the applicant would monitor the traffic volumes at the Main Street/Faculty Road & Rt 218 intersection after the completion of Lot 10 development and submit them to DOT, to determine if the intersection volumes met DOT traffic signal warrants.

Construction traffic:

The DGEIS traffic analysis noted that there would be construction-related traffic increases due to workers and construction equipment accessing the site. The DGEIS indicates that the likely construction access will be a Tee-type intersection with Route 9W, although the NYSDOT would have the final control over even a temporary access. This traffic was not quantified.

Public transportation:

The site plans for Lot 10 incorporate provisions to accommodate bus travel along the main boulevard which is proposed as a town road, and a bus stop area has been provided by the main entrance to Lot 10.

Pedestrian traffic and connections:

The Cornwall Commons PAC is not designed to be an entirely self-contained residential living community, as stated in the DSEIS[16], and although the main mode of transit to and from the site is expected to be by private automobile, walking paths are incorporated within the site, with offsite pedestrian connections to and from the project at three alternative pedestrian access routes depicted on the plans. The first plan provides a walking route via the proposed sidewalks on the Stone Hollow (a.k.a. Willow Woods) access road to Willow Avenue to Main Street. The Stone Hollow development has been approved and is under construction, and this connection will be completed when the multi-family portion of the Cornwall Commons site is built. The second plan provides a walking route designated via Frost Lane to Willow Avenue to Main Street, and this connection too will be completed as the adjoining section of the Cornwall Commons is built. The third plan provides a walking route from the main entrance of the project. As discussed in the DSEIS, there will be a traffic light installed at this point which would allow pedestrians and bicyclists to cross Route 9W, and then residents could travel along Academy Avenue to Mailler to Willow Avenue to Main Street, though this route is less preferred for safety reasons. The Board will require that at least one pedestrian connection shall be open by the time half of the residential Certificates of Occupancy have been issued. This will be depicted on the sequencing plan.

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[16] At page 57

Mitigation Measures

E1. GEIS Finding E-1 noted that under the current subdivision plan, the site is proposed be served via an internal loop road with access to Route 9W via right turn entry and right turn exit of the northerly and [a second intersection] at the southerly end of the property The construction of new access road connections to the site from Route 9W must be coordinated with the NYSDOT. No such construction can take place without prior approval from that agency. This Finding is still valid and is reiterated for the Supplemental EIS; and the Lead Agency Planning Board further notes that the site access road is part of the subdivision plan. Preliminary approval has already been granted to a 10-lot subdivision of the site, and this plan includes the proposed town access road which would access the lots. The sponsor will be pursuing DOT approval for the access prior to subdivision approval, for the subdivision that will create the PAC residential Lot 10. At such time as the Planning Board is actually requested to grant final subdivision approval to the 10-lot subdivision, Lot 10 of which will house the residential site plan component of the PAC, the specific alternative will need to have been identified.

E2. The GEIS Finding E-2 stated that the SEQR analysis evaluated an alternative access scenario (Access Scenario 2) that would include the provision of a full movement signalized intersection at the southerly access on Route 9W. This access scenario would include the construction of separate turn lanes on US Route 9W as well as the installation of the new traffic signal. The GEIS Finding E-2 had specifically stated that the level of improvements necessary for Access Scenario 2 would be determined and in part, contingent upon the timing of the schedule of NYSDOT improvements to Route 9W. The projected improvements include extension of acceleration and deceleration lanes at Route 218 intersection. These improvements are compatible to the design of the proposed access location of the applicant. A variant of this alternative involving access through the NYMA property was also identified.

This Finding remains valid, and no determination of the access scenario has been made to date. As of the date of this Supplemental Findings Statement, the subdivision remains at preliminary approval as the applicant pursues its remaining outside agency approvals.

E3. GEIS Finding E-3 spoke to changes in operating standards that the project was projected to influence. The traffic study undertaken for the current SDEIS updates and replaces the GDEIS study, and reflects some signalization and improvements that have already been made in the Route 9W corridor. According to the current study, the Caesar's Lane/9W intersection is operating at acceptable levels of service for all

movements in both AM and PM peak hours, and while the eastbound movement is projected to decline from "C" to "D" during the PM peak under all "Build" access scenarios, this is not significant and does not require mitigation.

The current study indicated that operating levels of service (LOS) at the Forge Hill Road/9W intersection would fall from "D" to "E" for the northbound movement during the PM peak even without the project in the year 2010. With the project, this peak PM northbound movement would decline to failing LOS "F", with average vehicle delays nearly doubling for all access scenarios, and the overall intersection function would drop from LOS "D" to "E". If signal timing improvements were implemented, the peak PM northbound movement would improve to LOS "C" without the project, and decline only to LOS "D" with the project, with the overall intersection experiencing the same change from "C" to "D". With additional DOT lane improvements, the PM peak northbound movement would improve to LOS "B" in 2010 without the project, and would remain at that improved LOS even with the project.

The 2003 GEIS Findings had indicated that the Forge Hill Road with 9W improvements were already proposed to be completed as part of the planned NYSDOT improvements to Route 9W. However, there is no timetable for the improvements. To mitigate, the applicant will contact DOT to implement signal timing improvements.

One other intersection is significantly harmfully affected by the project. The Main Street/Faculty Road & Rt 218 intersection was discussed in the GEIS Findings, since even in the year 2000 that intersection was already operating at failing LOS for the northbound movement. Average per-vehicle projected delays in 2010 without the project nearly double in both the AM and PM peak hours, increasing from 157.9 to 300.6 seconds and from 54.8 to 91.3 seconds, respectively. With the project, the delays are more drastically increased over No-Build conditions, with average AM peak delays increasing from 300.6 to 525.7 seconds per vehicle, and PM peak delays more than tripling from 91.3 to 280.4 seconds per vehicle. Signalization would resolve the problem and provide overall LOS B at this intersection, with the northbound movement also operating at LOS B.

Neither the GEIS nor the SDEIS offered to complete this improvement. The FGEIS had indicated that the applicant would offer a fair-share contribution to the installation of a signal at this intersection, as an off-site mitigation measure, and GEIS Finding E-3 had determined that the Lead Agency will require a developer's agreement or some other appropriate device setting forth the mechanism, timing, and amount of such fair-share contribution, as a condition of site plan approval, in order to ensure that the proffered

contribution will be made to help resolve such severe project-induced off-site impact.

E4. GEIS Finding E-4 had noted the point that any of the alternatives explored in the SEQR process can work to provide adequate and safe access to the site, and further observed that NYSDOT ultimately would be the agency to make that decision based on its own agency criteria. These Supplemental Findings further note that there is no difference in operating Levels of Service or in projected average vehicle delays between the different access alternatives. However, at such time as the Planning Board is actually requested to grant final subdivision approval to the 10-lot subdivision, Lot 10 of which will house the residential site plan component of the PAC, the specific alternative will need to have been identified.

E5. GEIS Finding E-5 had noted that roadway improvements must be provided in accordance with detailed subdivision plans prepared by the applicant in compliance with applicable municipal specifications; that a work permit, where such work permits are needed, shall be provided by the applicant for access to Route 9W prior to any construction taking place, and that offers of dedication were to be submitted to both municipalities for the proposed internal roads, and any other construction, inspection and surety requirements applicable to the same.

This Supplemental Finding E-5 modifies GEIS Finding E-5 based on current events. Because the site now lies entirely in the Town of Cornwall, no other municipalities are involved in any potential road dedications. And it has been determined between the applicant and the Town Board that the only road within the site will be the looped subdivision access road. Further, these Findings particularly note that, while the specifications for the looped access road do not meet the Town's typical municipal specifications, in that the Town does not normally contemplate "boulevard" type roadways, with center medians that require planting and maintenance, the Town will accept this roadway based on the offered agreement that the Homeowner's Association shall maintain the plantings within the boulevard.

E6. GEIS Finding E-6 had noted the need for intermunicipal cooperation between the Town of Cornwall and the Town of New Windsor highway superintendents due to the municipal boundary which had at that time passed through the site. This finding was informational and is no longer relevant due to the annexation.

E7. The SDEIS traffic study identified several improvements which ought to be done regardless of the project: These included (a) modifications to the 9W NB ramp to 218 to make a standard intersection allowing movements in both directions, (b) signage and striping improvements

at the Willow Avenue ramps, (c) improve intersections by painted stop bars, clearing vegetation to improve sight lines at several intersections. The applicant is not offering to make these improvements but has merely identified the same as recommendations to the respective jurisdictional highway agencies responsible for these roads.

The intersection of Academy Avenue and Faculty Road is identified in the GEIS and DSEIS as an unsignalized intersection which experiences peak hour delays. In order to improve this condition, a traffic signal would have to be installed. However, based on current traffic volumes the intersection does not satisfy NYSDOT traffic signal warrants. For the signal warrants to be satisfied, increases in traffic volumes would have to occur. If warranted, increases in traffic volumes would be the result of background traffic volume increases, including any additional traffic from the Cornwall Commons project.

The DSEIS recommends that the traffic volumes for the intersection should be collected and submitted to NYSDOT at a later date. The applicant therefore will monitor the traffic volumes at the intersection during the construction of the Lot 10 development and submit them to the Planning Board and the NYSDOT. At that time, if the NYSDOT finds that a traffic signal is warranted, it would be determined what other projects, if any, and other funding sources would contribute toward this improvement. The project sponsor has offered a fair share contribution to the installation of a signal at this intersection. If it is determined by the NYS DOT that a traffic signal would be warranted prior to the completion of Lot 10 development, this project will contribute a fair share percentage based on the traffic generated from the project. A mechanism to ensure that such monitoring and contribution occurs is to limit the number of building permits issued for the residential units on Lot 10 until the project sponsor has updated the Planning Board and the NYS DOT regarding the need for the Academy/Main/Faculty Signal. Monitoring shall be completed after Certificates of Occupancy for 300 residential units on Lot 10 have been issued. The fair share calculation shall be the percentage of the project's maximum peak trip generation in relation to the maximum traffic at the intersection, which occurs during the peak traffic hour.

E8. Three alternative pedestrian access routes are depicted on the plans. The first connects through Stone Hollow's (a.k.a. Willow Woods) access road to Willow Avenue and thence to Main Street. Stone Hollow has been approved and is under construction, and this connection will be completed when the multi-family portion of the Cornwall Commons site is built. The second connection runs via Frost Lane to Willow Avenue to Main Street, and this connection too will be

completed as the adjoining section of the Cornwall Commons is built. The third connection provides a walking route from the main entrance of the project. As discussed in the DSEIS, there will be a traffic light installed at this point which would allow pedestrians and bicyclists to cross Route 9W, and then residents could travel along Academy Avenue to Mailler to Willow Avenue to Main Street, though this route is less preferred for safety reasons. The Board will require that at least one pedestrian connection shall be open by the time half of the residential Certificates of Occupancy have been issued. This will be depicted on the sequencing plan.

F. Utilities & Community Services

Intermunicipal Concerns – Service Districts

The original GEIS had discussed potential intermunicipal concerns regarding potential to create impacts regarding concerns of overlapping or confused jurisdictions for emergency responders such as fire, police or ambulance, because at that time, the project site was divided by a municipal boundary between the Towns of Cornwall and New Windsor. Virtually all of these concerns have been eliminated by annexation, as the site now lies wholly within the Town of Cornwall. The only issue that may remain in this regard is the fire district boundary which still divides the site between the Vails Gate and the Canterbury Fire Districts. The applicant has petitioned the districts to request that they coincide with the current Town boundaries. Both districts must agree to the change for it to take place, and neither the Planning Board nor the Town Board nor the applicant can compel this change to be made without the consent of the fire districts. Nevertheless, even if the district boundaries are not changed, the districts can provide services within each existing district on the site, and/or they can forge a cooperative agreement about service delivery and responsibilities within the site. The plans have been revised in response to comments made by the Canterbury Fire District, and revised plans circulated to both fire districts, which have submitted no additional remarks. In any case, the site will be supplied with central water supplies, and roads will be 28 feet wide within the project, thereby resolving the Canterbury Fire District's initial concerns regarding the Lot 10 plan and layout.

Due to the annexation, there are no longer potential issues with regard to police service, as the residential component of the site use is not expected to pose any unique security needs. With respect to ambulance service, the site now lies entirely in the Cornwall Volunteer Ambulance (COVAC) service area. COVAC has expressed concerns about the potential demand on its services, based on the demand placed by other age-restricted developments within the town. Though the project would result in increased tax revenues, increased demands on the corps

could result in the need for increased reliance on commercial paramedic services within the Town.

With regard to solid waste collection, the site is now wholly in the Town of Cornwall, so that there is only one municipal waste collecting entity involved. The GEIS had noted that the specific user needs would be determined at the time of site plan approval. In regard to Lot 10, the Town of Cornwall policy towards residential and commercial waste collection is that the Town will collect along certain roads not owned by the Town under certain circumstances. Upon agreement with the owners of the roadways, and if the municipal trucks are able to gain access to the roadway with adequate ability to move through the site and turn around where needed, the Town of Cornwall DPW can cart municipal solid waste from both individual detached residences and from dumpsters such as will be provided at the multiple dwellings and at the clubhouse, as well as the commercial lots. The dumpster enclosures must meet municipal specifications so that the Town trucks can access the dumpsters properly. This detail will be finalized as part of the site plans for each lot and each component of the site.

The entire site is located within the Cornwall Central School District. Following the annexation and PRD zoning of the site, and the Town Board's grant of the PAC special permit, Lot 10 is proposed for a PAC residential project containing a maximum of 490 units, with no other residential use allowed pursuant to the zoning and Developer's Agreement. PAC projects being age-restricted to seniors, it is not expected that the project would result in the generation of many school children to the CCSD. Secondary effects of age-eligible occupants selling their homes in the school district were considered, but not deemed to be significant due to the fact that the project would not solely draw to the CCSD market, and also due to the fact that age-eligible occupants in the district could sell their home and purchase an age-restricted unit in some other school district in the county or elsewhere in the region. While it is possible that there could be a small number of school children generated, the key school related impact that would require consideration would be school bus routing. This would need to be arranged between the CCSD and the PAC on an as-needed basis if applicable.

As described in the DSEIS and incorporated on the site plan, Lot 10 will include some on-site recreational amenities at the clubhouse, including a tennis court, and walking trails. As set forth in the (in the Cornwall Code's PAC regulations), the Town's fees in-lieu of providing on-site municipal parkland, if found to be necessary, would not exceed one-third of the prevailing in-lieu charge for comparable unrestricted dwelling units. Given the fact that there is some private recreation available on the site as part of the age-restricted PAC, but not all that would meet the needs of its residents, the Planning Board hereby finds and determines that the allowable in-lieu recreational fees in Section 158-21-X of the Cornwall Code shall be provided for this site, given that the residents of Cornwall Commons will still have access to and will make use of general townwide recreational facilities outside of the private facilities on the site, not only those programs and facilities intended for senior citizens, but also unrestricted facilities for the use of visiting extended family

members. Cornwall Commons residents will still have an impact and impose demands on townwide facilities as residents of the larger Town community, and these additional impacts will need to be provided for given the increase in population that this project will result in. Time of payment shall be at site plan approval for Lot 10, unless other arrangements shall be approved by the Town Board.

Water Supply and Distribution

The project would be supplied by the Village of Cornwall-on-Hudson through agreement with the Town of Cornwall, and the Village has affirmed its intent to provide water for the entire site. The DGEIS had indicated that the Village system has sufficient capacity to serve this project's needs. As a maximum estimate, the GEIS had expected that the project could result in a demand of up to 200,000 gallons per day of capacity; but the SDEIS projected that the current potential maximum use of the site would be 157,250 gallons per day, for both the PAC residential use of Lot 10[17] and the remaining commercial uses on lots 1 through 9. In the event of greater than expected demands for lots 1-9, additional study may be required, but the DSEIS water demand is clearly less than the originally anticipated maximum.

Supplying water to the site will require off-site improvements and extensions to the water system. Three alternatives were studied by Stantec, the Village of Cornwall-on-Hudson's consulting engineers. Alternative A would involve the installation of a new 12-inch water main on Mailler Avenue, and possible improvements of an existing main on Maple Avenue, and this would provide water pressures of 66 to 104 psi on the site, with fire flows ranging from 1,625 to 1,825 gpm. Alternative B would connect to an existing main in Hudson Street, install a new 12-inch main on Second Street to Academy Avenue, run along Academy Avenue to Mailler, thence to Halverson Street and along Halverson, under Route 9W to the site. Alt. B would provide water pressures of 89 to 128 psi on the site, with fire flows ranging from 2,300 to 2,500 gpm. Alternative C would be to install approximately 3,200 feet of new 12-inch water main on Mill Street, and run north to Howard Street and into the site. This alternative would provide water pressures of 60 to 104 psi on the site, with fire flows ranging from 1,800 to 2,000 gpm.

Among the three alternative water supply scenarios, two alternative routings are being considered for conveying public water to the site. The preferred alternative is Stantec's Alternative 3 (Alt. C), running down 3,200 feet down Mill Street to Howard Street and providing water into Lot 10 and also to the proposed town loop road, to service lots 1-9, with a secondary emergency connection being made to the existing 6-inch main in Frost Lane. Consistent with the GEIS Findings, the water main along the loop road would be extended from the loop road and across NYS Route 9W for

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[17] Which is projected to use 117,600 gallons per day (gpd)

future looped connection with the water system on the Mailler Avenue side of the highway, at 85% of the project completion. This alternative may require installation of a pressure reducing valve. The sponsor would like to have the water lines in lot 10 and in the loop road be publicly owned; but if this is not acceptable they would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This alternative would require OCDPW approval for work on Mill Street. Crossing Route 9W, at the 85% of project completion, would require NYSDOT approval.

The second water supply alternative being considered is the Stantec's Alternative 1 (Alt. A), which would involve the installation roughly 3,900 feet of water main along Maple Avenue and Mailler Avenue, thence along Halverson and under 9W into the looped project road, continue along the loop road into Lot 10. A secondary emergency connection would be made to the existing 6-inch main in Frost Lane when the southeast portion of the site is developed. This alternative is less preferred, due to the greater number of existing residents that would be disturbed with the water main installation along Maple and Mailler Avenues. The sponsor would like to have the entire water distribution system publicly owned in this alternative. Again, if this is not acceptable the water distribution lines would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This alternative would require OCDPW approval for work on Willow Avenue, and NYSDOT approval for crossing Route 9W.

Sanitary Sewage

The project would be served by sanitary sewers in the Town of Cornwall, feeding into Town of Cornwall's treatment plant located on Shore Road. The GEIS had expected that the project could result in a demand of up to 200,000 gallons per day of sewer discharge; but the SDEIS projected that the current potential maximum use of the site would be 157,250 gallons per day, for both the PAC residential use of Lot 10[18] and the remaining commercial uses on lots 1 through 9. In the event of greater than expected usage demands for lots 1-9, additional study may be required, but the DSEIS sewer demand is clearly less than the originally anticipated maximum. Sewer capacity has been reserved for the project by way of a Developer's Agreement forged between the sponsor and the Town Board. The Planning Board understands that there should be adequate capacity at the treatment plant for the project pursuant to that Agreement, and further notes that the project will not be coming on line immediately upon approval, but will be built out over a period of time following the receipt of multiple approvals, easements and other authorizations that would be needed to connect the site to the Town's treatment plant.

Sewage will be collected onsite in a gravity collection system and flow to a pump station that will be located within the proposed looped town road to be built at the site. The pump station will pump the waste to manhole 102 of the Town's sewer

[18] Which is projected to generate 117,600 gallons per day (gpd)

system, located on Academy Avenue, chosen by the Town Engineer and the Town's Wastewater Treatment Plant Operator as being free of capacity or other problems. Other, closer alternative connection points such as manhole 23 in Mailler Avenue are plagued with existing operational problems.

Two alternative routes were considered for the sewer forcemain from the site to manhole 102, with the preferred alternative being to route east along the looped road, through an existing tunnel under 9W, then southeast approximately 3,900 feet across NYMA's athletic fields to Faculty Drive, along Faculty Drive to Academy Avenue and then along Academy Avenue to manhole 102. This alternative would require a private easement from NYMA to cross its property, and NYSDOT approval for crossing Route 9W. The less preferred alternative would run approximately 6,100 feet along the rear of the commercial lots to the southeastern project access to 9W, crossing under 9W to Halverson Street, to Mailler Avenue, and along Mailler Avenue to Academy and thence to manhole 102. This alternative would require a private easement to cross private property opposite 9W, and NYSDOT approval for crossing Route 9W.

Mitigation Measures/Policies and Procedures:

F1. GEIS Finding F-1 spoke to the project's potential to create intermunicipal impacts due to the project being located in two different municipalities with two different zoning designations. These intermunicipal impacts are no longer an issue in these Supplemental Findings, due to the annexation and rezoning of the property. Finding F-1 is no longer applicable.

F2, F3, and F4. GEIS Findings F-2, F-3, and F-4 had discussed water supply issues and alternatives, projected water use, various water supply distribution alternatives and permits and approvals that might be needed to supply the original GEIS project. These Findings are modified in this Supplemental Findings Statement based on current plans and updated information, as set forth hereinbelow:

F-2. As in the GEIS Findings, water supply will be provided by an extension of the existing Village of Cornwall-on-Hudson water distribution system, but there is now no longer a Town of New Windsor project component. GEIS Finding F-2 further noted that the Village of Cornwall-on-Hudson may be required to obtain additional approval from NYCDEP or others for the extension of service and compliance, for any work that may be needed within the NYCDEP

right-of-way[19] in order for the project site to complete its waterline connection with the Village of Cornwall on Hudson system.

This Supplemental Finding F-2 notes that providing a water supply to the project will involve extensive off-site improvements and will involve other agency approvals that will differ depending on which water supply routing alternative is chosen. Improvements will be required in order to create an eventual full loop to the water system, as the project is built out. The preferred routing involves constructing approximately 3,200 feet of main running up Mill Street, into Howard Street and to the site, and this alternative would require OCDPW approval for work on Mill Street. Crossing Route 9W, at the 85% of project completion, would also require NYSDOT approval. The less preferred routing involves improvements to and extensions of mains in Maple and Mailler Avenues, down Halverson Street and under 9W into the site, with 3,900 feet of main being installed. This alternative would require OCDPW approval for work on Willow Avenue, and NYSDOT approval for crossing Route 9W.

Under any water supply alternate, the matter of ownership of the water distribution lines needs to be determined, whether they should be publicly owned or privately owned, or some mix of the two. The sponsor would like to have the water lines in lot 10 and in the loop road be publicly owned; but if this is not acceptable they would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This matter will need to be resolved prior to site plan approval.

F3. GEIS Finding F-3 had indicated as a maximum estimate, that the project could result in a demand of up to 200,000 gallons per day of water and sewer capacity, which the DGEIS indicates exists. The GEIS had noted that this demand estimate was subject to a wide potential variation based on the actual needs of lot users, and in the event of greater than expected demands, additional study may be required to determine adequacy of both. The intent of GEIS Finding F-3 was simply to indicate that central water and sewer services must be provided to the site, and that the final design, location and construction of the collection and/or distribution systems needed to be in accordance with the requirements of all jurisdictional agencies.

These Supplemental Findings modify and decrease the estimated maximum sewer and water use of the site from the amount estimated in the GEIS, to not more than 157,250 gallons per day, for both the PAC residential use of Lot 10 and the remaining commercial uses on

[19] The NY City Aqueduct runs below a portion of the site.

lots 1 through 9. This maximum use is roughly 78% of the previous estimated maximum.

F4. GEIS Finding F-4 had indicated that, upon substantial completion of the project, the applicant would extend the project's 12" water main from its terminus at the northwest side of NYS Route 9W to the southeast side of Route 9W. The intent was that the water main could be further extended to meet the existing Village of Cornwall-on-Hudson water main at the intersection of Mailler Avenue and Academy (NYS Route 9W) and to complete a beneficial water loop. In the GEIS Finding F-4, "Substantial completion of the project" was defined as 85% (eighty-five percent) of build-out of the site area for purposes of these Findings.

These Supplemental Findings show that the completion of the water loop, and the timing of completion of the same, would vary depending on which water supply alternate route was chosen. The preferred alternative routing still involves the need to cross 9W at 85% of buildout, as set forth in this section.

F5. GEIS Finding F-5 stated that the project would be supplied with sewer service, though the New Windsor components of that Finding and references to inter-municipal agreements are no longer relevant due to the annexation. The project is now wholly within the Town of Cornwall, and adequate sewer capacity at the Town of Cornwall treatment plant on Shore Road has been reserved for the project by way of a Developer's Agreement forged between the sponsor and the Town Board. Sewage will be collected onsite and conveyed by a forcemain to manhole 102 on Academy Avenue, the closest location that has the capacity to receive the site's sewage flows without creating or exacerbating any problems.

GEIS Finding F-5 noted that two connection alternatives had been analyzed. These Supplemental Findings note that additional information has been provided on these alternatives and any additional permits or authorizations that would be needed. The preferred alternative would be to route east along the internal project looped road, through an existing tunnel under 9W, then southeast approximately 3,900 feet across NYMA's athletic fields to Faculty Drive, along Faculty Drive to Academy Avenue and then along Academy Avenue to manhole 102. This alternative would require a private easement from NYMA to cross its property, and NYSDOT approval for crossing Route 9W. The less preferred alternative would run approximately 6,100 feet along the rear of the commercial lots to the southeastern project access to 9W, crossing under 9W to Halverson Street, to Mailler Avenue, and along Mailler Avenue to Academy and thence to manhole 102. This alternative would require

a private easement to cross private property opposite 9W, and NYSDOT approval for crossing Route 9W.

F6. GEIS Finding F-6 had indicated that the final design of any sewer collection system to service the site was to meet the requirements of the Town of New Windsor and Town of Cornwall, and was to be submitted for the review and approval of both municipal Engineers, as well as approval of NYSDEC. This Finding is no longer relevant, in that the site is entirely in the Town of Cornwall.

F7. GEIS Finding F-7 had indicated that NYSDEC approval is required for the sewer main extension. This is an informational Finding that has not changed.

F8. GEIS Finding F-8 had indicated that the Planning Board would determine the public safety impacts of the uses on the site at the time of site plan review, seeking input from the Cornwall Police Department and others as needed. The development is not projected to pose any unusual policing needs, though there will need to be an authorization from the Homeowner's Association to the Town of Cornwall to allow vehicles to be ticketed and towed from the site for parking violations.

F9. GEIS Finding F-9 had indicated that the Planning Board would determine the fire protection impacts of the uses on the site at the time of site plan review, noting that there would be coordination with the fire districts as needed. The site does lie in two fire districts, which if the fire districts do not take action to modify their boundaries, will require that the districts provide services within each existing district on the site, and/or they can forge a cooperative agreement about service delivery and responsibilities within the site. Beyond this, the Lot 10 the plans have been revised in response to comments made by the Canterbury Fire District, and revised plans have been circulated to both fire districts in which the project lies, with no additional remarks received. The site will be supplied with central water supplies, and roads will be 28 feet wide within the project, thereby resolving the Canterbury Fire District's initial concerns regarding the Lot 10 plan and layout.

F10. GEIS Finding F-10 had indicated that the Planning Board would determine the potential emergency medical impacts of the uses on the site at the time of site plan review, noting that there would be coordination with local emergency medical services if needed. Under the current project proposal and conditions, Cornwall Volunteer Ambulance Corps has expressed concerns about the potential demand on its services, based on the demand placed by other age-restricted developments within the Town of Cornwall. Though the project would result in increased tax revenues, increased demands on

the corps could result in the need for increased reliance on commercial paramedic services within the Town.

F11. GEIS Finding F-11 required the Planning Board to determine at the time of site plan review whether any individual future site user posed any extraordinary needs in regard to solid waste generation and collection. This Supplemental Finding shows that the Planning Board has considered the solid waste generation of the PAC residents. The single family attached and detached units will be collected individually at curbside, while the multiple dwellings and the clubhouse will use dumpsters, whose locations are shown on the plans. In regard to this site, the Town of Cornwall will be able to service not only all types of residential units and the commercial components. The Town will need to be granted permission to enter the project roadways on Lot 10, and any dumpsters and dumpster enclosures provided on the site must meet Town specifications so that the Town can service them.

The Planning Board will continue to evaluate the solid waste disposal needs at the time of site plan review for Lots 1-9, consistent with GEIS Finding F-11. However, the Planning Board notes that even commercial lots are serviced by the Town so long as any dumpsters and dumpster enclosures provided on the site must meet Town specifications so that the Town can service them. For the types of uses anticipated on Lots 1-9, no unusual solid waste disposal needs are anticipated at this time.

F12. GEIS Finding F-12 had spoken to the issue of school district impacts of the project as then presented in the GEIS, which had contained a major residential subdivision in the Town of New Windsor, prior to the annexation. This Supplemental Finding addresses the topic of school district impacts based on the change in circumstances. Following the annexation and PRD zoning of the site, and the Town Board's grant of the PAC special permit, Lot 10 is proposed for a PAC residential project containing a maximum of 490 units, with no other residential use allowed pursuant to the zoning and Developer's Agreement. PAC projects are age-restricted to seniors, so that it is not expected that the project would result in the generation of many school children to the CCSD, including also secondary or indirect effects. The DSEIS acknowledged that it is possible that there could be some small number of school children generated, though the key school related impact that would require consideration would be school bus routing, as the fiscal impacts to the CCSD were found to be significantly beneficial. Any school bus routing or access issues would need to be arranged between the CCSD and the PAC, either on an individual basis or via the Homeowners Association.

F13. GEIS Finding F-13 relating to parkland dedication and fees in-lieu of dedication requires updating as a result of the site's land annexation from New Windsor, the PRD zoning designation and the adoption of PAC regulations in the Town of Cornwall. Although there will be some private recreation available on the site as part of the age-restricted PAC, but not all that would meet the needs of its residents, the Planning Board finds and determines that the allowable in-lieu recreational fees in Section 158-21-X of the Cornwall Code shall be provided for this site, for reasons set forth in Section F of this Supplemental Findings Statement. Time of payment shall be at site plan approval for Lot 10, unless other arrangements shall be approved by the Town Board.

F-14. The Planning Board shall require review and approval of the Homeowners Association Bylaws to ensure that the maintenance and operation of all project elements that will be the responsibility of the HOA to maintain are provided for. Depending on the actions of other agencies as described elsewhere in these Findings, this shall include, but not be limited to, providing for access to emergency services providers, municipal garbage trucks, and other relevant enforcement personnel, provisions for maintenance of the stormwater management facilities, utility lines and relevant sewer and water facilities, and maintenance and protection of the landscaped areas and preserved open space. The Planning Board review of the HOA Bylaws shall be limited the review of those elements that reasonably relate to the SEQR Findings and the site plan and subdivision approval.

G. Visual and Noise Impacts

As noted in the GEIS, the primary visual changes that will result from subdividing the property and the future use and development of the site will be the removal of large portions of existing tree cover and vegetation, and the construction of a road network, drainage and utility network with future buildings in accordance with the zoning on the site. The GEIS had stated that, due to the steep slopes and dense forest of the valley of the Moodna Creek, the project would not be visible from the creek or its valley bottom under any of the proposed development scenarios that had been evaluated in the GEIS. Further, the GEIS had concluded that the topography and the vegetation both on and off the site would block the view of the project site for the Knox headquarters state historic site, is situated about 2,000 feet from the project site and separated from it by the valley of the Moodna Creek. Though the GEIS had observed that some portions of the site may be visible from distant elevations such as Storm King Mountain, it noted that the site development would appear as part of the wider urbanized landscape in the valley below. The GEIS had noted that Planning Board would pay careful attention during site-specific

review to landscaping and site lighting as well as the appearance and finish of the structures themselves in order to encourage a coordinated, attractive site appearance among other things.

Given comments from the Palisades Interstate Park Commission and others regarding the PIPC gorge trail adjacent to the Moodna Creek and other key vantage points, and given that the applicant will be seeking site plan approval for Lot 10 which is closest to the Moodna, the Planning Board requested supplemental visual impact analysis for Cornwall Commons. The potential visual impacts of siting of a 4-story congregate care building on a commercial lot was also evaluated, though no specific site plan approval is being sought for any commercial lot as part of this action. The DSEIS re-evaluated the potential visual impacts of the Lot 10 PAC development on key vantage points, based on a more specific site clearing, grading and development plan. While the Lot 10 site plan does incorporate some flexibility for the location of the single family dwellings, as described in more detail in Section A of these Supplemental Findings, enough is known about the site grading plans, the areas to be preserved as undisturbed, and the residential unit sizes and location, and a schematic site lighting plan, to determine potential visual impacts on key vantage points in accordance with DEC visual impact methodology.

The Supplemental DEIS included line of sight profiles developed to evaluate any viewshed changes for seven locations: Knox's Headquarters state historic site, two locations along the PIPC Moodna Gorge Trail, and four locations from Spaulding Farm (67 Forge Hill Road). Views from the 9W site access were also considered. It should be noted that all of these locations are typically only in use seasonally during daylight hours. Therefore, although the requirement that site lighting shall be fully shielded is important, if only to avoid skylighting, wasted energy and glare within the site, site lighting would not be expected to have any potentially harmful impacts on the identified visual resources. Adjoining residential properties are protected by wooded vegetated buffer strips shown on the plan, coupled with the shielding of lights and adherence to the lighting plan.

The Supplemental DEIS demonstrated that, even using a worst-case analysis where the peaks of the residential roofs were depicted as "boxes" instead of peaked and gabled, the site would not be visible from Knox's Headquarters, which is separated by roughly 400 feet of intervening vegetation on the park property. The two locations from the PIPC Gorge Trail were fully screened by roughly 150 to 200 feet of existing hardwood forest to remain. Spaulding Farm, which exists in an area that is currently visually degraded but may in future be somewhat improved by the demolition and removal of a degraded commercial structure there, is screened by approximately 150 to 200 feet existing hardwood forest vegetation from the site area, and even a 4-story congregate care building on the commercial lot closest to the Spaulding Farm will be virtually fully screened by the intervening vegetation.

The Lead Agency Planning Board also received comments regarding potential visual impacts to what was described as a pending multi-use Moodna Greenway-Recreational Corridor that would make use of additional properties off of the site

including the Spaulding Farm and the former railroad ROW adjoining the Cornwall Commons site. The revised Lot 10 plans provide a variable width of buffer between the Lot 10 development and the northern and western property line, ranging from as low as 110 feet to as high as 250 on the west, and as low as 58 feet on the north. The DSEIS and FSEIS evaluated visual impacts on the Moodna Creek on the west, and from the north towards Spaulding Farm, finding that the proposed development on Lot 10 would be heavily screened by existing vegetation both on and off the site.

Mitigation Measures/Policies and Procedures:

G1. GEIS Finding G-1 had stated that the Planning Board would require site specific landscaping plans incorporating existing mature trees, to the extent the same are able to be retained, supplemented by new plantings to create a suitable buffer for screening the view of development and Frost Lane as part of any site specific application. The submitted plans fulfill this requirement; see also Finding G-4 below.

G2. GEIS Finding G-2 had stated that during site-specific review of industrial plans, the Planning Board shall consider the needs for appropriate noise screening to be provided for any HVAC units, internal circulation areas or equipment areas if appropriate, in order to limit noise at any residential property lines. This Finding is no longer relevant, due to the annexation and change in the site's zoning and the fact that only residential uses will be closest to the existing off-site residential properties.

G3. GEIS Finding G-3 had stated that the Planning Board will pay careful attention during site-specific review to landscaping and site lighting as well as the appearance and finish of the structures themselves in order to encourage a coordinated, attractive site appearance that considers the Cornwall component's role as gateway to the residential component in New Windsor. This Finding is no longer relevant, due to the annexation and change in the site's zoning to be consistent throughout the site.

G4. The SDEIS shows that even under worst case visual impact analysis, the site development would not be visible from identified key vantage points of cultural significance, such as Knox's headquarters, the PIPC Moodna Gorge trail, and the Spaulding Farm. Plans were modified in the Supplemental SEQR review process to increase the wooded buffer closest to the Moodna gorge. The retention of existing areas of woodland vegetation as depicted on the Lot 10 site plan, coupled with the site supplemental planting plans and landscape plans.

H. Cultural Resources

The GDEIS had considered the possibility of cultural resources impacts of site development, including the possibility of visual impacts on any nearby structure or facility of cultural, historical, or archeological importance, and the GEIS had incorporated some cultural resources analysis. Additional cultural resources analysis was conducted in the fall of 2005, and was submitted to the NYS Office of Parks, Recreation and Historic Preservation in a report dated February of 2006. Phase I-B shovel tests were performed on the site, and the results concluded that the site had little value as an archeological resource and the state concurred that no further work was needed in this regard.

Visual impacts are discussed separately above in Section G of this document, demonstrating that the site development would not be expected to create any significant harmful visual impacts on architectural resources, such as structures listed on or eligible for nomination to the state or national Registers of Historic Places.

Cultural Resources Mitigation Measures/Policies and Procedures:

H1. GEIS Finding H-1 concluded that no mitigation measures were needed in this subject area as no potential impacts were projected in this subject area. This Finding remains valid.

I. Energy Consumption

The buildings will comply with state energy code requirements including low flow water fixtures at a minimum, and may incorporate recycled content and additional energy saving and insulating features in the building foundations, structural elements, building exterior, windows and appliances. Because the applicant may not necessarily be the builder, this cannot be determined at this point. However, the Planning Board does note that the recent increases in the cost of energy are likely to increase the consumer demand for such features at a minimum.

The site landscaping incorporates native plants, which, once established, will require minimal maintenance and are not proposed to be irrigated after establishment.

F – Comparison Report – Cornwall Commons Full Environmental Assessment Form, prepared by Dynamic Engineering, P.C., dated January 2022

COMPARISON REPORT – CORNWALL COMMONS FULL ENVIRONMENTAL ASSESSMENT FORM

For

Treetop Development
Proposed Planned Industrial Development

2615 US Route 9W
Section 9, Block 1, Lot 25.22
Town of Cornwall
Orange County, NY

Prepared by:

DYNAMIC ENGINEERING

1904 Main Street
Lake Como, NJ 07719
(732) 974-0198

Rev. 1
January, 2022
DEC# 2803-99-012

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APPENDIX

A. SITE HISTORY AND PROJECT DESCRIPTION

The project location is specifically identified as Section 9, Block 1, Lot 25.22, located on US Highway 9W in the Town of Cornwall in Orange County, New York. The lot is presently vacant and undeveloped. This study is intended to provide preliminary information regarding the feasibility of developing the site with a planned industrial development consisting of five (5) warehouse buildings with a total gross floor area of approximately 2,000,000 square feet, herein after referred to as the "Treetop Development" (also known as Cornwall Logistics, LLC) project. Additional improvements include new driveways, parking areas, loading areas, landscaping, lighting, stormwater management facilities and other associated amenities.

The subject site was previously approved by the Town Board and Planning Board in June and September 2005, then granted Conditional Final Subdivision Approval in March 2012, for a 10-lot Planned Adult Community project, herein after referred to as "Cornwall Commons". The project consisted of 490 total dwelling units and a mix of commercial uses including a 45,000 SF retail shopping center, 15,500 SF restaurant, 50,000 SF office building, 80-room hotel and 70-bed congregate car facility. A copy of the Lead Agency Written SEQR Findings Statement for Cornwall Commons is included within the Appendix of this Report for reference.

This Report serves as a preliminary comparison tool to evaluate the potential impacts of the proposed development with the impacts identified by the Planning Board for Cornwall Commons. As described below, some impacts are similar given the characteristics of the Site – grading and wetland areas. However, due to the nature of the proposed warehouse use as compared to a residential subdivision, other impacts, such as trip generation and utility demand, will result in less impacts. The information provided in the following tables is primarily derived from the Full Environmental Assessment Forms, Part 1, for each project and supplemented based on subsequent application documents for Cornwall Commons.

B. GOVERNMENT APPROVALS

GOVERNMENT ENTITY	CORNWALL COMMONS	TREETOP DEVELOPMENT
City Counsel, Town Board or Village of Trustees	Zoning Amendment	Zoning Map Amendment
City, Town or Village Planning Board or Commission	Final Subdivision and Site Plan Approvals	Special Use Permit and Site Plan Approval
City Counsel, Town or Village Zoning Board of Appeals	Town Board Special Use Permit, PAC;	Possible area variance for building height (40' permitted, 45' contemplated)
County Agencies	Orange County Department of Planning Referral	Orange County Department of Planning Referral

State Agencies	NYSDOT site access and highway improvements, NYSDEC SPDES, NYS DEC Ext, Sewer System	NYSDOT site access and highway improvements, NYSDEC SPDES, NYS DEC Ext, Sewer System
Federal Agencies	N/A	Army Corps of Engineers, Wetlands Permitting

C. PLANNING AND ZONING

	CORNWALL COMMONS	TREETOP DEVELOPMENT
PLANNING AND ZONING ACTIONS		
1. 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?	No	No
ZONING		
3a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance? If Yes, what is the zoning classification?	Yes, Planned Residential Development (PRD)	Yes, Planned Commercial Development & Highway Commercial (HC)
3b. Is the use permitted or allowed by a special or conditional use permit	Yes	Yes
3c. Is a zoning change requested as part of the proposed action? If Yes, what is the proposed new zoning for the site?	Yes, amendments to the zoning code would allow non-age-restricted housing units in a PAC	Yes, Zoning Map Amendment to re-zone portion of site from HC to PCD

D. PROJECT DETAILS

	CORNWALL COMMONS	TREETOP DEVELOPMENT
PROPOSED AND POTENTIAL DEVELOPMENT		
1a. What is the general nature of the proposed action?	Residential and Commercial	Industrial
1b. Total acreage of the proposed action? Total acreage to be	-Proposed action: 197.716 AC -Physically disturbed: 147.35 AC	-Proposed action: 175.8* AC -Physically disturbed: TBD upon

physically disturbed? Total acreage owned or controlled by the applicant or project sponsor?	-Owned or controlled by the applicant or project sponsor: 197.716 AC	completion of full civil drawings. -Owned or controlled by the applicant or project sponsor: 175.8* AC *Lot area reduction calculation per definition: 197.7 AC gross lot area – 17.1 AC wetlands area – 4.75 AC steep slope areas (> 25%) = 175.8 AC
1c. Is the proposed action and expansion of an existing project or use?	No	No
1d. Is the proposed action a subdivision or does it include a subdivision? If Yes, i. Purpose or type of subdivision? ii. Is a cluster/conservation layout proposed iii. Number of lots proposed? iv. Minimum and maximum proposed lot sizes?	Yes i. Residential and commercial ii. No iii. 10 iv. Min: 1.316, Max: 158.994	No
1e. Will proposed action be constructed in multiple phases? If Yes, i. Total number of phases ii. Anticipated commencement of phase 1 iii. Anticipated completion of phase 1 iv. Generally, describe connections or relationship among phases.	Yes i. 16-18 ii. 09/2014 iii. 12/2021 iv. Lots 1-9 are commercial uses and Lot 10 is residential. The proposed public loop road would serve both the residential lot and the commercial lots. The utility systems and drainage area would also serve Lots 1 through 10	TBD upon completion of full civil drawings, however based upon the scope of this project it is anticipated the projected will be constructed in multiple phases over the span of 2-5 years.

<table>
<tr>
<td>1f. Does the project include new residential uses? If yes, show numbers of units proposed.</td>
<td>Yes
<table>
<tr><th colspan="5"># of Families</th></tr>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>multi</td></tr>
<tr><td>Initial</td><td>25-50</td><td>0</td><td>0</td><td>50-75</td></tr>
<tr><td>Completion</td><td>304</td><td>0</td><td>0</td><td>176</td></tr>
</table>
Note: This application was later amended to include 490 total residential units consisting of 65% non-age-restricted and 35% age-restricted in a mix of single-family, townhomes and multi-family units</td>
<td>No</td>
</tr>
<tr>
<td>1g. Does the proposed action include new non-residential construction? If Yes,
i. Total number of structures
ii. Dimensions of largest proposed structure
iii. Approximate extent of building spaces to be heated or cooled</td>
<td>Yes
i. +/-490 age-restricted dwelling units, +/-13 commercial buildings
ii. +/-460’x85’
iii. +/-350,000 SF</td>
<td>Yes
i. 5
ii. Height: +/-45’
Width: +/-350’ (Varies)
Length: +/-2,271’ (Varies)
iii. Total: +/-2,053,593 SF</td>
</tr>
<tr>
<td>1h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as the creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? If yes,
i. Purpose of the impoundment:
ii. If a water impoundment, the principal source of the waster:
iii. If other than water, identify the type of the impounded/contained liquids and their</td>
<td>Yes
i. Stormwater Management
ii. Other: Stormwater Runoff
iii. N/A
iv. See Part 3
v. See Part 3
vi. Earthen structures</td>
<td>Yes
i. Stormwater management
ii. Other: Stormwater
iii. N/A
iv. TBD
v. TBD
vi. TBD
Note: Stormwater design details to be finalized with full civil drawings.</td>
</tr>
</table>

source: iv. Approximate size of the proposed impoundment v. Dimensions of the proposed damn or impounding structure vi. Construction method/materials for the proposed dam or impounding structure		
PROJECT OPERATIONS		
2a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? If Yes: i. What is the purpose of the excavation or dredging? ii. How much material is proposed to be removed from the site • Volume: • Over what duration of time? iii. Describe nature and characteristics of materials to be excavated, dredged, ad plans to use, manage or disposed of them iv. Will there be onsite dewatering or processing of excavated materials? If yes, describe:	Yes i. Filling and grading associated with site development ii. 23,500 CY excess cut to be stored on-site for future phases, 7 to 10 years iii. The development of Lot 10 would result in a net surplus of approximately 23,500 cubic yards of material. While grading plans have not been developed for Lots 1-9, adequate area exists on the site to provide temporary stockpile areas pending its removal or re-use elsewhere within the overall site. iv. Yes, due to a high water table, shallow perched	Yes i. Grading for site development ii. TBD iii. TBD iv. TBD Note: Grading and cut/fill details to be finalized with full civil drawings and soils testing.

	water seepage could be encountered seasonally, and therefore de-watering operations may need to be carried out during construction	
2b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetlands, waterbody, shoreline, beach or adjacent area? If yes: i. Identify the wetlands or waterbody which would be affected ii. Describe how the proposed action would affect that waterbody or wetlands. Indicated extent of activities, alterations, and additions in square feet or acres: iii. Will proposed action cause or result in disturbance to bottom sediments? If Yes, describe: iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation. If Yes: • Acres of aquatic vegetation proposed to be	Yes i. See part 3 ii. 0.014 acres of temporary disturbance for the excavation and installation of stormwater management system and utilities; and 0.004 acres or permanent disturbance for the construction of an access road to proposed stormwater management area C iii. Yes, laying 30' pipe, restore material iv. Yes a. 0.018 ac b. 3.913-0.018 = 3.895 acres c. Installation of stormwater management system and access road d. Excavation e. N/A v. Area will be restored with	Yes i. Possible minor disturbance to wetlands identified by previously issued ACOE jurisdictional determination. ii. potential grading and/or stormwater management facilities to be identified during full civil design iii. TBD iv. Yes a. TBD b. TBD c. Site grading and installation of proposed site improvements d. TBD e. N/A v. If applicable, areas will be restored with native plantings Note: The wetlands were re-delineated on 3/17/21 and 3/24/21 by Capital Environmental Consultants, as the original US

removed: • Expected acreage of aquatic vegetation remaining after project completion: • Purposed of proposed removal: • Proposed method of plant removal: • If chemical/herbicide treatment will be used, specify products: v. Describe any proposed reclamation/mitigation following disturbance	native plantings	Army Corops of Engineers issued a jurisdictional delineation approval on 10/16/12 which has since expired. The current Conceptual Site Plan does not propose disturbance to any wetlands areas, whereas Cornwall Commons included disturbance to some of the non-jurisdictional wetlands. Disturbance will be minimized to the maximum extent practicable and additional information will be provided during completion of full civil drawings.
2c. Will the proposed action use or create a new demand for water? If Yes: i. Total anticipated water usage/demand per day ii. Will the proposed action obtain water from an existing public water supply? If Yes: • Name of District or service area: • Does the exiting public water supply have capacity to serve the proposal? • Is the project site in the existing district? • Is expansion of the district needed?	Yes i. 157,250 gallons/day ii. Yes a. Village of Cornwall-on-Hudson serving town of Cornwall District b. Yes c. Yes d. No e. No iii. Yes a. Installation of main will be down Second Street to Academy Ave then to Mailler, then to Halverson across NYS	Yes i. +/- 24,000 gallons/day ii. Yes a. Cornwall District – Village of Cornwall on Hudson b. Yes c. Yes d. No e. No iii. Yes a. TBD through coordination with Cornwall Water Company to determine capacity of existing mains on Knoll Crest Ct. and Frost Lane

• Do existing lines serve the project site? iii. Will line extension with an existing district be necessary to supply the project? If Yes: • Describe extensions or capacity expansion proposed to serve this project: • Sources of supply for the district: iv. Is new water supply district or service area proposed to serve the project site?	Route 9W to Project Site. b. New York City Catskill Aqueduct and the Moodna Creek Wells iv. No	b. New York City Catskill Aqueduct and Moodna Creek Wells iv. No Note: Additional utility design information will be provided upon completion of civil drawings, however it is anticipated the proposed development will generate less utility demand than Cornwall Commons. Town of Cornwall Town Board, Village of Cornwall-on-Hudson, Orange County Department of Health and NYSDOT reviewed and approved an extention to the existing municipal water system to the project site for up to 314,200 gallons per day as part of the Cornwall Commons project.
2d. Will the proposed action generate liquid wastes? i. Total anticipated liquid waste generation per day: ii. Nature of liquid wastes to be generated: iii. Will the proposed action use any existing public wastewater treatment facilities? If Yes: • Name of wastewater treatment plant to be used: • Name of district: • Does the existing	Yes i. 157,250 gallons/day ii. Sanitary wastewater iii. Yes a. Cornwall Plant b. Cornwall Sewer District c. Yes d. Yes e. No f. No g. Yes – installation of on-site collection system conveys to on-site pump station	Yes i. +/- 24,000 gallons/day ii. Sanitary wastewater iii. Yes a. Cornwall Plant b. Cornwall Sewer District c. Yes d. Yes e. No f. No g. Yes – TBD Feasibility for connection to be determined through

wastewater treatment plant have capacity to serve the project? • Is the project site in the existing district? • Is expansion of the district needed? • Do existing sewer lines serve the project site? • Will line extension within an existing district be necessary to serve the project? If Yes: • Describe the extensions or capacity expansions proposed to serve this project: iv. Will a new wastewater treatment district be formed to serve the project site?	from which it is conveyed to a gravity system on Academy Ave. iv. No	coordination with building department iv. No Note: Additional utility design information will be provided upon completion of civil drawings, however it is anticipated the proposed development will generate less utility demand than Cornwall Commons. Town of Cornwall Town Board, NYSDOT and NYSDEC reviewed and approved an extention to the existing municipal water system to the project site for up to 314,200 gallons per day as part of the Cornwall Commons project.
2e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources or non-point source during construction or post construction? If Yes: i. How much impervious surface will the project create in relation to total size of project parcel? ii. Describe types of new point sources. iii. Where will the stormwater runoff be directed?	Yes i. 68.2 acres impervious, 197.716 ac parcel size ii. Roads, sidewalks, buildings, driveways iii. Stormwater will be treated in on-site stormwater management facilities and structures, the controlled release to natural drainage channels a. On-site wetlands A, B, C, D, E b. No iv. No	Yes i. +/-3,455,863 SF (+/- 79.34 acres) impervious surface, +/- 7,656,057 SF (+/- 175.8 acres) lot area ii. Buildings, sidewalks, parking, loading & access aisles iii. Stormwater will be treated by the on-site stormwater management facilities and structures, then released at a controlled rate to

• If to surface water identify receiving water bodies or wetlands: • Will stormwater runoff flow to adjacent properties? iv. Does proposed plan minimize impervious surface, use pervious materials or collect and re-use stormwater?		natural drainage channels. Details pending full civil design. a. TBD b. No iv. TBD
2j. Will the proposed action result in substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? If Yes: i. When is the peak expected? ii. For commercial activities only, project number of semi-trailer truck trips/day: iii. Parking Spaces: iv. Does the proposed action include any shared parking? v. If the proposed action includes any modification of existing roads, creating of new roads or change in existing access, describe: vi. Are public/private transportation	Yes i. Morning, evening ii. TBD iii. Existing: 0 Proposed: 1,943 iv. No v. New interior site roads are proposed with access from US Route 9W vi. Yes vii. Yes viii. Yes	Yes i. Morning, evening ii. +/-276 entering trips and +/-82 exiting trips during morning peak hour, +/-100 entering trips and +/-268 exiting trips during evening peak hour iii. Existing: 0 Proposed: +/-586 iv. Yes v. Access from Route 9 and interior circulation vi. Yes vii. TBD viii. TBD

service(s) or facilities available within ½ mile of the proposed site? vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections existing pedestrian or bicycle routes?		
Note: Additional Traffic Trip Generation Data: i. AM PSH (In): ii. AM PSH (Out): iii. AM PSH (Total): iv. PM PSH (In): v. PM PSH (Out): vi. PM PSH (Total):	i. AM PSH (In): 272 ii. AM PSH (Out): 326 iii. AM PSH (Total): 598 iv. PM PSH (In): 429 v. PM PSH (Out): 402 vi. PM PSH (Total): 831	i. AM PSH (In): 287 ii. AM PSH (Out): 87 iii. AM PSH (Total): 374 iv. PM PSH (In): 104 v. PM PSH (Out): 281 vi. PM PSH (Total): 385
2k. Will the proposed generate new or additional demand for energy? If Yes: i. Estimate annual electricity demand during operation of the proposed action: ii. Anticipated sources/suppliers of electricity for the	Yes i. Relates to specific uses not yet determined for 350,000 SF of office, retail, congregate care ii. Via grid/local utility – Central Hudson iii. No	Yes i. TBD ii. Local Utility - Central Hudson Gas & Electric iii. TBD

project: iii. Will the proposed action require a new, or an upgrade to, an existing substation?		
2m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? If yes: i. Provide details including sources, time of day and duration: ii. Will proposed action remove existing barriers that could act as a light barrier or screen?	No* * Stated on Cornwall Commons EAF, though there are typically unavoidable increases of noise generated by construction equipment. However, this effect is mitigated once construction is complete. i. No – * Stated on Cornwall Commons EAF. However, because the entire site is wooded under existing conditions, some trees would have to be removed to accommodate the development.	Yes ii. There will be an unavoidable increase of noise generated by construction equipment. However, this effect is mitigated once construction is complete. iii. Yes - Existing vegetation will be preserved to the maximum extent practicable, however because the entire site is wooded under existing conditions, some trees will be removed to accommodate the proposed development.
2o. Does the proposed action have the potential to produce odors for more than one hour per day?	No	No
2p. 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?	No	Not anticipated – tenants TBD

2q. Will the proposed action use pesticides during construction or operation?	No	No
2r. Will the proposed action involve or require the management or disposal of solid waste? If Yes: i. Describe any solid waste to be generated during construction or operation of the facility: ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste iii. Proposed disposal methods/facilities for solid waste generated onsite:	Yes i. Construction: 30-50 tons/month Operation: 63 tons/month ii. Construction: none Operation: recycling and disposal as requested by the Town of Cornwall iii. Construction: Transport to Orange County transfer station – Route 17K Operation: Transport to Orange County transfer station – Route 17K	Yes i. TBD ii. Construction: Recycling and disposal as required by Town of Cornwall Operation: Recycling and disposal as required by Town of Cornwall iii. TBD Note: Town of Cornwall Town Board previously approved the extension of the refuce and garbage and ambulance special districts to serve the project.
2s. Does the proposed action include construction or modification of a solid waste management facility?	No	No
2t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?	No	No

E. SITE AND SETTING OF PROPOSED ACTION

	CORNWALL COMMONS	TREETOP DEVELOPMENT
NATURAL RESOURCES ON OR NEAR PROJECT SITE		
2h. Surface water features. i. Does any portion of the project site contain wetlands or other waterbodies? ii. Do any wetlands or other waterbodies adjoin the project site? iii. Are any of the wetlands or waterbodies within or adjoining the property site regulated by any federal, state or local agency? iv. For each identified regulated wetlands and waterbody on the project site, provide the following information: • Streams: • Lakes or Ponds: • Wetlands: • Wetlands No. v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?	i. Yes ii. Yes iii. Yes iv. Streams: Funny Child Ck & Moodna Ck (Classification: C) Wetlands: Federal Wetland v. No	i. Yes ii. Yes iii. Yes iv. Streams: Funny Child Ck & Moodna Ck (Classification: C) Wetlands: Federal Wetland v. No Note: The wetlands were re-delineated on 3/17/21 and 3/24/21 by Capital Environmental Consultants, as the original US Army Corops of Engineers issued a jurisdictional delineation approval on 10/16/12 which has since expired.
2i. Is the project site in a designated floodway?	No	No

2j. Is the project site in a 100-year flood plain?	No	No
2k. Is the project site in a 500-year flood plain?	No	No
2o. 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 – Indiana Bat, Least Bitter, Bald Eagle	Yes – Indiana Bat, Least Bitter, Bald Eagle
2p. 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?	No	No
DESIGNATED PUBLIC RESOURCES ON OR NEAR PROJECT SITE		
3e. 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 including on, the Date or National Register of Historic Places?	Yes - Firthcliffe Firehouse, Knox Headquarters	Yes - Firthcliffe Firehouse, Knox Headquarters
3f. Is the project site, or any portion of it, located in our adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation	Yes	Yes
3g. Have additional or historic site (s) or resources been identified on the project site?	No	TBD
3h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resources? If Yes:	Yes i. Knox Headquarters, State Historic Site ii. New York State Historic Site	Yes i. Knox Headquarters, Firth Cliff Firehouse ii. TBD iii. TBD

i. Identify resource: ii. Nature of, or basis for, designation: iii. Distance between project and resource:	iii. 0.25 Acres	

APPENDIX

LEAD AGENCY WRITTEN SEQR FINDINGS STATEMENT – CORNWALL COMMONS, TOWN OF CORNWALL PLANNING BOARD, ADOPTED DECEMBER 1, 2008

TOWN OF CORNWALL PLANNING BOARD

LEAD AGENCY WRITTEN SEQR FINDINGS STATEMENT

CORNWALL COMMONS

Town of Cornwall Planning Board
Adopted December 1, 2008

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LEAD AGENCY SUPPLEMENTAL WRITTEN SEQR FINDINGS STATEMENT

Cornwall Commons Land Development
Cornwall Commons
Site Plan Application, PAC Lot 10 and Overall PAC
SEQRA – Supplemental Findings Statement

Project Description

The project before the Town of Cornwall Planning Board is the site plan for Lot 10 of the Cornwall Commons Planned Adult Community (PAC), and the overall development of the entire project site and the remaining lots within the Planned Adult Community in a manner consistent with the Planning Board's Lead Agency Generic SEQR Findings Statement adopted April 15, 2003. The intent of this review is to determine the level of consistency of the overall subdivision and the PAC development with the Generic SEQR Findings Statement.

Background

The action in question is a component in a series of actions begun in late 1999 for a 197.7 acre tract of land that at the time was located primarily in the Town of Cornwall in the Planned Industrial Office (PIO) district, and partly in the Town of New Windsor in the R-3 residential district. At that time, the applicant was requesting a zoning amendment for the Cornwall property, which was rejected February of 2000. The applicant opted to pursue the subdivision and environmental review process according to the then-current zoning in both Towns, and examined alternative development scenarios involving re-zoning as part of the generic environmental review process. The Generic SEQR review was completed with the issuance of Generic SEQR Findings on April 15, 2003, and subsequent approvals that were granted for the property were based upon findings of consistency with the GEIS Lead Agency SEQR Findings of 2003.

Since the Planning Board's adoption of the Generic SEQR Findings Statement in 2003, the Town of Cornwall Town has adopted a January 2005 Comprehensive Plan that designated the property for Planned Residential Development (PRD) use, along with zoning amendments establishing the PRD district allowing Planned Adult Communities (PACs). The Comprehensive Plan describes PACs as active adult residential developments of at least one hundred or more units limited to families with at least one adult over 55 years of age and no children under age 19 . In addition:

- the site has been the subject of an annexation: the former New Windsor component of the project site was annexed to the Town of Cornwall, so that the entire 197.7 acres comprising the site are

now located wholly within the Town of Cornwall, and are zoned Planned Residential Development (PRD) consistently throughout the entire site;

- the site was most recently the subject of a preliminary subdivision approval by the Town of Cornwall Planning Board dated September 5, 2006, following a Negative Declaration and Consistency Determination with the 2003 Lead Agency GEIS Findings. The subdivision approval granted in September of 2006 was for a 10-lot subdivision intended to accommodate a Planned Adult Community, modified from a five-lot subdivision that had previously received a preliminary subdivision approval for a 5-lot subdivision in July of 2003 after adopting of the original GEIS Findings in April, 2003;
- the site was granted a PAC special permit from the Town of Cornwall Town Board on June 5, 2006 following a Consistency Determination with the 2003 Lead Agency GEIS Findings.

In relation to the PAC special permit review process, the Planning Board determined that the environmental review for the site needed to be updated in a few particular subject areas, so that when the applicant sought site plan approval for the residential component of the PAC, the applicant would complete a Supplemental Environmental Impact Statement.

Location and Zoning Designations of Site

The application involves a 197.7-acre property which is located in the Town of Cornwall at the New Windsor municipal border, consisting of tax map parcel Section 9, Block 1, Lot 25.22, located in the PRD district in Cornwall. The site includes approximately 53 acres of land that had previously been located in the Town of New Windsor, but was annexed into the Town of Cornwall. The site is located on the northwest side of NYS Route 9W next to the former O&W Railway line.

Filing of Application

The land use application for the PAC project on lot ten of the Cornwall Commons preliminary subdivision plan was submitted on or about October, 2006.

Supplemental DEIS Scoping Procedures

As part of the consideration of the 10-lot subdivision to accommodate the PAC, the applicant had agreed to prepare and submit a Supplemental Environmental Impact Statement speaking to specific overall effects of the PAC site development and of the PAC lot 10 in particular, both updating information from the Generic EIS and also speaking to the specific compliance with the GEIS Findings. In addition, the

Planning Board had requested specific subject areas be addressed for the overall site including views, traffic, stormwater, and rough grading.

The applicant submitted a written scoping outline which was disseminated to the public, and written scoping comments were received by the public. A final written supplemental scope incorporating some changes and additions was adopted by the Planning Board on January 9, 2007.

Draft SEIS Submission, Acceptance and Notices

The applicant submitted copies of a Draft Supplemental EIS on December 3, 2007. The submitted document was not deemed to be acceptable, and various modifications were made to the document and the plans over the next several months, with the revised document ultimately being filed on June 16, 2008. The document was circulated to all Involved and Interested Agencies and made available online.

Joint Public Hearing dates on Draft SEIS and Site Plan

The Town of Cornwall Planning Board scheduled a joint SEQR hearing on the Draft Supplemental EIS and the Site Plan for Lot 10 on July 7, 2008, with a ten-day written comment period. The hearings were closed on July 7, 2008, and the Planning Board requested that a Final Supplemental Environmental Impact Statement be prepared in order to address the body of comments submitted.

FSEIS submission date and filing date

The applicant prepared and submitted copies of a Final Supplemental EIS on August 20, 2008. The Lead Agency considered the document, determined to make revisions, and resolved on November 3, 2008to file it on November 6, 2008. This document was filed and made available both electronically and via surface mail in the same manner as the SDEIS. The ten-day consideration period for the FSEIS expired ten days after the date of filing.

WHEREAS, the Lead Agency Town of Cornwall Planning Board has given due and thorough consideration to the Draft and Final Supplemental Environmental Impact Statements, the transcripts of the public hearing held on the DSEIS, all comments submitted by its professional consultants, all submitted plans and other information submitted by the applicant and its representatives, and all written and oral comments submitted by the public and other Involved and Interested agencies with regard to this application. The Lead Agency considered all of the above-mentioned information with regard to the potentially significant environmental impacts that may be expected from the overall project and reasonable alternatives thereto. These Findings show that the Lead Agency has considered and addressed the subject

areas where the overall plan may create potentially harmful environmental impacts, and has considered the plan's consistency with the original GEIS Findings, including but not limited to where those Findings stated that the matter would be implemented in the course of Site Plan review. Further, although the plans will require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

NOW THEREFORE BE IT DETERMINED that the Lead Agency finds that all requirements of NYCRR Part 617 have been met, and further makes the following findings:

1. Consistent with social, economic, and other essential considerations from among the reasonable alternatives thereto, the action to be carried out, funded or approved is one which minimizes or avoids adverse environmental effects to the maximum extent practicable, consistent with other applicable requirements of law.

2. Consistent with social, economic, and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact review process will be minimized or avoided by incorporating as conditions to the decision those mitigation measures that were identified as practicable, and as are outlined specifically in this document below and in the FSEIS]

Statement of Facts and Findings

Specific Environmental Conditions, Mitigations and Findings

A. Land Use and Zoning/Community Character

Land Use and Planning Issues Relating to the Subdivision Plan, the PAC and the Overall Project

The original Generic EIS prepared for Cornwall Commons subdivision plan had considered the effects of a commercial/industrial development of a proposed 5-lot subdivision and development of 1,000,000 square feet of mixed use industrial of PIO lands in Cornwall, plus the residential use of the R-3-zoned New Windsor lands for 69 single family lots in accordance with the existing zoning laws that had existed at that time for each municipality. That GEIS had also evaluated several alternatives, including one that involved a change to the Town of Cornwall Comprehensive Plan and zoning. Since the Cornwall Commons GEIS Findings were adopted in April 2003, the Town of Cornwall has adopted a new

Comprehensive Plan and implementing zoning regulations, and has also annexed and re-zoned the portion of the site that was formerly in New Windsor.

In this subject area, the 2003 Generic SEQR Findings had established three policies and procedures regarding the site use. None of these are relevant or applicable any more, given the change in events. The 2005 Cornwall Comprehensive Plan and the zoning provisions of 2005, along with the annexation, obviate the need for the level of intermunicipal site plan coordination that had been called for in 2003. While the Town of New Windsor is still an Interested Agency and will continue to receive all SEQR materials, the previous GEIS Findings in the area of land use and planning are no longer applicable. Any preliminary land use approvals that were previously granted for a residential subdivision within the former Town of New Windsor component of the site are no longer valid or applicable.

The applicant now seeks to use the property for a PAC (Planned Adult Community), consistent with the Town of Cornwall Comprehensive Plan and with the current zoning. The property has already received a preliminary subdivision approval, most recently in September, 2006 for a 10 lot subdivision intended to accommodate the PAC. The site was granted a PAC special permit from the Town of Cornwall Town Board on June 5, 2006.

The residential component of the PAC is proposed to contain a total of 490 units, of which 314 are to be single family detached dwellings, 14 are to be single family attached dwellings, and 162 are to be multiple dwellings arrayed in nine separate buildings. There is also proposed to be a clubhouse facility on the lot, an array of recreational facilities to provide for a portion of the residents' recreational needs, and on-site stormwater management facilities.

Allowable unit count and the prescribed mix of units is set forth in Section 158-21-X of the Cornwall Code. The maximum density of a PAC is 3 dwelling units per usable acre. On the entire project site there is a total of 197.716 acres, with a net acreage of 185.456 acres after subtracting the required deductions of 9.530 acres for regulated jurisdictional wetlands and 2.730 acres for existing easements. Accordingly, the maximum potential density is 556 units. However, the applicant has entered into a developer's agreement with the Town of Cornwall Town Board on April 11, 2005, specifying among other things that the total number of dwelling units on the site will not exceed 490. It should be noted that any acreage devoted to the commercial components of the PAC are not deducted from the net acreage, as clarified in the developer's agreement. Also in accordance with the developer's agreement, at the grant of site plan approval, the applicant will record a declaration of covenants and restrictions limiting the development of the remaining property – namely, the lands shown as lots 1 through 9 of the preliminary subdivision plat – to commercial uses, enforceable by the Town Board.

The Cornwall Code also requires a range of different housing types to be provided in a PAC, with detached single family units being not less than 30% and not more than 90% of the units, attached single family units being between zero percent and not more than 30% of the units, and multiple dwelling units being between zero

percent and not more than 30% of the units. In the case of the Cornwall Commons PAC site plan, the plans depict 314 single family detached units, 14 single family attached units, and 162 multiple dwelling units. A question had been raised as to what number of units the percentages should be calculated against, whether the maximum number of units allowed by the Code, or the total number of units provided? The Planning Board attorney confirmed[1] that the unit mix limitation should be calculated against the maximum allowable total unit count; and therefore the proposed unit mix complies with the Code restrictions and requirements.

In addition to the unit count falling within the Code requirements, the lot setback and perimeter buffer requirements of the Code are met by the site plan for lot 10.

Other elements of plan compliance with the Cornwall Code, relative to general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X, were considered, and where these elements relate to SEQR considerations, they are addressed separately in this document according to subject area.

Land Use Approval Being Sought – SEQRA Action

The applicant is seeking site plan approval for Lot 10 of this subdivision, containing 158.994 acres, which is proposed to be used for the residential components of the PAC. Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[2], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within the timeframe set forth in Section 158-19-D(5) of the Cornwall Code . The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Findings Statement.

The site plan incorporates some level of flexibility for the construction and siting of the structures, in recognition of the fact that there will be different housing types and designs offered within the project. However, the plans also incorporate overall limits to the impervious footprint of each unit, and the plans also provide for specific minimum separations and setbacks to be maintained among the units, in order to ensure both that the drainage facilities will be properly sized, that adequate light and air is provided to the buildings, and that adequate access to the buildings is provided.

- *For single family detached dwelling units:* The plans show minimum setbacks from the units and both the sidewalks and the edge of the proposed privately owned internal roadway on Lot 10. The units will have not less than a 25-foot setback from the sidewalk, and not less than 32 feet from the edge of the roadway. These minimum setbacks will ensure that a car can be parked within the driveway without encroaching on the sidewalk or the road.

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1 By memorandum dated March 28, 2008.

2 See Section 158-19-G

Single family detached units will not exceed a maximum of 45 feet in width nor 60 feet in length[3], with not less than 15 feet of side yard separating the structures. Rear yard separations shall not be less than 32 feet from one dwelling to another. Optional decks or patios not exceeding 10 feet in depth by 20 feet in width may be constructed within this 60-foot x 45-foot building envelope, and such decks if built, shall have at least 22 feet of separation from another dwelling. Driveways shall have a 15-foot wide curb opening, widening to 18 feet; and the sizing adequacy of the site's stormwater management facilities will be reviewed by the Town Engineer prior to final site plan approval.

- *For single family attached dwelling units*: The plans show minimum setbacks from the units and the edge of the proposed privately owned internal roadway on Lot 10. The units will have at least a 25-foot setback from the edge of the roadway; where sidewalks serving these units are not proposed to be located directly adjacent to the units. Single family attached units will not exceed a maximum of 30 feet in width nor 74 feet in length, and with every 30 foot unit width, there will be an offset or "jog" in the unit's front setback[4] of not less than 2 feet and not more than 5 feet. Rear yard separations shall not be less than 32 feet from one dwelling to another.
- *For multiple-dwelling units*: The plans show maximum footprints of 83 feet by 160 feet for the multiple dwelling unit structures, with 18 units per building and 18 indoor garage units, one of which is handicapped-accessible, contained in each building.[5] Accessory parking spaces will be provided directly adjacent to the buildings,

All other elements of the site plan, such as the clubhouse, will be built as shown on the plan. Overall, the plan elements appear to preliminarily comply with the Cornwall Code provisions in respect to both general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X. Although the plans may require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

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[3] Including any optional deck or patio, so that the total maximum impervious area per unit would not exceed the 60'x45' figure. The largest single family home will be constructed within the 60' x 45' building envelope depicted on the site plan, excluding cornices, roof overhangs, trim elements, and handicapped ramps.

[4] Including any optional deck or patio, so that the total maximum impervious area per unit would not exceed the 30'x74' figure. The impervious footprint within this envelope does not count cornices, roof overhangs, trim elements, and handicapped ramps.

[5] This calculation excludes cornices, roof overhangs and trim elements.

Mitigation Measures/Policies and Procedures:

A1. The previously adopted GEIS Lead Agency SEQR Findings A1-A3 from April, 2003 are no longer applicable due to changes in circumstance. The 2005 Cornwall Comprehensive Plan and the zoning provisions of 2005, along with the annexation, obviate the need for the level of inter-municipal site plan coordination that had been called for in the 2003 Generic Lead Agency SEQR Findings A1-A3. The site is now wholly contained within the Town of Cornwall, and the zoning is now consistent throughout the site. The Town of New Windsor is now an Interested Agency that will continue to receive all SEQR documents and notices.

A2. In the case of the Cornwall Commons PAC site plan, the plans depict a total of 490 units of which 314 are single family detached units, 14 are single family attached units, and 162 are multiple dwelling units. The Planning Board attorney confirmed that the unit mix limitation should be calculated against the maximum allowable total unit count; and therefore the proposed unit mix complies with the Code restrictions and requirements.

A3. The residential unit count of 490 that is proposed on the site plan is less than the maximum number of units allowed in the PAC pursuant to the zoning code. However, the applicant has entered into a developer's agreement with the Town of Cornwall Town Board on April 11, 2005, specifying among other things that the total number of dwelling units on the site will not exceed 490. In accordance with that developer's agreement, at the grant of site plan approval, the applicant will record a declaration of covenants and restrictions limiting the development of the remaining property – namely, the lands shown as lots 1 through 9 of the preliminary subdivision plat – to commercial uses, with this restriction being enforceable by the Town Board. The aforementioned commercial lots will require site plan review and approval by the Planning Board, and also a consistency determination for the GEIS Findings and this Supplemental Findings Statement.

A4. The PAC use on this site is consistent with surrounding land uses, with the current zoning, and the current Town and County plans, and the setback areas required under the PAC zoning requirements have been provided on the plans. The site plan has been referred to the Orange County Planning Department (OCPD) for mandatory review pursuant to Section 239 of General Municipal Law, but the OCPD's report on the special use permit authorizing the use specifically commented on the suitability of the use in this County-mapped Priority Growth area.

A5. The action that is currently before the Planning Board is the application for site plan approval for Lot 10 of the Cornwall Commons

subdivision, containing 158.994 acres, which is proposed to be used for the residential components of the PAC. Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[6], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within 90 days, pursuant to Section 158-19-D(5) of the Cornwall Code. The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Findings Statement. Overall, the plan elements appear to preliminarily comply with the Cornwall Code provisions in respect to both general site plan requirements pursuant to Section 158-19 as well as the specific requirements of Section 158-21-X. Although the plans may require some modifications based on outside agency approvals (DOT, water, sewer, stormwater) and Town technical requirements upon finalization of the plan preliminary grades and road widths, the plans as currently proposed otherwise meet the town's requirements and would be suitable for conditional site plan approval.

The site plan approval that will be acted on by the Planning Board will incorporate some level of flexibility for the construction and siting of the single family residential structures, in recognition of the fact that there will be different housing types and designs offered within the project. However, there are overall limits to the unit sizes/impervious areas, and specific building separations and setbacks are maintained, in order ensure that the drainage facilities will be properly sized, that adequate light and air is provided to the buildings, and that adequate access to the buildings is provided. The specific limits applying to the lot 10 site plan are described above in the bulleted text of this section of these Findings. Other elements of the site plan, such as the clubhouse, will be built as shown on the plan

B. Soils and Topography

As noted in the Generic EIS, the site is a gently rolling property that drops in overall grade towards the north. The highest elevation is a knoll on the western portion of the property at approximately 240 feet above mean sea level; the lowest point is 142 feet on the north side near the bounds of the former railroad ROW. At least 80% of the site is sloped at 10% or less. The rail ROW lies in a steep-sided cut below the rest of the property. None of the former rail ROW is located within the bounds of the site.

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[6] See Section 158-19-G

The GEIS had reported that site soils are primarily deep, moderately well-drained Mardin gravelly silt loams at 3-8% slopes, but with substantial areas of somewhat poorly drained Erie gravelly silt loam in the northern part of the site, and Bath-Nassau shaly silt loam at 3-8% slopes in the front of the site adjacent to Route 9W. The soils have a fragipan, which is associated with a seasonal high water table.

Melick-Tully Associates (MTA) carried out soil testing in October, 2006 at several locations within the site, and reported the following:

- after following the recommended site preparation procedures, the test results indicated that buildings can be supported by conventional shallow foundations in either undisturbed extant soils, shale, or fill material
- shallow perched water seepage could be encountered seasonally, and therefore de-watering operations may need to be carried out during construction
- while basements are feasible throughout large parts of the site, the presence of bedrock and shallow perched water seepage will need to be considered in the planning and design

Erosion and slope failure was encountered on a steeply sloped area in the vicinity of the abandoned railroad ROW in the extreme northern portion of the site. The soils test report, which was included as an appendix to the SDEIS, did not extensively evaluate this slope failure, but it did indicate that the stability problem apparently initiated on the adjacent parcel, and that it might be possible for the unstable slopes to result in additional slope failures extending into the site. The report concluded that the project site planning would need to take into account "the configuration of the perimeter slopes, investigation of their stability, and final grades.[7]".

The GEIS had reported that the underlying bedrock was weathered, rippable shale, and did not anticipate that blasting would be needed in the course of site preparation. However, the MTA report in the SDEIS stated that the shale in the area is typically very sound below a thin fractured layer, and while large areas of excavation extending only a few feet below the bedrock surface could be removed with heavy construction equipment or hydraulic jackhammers, deeper excavations for foundations or utility installations in areas of sound bedrock may require blasting. Because there had been no grading plans developed for the entire site when the soils analysis was completed, MTA reported that it was not possible to determine whether blasting would be needed in the course of site preparation, and if so, to what extent. The study recommended that MTA review the plans to determine the amount of additional testing that would be needed throughout the site to further determine the impact of rock removal on site grading; though this has not been done. In any case, in the event that blasting is needed, the potential for off-site blasting impacts must be evaluated in the context of the relative isolation of the bulk of the project site from other surrounding existing development. The large size of

[7] Melick-Tully Associates report, 11/3/06, DSEIS Appendix C

the project site and its separation from existing development makes it unlikely that any developed offsite property would be significantly harmfully impacted by on-site blasting operations, if and where needed for the project road and lot 10. Further, any blasting operations would be conducted in accordance with NYS regulations which are designed to safeguard adjoining property owners.

MTA's report stated that soil material excavated from the site would likely consist of silty sands, sandy silts, or fractured shale material. Fractured shale would be suitable for use as fill, if properly processed. The silty sands and sandy silts are marginally suitable for use as controlled compacted fill, due to moisture content and compaction, but with aeration and drying this limitation can be overcome, and in such case the material could be used as fill or backfill around building and pavement areas.

The MTA report incorporated several specific recommended design and construction criteria for foundations, floor slabs, basements and pavement. These criteria are considered to be sound design and construction practices for site conditions, and would be the responsibility of the builder to implement during design and construction.

Notwithstanding the timing of the MTA report, grading plans for lot 10 including road profiles for the proposed looped town road access, and a cut and fill analysis were completed for the development of the Lot 10 site plan. The cut and fill analysis indicated that a surplus of approximately 36,800 cubic yards of material would be generated from the looped road grading and construction, with a shortfall of approximately 13,300 cubic yards of fill material for the construction of lot 10. This would result in a net surplus of approximately 23,500 cubic yards of material between the two components of the project. No grading plans have been developed for the remaining lots 1-9 of the subdivision. These lots would need to be evaluated at the time of site plan approval, specific to the uses proposed for each.

The grading plans limit the need for retaining walls, but the walls which are needed are shown on the site plan for lot 10, and most of them range from between 2 to not more than 4 feet in height. One wall ranges from 3 to 5 feet, and two others are up to 8 feet high in portions. The walls are proposed to be modular block construction. Split rail fencing or box beam railings, depending on the location of the walls, are shown on the plans for safety purposes where appropriate.

Erosion is a potential impact wherever land disturbance takes place. To mitigate this impact, erosion control measures are proposed. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared and will be implemented at the site in compliance with state regulations. The SWPPP addresses the needs not only of the site plan for lot 10, but also for the loop road and the maximum potential buildout of the 9 commercial lots. Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs have been pre-planned for.

Based on the limitations to impervious area set forth in the site plan and described more particularly in Section A of these Findings, the SWPPP provides adequately for the maximum amount of impervious area that could be constructed on the entire site.

Mitigation Measures/Policies and Procedures:

B1. Soils analysis showed that, with the incorporation of measures recommended in the Melick-Tully Associates soils report, the limitations imposed by the shallow perched groundwater conditions can be overcome and the soil materials onsite used for controlled compacted fill, and the site can accommodate conventional shallow foundations. Shallow bedrock in some areas of the site can be removed by ripping or hydraulic removal of the surface layer, though deeper excavations in areas of shallow bedrock may require blasting. In the event that blasting is needed, the operation would need to be conducted in compliance with existing state regulations. However, the relative isolation of the bulk of the project site from other surrounding existing development makes it unlikely that any developed offsite property would be significantly harmfully impacted by on-site blasting operations, if and where needed for the project road and lot 10.

If needed, any blasting would be conducted in compliance with New York State requirements [Title 12 of the New York Code of Rules and Regulations (12 NYCRR Part 39)]. Blasting would be conducted by licensed and insured blasting contractors. The minimum required amount of explosives would be used in all blasting operations. Pre-blasting inspections would be conducted of all off-site structures located within 500 feet of the excavation area, if authorized by the off-site property owner. The contractor would conduct test blasting and seismographic monitoring, if necessary, prior to any other blasting to determine appropriate on-site blasting techniques, when blasting is to occur within 500 feet of existing off-site structures. When conducting blasting within 500 feet of existing off-site structures, seismographic monitoring would continue throughout the periods of blasting at the site, and daily logs of seismographic data, explosive use and field conditions would be maintained.

B2. The cut and fill analysis indicated that a surplus of approximately 36,800 cubic yards of material would be generated from the looped road grading and construction, with a shortfall of approximately 13,300 cubic yards of fill material for the construction of lot 10. This would result in a net surplus of approximately 23,500 cubic yards of material between the two components of the project. No grading plans have been developed for the remaining lots 1-9 of the subdivision. These lots would need to be evaluated at the time of site plan approval.

Adequate area exists on the site to provide temporary stockpile areas pending its removal or re-use elsewhere within the overall site[8]. The Planning Board and the Town Engineer will review and approve a final Stormwater Pollution Prevention Plan (SWPPP) before acting upon final site plan approval.

B3. Erosion, siltation and other stormwater pollution impacts will be mitigated by implementing the Stormwater Pollution Prevention Plan (SWPPP) prepared for the site in compliance with state regulations. The SWPPP addresses the needs for the maximum potential buildout of the entire site, including all ten lots and the roadway. Based on the limitations to impervious area set forth in the site plan and described more particularly in Section A of these Findings, the SWPPP provides adequately for the maximum amount of impervious area that could be constructed on the entire site.

Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs will be provided by way of this site plan's SWPPP.

B.4. Grading, cutting and filling shall be limited only to those areas specified for development and will be completed in as short a time as practical in order to reduce the potential for slope and topographic alterations due to erosion. Site disturbance will need to comply with the DEC SPDES General Permit requirement limiting site disturbance to no more than 5 acres at a time pursuant to the DEC SPDES General Permit. If the applicant seeks to waive this five-acre limitation, as is often done for large projects such as Cornwall Commons in order to correctly install the necessary utilities while limiting soil disturbance, it will need to comply with more stringent DEC requirements and receive DEC approval for the same. See also Finding D-7 of this Environmental Findings Statement for related consideration.

C. Water Resources (includes Wetlands)

Most of the site drains to the northwest by way of a series of small undefined streams and sheet surface water flow towards the Moodna Creek. A portion of the site drains eastward, towards a small stream known as the Funny Child Creek, a tributary of the Moodna Creek located just east of Route 9W. Both creeks are designated class "C" streams, and both streams are located offsite.

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[8] such stockpiling must be fully evaluated in the SWPPP and be otherwise consistent with these Findings.

Consistent with current requirements, stormwater runoff from developed areas of the site will be directed to stormwater management basins to address water quality concerns, and the rates of runoff off the site will be moderated so as not to exceed pre-construction conditions. This will avoid creating or exacerbating any off-site drainage or flooding impacts as a result of the increase in impervious area and changes to existing on-site drainage patterns. There are no floodplain areas located on the site.

Due to the originally issued federal wetland Jurisdictional Determination having expired, supplemental study was performed on the site's wetland resources, and additional areas were flagged in the field and discussed in the SDEIS updating the information set forth in the original GEIS. A total of six wetland areas, none of which were New York State jurisdictional wetlands, and two of which were determined to be "isolated" wetlands and thereby ineligible for federal regulation at this time, were determined to be on the site. This updated information revises and replaces the wetland descriptions set forth in the Cornwall Commons GEIS, and a new Jurisdictional Determination was issued December 19, 2007:

- Wetland "A" is a narrow, elongated body that is 3.91 acres in size that incorporates a poorly defined drainage way emptying into a culvert under Rt. 9W, draining to the southeast. It is a red-maple wooded wetland originating on the site. This wetland is located southwest of and parallel to the proposed looped town access road into the site.
- Wetland "B" is 1.401 acres in size and is located in the extreme western part of the site in the vicinity of existing residential development located offsite on Schofield Lane and Howard Street. This wetland lies west of the NYC Aqueduct easement. This area is fed by drainage from both on and off the site, including drainage from the two town roads, and drains offsite to the north.
- Wetland "C" is a 3.59-acre shallow, isolated, non-jurisdictional wetland, containing red maple, swamp white oak, spicebush and tussock sedge and surrounded by mixed hardwood forest upland. This wetland contains vernal pools, and spotted salamander eggs were found within these pools. Despite its large size, it is non-jurisdictional as it has no outlet. It originates on and is wholly contained within the site, at the center of the site.
- Wetland "D" is a 3.698-acre wooded wetland located at the southwest portion of the site, behind existing offsite residential properties at the end of Frost Lane, and tapering off to the east in an undefined, long narrow drainage course towards the Willow Woods/Stone Hollow subdivision. This wetland is dominated by swamp white oak, and was found to contain spotted salamander eggs and wood frog tadpoles. As reported in the DGEIS from studies performed in early spring of 2002, weak stellate sedge (Carex seorsa), which is listed as a threatened species by New York State, was found on the site only at the border of Wetland D.

- Wetland "E" is just over a half-acre in size (0.518 acres). It is located in small depression and flows offsite to the west, towards the former railroad ROW and thence toward the Moodna Creek. It too was found to contain spotted salamander eggs and wood frog tadpoles.
- Wetland "F" is an elongated wooded wetland that is 1.021 acres in size, located northwest of Wetland D. This is an isolated, non-jurisdictional wetland.

Wetlands C and F are both isolated. The regulatory status of Wetland C was much debated after the filing of the original GDEIS, and the Army Corps of Engineers (ACOE) conducted a second field visit in 2003 in order to determine if a hydrologic connection to navigable waters existed for Wetland C. ACOE found that there was no permanent outfall for Wetland C, and that accordingly it was a non-jurisdictional wetland and not subject to federal regulation.

All of the wetlands on the Cornwall Commons property are located on Lot 10, so that no other activities on proposed lots 1-9 would be expected to affect onsite wetlands either directly or indirectly. And as discussed in Section B of these Findings, the SWPPP addresses the needs for the maximum potential buildout of the entire site, including all ten lots and the roadway.

The environmental review of wetland impacts focused on both direct and indirect potential impacts that may harm the wetlands and disrupt their function. *Direct impacts* result from direct disturbance to a wetland, such as grading or placing fill in the wetland. *Indirect impacts* result from other disturbances, such as allowing pollutants to drain into a wetland and to disrupt its functions, or from disrupting a wetland's hydrologic regime.

Direct impacts to on-site wetlands:

- Wetland "A": A stormwater management basin is proposed to be located on an upland area lying southwest of Wetland A. In order to obtain access to the upland area to construct and maintain that basin, there will be minor temporary and permanent disturbances to Wetland A, with a permanent disturbance of 0.004 acres in order to install an arched culvert for an access way, and 0.014 acres of temporary disturbance for the placement of a drainage culvert conveying drainage from the roadway into the basin. The arched culvert is an open bottomed culvert that minimizes direct disturbance to the wetland. The wetland crossing and the pipe placement is proposed for the narrowest part of the wetland, consistent with grades and safe access.

  Consistent with the GEIS mitigation measures, the edge of the grading needed for the stormwater basin is shown 25 feet away from the western bounds of stream course within Wetland A. On the east side, all grading activities associated with the southern leg of the main access road will be separated by not less than 25 feet from the stream course within Wetland A.

This disturbance is minor. Erosion control measures are incorporated in the plan. This disturbance cannot reasonably be avoided because of topography and the inability to access the site directly from Rt. 9W for maintenance purposes.

- Wetland "B": this wetland is not proposed to be directly disturbed.
- Wetland "C": 0.255 acres of direct disturbance is proposed for non-jurisdictional Wetland C. The disturbance is at the southern edges of the wetland and relate to the internal access road construction and grading, as well as drainage connections under the proposed road. An amphibian crossing culvert is proposed to connect Wetland C with upland areas on the south side of proposed road B.
- Wetland "D": no direct disturbance is proposed for this wetland, though some limited grading is proposed close to the northwestern portion of the wetland. The stream at the easternmost portion of the wetland is protected by a 25 foot setback where the stream is present in defined form.
- Wetland "E": 0.006 acres of direct disturbance is proposed at the edge of the wetland, relating to the construction of Road D serving the single family detached units.
- Wetland "F": 0.844 acres of direct disturbance is proposed for non-jurisdictional wetland F. This wetland will be eliminated. Its northwesternmost portion will be incorporated into part of a stormwater management basin, part will be disturbed by the construction of Road D serving the single family detached units, and part will be disturbed by residential units 69 and 70, 89 and 90.

Indirect impacts to on-site wetlands:

Changes to the hydraulic regime of wetlands, significantly altering when the wetland is wet, can affect the health, function and even the very existence of a wetland. Accordingly, consistent with GEIS Finding C-4, the Planning Board required an evaluation of the pre- and post-development drainage into the wetlands, in order to determine compliance with the requirement that the stormwater plan be designed to, in addition to treating water quality, maintain tributary sources of stormwater runoff into the relevant fresh water wetlands in order to maintain their viability.

Pre- and Post-Development Differences in Wetland Inflows (Volume)						
Wetland Area	**Rainfall Peak Flow (cfs)**			**Rainfall Volume (acre-feet)**		
	1-year	**10-year**	**100 year**	**1-year**	**10-year**	**100 year**

Wetland A	-7.23	-29.25	-26.95	-0.058	1.582	3.339
Wetland B	0.00	0.00	0.00	0.00	0.00	0.00
Wetland C (non-jurisdictional)	3.4	2.88	0.43	-0.004	-0.461	-1.052
Wetland D	1.52	1.78	1.21	0.115	0.154	0.131
Wetland E	-5.27	-0.94	13.21	-0.290	1.308	2.725
Wetland F (non-jurisdictional)	-4.16	-14.22	-24.16	-.500	-1.597	-2.714

Pre- and Post-Development Differences in Wetland Inflows (Percent)

Wetland Area	Rainfall Peak Flow (percent)			Rainfall Volume (percent)		
	1-year	10-year	100 year	1-year	10-year	100 year
Wetland A	-55.8%	-53.5%	-27.5%	-3.9%	28.7%	34.7%
Wetland B	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wetland C (non-jurisdictional)	57.0%	11.5%	1.0%	-0.6%	-17.4%	-22.4%
Wetland D	20.4%	6.0%	2.3%	14.4%	5.4%	2.6%
Wetland E	-91.8%	4.1%	32.3%	-37.5%	47.6%	56.3%
Wetland F (non-jurisdictional)	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%

Constructing the site plan for Cornwall Commons will alter existing drainage patterns within the site, and will alter the volume and rate of water flowing into most of the wetlands on the site. Water inflows to Wetland B are not being changed at all. Wetland F will be eliminated and no water will be directed to the small portion of Wetland F that is not being filled, graded or otherwise disturbed. However, Wetland F is non-jurisdictional, is not used for amphibian breeding purposes, and contains no plant species of concern, so this would not constitute a significant harmful impact.

Wetland A will see a drainage volume increase in all storm events other than the 1-year storm, as the runoff from an additional 9.8 acres of land area will be directed into Wetland A. However, the peak flow rates will decrease, due to the detention provided by two stormwater ponds (designated as ponds C and E), and water quality protection is provided by these stormwater ponds.

Based on the study completed in the GEIS, Wetlands C, D and E were of greatest interest, due to their amphibian breeding functions, and presence of a plant species of concern. Drainage to these wetlands is affected as follows:

- The drainage area of Wetland C is proposed to decrease by 4.54 acres. This change will decrease the runoff volumes into the wetland under all storm

events, ranging from a slight 0.6% decrease in the annual storm, to 17.4% in the ten-year storm, and 22.4% in the 100-year storm. Peak flow rates into the wetland will increase in most storm events, particularly in the one-year storm at 57%, but only 11.5% in the 10-year storm, and only 1% in the 100-year storm. This decrease in total runoff is less under the plan with the 28-foot roads than with the proposed 24-foot roads, though the rate of increase in the runoff in the one- and ten-year storms is higher. However, the increased peak flow rates to the wetland would not be expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.

- The drainage area of Wetland D is proposed to decrease very slightly, by only 0.65 acre. Notwithstanding, due to the increase in impervious areas, the wetland will experience small to moderate increases in runoff volumes in all storm events, and increases to peak flow rates in all storm events, with the highest (20.4%) in the 1-year storm and small to moderate increases in the 10- and 100-year storms. However, any increases to peak flow rates to the wetland would not expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.
- The drainage area of Wetland E is proposed to increase by 6.66 acres. Notwithstanding this change, the volume of runoff is projected to decrease by 37.5% in the one-year storm event, though it would increase by 47.6% in the 10-year storm and 56.3% in the 100-year storm. Detention provided by stormwater pond D, which discharges toward Wetland E, substantially decreases peak flow rates into the wetland in the more frequent storm events, decreasing by fully 91.8% in the one-year storm and decreasing by 4.1% in the 10-year storm, but in the 100-year storm there would be a 32.3% increase in peak flow rates. However, any increases to peak flow rates to the wetland would not expected to cause scouring or erosion due to the mitigation measures incorporated into the SWPPP.

Mitigation Measures/Policies and Procedures:

C1. Wetland boundaries on the site were re-visited since the completion of the original GEIS, as the original federal wetland Jurisdictional Determination had expired. Additional wetland areas were identified and are shown on the plans, and a revised Jurisdictional Determination has been issued.

C2. A site-specific grading plan has been developed for Lot 10, and a drainage plan for the entire site has been developed. A Stormwater Pollution Prevention Plan (SWPPP) was prepared as part of the DSEIS and provides for the maximum potential buildout of the entire site, including all ten lots and the roadway. This action is consistent

with the GEIS Finding C-1. Stormwater management and water quality protection is provided for using a range of Best Management Practices set forth in NYS DEC's Stormwater Management Design Manual.

Site plan reviews for lots 1-9 will ensure that the overall site drainage plan is complied with. Consistent with the GEIS Findings, the applicant does not propose to pre-grade the commercial lots in order to develop them as potential building sites in advance of a site-specific user, notwithstanding that their stormwater management and water quality needs have been pre-planned for. Such determination will not preclude commercial lot site plans from incorporating additional stormwater quality treatment measures.

C3. GEIS Finding C3 stated that the site plans would avoid any disturbance of the federally protected wetland to the maximum extent practicable. It also stated that the Planning Board would encourage the preservation of protected buffer areas of at least 25 feet on both sides of on-site stream corridors and the jurisdictional wetlands.

The site-specific plans comply with this Finding as follows: the plans avoid all but a limited amount of direct disturbance to both jurisdictional and non-jurisdictional wetlands onsite. One of the six wetlands on the site will be completely eliminated, and that is wetland F, which is a small non-jurisdictional wetland. The plans do incorporate 25-foot protected buffer areas from the defined streams within the wetlands.

Not all portions of the protected wetland boundaries are protected from physical disturbance by 25-foot buffers[9]. In the case of wetland D, there are some areas where grading or other disturbance is proposed to take place close to the wetland boundary (such as some pavement area near condo 6, or grading near single family unit 93 and Road G. In the case of Wetland A, pavement disturbance near condo 9 and grading for stormwater management pond E will be within 25 feet of the wetland. And some of the recreational structures and facilities (pool, base of the terrace wall) will be located within 25 feet of the bounds of non-jurisdictional Wetland C.

Specific mitigation measures are proposed and will be followed where construction will take place near to Wetlands A, C, D, and E: prior to any clearing, grading or construction, a four-foot construction barrier fence and silt fence will be installed between the wetland and at the limits of disturbance. These same mitigation measures will be

[9] Of course, this is in addition to the areas where *direct* disturbance is already proposed, as listed in this section.

employed to protect upland areas of undisturbed woodland that are proposed to remain.

Any stormwater runoff that will be released near both wetlands and woodlands will pass through features such as rip-rapped outfalls, level spreaders, grassed swales, or gravel diaphragms, designed to dissipate energy, avoid erosion or scouring, and protect the quality of the discharge. All disturbed areas will be re-planted in native grasses, and near the wetlands, native shrubs and trees will be planted to help restore the native upland habitat.

Additional findings in relation to the wetland impacts are found in Section D of this Findings Statement.

C4. GEIS Finding C4 stated that the stormwater that will enter into any of the federally protected jurisdictional fresh water wetlands, during and after construction, will be routed through water quality features to remove contaminants as required by the NYSDEC. This finding also noted that the stormwater plan will also be designed to maintain tributary sources of stormwater runoff into the relevant fresh water wetlands in order to maintain their viability. The site plan was extensively revised in order to fulfill this requirement, to the greatest extent practicable consistent with the use of the site.

C5. All stormwater facilities require a level of routine inspection and periodic maintenance in order to continue functioning as intended. In order to provide for this maintenance there must be a responsible party. In the case of the Cornwall Commons PAC, a homeowners association (HOA) will be responsible for inspecting and maintaining all of the facilities, and any routine cleaning of sediment or repair. This work will be done in accordance the checklist incorporated in Appendix H of the SWPPP.

D. Ecology

The DGEIS incorporated a description of site vegetation and habitat. The northern third of the site is a nearly impenetrable thicket of non-native invasive species such as black locust, multiflora rose, buckthorn, winged euonymus, greenbriars, and Asiatic bittersweet. The former industrial land near the old railroad ROW at the northern part of the site has been highly disturbed by cuts, drains, and other man-made disturbances. Many decades ago, the southern two-thirds of the site was once used as pastureland. This portion of the site has since grown over into a mixed red and white oak upland forest, containing red maple swamps in the low areas, and abundant hemlock growth in the more mesic areas. The GEIS had reported that the formerly pastured portion of the site contains some older oaks in

the open-grown "cabbage" form, and recommended that these trees should be preserved where possible in a sensitive landscape design.

The DGEIS had expressed a policy that the project plans would minimize clearing of woodland areas to the minimum extent necessary for development of the project, in order to retain as much habitat as possible for the woodland bird species such as the wood thrush and ovenbird. The Planning Board required changes to the proposed plan in order to achieve compliance with this policy. The current plans retain most of the wooded wetland areas intact, and additional wooded areas are retained contiguous to these wooded wetlands, thus increasing the habitat value in the maturely forested areas of the site. In addition, a wooded strip of land is being retained at the northwestern boundary of the site. In its current form, the plan retains a total of 52.8 acres of undisturbed wooded land at the site; however, it must also be noted that the acreage of undisturbed wooded land is not unbroken, but will exist in various sizes and shapes of stands of not less than 3.5 acres in size. The plans incorporate a Naturalistic Planting Plan as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas along edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

The DGEIS had contained a detailed inventory of species using the site, and reported consistent with the vegetation on the site that the degraded scrub area in the northwest portion of the site contains common catbirds, crows, robins, blue jays, and the like, while the more mature forested southern two-thirds of the site contained wood thrushes, veerys, black-capped chickadees, turkey, ovenbirds, red-eyed vireos, tufted titmouse, and a pair of red-tailed hawks. Some of the listed species such as wood thrush and ovenbird are typically associated with large tracts of mature forest and are considered sensitive to forest fragmentation; however, in some areas of its range, the wood thrust can be tolerant of disturbance, and more information is needed on its life cycle. The wood thrush is vulnerable to deforestation in its Central American wintering habitat, and is also sensitive to acid rain deposition, and our area of the northeast United States is subject to high acid deposition due to Midwestern power plant emissions. Predator exposure to raccoons, squirrels, etc., and nest predation by cowbirds can affect forest-dwelling bird species. Higher degrees of nesting success were associated with greater densities of trees, greater degrees of canopy closure, higher density of shrubs, and taller shrub height, and cool forest conditions with leaf litter remaining on the forest floor are important.

Pursuant to the GEIS Findings, the SDEIS had located seven cabbage oaks on the site within or near the areas proposed for disturbance. The SDEIS also evaluated the health and condition of these trees. Only one of the seven trees was determined to be free of any visible rot or decay, and several of the trees were in poor condition with extensive rot or decay. The single rot-free specimen oak (a 38" white oak) is actually located outside the boundaries of Lot 10, in the north side of commercial lot 2 near the intersection of two stone walls. No site development plan has been prepared for this lot, so it is not clear whether its development, or the eventual provision of access to the NYMA property, might result in its disturbance.

This would need to be evaluated in the future, at the time of site plan review for any use of Lot 2. There is a second 48" white oak north of Wetland A that is not within a disturbance area and would be preserved, though any dangerous dead branches should be removed.

At the Planning Board's request, the SDEIS incorporated additional analysis in order to help evaluate the Lot 10 plan and the forested areas to remain. Because these forested areas, particularly in the southwestern two-thirds of the site, contain tracts of contiguous mature forest where multiple trees over 8 inches in diameter as measured three feet above the base of the trunk (DBH), the trees could not be considered to be "isolated" and therefore it would have been futile and unnecessary to map each individual tree over 8 inches DBH, particularly given the nature of the site plan that necessarily involved the disturbance of extensive areas of Lot 10. The SDEIS evaluates the forest areas to remain, and makes recommendations that there be some pruning of trees to remove dangerous dead branches and to remove the invasive vines from the trees in the woodland to remain to enhance the viability of the trees to remain. In addition, a Naturalistic Planting Plan is proposed to be incorporated as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas other edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

In the context of the several large wooded areas to remain, including some that incorporate populations of large, healthy red and white oak, chestnut oak, red maple, black cherry and American beech over 8 inches DBH, the Planning Board concludes that removal or disturbance of five out of the seven "cabbage oaks" discussed in the GEIS and identified on the Lot 10 site plan, would not constitute a significant harmful impact. One oak is located on a commercial lot and will be evaluated at the time of specific site plan review.

The DSEIS incorporated additional site-specific investigation, evaluating the site for habitat suitability and the potential presence of two endangered species, the Indiana Bat (seeking the presence of summer roosts and maternal colonies) and the Bog Turtle. The site did not contain suitable Bog Turtle habitat, nor was it considered likely to contain potential Indiana Bat habitat; but to avoid possible direct impacts to individual Indiana Bats, the DSEIS indicated that clearing and tree removal activities will take place between October 1 and March 30.

As evaluated in the GEIS and updated in the SDEIS, some of the wetlands on the site, both federal jurisdictional wetlands or isolated wetlands, are used for amphibian breeding purposes. The GDEIS had indicated that non-jurisdictional Wetland C was used by spotted salamanders, a type of mole salamander, and the FGEIS had expanded this report to include vernal pools within Wetlands jurisdictional D and E being used for this purpose and also for wood frog reproduction. Mole salamanders are terrestrial and burrow under leaf litter, rocks or locks in wooded areas, burrowing tunnels underground or making use of tunnels excavated by small mammals. They commonly breed in woodland vernal pools. The salamanders observed on the site were listed as species of special concern in

New York State. The GEIS Findings indicated that Wetlands C and D would be undisturbed, thereby protecting a significant amount of habitat would be protected, along with an undisturbed stream corridor buffer of up to 25 feet on either side of surface streams on the site. The GEIS Findings further offered to incorporate consideration for suitable passage under roadways for amphibians in consultation with the appropriate specialists at DEC; and the site plan for Lot 10 does incorporate two amphibian crossings comparable to those incorporated in other projects. The site-specific plan considered in the SDEIS protects the following:

- virtually all of Wetland C except for 0.255 acres at the wetland edge, and also protects additional acres of upland woodland adjacent to Wetland C to the east, west, and north
- all of Wetland D and additional upland woodland adjoining to the south, east and west
- virtually all of Wetland E except for 0.006 acres at the easternmost edge of the wetland, and also protects additional woodland adjoining to the northeast and southwest of the wetland along the property line.

The Planning Board concludes based on the available information, that there will be some harmful impacts on existing flora and fauna resulting from the direct habitat destruction that would enable the use of the site in accordance with the zoning, but these impacts are largely unavoidable. These impacts have been avoided and mitigated to the maximum extent practicable by the layout of the plan, which balances the mix of uses on Lot 10 and their need for safe access and for safe separation, with the preservation of virtually all of the site's wooded wetlands and some additional nearby woodland areas, along with incorporating naturalistic tree and shrub plantings that will help to re-establish and preserve the woodland habitat. The plan not only retains patches of undisturbed woodland in the site, including some upland woodland adjacent to non-jurisdictional Wetland C that may be suitable habitat for the mole salamanders such as the spotted salamander identified as breeding at the site. Amphibian crossings and mountable curbing are provided under road B in the vicinity of Wetland C for the passage of amphibians, in an effort to reduce auto-related mortalities. (Wetlands and drainage impacts to the wetlands are also described in Section C of this document.)

The GEIS had reported no species of flora or fauna listed as "endangered" either federally or in New York State were reported to be present on the site, nor were such species found on the site, nor suitable habitat for the same documented to be present. Special investigation had been undertaken to search for the presence of a rare plant species, the weak stellate sedge, (Carex seorsa), a wetland edge species which is listed as a threatened species in New York State, and according to the State Botanist is fairly common in the region around Cornwall. The DGEIS had reported that this sedge might soon be removed from its status on the threatened species list, though at the time of the Supplemental EIS it was still present on current threatened species listings in the state of New York. The FGEIS had indicated the sedge was prevalent in Wetlands C, D, and E. The plans evaluated in

the SEIS preserve these wetlands with minimal direct disturbance, or in the case of Wetland D, no direct disturbance to the wetland itself, will help to avoid direct impacts on the sedge, retention of adjoining woodlands where possible, and the stormwater drainage flows that sustain the wetland hydrology are being preserved to the maximum extent practical.

None of the site directly adjoins the Moodna Creek, and the site is well set back and above any critical tidal estuaries. Therefore, no such species as would be found in estuarine habitats, including any endangered species, would occur on the site. The water quality of stormwater exiting the site is processed to prevent both significant harmful water quality impacts and to avoid harmful increases in the rate of runoff.

These findings demonstrate compliance with the GEIS Findings, and therefore confirm no significant harmful impacts on threatened or endangered species.

Mitigation Measures/Policies and Procedures:

D1. GEIS Finding D-1 had stated that the older "cabbage" oaks should be preserved where possible in a sensitive landscape design, and that the Planning Board was to require detailed site plans locating and preserving such trees in a natural landscape design wherever possible. Furthermore, the Planning Board was to discourage the fragmentation of the maturely wooded land in the course of detailed site plan review, to the extent that the zoning and site-specific proposed use(s) would allow. In addition, GEIS Finding D-1 stated that the Planning Board shall encourage protection of the wetland areas in its detailed site plan review, including the protection of adjoining upland areas important to amphibian use to the extent that the zoning and site-specific proposed use(s) allow. [Plans shall provide for] protection of an undisturbed stream corridor buffer of up to 25 feet on either side of surface streams on the site.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with GEIS Finding D1. Substantial areas of maturely wooded land on the site, including virtually all of the jurisdictional and non-jurisdictional wooded wetlands on the site except for non-jurisdictional Wetland F, have been identified and are being retained with adjoining upland woodland areas, and amphibian crossings and curbing are provided on Road B. The actual condition of the cabbage oaks has been evaluated, and the five out of seven that are proposed to be removed by these plans are in poor health. The plans incorporate a Naturalistic Planting Plan as a mitigation measure, to help re-establish an additional 5.41 acres of rear yard and transitional areas along edges of disturbance in native mixed shrub and tree plantings for habitat purposes.

D2. GEIS Finding D-2 had stated that any site grading and earth operations that are needed to develop access to the subdivision shall be in a manner than recognizes the intent to protect existing vegetation and wildlife habitat, and that prior to any clearing or grading taking place, snow fencing or other flagging shall be used to cordon off the limits of disturbance, with minor adjustments to the roadway to be encouraged where the same could result in the preservation of specimen trees without creating any safety hazards or non-compliance with municipal road standards.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with GEIS Finding D2. The plans provide for installing silt fence and four-foot construction fencing at the edge of disturbance areas, prior to any grading or clearing taking place. The GEIS reference to "specimen trees" is referencing the cabbage oaks discussed in Finding D1 above. The woodlands occupying the southern two-thirds of the site contain many trees over 8 inches DBH, which is why the Planning Board only focused on the "cabbage oaks" as isolated trees requiring identification pursuant to the site plan requirements of the Cornwall Code. The actual condition of the cabbage oaks has been evaluated, and the five out of seven that are proposed to be removed by these plans are in poor health.

The 38" DBH white oak that is located on the commercial lot will be evaluated at the time of site plan for the lot in question.

D3. GEIS Finding D-3 had stated that site specific landscaping plans for all development in the Town of Cornwall will require the preferential use of native, non-invasive species in order to help protect the biological integrity of the remaining lands. These plans show compliance with that Finding, both with the typical lot landscaping plans and the restoration and supplemental plantings.

Because the Town of Cornwall Code establishes a strict sunset period on the fulfillment of conditions of a conditioned site plan approval[10], the applicant has opted to pursue the necessary outside agency approvals, and has granted a waiver to the requirement that the Planning Board render a decision within 90 days pursuant to Section 158-19-D(5) of the Cornwall Code. The applicant will continue to pursue his outside agency approvals and permits, relying upon the preliminary subdivision approval and the contents of this Environmental Findings Statement. Prior to finalizing site plan approval, the Planning Board and its consultants will review the Naturalistic Planting Plan to ensure that the final choice of plantings is suitable. This plan provides for minor site specific adjustments of

[10] See Section 158-19-G

individual units in the field, in order to retain individual healthy trees where appropriate.

D4. GEIS Finding D-4 had stated that the weak stellate sedge, currently listed as threatened in New York State, was prevalent in Wetlands C, D and E, and its presence would be considered in leaving federal wetlands "A", "C" and "D" substantially undisturbed. This Finding went on to state that stormwater detention plans will be designed to keep surface water flow near pre-development levels to protect the viability of the weak stellate sedge which may be present in these areas. Any other threatened sedges which may exist in and directly adjacent to such wetlands would, if present, be similarly protected to the maximum extent practicable by such measures.

The site plan for Lot 10 shows compliance with this Finding.

D5. GEIS Finding D-5 had stated with regard to protection of habitat for spotted salamanders, which are listed as species of special concern in NY State, that the FGEIS had proposed no disturbance to Wetlands C and D and offered stream corridor buffers of 25 feet, thereby protecting a significant amount of habitat, and the FGEIS further offered to incorporate consideration for suitable passage under roadways for amphibians in consultation with the appropriate specialists at DEC. The Finding had indicated that the Planning Board would facilitate input by DEC specialists in the drainage, utility and road design for the crossing to the maximum extent practicable, prior to any construction of roadways.

The SEIS and the site plan for Lot 10 shows compliance that is consistent with this GEIS Finding. Wetlands C, D and E were found to be used for spotted salamander breeding. These wetlands are retained virtually in their entirety on the site, including Wetland C which is non-jurisdictional. Roughly a quarter acre of disturbance at the southern edge of Wetland C is proposed, and additional upland woodland areas adjoining this wetland are also being preserved. Two amphibian crossings designed consistent with those provided on other projects are being provided under Road B in the vicinity of Wetland C. Wetland D is being retained undisturbed along with adjoining upland woodland areas, and Wetland E is being disturbed minimally (0.006 acre) and adjoining woodlands along the fringe of the property are being preserved. Stream corridor buffers are being preserved as shown on the plan, and stormwater that has been routed through water quality devices is being directed towards the wetlands (See Section C of these Findings).

D6. GEIS Finding D-6 had discussed the likelihood of site use disrupting drainage patterns on the site in a way that would cut off the surface

waters feeding non-jurisdictional Wetland C[11], and stated that because that non-jurisdictional wetland is not regulated by any other agency, and did not otherwise constitute a significant ecological resource nor endangered species habitat[12], the Planning Board understood that this wetland is subject to alteration, and that such alteration would not constitute a significant harmful environmental impact.

The SEIS and site plan for Lot 10 and the entire site drainage plan substantially improves the situation for non-jurisdictional Wetland C over the impact that had been projected in the GEIS Finding D-6. While a small amount of direct disturbance, roughly a quarter of an acre of filling from Road B, is proposed at the southern and southwestern edge of Wetland C, roughly 75% of the existing drainage volumes into the wetland are being retained, with attention to flow rates and water quality of the runoff.

D7. The DSEIS had indicated that, in order to avoid possible direct impacts to individual Indiana Bats and their habitat, clearing and tree removal activities at the site will take place between October 1 and March 30. This limitation is part of an ACOE Nationwide Permit limitation and applies to the entire site.

D8. The DSEIS had indicated that, in woodland areas to be preserved, invasive vines would be removed from the trees to enhance the viability of the trees to remain, and dead tree limbs would be pruned where they posed a hazard. This work will be implemented in sections as the site plan is constructed.

D9. Coordination with DEC shall take place in regard to the details of the proposed amphibian crossing, which shall employ open-bottomed culverts unless otherwise specified at DEC's request, prior to the actual grant of site plan approval.

E. Traffic & Transportation

A traffic study had been completed for the GEIS and the uses that were allowed on the site at that time[13], along with alternatives. That traffic study determined traffic counts for studied intersections, projected site-generated traffic volumes that were

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11 Wetland C was mistakenly referenced as Wetland E in the GEIS Findings D-6, in a scrivener's error. Wetland C is the large, non-jurisdictional wetland that is of interest because of its habitat functions, in conjunction with adjacent woodlands. Wetland E is a jurisdictional wetland.

12 Notwithstanding its habitat role for the mole salamander species of concern and the presence of threatened vegetation *Carex seorsa*

13 At that time, the project included 69 residential lots in the then-New Windsor portion as-of-right, and one million square feet of light industrial space for the Town of Cornwall as-of-right project.

assigned to the roadway network, and determined operating Levels of Service (LOS) determined for then-existing conditions[14], and to Year 2003 and Year 2005 conditions both without the project being built. The site is to be accessed via a looped road, with two connections to NYS Route 9W.

The following intersections were evaluated:

1. Routes 9W and 218 (Academy Avenue) interchange *
2. Route 218 (Academy Avenue) and Main Street/Faculty Road
3. Route 9W and Caesar's Lane
4. Route 9W and Forge Hill Road
5. Willow Ave (CR 32) and Route 9W interchange
6. Route 9W and southerly site access road (consisting of one entering and two exiting lanes, and requiring the construction of separate left and right turn lanes onto Route 9W)
7. Route 9W and northerly site access road

As discussed in the GEIS, two different access scenarios to the site had been evaluated. Access Scenario 1 considered the construction of a right turn entry and right turn exit at the northerly and southerly sections of the site's road frontage on Route 9W. Under this scenario there would be no median break in 9W. Vehicles wanting access to or from the northbound lanes would need to use the existing Rt. 9W/218 interchange to access the opposite lanes on Route 9W. The DGEIS noted that this alternative relies on the need to develop a signage plan to direct traffic accordingly, with the authorization of NYSDOT. Alternate Access Scenario 2 considered the construction of a full-movement signalized intersection with Route 9W at the site's southerly access point, including the construction of separate right and left turn lanes on Route 9W. The GEIS discussed a variant to this Access Scenario 2 that would allow access to the NYMA property on the west side of 9W in association with the Route 218 interchange area reconstruction. Under this scenario it would be possible to create a road extension to Cornwall Commons with direct access to the Route 218 interchange, if a connection through the NYMA property were possible. Such a connection would make it possible for traffic to enter the site from the south and exit north without involving any left turns on Route 9W. No access scenario has been finalized yet, as of the date of these Supplemental Findings.

A Supplemental Traffic Study was completed to update the GEIS traffic study, based on current traffic counts[15], on the current zoning and mixed use PAC proposal, and on updated future traffic projections for projects such as Willow Woods (aka Stone Hollow), Winding Creek, and Chestnut Woods. The supplemental study used a future design year of 2010, though the study can

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14 Original traffic counts were conducted in the year 2000.

15 2005 and 2006; also included consideration of the recent signal installation and striping improvements at the Laurel Ave. intersection with 9W, and the recent signal installation and left turn lane striping at the Forge Hill Rd intersection with 9W.

account for a longer design period of up to 2015, depending on the construction and occupancy of other background projects. The peak AM traffic hour was identified to be 7:30 to 8:30 AM, while the PM peak hour was 4:30 to 5:30 PM. The Supplemental traffic study assumed the completion of certain long term safety and capacity improvements to the Route 9W corridor, such as the construction of acceleration/deceleration lanes at the Route 218 interchange, and road widening/lane additions in the area of the Forge Hill Road intersection. The supplemental traffic study evaluated operating Levels of Service (LOS) under future "Build" and "No-build" conditions for both access scenarios.

The current study indicated that operating levels of service (LOS) at the Forge Hill Road/9W intersection would fall from "D" to "E" for the northbound movement during the PM peak even without the project in the year 2010. With the project, this peak PM northbound movement would decline to failing LOS "F", with average vehicle delays nearly doubling for all access scenarios, and the overall intersection function would drop from LOS "D" to "E". If signal timing improvements were implemented, the peak PM northbound movement would improve to LOS "C" without the project, and decline only to LOS "D" with the project, with the overall intersection experiencing the same change from "C" to "D". With additional DOT lane improvements, the PM peak northbound movement would improve to LOS "B" in 2010 without the project, and would remain at that improved LOS even with the project.

The 2003 GEIS Findings had indicated that the Forge Hill Road with 9W improvements were already proposed to be completed as part of the planned NYSDOT improvements to Route 9W. However, there is no timetable for the improvements. To mitigate, the applicant will contact DOT to implement signal timing improvements here.

One other intersection is significantly harmfully affected by the project. The Main Street/Faculty Road & Rt 218 intersection was discussed in the GEIS Findings, since even in the year 2000 that intersection was already operating at failing LOS for the northbound movement. Average per-vehicle projected delays in 2010 without the project nearly double in both the AM and PM peak hours, increasing from 157.9 to 300.6 seconds and from 54.8 to 91.3 seconds, respectively. With the project, the delays are more drastically increased over No-Build conditions, with average AM peak delays increasing from 300.6 to 525.7 seconds per vehicle, and PM peak delays more than tripling from 91.3 to 280.4 seconds per vehicle. Signalization would resolve the problem and provide overall LOS B at this intersection, with the northbound movement also operating at LOS B.

Neither the GEIS nor the SDEIS offered to complete this improvement. The FGEIS had indicated that the applicant would offer a fair-share contribution to the installation of a signal at this intersection, as an off-site mitigation measure, and GEIS Finding E-3 had determined that the Lead Agency will require a developer's agreement or some other appropriate device setting forth the mechanism, timing, and amount of such fair-share contribution, In order to ensure that the proffered

contribution will be made to help resolve such severe project-induced off-site impact. The DSEIS recommended as a mitigating measure, that the applicant would monitor the traffic volumes at the Main Street/Faculty Road & Rt 218 intersection after the completion of Lot 10 development and submit them to DOT, to determine if the intersection volumes met DOT traffic signal warrants.

Construction traffic:

The DGEIS traffic analysis noted that there would be construction-related traffic increases due to workers and construction equipment accessing the site. The DGEIS indicates that the likely construction access will be a Tee-type intersection with Route 9W, although the NYSDOT would have the final control over even a temporary access. This traffic was not quantified.

Public transportation:

The site plans for Lot 10 incorporate provisions to accommodate bus travel along the main boulevard which is proposed as a town road, and a bus stop area has been provided by the main entrance to Lot 10.

Pedestrian traffic and connections:

The Cornwall Commons PAC is not designed to be an entirely self-contained residential living community, as stated in the DSEIS[16], and although the main mode of transit to and from the site is expected to be by private automobile, walking paths are incorporated within the site, with offsite pedestrian connections to and from the project at three alternative pedestrian access routes depicted on the plans. The first plan provides a walking route via the proposed sidewalks on the Stone Hollow (a.k.a. Willow Woods) access road to Willow Avenue to Main Street. The Stone Hollow development has been approved and is under construction, and this connection will be completed when the multi-family portion of the Cornwall Commons site is built. The second plan provides a walking route designated via Frost Lane to Willow Avenue to Main Street, and this connection too will be completed as the adjoining section of the Cornwall Commons is built. The third plan provides a walking route from the main entrance of the project. As discussed in the DSEIS, there will be a traffic light installed at this point which would allow pedestrians and bicyclists to cross Route 9W, and then residents could travel along Academy Avenue to Mailler to Willow Avenue to Main Street, though this route is less preferred for safety reasons. The Board will require that at least one pedestrian connection shall be open by the time half of the residential Certificates of Occupancy have been issued. This will be depicted on the sequencing plan.

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[16] At page 57

Mitigation Measures

E1. GEIS Finding E-1 noted that under the current subdivision plan, the site is proposed be served via an internal loop road with access to Route 9W via right turn entry and right turn exit of the northerly and [a second intersection] at the southerly end of the property The construction of new access road connections to the site from Route 9W must be coordinated with the NYSDOT. No such construction can take place without prior approval from that agency. This Finding is still valid and is reiterated for the Supplemental EIS; and the Lead Agency Planning Board further notes that the site access road is part of the subdivision plan. Preliminary approval has already been granted to a 10-lot subdivision of the site, and this plan includes the proposed town access road which would access the lots. The sponsor will be pursuing DOT approval for the access prior to subdivision approval, for the subdivision that will create the PAC residential Lot 10. At such time as the Planning Board is actually requested to grant final subdivision approval to the 10-lot subdivision, Lot 10 of which will house the residential site plan component of the PAC, the specific alternative will need to have been identified.

E2. The GEIS Finding E-2 stated that the SEQR analysis evaluated an alternative access scenario (Access Scenario 2) that would include the provision of a full movement signalized intersection at the southerly access on Route 9W. This access scenario would include the construction of separate turn lanes on US Route 9W as well as the installation of the new traffic signal. The GEIS Finding E-2 had specifically stated that the level of improvements necessary for Access Scenario 2 would be determined and in part, contingent upon the timing of the schedule of NYSDOT improvements to Route 9W. The projected improvements include extension of acceleration and deceleration lanes at Route 218 intersection. These improvements are compatible to the design of the proposed access location of the applicant. A variant of this alternative involving access through the NYMA property was also identified.

This Finding remains valid, and no determination of the access scenario has been made to date. As of the date of this Supplemental Findings Statement, the subdivision remains at preliminary approval as the applicant pursues its remaining outside agency approvals.

E3. GEIS Finding E-3 spoke to changes in operating standards that the project was projected to influence. The traffic study undertaken for the current SDEIS updates and replaces the GDEIS study, and reflects some signalization and improvements that have already been made in the Route 9W corridor. According to the current study, the Caesar's Lane/9W intersection is operating at acceptable levels of service for all

movements in both AM and PM peak hours, and while the eastbound movement is projected to decline from "C" to "D" during the PM peak under all "Build" access scenarios, this is not significant and does not require mitigation.

The current study indicated that operating levels of service (LOS) at the Forge Hill Road/9W intersection would fall from "D" to "E" for the northbound movement during the PM peak even without the project in the year 2010. With the project, this peak PM northbound movement would decline to failing LOS "F", with average vehicle delays nearly doubling for all access scenarios, and the overall intersection function would drop from LOS "D" to "E". If signal timing improvements were implemented, the peak PM northbound movement would improve to LOS "C" without the project, and decline only to LOS "D" with the project, with the overall intersection experiencing the same change from "C" to "D". With additional DOT lane improvements, the PM peak northbound movement would improve to LOS "B" in 2010 without the project, and would remain at that improved LOS even with the project.

The 2003 GEIS Findings had indicated that the Forge Hill Road with 9W improvements were already proposed to be completed as part of the planned NYSDOT improvements to Route 9W. However, there is no timetable for the improvements. To mitigate, the applicant will contact DOT to implement signal timing improvements.

One other intersection is significantly harmfully affected by the project. The Main Street/Faculty Road & Rt 218 intersection was discussed in the GEIS Findings, since even in the year 2000 that intersection was already operating at failing LOS for the northbound movement. Average per-vehicle projected delays in 2010 without the project nearly double in both the AM and PM peak hours, increasing from 157.9 to 300.6 seconds and from 54.8 to 91.3 seconds, respectively. With the project, the delays are more drastically increased over No-Build conditions, with average AM peak delays increasing from 300.6 to 525.7 seconds per vehicle, and PM peak delays more than tripling from 91.3 to 280.4 seconds per vehicle. Signalization would resolve the problem and provide overall LOS B at this intersection, with the northbound movement also operating at LOS B.

Neither the GEIS nor the SDEIS offered to complete this improvement. The FGEIS had indicated that the applicant would offer a fair-share contribution to the installation of a signal at this intersection, as an off-site mitigation measure, and GEIS Finding E-3 had determined that the Lead Agency will require a developer's agreement or some other appropriate device setting forth the mechanism, timing, and amount of such fair-share contribution, as a condition of site plan approval, in order to ensure that the proffered

contribution will be made to help resolve such severe project-induced off-site impact.

E4. GEIS Finding E-4 had noted the point that any of the alternatives explored in the SEQR process can work to provide adequate and safe access to the site, and further observed that NYSDOT ultimately would be the agency to make that decision based on its own agency criteria. These Supplemental Findings further note that there is no difference in operating Levels of Service or in projected average vehicle delays between the different access alternatives. However, at such time as the Planning Board is actually requested to grant final subdivision approval to the 10-lot subdivision, Lot 10 of which will house the residential site plan component of the PAC, the specific alternative will need to have been identified.

E5. GEIS Finding E-5 had noted that roadway improvements must be provided in accordance with detailed subdivision plans prepared by the applicant in compliance with applicable municipal specifications; that a work permit, where such work permits are needed, shall be provided by the applicant for access to Route 9W prior to any construction taking place, and that offers of dedication were to be submitted to both municipalities for the proposed internal roads, and any other construction, inspection and surety requirements applicable to the same.

This Supplemental Finding E-5 modifies GEIS Finding E-5 based on current events. Because the site now lies entirely in the Town of Cornwall, no other municipalities are involved in any potential road dedications. And it has been determined between the applicant and the Town Board that the only road within the site will be the looped subdivision access road. Further, these Findings particularly note that, while the specifications for the looped access road do not meet the Town's typical municipal specifications, in that the Town does not normally contemplate "boulevard" type roadways, with center medians that require planting and maintenance, the Town will accept this roadway based on the offered agreement that the Homeowner's Association shall maintain the plantings within the boulevard.

E6. GEIS Finding E-6 had noted the need for intermunicipal cooperation between the Town of Cornwall and the Town of New Windsor highway superintendents due to the municipal boundary which had at that time passed through the site. This finding was informational and is no longer relevant due to the annexation.

E7. The SDEIS traffic study identified several improvements which ought to be done regardless of the project: These included (a) modifications to the 9W NB ramp to 218 to make a standard intersection allowing movements in both directions, (b) signage and striping improvements

at the Willow Avenue ramps, (c) improve intersections by painted stop bars, clearing vegetation to improve sight lines at several intersections. The applicant is not offering to make these improvements but has merely identified the same as recommendations to the respective jurisdictional highway agencies responsible for these roads.

The intersection of Academy Avenue and Faculty Road is identified in the GEIS and DSEIS as an unsignalized intersection which experiences peak hour delays. In order to improve this condition, a traffic signal would have to be installed. However, based on current traffic volumes the intersection does not satisfy NYSDOT traffic signal warrants. For the signal warrants to be satisfied, increases in traffic volumes would have to occur. If warranted, increases in traffic volumes would be the result of background traffic volume increases, including any additional traffic from the Cornwall Commons project.

The DSEIS recommends that the traffic volumes for the intersection should be collected and submitted to NYSDOT at a later date. The applicant therefore will monitor the traffic volumes at the intersection during the construction of the Lot 10 development and submit them to the Planning Board and the NYSDOT. At that time, if the NYSDOT finds that a traffic signal is warranted, it would be determined what other projects, if any, and other funding sources would contribute toward this improvement. The project sponsor has offered a fair share contribution to the installation of a signal at this intersection. If it is determined by the NYS DOT that a traffic signal would be warranted prior to the completion of Lot 10 development, this project will contribute a fair share percentage based on the traffic generated from the project. A mechanism to ensure that such monitoring and contribution occurs is to limit the number of building permits issued for the residential units on Lot 10 until the project sponsor has updated the Planning Board and the NYS DOT regarding the need for the Academy/Main/Faculty Signal. Monitoring shall be completed after Certificates of Occupancy for 300 residential units on Lot 10 have been issued. The fair share calculation shall be the percentage of the project's maximum peak trip generation in relation to the maximum traffic at the intersection, which occurs during the peak traffic hour.

E8. Three alternative pedestrian access routes are depicted on the plans. The first connects through Stone Hollow's (a.k.a. Willow Woods) access road to Willow Avenue and thence to Main Street. Stone Hollow has been approved and is under construction, and this connection will be completed when the multi-family portion of the Cornwall Commons site is built. The second connection runs via Frost Lane to Willow Avenue to Main Street, and this connection too will be

completed as the adjoining section of the Cornwall Commons is built. The third connection provides a walking route from the main entrance of the project. As discussed in the DSEIS, there will be a traffic light installed at this point which would allow pedestrians and bicyclists to cross Route 9W, and then residents could travel along Academy Avenue to Mailler to Willow Avenue to Main Street, though this route is less preferred for safety reasons. The Board will require that at least one pedestrian connection shall be open by the time half of the residential Certificates of Occupancy have been issued. This will be depicted on the sequencing plan.

F. Utilities & Community Services

Intermunicipal Concerns – Service Districts

The original GEIS had discussed potential intermunicipal concerns regarding potential to create impacts regarding concerns of overlapping or confused jurisdictions for emergency responders such as fire, police or ambulance, because at that time, the project site was divided by a municipal boundary between the Towns of Cornwall and New Windsor. Virtually all of these concerns have been eliminated by annexation, as the site now lies wholly within the Town of Cornwall. The only issue that may remain in this regard is the fire district boundary which still divides the site between the Vails Gate and the Canterbury Fire Districts. The applicant has petitioned the districts to request that they coincide with the current Town boundaries. Both districts must agree to the change for it to take place, and neither the Planning Board nor the Town Board nor the applicant can compel this change to be made without the consent of the fire districts. Nevertheless, even if the district boundaries are not changed, the districts can provide services within each existing district on the site, and/or they can forge a cooperative agreement about service delivery and responsibilities within the site. The plans have been revised in response to comments made by the Canterbury Fire District, and revised plans circulated to both fire districts, which have submitted no additional remarks. In any case, the site will be supplied with central water supplies, and roads will be 28 feet wide within the project, thereby resolving the Canterbury Fire District's initial concerns regarding the Lot 10 plan and layout.

Due to the annexation, there are no longer potential issues with regard to police service, as the residential component of the site use is not expected to pose any unique security needs. With respect to ambulance service, the site now lies entirely in the Cornwall Volunteer Ambulance (COVAC) service area. COVAC has expressed concerns about the potential demand on its services, based on the demand placed by other age-restricted developments within the town. Though the project would result in increased tax revenues, increased demands on the corps

could result in the need for increased reliance on commercial paramedic services within the Town.

With regard to solid waste collection, the site is now wholly in the Town of Cornwall, so that there is only one municipal waste collecting entity involved. The GEIS had noted that the specific user needs would be determined at the time of site plan approval. In regard to Lot 10, the Town of Cornwall policy towards residential and commercial waste collection is that the Town will collect along certain roads not owned by the Town under certain circumstances. Upon agreement with the owners of the roadways, and if the municipal trucks are able to gain access to the roadway with adequate ability to move through the site and turn around where needed, the Town of Cornwall DPW can cart municipal solid waste from both individual detached residences and from dumpsters such as will be provided at the multiple dwellings and at the clubhouse, as well as the commercial lots. The dumpster enclosures must meet municipal specifications so that the Town trucks can access the dumpsters properly. This detail will be finalized as part of the site plans for each lot and each component of the site.

The entire site is located within the Cornwall Central School District. Following the annexation and PRD zoning of the site, and the Town Board's grant of the PAC special permit, Lot 10 is proposed for a PAC residential project containing a maximum of 490 units, with no other residential use allowed pursuant to the zoning and Developer's Agreement. PAC projects being age-restricted to seniors, it is not expected that the project would result in the generation of many school children to the CCSD. Secondary effects of age-eligible occupants selling their homes in the school district were considered, but not deemed to be significant due to the fact that the project would not solely draw to the CCSD market, and also due to the fact that age-eligible occupants in the district could sell their home and purchase an age-restricted unit in some other school district in the county or elsewhere in the region. While it is possible that there could be a small number of school children generated, the key school related impact that would require consideration would be school bus routing. This would need to be arranged between the CCSD and the PAC on an as-needed basis if applicable.

As described in the DSEIS and incorporated on the site plan, Lot 10 will include some on-site recreational amenities at the clubhouse, including a tennis court, and walking trails. As set forth in the (in the Cornwall Code's PAC regulations), the Town's fees in-lieu of providing on-site municipal parkland, if found to be necessary, would not exceed one-third of the prevailing in-lieu charge for comparable unrestricted dwelling units. Given the fact that there is some private recreation available on the site as part of the age-restricted PAC, but not all that would meet the needs of its residents, the Planning Board hereby finds and determines that the allowable in-lieu recreational fees in Section 158-21-X of the Cornwall Code shall be provided for this site, given that the residents of Cornwall Commons will still have access to and will make use of general townwide recreational facilities outside of the private facilities on the site, not only those programs and facilities intended for senior citizens, but also unrestricted facilities for the use of visiting extended family

members. Cornwall Commons residents will still have an impact and impose demands on townwide facilities as residents of the larger Town community, and these additional impacts will need to be provided for given the increase in population that this project will result in. Time of payment shall be at site plan approval for Lot 10, unless other arrangements shall be approved by the Town Board.

Water Supply and Distribution

The project would be supplied by the Village of Cornwall-on-Hudson through agreement with the Town of Cornwall, and the Village has affirmed its intent to provide water for the entire site. The DGEIS had indicated that the Village system has sufficient capacity to serve this project's needs. As a maximum estimate, the GEIS had expected that the project could result in a demand of up to 200,000 gallons per day of capacity; but the SDEIS projected that the current potential maximum use of the site would be 157,250 gallons per day, for both the PAC residential use of Lot 10[17] and the remaining commercial uses on lots 1 through 9. In the event of greater than expected demands for lots 1-9, additional study may be required, but the DSEIS water demand is clearly less than the originally anticipated maximum.

Supplying water to the site will require off-site improvements and extensions to the water system. Three alternatives were studied by Stantec, the Village of Cornwall-on-Hudson's consulting engineers. Alternative A would involve the installation of a new 12-inch water main on Mailler Avenue, and possible improvements of an existing main on Maple Avenue, and this would provide water pressures of 66 to 104 psi on the site, with fire flows ranging from 1,625 to 1,825 gpm. Alternative B would connect to an existing main in Hudson Street, install a new 12-inch main on Second Street to Academy Avenue, run along Academy Avenue to Mailler, thence to Halverson Street and along Halverson, under Route 9W to the site. Alt. B would provide water pressures of 89 to 128 psi on the site, with fire flows ranging from 2,300 to 2,500 gpm. Alternative C would be to install approximately 3,200 feet of new 12-inch water main on Mill Street, and run north to Howard Street and into the site. This alternative would provide water pressures of 60 to 104 psi on the site, with fire flows ranging from 1,800 to 2,000 gpm.

Among the three alternative water supply scenarios, two alternative routings are being considered for conveying public water to the site. The preferred alternative is Stantec's Alternative 3 (Alt. C), running down 3,200 feet down Mill Street to Howard Street and providing water into Lot 10 and also to the proposed town loop road, to service lots 1-9, with a secondary emergency connection being made to the existing 6-inch main in Frost Lane. Consistent with the GEIS Findings, the water main along the loop road would be extended from the loop road and across NYS Route 9W for

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[17] Which is projected to use 117,600 gallons per day (gpd)

future looped connection with the water system on the Mailler Avenue side of the highway, at 85% of the project completion. This alternative may require installation of a pressure reducing valve. The sponsor would like to have the water lines in lot 10 and in the loop road be publicly owned; but if this is not acceptable they would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This alternative would require OCDPW approval for work on Mill Street. Crossing Route 9W, at the 85% of project completion, would require NYSDOT approval.

The second water supply alternative being considered is the Stantec's Alternative 1 (Alt. A), which would involve the installation roughly 3,900 feet of water main along Maple Avenue and Mailler Avenue, thence along Halverson and under 9W into the looped project road, continue along the loop road into Lot 10. A secondary emergency connection would be made to the existing 6-inch main in Frost Lane when the southeast portion of the site is developed. This alternative is less preferred, due to the greater number of existing residents that would be disturbed with the water main installation along Maple and Mailler Avenues. The sponsor would like to have the entire water distribution system publicly owned in this alternative. Again, if this is not acceptable the water distribution lines would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This alternative would require OCDPW approval for work on Willow Avenue, and NYSDOT approval for crossing Route 9W.

Sanitary Sewage

The project would be served by sanitary sewers in the Town of Cornwall, feeding into Town of Cornwall's treatment plant located on Shore Road. The GEIS had expected that the project could result in a demand of up to 200,000 gallons per day of sewer discharge; but the SDEIS projected that the current potential maximum use of the site would be 157,250 gallons per day, for both the PAC residential use of Lot 10[18] and the remaining commercial uses on lots 1 through 9. In the event of greater than expected usage demands for lots 1-9, additional study may be required, but the DSEIS sewer demand is clearly less than the originally anticipated maximum. Sewer capacity has been reserved for the project by way of a Developer's Agreement forged between the sponsor and the Town Board. The Planning Board understands that there should be adequate capacity at the treatment plant for the project pursuant to that Agreement, and further notes that the project will not be coming on line immediately upon approval, but will be built out over a period of time following the receipt of multiple approvals, easements and other authorizations that would be needed to connect the site to the Town's treatment plant.

Sewage will be collected onsite in a gravity collection system and flow to a pump station that will be located within the proposed looped town road to be built at the site. The pump station will pump the waste to manhole 102 of the Town's sewer

[18] Which is projected to generate 117,600 gallons per day (gpd)

system, located on Academy Avenue, chosen by the Town Engineer and the Town's Wastewater Treatment Plant Operator as being free of capacity or other problems. Other, closer alternative connection points such as manhole 23 in Mailler Avenue are plagued with existing operational problems.

Two alternative routes were considered for the sewer forcemain from the site to manhole 102, with the preferred alternative being to route east along the looped road, through an existing tunnel under 9W, then southeast approximately 3,900 feet across NYMA's athletic fields to Faculty Drive, along Faculty Drive to Academy Avenue and then along Academy Avenue to manhole 102. This alternative would require a private easement from NYMA to cross its property, and NYSDOT approval for crossing Route 9W. The less preferred alternative would run approximately 6,100 feet along the rear of the commercial lots to the southeastern project access to 9W, crossing under 9W to Halverson Street, to Mailler Avenue, and along Mailler Avenue to Academy and thence to manhole 102. This alternative would require a private easement to cross private property opposite 9W, and NYSDOT approval for crossing Route 9W.

Mitigation Measures/Policies and Procedures:

F1. GEIS Finding F-1 spoke to the project's potential to create intermunicipal impacts due to the project being located in two different municipalities with two different zoning designations. These intermunicipal impacts are no longer an issue in these Supplemental Findings, due to the annexation and rezoning of the property. Finding F-1 is no longer applicable.

F2, F3, and F4. GEIS Findings F-2, F-3, and F-4 had discussed water supply issues and alternatives, projected water use, various water supply distribution alternatives and permits and approvals that might be needed to supply the original GEIS project. These Findings are modified in this Supplemental Findings Statement based on current plans and updated information, as set forth hereinbelow:

F-2. As in the GEIS Findings, water supply will be provided by an extension of the existing Village of Cornwall-on-Hudson water distribution system, but there is now no longer a Town of New Windsor project component. GEIS Finding F-2 further noted that the Village of Cornwall-on-Hudson may be required to obtain additional approval from NYCDEP or others for the extension of service and compliance, for any work that may be needed within the NYCDEP

right-of-way[19] in order for the project site to complete its waterline connection with the Village of Cornwall on Hudson system.

This Supplemental Finding F-2 notes that providing a water supply to the project will involve extensive off-site improvements and will involve other agency approvals that will differ depending on which water supply routing alternative is chosen. Improvements will be required in order to create an eventual full loop to the water system, as the project is built out. The preferred routing involves constructing approximately 3,200 feet of main running up Mill Street, into Howard Street and to the site, and this alternative would require OCDPW approval for work on Mill Street. Crossing Route 9W, at the 85% of project completion, would also require NYSDOT approval. The less preferred routing involves improvements to and extensions of mains in Maple and Mailler Avenues, down Halverson Street and under 9W into the site, with 3,900 feet of main being installed. This alternative would require OCDPW approval for work on Willow Avenue, and NYSDOT approval for crossing Route 9W.

Under any water supply alternate, the matter of ownership of the water distribution lines needs to be determined, whether they should be publicly owned or privately owned, or some mix of the two. The sponsor would like to have the water lines in lot 10 and in the loop road be publicly owned; but if this is not acceptable they would need to be privately owned and maintained by a transportation corporation or Homeowners Association. This matter will need to be resolved prior to site plan approval.

F3. GEIS Finding F-3 had indicated as a maximum estimate, that the project could result in a demand of up to 200,000 gallons per day of water and sewer capacity, which the DGEIS indicates exists. The GEIS had noted that this demand estimate was subject to a wide potential variation based on the actual needs of lot users, and in the event of greater than expected demands, additional study may be required to determine adequacy of both. The intent of GEIS Finding F-3 was simply to indicate that central water and sewer services must be provided to the site, and that the final design, location and construction of the collection and/or distribution systems needed to be in accordance with the requirements of all jurisdictional agencies.

These Supplemental Findings modify and decrease the estimated maximum sewer and water use of the site from the amount estimated in the GEIS, to not more than 157,250 gallons per day, for both the PAC residential use of Lot 10 and the remaining commercial uses on

[19] The NY City Aqueduct runs below a portion of the site.

lots 1 through 9. This maximum use is roughly 78% of the previous estimated maximum.

F4. GEIS Finding F-4 had indicated that, upon substantial completion of the project, the applicant would extend the project's 12" water main from its terminus at the northwest side of NYS Route 9W to the southeast side of Route 9W. The intent was that the water main could be further extended to meet the existing Village of Cornwall-on-Hudson water main at the intersection of Mailler Avenue and Academy (NYS Route 9W) and to complete a beneficial water loop. In the GEIS Finding F-4, "Substantial completion of the project" was defined as 85% (eighty-five percent) of build-out of the site area for purposes of these Findings.

These Supplemental Findings show that the completion of the water loop, and the timing of completion of the same, would vary depending on which water supply alternate route was chosen. The preferred alternative routing still involves the need to cross 9W at 85% of buildout, as set forth in this section.

F5. GEIS Finding F-5 stated that the project would be supplied with sewer service, though the New Windsor components of that Finding and references to inter-municipal agreements are no longer relevant due to the annexation. The project is now wholly within the Town of Cornwall, and adequate sewer capacity at the Town of Cornwall treatment plant on Shore Road has been reserved for the project by way of a Developer's Agreement forged between the sponsor and the Town Board. Sewage will be collected onsite and conveyed by a forcemain to manhole 102 on Academy Avenue, the closest location that has the capacity to receive the site's sewage flows without creating or exacerbating any problems.

GEIS Finding F-5 noted that two connection alternatives had been analyzed. These Supplemental Findings note that additional information has been provided on these alternatives and any additional permits or authorizations that would be needed. The preferred alternative would be to route east along the internal project looped road, through an existing tunnel under 9W, then southeast approximately 3,900 feet across NYMA's athletic fields to Faculty Drive, along Faculty Drive to Academy Avenue and then along Academy Avenue to manhole 102. This alternative would require a private easement from NYMA to cross its property, and NYSDOT approval for crossing Route 9W. The less preferred alternative would run approximately 6,100 feet along the rear of the commercial lots to the southeastern project access to 9W, crossing under 9W to Halverson Street, to Mailler Avenue, and along Mailler Avenue to Academy and thence to manhole 102. This alternative would require

a private easement to cross private property opposite 9W, and NYSDOT approval for crossing Route 9W.

F6. GEIS Finding F-6 had indicated that the final design of any sewer collection system to service the site was to meet the requirements of the Town of New Windsor and Town of Cornwall, and was to be submitted for the review and approval of both municipal Engineers, as well as approval of NYSDEC. This Finding is no longer relevant, in that the site is entirely in the Town of Cornwall.

F7. GEIS Finding F-7 had indicated that NYSDEC approval is required for the sewer main extension. This is an informational Finding that has not changed.

F8. GEIS Finding F-8 had indicated that the Planning Board would determine the public safety impacts of the uses on the site at the time of site plan review, seeking input from the Cornwall Police Department and others as needed. The development is not projected to pose any unusual policing needs, though there will need to be an authorization from the Homeowner's Association to the Town of Cornwall to allow vehicles to be ticketed and towed from the site for parking violations.

F9. GEIS Finding F-9 had indicated that the Planning Board would determine the fire protection impacts of the uses on the site at the time of site plan review, noting that there would be coordination with the fire districts as needed. The site does lie in two fire districts, which if the fire districts do not take action to modify their boundaries, will require that the districts provide services within each existing district on the site, and/or they can forge a cooperative agreement about service delivery and responsibilities within the site. Beyond this, the Lot 10 the plans have been revised in response to comments made by the Canterbury Fire District, and revised plans have been circulated to both fire districts in which the project lies, with no additional remarks received. The site will be supplied with central water supplies, and roads will be 28 feet wide within the project, thereby resolving the Canterbury Fire District's initial concerns regarding the Lot 10 plan and layout.

F10. GEIS Finding F-10 had indicated that the Planning Board would determine the potential emergency medical impacts of the uses on the site at the time of site plan review, noting that there would be coordination with local emergency medical services if needed. Under the current project proposal and conditions, Cornwall Volunteer Ambulance Corps has expressed concerns about the potential demand on its services, based on the demand placed by other age-restricted developments within the Town of Cornwall. Though the project would result in increased tax revenues, increased demands on

the corps could result in the need for increased reliance on commercial paramedic services within the Town.

F11. GEIS Finding F-11 required the Planning Board to determine at the time of site plan review whether any individual future site user posed any extraordinary needs in regard to solid waste generation and collection. This Supplemental Finding shows that the Planning Board has considered the solid waste generation of the PAC residents. The single family attached and detached units will be collected individually at curbside, while the multiple dwellings and the clubhouse will use dumpsters, whose locations are shown on the plans. In regard to this site, the Town of Cornwall will be able to service not only all types of residential units and the commercial components. The Town will need to be granted permission to enter the project roadways on Lot 10, and any dumpsters and dumpster enclosures provided on the site must meet Town specifications so that the Town can service them.

The Planning Board will continue to evaluate the solid waste disposal needs at the time of site plan review for Lots 1-9, consistent with GEIS Finding F-11. However, the Planning Board notes that even commercial lots are serviced by the Town so long as any dumpsters and dumpster enclosures provided on the site must meet Town specifications so that the Town can service them. For the types of uses anticipated on Lots 1-9, no unusual solid waste disposal needs are anticipated at this time.

F12. GEIS Finding F-12 had spoken to the issue of school district impacts of the project as then presented in the GEIS, which had contained a major residential subdivision in the Town of New Windsor, prior to the annexation. This Supplemental Finding addresses the topic of school district impacts based on the change in circumstances. Following the annexation and PRD zoning of the site, and the Town Board's grant of the PAC special permit, Lot 10 is proposed for a PAC residential project containing a maximum of 490 units, with no other residential use allowed pursuant to the zoning and Developer's Agreement. PAC projects are age-restricted to seniors, so that it is not expected that the project would result in the generation of many school children to the CCSD, including also secondary or indirect effects. The DSEIS acknowledged that it is possible that there could be some small number of school children generated, though the key school related impact that would require consideration would be school bus routing, as the fiscal impacts to the CCSD were found to be significantly beneficial. Any school bus routing or access issues would need to be arranged between the CCSD and the PAC, either on an individual basis or via the Homeowners Association.

F13. GEIS Finding F-13 relating to parkland dedication and fees in-lieu of dedication requires updating as a result of the site's land annexation from New Windsor, the PRD zoning designation and the adoption of PAC regulations in the Town of Cornwall. Although there will be some private recreation available on the site as part of the age-restricted PAC, but not all that would meet the needs of its residents, the Planning Board finds and determines that the allowable in-lieu recreational fees in Section 158-21-X of the Cornwall Code shall be provided for this site, for reasons set forth in Section F of this Supplemental Findings Statement. Time of payment shall be at site plan approval for Lot 10, unless other arrangements shall be approved by the Town Board.

F-14. The Planning Board shall require review and approval of the Homeowners Association Bylaws to ensure that the maintenance and operation of all project elements that will be the responsibility of the HOA to maintain are provided for. Depending on the actions of other agencies as described elsewhere in these Findings, this shall include, but not be limited to, providing for access to emergency services providers, municipal garbage trucks, and other relevant enforcement personnel, provisions for maintenance of the stormwater management facilities, utility lines and relevant sewer and water facilities, and maintenance and protection of the landscaped areas and preserved open space. The Planning Board review of the HOA Bylaws shall be limited the review of those elements that reasonably relate to the SEQR Findings and the site plan and subdivision approval.

G. Visual and Noise Impacts

As noted in the GEIS, the primary visual changes that will result from subdividing the property and the future use and development of the site will be the removal of large portions of existing tree cover and vegetation, and the construction of a road network, drainage and utility network with future buildings in accordance with the zoning on the site. The GEIS had stated that, due to the steep slopes and dense forest of the valley of the Moodna Creek, the project would not be visible from the creek or its valley bottom under any of the proposed development scenarios that had been evaluated in the GEIS. Further, the GEIS had concluded that the topography and the vegetation both on and off the site would block the view of the project site for the Knox headquarters state historic site, is situated about 2,000 feet from the project site and separated from it by the valley of the Moodna Creek. Though the GEIS had observed that some portions of the site may be visible from distant elevations such as Storm King Mountain, it noted that the site development would appear as part of the wider urbanized landscape in the valley below. The GEIS had noted that Planning Board would pay careful attention during site-specific

review to landscaping and site lighting as well as the appearance and finish of the structures themselves in order to encourage a coordinated, attractive site appearance among other things.

Given comments from the Palisades Interstate Park Commission and others regarding the PIPC gorge trail adjacent to the Moodna Creek and other key vantage points, and given that the applicant will be seeking site plan approval for Lot 10 which is closest to the Moodna, the Planning Board requested supplemental visual impact analysis for Cornwall Commons. The potential visual impacts of siting of a 4-story congregate care building on a commercial lot was also evaluated, though no specific site plan approval is being sought for any commercial lot as part of this action. The DSEIS re-evaluated the potential visual impacts of the Lot 10 PAC development on key vantage points, based on a more specific site clearing, grading and development plan. While the Lot 10 site plan does incorporate some flexibility for the location of the single family dwellings, as described in more detail in Section A of these Supplemental Findings, enough is known about the site grading plans, the areas to be preserved as undisturbed, and the residential unit sizes and location, and a schematic site lighting plan, to determine potential visual impacts on key vantage points in accordance with DEC visual impact methodology.

The Supplemental DEIS included line of sight profiles developed to evaluate any viewshed changes for seven locations: Knox's Headquarters state historic site, two locations along the PIPC Moodna Gorge Trail, and four locations from Spaulding Farm (67 Forge Hill Road). Views from the 9W site access were also considered. It should be noted that all of these locations are typically only in use seasonally during daylight hours. Therefore, although the requirement that site lighting shall be fully shielded is important, if only to avoid skylighting, wasted energy and glare within the site, site lighting would not be expected to have any potentially harmful impacts on the identified visual resources. Adjoining residential properties are protected by wooded vegetated buffer strips shown on the plan, coupled with the shielding of lights and adherence to the lighting plan.

The Supplemental DEIS demonstrated that, even using a worst-case analysis where the peaks of the residential roofs were depicted as "boxes" instead of peaked and gabled, the site would not be visible from Knox's Headquarters, which is separated by roughly 400 feet of intervening vegetation on the park property. The two locations from the PIPC Gorge Trail were fully screened by roughly 150 to 200 feet of existing hardwood forest to remain. Spaulding Farm, which exists in an area that is currently visually degraded but may in future be somewhat improved by the demolition and removal of a degraded commercial structure there, is screened by approximately 150 to 200 feet existing hardwood forest vegetation from the site area, and even a 4-story congregate care building on the commercial lot closest to the Spaulding Farm will be virtually fully screened by the intervening vegetation.

The Lead Agency Planning Board also received comments regarding potential visual impacts to what was described as a pending multi-use Moodna Greenway-Recreational Corridor that would make use of additional properties off of the site

including the Spaulding Farm and the former railroad ROW adjoining the Cornwall Commons site. The revised Lot 10 plans provide a variable width of buffer between the Lot 10 development and the northern and western property line, ranging from as low as 110 feet to as high as 250 on the west, and as low as 58 feet on the north. The DSEIS and FSEIS evaluated visual impacts on the Moodna Creek on the west, and from the north towards Spaulding Farm, finding that the proposed development on Lot 10 would be heavily screened by existing vegetation both on and off the site.

Mitigation Measures/Policies and Procedures:

G1. GEIS Finding G-1 had stated that the Planning Board would require site specific landscaping plans incorporating existing mature trees, to the extent the same are able to be retained, supplemented by new plantings to create a suitable buffer for screening the view of development and Frost Lane as part of any site specific application. The submitted plans fulfill this requirement; see also Finding G-4 below.

G2. GEIS Finding G-2 had stated that during site-specific review of industrial plans, the Planning Board shall consider the needs for appropriate noise screening to be provided for any HVAC units, internal circulation areas or equipment areas if appropriate, in order to limit noise at any residential property lines. This Finding is no longer relevant, due to the annexation and change in the site's zoning and the fact that only residential uses will be closest to the existing off-site residential properties.

G3. GEIS Finding G-3 had stated that the Planning Board will pay careful attention during site-specific review to landscaping and site lighting as well as the appearance and finish of the structures themselves in order to encourage a coordinated, attractive site appearance that considers the Cornwall component's role as gateway to the residential component in New Windsor. This Finding is no longer relevant, due to the annexation and change in the site's zoning to be consistent throughout the site.

G4. The SDEIS shows that even under worst case visual impact analysis, the site development would not be visible from identified key vantage points of cultural significance, such as Knox's headquarters, the PIPC Moodna Gorge trail, and the Spaulding Farm. Plans were modified in the Supplemental SEQR review process to increase the wooded buffer closest to the Moodna gorge. The retention of existing areas of woodland vegetation as depicted on the Lot 10 site plan, coupled with the site supplemental planting plans and landscape plans.

H. Cultural Resources

The GDEIS had considered the possibility of cultural resources impacts of site development, including the possibility of visual impacts on any nearby structure or facility of cultural, historical, or archeological importance, and the GEIS had incorporated some cultural resources analysis. Additional cultural resources analysis was conducted in the fall of 2005, and was submitted to the NYS Office of Parks, Recreation and Historic Preservation in a report dated February of 2006. Phase I-B shovel tests were performed on the site, and the results concluded that the site had little value as an archeological resource and the state concurred that no further work was needed in this regard.

Visual impacts are discussed separately above in Section G of this document, demonstrating that the site development would not be expected to create any significant harmful visual impacts on architectural resources, such as structures listed on or eligible for nomination to the state or national Registers of Historic Places.

Cultural Resources Mitigation Measures/Policies and Procedures:

H1. GEIS Finding H-1 concluded that no mitigation measures were needed in this subject area as no potential impacts were projected in this subject area. This Finding remains valid.

I. Energy Consumption

The buildings will comply with state energy code requirements including low flow water fixtures at a minimum, and may incorporate recycled content and additional energy saving and insulating features in the building foundations, structural elements, building exterior, windows and appliances. Because the applicant may not necessarily be the builder, this cannot be determined at this point. However, the Planning Board does note that the recent increases in the cost of energy are likely to increase the consumer demand for such features at a minimum.

The site landscaping incorporates native plants, which, once established, will require minimal maintenance and are not proposed to be irrigated after establishment.

G – Statement of Qualifications for Joshua M. Sewald, PE, PP

Joshua M. Sewald, PE, PP

Principal

Joshua Sewald is Principal of Dynamic Engineering Consultants, PC. Mr. Sewald joined the firm as a Junior Design Engineer and has successfully developed himself into a Partner at the firm. He provides practical experience with commercial, residential, and industrial land development projects. His primary experience extends throughout the State of New Jersey, Pennsylvania, Delaware, Maryland and New York. Included within his areas of expertise are site grading and earthwork, stormwater management, water quality design, project management, and NJDEP permitting inclusive of Coastal Areas, Treatment Works Approvals, Freshwater Wetlands, and Flood Hazard Areas.

Mr. Sewald is dedicated to insuring that clients are satisfied with the management of their projects by maintaining open communication and ensuring timeliness of project milestones. He approaches each project to tailor to his client's needs and goals. Mr. Sewald believes that it is important clients are informed about the land development process so that they make knowledgeable decisions. He also makes certain that his clients are aware of the regulatory process and risks associated with each step of the development project.

During his career, Mr. Sewald has provided consulting services for numerous corporate and developer driven projects including ALDI, Prologis, Raymour & Flanigan, Mavis Discount Tire, Wawa, 7-Eleven, The Learning Experience, Dunkin Donuts, Popeye's, Burger King, and many more.

Licenses:

- New Jersey Professional Engineer License
- New York Professional Engineer License
- Pennsylvania Professional Engineer License
- Delaware Professional Engineer License
- Maryland Professional Engineer License
- New Jersey Professional Planner License

Education:

- Rutgers University, Masters of Science in Civil Engineering
- Temple University, Bachelor of Science in Civil Engineering

Agency Experience:

- NJDEP, Flood Hazard Areas
- NJDEP, Freshwater Wetlands
- NJDEP, Treatment Works Approval
- NJDEP, Waterfront Development
- NJDEP, Coastal Area Facilities Review (CAFRA)
- New Jersey Pinelands Commission
- New Jersey Soil Conservation Districts
- Delaware & Raritan Canal Commission
- PA Municipal Land Use Boards (ZHB, PC, BOS)
- PADEP NPDES Permit & Conservation Districts
- PennDOT HOP Permits
- Pennsylvania Conservation Districts
- Maryland Department of the Environment
- Maryland Department of Transportation
- Delaware DNREC & DelDOT
- NY State DEC and DOT

Expert Testimony:

Mr. Sewald has been accepted and testified as a Professional Engineer before various Planning Boards, Zoning Boards, Board of Supervisors in multiple states.

Employment History:

- 2011: Dynamic Engineering – Intern/Co-op
- 2012-2015: Dynamic Engineering – Design Engineer/Project Manager
- 2016-Current: Dynamic Engineering – Principal

Professional Affiliations:

- International Council of Shopping Centers (ICSC)
- ICSC – Next Gen Planning Committee – NJ/PA/DE
- National Association of Industrial and Office Properties (NAIOP) – Developing Leader
- American Society of Civil Engineers (ASCE)
- National Association for Industrial and Office Parks (NAIOP)

H – Title Report for Subject Property

ALTA Commitment for Title Insurance

MTANY-158435

Issued By Old Republic National Title Insurance Company

NOTICE

IMPORTANT—READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and the Commitment Conditions, Old Republic National Title Insurance Company, a Florida Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I—Requirements have not been met within 6 months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

This page is only a part of a 2016 ALTA Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I – Requirements; and Schedule B, Part II – Exceptions.

**THIS REPORT IS NOT A TITLE INSURANCE POLICY! PLEASE READ IT CAREFULLY.
THE REPORT MAY SET FORTH EXCLUSIONS UNDER THE TITLE INSURANCE POLICY AND MAY NOT LIST ALL LIENS, DEFECTS, AND ENCUMBRANCES AFFECTING TITLE TO THE PROPERTY.
YOU SHOULD CONSIDER THIS INFORMATION CAREFULLY.**

Issued through the Office of

Madison Title Agency, LLC
1125 Ocean Avenue
Lakewood, NJ 08701

Authorized Signatory

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111

By *President*

Attest *Secretary*

COMMITMENT CONDITIONS

1. DEFINITIONS

(a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
(b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
(c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
(d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association or the Title Insurance Rate Service Association, Inc., issued or to be issued by the Company pursuant to this Commitment.
(e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
(f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
(g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
(h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:
(a) the Notice;
(b) the Commitment to Issue Policy;
(c) the Commitment Conditions;
(d) Schedule A;
(e) Schedule B, Part I—Requirements;
(f) Schedule B, Part II—Exceptions; and
(g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

(a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
  (i) comply with the Schedule B, Part I—Requirements;
  (ii) eliminate, with the Company's written consent, any Schedule B, Part II—Exceptions; or
  (iii) acquire the Title or create the Mortgage covered by this Commitment.
(b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
(c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
(d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
(e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
(f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I— Requirements have been met to the satisfaction of the Company.
(g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

This page is only a part of a 2016 ALTA Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I – Requirements; and Schedule B, Part II – Exceptions.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

(a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
(b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
(c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
(d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
(e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
(f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. ARBITRATION

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is $2,000,000 or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at http://www.alta.org/arbitration.

MADISON TITLE AGENCY
A Madison Commercial Real Estate Services™ Company

Tel. 877.4.MADISON
Fax. 732.905.9420
1125 Ocean Avenue
Lakewood, NJ 08701
Email. info@madisontitle.com
www.madisontitle.com

February 10, 2021

Joshua Zelkowitz, Esq.
Stein Adler LLP
1633 Broadway, 46th Fl.
New York, NY
Email: jzelkowitz@steinadlerlaw.com

Reference: **MTANY-158435**
2615 Route 9W
Cornwall and New Windsor, NY 12518
Cornwall Logistics LLC

Dear Mr. Zelkowitz:

Enclosed please find your Commitment for the above referenced property.

If you have any questions or need any assistance regarding this report, please don't hesitate to contact Dina Schwarzman at DSchwarzman@madisontitle.com or (732) 333-2387. Again, thank you for giving us this opportunity to be of service; I look forward to working with you.

Very truly yours,

James Lee, Esq.
Madison Title Agency, LLC

Please note: The municipal searches reported herein are furnished FOR INFORMATION ONLY. They will not be insured and the Company assumes no liability for the accuracy thereof. They will NOT BE CONTINUED to the date of closing.

cc: Doxia Dargaty, Esq.
Shapiro & Gellert, PLLC
225 West 25th Street, Suite 5D
New York, NY 10001

THIS REPORT IS NOT A TITLE INSURANCE POLICY!
PLEASE READ IT CAREFULLY.

THE REPORT MAY SET FORTH EXCLUSIONS UNDER THE TITLE INSURANCE POLICY AND MAY NOT LIST ALL LIENS, DEFECTS, AND ENCUMBRANCES AFFECTING TITLE TO THE PROPERTY.

YOU SHOULD CONSIDER THIS INFORMATION CAREFULLY.

Old Republic National Title Insurance Company

Title No.: MTANY-158435

SCHEDULE A

Proposed Insured: **Effective Date: December 16, 2020**

Purchaser Cornwall Logistics LLC

Mortgagee TBD

Amount of Insurance:

Fee $16,000,000.00

Mortgage TBD

THIS COMPANY CERTIFIES that a good and marketable title to the premises described in Schedule A, subject to the liens, encumbrances and other matters, if any, set forth in this certificate may be conveyed and/or mortgaged by:
Cornwall Commons, LLC by deed from Elizabeth H. Dickinson and Smith Barney Private Trust Company of New Jersey, as Trustees under Agreement dated June 24, 1994, dated May 26, 1999 and recorded July 2, 1999 in the Orange County Register's/Clerk's Office in Liber 5093, Page 150 as corrected by correction deed recorded on February 13, 2007 in Liber 12364, Page 1955.

The estate or interest in the land described or referred to in this certificate and covered herein is:

Fee Simple

Premises described herein are known as:

Address: 2615 Route 9W, Cornwall and New Windsor, NY 12518
County: Orange
City/Town: Cornwall
Section: 9 **Block:** 1 **Lot:** 25.22

SEE SCHEDULE A, LEGAL DESCRIPTION ATTACHED.

Issued by:
Madison Title Agency, LLC
1125 Ocean Avenue, Lakewood, NJ 08701
Telephone: 732-905-9400 Fax: 732-905-9420

Old Republic National Title Insurance Company

Title No.: MTANY-158435

SCHEDULE A CONTINUED

LEGAL DESCRIPTION

All that certain plot, piece or parcel of land, situate, lying and being in the Town of Cornwall and Town of New Windsor, County of Orange, State of New York, said lands being shown on a map entitled “Survey and Wetlands Prepared for Cornwall Commons, Town of Cornwall, Orange County, New York”, dated May 26, 2006 prepared by Lanc & Tully Engineering and Surveying, P.C., said lands being more particularly bounded and described as follows:

BEGINNING at a point in the northwesterly line of NYS Route 9W at the intersection with the southerly right of way line of the former New York/Ontario & Western Railroad (lands now or formerly N & C Land Corp.) said point being the northeasterly corner of lands herein described;

RUNNING THENCE from said point of beginning along the northwesterly line of said NYS Route 9W on the following two (2) courses and distances:
1. South 43 degrees 25 minutes 50 seconds west, a distance of 413.50 feet to a point marked by a concrete monument found; and
2. South 42 degrees 00 minutes 40 seconds west, a distance of 410.00 feet to a point at the northeasterly corner of lands now or formerly New York Military Academy;

THENCE running along the northerly, westerly and southerly lines of said lands of New York Military Academy on the following four (4) courses and distances:
3. North 47 degrees 59 minutes 20 seconds west, a distance of 487.00 feet to a point;
4. North 79 degrees 42 minutes 46 seconds west, a distance of 802.18 feet to a point at the northwesterly corner of said lands of New York Military Academy;
5. South 58 degrees 14 minutes 40 seconds west, a distance of 940.00 feet to a point at the southwesterly corner of said lands of New York Military Academy;
6. South 31 degrees 45 minutes 20 seconds east, a distance of 1,199.90 feet to a point in the northwesterly line of said NYS Route 9W at the southerly corner of said lands of New York Military Academy, said point being located North 49 degrees 46 minutes east, a distance of 0.65 feet from an iron rod found;

THENCE running along the northwesterly line of said NYS Route 9W;
7. South 58 degrees 16 minutes 19 seconds west, a distance of 709.34 feet to a point marked by a concrete monument found in a stone wall at the easterly corner of lands now or formerly Monahan;

THENCE running along the northeasterly line of said lands of Monahan and generally along a stone wall;
8. North 40 degrees 09 minutes 23 seconds west, a distance of 250.00 feet to a point at the intersection of the northerly corner of said lands of Monahan with the easterly corner of lands now or formerly Bamb Realty Corp., said point also being located north 35 degrees 24 minutes east, a distance of 1.00 feet from an iron pipe found;

THENCE running along the northeasterly and northwesterly line of said lands of Bamb Realty Corp., on the following two (2) courses and distances:
9. Continuing generally along a stone wall North 39 degrees 43 minutes 23 seconds west, a distance of 225.63

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feet to a point in a stone wall intersection at the northerly corner of said lands of Bamb Realty Corp., said point also marked by an iron pipe found;
10. Running generally along a stone wall South 60 degrees 24 minutes 13 seconds west, a distance of 688.79 feet to a point marked by an iron pipe found at a stone wall intersection, said point being the easterly corner of lands now or formerly Boggio;

THENCE running along the northerly line of said lands of Boggio and generally along a stone wall;
11. North 31 degrees 27 minutes 23 seconds west, a distance of 378.63 feet to a point, said point being located north 01 degree 04 minutes east, a distance of 0.39 feet from an iron rod found;

THENCE running along the northerly line of said lands of Boggio, lands now or formerly Brauer, and lands now or formerly Rickey and generally along a stone wall;
12. North 81 degrees 06 minutes 09 seconds west, a distance of 611.55 feet to a point at the intersection of the northwesterly corner of said lands of Rickey with the easterly corner of lands now or formerly Delorenzo, said point being located north 70 degrees 14 minutes east, a distance of 0.55 feet from an iron pipe found and north 24 degrees 58 minutes east, a distance of 1.18 feet from another iron pipe found;

THENCE running along the northeasterly line of said lands of Delorenzo;
13.North 22 degrees 31 minutes 31 seconds west, a distance of 173.30 feet to a point marked by an iron rod found at a stone wall intersection at the intersection of the northerly line of said lands of Delorenzo with the easterly corner of lands now or formerly Haight;

THENCE running along the northerly and westerly line of said lands of Haight on the following two (2) courses and distances:
14. Running generally along a stone wall north 58 degrees 01 minute 49 seconds west, a distance of 311.34 feet to a point at the northerly corner of said lands of Haight, said lands being located south 67 degrees 21 minutes west, a distance of 0.37 feet from an iron pipe found;
15. South 34 degrees 01 minutes 44 seconds west, a distance of 130.17 feet to a point at the intersection of the westerly corner of said lands of Haight with the northerly corner of lands now or formerly Roach;

THENCE running along the northwesterly line of said lands of Roach, lands now or formerly Tyson and lands now or formerly DiMarzo on the following two (2) courses and distances:
16. South 34 degrees 03 minutes 08 seconds west, a distance of 211.99 feet to a point at the intersection of the westerly corner of said lands of Tyson with the northerly corner of said lands of DiMarzo, said point also being located south 43 degrees 33 minutes east, a distance of 0.70 feet from an iron pipe found;
17. South 36 degrees 09 minutes 23 seconds west, a distance of 100.00 feet to a point at the westerly corner of said lands of DiMarzo, said point being located south 17 degrees 14 minutes east, a distance of 1.57 feet from an iron rod found;

THENCE running along the southwesterly corner of said lands of DiMarzo;
18. South 37 degrees 00 minutes 37 seconds east, a distance of 115.00 feet to a point in the northwesterly line of Frost Lane, said point being located south 15 degrees 56 minutes west, a distance of 1.96 feet from an iron found;

THENCE running along the northwesterly line of said Frost Lane and the following adjoining property owners, lands now or formerly Sobocinske, lands now or formerly Mieczkowski, lands now or formerly Hershberger, lands now or formerly Nunally, lands now or formerly Florio, other lands now or formerly Florio and running generally along a portion of a stone wall;
19. South 62 degrees 09 minutes 35 seconds west, passing through an iron pipe in concrete found at a distance of 890.55 feet, a total distance of 923.34 feet to a point at the easterly corner of lands now or formerly Chatfield,

said point being the southerly corner of lands herein described;

THENCE running along the northeasterly line of said lands of Chatfield;
20. North 40 degrees 31 minutes 50 seconds west, a distance of 256.23 feet to a point in the northeasterly line of lands now or formerly DiMicell at the southerly corner of lands now or formerly the Town of Cornwall;

THENCE running along the southeasterly and northeasterly lines of said lands of the Town of Cornwall on the following three (3) courses and distances:
21. North 63 degrees 33 minutes 17 seconds east, a distance of 110.57 feet to a point;
22. North 30 degrees 21 minutes 30 seconds east, a distance of 450.00 feet to a point at the easterly corner of said lands of the Town of Cornwall;
23. North 59 degrees 07 minutes 50 seconds west, a distance of 250.48 feet to a point at the intersection of the easterly line of said former New York/Ontario and Western Railroad (lands now or formerly Moodna Creek Development, Ltd.) with the northerly corner of said lands of the Town of Cornwall;

THENCE running along the southeasterly and southerly right of way lines of said former New York/Ontario & Western Railroad on the following twenty-seven (27) courses and distances:
24. North 28 degrees 21 minutes 35 seconds east, a distance of 132.13 feet;
25. North 44 degrees 09 minutes 30 seconds east, a distance of 95.70 feet;
26. North 28 degrees 22 minutes 00 seconds east, a distance of 686.70 feet;
27. North 12 degrees 49 minutes 40 seconds east, a distance of 96.05 feet;
28. North 27 degrees 00 minutes 00 seconds east, a distance of 545.75 feet to a point of curvature;
29. On a curve to the right having a radius of 1,382.29 feet, an arc length of 1,062.26 feet, as defined by the chord north 49 degrees 00 minutes 55 seconds east, 1,036.31 feet to a point of tangency;
30. North 71 degrees 01 minute 50 seconds east, a distance of 381.52 feet;
31. North 65 degrees 19 minutes 10 seconds east, a distance of 392.82 feet;
32. North 69 degrees 06 minutes 30 seconds east, a distance of 353.62 feet;
33. North 82 degrees 47 minutes 10 seconds east, a distance of 186.02 feet;
34. South 59 degrees 13 minutes 00 seconds east, a distance of 85.46 feet;
35. North 88 degrees 14 minutes 50 seconds east, a distance of 186.38 feet;
36. South 69 degrees 23 minutes 20 seconds east, a distance of 217.45 feet;
37. North 25 degrees 59 minutes 50 seconds east, a distance of 20.00 feet;
38. South 64 degrees 00 minutes 10 seconds east, a distance of 140.26 feet;
39. South 58 degrees 38 minutes 30 seconds east, a distance of 141.69 feet;
40. South 34 degrees 14 minutes 50 seconds east, a distance of 113.58 feet;
41. South 40 degrees 19 minutes 40 seconds east, a distance of 391.80 feet;
42. South 43 degrees 07 minutes 00 seconds east, a distance of 248.42 feet;
43. South 83 degrees 22 minutes 50 seconds east, a distance of 55.00 feet;
44. South 71 degrees 08 minutes 10 seconds east, a distance of 97.03 feet;
45. South 49 degrees 32 minutes 50 seconds east, a distance of 92.23 feet;
46. South 71 degrees 46 minutes 10 seconds east, a distance of 254.47 feet;
47. South 86 degrees 18 minutes 30 seconds east, a distance of 270.13 feet;
48. South 83 degrees 47 minutes 20 seconds east, a distance of 366.52 feet;
49. South 78 degrees 25 minutes 30 seconds east, a distance of 275.38 feet; and
50. South 88 degrees 18 minutes 10 seconds east, a distance of 262.40 feet to the point or place of BEGINNING.

NOTE: Being Section 9, Block(s) 1, Lot(s) 25.22, Tax Map of the Town of Cornwall, County of Orange.

NOTE: Lot and Block shown for informational purposes only.

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Telephone: 732-905-9400 Fax: 732-905-9420

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Old Republic National Title Insurance Company

Title No.: MTANY-158435

CLOSING REQUIREMENTS

1. All parties attending the closing will be required to furnish a photo driver's license or other acceptable photo identification card to be copied.

2. All personal checks in excess of $500.00 must be approved by the Company PRIOR TO CLOSING.

3. Borrower and lender must comply with the mortgage recording requirements of the New York State Department of Taxation and Finance. Every mortgage offered for recording must contain the following recital:

   "The real property [is or is not, whichever applies] principally improved or to be improved by one or more structures containing in the aggregate not more than six residential dwelling units, each dwelling unit having its own separate cooking facilities."

   NOTE: This recital may be stated on the mortgage instrument itself or it may be included by the attachment of a separate page to the mortgage signed by the person making the statement.

4. Applicable Mortgage Recording Tax is due at closing.

5. If an Assignment of Mortgage is offered at closing for recording, then the Borrower and Lender must comply with the requirements of Section 275 of the Real Property Law:

   a) The Assignment of Mortgage must contain the following language:

   "This assignment is not subject to the requirements of Section 275 of the Real Property Law because it is an assignment within the secondary mortgage market."

   -or-

   b) There must be affixed to, and recorded as part of the Assignment of Mortgage, an affidavit executed by the mortgagor stating that the assignee is not acting as a nominee of the mortgagor or owner of the property, and that the mortgage continues to secure a bona obligation.

6. If any of the closing instruments herein are to be executed by a Power of Attorney, then the following requirements must be complied with:

   a) The proposed Power of Attorney instrument must be submitted to this Company for Underwriting consideration prior to closing.

   b) At closing an affidavit will be required from the attorney for the Principal to show that the Power of Attorney has not been revoked and that the Principal of the Power is alive and competent at the time of closing.

   c) The Power of Attorney must be in recordable form and must be submitted at closing for recording simultaneously with the closing documents.

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Old Republic National Title Insurance Company

Title No.: MTANY-158435

7. Tax Map block and lot numbers must appear on each instrument offered for recording.

8. Form TP-584 New York State Combined Real Estate Transfer Tax Return and Credit Line Mortgage Certificate, together with payment, if any, are due upon delivery of closing deed. (The transfer tax return must be signed by BOTH seller and purchaser).

9. New York State Board of Equalization and Assessment Real Property Transfer Report (Form RP-5217) must accompany closing deed for recording. (The form must be signed by BOTH seller and purchaser).

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SCHEDULE B

Hereinafter set forth are the additional matters which will appear in the policy as exceptions from coverage, unless disposed of to the Company's satisfaction prior to the closing or delivery of the policy. Company reserves the right to raise additional exceptions.

1. Rights of tenants or persons in possession, if any.

2. Mortgages set forth herein (1) - See Mortgage Schedule.

3. AMENDED 02/09/2021
Covenants, Conditions, Restrictions, Easements, Agreements, etc. of record:
1. Gas Easement in Liber 717 Page 104.
2. Easement in Liber 833 Page 64.
3. Sewer Easement in Liber 933 Page 127.
4. Telephone Easement in Liber 1191 Page 80.
5. Telephone Easement in Liber 1210 Page 336.
6. Easements and Restrictions in Liber 1592 Page 239.
7. Declaration in Liber 1725 Page 492.
8. Sewer Easement in Liber 1725 Page 571.
9. Easement in Liber 3436 Page 104, as cited in Deed in Liber 5093, Page 150.
10. Developer's Agreement in Liber 12838 Page 1447 as amended by Amendment to Developer's Agreement in Liber 12838 Page 1474.
11. Gas Easement in Liber 13854 Page 1101.
12. Utility Right of Way Easement in Liber 1234 Page 192.
13. Gas and Electric Company Easement in Liber 1860 Page 886.
14. Matters as set forth in Filed Map #10191.

4. Tax Search: Herein.

5. Bankruptcy Searches run against the same/similar name as Cornwall Commons, L.L.C. and Cornwall Logistics LLC.
Returns: None.

6. Company requires identification for any and all parties signing on the closing documents.

7. Searches were run for judgments, liens, federal tax liens, etc. against the same/similar name as Cornwall Commons, L.L.C. The following returns were found: None

8. Searches were run for judgments, liens, federal tax liens, etc. against the same/similar name as Cornwall Logistics LLC. The following returns were found: None

Issued by:
Madison Title Agency, LLC
1125 Ocean Avenue, Lakewood, NJ 08701
Telephone: 732-905-9400 Fax: 732-905-9420

Old Republic National Title Insurance Company

Title No.: MTANY-158435

9. Deed to contain the following language: "Being and intended to be the same premises conveyed to the party of the first part by Deed from Elizabeth H. Dickinson and Smith Barney Private Trust Company of New Jersey, as Trustees under Agreement dated June 24,1994 recorded on 07/02/1999 in Liber 5093, Page 150, as corrected in Liber 12364, Page 1955".

10. Deeds and Mortgages must contain the covenant required by Section 13 of the Lien Law and such covenant must be absolute and not conditional. The covenant is not required in deeds from referees or other persons appointed by a court for the sole purpose of selling property.

11. Tax Law _ 663(d), effective 9/1/2003 as revised, requires that a recording officer shall not record or accept for record any deed unless accompanied by a form IT-2663 for the appropriate year in which the transaction takes place, together with the payment of the estimated tax due, if any, by check made payable to "NYS Income Tax" or if the transaction is not subject to the filing and payment requirements of _ 663 because the seller is a resident individual, trust or estate, a TP-584 form which includes a completed certification by the transferor/seller that this section is inapplicable to the transfer.

12. Proof required to show all tenancies and parties in possession. All leases affecting the premises must be produced and examined in advance of closing, and determination made as to whether any instrument is required from the lessees in order to subordinate.

13. UCC Searches run in the county against Cornwall Commons, L.L.C. and Cornwall Logistics LLC. The following returns were found: None

14. UCC Searches run in the New York State Department of State against Cornwall Commons, L.L.C. and Cornwall Logistics LLC. The following returns were found: None

15. Effective September 1st, 2010, the collection of Sales and Use tax on the provision of information services and title products is required pursuant to section 1105 of the New York State Tax Law. Accordingly, said tax will be charged, and reflected on this company's bill, on title products and searches including but not limited to: certificates of occupancy, Department of Buildings, Fire Department, Emergency Repair, Street Reports, Highway Department, Health Department, Department of Environmental Protection, Department of Air Resources, Oil Burner, Landmark and Patriot Act (or their variations where applicable).

16. OMITTED

There is no intervening deed of record between Fairleigh S. Dickinson, Jr., Elizabeth H. Dickinson and Smith Barney Shearson Trust Company as Trustees under Agreement dated June 24,1994, Grantee(s) in Liber 4171 Page 285, and Elizabeth H. Dickinson and Bank of New York, as successor trustee to Smith Barney Private Trust Company of New Jersey, as Trustees under Agreement dated June 24, 1994, Grantor(s) of the next deed in Liber 5093, Page 150 and corrected in Liber 12364, Page 1955. The Company requires satisfactory proofs and/or action which rectifies the break in the chain of title.

UNDER INVESTIGATION

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17. MORTGAGE(S) 1 IN MORTGAGE SCHEDULE HEREIN IS/ARE HELD BY A PRIVATE LENDER. COMPANY REQUIRES EXECUTED SATISFACTION(S) FOR SAID MORTGAGE(S) AT OR PRIOR TO CLOSING. THE ORIGINAL NOTE(S) AND MORTGAGE DOCUMENTS MUST BE PROVIDED AT CLOSING. A COPY OF SAID SATISFACTION(S) MUST BE SENT TO THE COMPANY FOR APPROVAL AT OR PRIOR TO CLOSING. PAYOFF LETTER(S) WILL NOT BE ACCEPTED.

18. Company requires the following for review **prior** to closing, with regard to Cornwall Commons, L.L.C. and Cornwall Logistics LLC:
1. Proof of due formation: proof of filing of the Articles of Organization with the Secretary of State; and proof of publication of the Articles of Organization (or a notice containing the substance of the articles)
2. Articles of Organization and Operating Agreement must be produced and reviewed; additional exceptions may be raised upon review of same;
3. Proof is required that there has been no change in the make-up or composition of the organization, and that there have been no amendments made to the Articles of Organization or Operating Agreement;
4. Proof is required that the party or parties executing instruments on behalf of the organization have authority to act;
5. Certificate of Good Standing is required.

19. For residential real property containing one to four units only: This Company will except and no coverage will be provided to the Insured as result of any harm, loss or damage suffered or incurred by the failure of the LLC grantors and/or grantees to provide a fully completed disclosure form at the closing.

20. OMITTED 01/26/2021
Until a guaranteed survey is received, policy will not insure courses, distances and dimensions of subject premises or the bed of any street, road or avenue passing through same, and will except any facts such a survey or personal inspection would show.

21. NOTE: Please reach out prior to closing, to determine if there are any further requirements due to possible changes in recording and title searching capabilities resulting from the COVID-19 virus.

22. ADDED 01/25/2021
Title is vested in Cornwall Commons, LLC while the NYS Department of State/Division of Corporations database shows Cornwall Commons, L.L.C. Closing documents should cite Cornwall Commons, L.L.C. who acquired title as Cornwall Commons, LLC.

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Old Republic National Title Insurance Company

Title No.: MTANY-158435

23. ADDED 01/26/2021
Survey made by Lanc & Tully Engineering and Surveying, P.C., dated January 22, 2021, shows a vacant lot, and also shows:

1. Stone walls on, near, varying or extending over portions of northerly, easterly, southerly and westerly lines.
2. Streams meander through southerly portion of subject premises.
3. Split rail fence on or near a portion of easterly line.
4. Pool and sheds encroach up to 74.6 feet over a portion of easterly line onto subject premises.
5. Wire fences on or near portions of westerly and northerly line.

6. Access Easement on or through northeasterly portion of subject premises.
7. 50 foot wide Permanent Easement on or through southerly portion of subject premises.
8. 12 foot wide Sanitary Sewer Easement on or through southerly portion of subject premises.
9. 40 foot Utility Easement on or through southerly portion of subject premises.
10. Restrictive Easement to Town of Cornwall on or through southerly portion of subject premises.
11. CHG&E Easement and Right of Way on or through northwesterly portion of subject premises.
12. CHG&E Gas Line Easement running through and extending out of northwesterly portion of subject premises.

FOR MORTGAGE POLICY ONLY: Policy insures against monetary loss to the insured mortgagee resulting from any of the above encroachments/projections set forth in the survey reading.

Note: Insurance Law Sec. 64 Subdivision 6409(c) requires that title companies offer, at or prior to closing, an optional policy to cover the homeowner for the FUTURE market value of his house. You may, therefore, elect to obtain protection in excess of your purchase price. If you do not wish this additional statutory coverage, you MUST WAIVE by signing in the space below this exception:

_____
_____

_____
_____

Issued by:
Madison Title Agency, LLC
1125 Ocean Avenue, Lakewood, NJ 08701
Telephone: 732-905-9400 Fax: 732-905-9420

Privacy Policy Notice for Old Republic National Title Insurance Company and Madison Title Agency, LLC

Purpose of this Notice

Title V of the Gramm-Leach-Bliley Act (GLBA) generally prohibits any financial institution, directly or through its affiliates, from sharing nonpublic personal information about you with a nonaffiliated third party unless the institution provides you with a notice of its privacy policies and practices, such as the type of information that it collects about you and the categories of persons or entities to whom it may be disclosed. In compliance with the GLBA, we are providing you with this document, which notifies you of the privacy policies and practices of Old Republic National Title Insurance Company and Madison Title Agency, LLC.

We may collect nonpublic personal information about you from the following sources:

- Information we receive from you such as on applications or other forms;
- Information about your transactions we secure from our files, or from [our affiliates or] others;
- Information we receive from a consumer-reporting agency.
- Information that we receive from others involved in your transaction, such as the real estate agent or lender.

Unless it is specifically stated otherwise in an amended Privacy Policy Notice, no additional nonpublic personal information will be collected about you.

We may disclose any of the above information that we collect about our customers or former customers to our affiliates or to nonaffiliated third parties as permitted by law.

We also may disclose this information about our customers or former customers to the following types of nonaffiliated companies that perform marketing services on our behalf or with whom we have joint marketing agreements:

- Financial service providers such as companies engaged in banking, consumer finance, securities and insurance;
- Non-financial companies such as envelope stuffers and other fulfillment service providers.

WE DO NOT DISCLOSE ANY NONPUBLIC PERSONAL INFORMATION ABOUT YOU WITH ANYONE FOR ANY PURPOSE THAT IS NOT SPECIFICALLY PERMITTED BY LAW.

We restrict access to non-public personal information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

We appreciate this opportunity to be of service to you.

The undersigned acknowledges that I/we have read and understand the above Privacy Policy Notice.

Date:_____

_____	_____
Seller(s)	Buyer(s)/Borrower(s)
_____	_____
Seller(s)	Buyer(s)/Borrower(s)

Old Republic National Title Insurance Company

Title No.: MTANY-158435

MORTGAGE SCHEDULE

1. Mortgage
Mortgagor: Cornwall Commons, LLC
Mortgagee: Elizabeth H. Dickinson and Smith Barney Private Trust Company of New Jersey, as Trustees
Amount: $500,000.00
Dated: 05/26/1999
Recorded: 07/02/1999
Liber 7297 Page 38
Tax Paid: $5,000.00

a. Assignment of Mortgage
Assignor: The Bank of New York, as Successor Trustee to the Elizabeth H. Dickinson and Smith Barney Private Trust Company of New Jersey
Assignee: Harriman Gardens, LLC
Dated: 06/07/2004
Recorded: 06/18/2004
Liber 11532 Page 1822

For purchase transactions, there will be a $250 charge for the first mortgage satisfied at closing and an additional $200 charge for each subsequent mortgage.

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Old Republic National Title Insurance Company

Title No.: MTANY-158435

MUNICIPAL DEPARTMENT SEARCHES AND STREET REPORT

Any searches or returns reported herein are furnished FOR INFORMATION ONLY. They will not be insured and the Company assumes no liability for the accuracy thereof. They will NOT BE CONTINUED to the date of closing.

Certificate of Occupancy Search:	HEREIN
Department of Buildings Search:	HEREIN
Department of Fire Search:	HEREIN
Street Report:	HEREIN

STREET VAULTS

In New York City, if there is a STREET VAULT, it is suggested that applicant investigate possible unpaid license fees by the City of New York for the use of such vault, because the right to maintain it IS NOT INSURED, nor does the Company insure that the vault charges have been paid

NOTES

1. Your canceled check is your receipt. Receipted bills will not be returned unless written request accompanies payment.

2. General information call: Taxpayer Assistance (718) 935-9500.

3. Interest computation: (For Real Estate Taxes call N.Y.C. Department of Finance (718) 934-6000.) Due to possible fluctuation in the interest rate and the complexity of interest calculations, it is recommended that an official bill be obtained from the appropriate Borough Office of the Department of Finance, requesting an interest calculation to the contemplated date of payment. (For water and sewer charges call the Department of Environmental Protection (718) 935-7000.)

4. Information regarding In Rem: Call (718) 935-6535, 6533, 6534.

5. Information regarding refunds: Call (718) 935-9500.

6. Certain assessments may be paid in installments by arrangement. Delinquent taxes and other charges may also be paid in installments by arrangement. Contact the local office of the Department of Finance to determine whether such an arrangement can be made.

7. Checks should be made payable to New York City Department of Finance.

8. Effective July 1, 1990, interest due on late payments is calculating using daily compounding rather than simple interest. The interest rate is fixed annually by the City Council.

9. To obtain a receipt upon payment, you must pay by cash or certified check.

MUNICIPAL, DEPARTMENTAL AND INFORMATIONAL SEARCHES

No state or municipal department searched for notices of violation of laws, regulations and ordinances filed therein are made UNLESS SPECIFICALLY REQUESTED BY THE APPLICANT. Such searches, if requested, are made by the particular municipal department and are called "Record Search" and disclose only those violations reported by the last inspection made by the City and do not show the present condition, which can be ascertained only by the applicant's requesting the City to make a new inspection and paying its fees therefore. Such searches are not continued to date of closing nor are new searches made even in event of adjournment of closing.

This Company does not, in any event, insure that the buildings or other erections upon the premises or their use comply with Federal, State and Municipal laws, regulations and ordinances, and therefore we assume no liability whatsoever by reason of the ordering of such searches and do not insure their accuracy. Such information as has been furnished to us by the various departments is set forth in the Municipal Department Violations Schedule.

Any searches or returns reported herein are furnished FOR INFORMATION ONLY. They will not be insured and the Company assumes no liability for the accuracy thereof. They will not be continued to the date of closing.

CENTRAL VIOLATIONS BUREAU

In New York City, since about July 1, 1961, only the Fire Department, the Department of Health, the Department of Air Pollution Control and the Department of Water Supply, Gas and Electricity have been reporting violations issued by them affecting multiple dwellings to the Central Violations Bureau established pursuant to Section 328 of the Multiple Dwelling Law. In its report of its search for violations the Department of Buildings includes such violations affecting multiple dwellings filed by the aforesaid departments in the central bureau.

STREET VAULTS

In New York City, if there is a STREET VAULT, it is suggested that applicant investigate possible unpaid license fees by the City of New York for the use of such vault, because the right to maintain it IS NOT INSURED.

A street vault is any subsurface opening, structure, or erection, whether or not covered over, to the extent that it extends from the building line under the street. If there is a street vault used in connection with the premises herein described, the applicant should acquaint himself with the provisions of Title Z of Chapter 46 of the Administrative Code of the City of New York, which imposes an annual charge for maintaining such vaults in New York City.

MUNICIPAL SEARCH SCHEDULE - Enclosed herewith.

I – Economic & Fiscal Impact Analysis, prepared by Camoin Associates, dated October 2022, last revised June 2023

SUBMITTED TO:

Treetop Development

ECONOMIC AND FISCAL IMPACT ANALYSIS

CORNWALL, NY PROJECT

JUNE 2023

PREPARED BY:

camoin associates

PO Box 3547
Saratoga Springs, NY 12866
518.899.2608
www.camoinassociates.com

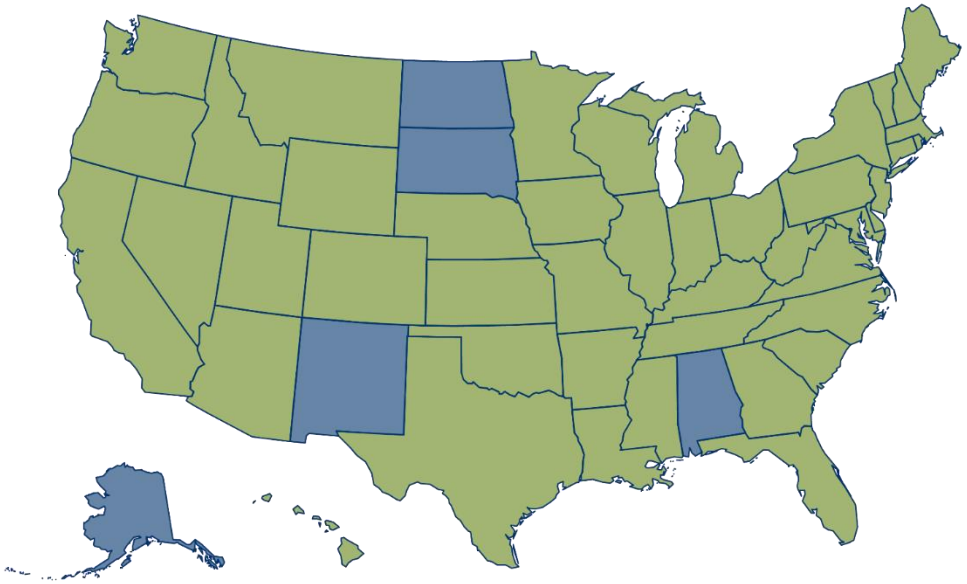
ABOUT CAMOIN ASSOCIATES

Camoin Associates has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. Through the services offered, Camoin Associates has served EDOs and local and state governments from Maine to California; corporations and organizations that include Amazon, Lowes Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of $6 billion. Our reputation for detailed, place-specific, and accurate analysis has led to over 1,500 projects in 45 states and garnered attention from national media outlets including *Marketplace* (NPR), *Crain's New York Business*, *Forbes* magazine, *The New York Times*, and *The Wall Street Journal*. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects in order to build public support and leverage additional funding. We are based in Saratoga Springs, NY, with regional offices in Richmond, VA; Portland, ME; Boston, MA; and Brattleboro, VT. To learn more about our experience and projects in all of our service lines, please visit our website at www.camoinassociates.com. You can also find us on Twitter @camoinassociate and on Facebook.

THE PROJECT TEAM

Rachel Selsky
Project Principal

Jessica Tagliafierro
Project Manager



CONTENTS

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EXECUTIVE SUMMARY

Treetop Development (the "Developer") has proposed a new industrial development at 2615 U.S. Route 9W, Town of Cornwall, NY (the "Site"). Specifically, the development of five warehouse facilities totaling approximately 1.7 million to 2.0 million SF of space on a 197.7 acre parcel has been proposed (the "Project"). The Project is expected to have significant economic and fiscal impacts on the Town of Cornwall and on Orange County, NY, resulting from approximately 1,333 total workers on-site upon buildout and $200.0 million of construction spending. An analysis was conducted by Camoin Associates to estimate the total economic and fiscal impact of the Project. Below is a summary of findings of the analysis, with more details included in the full report.

ECONOMIC IMPACT

The economic impact of the $200.0 million construction investment and subsequent 1,333 on-site jobs and operational activity on the Town of Cornwall and Orange County were measured.[1] This analysis found that:

- Construction of the Project will result in 120 jobs, $12.2 million in associated employee earnings, and nearly $30.9 million in sales in the Town of Cornwall during the construction period. Within Orange County, impacts of construction will be 619 jobs, $48.9 million in associated employee earnings, and nearly $137.1 million in sales.
- Upon buildout, on-site activity will result in ongoing, annual impacts for the town and county. In total, 1,388 jobs, $83.5 million in associated employee earnings, and nearly $175.7 million in annual sales are expected in the Town of Cornwall as a result of the Project. In Orange County, the total annual economic impact is estimated to be 1,876 jobs, $110.5 million in associated employee earnings, and over $253.5 million in sales.

Table 1

Total Economic Impact Summary

Total One-Time Economic Impact from Construction		
	Town of Cornwall	Orange County
Jobs	120	619
Earnings	$12,234,431	$48,918,624
Sales	$30,858,946	$137,084,571
Total Annual Economic Impact from Operation		
	Town of Cornwall	Orange County
Jobs	1,388	1,876
Earnings	$83,498,587	$110,501,853
Sales	$175,666,638	$253,515,609

Source: Lightcast (formerly Emsi), Camoin Associates

[1] Note that county impacts are inclusive of Cornwall's impacts; impacts for the town and county should not be combined.

FISCAL IMPACT

The net fiscal impact of the Project was calculated by estimating new municipal costs and revenue generated as a result of the Project to the applicable taxing jurisdictions.

- In total, the net fiscal impact across all jurisdictions is positive, representing an overall benefit of over $12.5 million.
- Orange County will benefit from a positive annual fiscal impact of over $1.2 million.
- The Town of Cornwall's general fund will benefit from a positive annual fiscal impact of nearly $200,000.

Table 2

Net Fiscal Impact

Jurisdiction	New Costs	New Revenue	Net Fiscal Impact
County	$55,690	$1,281,341	$1,225,651
Town	$44,056	$218,986	$174,930
Highway	$61,876	$48,726	-$13,150
PT Town	$152,834	$160,923	$8,089
Canterbury Fire	$82,391	$159,456	$77,065
Cornwall Hydrant	$0	$27,222	$27,222
Cornwall LT	$0	$25,940	$25,940
Cornwall Refuse	$0	$6,584,582	$6,584,582
Cornwall SWR O&M	$0	$303,234	$303,234
Cornwall SWR Cost	$0	$52,392	$52,392
Cornwall School	$0	$3,944,938	$3,944,938
Library Tax	$0	$107,351	$107,351
Total All Jurisdictions	**$396,846**	**$12,915,089**	**$12,518,244**

Source: Camoin Associates

INTRODUCTION

Treetop Development (the "Developer") has proposed a new industrial development at 2615 U.S. Route 9W, Town of Cornwall, NY (the "Site"). Specifically, the development of five warehouse facilities totaling approximately 1.7 million to 2.0 million SF of space on a 197.7 acre parcel has been proposed (the "Project"). The Project is expected to have significant economic and fiscal impacts on the Town of Cornwall and on Orange County, NY, resulting from approximately 1,333 total workers on-site upon buildout and $200.0 million of construction spending.

Treetop Development retained Camoin Associates to provide an objective assessment of the economic and fiscal impacts of the Project on the Town of Cornwall and Orange County, NY. Specifically, the following analyses are included in this report:

Economic Impact

- One-time economic impact from the construction of the Project on the Town of Cornwall and on Orange County.
- Annual economic impact from new business operations on the Town of Cornwall and on Orange County.

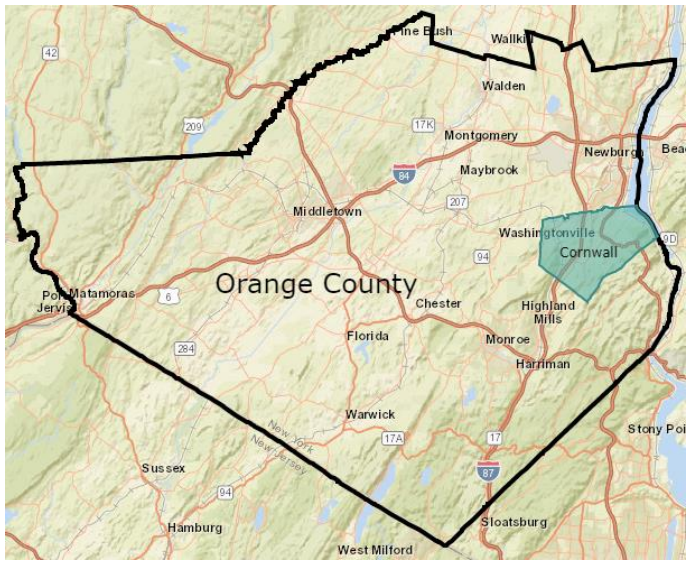
Fiscal Impact

- The net fiscal impact to the Town of Cornwall, Orange County, and other applicable taxing jurisdictions. This consists of new local fiscal revenues, specifically property tax revenue and sales tax revenue, and new municipal service delivery costs.

STUDY AREA

The economic impacts of construction and Project operation were calculated on the Town of Cornwall[2] and on Orange County. Fiscal impacts are examined at each local taxing jurisdiction where impacts would be expected, including the Town of Cornwall and Orange County.

Map 1: Study Area



[2] Economic impact data from Lightcast (formerly Emsi) is available at the ZIP code level. ZIP codes 12520, 12518, and 10953 were used for the Town of Cornwall.

ECONOMIC IMPACT ANALYSIS

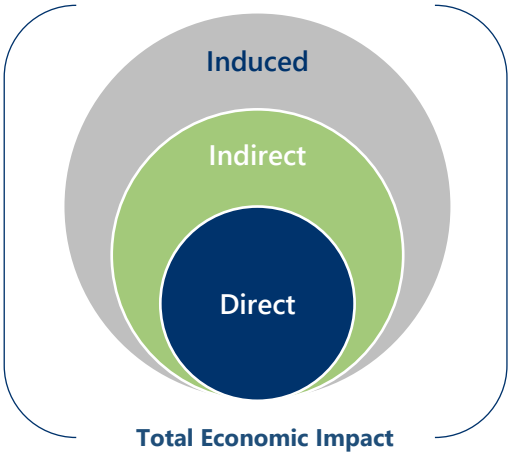
MODELING PROCESS

An economic impact analysis of construction and future operations of the Project was conducted to quantify its impact on the local and county economy. The economic impact includes not only the "direct" economic impacts, such as on-site jobs, but also the secondary economic impacts that are generated throughout the economy through the economic "multiplier" effect. The three specific types of impacts considered in the analysis include:

- **Direct:** The most immediate impacts, which include the on-site jobs and local spending on goods and services.
- **Indirect:** Indirect effects occur at businesses within the town and county, that supply goods and services to the Project and re-spend a portion of that revenue within the region. In other words, for every dollar spent at a local supplier, a portion of that dollar will again be spent on goods and services at other businesses in the two counties or the state. This is considered the indirect impact.
- **Induced:** Another "multiplier" effect that occurs is when workers at the Project and indirectly impacted businesses spend a portion of their wages at businesses within the town and county for things such as retail goods and services. The portion of the spending by new businesses that are paid to workers and re-spent in the regional or state economy is considered the induced impact.

The sum of the direct, indirect, and induced impacts equals the total economic impact. The Lightcast input-output model is used to calculate the total economic impact, including the three different types of impacts.

Measuring the Total Economic "Multiplier Effect"



Modeling Software

Lightcast (formerly Emsi) designed the input-output model used in this analysis. The Lightcast model allows the analyst to input the amount of new direct economic activity (spending, earnings, or jobs) occurring within the region and uses the direct inputs to estimate the spillover effects that the net new spending, earnings, or jobs have as these new dollars circulate throughout the economy. This is captured in the indirect and induced impacts and is commonly referred to as the "multiplier effect." See Appendix A for more information on economic impact analysis.

What does "Net New" Mean?

When looking at the economic impacts of an industry, it's important to look only at the economic changes that would not happen in the Project's absence. These effects are the "net new" effect: purchases made only as a result of the company or project in question.

Definition of a "Job"

A "job" is equal to one person employed for some amount of time (part-time, full-time, or temporary) during the study period.

CONSTRUCTION PHASE

One-time construction spending during the construction phase of the Project will result in a temporary economic benefit to the Town of Cornwall and Orange County. According to the Developer, the total construction cost is estimated to be $200.0 million. Based on industry supply and demand data from Lightcast (formerly Emsi), Camoin Associates estimates that 15% of this spending will occur in the town and 50% will occur in the county. In-region spending represents net new economic activity that will have an economic benefit for the town and the county. In this case, $30.0 million will be net new to Cornwall and $100.0 million will be net new to Orange County.

Table 3

Net New Construction Spending

	Town of Cornwall	Orange County
Total Spending	$200,000,000	$200,000,000
% Spend in Region	15%	50%
Net New Construction Spending	**$30,000,000**	**$100,000,000**

Source: Developer, Lightcast (formerly Emsi)

This net new spending is used as the direct input in the Lightcast model to calculate the spillover impacts of construction activity on jobs, associated employee earnings, and sales. The economic impact of the construction phase is displayed in Table 4.

Table 4

Economic Impact of Construction

Town of Cornwall			
	Jobs	Earnings	Sales
Direct	115	$11,902,707	$30,000,000
Indirect	3	$203,857	$505,981
Induced	2	$127,867	$352,965
Total	**120**	**$12,234,431**	**$30,858,946**
Orange County			
	Jobs	Earnings	Sales
Direct	415	$36,481,811	$100,000,000
Indirect	93	$5,858,010	$19,683,380
Induced	111	$6,578,803	$17,401,191
Total	**619**	**$48,918,624**	**$137,084,571**

Source: Lightcast (formerly Emsi)

ANNUAL OPERATIONS

Upon full buildout, the Developer estimates that there will be 1,333 permanent jobs on-site. These jobs and the associated on-site operations activity will have an ongoing, annual economic impact on the Town of Cornwall and Orange County in terms of associated employee earnings and annual sales. Table 5 displays these impacts.

Table 5

Economic Impact of Operations

Town of Cornwall			
	Jobs	**Earnings**	**Sales**
Direct	1,333	$80,326,355	$165,632,403
Indirect	48	$2,602,917	$8,376,330
Induced	7	$569,315	$1,657,905
Total	**1,388**	**$83,498,587**	**$175,666,638**
Orange County			
	Jobs	**Earnings**	**Sales**
Direct	1,333	$80,326,355	$165,632,403
Indirect	338	$18,306,968	$56,594,049
Induced	205	$11,868,530	$31,289,157
Total	**1,876**	**$110,501,853**	**$253,515,609**

Source: Lightcast (formerly Emsi)

FISCAL IMPACT ANALYSIS

MODELING PROCESS

The fiscal impact of the Project upon full buildout is calculated by comparing estimated new municipal costs and revenues that are expected to be generated. New expenses are subtracted from new revenues to calculate the net fiscal impact of the Project on the applicable jurisdictions.

A proportional valuation methodology was used to evaluate new costs to be generated by the Project. This is a standard accepted methodology that assigns costs attributable to the share of the taxable property value that the Project would add to the community.

ASSUMPTIONS

The projected increase in taxable value of the Site is a key variable used throughout the fiscal impact analysis. To estimate this, Camoin Associates assumes that the market value of the Site will increase in value equivalent to the amount spent on construction ($200.0 million). Cornwall's equalization rate of 75.45% is applied to the projected increase in market value to calculate the estimated increase in taxable value of the Site. This is estimated to be $150.9 million.

Table 6

Projected Taxable Value of Site	
Increase in Full Market Value (Construction Cost)	$200,000,000
Equalization Rate	75.45%
Projected Taxable Value	**$150,900,000**

Source: Town of Cornwall**,** Developer, Camoin Associates

The current total taxable value of property in the Town of Cornwall is nearly $1.5 billion. This means that the Project will result in an estimated 10.3% increase in taxable value in the town.

Table 7

Increase in Taxable Assessed Value - Town of Cornwall	
2022 Taxable Value	$1,463,250,345
New Taxable Value from Project	$150,900,000
Increase in Taxable Value	**10.3%**

Source: Town of Cornwall 2022 Assessment Roll, Developer

In Orange County, the total taxable value is nearly $48.1 billion. This means that the Project will result in an estimated 0.31% increase in the county's taxable value.

Table 8

Increase in Taxable Assessed Value - Orange County	
2022 Taxable Value	$48,055,258,671
New Taxable Value from Project	$150,900,000
Increase in Taxable Value	**0.31%**

Source: Orange County 2022 Adopted Budget, Developer

NEW REVENUE

New revenue for the Town of Cornwall and Orange County will be generated through two main sources: sales tax revenue and property tax revenue.

SALES TAX REVENUE

One-time sales tax revenue will be generated for the town and county as a result of construction activity. The one-time construction phase earnings described by the total economic impact of the construction work (see Table 4) would lead to additional sales tax revenue as a portion of these earnings are spent within Orange County. It is assumed that 70% of the construction phase earnings would be spent within the county and that 25% of those purchases would be taxable.[3] Orange County's sales tax rate of 3.75% is applied to the amount of total spending estimated to be taxable. Of this, it is estimated that 0.7121% will be distributed to the Town of Cornwall.[4] Table 9 displays the one-time sales tax revenue to be collected during the construction phase.

Table 9

One-Time Sales Tax Revenue, Construction Phase	
Total New Earnings	$48,918,624
Amount Spent in County (70%)	$34,243,037
Amount Taxable (25%)	$8,560,759
Orange County Sales Tax Revenue (3.75%)	**$321,028**
Town Sales Tax Revenue Portion*	0.7121%
Town of Cornwall Sales Tax Revenue	**$2,286**

Source: Lightcast (formerly Emsi), NYS Comptroller, Camoin Associates

***Note:** Orange County's sales tax rate is 3.75%, of which 26.384% is distributed to its cities, towns, and villages. Of the 26.384%, 67.475% is distributed to towns and villages, according to population. Based on 2022 population figures we assume that 4.0% of this will be distributed to the Town of Cornwall. This means that the Town of Cornwall will receive 0.7121% of the new Orange County sales tax revenue.

A similar methodology was used to estimate the annual sales tax revenue that will be generated once the Project is fully operational. Using the total new permanent annual earnings in the county (Table 5), the same spending assumptions and tax rates were used to calculate new annual sales tax revenue that will be attributable to the Project. The calculation and results are outlined in Table 10.

[3] According to Lightcast, approximately 70% of demand for industries in a typical household spending basket is met within Orange County. 25% of purchases are estimated to be taxable based on household spending data from the Bureau of Labor Statistics.

[4] According to the NYS Comptroller, Orange County distributes 26.384% of its sales tax revenue to its cities, towns, and villages. Of the 26.384%, 67.475 is distributed to towns and villages, according to population. Based on 2022 population data from Esri, it is assumed that 4.0% of this will be distributed to the Town of Cornwall. This means that the Town of Cornwall will receive 0.7121% of the new Orange County sales tax revenue.

Table 10

Annual Sales Tax Revenue from Operations

Total New Earnings	$110,501,853
Amount Spent in County (70%)	$77,351,297
Amount Taxable (25%)	$19,337,824
Orange County Sales Tax Revenue (3.75%)	**$725,168**
Town Sales Tax Revenue Portion*	0.7121%
Town of Cornwall Sales Tax Revenue	**$5,164**

Source: Lightcast (formerly Emsi), NYS Comptroller, Camoin Associates

***Note:** Orange County's sales tax rate is 3.75%, of which 26.384% is distributed to its cities, towns, and villages. Of the 26.384%, 67.475% is distributed to towns and villages, according to population. Based on 2022 population figures we assume that 4.0% of this will be distributed to the Town of Cornwall. This means that the Town of Cornwall will receive 0.7121% of the new Orange County sales tax revenue.

PROPERTY TAX REVENUE

New property tax revenue will be generated for all applicable taxing jurisdictions as a result of the Project. Currently (as of the 2022 tax bills) the Site generates $50,310 in property tax revenue across all jurisdictions (Table 11).

Table 11

Current Property Tax Revenue for All Jurisdictions, Project Site

Jurisdiction	Tax Rate	Current Property Tax Revenue
County	3.6857	$4,983
Town	1.4512	$1,962
Highway	0.3229	$437
PT Town	1.0322	$1,396
Canterbury Fire	1.0567	$1,429
Cornwall Hydrant	0.1804	$244
Cornwall LT	0.1719	$232
Cornwall Refuse	43.6354	$131
Cornwall SWR O&M	2.0095	$2,717
Cornwall SWR Cost	0.3472	$469
Cornwall School	26.14273	$35,348
Library Tax	0.711403	$962
Total for all Jurisdictions		**$50,310**

Source: Town of Cornwall - Town and County 2022 Tax Bill, Cornwall School District 2022 Tax Bill

Property tax to be generated was estimated using the projected $150.9 million in new taxable value (Table 7) of the Project along with 2022 tax rates according to the Site's most recent tax bills. The total new property tax revenue to be generated is estimated to be nearly $12.2 million. Note that this is an estimate based on current tax rates and estimated taxable value upon completion.

Table 12

Increase in Property Tax Revenue for All Jurisdictions

New Taxable Value	$150,900,000	
Jurisdiction	**Tax Rate**	**New Property Tax Revenue**
County	3.6857	$556,172
Town	1.4512	$218,986
Highway	0.3229	$48,726
PT Town	1.0322	$155,759
Canterbury Fire	1.0567	$159,456
Cornwall Hydrant	0.1804	$27,222
Cornwall LT	0.1719	$25,940
Cornwall Refuse	43.6354	$6,584,582
Cornwall SWR O&M	2.0095	$303,234
Cornwall SWR Cost	0.3472	$52,392
Cornwall School	26.142728	$3,944,938
Library Tax	0.711403	$107,351
Total for all Jurisdictions		**$12,184,757**

Source: Town of Cornwall - Town and County 2022 Tax Bill, Cornwall School District 2022 Tax Bill, Developer

REVENUE SUMMARY

The total estimated increase in annual revenue (sales plus property tax) is displayed in Table 13.

Table 13

Increase in Revenue

Jurisdiction	New Property Tax Revenue	New Sales Tax Revenue	Total New Revenue
County	$556,172	$725,168	$1,281,341
Town	$218,986	$0	$218,986
Highway	$48,726	$0	$48,726
PT Town	$155,759	$5,164	$160,923
Canterbury Fire	$159,456	$0	$159,456
Cornwall Hydrant	$27,222	$0	$27,222
Cornwall LT	$25,940	$0	$25,940
Cornwall Refuse	$6,584,582	$0	$6,584,582
Cornwall SWR O&M	$303,234	$0	$303,234
Cornwall SWR Cost	$52,392	$0	$52,392
Cornwall School	$3,944,938	$0	$3,944,938
Library Tax	$107,351	$0	$107,351

Source: Town of Cornwall - Town and County 2022 Tax Bill, Cornwall School District 2022 Tax Bill, Developer, Lightcast (formerly Emsi), Camoin Associates

NEW COSTS

To estimate the potential new municipal costs that will be generated by the Project, Camoin Associates examined the Town of Cornwall and Orange County's adopted 2022 budgets to determine the expenses that would vary based on a change in the assessed value of the community. See Attachment B and C for more information on the specific variable budget items.

The increase in taxable value for the Town of Cornwall (Table 7) was applied to its variable costs to estimate the new costs attributed to the Project. The new variable costs are displayed in Table 14, by fund.

Table 14

Increase in Variable Costs Town of Cornwall

Fund	Total Variable Costs	% Increase	New Variable Costs
General Fund (A)	$427,200	10.3%	$44,056
Part-Town - General Outside Village (B)	$1,482,000	10.3%	$152,834
Highway - Townwide (DA)	$0	10.3%	$0
Highway - Outside Village (DB)	$600,000	10.3%	$61,876
Canterbury Fire District (SF2)	$798,931	10.3%	$82,391
Hydrants (SH)	$0	10.3%	$0
Cornwall Lighting District (SL1)	$0	10.3%	$0
Cornwall Refuse	$0	10.3%	$0
Cornwall SWR	$0	10.3%	$0

Source: Town of Cornwall 2022 Adopted Budget, Camoin Associates

Note: See attachments for list of variable budget items.

Similarly, the increase in taxable value for Orange County (Table 8) was applied to the total variable costs in the county's budget to estimate the new variable costs for the county associated with the Project.

Table 15

Increase in Variable Costs Orange County

Total Variable Costs	$17,734,783
% Increase	0.31%
New Variable Costs	**$55,690**

Source: Orange County 2022 Adopted Budget, Camoin Associates

Note: See attachments for list of variable budget items

The potential costs to the Cornwall Central School District were considered as part of this analysis. Due to the fact that the Project does not include a residential component and the current high-levels of in-commuting to Cornwall[5], it is expected that no significant increase in residents (or school children) are expected in the school district as a result of the Project. An assessment of the school district was conducted to determine the level of enrollment and

[5] According to the U.S. Census Bureau OnTheMap, 80% of employees in the Town of Cornwall live outside of the town.

the ability of its existing capacity to accommodate additional students. Since 2012, the school district has seen an 8% decline in enrollment (-266 students), according to the New York State Education Department, and as a result would likely be able to accommodate additional students, should this Project generate them, without significant additional investments.

NET FISCAL IMPACT

The net fiscal benefit across all jurisdictions is positive, estimated to be over $12.5 million, annually. The annual benefit to the Town of Cornwall's general fund is nearly $175,000 and to Orange County is over $1.2 million.

Table 16

Net Fiscal Impact

Jurisdiction	New Costs	New Revenue	Net Fiscal Impact
County	$55,690	$1,281,341	$1,225,651
Town	$44,056	$218,986	$174,930
Highway	$61,876	$48,726	-$13,150
PT Town	$152,834	$160,923	$8,089
Canterbury Fire	$82,391	$159,456	$77,065
Cornwall Hydrant	$0	$27,222	$27,222
Cornwall LT	$0	$25,940	$25,940
Cornwall Refuse	$0	$6,584,582	$6,584,582
Cornwall SWR O&M	$0	$303,234	$303,234
Cornwall SWR Cost	$0	$52,392	$52,392
Cornwall School	$0	$3,944,938	$3,944,938
Library Tax	$0	$107,351	$107,351
Total All Jurisdictions	**$396,846**	**$12,915,089**	**$12,518,244**

Source: Camoin Associates

ATTACHMENT A: WHAT IS ECONOMIC IMPACT ANALYSIS?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial "change in final demand". To understand the meaning of "change in final demand", consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells $1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is $1 million because dollars are flowing in from outside the United States and are therefore "new" dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the "Direct Effects" of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer's vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e., sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will "leak out". What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of industry-to-industry purchases. Finally, the widget manufacturer has employees who will naturally spend their wages. Again, those wages spent will either be for local goods and services or will "leak" out of the economy. The purchases of local goods and services will then stimulate other local economic activity. Together, these effects are referred to as the "Indirect Effects" of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial $1 million of new money (i.e., Direct Effects) flowing in the US economy, plus the Indirect Effects. The ratio of Total Effects to Direct Effects is called the "multiplier effect" and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar ($1) of change in final demand, an additional $1.40 of indirect economic activity occurs for a total of $2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e., how the "local economy" is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the $1 million of widgets being purchased by Canadians is not causing total North American demand to increase by $1 million. Presumably, those Canadian purchasers will have $1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many "new" dollars the producer would be causing to occur domestically.

ATTACHMENT B: TOWN OF CORNWALL BUDGET TABLES

General Fund A Expenses

Item	Description	2022 Adopted Budget	Variable Items
1010	Town Board	$54,800	
1110	Justice Court	$213,000	
1112	Court Prosecutor Contractual	$40,000	
1220	Supervisor	$236,000	
1320	Independent Audit	$28,825	
1330	Tax Collection	$24,525	
1340	Budget Officer	$4,800	
1355	Assessors	$204,200	
	Assessors Equipment	$1,200	$1,200
1370	Special District Taxes	$2,500	
1410	Town Clerk	$141,000	
1415	Records Management	$9,120	
1420	Attorney	$220,000	
1440	Engineer	$45,000	
1460	Records Management Officer	$3,000	
1620	Buildings & Grounds	$487,000	
1910	Unallocated Insurance	$75,000	
1920	Municipal Association Dues	$1,500	
1930	Judgments & Claims	$0	
1980	Payment of MTA Payroll Tax	$4,500	
1990	Contingency	$30,000	
3010	Public Safety	$126,200	$126,000
3510	Dog Control	$3,000	
4020	Registrar Vital Statistics	$7,000	
4540	Ambulance - Health	$300,000	$300,000
6410	Advertising	$2,500	
6510	Veterans Services	$2,000	
6772	Programs for Aging	$36,200	
6989	Economic Opportunity	$5,000	
7110	Parks	$15,000	
7140	Playgrounds & Recreational Facilities	$7,500	
7150	Special Rec Facilities Pool	$98,000	
7270	Band Concerts	$5,000	
7510	Historian	$2,000	
7520	Historical Property	$20,000	
7620	Adult Recreation Golden Age	$5,000	
7989	Recreation Dept	$168,000	
7990	Recreation	$0	
8090	Environmental Control	$1,000	
8510	Community Beautification	$10,000	
8810	Cemeteries	$0	
9010	NYS Retirement	$180,000	
9030	Social Security	$99,000	
9040	Workmans Compensation	$55,000	
9050	Unemployment Insurance	$5,000	
9055	Disability Insurance	$2,000	
9060	Medical Insurance	$415,000	
9710	Debt Service	$52,443	
9730	Bond Anticipation	$100,678	
Total	**General Fund (A)**	**$3,547,291**	**$427,200**

Source: Town of Cornwall 2022 Adopted Budget, Camoin Associates

Part-Town-General Outside Village (B) Expenses

Item	Description	2022 Adopted Budget	Variable Items
1980	MTA Payroll Tax	$5,000	
3120	Police	$1,545,000	
	Police Salaries	$1,270,000	$1,270,000
	Police Equipment	$50,000	$50,000
3620	Building Inspector	$180,000	
	Building Inspector Salaries	$160,000	$160,000
	Building Inspector Equipment	$2,000	$2,000
7310	Youth Programs	$59,000	
8010	Zoning Board	$23,200	
8020	Planning Board	$112,450	
8021	Comprehensive Plan	$0	
9010	NYS Retirement	$26,200	
9015	NYS Fire/Police Retirement	$310,000	
9030	Social Security	$114,000	
9040	Workmans Compensation	$75,000	
9055	Disability Insurance	$2,000	
9060	Medical Insurance	$454,000	
9786	Special Items	$10,000	
Total	**Part-Town-General Outside Village (B)**	**$2,915,850**	**$1,482,000**

Source: Town of Cornwall 2022 Adopted Budget, Camoin Associates

Highway Outside Village (DB) Expenses

Item	Description	2022 Adopted Budget	Variable Items
1980	Payment of MTA Payroll Tax	$2,400	
5110	General Repairs	$1,242,000	
	Highway DB.Contractual	$600,000	$600,000
5112	Improvements - Chips	$84,665	
5142	Snow Removal	$200,000	
9010	NYS Retirement	$97,000	
9030	Social Security	$53,000	
9040	Workmans Compensation	$170,000	
9055	Disability Insurance	$800	
9060	Medical Insurance	$320,000	
9710	Debt Service	$112,815	
9730	Bond Anticipation	$20,170	
Total	**Highway - Outside Village (DB)**	**$2,302,850**	**$600,000**

Source: Town of Cornwall 2022 Adopted Budget, Camoin Associates

Canterbury Fire District Expenses

Item	Description	2022 Adopted Budget	Variable Items
3410	Fire Fighting	$798,931	$798,931
Total	**Canterbury Fire District**	**$798,931**	**$798,931**

Source: Town of Cornwall 2022 Adopted Budget, Camoin Associates

ATTACHMENT C: ORANGE COUNTY BUDGET TABLE

Orange County Expenses by Department

	2022 Adopted Budget							
Department	Total	Personal Services	Equipment/ Capital Outlay	Contractual	Employee Benefits	Principal/ Interest on Debt	Transfers	Variable Items
1010 Legislative Board	$2,331,292	$882,854	$0	$473,367	$975,071	$0	$0	
1040 Clerk of Legislative Board	$511,078	$288,882	$0	$23,498	$198,698	$0	$0	
1162 Unified Court System	$210,120	$0	$0	$210,120	$0	$0	$0	
1165 District Attorney	$12,074,127	$7,177,800	$2,850	$1,644,079	$3,249,398	$0	$0	
1170 Public Defender	$6,205,244	$0	$0	$6,205,244	$0	$0	$0	
1185 Medical Examiner/Coroners	$2,132,106	$720,600	$2,000	$1,012,088	$397,418	$0	$0	
1230 County Executive	$878,249	$519,931	$0	$36,723	$321,595	$0	$0	
1310 Commissioner of Finance	$3,752,570	$1,992,015	$0	$383,567	$1,376,988	$0	$0	
1340 Budget	$933,434	$526,856	$200	$47,144	$359,234	$0	$0	
1345 General Services	$1,405,518	$856,486	$0	$60,802	$488,230	$0	$0	
1355 Assessment/Real Property Tax	$2,915,866	$1,480,662	**$2,050**	$513,476	$919,678	$0	$0	$2,050
1362 Tax Advertising & Expense	$274,850	$0	$0	$274,850	$0	$0	$0	
1410 County Clerk	$7,179,690	$3,821,779	$31,250	$680,581	$2,646,080	$0	$0	
1420 Law	$5,750,343	$3,515,723	$0	$277,314	$1,957,306	$0	$0	
1430 Human Resources	$3,241,076	$1,883,654	$0	$232,242	$1,125,180	$0	$0	
1450 Board of Elections	$3,869,760	$2,097,970	$59,350	$1,044,800	$667,640	$0	$0	
1470 Board of Ethics	$43,121	$24,591	$0	$16,600	$1,930	$0	$0	
1480 Public Info and Services	$195,000	$0	$0	$195,000	$0	$0	$0	
1490 Public Works	$13,386,054	$7,301,817	**$500**	**$332,295**	$5,751,442	$0	$0	$332,795
1610 Central Services	$777,453	$536,062	$0	$19,957	$221,434	$0	$0	
1620 Buildings	$11,404,951	$1,961,341	$90,035	$7,711,669	$1,191,330	$0	$450,576	
1670 Central Printing and Mail	$400,000	$0	$0	$400,000	$0	$0	$0	
1680 Information Technology	$10,196,585	$1,959,021	$0	$7,046,175	$1,191,389	$0	$0	
1710 Self Insurance Admin/Risk Management	$1,214,494	$733,533	$0	$24,989	$455,972	$0	$0	
1920 Municipal Association Dues	$72,300	$0	$0	$72,300	$0	$0	$0	
1950 Taxes and Assessments on County	$460,620	$0	$0	$460,620	$0	$0	$0	
1964 Refund Real Property Taxes	$400,000	$0	$0	$400,000	$0	$0	$0	
1980 Payment of MTA Payroll Tax	$569,000	$0	$0	$569,000	$0	$0	$0	
1985 Distribution of Sales Tax	$84,011,085	$0	$0	$84,011,085	$0	$0	$0	
1989 EAP	$65,000	$0	$0	$65,000	$0	$0	$0	
1990 Contingent Account	$2,000,000	$0	$0	$2,000,000	$0	$0	$0	
2490 Community College Tuition	$7,000,000	$0	$0	$7,000,000	$0	$0	$0	
2495 Contribution to Community College	$19,052,882	$0	$0	$19,052,882	$0	$0	$0	
2960 Education of Handicapped Children	$41,622,012	$0	$0	$41,622,012	$0	$0	$0	
3010 Public Safety Administration	$1,669,651	$393,902	$30,500	$910,029	$180,626	$0	$154,594	
3020 E911 Reserve	$12,329,495	$4,944,818	$20,000	$2,160,645	$2,677,891	$0	$2,526,141	
3110 Sheriff	$24,797,515	**$14,445,874**	**$172,401**	**$2,659,987**	$7,519,253	$0	$0	$17,278,262
3140 Probation	$11,419,162	$6,254,394	$12,600	$1,120,989	$4,031,179	$0	$0	
3150 Jail	$62,328,929	$33,493,303	$141,377	$11,391,781	$17,302,468	$0	$0	
3315 Stop DWI	$958,426	$0	$15,000	$943,426	$0	$0	$0	
3410 Fire Prevention	$1,068,561	$436,458	$32,000	$370,032	$199,489	$0	$30,582	
3640 Civil Defense/Emerg Mgmt	$808,366	$440,887	$11,900	$101,100	$254,479	$0	$0	
3989 Public Safety Other	$134,521	**$91,449**	$0	**$30,227**	$12,845	$0	$0	$121,676
3995 Police Services	$425,324	$179,560	$0	$195,324	$50,440	$0	$0	
4010 Public Health	$12,055,522	$5,677,594	$0	$1,714,893	$4,663,035	$0	$0	
4042 Rabies Control	$65,750	$0	$0	$65,750	$0	$0	$0	
4059 Early Intervention Program	$8,215,958	$845,337	$0	$6,925,212	$445,409	$0	$0	
4320 Mental Health Programs	$13,305,974	$4,367,097	$50,000	$5,966,115	$2,922,762	$0	$0	
4322 Contracted Mental Health Programs	$19,095,083	$0	$0	$19,095,083	$0	$0	$0	
5635 RR Rapid Transport/MTA Payment	$147,000	$0	$0	$147,000	$0	$0	$0	
5640 Railroad Station Maintenance	$552,599	$0	$0	$552,599	$0	$0	$0	
6410 Publicity/Tourism	$1,164,316	$312,828	$500	$675,073	$175,915	$0	$0	
6510 Veteran Services	$1,163,982	$662,881	$0	$111,548	$389,553	$0	$0	
6610 Consumer Affairs	$879,532	$472,501	$0	$76,198	$330,833	$0	$0	
6772 Programs for the Aging	$8,075,009	$2,435,705	$268,700	$3,337,499	$1,769,257	$0	$263,848	
6990 EDZ	$295,115	$168,031	$0	$33,050	$94,034	$0	$0	
6991 FTZ	$75,000	$0	$0	$75,000	$0	$0	$0	
7010 Council on Arts	$80,000	$0	$0	$80,000	$0	$0	$0	
7110 Parks	$4,681,469	$1,924,664	$10,000	$985,729	$1,256,686	$0	$504,390	
7180 Special Recreation Facilities	$2,162,574	$1,023,094	$13,593	$626,737	$413,610	$0	$85,540	
7310 Youth Programs	$1,107,717	$314,230	$0	$561,209	$232,278	$0	$0	
7510 Historian	$219,131	$110,592	$0	$41,447	$67,092	$0	$0	
8020 Planning	$9,314,808	$1,660,032	$3,500	$6,716,453	$934,823	$0	$0	
8040 Human Rights	$165,910	$83,848	$0	$30,372	$51,690	$0	$0	
8189 Other, Sanitation	$1,145,100	$719,283	$750	$55,687	$369,380	$0	$0	
8710 Conservation Programs	$1,914,991	$0	$0	$1,914,991	$0	$0	$0	
Total	**$448,358,370**	**$119,739,939**	**$971,056**	**$253,790,664**	**$69,841,040**	**$0**	**$4,015,671**	**$17,734,783**

Source: Orange County 2022 Adopted Budget, Camoin Associates

Note: Values in bold are considered variable.

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J – Wetlands Delineation Report, prepared by Capital Environmental Consultants, Inc., dated February 2022

Wetland Delineation Report

SBL 9-1-25.22

2615 United States Route 9W

Cornwall, Orange County, New York

Prepared for:

Cornwall Logistics, LLC

500 Frank W Burr Boulevard, Suite #47

Teaneck, NJ 07666

Prepared by:

Capital Environmental Consultants, Inc.

243 Fair Street

Suite 4

Kingston, NY 12401

February 2022

Capital No. 21010

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LIST OF FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

Cornwall Logistics, LLC has engaged Capital Environmental Consultants, Inc. ("Capital") to investigate and re-delineate wetlands on and adjacent to the subject property located at 2615 United States Route 9W (SBL 9-1-25.22), Cornwall, Orange County, New York (the "Property"). Capital is seeking a United States Army Corps of Engineers (USACE) jurisdictional determination on the extent of USACE jurisdictional wetlands on the property for the purpose of determining future site development potential. The wetland delineation was performed on March 17 and March 24, 2021 by Capital. Capital conducted vegetative surveys and soil sampling to confirm the location and extent of any on-site wetlands and watercourses. The delineation was performed in accordance with the three-parameter methodology outlined in the USACE 1987 Wetland Delineation Manual (TR-Y-87-1) and Northcentral and Northeast Regional Supplement.[1,2]

1.1 Site Description

The Property is approximately 800,122 square meters (197.716 acres) and presently consists of a vacant forested upland and wetland areas. The center of the site is located at approximately latitude 41.452914, longitude -74.038867 (41°27'10.5"N 74°02'19.9"W) and is bordered by County Road 74 and Moodna Creek to the north, United States Route 9W to the east, Stately Oaks and Knoll Crest Court to the south, and Moodna Creek to the west. The site is located within the Hackensack-Passaic Watershed (HUC: 02030103) and the overall topography of the site slopes from the center of the site outward to the north, east, and south. Figure 1 is a Site Location Map showing the Property on the USGS Geological Survey 7.5 Minute Quadrangle, Cornwall, New York. The Topographic Survey, titled Wetlands Map prepared for Cornwall Logistics LLC, prepared

[1] Environmental Laboratory. (1987). Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
[2] U.S. Army Corps of Engineers. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

by Lanc & Tully Engineering and Surveying, P.C., on May 18, 2021, depicts the delineated wetland lines and existing conditions (Figure 2).

1.2 Document Review

Capital reviewed the National Wetland Inventory (NWI) map for federal wetland systems (Figure 3). The NWI map depicts the following wetlands and watercourses on and adjacent to the Site:

- PEM1E (Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated) (Figure 3) within the center-east of the property.
- PFO1E (Palustrine, Forested, Broad-Leaf Deciduous, Seasonally Flooded/Saturated) (Figure 3) within the center-east of the property and the southwest portion of the property and the southeast corner of the property.
- PUBKx (Palustrine, Unconsolidated Bottom, Artificially Flooded, Excavated) (Figure 3) outside the western boundary of the property.
- PSS1E (Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated) (Figure 3) within the near center of the property.
- R3RBH (Riverine, Upper Perennial, Rock Bottom, Permanently Flooded) (Figure 3) outside the northern and western edges of the property.
- R1UBV (Riverine, Tidal, Unconsolidated Bottom, Permanently Flooded-Tidal) (Figure 3) outside the northern edge of the property.

Capital also reviewed the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetland (FWW) Maps, which identified freshwater wetlands nearby, but not on, the subject Property (Figure 4).

There are no NYSDEC tidal wetlands identified on or near the Property.

2.0 Methodology

Wetlands and waters on the subject site were delineated using the three-parameter methodology outlined in the USACE 1987 Wetland Delineation Manual (TR-Y-87-1) and Northcentral and Northeast Regional Supplement.[3,4] The wetland line was physically marked by Capital using black and pink striped and blue flagging with alphanumeric labeling. Data sheets were created using information collected by Capital on data point locations along the wetland/upland interface pertaining to site soils, vegetation, and hydrology. Areas along the delineated line were designated as representative locations and data was evaluated along the line transecting the upland/wetland boundary. Data sheets and photographs are located in Appendices A and B.

2.1 Wetland Classification

Capital classified wetlands on the Property using the U.S. Fish and Wildlife Service Classification of Wetland and Deepwater Habitats of the United States system and supplemented with the Dichotomous Keys and Mapping Codes for Wetland Landscape Position, Landform, Water Flow Path, and Waterbody Type Descriptors: Version 2.0 (DKMC) (Table 1).[5,6] Figure 5, Wetland Delineation Map, prepared by Capital, dated June 28, 2021, depicts the wetlands and waters on the Property.

Table 1 - Wetland and Tributary Classifications

[3] Environmental Laboratory. (1987). Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
[4] U.S. Army Corps of Engineers. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] Cowardin.
[6] Tiner, R.W. 2014. Dichotomous Keys and Mapping Codes for Wetland Landscape Position, Landform, Water Flow Path, and Waterbody Type Descriptors: Version 3.0. U.S. Fish and Wildlife Service, National Wetlands Inventory Program, Northeast Region, Hadley, MA. 51 pp. [Tiner - Dichotomous Keys]

		NWI Description		DKMC Description		
Name	NWI (or Cowardin per Capital*)	NWI Description	DKMC	Landscape/Waterbody	Landform/Gradient	Water Flow Path
Wetland A	PFO1E*	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE1SLOU	Terrene Headwater	Slope	Outflow
Wetland B	PFO1E*	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE2SLOU	Terrene Riparian	Slope	Outflow
Wetland C	PSS1E	Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE3BAVR	Terrene Non-riparian	Basin	Vertical Flow
Wetland D	PFO1E	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE1BAOU	Terrene Headwater	Basin	Outflow
Wetland E	PFO1E*	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE2SLOU	Terrene Riparian	Slope	Outflow
Wetland F	PFO1E*	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated	TE3SLVR	Terrene Non-riparian	Slope	Vertical Flow

*Not defined on NWI mapper, provided by Capital
DKMC = Dichotomous Key and Mapping Codes for Wetland Landscape Position, Landform, Water Flow Path, and Waterbody Type: Version 3.0; December 2014
NWI - National Wetland Inventory

2.2 Soils and Hydrology

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) web soil survey indicates that the subject property contains five soil map units; Bath-Nassau channery silt loam (3-8% slopes), Erie gravelly silt loam (0-3% slopes), Mardin gravelly silt loam (3-8% slopes), Mardin soils, Swartswood and Mardin soils (Figure 6).

2.2.1 Bath-Nassau channery silt loam (3-8% slopes)

Bath-Nassau channery silt loam is described as well drained soils consisting of loamy till derived mainly from gray and brown siltstone, sandstone, and shale.[7]

2.2.2 Erie gravelly silt loam (0-3% slopes)

Erie gravelly silt loam is described as somewhat poorly drained soils consisting of loamy till derived from siltstone, sandstone, shale, and limestone.[8]

2.2.3 Mardin gravelly silt loam (3-8% slopes)

Mardin gravelly silt loam is described as moderately well drained soils consisting of loamy till.[9]

2.2.4 Mardin soils, steep

Mardin soils are described as moderately well drained soils consisting of loamy till.[10]

[7] USDA NRCS. Web soil survey. Map unit description: Bath-Nassau channery silt loam, 3 to 8 percent slopes, Orange County, New York.
[8] USDA NRCS. Web soil survey. Map unit description: Erie gravelly silt loam, 0 to 3 percent slopes, Orange County, New York.
[9] USDA NRCS. Web soil survey. Map unit description: Mardin gravelly silt loam, 3 to 8 percent slopes, Orange County, New York.
[10] USDA NRCS. Web soil survey. Map unit description: Mardin soils, steep, Orange County, New York.

2.2.5 Swartswood and Mardin soils, sloping, very stony

Swartswood and Mardin soils are described as well drained soils consisting of loamy till derived mainly from quartzite, conglomerate, and sandstone.[11]

3.0 SITE OBSERVATIONS

3.1 Wetland A

Wetland A is not mapped by NWI (Figure 3). However, Capital determined the wetland to be a PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was further defined using the DKMC.[12] Capital determined that Wetland A has a DKMC description of TE1SLOU (Terrene headwater, Slope, Outflow).

3.1.1 Vegetation

The dominant vegetation observed within Wetland A consists of green ash (*Fraxinus pennsylvanica*) (FACW), silver maple (*Acer saccharinum*) (FACW), red maple (*Acer rubrum*) (FAC), northern spicebush (*Lindera benzoin*) (FACW), Japanese stilt grass (*Microstegium vimineum*) (FAC), water-purslane (*Lythrum portula*) (OBL), and moss species (*Sphagnum spp.*).

Vegetation beyond the wetland/upland interface consists of silver maple (*Acer saccharinum*) (FACW), northern red oak (*Quercus rubra*) (FACU), white oak (*Quercus alba*) (FACU), green ash (*Fraxinus pennsylvanica*) (FACW), common red raspberry (*Rubus idaeus*) (FACU), eastern hemlock *(Tsuga canadensis)* (FACU), and Japanese barberry (*Berberis thunbergii*) (FACU).

[11] USDA NRCS. Web soil survey. Map unit description: Swartswood and Mardin soils, sloping, very stony, Orange County, New York.
[12] Tiner – Dichotomous Keys.

3.1.2 Soils

The wetland soil sampled at flag A-9 of Wetland A consisted of an A-horizon extending from 0-6 inches below ground surface (bgs) with a matrix color of 10YR 4/1 and a silty clay loam texture. The A-horizon also contained 10% 10YR 3/6 concentrations within the soil matrix. The B-horizon extended from 6-12 inches (bgs) with a matrix color of 10YR 5/2 and a silty clay loam texture. The B-horizon also contained 25% 10YR 5/8 concentrations and 10% 10YR 3/1 concentrations within the soil matrix. The groundwater table was encountered at 11 inches (bgs) and soils were saturated to the surface. Indicators of hydrology included water-stained leaves, moss trim line, drainage patterns, and the FAC-neutral test. Indicators of hydric soils included depleted matrix and redox depressions.

The upland soil sampled at flag A-9 of Wetland A consisted of a hemic organic layer extending from 0-1 inches (bgs) with a matrix color of 10YR 2/1. The A-horizon extended from 1-10 inches (bgs) with a matrix color of 10YR 4/3 and a silt loam texture. The B-horizon extended from 10-18 inches (bgs) with a matrix color of 10YR 5/6 and a silt loam texture. There were no hydric soils or hydrological indicators observed.

The wetland soil sampled at flag A-38 of Wetland A consisted of an A-horizon extending from 0-5 inches below ground surface (bgs) with a matrix color of 10YR 3/1 with a silty clay loam texture. The A-horizon also contained 5% 10YR 3/6 concentrations within the soil matrix. The B-horizon extended from 5-12 inches (bgs) with a matrix color of 10YR 5/1 with a silty clay loam texture. The B-horizon also contained 25% 10YR 5/6 concentrations within the soil matrix. No saturated soils or water table were encountered. However, indicators of hydrology included water-stained leaves, moss trim line, drainage patterns, and the FAC-neutral test. Indicators of hydric soils included depleted below dark surface, depleted matrix, and redox dark surface.

The upland soil sampled at flag A-38 of Wetland A consisted of an A-horizon extending from 0-9 inches (bgs) with a matrix color of 10YR 3/2 and a silt loam texture. Refusal was met at 9 inches (bgs). No hydric soils or hydrological indicators were observed.

3.1.3 Hydrology

Wetland A is located along the southeastern border of the subject property and contains an intermittent stream that drains to the southeast and into a culvert below Route 9W. The culvert drains to a wetland on the easterly side of Route 9W and is then conveyed to an unnamed tributary, locally known as Funny Child Creek, which drains to Moodna Creek (a traditional navigable water (TNW)). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

3.2 Wetland B

Wetland B is not mapped by NWI (Figure 3). During onsite observations, Capital determined the wetland is best described as PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was further defined using the DKMC.[13] Capital determined the wetland has a DKMC description of TE2SLOU (Terrene riparian, Slope, Outflow).

3.2.1 Vegetation

The dominant vegetation observed within Wetland B consists of American sycamore (*Platanus occidentalis*) (FACW), gray dogwood (*Cornus racemosa*) (FAC), American elm (*Ulmus americana*) (FACW), and moss species (*Sphagnum spp.*).

Vegetation beyond the wetland/upland interface consists of white oak (*Quercus alba*) (FACU), red oak (*Quercus rubra*) (FACU), white ash (*Fraxinus americana*) (FACU), American elm (*Ulmus*

[13] Tiner – Dichotomous Keys.

americana) (FACW), common red raspberry (*Rubus idaeus*) (FACU), and multiflora rose (*Rosa multiflora*) (FACU).

3.2.2 Soils

The wetland soil sampled at flag J-26 of Wetland B consisted of an A-horizon extending from 0-5 inches (bgs) with a matrix color of 10YR 4/1 and a silty clay loam texture. The B1-horizon extended from 5-10 inches (bgs) with a matrix color of 10YR 5/1 and a silty clay loam texture. The B1-horizon also contained 25% 10YR 7/4 concentrations within the soil matrix. The B2-horizon extended from 10-16 inches (bgs) with a matrix color or 10YR 5/1 with a silty clay loam texture. The B2-horizon also contained 30% 10YR 6/3 concentrations and 10% 10YR 6/6 concentrations within the soil matrix. No saturated soils or water table were encountered. However, indicators of hydrology included water-stained leaves and the FAC-neutral test. Indicators of hydric soils included depleted matrix.

The upland soils sampled at flag J-26 of Wetland B consisted of an A-horizon extending from 0-6 inches (bgs) with a matrix color of 10YR 3/2 and a silty clay loam texture. The B-horizon extended from 6-16 inches (bgs) with a matrix color of 2.5Y 5/4 and a silty clay loam texture. No hydric soils or hydrological indicators were observed.

3.2.3 Hydrology

Wetland B is located in the southwestern portion of the subject property. Wetland B contains a intermittent stream that drains west towards Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

3.3 Wetland C

Wetland C is mapped by NWI as PSS1E (Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated) (Figure 3). The wetland was further defined using the DKMC.[14] Capital determined the wetland has a DKMC description of TE3BAVR (Terrene non-riparian, basin, vertical flow).

3.3.1 Vegetation

The wetland vegetation identified within Wetland C consists of red maple (*Acer rubrum*) (FAC), American elm (*Ulmus americana*) (FACW), wild privet (*Ligustrum vulgare*) (FACU), Japanese stilt grass (*Microstegium vimineum*) (FAC), moss species (*Sphagnum spp.*), and common greenbrier (*Smilax rotundifolia*) (FAC).

Vegetation beyond the wetland/upland interface consists of white oak (*Quercus alba*) (FACU), silver maple (*Acer saccharinum*) (FACW), American beech (*Fagus grandifolia*) (FACU), and red maple (*Acer rubrum*) (FAC).

3.3.2 Soils

The wetland soil sampled at flag E-1 of Wetland C consisted of an A-horizon extending from 0-6 inches (bgs) with a matrix color of 10YR 3/1 and a silt loam texture. The A-horizon also contained 20% 10YR 3/3 concentrations within the soil matrix. The B-horizon extended from 6-14 inches (bgs) with a matrix color of 10YR 6/2 and a silt loam texture. The B-horizon also contained 35% 10YR 6/8 and 10% 10YR 2/2 concentrations within the soil matrix. The groundwater table was observed at 2 inches (bgs) and soils were saturated to the surface. Indicators of hydrology included high water table, saturation, water-stained leaves, moss trim line, and the FAC-neutral test. Indicators of hydric soils included redox dark surface.

[14] Tiner – Dichotomous Keys.

The upland soil sampled at flag E-1 consisted of an A-horizon extending from 0-6 inches (bgs) with a matrix color of 10YR 4/2 and a silty clay loam texture. The B-horizon extended from 6-18 inches (bgs) with a matrix color of 10YR 5/4 and a silty clay loam texture. No hydric soils or hydrological indicators were observed.

3.3.3 Hydrology

Wetland C is an isolated wetland with no connectivity to Wetlands A, B, C, D, E, or other offsite wetlands and waterbodies. The wetlands hydrology is maintained by groundwater and seasonal runoff/precipitation.

3.4 Wetland D

Wetland D is mapped by NWI as PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated) (Figure 3). The wetland was further defined using the DKMC.[15] Capital determined the wetland has a DKMC description of TE1BAOU (Terrene headwater, Basin, Outflow).

3.4.1 Vegetation

The wetland vegetation identified within Wetland D consists of red maple (*Acer rubrum*) (FAC), gray dogwood (*Cornus racemosa*) (FAC), shagbark hickory (*Carya ovata*) (FACU), swamp white oak (*Quercus bicolor*) (FACW), green ash (*Fraxinus pennsylvanica*) (FACW), American elm (*Ulmus americana*) (FACW), and American hophornbeam (*Ostrya virginiana*) (FACU).

Vegetation beyond the wetland/upland interface consists of shagbark hickory (*Carya ovata*) (FACU), white oak (*Quercus alba*) (FACU), red maple (*Acer rubrum*) (FAC), American hophornbeam (*Ostrya virginiana*) (FACU), cherry birch (*Betula lenta*) (FACU), red oak (*Quercus*

[15] Tiner – Dichotomous Keys.

rubra) (FACU), pin oak (*Quercus palustris*) (FACW), and American elm (*Ulmus americana*) (FACW).

3.4.2 Soils

The wetland soil sampled at flag F-15 of Wetland D consisted of an A-horizon extending from 0-11 inches (bgs) with a matrix color of 10YR 3/2 and a silty clay loam texture. The B-horizon extended from 11-16 inches (bgs) with a matrix color of 10YR 5/1 and a silty clay loam texture. The B-horizon also contained 30% 10YR 5/1 concentrations within the soil matrix. Refusal was met at 16 inches (bgs). No standing water was encountered, and saturated soils were present at 12 inches (bgs). Indicators of hydrology included water-stained leaves and moss trim line. Indicators of hydric soils included depletion below dark surface.

The upland soil sampled at flag F-15 of Wetland D consisted of an organic layer extending from 0-1 inches (bgs) with a matrix color of 10YR 2/1 and a clay loam texture. The A-horizon extended from 1-5 inches (bgs) with a matrix color of 10YR 3/2 and a clay loam texture. The B-horizon extended from 5-7 inches (bgs) with a matrix color of 10YR 5/3 and a clay loam texture. The B-horizon also contained 25% 10YR 3/2 concentrations within the soil matrix. Refusal was met at 7 inches (bgs). No hydric soil indicators or indicators of wetland hydrology were observed.

The wetland soil sampled at flag F-35 of Wetland D consisted of a hemic organic layer extending from 0-1 inches (bgs) with a matrix color of 10YR 2/1. The A-horizon extended from 1-7 inches (bgs) with a matrix color of 10YR 4/1 and a silty clay loam texture. The B-horizon extended 7-15 inches (bgs) with a matrix color 10YR 5/1 with a silty clay loam texture. The B-horizon also contained 15% 2.5Y 6/1 depletions and 25% 10YR 6/6 concentrations within the soil matrix. The groundwater table was encountered at 10 inches (bgs) and saturated soils were present at 8 inches (bgs). Indicators of hydrology included high water table, saturation, water-stained leaves, and moss trim lines. Indicators of hydric soils included a depleted matrix.

The upland soil sampled at flag F-35 of Wetland D consisted of a hemic/fibric organic layer extending from 0-3 inches (bgs) with a matrix color of 10YR 2/1. The A-horizon extended from 3-8 inches (bgs) with a matrix color of 10YR 3/2 and a silt loam texture. Refusal was met at 8 inches (bgs). No hydric soils or hydric soil indicators were observed.

3.4.3 Hydrology

Wetland D is located along the southern border of the subject property. Wetland D is the source of the intermittent stream that forms in the southeastern portion of the wetland. The stream within Wetland D drains to the southeast through a narrow stream course to a stormwater drain outside of the property border. It is assumed this storm drain eventually drains to Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

3.5 Wetland E

Wetland E is not mapped by the NWI (Figure 3). During onsite observations, Capital determined the wetland is best described as PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was further defined using the DKMC.[16] Capital determined the wetland has a DKMC description of TE2SLOU (Terrene Riparian, Slope, Outflow).

3.5.1 Vegetation

The wetland vegetation identified within Wetland E consists of northern spicebush (*Lindera benzoin*) (FACW).

Vegetation beyond the wetland/upland interface consists of common red raspberry (*Rubus idaeus*) (FACU) and black cherry (*Prunus serotina*) (FACU).

[16] Tiner – Dichotomous Keys.

3.5.2 Soils

No soil samples were recorded in Wetland E but hydric soils were present. Indicators of hydrology included channelized stream, moss trim line, water-stained leaves, and drainage patterns.

3.5.3 Hydrology

Wetland E is located along the southwestern border of the subject property and contains an intermittent stream associated with a groundwater seep. Wetland E drains northwest towards Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

3.6 Wetland F

Wetland F is not mapped by NWI (Figure 3). During onsite observations, Capital determined the wetland is best described as PFO1E (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated). The wetland was further defined using the DKMC.[17] Capital determined the wetland has a DKMC description of TE3SLVR (Terrene non-riparian, Slope, Vertical Flow).

3.6.1 Vegetation

The wetland vegetation identified within Wetland F consists of red maple (*Acer rubrum*) (FAC), American elm (*Ulmus americana*) (FACW), green ash (*Fraxinus pennsylvanica*) (FACW), red maple saplings (*Acer rubrum*) (FAC), Japanese barberry (*Berberis thunbergii*) (FACU), and moss species (*Sphagnum spp.*).

[17] Tiner – Dichotomous Keys.

Vegetation beyond the wetland/upland interface consists of northern red oak (*Quercus rubra*) (FACU), white oak (*Quercus alba*) (FACU), red maple (*Acer rubrum*) (FAC), and American beech (*Fagus grandifolia*) (FACU).

3.6.2 Soils

The wetland soil sampled at flag GG-17 of Wetland F consisted of an A-horizon extending from 0-10 inches (bgs) with a matrix color of 10YR 3/1 and a silty clay loam texture. The B1-horizon extended from 10-14 inches (bgs) with a matrix color of 10YR 4/1 and a silty clay loam texture. The B1-horizon also contained 5% 10YR 6/3 concentrations and 5% 10YR 5/1 depletions within the soil matrix. The B2-horizon extended from 14-20 inches (bgs) with a matrix color of 10YR 4/1 and a silty clay loam texture. The B2-horizon also contained 25% 10YR 5/4 depletions within the soil matrix. The groundwater table was encountered at 12 inches (bgs) and soils were saturated at 11 inches (bgs). Indicators of hydrology included a high-water table, saturation, water-stained leaves, and the FAC-neutral test. Indicators of hydric soils included depletion below the dark surface.

The upland soil sampled at flag GG-17 of Wetland F consisted of an A1-horizon extending from 0-4 inches (bgs) with a matrix color of 10YR 4/2 and a silt loam texture. The A2-horizon extended from 4-12 inches (bgs) with a matrix color of 10YR 5/4 and a silt loam texture. The B-horizon extended from 12-18 inches (bgs) with a matrix color of 10YR 6/6 and a silt loam texture. No hydric soils or hydric soil indicators were observed.

3.6.3 Hydrology

Wetland F is located within the southwestern portion of the property. Wetland F is an isolated wetland with no connectivity to Wetlands A, B, C, D, E, or other offsite wetlands and waterbodies. The wetland hydrology is maintained by groundwater and runoff/precipitation.

4.0 CONCLUSION

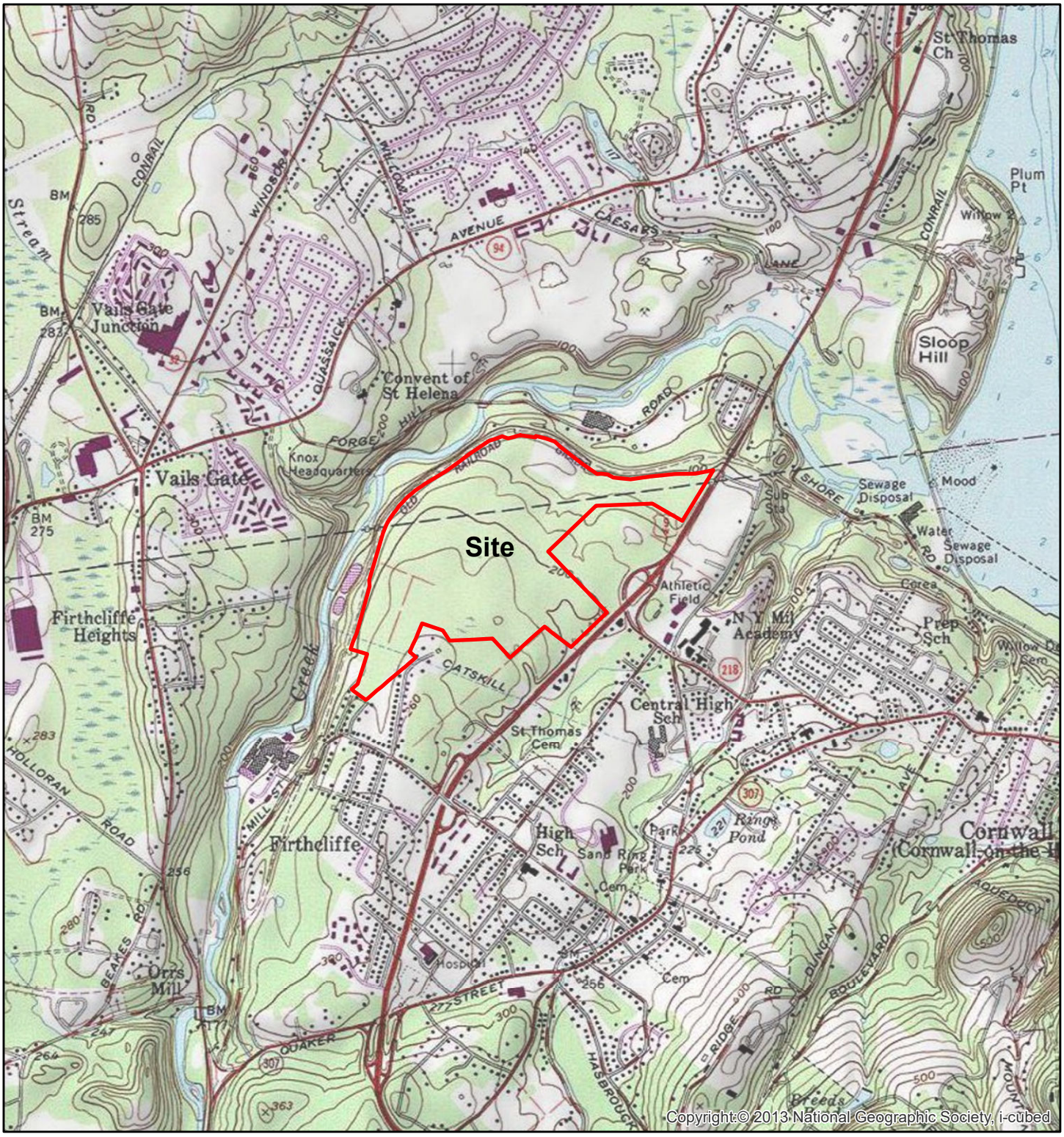
Capital identified wetlands and waters of the U.S. on and adjacent to the subject property as depicted on Figure 5. Based on the reviewed wetland maps, field observations, and Rapanos Guidelines, Wetlands A, B, D, and E are jurisdictional as they are wetlands that directly abut a relatively permanent water (RPW) that flows indirectly to a traditional navigable water (Moodna Creek). Wetlands C and F are isolated because they are:

- not territorial seas or traditional navigable waters,
- not adjacent to a traditional navigable water,
- not a non-navigable, relatively permanent or non-relatively permanent tributary of a traditional navigable water,
- not adjacent to or directly abutting a relatively permanent water tributary directly or indirectly to a TNW, or
- impoundments of jurisdictional waters.

Further, Wetlands C and F do not maintain a significant nexus to another wetland. Therefore, according to the standards of the Rapanos Guidelines, Wetlands C and F are isolated wetlands, and therefore, are non-jurisdictional.

We request confirmation from USACE staff that these lines depict the maximum extent of USACE jurisdiction on the Property.

FIGURES



U.S.G.S. 7.5 Mintue Quadrangle: Cornwall, NY

1:24,000

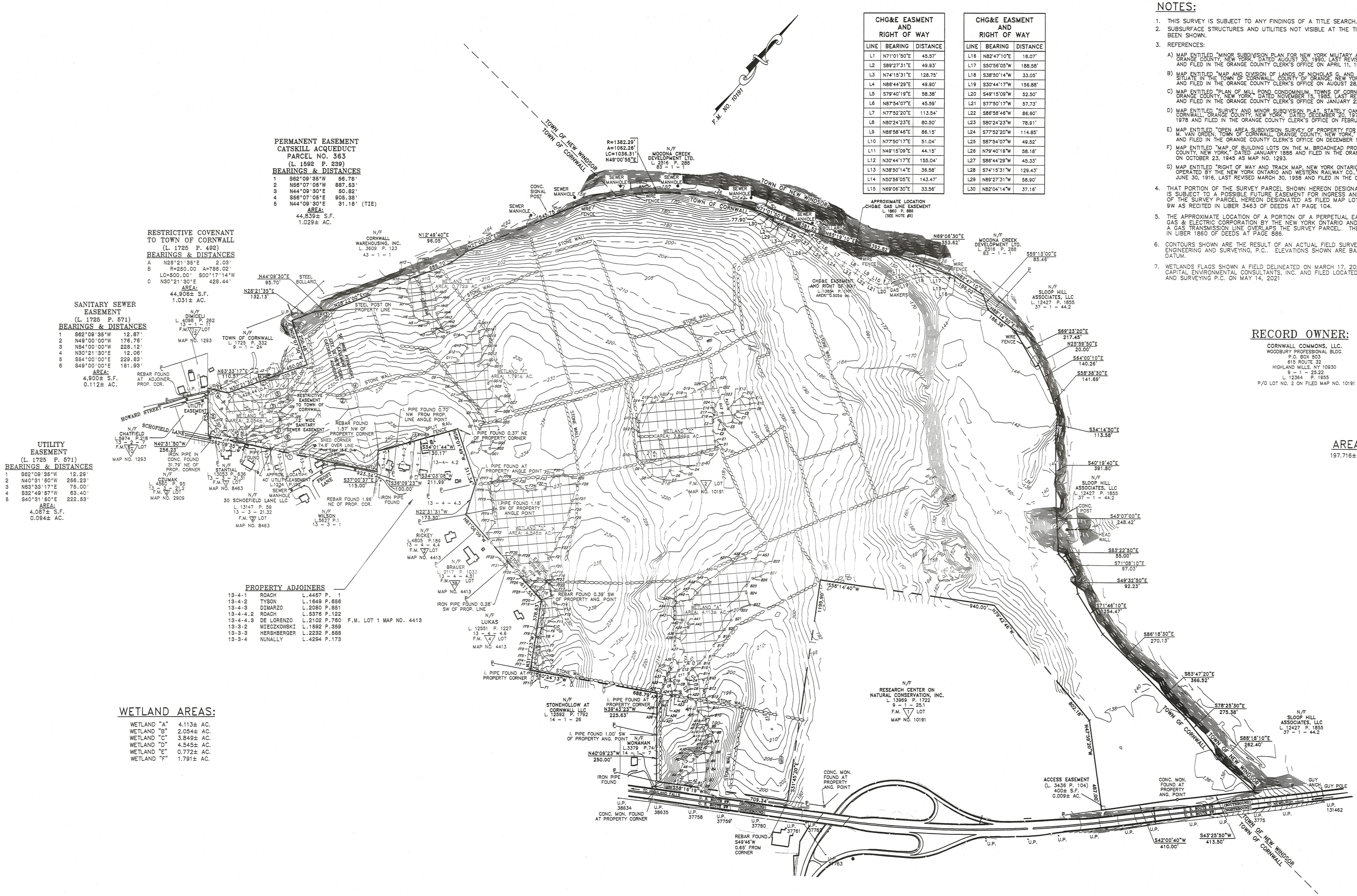
CAPITAL ENVIRONMENTAL CONSULTANTS, INC.

Captial #21010

Site Location Map

SBL: 9-1-25.22
2615 US Route 9W
Cornwall, New York

Figure 1



PERMANENT EASEMENT CATSKILL ACQUEDUCT PARCEL NO. 363
(L. 1592 P. 239)

BEARINGS & DISTANCES

1	S62°09'35"W	56.78'
2	N56°07'05"W	887.53'
3	N44°09'30"E	50.82'
4	S56°07'05"E	905.38'
5	N44°09'30"E	91.18' (TIE)

AREA:
44,839± S.F.
1.029± AC.

RESTRICTIVE COVENANT TO TOWN OF CORNWALL
(L. 1725 P. 492)

BEARINGS & DISTANCES

A	N28°21'35"E	2.03'
B	R=250.00'	A=786.02'
	LC=500.00'	S00°17'14"W
C	N30°21'30"E	428.44'

AREA:
44,906± S.F.
1.031± AC.

SANITARY SEWER EASEMENT
(L. 1725 P. 571)

BEARINGS & DISTANCES

1	S62°09'35"W	12.87'
2	N49°00'00"W	176.76'
3	N54°00'00"W	228.12'
4	N30°21'30"E	12.06'
5	S54°00'00"E	229.83'
6	S49°00'00"E	181.93'

AREA:
4,900± S.F.
0.112± AC.

UTILITY EASEMENT
(L. 1725 P. 571)

BEARINGS & DISTANCES

1	S62°09'35"W	12.29'
2	N40°31'50"W	256.23'
3	N63°33'17"E	75.00'
4	S32°49'57"W	63.40'
5	S40°31'50"E	222.53'

AREA:
4,087± S.F.
0.094± AC.

PROPERTY ADJOINERS

13-4-1	ROACH	L.4457 P. 1	
13-4-2	TYSON	L.1649 P.656	
13-4-3	DIMARZO	L.2080 P.851	
13-4-4.2	ROACH	L.5376 P.122	
13-4-4.3	DE LORENZO	L.2102 P.760	F.M. LOT 1 MAP NO. 4413
13-3-2	MIECZKOWSKI	L.1692 P.359	
13-3-3	HERSHBERGER	L.2232 P.688	
13-3-4	NUNALLY	L.4294 P.173	

WETLAND AREAS:

WETLAND "A"	4.113± AC.
WETLAND "B"	2.054± AC.
WETLAND "C"	3.849± AC.
WETLAND "D"	4.545± AC.
WETLAND "E"	0.772± AC.
WETLAND "F"	1.791± AC.

CHG&E EASEMENT AND RIGHT OF WAY

LINE	BEARING	DISTANCE
L1	N71°01'50"E	45.57'
L2	S89°27'31"E	49.93'
L3	N74°15'31"E	128.75'
L4	N86°44'29"E	49.90'
L5	S79°40'19"E	58.38'
L6	N87°54'07"E	45.59'
L7	N77°52'20"E	113.54'
L8	N80°24'23"E	80.50'
L9	N86°58'46"E	86.15'
L10	N77°50'17"E	51.04'
L11	N49°15'09"E	44.15'
L12	N30°44'17"E	155.04'
L13	N38°50'14"E	36.58'
L14	N50°56'05"E	143.47'
L15	N69°06'30"E	33.56'

CHG&E EASEMENT AND RIGHT OF WAY

LINE	BEARING	DISTANCE
L16	N82°47'10"E	18.07'
L17	S50°56'05"W	188.58'
L18	S38°50'14"W	33.05'
L19	S30°44'17"W	156.88'
L20	S49°15'09"W	52.50'
L21	S77°50'17"W	57.73'
L22	S86°58'46"W	86.60'
L23	S80°24'23"W	78.91'
L24	S77°52'20"W	114.85'
L25	S87°54'07"W	49.52'
L26	N79°40'19"W	58.18'
L27	S86°44'29"W	45.33'
L28	S74°15'31"W	129.43'
L29	N89°27'31"W	58.90'
L30	N82°04'14"W	37.16'

NOTES:

1. THIS SURVEY IS SUBJECT TO ANY FINDINGS OF A TITLE SEARCH.
2. SUBSURFACE STRUCTURES AND UTILITIES NOT VISIBLE AT THE TIME OF SURVEY HAVE NOT BEEN SHOWN.
3. REFERENCES:
   - A) MAP ENTITLED "MINOR SUBDIVISION PLAN FOR NEW YORK MILITARY ACADEMY, TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK." DATED AUGUST 30, 1950, LAST REVISED NOVEMBER 7, 1990 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON APRIL 11, 1991 AS MAP NO. 10191.
   - B) MAP ENTITLED "MAP AND DIVISION OF LANDS OF NICHOLAS G. AND DIANA E. FLORIO SITUATE IN THE TOWN OF CORNWALL, COUNTY OF ORANGE, NEW YORK." DATED APRIL 13, 1987 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON AUGUST 28, 1987 AS MAP NO. 8463.
   - C) MAP ENTITLED "PLAN OF MILL POND CONDOMINIUM, TOWNS OF CORNWALL AND NEW WINDSOR, ORANGE COUNTY, NEW YORK." DATED NOVEMBER 15, 1985, LAST REVISED JANUARY 17, 1986 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON JANUARY 22, 1986 AS MAP NO. 7434.
   - D) MAP ENTITLED "SURVEY AND MINOR SUBDIVISION PLAT, STATELY OAKS SUBDIVISION, TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK." DATED DECEMBER 20, 1977, LAST REVISED JANUARY 12, 1978 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON FEBRUARY 10, 1978 AS MAP NO. 4413.
   - E) MAP ENTITLED "OPEN AREA SUBDIVISION SURVEY OF PROPERTY FOR MILTON F. AND GRACE M. VAN ORDEN, TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK." DATED AUGUST 29, 1972, AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON DECEMBER 15, 1972 AS MAP NO. 2909.
   - F) MAP ENTITLED "MAP OF BUILDING LOTS ON THE M. BROADHEAD PROPERTY, CORNWALL, ORANGE COUNTY, NEW YORK." DATED JANUARY 1888 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON OCTOBER 23, 1945 AS MAP NO. 1293.
   - G) MAP ENTITLED "RIGHT OF WAY AND TRACK MAP, NEW YORK ONTARIO AND WESTERN RAILWAY CO., OPERATED BY THE NEW YORK ONTARIO AND WESTERN RAILWAY CO." MAPS NO. V.2A/1B DATED JUNE 30, 1916, LAST REVISED MARCH 30, 1938 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE.
4. THAT PORTION OF THE SURVEY PARCEL SHOWN HEREON DESIGNATED AS FILED MAP LOT 2 IS SUBJECT TO A POSSIBLE FUTURE EASEMENT FOR INGRESS AND EGRESS FROM THE PORTION OF THE SURVEY PARCEL HEREON DESIGNATED AS FILED MAP LOT 1 TO ACCESS N.Y.S. ROUTE 9W AS RECITED IN LIBER 3463 OF DEEDS AT PAGE 104.
5. THE APPROXIMATE LOCATION OF A PORTION OF A PERPETUAL EASEMENT GRANTED TO CENTRAL GAS & ELECTRIC CORPORATION BY THE NEW YORK ONTARIO AND WESTERN RAILWAY CO. FOR A GAS TRANSMISSION LINE OVERLAPS THE SURVEY PARCEL. THE EASEMENT IS REFERENCED IN LIBER 1860 OF DEEDS AT PAGE 886.
6. CONTOURS SHOWN ARE THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY LANC & TULLY ENGINEERING AND SURVEYING, P.C.. ELEVATIONS SHOWN ARE BASED ON APPROXIMATE U.S.G.S. DATUM.
7. WETLANDS FLAGS SHOWN A FIELD DELINEATED ON MARCH 17, 2021 AND MARCH 24, 2021 BY CAPITAL ENVIRONMENTAL CONSULTANTS, INC. AND FILED LOCATED BY LANC & TULLY ENGINEERING AND SURVEYING P.C. ON MAY 14, 2021

RECORD OWNER:

CORNWALL COMMONS, LLC.
WOODBURY PROFESSIONAL BLDG.
P.O. BOX 503
615 ROUTE 32
HIGHLAND MILLS, NY 10930
9 - 1 - 25.22
L. 12364 P. 1935
P/O LOT NO. 2 ON FILED MAP NO. 10191

AREA:

197.716±AC.

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

COPIES FROM THE ORIGINAL OF THIS DOCUMENT NOT MARKED WITH AN ORIGINAL OF THE PROFESSIONAL ENGINEER'S AND/OR LAND SURVEYOR'S STAMP OR EMBOSSED SEAL SHALL NOT BE CONSIDERED VALID, TRUE COPIES.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209-2 OF THE NEW YORK STATE EDUCATION LAW.

Dig Safely. New York Call 811 before you dig

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.
P.O. Box 687, Rt. 207
Goshen, N.Y. 10924
(845) 294-3700

WETLANDS MAP PREPARED FOR

CORNWALL LOGISTICS LLC

TOWN OF CORNWALL
ORANGE COUNTY, NEW YORK

ROBERT ALAN TULLY — STATE OF NEW YORK — LICENSED LAND SURVEYOR

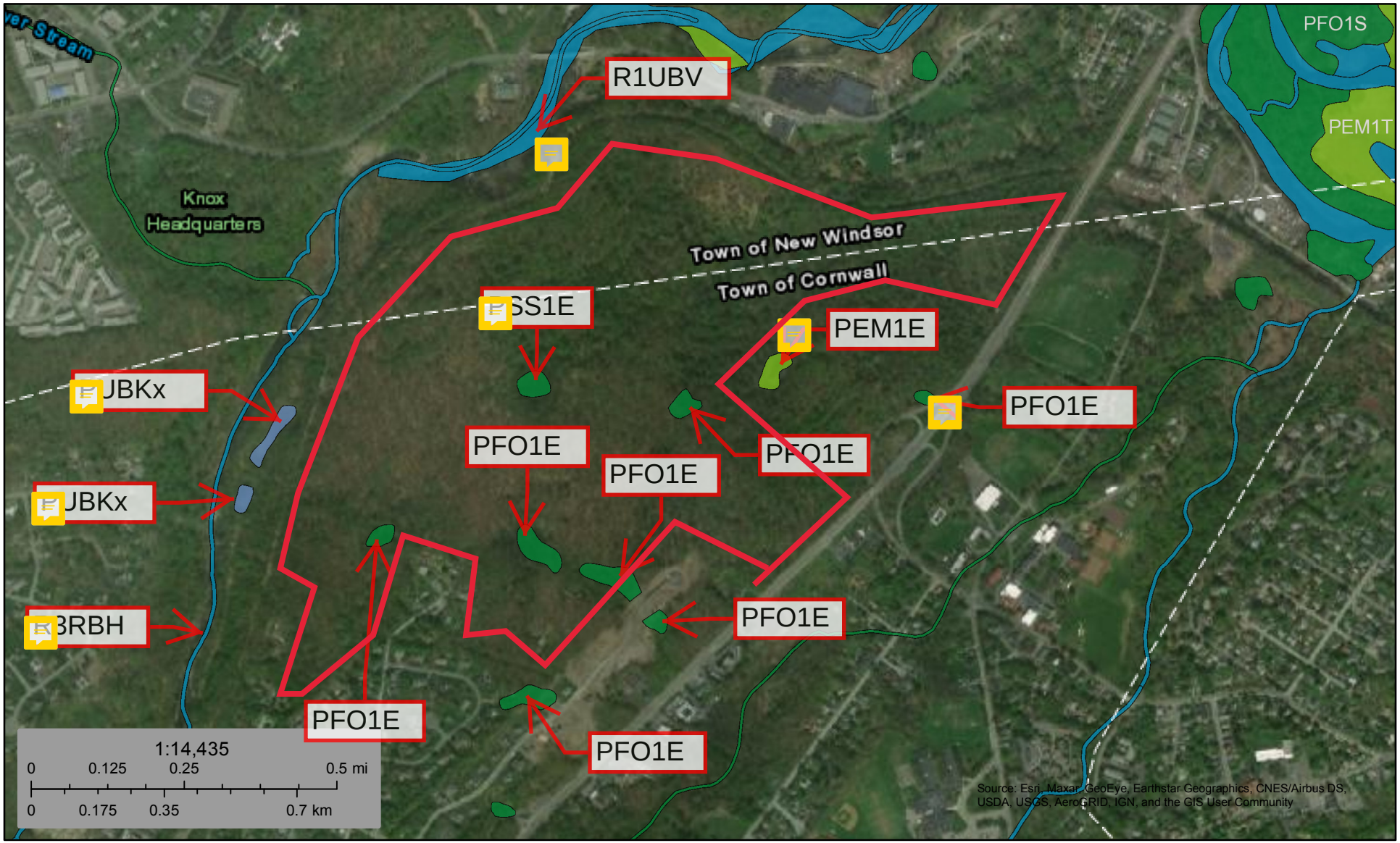
Date: MAY 18, 2021
Revisions:
CAD File: 210004-SVY.DWG
Layout: SVY
Sheet No.: 1 OF 1
Drawing No.: C-30
A- 21 - 0004 - 01
Drawn By: JW
Checked By:
Scale: 1" = 200'
Tax Map No.: 9 - 1 - 25.22

2/05/19-022

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI

FIGURE 3



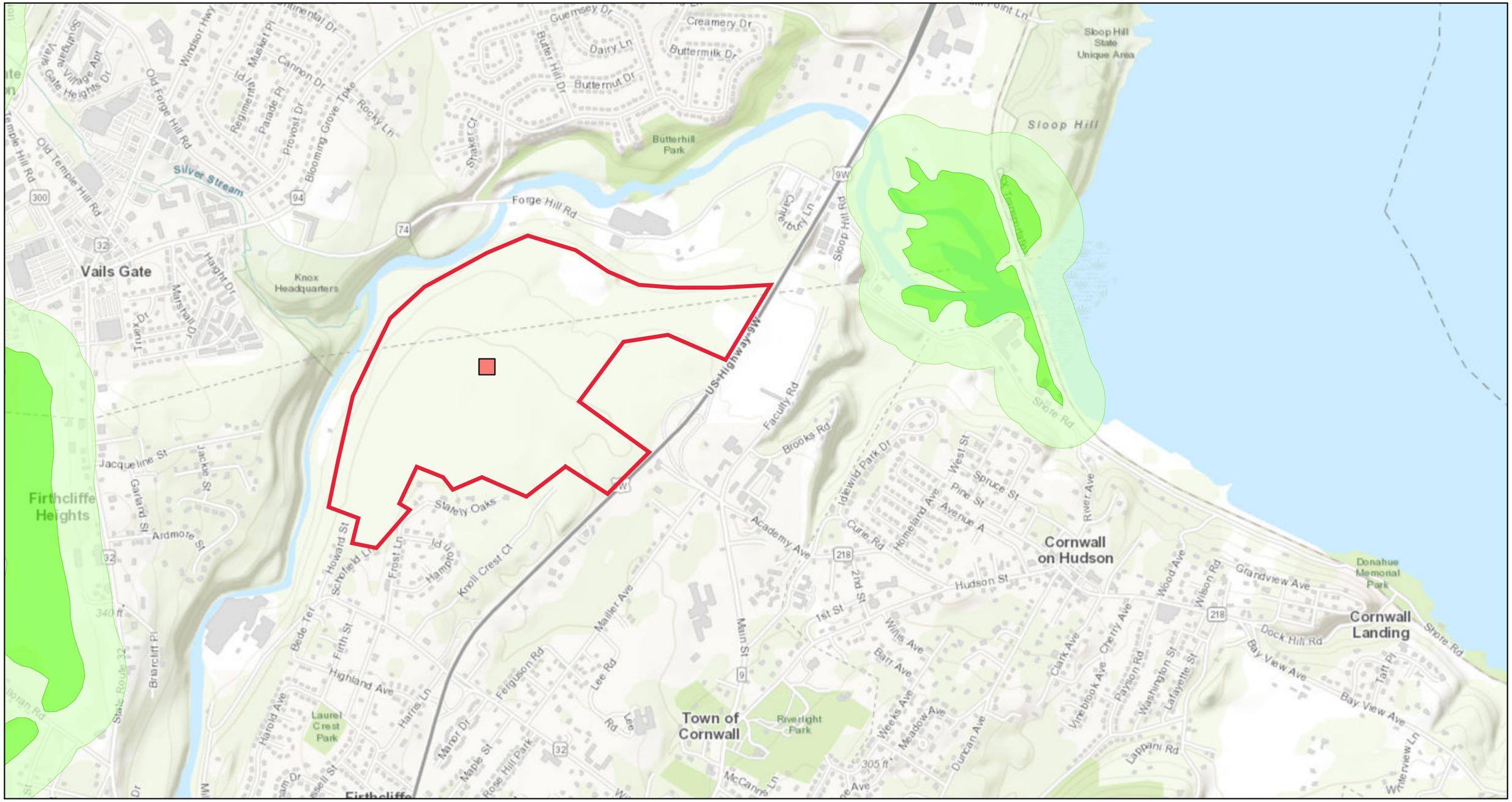
February 17, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Approximate Site Boundary

Environmental Resource Mapper



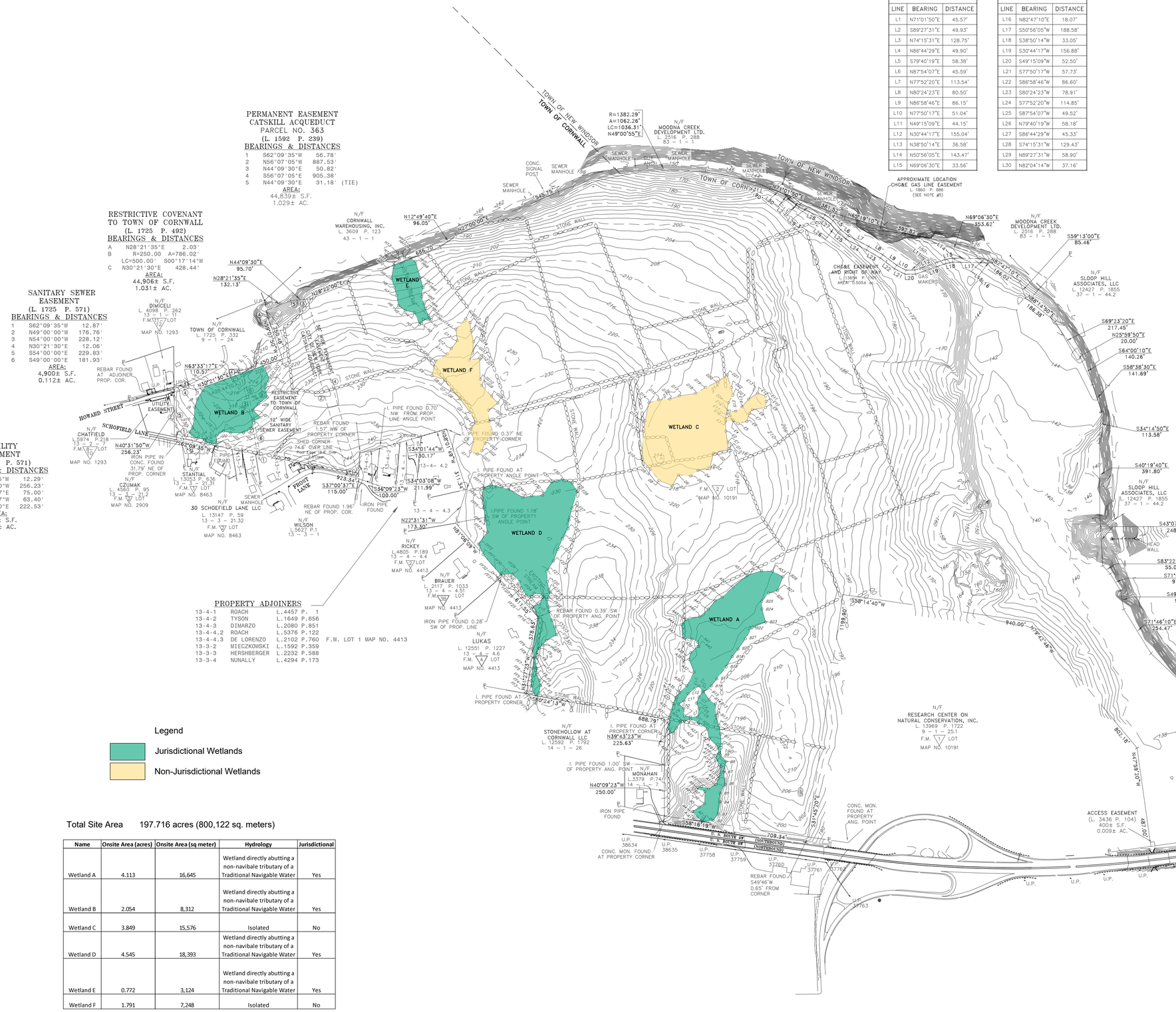
February 17, 2021

1:18,056

0 0.15 0.3 0.6 mi

0 0.28 0.55 1.1 km

Approximate Site Boundary



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L30	N82°04'14"W	37.16'

Legend

- Jurisdictional Wetlands
- Non-Jurisdictional Wetlands

Total Site Area 197.716 acres (800,122 sq. meters)

Name	Onsite Area (acres)	Onsite Area (sq meter)	Hydrology	Jurisdictional
Wetland A	4.113	16,645	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland B	2.054	8,312	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland C	3.849	15,576	Isolated	No
Wetland D	4.545	18,393	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland E	0.772	3,124	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland F	1.791	7,248	Isolated	No

CAPITAL
ENVIRONMENTAL CONSULTANTS, INC.
243 FAIR STREET
SUITE #4
KINGSTON, NY 12401

DYNAMIC CORNWALL

2615 US ROUTE 9W
CORNWALL, NEW YORK
SBL: 9-1-25.22

NO.	DATE	REVISION

REFERENCES:
Lanc & Tully Engineering and Surveying, P.C., Wetlands Map Prepared for Cornwall Logistics LLC, Cornwall, NY, 5/18/2021

WETLAND DELINEATION MAP

Date 6/28/2021
Scale AS NOTED
Sheet No. 1 OF 1
File No. 101_WLDel
Sheet Reference No. WD1

Soil Map—Orange County, New York
(Soil Map)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Orange County, New York
Survey Area Data: Version 21, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BnB	Bath-Nassau channery silt loams, 3 to 8 percent slopes	15.4	8.2%
ErA	Erie gravelly silt loam, 0 to 3 percent slopes	15.0	8.0%
MdB	Mardin gravelly silt loam, 3 to 8 percent slopes	151.3	80.4%
MNE	Mardin soils, steep	4.2	2.2%
SXC	Swartswood and Mardin soils, sloping, very stony	2.2	1.2%
Totals for Area of Interest		**188.1**	**100.0%**

Appendix A

WETLAND DELINEATION FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: A-9 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.448358 Long: -74.035197 Datum: NAD83

Soil Map Unit Name: Bath-Nassau channery silt loams, 3-8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: A-9 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	50	Yes	FACW
2. *Quercus rubra*	30	Yes	FACU
3. *Quercus alba*	30	Yes	FACU
4. *Fraxinus pennsylvanica*	20	No	FACW
5.			
6.			
7.			
	130	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. *Berberis thunbergii*	30	Yes	FACU
2. *Rubus idaeus*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	170 (A)		540 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point A-9 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Loamy/Clayey	Silt Loam
1-10	10YR 4/3	100					Loamy/Clayey	Silt Loam
10-18	10YR 5/6	100					Loamy/Clayey	Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: A-9 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.448463 Long: -74.035058 Datum: NAD83

Soil Map Unit Name: Bath-Nassau channery silt loams, 3-8 percent slopes NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: A-9 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	50	Yes	FACW
2. *Acer saccharinum*	5	No	FACW
3. *Quercus rubra*	5	No	FACU
4. *Quercus alba*	5	No	FACU
5.			
6.			
7.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Microstegium vimineum*	50	Yes	FAC
2. *Lythrum portula*	10	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	55	x 2 =	110
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	125 (A)		310 (B)

Prevalence Index = B/A = 2.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

X 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Buttressed tree trunks, adventitous roots

SOIL

Sampling Point A-9 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	90	10YR 3/6	10	C	M	Loamy/Clayey	Silty clay loam
6-12	10YR 5/2	65	10YR 5/8	25	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 3/1	10	C	M		Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: A-38 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.449140 Long: -74.036845 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3-8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: A-38 Up

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Rubus idaeus*	40	Yes	FACU
2. *Tsuga canadensis*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	50	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	120 (A)		340 (B)

Prevalence Index = B/A = 2.83

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point A-38 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/2	100					Loamy/Clayey	Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 9

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: A-38 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.448905 Long: -74.036635 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3-8 percent slopes NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Standing water observed in the wetland.

VEGETATION – Use scientific names of plants.

Sampling Point: A-38 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. *Lindera benzoin*	30	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Microstegium vimineum*	30	Yes	FAC
2. *Sphagnum*	15	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		330 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

X 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Buttressed tree trunks, advenitious roots

SOIL

Sampling Point A-38 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	95	10YR 3/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
5-12	10YR 5/1	75	10YR 5/6	25	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: E-1 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.450931 Long: -74.040090 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: E-1 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	50	Yes	FACU
2. *Acer saccharinum*	20	Yes	FACW
3. *Fagus grandifolia*	20	Yes	FACU
4. *Acer rubrum*	10	No	FAC
5.			
6.			
7.			
	100	=Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point E-1 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					Loamy/Clayey	Silty Clay Loam
6-18	10YR 5/4	100					Loamy/Clayey	Silty Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-17-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: E-1 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.450931 Long: -74.040626 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: E-1 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Ulmus americana*	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. *Ligustrum vulgare*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Microstegium vimineum*	60	Yes	FAC
2. *Sphagnum*	15	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1. *Smilax rotundifolia*	10	Yes	FAC
2.			
3.			
4.			
	10	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	120	x 3 =	360
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	150 (A)		440 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

X 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Buttressed tree trunks, adventitious roots

SOIL

Sampling Point E-1 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	80	10YR 3/3	20	C	M	Loamy/Clayey	Distinct redox concentrations
6-14	10YR 6/2	55	10YR 6/8	35	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 2/2	10	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ? Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ? Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: F-15 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.447891 Long: -74.038620 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 88 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: F-15 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya ovata*	50	Yes	FACU
2. *Quercus alba*	30	Yes	FACU
3. *Acer rubrum*	20	No	FAC
4. *Ostrya virginiana*	20	No	FACU
5. *Betula lenta*	15	No	FACU
6.			
7.			
	135	=Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	115	x 4 =	460
UPL species	0	x 5 =	0
Column Totals:	135 (A)		520 (B)

Prevalence Index = B/A = 3.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point F-15 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Loamy/Clayey	Clay Loam
1-5	10YR 3/2	100					Loamy/Clayey	Clay Loam
5-7	10YR 5/3	75	10YR 3/2	25	C	M	Loamy/Clayey	Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 7

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: F-15 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.447730 Long: -74.038963 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ? Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ? Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 12

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: F-15 Wet

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	70	Yes	FAC
2. *Cornus racemosa*	30	Yes	FAC
3. *Carya ovata*	10	No	FACU
4.			
5.			
6.			
7.			
	110	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	110 (A)		340 (B)

Prevalence Index = B/A = 3.09

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

_X_ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point F-15 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	100					Loamy/Clayey	Silty Clay Loam
11-16	10YR 5/1	60	10YR 6/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 16

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: F-35 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.448413 Long: -74.041807 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: F-35 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	60	Yes	FACU
2. *Quercus alba*	60	Yes	FACU
3. *Quercus palustris*	40	Yes	FACW
4. *Ulmus americana*	20	No	FACW
5.			
6.			
7.			
	180	=Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	120	x 4 =	480
UPL species	0	x 5 =	0
Column Totals:	180 (A)		600 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point F-35 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100						Organic - Hemic/Fibric
3-8	10YR 3/2	100					Loamy/Clayey	Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: F-35 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.448148 Long: -74.041281 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slops NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ? Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 8

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: F-35 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus bicolor*	50	Yes	FACW
2. *Fraxinus pennsylvanica*	50	Yes	FACW
3. *Acer rubrum*	40	Yes	FAC
4. *Ulmus americana*	20	No	FACW
5. *Ostrya virginiana*	20	No	FACU
6.			
7.			
	180	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	40	x 3 =	120
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	180 (A)		440 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

X 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Buttressed tree trunks, adventitous roots

SOIL

Sampling Point F-35 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100						Organic layer - hemic
1-7	10YR 4/1	100					Loamy/Clayey	Silty Clay Loam
7-15	10YR 5/1	60	2.5Y 6/1	15	D	M	Loamy/Clayey	Silty Clay Loam
			10YR 6/6	25	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: GG-17 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.449651 Long: -74.044050 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: GG-17 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus rubra*	40	Yes	FACU
2. *Quercus alba*	30	Yes	FACU
3. *Acer rubrum*	20	Yes	FAC
4. *Fagus grandifolia*	10	No	FACU
5.			
6.			
7.			
	100	=Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point GG-17 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					Loamy/Clayey	Silt Loam
4-12	10YR 5/4	100					Loamy/Clayey	Silt Loam
12-18	10YR 6/6	100					Loamy/Clayey	Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: GG-17 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.449169 Long: -74.043599 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 11

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: GG-17 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Ulmus americana*	50	Yes	FACW
3. *Fraxinus pennsylvanica*	50	Yes	FACW
4.			
5.			
6.			
7.			
	150	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. *Acer rubrum*	50	Yes	FAC
2. *Berberis thunbergii*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Sphagnum*	10	Yes	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	100	x 3 =	300
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	210 (A)		540 (B)

Prevalence Index = B/A = 2.57

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point GG-17 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	100					Loamy/Clayey	Silty Clay Loam
10-14	10YR 4/1	90	10YR 6/3	5	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 5/1	5	D	M		Silty Clay Loam
14-20	10YR 4/1	75	10YR 5/4	25	D	M	Loamy/Clayey	Silty Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: J-26 Up

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.446683 Long: -74.044956 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: J-26 Up

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	80	Yes	FACU
2. *Quercus rubra*	50	Yes	FACU
3. *Fraxinus americana*	30	No	FACU
4. *Ulmus americana*	10	No	FACW
5.			
6.			
7.			
	170	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1. *Rubus idaeus*	20	Yes	FACU
2. *Rosa multiflora*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	190	x 4 =	760
UPL species	0	x 5 =	0
Column Totals:	200 (A)		780 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point J-26 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Loamy/Clayey	Silty Clay Loam
6-16	2.5Y 5/4	100					Loamy/Clayey	Silty Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 5126 Route 9W Cornwall, NY City/County: Cornwall/Orange Sampling Date: 3-24-2021

Applicant/Owner: Dynamic Engineering Consultants P.C. State: NY Sampling Point: J-26 Wet

Investigator(s): Greg Fleischer & Kelly DeGuzman Section, Township, Range: 9-1-25.22

Landform (hillside, terrace, etc.): Hills Local relief (concave, convex, none): Convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R Lat: 41.446217 Long: -74.045203 Datum: NAD83

Soil Map Unit Name: Mardin gravelly silt loam, 3 to 8 percent slopes NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: J-26 Wet

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Platanus occidentalis*	50	Yes	FACW
2. *Cornus racemosa*	40	Yes	FAC
3. *Ulmus americana*	10	No	FACW
4.			
5.			
6.			
7.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Sphagnum*	10	Yes	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		240 (B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point J-26 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/1						Loamy/Clayey	Silty Clay Loam
5-10	10YR 5/1	75	10YR 7/4	25	C	M	Loamy/Clayey	Distinct redox concentrations
10-16	10YR 5/1	60	10YR 6/3	30	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 6/6	10	C	M		Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ? Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Appendix B

SITE PHOTOGRAPHS

Photograph 1 – Looking northwest at Wetland A

Photograph 2 – Looking northwest at stream running through Wetland B

Photograph 3 – Looking northwest at Wetland C

Photograph 4 - Looking southeast at Wetland D

Photograph 5 - Looking towards the existing stream in Wetland E

Photograph 6 – Looking towards Wetland F

Appendix C

USACE JD CHECKLIST

ACOE Checklist of Information Included with Requests for Jurisdictional Determinations (JD)

1) Name, mailing address and phone number of:
   a) Current Property Owner
      i) Cornwall Commons, LLC, c/o Kent Companies, 615 Route 32, Highland Mills, NY 10930
   b) Applicant
      i) Cornwall Logistics, LLC, 500 Frank W Burr Boulevard, Suite #47, Teaneck, NY 07666
   c) Wetland Delineator
      i) Greg Fleischer – PWS, Capital Environmental Consultants, Inc., 243 Fair Street, Suite 4, Kingston, NY 12401, (845) 383-1114.
   d) Wetland Consultant
      i) Greg Fleischer – PWS, Capital Environmental Consultants, Inc., 243 Fair Street, Suite 4, Kingston, NY 12401, (845) 383-1114.
2) Site Location Map
   a) Figure 1 – Site Location Map showing the property on the USGS Geological Survey 7.5 Minute Quadrangle, Cornwall, NY.
   b) Site and Wetlands

Table 2 - Wetland Center Coordinates

Location	Latitude	Longitude	Area onsite (acres)
Center of Site	41°27'05.0"N	74°02'20.8"W	197.72
Wetland A	41°26'54.5"N	74°02'06.2"W	4.113
Wetland B	41°26'46.4"N	74°02'42.7"W	2.054
Wetland C	41°27'03.4"N	74°02'26.3"W	3.849
Wetland D	41°26'51.8"N	74°02'20.3"W	4.545
Wetland E	41°26'56.9"N	74°02'43.9"W	0.772
Wetland F	41°26'57.0"N	74°02'37.0"W	1.791

3) See attached report -
   a) Purpose of Request
      i) Approved Jurisdictional Determination of Water of the U.S. for the subject property.
   b) Proposed project
      i) The Applicant would like to determine future site development potential.
   c) Parcel size/Review area
      197.72 acres (800,144 square meters)

4) Delineation Report
   a) Current site use
      i) Presently consists of a vacant forested upland and wetland areas.

ii) Historic site use[1]
(1) This site has remained vacant since 1965.

b) NWI map
i) Figure 3

c) NYSDEC freshwater wetland map
i) Figure 4

d) NYSDEC tidal wetland map
i) N/A

e) NRCS soil map
i) Figure 6

f) Watershed
i) Hudson-Wappinger Watershed (HUC 02020008)

g) Watershed size
i) 604,602 acres

h) Average annual rainfall/snowfall
i) 44-46 inches

i) Wetland/Tributary relationship
i) Wetland A is located along the southeastern border of the subject property and contains an intermittent stream that drains to the southeast and into a culvert under Route 9W. The culvert drains to a wetland on the easterly side of Route 9W and is then conveyed to an unnamed tributary, locally known as Funny Child Creek, which drains to Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.
ii) Wetland B is located in the southwestern portion of the subject property. Wetland B contains an intermittent stream that drains west towards Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.
iii) Wetland C is an isolated wetland with no connectivity to Wetlands A, B, D, E, F, or other offsite wetlands and waterbodies. The wetlands hydrology is maintained by groundwater and runoff/precipitation.
iv) Wetland D is located along the southern border of the subject property. Wetland D is the source of the intermittent stream that forms in the southeastern portion of the wetland. The stream within Wetland D drains to the southeast in a narrow stream course to a stormwater drain outside of the property border. It is assumed this storm drain eventually drains to Moodna Creek (a TNW). Moodna Creek drains to the Hudson River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.
v) Wetland E is located along the southwestern border of the subject property and contains an intermittent stream associated with a groundwater seep. Wetland E drains northwest towards Moodna Creek (a TNW). Moodna Creek drains to the Hudson

[1] https://www.historicaerials.com/viewer

River (a TNW). The source of wetland hydrology is surface water runoff with limited seasonal groundwater influence.

vi) Wetland F is located within the southwestern portion of the property. Wetland F is an isolated wetland with no connectivity to Wetlands A, B, C, D, E, or other offsite wetlands and waterbodies. The wetlands hydrology is maintained by groundwater and runoff/precipitation.

j) River miles to TNW
   i) 0 miles
k) Aerial miles to TNW
   i) 0 miles
l) Potential pollutants
   i) There are currently no potential pollutants associated with the wetlands onsite. No evidence of dumping or disposal of hazardous materials was identified during site visits.
m) Potential habitat for species
   i) The USFWS Information for Planning and Consultation (IPaC) was reviewed in June of 2021 for federally listed threatened and endangered species within or adjacent to the project site. The IPaC identified one endangered mammal species, the Indiana bat (*Myotis sodalis*), one threatened mammal species, the northern long-eared bat (*Myotis septentrionalis*), on threatened reptile species, the bog turtle (*Clemmys muhlenbergii*), one candidate insect species, monarch butterfly (*Danaus plexippus*), and one threatened flowering plant small whorled pogonia (*Isotria medeoloides*).
n) Vegetative cover types onsite:
   i) Wetland A: The New York State Natural Heritage Program (NYSNHP) 'Red maple-hardwood forest' community best describes the vegetative community associated with the palustrine wetland.
      (1) Wetland plants:
         (a) green ash (*Fraxinus pennsylvanica*) (FACW),
         (b) silver maple (*Acer saccharinum*) (FACW),
         (c) northern red oak (*Quercus rubra*) (FACU),
         (d) white oak (*Quercus alba*) (FACU),
         (e) red maple (*Acer rubrum*) (FAC),
         (f) northern spicebush (*Lindera benzoin*) (FACW),
         (g) Japanese stilt grass (*Microstegium vimineum*) (FAC),
         (h) water-purslane (*Lythrum portula*) (OBL), and
         (i) moss species (*Sphagnum spp.*).
      (2) Upland vegetation residing beyond the wetland/upland interface included:
         (a) silver maple (*Acer saccharinum*) (FACW),
         (b) northern red oak (*Quercus rubra*) (FACU),
         (c) white oak (*Quercus alba*) (FACU),
         (d) green ash (*Fraxinus pennsylvanica*) (FACW),
         (e) common red raspberry (*Rubus idaeus*) (FACU),
         (f) eastern hemlock (*Tsuga canadensis*) (FACU), and
         (g) Japanese barberry (*Berberis thunbergii*) (FACU).

ii) Wetland B: The NYSNHP 'rich mesophytic forest' community best describes the vegetative community associated with the palustrine wetland.
    (1) Wetland plants:
        (a) American sycamore (*Platanus occidentalis*) (FACW),
        (b) gray dogwood (*Cornus racemosa*) (FAC),
        (c) American elm (*Ulmus americana*) (FACW), and
        (d) moss species (*Sphagnum spp.*).
    (2) Upland plants:
        (a) white oak (*Quercus alba*) (FACU),
        (b) red oak (*Quercus rubra*) (FACU),
        (c) white ash (*Fraxinus americana*) (FACU),
        (d) American elm (*Ulmus americana*) (FACW),
        (e) common red raspberry (*Rubus idaeus*) (FACU), and
        (f) multiflora rose (*Rosa multiflora*) (FACU).
iii) Wetland C: The New York State Natural Heritage Program (NYSNHP) 'Vernal pool' community best describes the vegetative community associated with the palustrine wetland.
    (1) Wetland plants:
        (a) red maple (*Acer rubrum*) (FAC),
        (b) American elm (*Ulmus americana*) (FACW),
        (c) wild privet (*Ligustrum vulgare*) (FACU),
        (d) Japanese stilt grass (*Microstegium vimineum*) (FAC),
        (e) moss species (*Sphagnum spp.*), and
        (f) common greenbrier (*Smilax rotundifolia*) (FAC).
    (2) Upland vegetation residing beyond the wetland/upland interface included:
        (a) white oak (*Quercus alba*) (FACU),
        (b) silver maple (*Acer saccharinum*) (FACW),
        (c) American beech (*Fagus grandifolia*) (FACU), and
        (d) red maple (*Acer rubrum*) (FAC).
iv) Wetland D: The New York State Natural Heritage Program (NYSNHP) 'Appalachian oak-hickory forest' community best describes the vegetative community associated with the palustrine wetland.
    (1) Wetland plants:
        (a) red maple (*Acer rubrum*) (FAC),
        (b) gray dogwood (*Cornus racemosa*) (FAC),
        (c) shagbark hickory (*Carya ovata*) (FACU),
        (d) swamp white oak (*Quercus bicolor*) (FACW),
        (e) green ash (*Fraxinus pennsylvanica*) (FACW),
        (f) American elm (*Ulmus americana*) (FACW), and
        (g) American hophornbeam (*Ostrya virginiana*) (FACU).
    (2) Upland vegetation residing beyond the wetland/upland interface included:
        (a) shagbark hickory (*Carya ovata*) (FACU),
        (b) white oak (*Quercus alba*) (FACU),
        (c) red maple (*Acer rubrum*) (FAC),

(d) American hophornbeam (*Ostrya virginiana*) (FACU),
(e) cherry birch (*Betula lenta*) (FACU),
(f) red oak (*Quercus rubra*) (FACU),
(g) pin oak (*Quercus palustris*) (FACW), and
(h) American elm (*Ulmus americana*) (FACW).

v) Wetland E: The New York State Natural Heritage Program (NYSNHP) 'Red maple-hardwood forest' community best describes the vegetative community associated with the palustrine wetland.
(1) Wetland plants:
(a) Northern spicebush (*Lindera benzoin*) (FACW).
(2) Upland vegetation residing beyond the wetland/upland interface included:
(a) common red raspberry (*Rubus idaeus*) (FACU) and
(b) black cherry (*Prunus serotina*) (FACU).

vi) Wetland F: The New York State Natural Heritage Program (NYSNHP) 'Red maple-hardwood forest' community best describes the vegetative community associated with the palustrine wetland.
(1) Wetland plants:
(a) red maple (*Acer rubrum*) (FAC),
(b) American elm (*Ulmus americana*) (FACW),
(c) green ash (*Fraxinus pennsylvanica*) (FACW),
(d) red maple saplings (*Acer rubrum*) (FAC),
(e) Japanese barberry (*Berberis thunbergii*) (FACU), and
(f) moss species (*Sphagnum spp.*).
(2) Upland vegetation residing beyond the wetland/upland interface included:
(a) red oak (*Quercus rubra*) (FACU),
(b) white oak (*Quercus alba*) (FACU),
(c) red maple (*Acer rubrum*) (FAC), and
(d) American beech (*Fagus grandifolia*) (FACU).

vii) Wetland Delineation Forms
(1) Appendix A

viii) Site photographs of all representative areas of the site (taken during the growing season), including any connections between tributaries or between tributaries and wetlands.
(1) Appendix B

5) Surveyed delineation drawing, including the following:
a) Drawing date
i) Figure 2 – Wetlands Map prepared for Cornwall Logistics, LLC, prepared by Lanc & Tully Engineering and Surveying, P.C., on May 18, 2021.
b) Scale
i) Figure 2 – 1" = 200'
c) Revision dates
i) N/A
d) North arrow

    i) Figure 2
e) Existing topographic contours
    i) Figure 2
f) Benchmarks
    i) Figure 2
g) Stamp of a licensed surveyor
    i) Figure 2
h) Boundary lines of the parcel and wetlands with acres shown
    i) Figure 5 – Wetland Delineation Map, prepared by Capital, dated June 28, 2021
i) Boundary lines of the project site with acres shown
    i) Figure 5
j) Delineation flags shown as points that are connected by straight lines (or extend off site at parcel boundaries), and are identified on the drawing with the corresponding number and/or letter that is written on the flag in the field
    i) Figure 5
k) Appropriate hatching and/or shading to identify the extent of waters of the US, including jurisdictional wetlands, and any “isolated” or non-jurisdictional waterbodies or wetlands
    i) Figure 5
l) All defined tributaries on the site, identified either via flagging or a standard tributary symbol that is in the legend, and locations of any other connections between waters (e.g. culverts, ditches and/or swales)
    i) N/A
m) Table outlining the acres of the waters of the US, and “isolated” or non-jurisdictional waters, in addition to the linear feet of all tributaries within the boundaries of the project site or parcel.
    i) Table 2, Table 3 and Figure 5.

Table 3 – Rapanos Evaluation		
Name	**Jurisdictional under Rapanos**	**Definition**
Wetland A	Yes	Wetland A contains an intermittent stream that is conveyed to an unnnamed tributary, a tributary to Moonda Creek, a TNW. Moodna Creek is a tributary to a TNW (Hudson River)
Wetland B	Yes	Wetland B contains an intermittent stream that is tributary to Moodna Creek, a TNW. Moodna Creek is tributary to a TNW (Hudson River)
Wetland C	No	Wetland C is not a TNW, adjacent to a traditional navigable water, a non-navigable, relatively permanent tributary of a traditional navigable water, directly abutting a relatively permanent water adjacent to another wetland, or maintain a significant nexus to another wetland
Wetland D	Yes	Wetland D contains an intermittent that is tributary to a tributary of a TNW (Hudson River)
Wetland E	Yes	Wetland E contains an intermittent stream that is tributary to Moodna Creek, a TNW. Moodna Creek is a tributary to a TNW (Hudson River)
Wetland F	No	Wetland F is not a TNW, adjacent to a traditional navigable water, a non-navigable, relatively permanent tributary of a traditional navigable water, directly abutting a relatively permanent water adjacent to another wetland, or maintain a significant nexus to another wetland.

Appendix D

USACE AQUATIC RESOURCES SPREADSHEET

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
Wetland A	NEW YORK	PFO	SLOPE	Area	4.113	ACRE	RPWWD	41.44846300	-74.03505800	Moodna Creek
Wetland B	NEW YORK	PFO	SLOPE	Area	2.054	ACRE	RPWWD	41.44621700	-74.04520300	Moodna Creek
Wetland C	NEW YORK	PSS	DEPRESS	Area	3.849	ACRE	ISOLATE	41.45093100	-74.04062600	
Wetland D	NEW YORK	PFO	SLOPE	Area	4.545	ACRE	RPWWD	41.44773000	-74.03896300	Moodna Creek
Wetland E	NEW YORK	PFO	SLOPE	Area	0.772	ACRE	RPWWD	41.44913500	-74.04553100	Moodna Creek
Wetland F	NEW YORK	PFO	DEPRESS	Area	1.791	ACRE	ISOLATE	41.44916900	-74.04359900	

Appendix E

APPROVED JURISDICTIONAL DETERMINATION FORM

APPENDIX B

Approved JD Form

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: NYS District Office, Regulatory Branch, Wetland Delineation Report

C. PROJECT LOCATION AND BACKGROUND INFORMATION: ,
State:New York County/parish/borough: Orange County City: Cornwall
Center coordinates of site (lat/long in degree decimal format): Lat. 41.451134° **N**, Long. -74.038552° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: Moodna Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Moonda Creek
Name of watershed or Hydrologic Unit Code (HUC): Hudson-Wappinger Watershed (HUC: 02020008)
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): March 17, 2021 and March 24, 2021

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: Wetland A = 4.113 acres
Wetland B = 2.054 acres
Wetland D = 4.545 acres
Wetland E = 0.772 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Wetland C = 3.849 acres. Wetland C was determined to be not jurisdictional because it is not 1. a TNW, 2. not adjacent to a traditional navigable water, 3. not a non-navigable, relatively permanent or non-relatively permanent tributary of a traditional navigable water, or 4. adjacent to or directly abutting a relatively permanent water tributary directly or indirectly to a TNW. Further, Wetalnd C is not an impoundment of a jurisdictional water and does not maintain a significant nexus to another wetland. Wetland F = 1.791 acres. Wetland F was determined to be not jurisdictional because it is not 1. a TNW, 2. not adjacent to a traditional navigable water, 3. not a non-navigable, relatively permanent or non-relatively permanent tributary of a traditional navigable water, or 4. adjacent to or directly abutting a relatively permanent water tributary directly or indirectly to a TNW. Further, Wetalnd F is not an impoundment of a jurisdictional water and does not maintain a significant nexus to another wetland**.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **The offsite TNW is Moodna Creek**.

Summarize rationale supporting determination: Moodna Creek should be considered a TNW because it may be susceptible for use to transport interstate or foreign commerce.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": N/A.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 604,602 **acres**
Drainage area: 604,602 **acres**
Average annual rainfall: 44 inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: No.

Identify flow route to TNW[5]: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:N/A.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The intermittent streams drain precipitation and snowmelt from the immediate wetlands and surrounding upland areas and are not significantly impacted by groundwater, if at all.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Onsite observations.

Provide acreage estimates for jurisdictional wetlands in the review area: **Wetland A = 4.113 acres**
Wetland B = 2.051 acres
Wetland D = 4.545 acres
Wetland E = 0.772 acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☒ Other: (explain, if not covered above): **Wetlands C and F were determined to be non-jurisdictional because they are not 1. a TNW, 2. not adjacent to a traditional navigable water, 3. not a non-navigable, relatively permanent or non-relatively permanent tributary of a traditional navigable water, or 4. adjacent to or directly abutting a relatively permanent water tributary directly or indirectly to a TNW. Further, Wetalnds C and F are not impoundments of jurisdictional waters and do not maintain a significant nexus to another wetland.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: Wetland C = 3.849 acres
Wetland F = 1.791 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:7.5 Minute quadrangle: Cornwall, NY.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:Soil map generated from the USDA Natural Resource Conservation Service.
☒ National wetlands inventory map(s). Cite name:National Wetalnds Inventory Map Cornwall, NY.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
or ☒ Other (Name & Date):Site Photographs from Capital Environmental Consultants, Inc. taken on 3/17/2021.

☒ Previous determination(s). File no. and date of response letter:NAN-2007-549-WOR dated 12/19/2007.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: PLease see attached report. .

K – Sound Level Analysis and Review, prepared by B. Laing Associates, dated January 2023, last revised July 2023

Sound Level Analysis and Review
Proposed Warehouse Facilities
U.S. Route 9W
Town of Cornwall, Orange County, New York
July 2023

Prepared for:

Treetop Development, LLC

Prepared by:

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Sound Level Analysis and Review
Proposed Warehouse Facilities, U.S. Route 9W
Town of Cornwall, Orange County, New York
July 2023

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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 analysis services for the proposed Planned Industrial Development (PID), herein referred to as the Project or the Site, located at 2615 US Route 9W, Cornwall, New York. The project site is approximately 197.7-acres and is known as Section 9, Block 1, Lot 25.22.

Per the Draft Environmental Impact Statement (DEIS) Final Adopted Scope, the applicant is proposing to develop "Class A" warehouse facilities totaling 1,726,126 square feet in gross floor area (GFA). The Project will include two access points along US Route 9W (with the northern-most being dominant) along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval.

The purpose of this analysis is to evaluate sound levels that may occur as a result of the proposed, constructed use and/or from an increase in local traffic as a result of the proposed action. Mitigation and assessment of significant noise impacts, if any, will be addressed accordingly.

1.2 Existing Conditions

The Project site is approximately 197.7-acres of land located along US Route 9W, less than a mile west of the Hudson River (see Figure 1 - Site Location Map) and several miles west of the New York State Truway. The site of the proposed project is currently undeveloped/unimproved and is mostly wooded, being comprised largely of mature trees and associated understory vegetation. The site is mostly uplands, though wetlands do exist on site per the reviewed site plan. The parcel is bounded on the east by Route 9W and on the north by the Town lines delineating the Town of Cornwall and Town of New Windsor. To the south of the site, residential developments exist along Knoll Crest Court, and Frost Lane/Stately Oaks (a private road). Moodna Creek, a tributary to the Hudson River, exits just beyond the western and northern property lines.

A search for "sensitive" noise receptors within 1,500 feet of the site was undertaken for this sound analysis. Sensitive receptors are defined by the EPA to "…include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities." This is consistent with NYSDEC's Guideline as well. Two notable potentially-sensitive receptors exist within the 1,500-foot radium of the project site: the New York Military Academy, a boarding school, and Cornwall Central Middle School. New York Military Academy is separated from the site by ±1,000 feet as it is directly across Route 9W from the Project site. Cornwall Central Middle School is ±1,450 feet from the Project site.

Apart from nearby residential receptors, there are no other "sensitive" noise receptors (e.g., hospitals, libraries, etc.) in the vicinity of the project site. However, the noise regulations discussed in Chapter 2 of this analysis, 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.

1.3 General Sound Characteristics

Sound waves are created when changes in pressure are produced in the air and are received and observed when the human ear reacts to these pressure changes. These pressure changes are created at many frequencies (i.e., spacing of the waves). 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). Wave 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 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). As a point of reference, human conversations at a distance of two to three feet occurs between sound pressure levels (SPL) of 60 dB(A)- with a calm voice- to 75 dB(A) with a raised voice[1]. A 3 dB(A) change in sound levels would be considered largely undetectable to the human ear, while 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.

1.4 Sound Monitoring Methodology

Sound/noise measurements on and around the project site were made using a Cirrus Research plc CR:171A 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 four (4) locations on, and adjacent to, the project site. Figure 2 represents the mapped measured locations on a current aerial. Table 1 describes 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 straightforward, taken in ±10-minute durations and were monitored at the listed locations for existing ambient conditions. The first round of measurements occurred between August 10 and August 11, 2022 during the peak-AM, Midday, and PM scenarios in cloudy conditions with wind no greater than 5 knots and an average temperature of 81 degrees Fahrenheit (F) (i.e., suitable weather conditions for monitoring ambient sound pressure levels). The second, partial round of measurements[2] occurred between February 15 and February 16, 2023 during the peak-AM and PM scenarios in fair conditions with wind no greater than 5 knots and an average temperature of 40 degrees Fahrenheit (F) (i.e., also, suitable weather conditions for monitoring ambient sound pressure levels).

[1] USEPA's Community Noise, 1971
[2] In response to Town Consultant's comments regrading sampling on the Site's northern boundary.

The measured levels generally relate to the traffic associated with Route 9W[3]. 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.[4] Results are discussed below.

TABLE 1
Noise Sampling Locations

MONITORING ID	LOCATION	DESCRIPTION
LOCATION 1A (AUGUST 2022)	US Route 9W, North	East side of Route 9W, North Bound at proposed northern site access, north of interchange with Academy Ave
LOCATION 1B (FEBRUARY 2023)	US Route 9W, North	West side of Route 9W, at Canterbury Lane.
LOCATION 1C (FEBRUARY 2023)	US Route 9W, North Property Line (See footnote)	West side of Route 9W, at Pipeline ROW South Bound (down 30'+ scree slope)[5]
LOCATION 1D (FEBRUARY 2023)	North Property Line (See footnote)	Pipeline ROW – 800 ft. West – opposite Residence north of Site (see footnote)[6]
LOCATION 2 (AUGUST 2022)		West side of Route 9W, at NY Military Academy
LOCATION 3 (AUGUST 2022) (FEBRUARY 2023)	Knoll Crest Ct.	Residential approach at end of Knoll Crest Court
LOCATION 4 (AUGUST 2022)	Frost Ln.	Residential approach at end of Frost Lane at intersection of Stately Oaks
Note: A map of these monitored locations are provided in Figure 2.		

[3] An "Urban Principal Arterial" per NYSDOT.
[4] 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 measured for the expected, "peak hour."
[5] Locations at the Site's northern boundary (on the west side of Route 9W) were deemed **unsafe** and unsuitable for exiting condition monitoring. NYS Route 9W (with high speed and commercial traffic) at or about that location lacks a shoulder, has a guard rail immediately followed (to the west) by a steep, boulder-fill slope (scree) and drop off. Instead, B Laing Associates' personnel monitored the closest safe location at Route 9W at the pipeline ROW (Location 1C) and west 800' opposite (Location 1D) opposite the closest northerly house. See Monitoring Locations Figure with 03-2023 edits. A location north of the site and adjacent to Route 9W, southbound traffic was also monitored as it lacked an intervening slope (providing a representative result) and helps to represent that neighborhood in other analyses. The northern property boundary (with direct line-of-sight to Route 9W) is represented by sound levels corrected for Canterbury Lane, Route 9W west side – southbound AM and PM samples. Per Lanc Tully,E&S, P.C. – February 2, 2023 Item 18, referencing DEIS scope.
[6] Ibid.

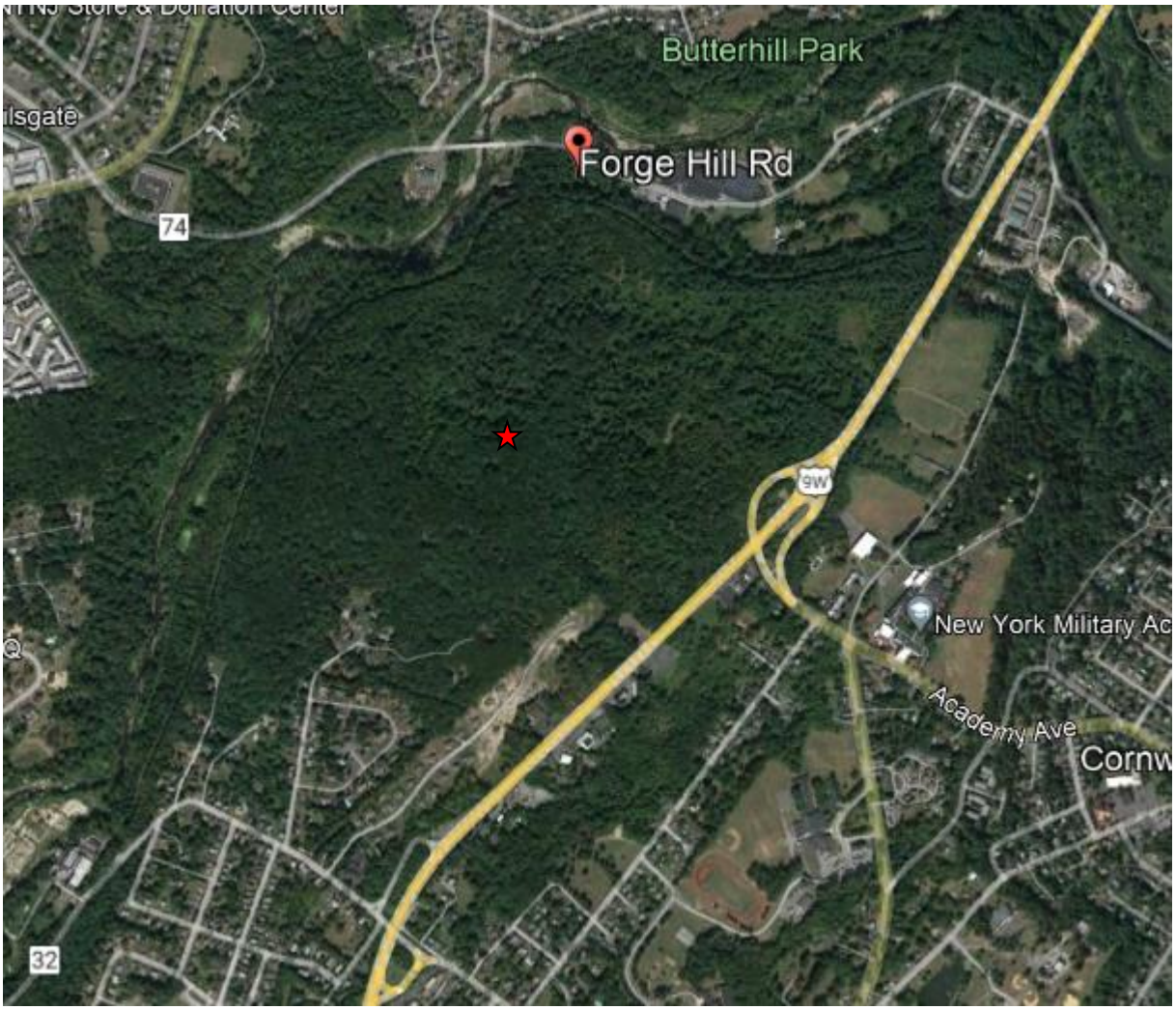


Figure 1
Site Location Map of Project Site.

Source: Google Earth

Figure 2
Ambient Sound Sampling and Project Analysis Locations

2.0 NOISE REGULATION

2.1 Town of Cornwall Noise Ordinance

The Town of Cornwall regulates standard noise/sound pressure levels in Chapter 101 of their Town Code "*Noise*." Further, sound produced by commercial activity is regulated through the Zoning Code Chapter 158-17 "*Dangerous and objectionable elements; performance standards*." Per the Town of Cornwall, Chapter 101-2, no construction or demolition related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday.

Chapter 158-17 states that noise radiated continuously, to a property line, from a facility at nighttime (7 p.m. to 7 a.m.) shall not exceed the values for octave bands lying within the frequency limits given in their Table I. These values are considered after applying applicable corrections found in their Table II, which allow for variability in sound character, timing, and frequency of occurrence. These tables are shown below.

Table 2
Table I from Town of Cornwall Code, Chapter 158-17[7]

TABLE I

Maximum permissible sound-pressure levels at specified points of measurement for noise radiated continuously from a facility between the hours of 7:00 p.m. and 7:00 a.m.

Frequency Ranges Containing Standard Octave Bands (cycles per second)		Octave Band Sound-Pressure Level (decibels) (re 0.0002 dyne/cm)
20	75	67
75	150	66
150	300	61
300	600	54
600	1,200	47
1,200	2,400	39
2,400	4,800	29
4,800	10,000	20

[7] The octave bands cited in the Code are out of date. As a matter of sound science and engineering, they have not been used since approximately 1964.

Table 3
Table II from Town of Cornwall Code, Chapter 158-17

TABLE II

Type of Operation or Character of Noise	Correction (decibels)
Daytime operation only	Plus 5
Noise source operates less than 20% of any one-hour period	Plus 5*
Noise source operates less than 5% of any one-hour period	Plus 10*
Noise of impulsive character (hammering, etc.)	Minus 5
Noise of periodic character (hum, screech, etc.)	Minus 5

*NOTE: Apply one of these corrections only.

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 as 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. See Table 4, below.

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). Per *Assessing and Mitigation Noise Impacts*, 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). Construction noise levels are not specifically addressed by this guidance.

Table 4

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)

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 5 below depicts each criterion.

Table 5:
FHWA 23 CFR 772.5
Noise Abatement Criteria
[Hourly A-Weighted Sound Level decibels (dB(A))[1]]

Activity Category	Activity $L_{eq}(h)$**	Criteria[2] $L_{10}(h)$***	Evaluation Location	Description of Activity Category
A	57	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[3]	67	70	Exterior	Residential
C[3]	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[3]	72	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.

F				Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G				Undeveloped lands that are not permitted.

[1] Either Leq(h) or L10(h) (but not both) may be used on a project.
[2] The Leq(h) and L10(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.
[3] Includes undeveloped lands permitted for this activity category.

In this case, the majority of the surrounding receptors surrounding the site (towards the south, etc.) would be considered in Category B, as they are residential. The school and fields across US Route 9W, to the east, would be considered Category C, per Table 5. Most receptors in the local area already have potentially higher sound levels due to the proximity to US Roue 9W, an urban, arterial roadway.

Per Table 5, the FHWA Highway Traffic Noise Guidance specifies an L_{eq} of 67 dB(A) or less at most exterior locations for public use such as parks, residences, churches, libraries, etc.

3.0 PROPOSED ACTION ANALYSIS

3.1 **Proposed Action**

Per the Draft Environmental Impact Statement (DEIS) for the proposed Treetop Planned Industrial Development (PID), the project proposes to proposes to develop the site to construct and operate five (5) warehouse buildings, with associated parking, loading bays, etc. The proposed project will develop most of the uplands (but not the wetlands) of the 197.7-acre site.

3.2 **Results of Ambient Noise Measurements**

Per Section 1, above, ambient noise level measurements were taken between August 10 and 11, 2022 and February 15 and 16at seven (7) different sampling locations (Locations 1A through 1D and Locations 2 through 4). These included the property line along US Route 9W at the proposed entryways (adjacent to nearby "sensitive" receptors), the northern[8] and southern property lines and nearby residences. August 2022 monitoring efforts took place in 3 phases – AM peak, Midday, and PM peak. February 2023 monitoring efforts took place in 2 phases – AM and PM peaks.

Existing (ambient) sound levels were measured **northeast** of the Project site at Location 1A (per Table 6, US Route 9W, North -, immediately east of the site) in August 2022. Sound measurements in this location showed an $L_{(eq)}$ of 76.2 dB(A) in the AM Peak, and 68.2 dB(A) at octave band 1kHz. The Midday Peak(s) resulted in an $L_{(eq)}$ of 75.4 dB(A) and 65.2 dB at octave band 1kHz. The PM Peak resulted in an $L_{(eq)}$ of 76.1 dB(A) and 66.1 dB at octave band 1kHz. The noise measurements at this location were taken at the property line where the northern site access is proposed. The sound levels at this location are largely the result of the existing traffic on US Route 9W.

Existing (ambient) sound levels were measured **north and west** of the Project site at Location 1B (per Table 6, US Route 9W, North – Canterbury Lane, north of the site) in February 2023. Sound measurements in this location showed an $L_{(eq)}$ of 62.4 dB(A) in the AM Peak, and 59.3 dB(A). The noise measurements at this location were taken rather than at the property line where the northern site access is proposed as the later location was deemed to be unsafe (see footnote 8). The sound levels at this location are largely the result of the existing traffic on US Route 9W.

Existing (ambient) sound levels were also measured **north and west** of the Project site at Location 1C (per Table 6, US Route 9W, North – Pipeline ROW, north of the site) in February 2023. Sound

[8] Locations at the Site's northern boundary (on the west side of Route 9W) were deemed **unsafe** and unsuitable for exiting condition monitoring. NYS Route 9W (with high speed and commercial traffic) at or about that location lacks a shoulder, has a guard rail immediately followed (to the west) by a steep, boulder-fill slope (scree) and drop off. Instead, B Laing Associates' personnel monitored the closest safe location at Route 9W at the pipeline ROW (Location 1C) and west 800' opposite (Location 1D) opposite the closest northerly house. See Monitoring Locations Figure with 03-2023 edits. A location north of the site and adjacent to Route 9W, southbound traffic was also monitored as it lacked an intervening slope (providing a representative result) and helps to represent that neighborhood in other analyses. The northern property boundary (with direct line-of-sight to Route 9W) is represented by sound levels corrected for Canterbury Lane, Route 9W west side – southbound AM and PM samples.

measurements in this location showed an $L_{(eq)}$ of 56.3 dB(A) in the AM Peak, and 54.0 dB(A) in the PM Peak. The noise measurements at this location were taken rather than at the property line where the northern site access is proposed as the later location was deemed to be unsafe (see footnote 7). This location was at the base of a 30-foot-high (plus) side slope of Route 9W, descending at an angle greater than 45 degrees. The sound levels at this location are largely the result of the existing traffic on US Route 9W but that was suppressed by the distance and an off-angle loss (a 45 degree off-angle loss calculates to 7.2 dB(A)). For that reason, these data have been adjust by 5.3 dB(A) and 6.0 dB(A) to at least match the Location 1B, Canterbury Lane results adjacent to Route 9W an $L_{(eq)}$ of 62.3 dB(A) in the AM Peak, and 59.3 dB(A) in the PM Peak, respectively.

Existing (ambient) sound levels were also measured **north** of the Project site at Location 1D (per Table 6, 800 feet west of US Route 9W, North – Pipeline ROW, north of the site) in February 2023. Sound measurements in this location showed an $L_{(eq)}$ of 50.5 dB(A) in the AM Peak, and 51.4 dB(A) in the PM Peak. The noise measurements at this location were taken rather than at the property line where the northern site access roadway is proposed as the later location was deemed to be unsafe (see footnote 7). This location was at the base of a 30-foot-high (plus) slope northward, off the Project site, descending at an angle greater than 45 degrees. The sound levels at this location are largely the result of a more distant US Route 9W traffic but that influence is suppressed by the distance and an off-angle loss. For that reason, these data have been adjusted by 5.3 dB(A) to at least match the Location 1B, Canterbury Lane results adjacent to Route 9W an $L_{(eq)}$ of 56.5 dB(A) in the AM Peak, and 56.7 dB(A) in the PM Peak, respectively.

Existing (ambient) sound levels were measured southeast of the Project site at Location 2 (per Table 6, US Route 9W, South , immediately east of the site). Sound measurements in this location showed an $L_{(eq)}$ of 78.2 dB(A) in the AM Peak, and 70.2 dB(A) at octave band 1kHz. The Midday Peak resulted in an $L_{(eq)}$ of 76.4 and 66.9 dB(A) at octave band 1kHz. The PM Peak resulted in an $L_{(eq)}$ of 76.4 dB(A) and 68.0 dB(A) at octave band 1kHz. The noise measurements at this location were taken at the property line where the southern site access is proposed. The sound levels at this location are largely the result of the existing traffic on US Route 9W.

Existing (ambient) sound levels were measured in August 2022 south of the Project site at Location 3 (per Table 6, Knoll Crest Ct.). This residential location occurs on the site's southern boundary[9]. Sound measurements in this location showed an $L_{(eq)}$ of 48.5 dB(A) in the AM Peak, and 63.6 dB(A) at octave band 1kHz. The Midday Peak resulted in an $L_{(eq)}$ of 49.0 dB(A) and 63.1 dB(A) at octave band 1kHz. The PM Peak resulted in an $L_{(eq)}$ of 68.3 dB(A) and 63.8 dB(A) at octave band 1kHz. The noise measurements at this location were taken at the end of Knoll Crest Court, where the residential properties abut the project site. The sound levels at this location are the result of Route 9W (especially in the Peak hours) and local traffic. Existing (ambient) AM Peak sound levels also were measured in February 2023. Sound measurements in this location showed an $L_{(eq)}$ of 52.2 dB(A) in the AM Peak (3.7 dB(A) higher than in August 2022).
Existing (ambient) sound levels were measured southwest of the Project site at Location 4 (per Table 6, Frost Ln.). This residential location occurs on the site's southern boundary. Sound

[9] The apartment complex west of the site (and "closest" to it) is expected to have a sound level equivalent to Location 3. Further, the parcels which have residential uses north of the site are also assumed to have the same sound level equivalents.

measurements in this location showed an $L_{(eq)}$ of 43.9 dB(A) in the AM Peak, and 63.4 dB(A) at octave band 1kHz. The Midday Peak resulted in an $L_{(eq)}$ of 50.8 dB(A) and 61.1 dB(A) at octave band 1kHz. The PM Peak resulted in an $L_{(eq)}$ of 45.2 dB(A) and 61.6 dB at octave band 1kHz. The noise measurements at this location were taken at the end of Frost Lane, where residential properties abut the project site. The sound levels at this location are the result of local traffic, which is the primary source in the local area.

Noise monitoring data results are below, provided in Table 6. As previously referenced, analysis of the recorded data revealed that the lowest ambient noise levels occurred at the residential areas along Knoll Crest Ct., and Frost Ln. (in the 44 to 52 dB(A) range)., as they represented the greatest distance from the main source of noise: US Route 9W (in the 59 to 70 dB(A) range). Measurement reports/data sheets are located in Appendix A at the rear of this analysis

TABLE 6
Sound Monitoring Results (Existing Condition)

Monitoring ID	***Location***	***Date***	***Time***	***Meteorological Conditions***	***L_{eq} dB(A)***
Sample Location 1A	Route 9W, North Bound	8/11/2022	07:51 AM	<5 kt wind 75% cloud 73 degrees (F)	76.2
		8/10/2022	11:51 AM	<5 kt wind 50% cloud coverage 81 degrees (F)	75.4
		8/10/2022	04:41 PM	<5 kt wind 25% cloud coverage 90 degrees (F)	76.1
Sample Location 1B	Canterbury Lane – Adj - Route 9W, South Bound	2/15/2023	05:26 PM	<5 kt wind 0% cloud coverage 40 degrees (F)	59.3
		2/16/2023	08:05 AM	<5 kt wind 0% cloud coverage 40 degrees (F)	62.4
Sample Location 1C	Pipeline ROW – Adj - Route 9W, South Bound (down 30'+ scree slope)[10]	2/15/2023	4:42 PM	<5 kt wind 0% cloud coverage 40 degrees (F)	54.0N. Property Line - 59.3[11]

[10] Locations at the Site's northern boundary were deemed **unsafe** and unsuitable for exiting condition monitoring. NYS Route 9W (with high speed and commercial traffic) at or about that location lacks a shoulder, has a guard rail immediately followed (to the west) by a steep, boulder-fill slope (scree) and drop off. Instead, B Laing Associates' personnel monitored the closest safe location at Route 9W at the pipeline ROW (Location 1C) and west 800' opposite (Location 1D) opposite the closest northerly house. See Monitoring Locations Figure with 03-2023 edits. A location north of the site and adjacent to Route 9W, southbound traffic was also monitored as it lacked an intervening slope (providing a representative result) and helps to represent that neighborhood in other analyses. The northern property boundary (with direct line-of-sight to Route 9W) is represented by sound levels corrected for Canterbury Lane, Route 9W west side – southbound AM and PM samples.

[11] Ibid.

Sample Location 1C	Pipeline ROW – Adj - Route 9W, South Bound (down 30'+ scree slope)[12]	2/16/2023	8:31 AM	<5 kt wind 0% cloud coverage 40 degrees (F)	56.3 N. Property Line – 62.3
Sample Location 1D	Pipeline ROW – 800 ft. West – opposite Residence north of Site (see footnotes 1 and 2).	2/15/2023	5:05 PM	<5 kt wind 0% cloud coverage 40 degrees (F)	51.4 N. Property Line – 56.7
	(see footnotes 1 and 2).	2/16/2023	8:50 AM	<5 kt wind 0% cloud coverage 40 degrees (F)	50.5 N. Property Line – 56.5
Sample Location 2	Route 9W, south	8/11/2022	08:05 AM	<5 kt wind 100% cloud coverage 75 degrees (F)	78.2
		8/10/2022	12:06 PM	<5 kt wind 50% cloud coverage 81 degrees (F)	76.4
		8/10/2022	04:55 PM	<5 kt wind 50% cloud coverage 90 degrees (F)	76.4
Sample Location 3	Knoll Crest Ct.	8/11/2022	08:20 AM	<3 kt wind 75% cloud coverage 73 degrees (F)	48.5
		8/10/2022	012:24 PM	5 kt wind 75% cloud coverage 81 degrees (F)	49.0
		8/10/2022	05:11 PM	<5 kt wind 10% cloud coverage 90 degrees (F)	47.4
		2/16/2023	07:29 AM	<5 kt wind 0% cloud coverage 40 degrees (F)	52.8

[12] Locations at the Site's northern boundary were deemed **unsafe** and unsuitable for exiting condition monitoring. NYS Route 9W (with high speed and commercial traffic) at or about that location lacks a shoulder, has a guard rail immediately followed (to the west) by a steep, boulder-fill slope (scree) and drop off. Instead, B Laing Associates' personnel monitored the closest safe location at Route 9W at the pipeline ROW (Location 1C) and west 800' opposite (Location 1D) opposite the closest northerly house. See Monitoring Locations Figure with 03-2023 edits. A location north of the site and adjacent to Route 9W, southbound traffic was also monitored as it lacked an intervening slope (providing a representative result) and helps to represent that neighborhood in other analyses. The northern property boundary (with direct line-of-sight to Route 9W) is represented by sound levels corrected for Canterbury Lane, Route 9W west side – southbound AM and PM samples.

Sample Location 4	Frost Ln.	8/11/2022	08:37 AM	0 kt wind 75% cloud coverage 73 degrees (F)	43.9
		8/10/2022	12:39 PM	<3 kt wind 90% cloud coverage 81 degrees (F)	50.8
		8/10/2022	05:26 PM	<5 kt wind 10% cloud coverage 90 degrees	45.2

3.3 **Operational Sound Analysis**

As above, the majority of noise contributing to the ambient conditions at the project site come from US Route 9W and local traffic. In addition, potential noise impacts from the project may result from the increased in traffic from the proposed project (Traffic Impacts) and from the operational use of the site (Operational Impacts– e.g., HVAC, internal traffic, etc.).

3.3.1 Traffic Impacts

To determine how an increase in traffic has the potential to increase the ambient, (existing and proposed) sound levels can be added to determine a middling sound level. Per the NYSDEC guidance and Table 7 below, the difference between two sound levels at 1 dB or less (essentially a doubling of noise) will add 3 dB to the higher of the two sounds and so forth.

TABLE 7

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)

Per Table 7, 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.

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 change) equates to an increase in noise of 3 dB(A) utilizing this screening type approach. A 3 dB(A) increase is unnoticed to tolerable according to the NYSDEC noise evaluation guidelines in "Assessing and Mitigating Noise Impacts." An increase in 5–10 decibels would result in an intrusive sound. A 10 dB(A) increase is required before a sound is perceived to be twice as loud.

Information regarding the proposed/anticipated traffic can be found in the "Traffic Impact Study" for this project, by Dynamic Traffic. That report, has calculated that, following construction, the site will, generate, at most, 335 trips in the busiest, PM hour, which does not double traffic volumes in that intersection for Route 9W. As such, the project will have less thana 3 dB(A) and will have no significant impact on traffic operating sound levels.

3.3.2 Operational Impacts

The proposed Warehouse/Office Facility Project site, consists of parcels totaling 197.7 acres which front along Route 9W and somewhat east of the NY State thruway I-87. As indicated above, the sound environment adjacent to Route 9W is elevated and in the mid-70's dB(A). As the site is currently unused and wooded, the sound environment on its eastern side has an ambient level that more typical for a commercial use as it is in the in the mid-70's dB(A). Residential neighborhood to the west (and east) has a more typical, residential use sound level of 44 to 51 dB(A).

The proposed Warehouse Facility will be a distribution operation facility center for the products that the owning or leasing company wholesales to contractors and manufacturers with some 10 to 15 percent office space. The proposed site plan includes five (5) general warehouse/office buildings. The longest/largest of these will be Building E the northeast, approximately 1,205 feet long by 625 feet deep and the smallest, Building B will be in the west-central area, approximately 410 feet long by 365 feet deep. Spaces will be provided for up to 158 truck loading bays (79 facing north and 79 facing south) for the largest warehouse and 27 (facing north) for the smallest. The main entry road way (which will operate at a somewhat lesser speed and so dB-dB(A) level) will run from Route 9W northwestward across the parcel's southeastern acreage to access the warehouses in the parcel's northern and western acreage.

Several items of note will result from the proposed action:

1. The facility will occur on a rather large parcel (197.7 acres) of property. Distance always acts to ameliorate sound levels (see below).
2. The three warehouse/office buildings on the eastern side of the property will all have their truck loading bays on the WESTERN side of the buildings. Since those buildings will be 44 feet high (with a 4 foot "parapet" wall above the roof surface), they will act as barriers

to truck sound transmission to residences south of the site with the exception of the southeastern corner of Building D. See 5.0 Mitigation below.

3. Building D will have an employee, vehicle-only parking lot opposite and 25 northwest from Knoll Crest Road. See 5.0 Mitigation below.
4. The western side of the three warehouse/office buildings on the southern side of the property will all also have wetlands on their western side. These preserved green spaces eliminate commercial activity on the southern sides of these buildings and will also act to reduce sound transmission to residences south and east of the site. See 5.0 Mitigation below.
5. The longest warehouse/office building on the eastern side of the property will have 158 truck loading bays total. However, half, 79 will occur on the western side of the building. Since the building will be 44 feet high, it will act as barrier to some sound transmission to open space properties and (more distantly) residences northeast of the site.
6. However, this building will also have 79 truck bays on the eastern side of the building, opposite wooded/open space properties to the northeast. It will be some 500 plus feet from the northeastern boundary. The potential impact of the trucks associated with these truck bays is shown in Table 8 and is discussed below.
7. The facility may operate up to 24 hours a day.
8. The facility will include long-haul trucks and trailers. These equipment types have elevated exhaust systems (as opposed to smaller, box or delivery trucks).
9. It is assumed that all loading/unloading activities will occur at the loading bays and inside the warehouse buildings.
10. The facility plan will create a main driveway from Route 9W to the site along its southeastern corner and the driveway would be a combined ingress/egress (See site plans).
11. Regular, daily, truck noise resulting from the site's ingress/egress will occur in but it will also be 950 feet south of the closest eastern residences (which are also proximate to Route 9W).
12. However, the roadway will occur with 78 feet of the easterly property line (as currently planned) and so, will impact sound levels at that boundary (see below).
13. Conceptual mitigation proposals for the site's south-western and eastern property boundary locations are discussed below.

Operational sounds were subjected to an analysis as provided in the spreadsheet presented in Table 8 and 9. Table 8 "normalizes" the sound levels to dB(A) or weighted as the human ear would perceive them. Table 9 analyzes the sound levels in distinct octave bands at the closest receptor or boundary at what is expected to be the most "impacted" of locations. In general, the need for sound reduction with the newly-proposed site plan will be fulfilled by the distances involved and the "soft" mature" of the intervening ground/vegetative mix. However, some significant impacts would occur to east, and south. The need for mitigating measures is presented below.

Sound calculations were conducted to four analysis Points. Point 1 was to the closest residential property line south of the site, opposite Building D. Point 2 was the residential property line north of Moodna Creek. Point 3 was to the closest residence (an apartment building) northwest of Moodna Creek. Point 4A was to the closest property line east of the entry roadway. Point 4B was to the property line east of the site's largest proposed warehouse, Building C.

These calculations/results can be found in Tables 8 and 9[13]. The results discussed below include the mitigating measures described in Chapter 5 of this report.

At analysis locations 2, 3 and 4B, the proposed uses on site will meet the "normalized" the sound levels (as dB(A) or weighted as the human ear would perceive them) for the NYSDEC and FHWA standards. Locations 1 and 4A, when unmitigated, will not attain NYSDEC, FHWA and the Town "normalized" standard. When these locations are treated with sound mitigation as discussed in Chapter 5, these standards will be "attained[14]."

However, with the expected differential/delta between existing and proposed sound levels, Point 1 (the southern residential neighborhood's northernmost property line) would experience an 21.1 decibel (dB(A)) daytime increase and so, would exceed the NYSDEC's guidance for same. This would result from the moving trucks at the southeastern corner of the Building D and so, will require additional sound mitigation. The mitigation would drop this differential (at night) to 5.1 decibels (dB(A)). The same is true at Location 4A which will also exceed the NYSDEC's guidance of a 10 + decibel increase at the eastern property line. The mitigation would drop this differential (at night) to 5.3 decibels (dB(A)).

When the projected sounds are analyzed by octave bands (as provided in Town Code Chapter 158), Point 1 (the southern, Knoll Crest Road property boundary) would experience exceedances of the Town Code for same. In daytime, a level of 69.6 dB is calculated for the 1 kHz octave band (the "center" of human hearing) verses a daytime standard of 52.0 dB. In nighttime, a more substantial exceedances will occur. Point 1 will receive sound mitigation as a berm/sound fence combination described in Chapter 5.0 below. In that case, absolute exceedances would not occur with two minor exceptions. That is, (i) a level of 40.2 dB is calculated for the 2 kHz octave band verses a standard of 39 dB – a 1.2 dB exceedance (undetectable to the human ear) and (ii) a level of 20.8 dB is calculated for the 8 kHz octave band verses a standard of 20 dB, – a 0.8 dB exceedance (undetectable to the human ear).

When the projected sounds are analyzed by octave bands (as provided in Town Code Chapter 158), Point 4A (the northern property boundary) would experience several exceedances of the Town Code for same. In daytime, a level of 62.6 dB is calculated for the 1 kHz octave band verses a standard of 52.0 dB. In nighttime, a more substantial exceedances will occur in all but one octave band (at 125 Hz). For example, (i) a level of 62.6 dB is calculated for the 1 kHz octave band verses a standard of 47 dB, (ii) a level of 56.1 dB is calculated for the 2 kHz octave band verses a standard

[13] Michael P. Bontje of B. Laing Associates, Inc. is the principal author of this report. He has been practicing environmental science since 1980 (43 years) and sound/noise analysis for 35 years. His resume is attached. The basic methodology of sound/noise analysis includes determining highest potential sound source levels (and knowing the distance from the source of the initial measurements), then calculating its dissipation over distance (declining 6 dB(A) per doubling of distances – i.e., a Log_{10} dissipation of power) and adjusting this loss due to ground conditions, intervening structures (buildings mitigating barriers, etc.), off-angle dissipation, etc. Sound sources which at 10 d(A) or more in power levels (i.e., a 10 fold difference in power as stand-alone or sufficiently separated) are not additive to the higher level. These factors are built into B. Laing Associates, Inc's Excel calculation spreadsheet developed over 30 plus years of real-world experiences. Due to decades of real-life measurements and analytical experience, this methodology has consistently produced an environmentally-conservative result. Per Lanc Tully, E&S, P.C. – February 2, 20233 Item 19.

[14] With minor exceptions in several higher active bands but below audible thresholds.

of 39 dB, (iii) a level of 36.7 dB is calculated for the 8 kHz octave band verses a standard of 20 dB and (iv) a level of 69.9 dB is calculated for the 20 Hz octave band verses a standard of 67 dB.

Point 4A will require additional sound mitigation as described in Section 5. Point 4A will receive sound mitigation as a berm/sound fence combination described in Chapter 5.0 below. In that case, absolute exceedances would not occur with three minor nighttime exceptions. That is, (i) a level of 49 dB is calculated for the 2 kHz octave band verses a standard of 47 dB – a 2.0 dB exceedance (undetectable to the human ear), (ii) a level of 42.5 dB is calculated for the 2 kHz octave band verses a standard of 39 dB – a 3.5 dB exceedance (undetectable to the human ear[15]) and (iii) a level of 23.1 dB is calculated for the 8 kHz octave band verses a standard of 20 dB, – a 3.1 dB exceedance (undetectable to the human ear).

In many cases of sound analysis, "natural" methods of sound mitigation include soils, landscaping, etc. These are not credited in this analysis but they are in "play" and, to the west and south have a substantial effect. Every doubling of the distance from a sound source will result in a noticeable, 6 dB(A) reduction in the resultant sound level. On a smaller residential or commercial lot, this impact is often not very significant. In this case, however, the distances within the site are substantial (often measured in hundreds of feet) relative to the typical locations where sound source strengths are measured (4 to 32.8 feet from the source). Per NYSDEC's "Assessing and Mitigation Noise Policy," dense vegetation also plays a role in reducing sound levels. For every 100 feet of dense vegetation, it is likely that sound levels will be reduced 3 to 7 dB (and including reductions due to "ground effects" from natural/softened surfaces).

In this case, the distance these sounds will have to travel to approach Analysis Points 3 and 4b accounts for significant reductions in the resultant, sound impacts. On the project's northern side, the closest *residential* building is some 900 feet west of the site's northern property line. Additionally, the area in between is wooded and undevelopable open space. On the project's southern side, the closest residential roadway property line is much closer to the site's southwestern property line, but the area in between is thickly vegetated wetlands and so, undevelopable open space[16]. However, mitigation will be necessary (as discussed in Chapter 5.0 below) to achieve the NYSDEC's differential and Town's absolute standards at the property line. On the Project's eastern side - Location 4A, the residences also are substantially set back from the property line, but mitigation will be necessary (as discussed in Chapter 5.0 below) to achieve the NYSDEC's differential and Town's absolute standards at the property line.

In winter, all trucks that are being readied to leave the facility are to be plugged in to electrical outlets to keep the engines warm overnight. The engines are turned on and idled for up to 5 minutes. Each truck cannot idle for more than 5 minutes. This is due to (a) the trucks are usually equipped with an idling timer that can be set to turn off at the three-minute mark, (b) The trucks are all plugged in and kept warm in winter conditions, and (c) NY State regulations prohibit truck idling for more than 5 minutes (Title, 6 NYCRR, Subpart 217-3).

[15] Per NYSDEC-based Table 4.

[16] Per listed items 2 and 2 above, these locations will have all truck facilities located on the northern side of these smaller warehouses. Thus, the 44-foot-high warehouse building will act as an operational sound/noise barrier for truck sounds.

It has been noted that two wildlife species of concern, the bald eagle (*Haliaeetus leucocephalus*) and least bittern (*Ixobrychus exilis*) have nesting habitats along the Hudson River, in proximity to Moodna Creeks' confluence with same. They have been roughly located some 0.75 and 0.33 miles from the closest approach of the property boundary. In both cases, these species' habitats are 33% closer to and east of the heavily traveled NYS Route 9W. The peak measured sound levels provide above in Table 6 are between 76 and 78 dB(A). Further, both species' nesting habitats occur 0.20 and 0.15 miles from the closest approach of the active, CSX west-of-Hudson freight railroad line. Passing locomotives are emitting sound levels between 80 and 85 dB(A) and passing freight cars are emitting sound levels between 75 and 80 dB(A)[17] [at grade – they are even louder crossing the nearby bridge]. Given the fact that the highest operational sound level at the property's eastern boundary (analysis Point 4A) is calculated at 65 dB(A) and the habitats are a minimum of 0.33 miles from that point with NYS Route 9W and the CSX railway intervening and substantially closer, no increase in sound levels as a result of the project is expected[18].

[17] Handbook of Acoustical Measurements and Sound Control, Harris, C.M.

[18] This analysis assumes no significant topographic changes in the vicinity of these species' nesting sites. The actual topography is quite varied and so, would further reduce the sound levels from the site (and Route 9W and railroad line) at these locations.

TABLE 8 - Sound Propagation - Impact Screening dB(A)

PROPOSED WAREHOUSE FACILITY - ROUTE 9W, CORNWALL, NY

SOUND PROPAGATION - IMPACT SCREENING

(rev. 01-17-2023)

SOURCE																
	Distance (feet):	32	64		128	256	512		1024							
Vehicles (approx. 20 mph)	Level(dB(A)):	59	53		47	41	35		29							
	Distance (feet):	32	64		128	256	512		1024							
Trucks - Idling*	Level(dB(A)):	67	61		55	49	43		37							
	Distance (feet):	32	64		128	256	512		1024							
Trucks - Forward/level at grade	Level(dB(A)):	72	66		60	54	48		42							
Back-up Beepers*	Distance:	4	8		16	32	64		128	256		512	1024			
Without Reflection:	Level(dB(A)):	87	81		75	69	63		57	51		45	39			
With Reflection:		90	84		78	72	66		60	54		48	42			
	Distance (feet):	10	20		40	80	160		320	640		1280				
Rooftop HVAC (4 units -w barrier)	Level(dB(A)):	86	86		80	74	62		56	50		44				
		Rooftop														

RECEPTORS	Existing Day	Existing Night	Moving Veh's	Moving Trucks	Delta-Day	Delta-Night	Backup Beepers	Delta-Day	Delta-Night	Rooftop HVAC	Delta-Day	Delta-Night	Standards - Chapter 158 Day/Night	DEC-FHWA
Point #1 South Residential Property Line (Closest Approach)	**50.8**	**43.9**	60	72	21.2	28.1	70	19.2	26.1	38	-12.8	-5.9	60.6/55.4	65 -67
Point #2 Northwest Residential Property Line	**50.8**	**43.9**	38	51	0.2	7.1	48	-2.8	4.1	55	4.2	11.1	60.6/55.4	65 -67
Point #3 Northwest Apartment Complex - (Closest Approach)	**50.8**	**43.9**	32	45	-5.8	1.1	45	-5.8	1.1	49	-1.8	5.1	60.6/55.4	65 -67
Point #4A Eastern Ppty Line Entry Rd Closest Approach (at 78 feet)	**50.8**	**43.9**	53	65	14.2	21.1	NA	NA	NA	NA	NA	NA	60.6/55.4	65 -67
Point #4B Eastern Ppty Line NE Bldg C Approach (at 525 feet)	**50.8**	**43.9**	35	47	-3.8	3.1	48	-2.8	4.1	52	1.2	8.1	60.6/55.4	65 -67

RESULTS **WITH SOUND MITIGATION** FENCES (8') AND BERM/FENCE COMBINATIONS (12'), PARAPET WALLS (4') AND ABSORBING COVER (Truck Bays Only)***

RECEPTORS	Existing Day	Existing Night	Moving Veh's	Moving Trucks	Delta-Day	Delta-Night	Backup Bepers	Delta-Day	Delta-Night	Rooftop HVAC	Delta-Day	Delta-Night	Standards - Chapter 158 Day/Night	DEC-FHWA
Point #1 South Residential Property Line (Closest Approach)	**50.8**	**43.9**	47	49	-1.8	5.1	47	-3.8	3.1	32	-18.8	-11.9	60.6/55.4	65 -67
Point #2 Northwest Residential Property Line	**50.8**	**43.9**	38	51	0.2	7.1	48	-2.8	4.1	49	-1.8	5.1	60.6/55.4	65 -67
Point #3 Northwest Apartment Complex - (Closest Approach)	**50.8**	**43.9**	32	45	-5.8	1.1	45	-5.8	1.1	43	-7.8	-0.9	60.6/55.4	65 -67
Point #4A Eastern Ppty Line Entry Rd Closest Approach (at 78 feet)	**50.8**	**43.9**	40	49.2	-1.6	5.3	NA	NA	NA	NA	NA	NA	60.6/55.4	65 -67
Point #4B Eastern Ppty Line NE Bldg C Approach (at 525 feet)	**50.8**	**43.9**	35	47	-3.8	3.1	48	-2.8	4.1	46	-4.8	2.1	60.6/55.4	65 -67

Notes: Distances in feet. Sound levels in decibels- A-weighted (dB(A), sources rounded up to next integer.

* Truck measurements from Oakland, NJ - Proximate to I 287.

*** Echo Barrier or equivilent at 12 feet high on exterior southern wall and around truckloading bays.

Results are calculated at the property line (unless indicated otherwise). Chapter 158 normailzed to dB(A); d(B) are calculated seperately.

Yellow cells = largest predicted increase in sound levels WITHOUT mitigation reductions.

Pink cells = exceeds Town standard.

Differential -13 dB(A) Truck Wall (no echo barrier) and 8 dB(A) sound fencel- barrier insertion calculations.

TTDCWL01 SOUND SCREENING NOVEMBER-DECEMBER 2022 PLAN - JANUARY 2023 REVISIONS

TABLE 9 - Sound Propagation - Impact Screening dB

TABLE 9A --TREETOP DEVELOPMENT PROPOSED WAREHOUSE FACILITY - CORNWALL, NY																
OCTAVE BAND	SOUND PROPAGATION - IMPACT SCREENING															
	(rev. 01-12-2023)															
SOURCE	Distance (feet):	32	64	128	256	512	1024									
Trucks - Forward/level at grade	Level(dB(A)):	72	66	60	54	48	42									
APPLICABLE LEVEL			Existing		Moving Trucks	Delta										
Point #1 South Residential Property Line (Closest Approach)		Day	50.8		**72**	21.2	dB(A)	**Without Mitigation**								
Without Mitigation		Night	43.9		**72**	28.1	dB(A)	**Sound Fence*** **								
	Moving Truck Data: *	64	dB(A)									Chapter 158	Chapter 158			
			Day		**Without**							DAY	NIGHT			
Octave Band		Source -Unweighted**			Sound Fence***			Proposed				Unweighted	Unweighted			
20Hz		68.9	76.9	dB	0			**76.9**	dB			72	67	dB		
70 Hz		67.2	75.2	dB	0			**75.2**	dB			72	67	dB		
125 Hz		61.2	69.2	dB	0			**69.2**	dB			71	66	dB		
250 Hz		60.4	68.4	dB	0			**68.4**	dB			66	61	dB		
500 Hz		59.2	67.2	dB	0			**67.2**	dB			59	54	dB		
1 kHz		61.6	69.6	dB	0			**69.6**	dB			52	47	dB		
2 kHz		55.1	63.1	dB	0			**63.1**	dB			44	39	dB		
4 kHz		40.9	48.9	dB	0			**48.9**	dB			34	29	dB		
8 kHz		35.7	43.7	dB	0			**43.7**	dB			25	20	dB		
APPLICABLE LEVEL			Existing		Moving Trucks	Delta										
Point #1 South Residential Property Line (Closest Approach)		Day	50.8		**72**	21.2	dB(A)									
With Mitigation		Night	43.9		**72**	28.1	dB(A)									
	Moving Truck Data: *	64	dB(A)									Chapter 158	Chapter 158			
			Day		**Mitigation**							DAY	NIGHT			NIGHT
Octave Band		Source -Unweighted**			**Sound Fence*** **			Proposed				Unweighted	Unweighted			Delta
20Hz		68.9	76.9	dB	22.9			**54.0**	dB			72	67	dB		-13.0
70 Hz		67.2	75.2	dB	22.9			**52.3**	dB			72	67	dB		-14.7
125 Hz		61.2	69.2	dB	22.9			**46.3**	dB			71	66	dB		-19.7
250 Hz		60.4	68.4	dB	22.9			**45.5**	dB			66	61	dB		-15.5
500 Hz		59.2	67.2	dB	22.9			**44.3**	dB			59	54	dB		-9.7
1 kHz		61.6	69.6	dB	22.9			**46.7**	dB			52	47	dB		-0.3
2 kHz		55.1	63.1	dB	22.9			**40.2**	dB			44	39	dB		1.2
4 kHz		40.9	48.9	dB	22.9			**26.0**	dB			34	29	dB		-3.0
8 kHz		35.7	43.7	dB	22.9			**20.8**	dB			25	20	dB		0.8
Notes: Distances in feet. Sound levels in decibels, sources rounded up to next integer.																
* Truck measurements from Oakland, NJ - Proximate to I287.			** 8' Fence at east side of parking lot.				Pink cells = exceedance of Town standards.									
TTDCWL01 SOUND SCREENING JANUARY 2023 OCTAVE BAND DB ONLY			*** 4' berm+8' fence NE Corner - Building D.				Yellow = Highest increases.									

TABLE 9B --TREETOP DEVELOPMENT PROPOSED WAREHOUSE FACILITY - CORNWALL, NY																
OCTAVE BAND	**SOUND PROPAGATION - IMPACT SCREENING**															
	(rev. 01-12-2023)															
SOURCE	Distance (feet):	32	64	128	256	512	1024									
Trucks - Forward/level at grade	Level(dB(A)):	72	66	60	54	48	42									
APPLICABLE LEVEL			Existing		Moving Trucks	Delta										
Point #4 **Southeastern** Property Line (Closest Approach)		Day	50.8		**65**	14.2	dB(A)	**No** Boundary								
		Night	43.9		**65**	21.1	dB(A)	Sound Fence***								
	Moving Truck Data: *	64	dB(A)								Chapter 158	Chapter 158				
			Day		**No** Boundary						DAY	NIGHT				
Octave Band		Source -Unweighted**	65	dB(A)	Sound Fence***			Proposed			Unweighted	Unweighted				
20Hz		68.9	69.9	dB	0			**69.9**	dB		72	67	dB			
70 Hz		67.2	68.2	dB	0			**68.2**	dB		72	67	dB			
125 Hz		61.2	62.2	dB	0			**62.2**	dB		71	66	dB			
250 Hz		60.4	61.4	dB	0			**61.4**	dB		66	61	dB			
500 Hz		59.2	60.2	dB	0			**60.2**	dB		59	54	dB			
1 kHz		61.6	62.6	dB	0			**62.6**	dB		52	47	dB			
2 kHz		55.1	56.1	dB	0			**56.1**	dB		44	39	dB			
4 kHz		40.9	41.9	dB	0			**41.9**	dB		34	29	dB			
8 kHz		35.7	36.7	dB	0			**36.7**	dB		25	20	dB			
APPLICABLE LEVEL			Existing		Moving Trucks	Delta										
Point #4 **Southeastern** Property Line (closest Approach)		Day	50.8		**65**	14.2	dB(A)									
With Mitigation		Night	43.9		**65**	21.1	dB(A)									
	Moving Truck Data: *	64	dB(A)								Chapter 158	Chapter 158				
			Day		**Mitigation**						DAY	NIGHT				NIGHT
Octave Band		Source -Unweighted**			**Sound Fence***			Proposed			Unweighted	Unweighted				Delta
20Hz		68.9	69.9	dB	13.6			**56.3**	dB		72	67	dB			-10.7
70 Hz		67.2	68.2	dB	13.6			**54.6**	dB		72	67	dB			-12.4
125 Hz		61.2	62.2	dB	13.6			**48.6**	dB		71	66	dB			-17.4
250 Hz		60.4	61.4	dB	13.6			**47.8**	dB		66	61	dB			-13.2
500 Hz		59.2	60.2	dB	13.6			**46.6**	dB		59	54	dB			-7.4
1 kHz		61.6	62.6	dB	13.6			**49.0**	dB		52	47	dB			2.0
2 kHz		55.1	56.1	dB	13.6			**42.5**	dB		44	39	dB			3.5
4 kHz		40.9	41.9	dB	13.6			**28.3**	dB		34	29	dB			-0.7
8 kHz		35.7	36.7	dB	13.6			**23.1**	dB		25	20	dB			3.1
Notes: Distances in feet. Sound levels in decibels, sources rounded up to next integer.																
* Truck measurements from Oakland, NJ - Proximate to I287.			** At Property Line.				Pink cells = exceedance of Town standards.									
TTDCWL01 SOUND SCREENING SEPTEMBER 2022 OCTAVE BAND DB ONLY			*** As currently proposed.				Yellow = Highest increases.									

4.0 CONSTRUCTION

4.1 Construction Noise Analysis

Per the Town of Cornwall, Chapter 101-2, no construction or demolition related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday. No construction activities will occur on site during these times.

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 noise levels for development 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, Table 2.2-measured at 50 feet). Per the Construction Chapter in the DEIS, the proposed construction schedule includes several phases spanning a period of several years from notice to proceed (NTP) to completion once all permits and approvals are granted. In a typical construction schedule, 3 to 5 months of outdoor equipment operations would occur for each building.

The noise generated during construction is due mainly (in terms of numbers operating units) 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 can be found in *Assessing and Mitigating Noise Impacts* (October 6, 2000 revised February 2, 2001). See Tables 10 and 11 below[19].

TABLE 10
Projected Noise Levels – Construction Equipment

Noise 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)

Source: The Aggregate Handbook, 1991

[19] The equipment listed in Tables 10 and 11 are not guaranteed to be used in the proposed action but are representative of equipment anticipated to be used.

TABLE 11 Common Equipment Sound Levels		
Equipment	Decibel Level dB(A)	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)		

Elevated sound levels during excavation, building foundation and shell plus site work will include both mobile and stationary sources. As an example, these sources could include 2 excavators (Liebherr R 934 C Litronic), a front end loader (Caterpillar 980H), a Lattice crane (Liebherr HS 855 HD Litronic) and a generator (Terex T360 Generator)[20].

In this example, at 50' from the source, if the construction equipment were simultaneously operating and in proximity to each other, the resultant dB(A) would total 73 dB(A) at 200 feet (see below for computations). The difference first between the two lowest sound pressure levels is calculated, and that result is added to the next highest source.

Generator 72 dB(A) + Loader 79 dB(A) = 80 dB(A)

80 dB(A) + Excavator 81 dB(A) = 84 dB(A)

84 dB(A) +Excavator 81 dB(A) = 86 dB(A)

86 dB(A) +Crane 81 dB(A) = 87 dB(A)

[20] With greater and greater frequency, construction site electric hookups and outdoor outlets are provided early in the construction process (as it begins) and this eliminates the need for most generators.

At 50 feet from the source, a level of 87 dB(A) is quantified. At each doubling of a distance a level drop of 6 dB(A) will occur. Thus, at 100 feet sound level will reduce to 81 dB(A) and at 200 feet to 75 dB(A).

The sound/noise levels during site construction in the Town of Cornwall are controlled not by decibel levels but by hours of occurrence. Per the Town of Cornwall, Chapter 101-2, no construction or demolition [blasting] related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday. No construction activities will occur on site during these times. It is often the practice of municipalities to limit Cushion blasting activities further as a mitigating measure (i.e., 7:00[21] or 8:00 a.m. to 6:00 or 7:00[22] p.m.).

However, an analysis of pneumatic equipment meant for rock drilling and subsequent blasting was conducted based on normal dispersion of sound on recent B. Laing Associates, Inc. measurements on a site in Hudson Valley, New York.[23] A complete analysis of same is an addendum attached to this report.

Once "rough grading" has been finalized and foundations have been poured, peak upper sound levels will decline as the construction uses tools which are (1) smaller, (2) less continuous in use and (3) begin to move "indoors." At the second phase of construction, heavy equipment is generally replaced by internal work and hand-equipment on external work until landscaping.

The Project Site covers a large area. The actual sound levels which will be experienced by existing off-site residential uses surrounding the site will be a function of distance, the equipment in operation at any given time, and the speed at which the equipment engines are operating. As such, there is no one single sound level that will occur during construction, and no one existing residential use will be exposed to the same sound levels over a period of time, as construction progresses through the site. The construction noise levels described above are assumed for people outside. A building or house will provide significant attenuation for those who are indoors. Sound levels can be expected to be up to 27 dB(A) lower indoors with the windows closed. Even in homes with the windows open, indoor sound levels can be reduced by up to 17 dB(A) (USEPA 1978).

Again, per the Town of Cornwall, Chapter 101-2, construction noise is controlled by restricting construction hours. As above, these restricted hours will be observed.

[21] 2006 New York City Code - Blasting.
[22] IBID.
[23] Per Lanc Tully,E&S, P.C. – February 2, 20233 Item 22.

5.0 MITIGATION

5.1 Mitigation Measures

5.1.1 Operational

The facility will occur on a rather large parcel (197.7 acres) of property. Distance always acts to ameliorate sound levels (see above).

The three warehouse/office buildings on the southwestern side of the property (Buildings B, D and E) will all have their truck loading bays on the northeastern side of the buildings. Since those buildings will be 44 feet high, they will act as barriers to sound transmission to residences southwestern of the site, with the exception of the southeastern corner of Building D (which will be mitigated as described below). Buildings B and D will have employee vehicle-only parking on their southern sides which will be mitigated by sound fencing described below. The western side of the three warehouse/office buildings on the southwestern side of the property will all have wetlands on their southwestern sides. These preserved green spaces eliminate the possibility of commercial activity on the southwestern sides of these buildings and will also act to reduce sound transmission to residences south and southwest of the site.

The longest/largest of these will be Building E the northeast, approximately 1,205 feet long by 625 feet deep. Spaces will be provided for up to 158 truck loading bays; 79 facing northeast - mitigated by a 500 foot plus separation from the northeastern property boundary and 79 facing southwest (a mitigating feature in itself) for the largest warehouse.

The facility plan will create a main driveway from Route 9W to the site along its southeastern corner and the driveway would be a combined ingress/egress (See site plans). Thus, regular, daily, truck noise resulting from the site's vehicular ingress/egress will occur on the northerly boundary. The roadway will occur with 78 feet of the northerly property line and so, will impact sound levels at that boundary but will also be mitigated by a berm/sound fence combination described below.

The analysis revealed that several significant noise impacts would occur as a result of the proposed project. The measures necessary to mitigate these potential impacts will include:

- The construction of a sound wall fence on the southern and western sides of Vehicle only parking located south of Buildings B and D.
- The construction of 4 foot high berm/8 foot high fence sound barrier combination (for total height of 12 feet) from the southeastern corner of Building D (approximately 240 feet long). The mitigation will add echo barrier padding (or equivalent) to the interior/north-face upper edge of the fence.
- Move the secondary entry/exit for truck traffic on Building D's eastern side so that it is 300 feet north of the southeastern property boundary where it abuts Knoll Crest Road and close off Building D's southerly entry/exit for truck traffic. Allow vehicular access only.
- Include sound-absorbent padding around Building A's southern truck loading bays plus Building C's D's, and E's eastern truck loading bays.

- A 4 foot high “parapet” wall will extend above all buildings’ roof levels (40 feet) and surround HVAC equipment to be located there to reduce the transmission of sounds from these units.
- Move the main, northern entry road as westward as possible (and in consideration of zoning setbacks).
- Add a 4 foot high berm/8 foot high fence sound barrier combination (for a total height of 12 feet) to the east of the northern entry roadway (after it is moved southward). This would extend northwestward to survey station 13+00.
- Monitor the site just before, during and following construction to ensure compliance.

APPENDIX A

Sound Measurement Reports

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

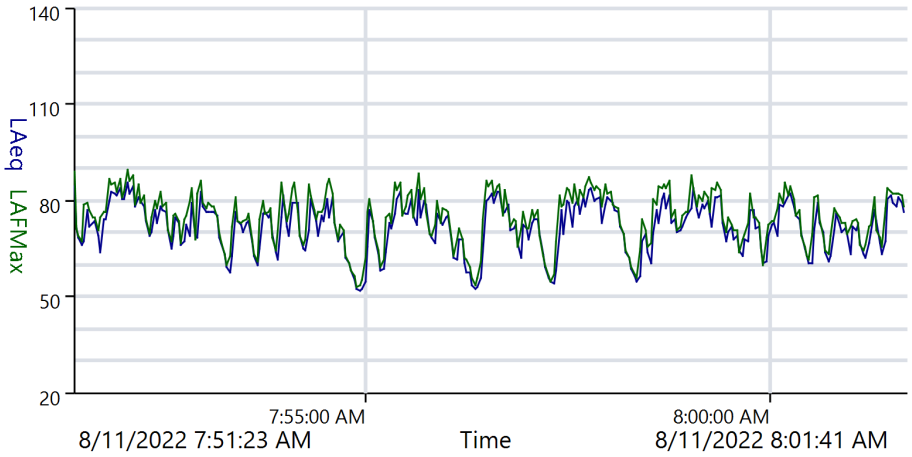
Name	162			
Time	8/11/2022 7:51:23 AM	**Person**	**Place**	**Project**
Duration	00:10:18	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

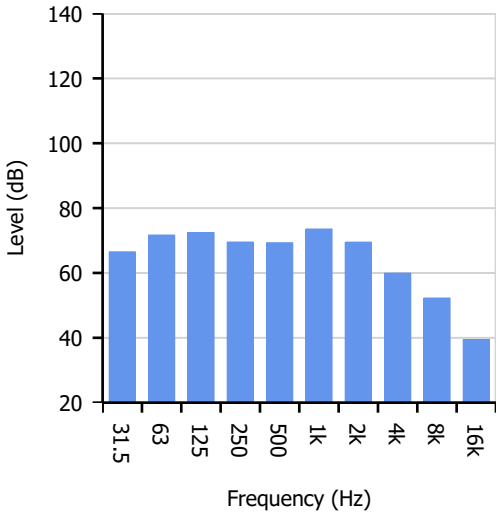
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	76.2 dB
LAE	104.1 dB
LAFMax	89.6 dB

Statistical Levels (Ln)	
LAF1	85.1 dB
LAF5	82.4 dB
LAF10	80.6 dB
LAF50	71.8 dB
LAF90	59.9 dB
LAF95	56.6 dB
LAF99	52.3 dB





Notes

Sample Loc 1: AM peak sample; 75 deg. F; 100% cloud cover; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

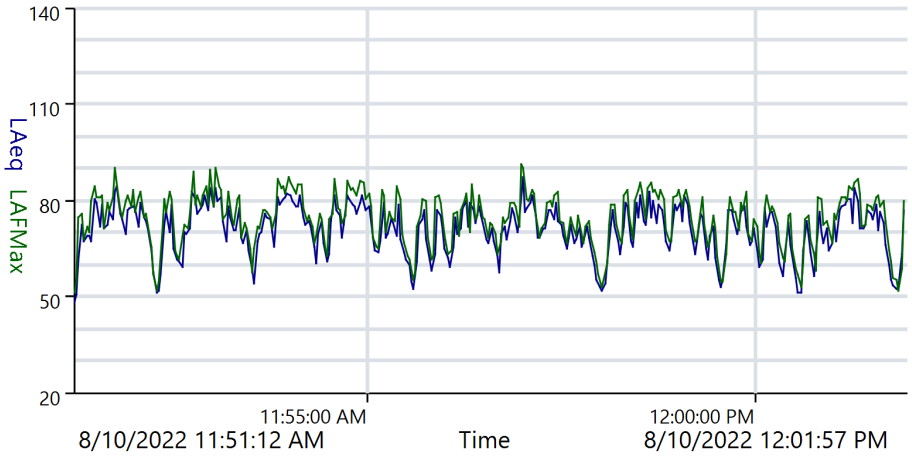
Name	154			
Time	8/10/2022 11:51:12 AM	**Person**	**Place**	**Project**
Duration	00:10:45	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

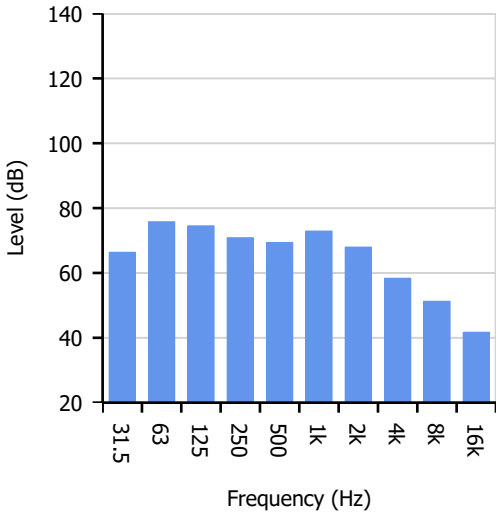
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	75.4 dB
LAE	103.5 dB
LAFMax	91.1 dB

Statistical Levels (Ln)	
LAF1	85.1 dB
LAF5	81.5 dB
LAF10	79.4 dB
LAF50	71.1 dB
LAF90	58.4 dB
LAF95	54.1 dB
LAF99	50.7 dB





Notes

Sample Loc 1: Mid-day sample; 81 deg. F; partially cloudy; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

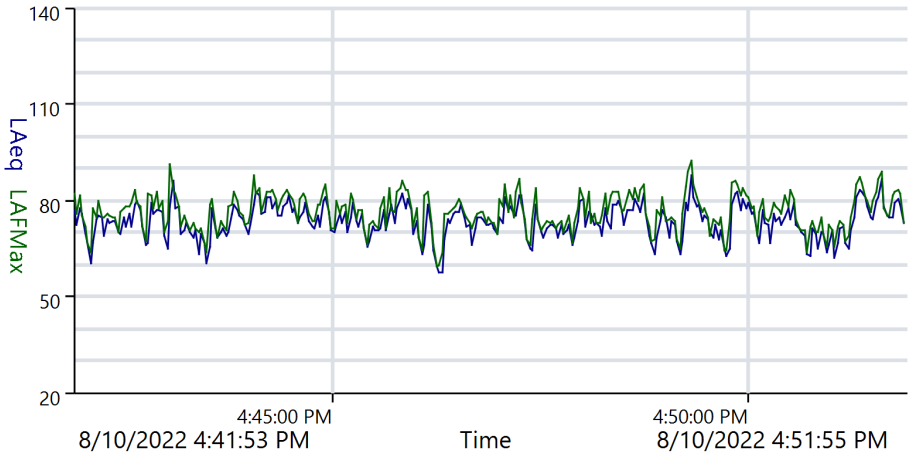
Name	158			
Time	8/10/2022 4:41:53 PM	**Person**	**Place**	**Project**
Duration	00:10:02	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

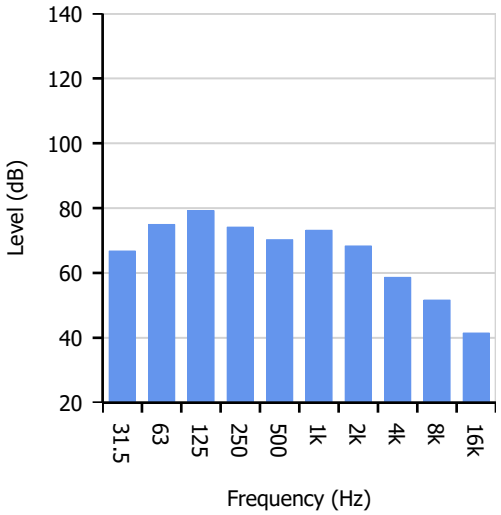
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	76.1 dB
LAE	103.9 dB
LAFMax	92.3 dB

Statistical Levels (Ln)	
LAF1	84.6 dB
LAF5	81.5 dB
LAF10	79.9 dB
LAF50	72.8 dB
LAF90	65.1 dB
LAF95	63.0 dB
LAF99	59.2 dB





Notes

Sample Loc 1: PM peak sample; 90 deg. F; mostly sunny; 5-8kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

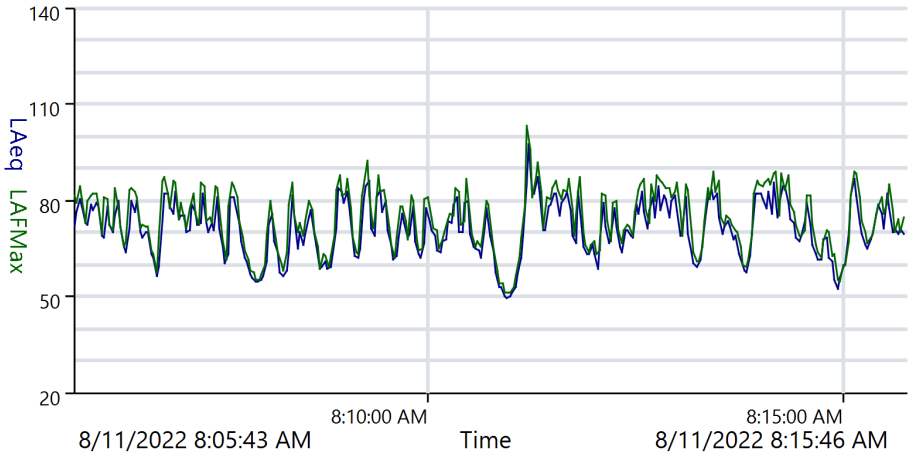
Name	163			
Time	8/11/2022 8:05:43 AM	**Person**	**Place**	**Project**
Duration	00:10:03	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

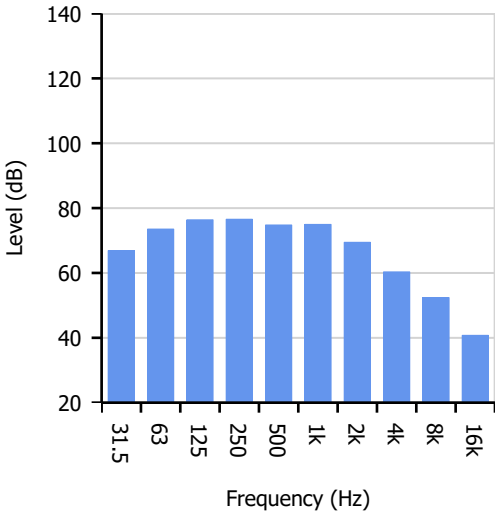
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	78.2 dB
LAE	106.0 dB
LAFMax	103.1 dB

Statistical Levels (Ln)	
LAF1	87.4 dB
LAF5	83.7 dB
LAF10	81.2 dB
LAF50	70.4 dB
LAF90	58.9 dB
LAF95	55.9 dB
LAF99	50.6 dB





Notes

Sample Loc 2: AM peak sample; 75 deg. F; 100% cloud cover; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

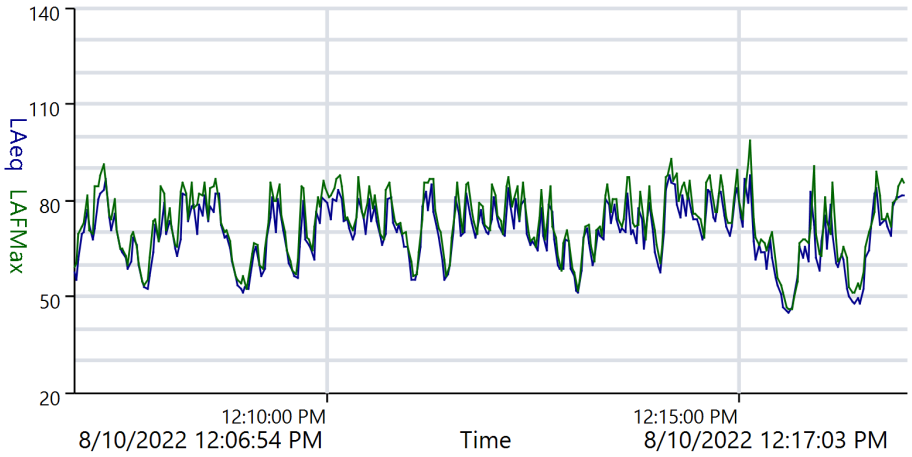
Name	155			
Time	8/10/2022 12:06:54 PM	**Person**	**Place**	**Project**
Duration	00:10:09	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

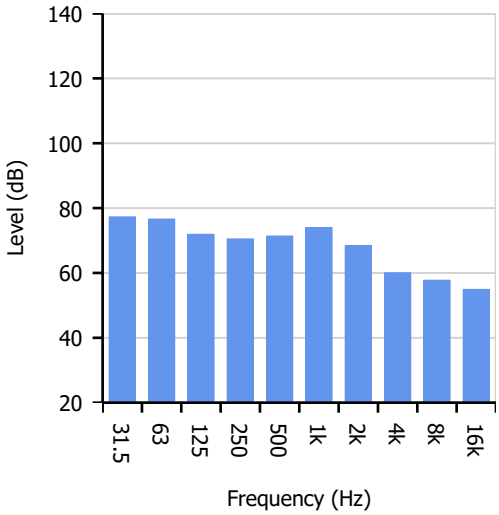
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	76.4 dB
LAE	104.3 dB
LAFMax	98.7 dB

Statistical Levels (Ln)	
LAF1	86.8 dB
LAF5	83.6 dB
LAF10	80.7 dB
LAF50	69.5 dB
LAF90	55.4 dB
LAF95	51.7 dB
LAF99	46.1 dB





Notes

Sample Loc 2: Mid-day sample; 81 deg. F; partially cloudy; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

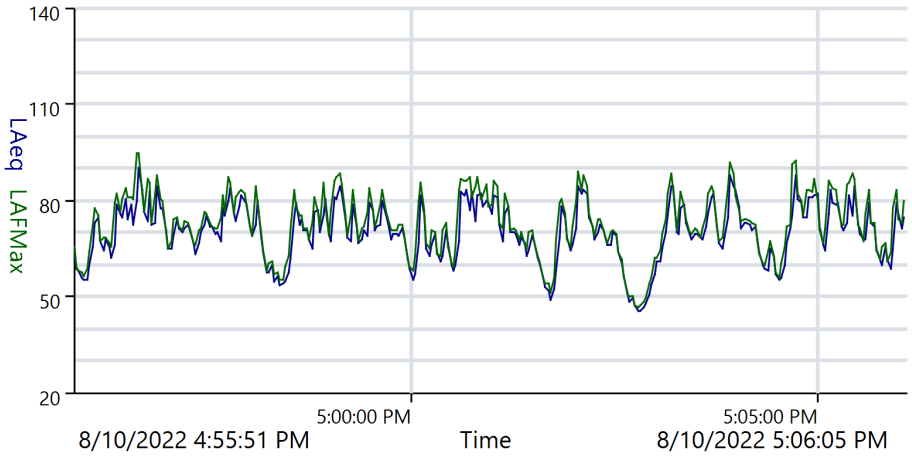
Name	159			
Time	8/10/2022 4:55:51 PM	**Person**	**Place**	**Project**
Duration	00:10:14	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

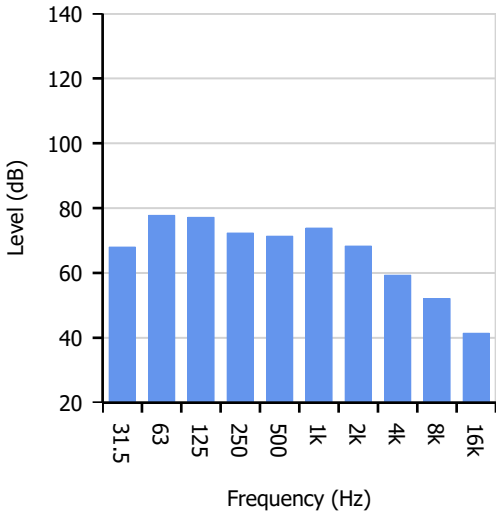
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	76.4 dB
LAE	104.3 dB
LAFMax	94.8 dB

Statistical Levels (Ln)	
LAF1	86.9 dB
LAF5	82.8 dB
LAF10	80.6 dB
LAF50	70.0 dB
LAF90	57.0 dB
LAF95	53.6 dB
LAF99	46.8 dB





Notes

Sample Loc 2: Mid-day sample; 90 deg. F; partially cloudy; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

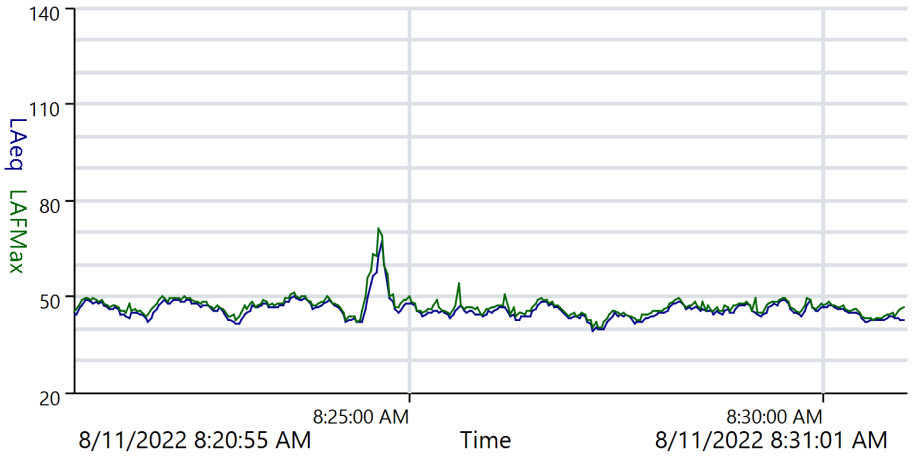
Name	164			
Time	8/11/2022 8:20:55 AM	**Person**	**Place**	**Project**
Duration	00:10:06	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

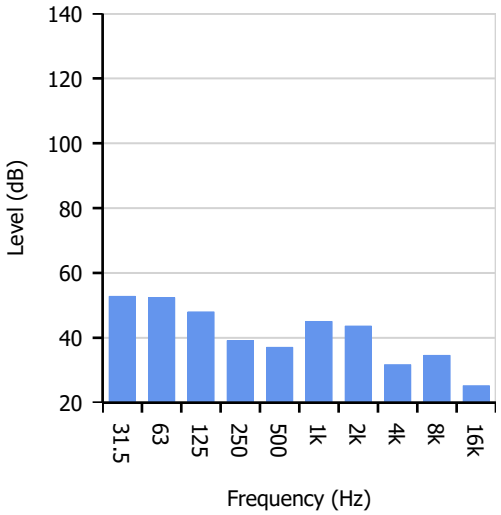
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	48.5 dB
LAE	76.3 dB
LAFMax	70.9 dB

Statistical Levels (Ln)	
LAF1	56.4 dB
LAF5	49.0 dB
LAF10	48.4 dB
LAF50	45.4 dB
LAF90	42.5 dB
LAF95	41.9 dB
LAF99	39.8 dB





Notes

Sample Loc 3: AM peak sample; 73 deg. F; 75% cloud cover; <3kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

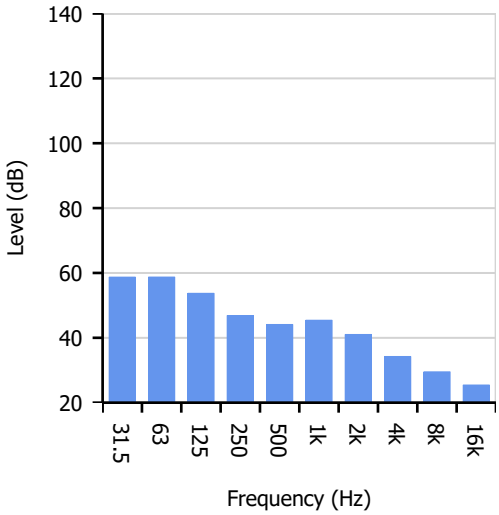
Name	156			
Time	8/10/2022 12:24:02 PM	**Person**	**Place**	**Project**
Duration	00:10:03	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	49.0 dB
LAE	76.8 dB
LAFMax	68.2 dB

Statistical Levels (Ln)	
LAF1	59.1 dB
LAF5	52.2 dB
LAF10	49.9 dB
LAF50	45.3 dB
LAF90	40.8 dB
LAF95	39.3 dB
LAF99	37.4 dB



Notes

Sample Loc 3: Mid-day sample; 81 deg. F; mostly cloudy; 5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

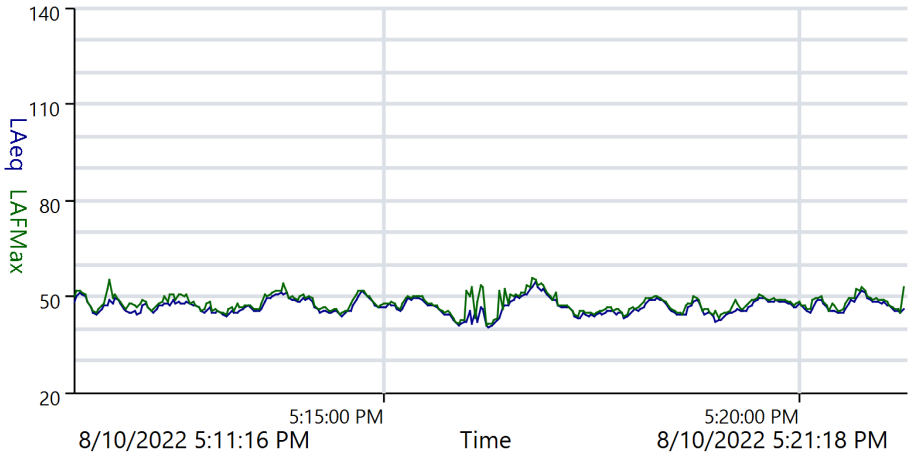
Name	160			
Time	8/10/2022 5:11:16 PM	**Person**	**Place**	**Project**
Duration	00:10:02	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

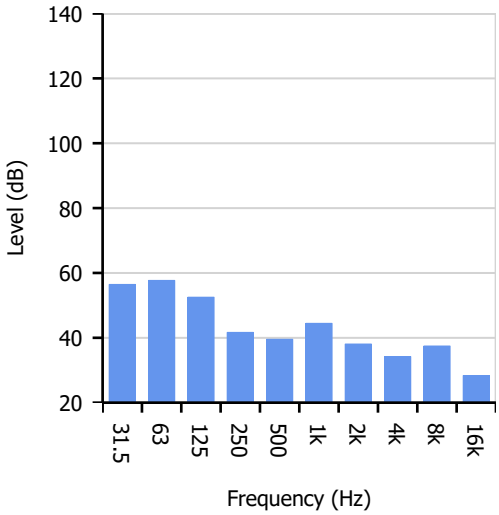
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	47.4 dB
LAE	75.2 dB
LAFMax	55.8 dB

Statistical Levels (Ln)	
LAF1	52.6 dB
LAF5	50.7 dB
LAF10	49.7 dB
LAF50	46.6 dB
LAF90	43.7 dB
LAF95	42.5 dB
LAF99	40.8 dB





Notes

Sample Loc 3: PM peak sample; 90 deg. F; mostly sunny; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

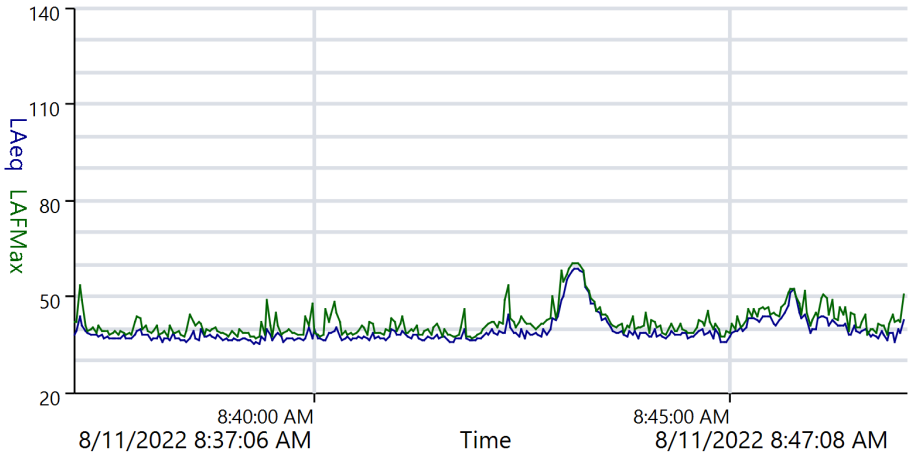
Name	165			
Time	8/11/2022 8:37:06 AM	**Person**	**Place**	**Project**
Duration	00:10:02	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

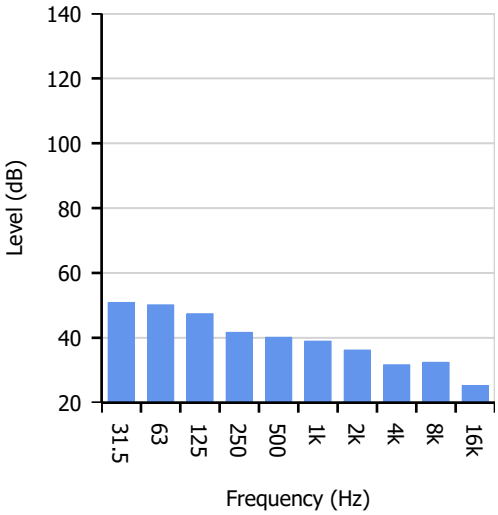
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	43.9 dB
LAE	71.7 dB
LAFMax	60.6 dB

Statistical Levels (Ln)	
LAF1	57.8 dB
LAF5	47.7 dB
LAF10	43.3 dB
LAF50	37.6 dB
LAF90	35.9 dB
LAF95	35.6 dB
LAF99	35.0 dB





Notes

Sample Loc 4: AM peak sample; 73 deg. F; 75% cloud cover; no wind

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

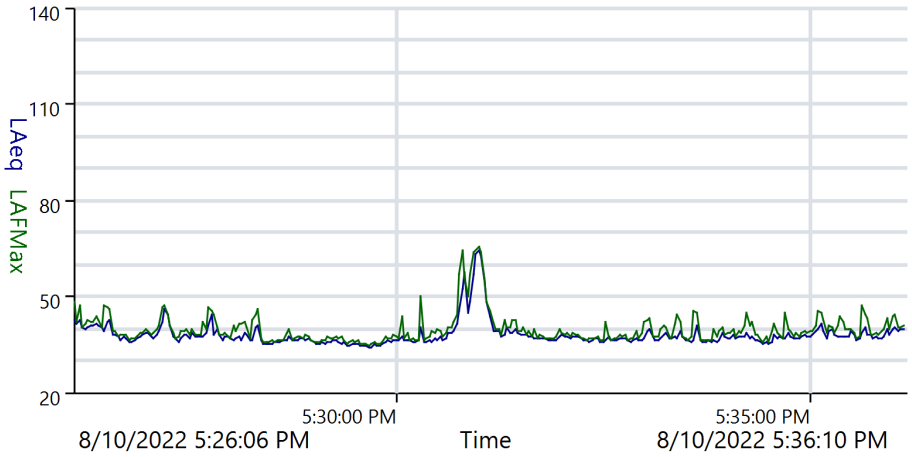
Name	161			
Time	8/10/2022 5:26:06 PM	**Person**	**Place**	**Project**
Duration	00:10:04	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

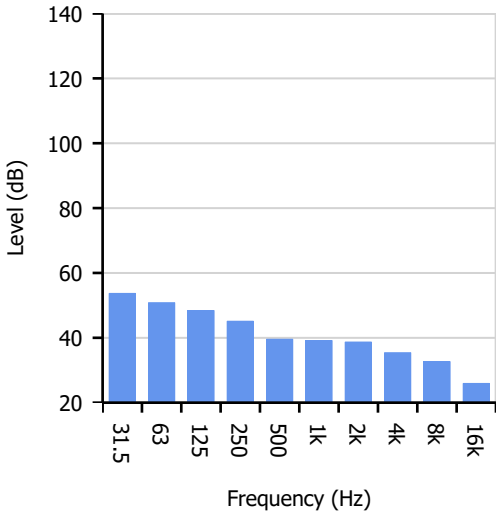
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	45.2 dB
LAE	73.0 dB
LAFMax	65.5 dB

Statistical Levels (Ln)	
LAF1	60.0 dB
LAF5	43.7 dB
LAF10	40.5 dB
LAF50	36.8 dB
LAF90	35.4 dB
LAF95	35.0 dB
LAF99	34.3 dB





Notes

Sample Loc 4: PM peak sample; 90 deg. F; mostly sunny; <5kt winds

ReportId

Cirrus Research plc

B. LAING ASSOCIATES
103 Fort Salonga Road - Suite 5
Fort Salonga, NY 11768

Measurement Summary Report

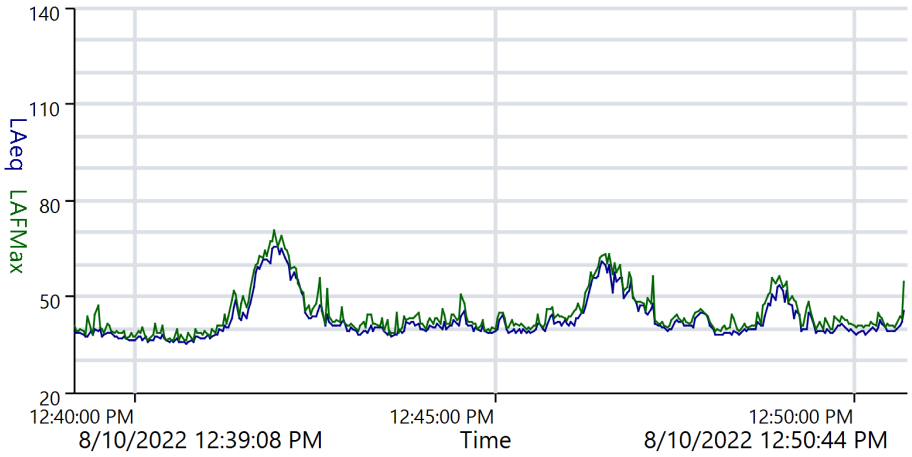
Name	157			
Time	8/10/2022 12:39:08 PM	**Person**	**Place**	**Project**
Duration	00:11:36	Taylor Sturm		TTDCWL01 -
Instrument	G301840, CR:171A			

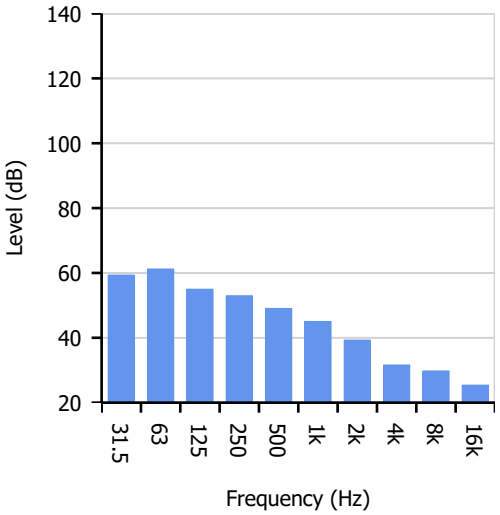
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	50.8 dB
LAE	79.2 dB
LAFMax	70.5 dB

Statistical Levels (Ln)	
LAF1	63.7 dB
LAF5	58.0 dB
LAF10	52.4 dB
LAF50	40.2 dB
LAF90	37.1 dB
LAF95	36.1 dB
LAF99	35.3 dB





Notes

Sample Loc 4: Mid-day sample; 81 deg. F; mostly cloudy; <3kt winds

ReportId

Cirrus Research plc

Measurement Summary Report

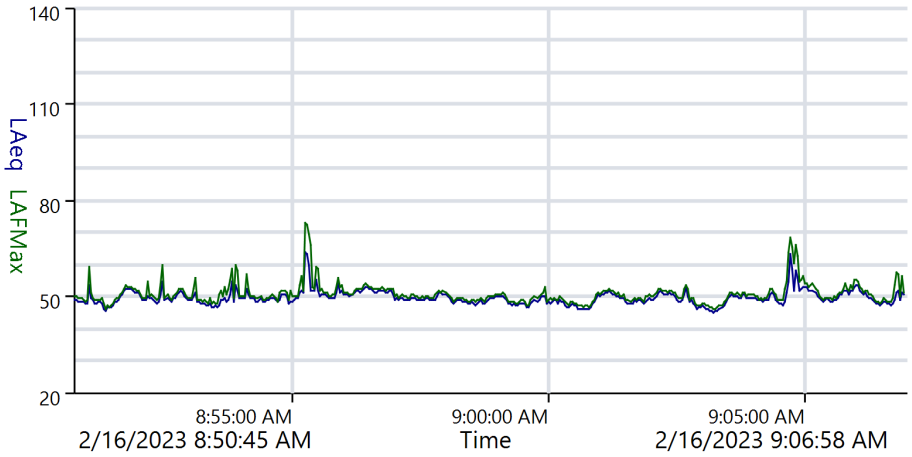
Name	252			
Time	2/16/2023 8:50:45 AM	**Person**	**Place**	**Project**
Duration	00:16:13	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

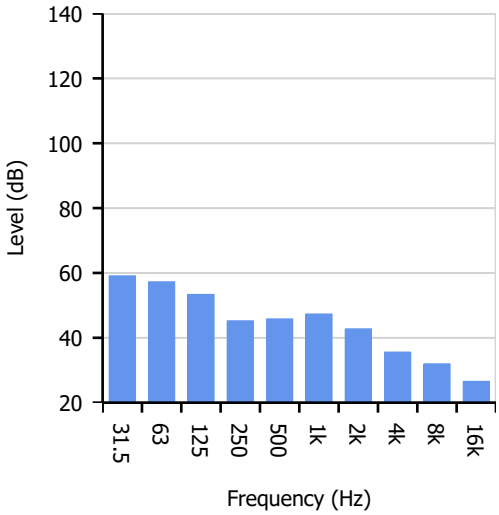
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	50.5 dB
LAE	80.4 dB
LAFMax	72.8 dB

Statistical Levels (Ln)	
LAF1	56.2 dB
LAF5	52.4 dB
LAF10	51.7 dB
LAF50	49.1 dB
LAF90	47.1 dB
LAF95	46.4 dB
LAF99	45.2 dB





Notes

TTDCWL01 - North property line, opposite the home with the large field further west - AM Peak

ReportId

Cirrus Research plc

Measurement Summary Report

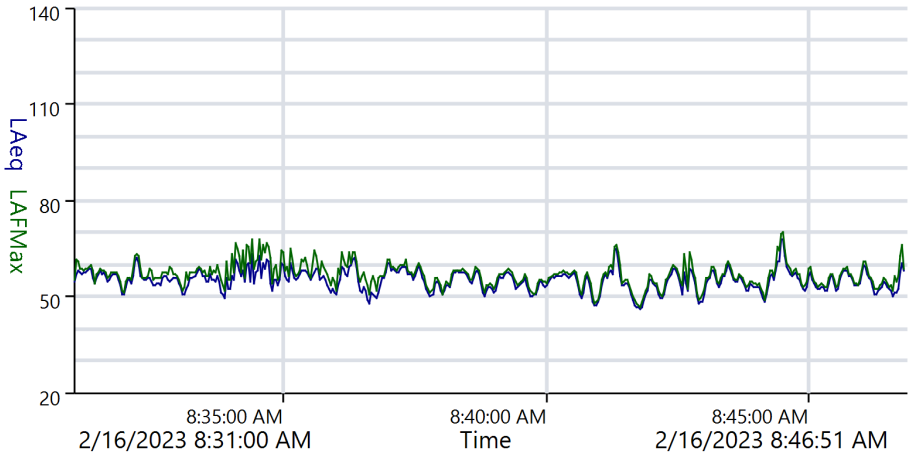
Name	251			
Time	2/16/2023 8:31:00 AM	**Person**	**Place**	**Project**
Duration	00:15:51	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

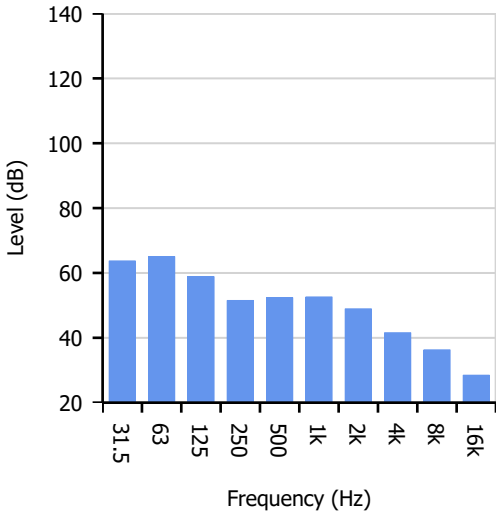
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	56.3 dB
LAE	86.1 dB
LAFMax	70.3 dB

Statistical Levels (Ln)	
LAF1	64.5 dB
LAF5	60.0 dB
LAF10	58.5 dB
LAF50	55.0 dB
LAF90	50.4 dB
LAF95	49.1 dB
LAF99	46.7 dB





Notes

TTDCWL01 - North property boundary, offset - AM Peak

ReportId

Cirrus Research plc

Measurement Summary Report

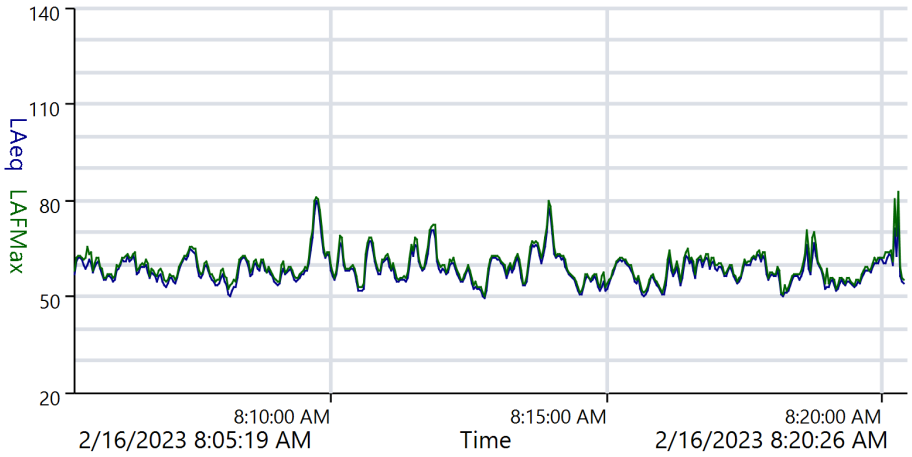
Name	250			
Time	2/16/2023 8:05:19 AM	**Person**	**Place**	**Project**
Duration	00:15:08	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

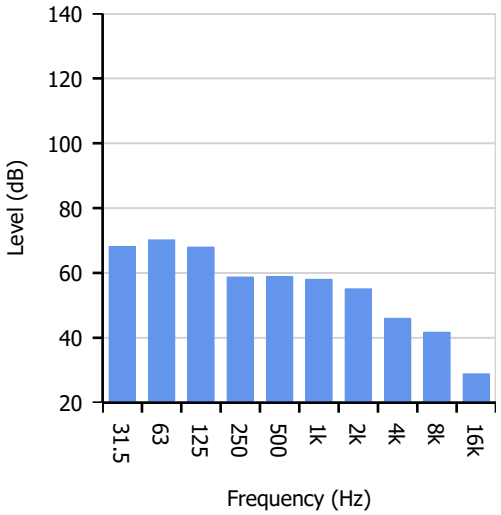
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	62.4 dB
LAE	92.0 dB
LAFMax	82.7 dB

Statistical Levels (Ln)	
LAF1	74.5 dB
LAF5	65.7 dB
LAF10	62.7 dB
LAF50	57.7 dB
LAF90	52.8 dB
LAF95	51.6 dB
LAF99	49.9 dB





Notes

TTDCWL01 - Route 9W - North Property Line - AM Peak

ReportId

Cirrus Research plc

Measurement Summary Report

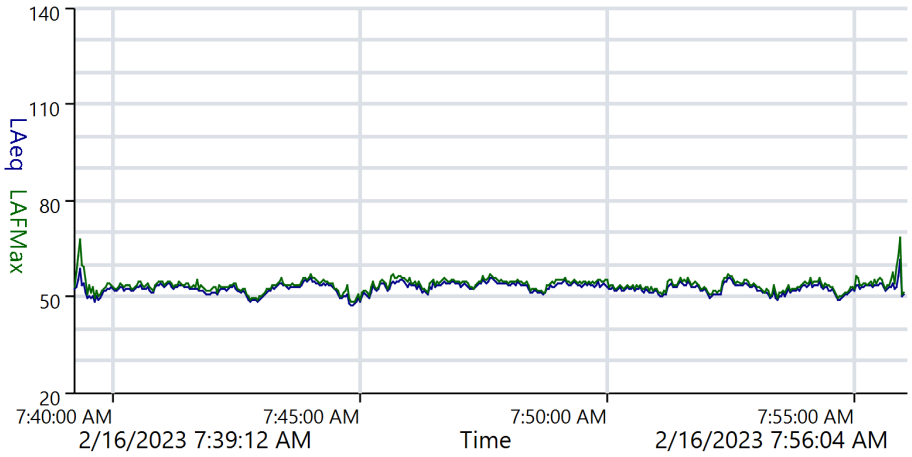
Name	249			
Time	2/16/2023 7:39:12 AM	**Person**	**Place**	**Project**
Duration	00:16:52	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

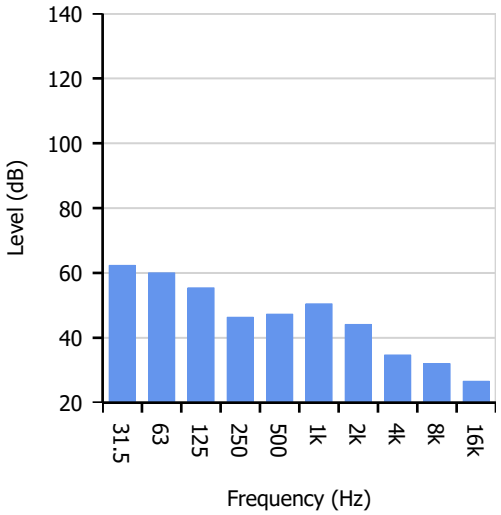
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	52.8 dB
LAE	82.9 dB
LAFMax	68.1 dB

Statistical Levels (Ln)	
LAF1	55.8 dB
LAF5	54.8 dB
LAF10	54.3 dB
LAF50	52.6 dB
LAF90	50.1 dB
LAF95	49.2 dB
LAF99	48.0 dB





Notes

TTDCWL01 - Knollwood Court, North - AM Peak

ReportId

Cirrus Research plc

Measurement Summary Report

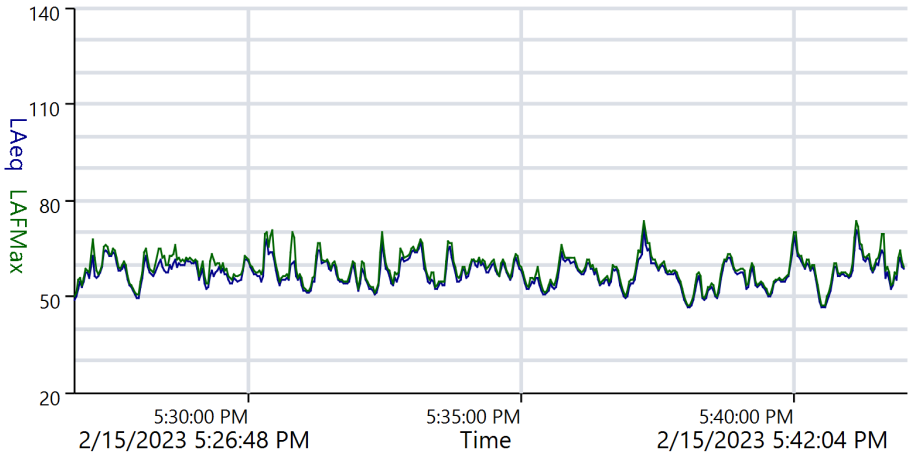
Name	248			
Time	2/15/2023 5:26:48 PM	**Person**	**Place**	**Project**
Duration	00:15:16	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

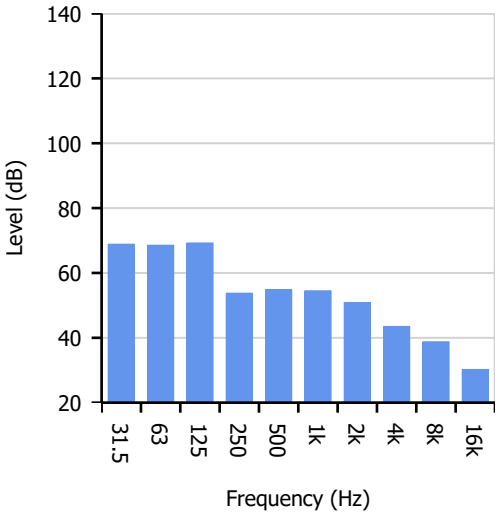
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	59.3 dB
LAE	88.9 dB
LAFMax	73.5 dB

Statistical Levels (Ln)	
LAF1	68.3 dB
LAF5	64.0 dB
LAF10	62.1 dB
LAF50	56.8 dB
LAF90	51.5 dB
LAF95	49.9 dB
LAF99	47.1 dB





Notes

TTDCWL01 - Route 9D - North of the site, left side - PM Peak

ReportId

Cirrus Research plc

Measurement Summary Report

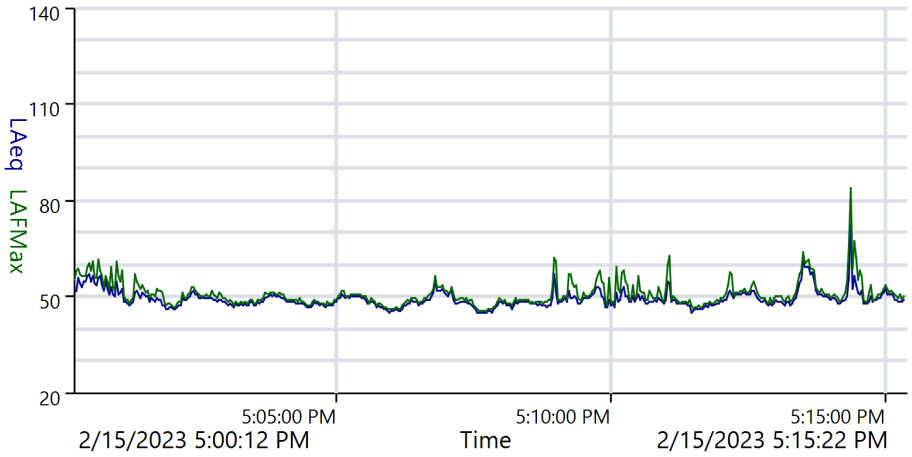
Name	247			
Time	2/15/2023 5:00:12 PM	**Person**	**Place**	**Project**
Duration	00:15:10	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

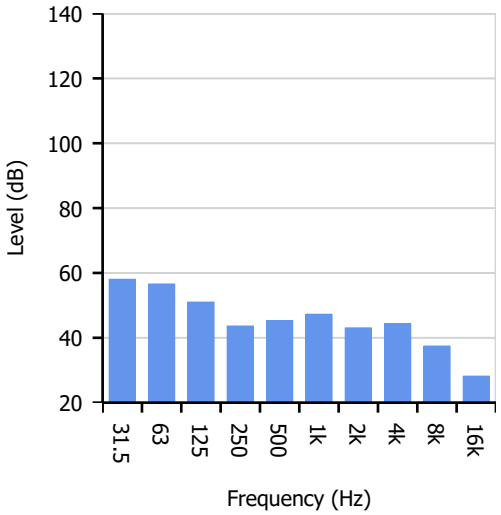
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	51.4 dB
LAE	81.0 dB
LAFMax	83.9 dB

Statistical Levels (Ln)	
LAF1	58.7 dB
LAF5	54.2 dB
LAF10	51.8 dB
LAF50	48.4 dB
LAF90	46.5 dB
LAF95	45.8 dB
LAF99	44.8 dB





Notes

Treetops Development - North Property Line

ReportId

Cirrus Research plc

Measurement Summary Report

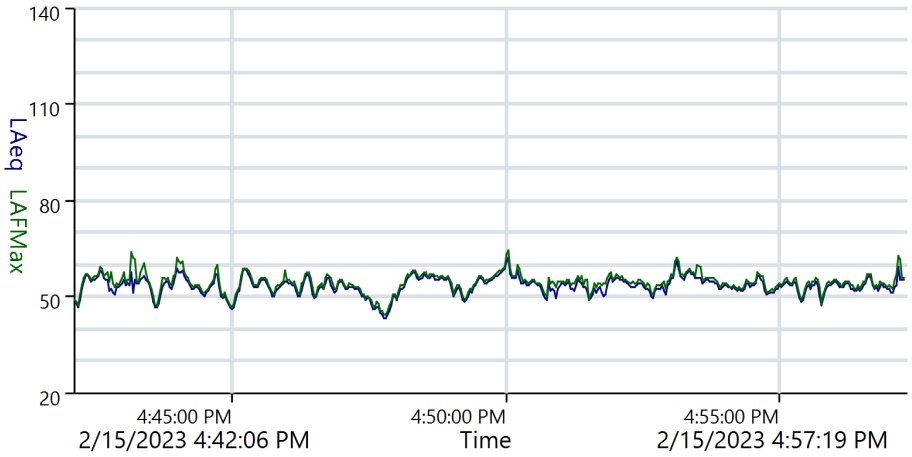
Name	246			
Time	2/15/2023 4:42:06 PM	**Person**	**Place**	**Project**
Duration	00:15:14	Michael Bontje		TTDCWL01 -
Instrument	G301840, CR:171A			

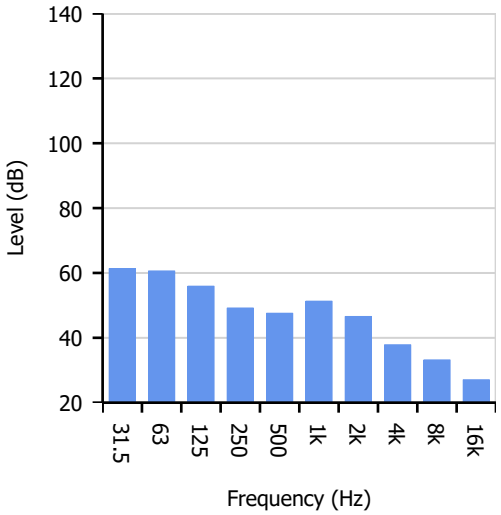
Calibration

Before	Offset	**After**	Offset

Basic Values	
LAeq	54.0 dB
LAE	83.6 dB
LAFMax	64.3 dB

Statistical Levels (Ln)	
LAF1	59.4 dB
LAF5	57.1 dB
LAF10	56.2 dB
LAF50	53.3 dB
LAF90	49.4 dB
LAF95	47.9 dB
LAF99	44.6 dB





Notes

TTDCWL01 - Route 9W - North Edge of Property

ReportId

APPENDIX B

Sound Barrier Insertion Loss Calculations

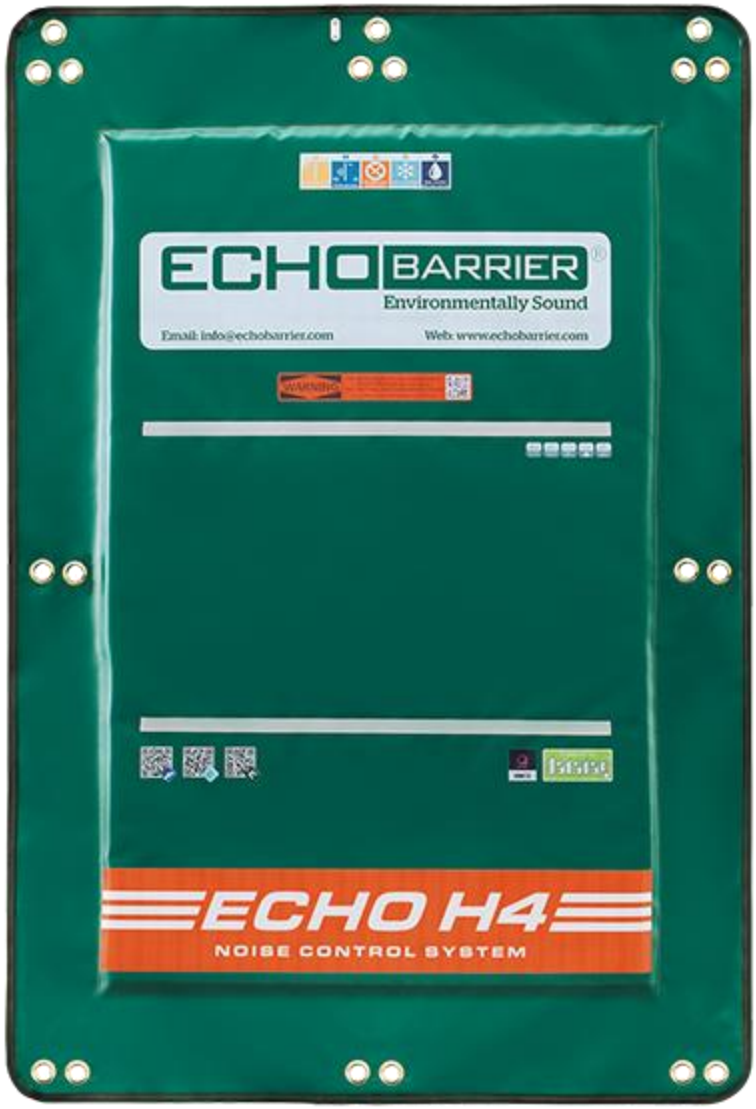
NOISE Barrier Insertion Loss Estimate						1/10/2023		Treetop Devel - ENTRY					
	No Echo Padding (Main Entry Roadway)												
PROJECT	CORNWALL, NY, 1000 Hz				Hz	Frequency:	1,000	Speed Sound			1126	ft/sec	
				VALUE									
SOURCE	**Moving Trucks**			Ground A		Diagnl A		Diagnl A					
						Squared							
Distance to Barrier:				5	ft.	25		5					
Height				12	ft.								
RECIEVER				Ground B		Diagnl B		Diagnl B					
						Squared							
Distance fromBarrier:				78	ft.	6133		78.31347					
Height				5	ft.								
				Ground C									
Ditsance TOTAL:				83	ft.								
Barrier heigh (4' berm + 8' sound fence):				12	ft.								
						N=	0.55679						
ATTENUATION:*				LOG N	tanH		Sq. Rt.	2PieN					
	A =	5		2.58262	1.346266	0.783844	1.055263	1.11358					
								Textured	Ground Effect (Veg or Rip-rap)				
		A =	7.58262		Absorbtive Effect =		0	**3**	5				
		TOTAL:	15.58262										
NOISE Barrier Insertion Loss Estimate						1/12/2023		Treetop Devel - ENTRY					
	With Echo Padding (South Building D)												
PROJECT	CORNWALL, NY, 1000 Hz				Hz	Frequency:	1,000	Speed Sound			1126	ft/sec	
				VALUE									
SOURCE	**Moving Trucks**			Ground A		Diagnl A		Diagnl A					
						Squared							
Distance to Barrier:				5	ft.	25		5					
Height				12	ft.								
RECIEVER				Ground B		Diagnl B		Diagnl B					
						Squared							
Distance fromBarrier:				110	ft.	12149		110.2225					
Height				5	ft.								
				Ground C									
Ditsance TOTAL:				115	ft.								
Barrier heigh (4' berm + 8' sound fence):				12	ft.								
						N=	0.395208						
ATTENUATION:*				LOG N	tanH		Sq. Rt.	2PieN					
	A =	5		1.942072	1.250557	0.710926	0.889054	0.790416					
								Textured	Ground Effect (Veg or Rip-rap)				
		A =	6.942072		Absorbtive Effect =		16	**0**	0				
		TOTAL:	22.94207										

NOISE Barrier Insertion Loss Estimate						1/10/2023		Treetop Devel Bldgs B and D - South/West Vehicle Parking/Road					
PROJECT	CORNWALL, NY, 1000 Hz				Hz	Frequency:	1,000	Speed Sound		1126	ft/sec		
				VALUE									
SOURCE	**Moving Vehicles**			Ground A		Diagnl A		Diagnl A					
						Squared							
Distance to Barrier:				5	ft.	45.25		6.726812					
Height				3.5	ft.								
RECIEVER				Ground B		Diagnl B		Diagnl B					
						Squared							
Distance from Barrier:				25	ft.	631.25		25.12469					
Height				5.5	ft.								
				Ground C									
Ditsance TOTAL:				30	ft.								
Barrier height:				8	ft.								
						N=	3.288634						
ATTENUATION:*				LOG N	tanH		Sq. Rt.	2PieN					
	A =	5		8.283317	2.59517	0.988227554	2.564619	6.577268					
							Textured ?????	Ground Effect (Veg or Rip-rap)					
		A =	13.28			Absorbtive Effect =	0	**0**	0				
		TOTAL:	13.28										

NOISE Barrier Insertion Loss Estimate						1/10/2023				
PROJECT	CORNWALL, NY, 1000 Hz				Hz	Frequency:	1,000	Speed Sound		1126
				VALUE						
SOURCE	**HV/AC Rooftop**			Ground A		Diagnl A		Diagnl A		
						Squared				
Distance to Barrier:				15	ft.	227.25		15.07481		
Height				2.5	ft.					
RECIEVER				Ground B		Diagnl B		Diagnl B		
						Squared				
Distance fromBarrier:				163	ft.	26570		163.0031		
Height				5	ft.					
				Ground C						
Ditsance TOTAL:				178	ft.					
Barrier height:				4	ft.					
						N=	0.138332			
ATTENUATION:*				LOG N	tanH		Sq. Rt.	2PieN		
	A =	5		0.753023	1.090564	0.4823087	0.525988	0.276664		
		A =	5.75		Absorbtive Effect		0	0	Other	
W/O ECHO PADS		**TOTAL:**	5.75							

APPENDIX C

Sound Barrier Fence - Typical


ECHO BARRIER
Environmentally Sound
Email: info@echobarrier.com
Web: www.echobarrier.com
ECHO H4
NOISE CONTROL SYSTEM

APPENDIX D

Qualifications

MICHAEL P. BONTJE

EDUCATION State University of New York, College of Environmental Sciences and Forestry, B.S. (Magna cum Laude), 1979
State University of New York at Stony Brook, Graduate Meteorological Courses
Bruel & Kjaer Courses

REGISTRATION Hazardous Waste Handling (NUS/EPA) Certified
CPESC #5347
U. S. Patentee

EXPERIENCE

1990-1999 **Adjunct Instructor, Adelphi University**. Instructor for graduate-level waste management, remediation and wetlands courses.

1987-Present **B.LAING ASSOCIATES, Inc. President (Emeritus)**

General B. Laing Associates, Inc. and its principal, Michael P. Bontje have provided air quality emission dispersion and noise analyses for point and non-point sources for 43 years. Projects have ranged from queuing for municipal bus terminals to residential subdivisions and 1,800,000 square foot malls (i.e., Palisades Center in West Nyack, New York). Our clients have included private business owners for industrial or commercial projects plus municipalities constructing or improving various public works or examining proposed projects. We have conducted air quality and noise analyses at more than one hundred locations and many more individual scenarios for both point and non-point sources throughout the Hudson Valley. Those analyses conducted for the New York Metro area add many hundred more projects and scenarios.

Noise analyses: 35 years of field-based data and mathematical modeling via proprietary spreadsheets. TNM, Stamina and optima computer modeling of mobile and point sources of noise. Noise monitoring for nonpoint sources and compliance to local and federal requirements. Noise analyses, monitoring and mitigation plans for outdoor sources. Conducted for residential and commercial developments and municipal reviews pursuant to SEQR. These include multi-hundred unit attached housing projects, college expansion, assisted living facility, commercial retail/shipping.

locations, motor vehicle maintenance facilities, car wash facilities, recreational vehicle use, recreational ball fields, landscaping/chipping yards, etc. Monitored, modeled and mitigation interior noise levels for tenant, building code and FHWA compliance. Mitigation design and construction supervision.

Mobile source air pollution analyses: 43 years of Hot Spot MOBILE/CAL3QHC/ AERMOD/HIWAY/IMM/ MOVES, etc.) for Palisades Center, Poughkeepsie Galleria, Holyoke (MA), Taunton (MA), Cross Gates, Aviation, and Carousel Center malls (all 0.750 to 1.2 million square feet), Pepsi bottling plant, Pilot centers, Chestnut Ridge, Nassau County Bus Terminal, Stewart, Plaza, Reckson Associates Office Complex, Huntington Housing Authority, St. Francis Hospital, White Plains car washes, Wappingers Center, Syracuse Center, Casperkill Country Club, ICC Associates Commercial Complex, DestiNY mixed use (2.0 million square feet plus City of Syracuse/private redevelopment), Albany and Buffalo locations, Haverstraw Waterfront Redevelopment, etc.

1987-Present

Point source air pollution modeling (PTPLU, PMPT, ISC and AERMOD) for Waywayanda power plant, Anthony Jewelers/re-smelter, Islip landfill gas generators, the Village of Great Neck Plaza, the Rodolitz Organization coal test facility, Heraeus and Revere smelters, St. Francis Hospital, DestiNY mixed use, variuos materials production and handling facilities, etc.

Hartz Mountain Harmon Meadow, Secaucus, New Jersey. Project manager for including 100 percent design, construction inspection, federal and state regulatory coordination and approvals, pre/post project environmental monitoring and coordination of public presentations for Air Quality analyses of non-point and point source sites. These projects included one million plus square feet of commercial space and 4,000 plus residential units.

Oxford Energy. Environmental evaluation of tires-to-energy plant site and 7 mile transmission line ROW. Construction inspection of mitigation measures.

1984-1988 **TAMS CONSULTANTS, INC**.

Virginia Department of Transportation - Environmental Services (statewide). Analysis of impacts for the Virginia Department of Transportation/FHWA Environmental Assessments for I64, Springfield Bypass, etc. .

U.S. Navy Northeast Surface Action Group Homeport, Massachusetts, New York, and Rhode Island. Technical Director for utilities, air quality/safety arc analyses of a 100-acre Staten Island housing site and alternate sites at Stapleton/Fort Wadsworth, NY the Quonset Naval Base, RI and Boston Army Base, MA.

Lakhra Coal Mine and Power Generation Project, Pakistan. Design, procurement installation training of water and air quality monitoring stations in the Sind Province of Pakistan for a 700 megawatt coal-fed mine-mouth power plant.

1980-1984 **HOLZMACHER, MCLENDON AND MURRELL, P.C.**

Solid Waste and Air Quality Analysis. Experience included managing air, surface water and groundwater monitoring programs at Brookfield/Fresh Kills Landfill, Southampton Landfill and Oyster Bay Landfill, NY. Management of a four-station meteorological, SO2, NO2, TSP and Pb monitoring network and PSD air modeling for the Multi-Town Resource Recovery Facility; discovery of explosive gas levels and fires and implementation of remedial actions at the Southold Landfill and commercial landfills on Long Island and upstate New York; monitoring and modeling landfill gas plumes in ambient environments at Oyster Bay's Old Bethpage Landfill; ISC modeling of emissions from a reclamation plant in Orange County, N.Y.

1976-1980 **Nature Center Director, Laboratory Analyst**.

1975-Present **Eagle Scout, Boy Scouts of America**

2006-Present **Patent, Retractable Dock, #7,144,199 B2**

APPENDIX E

Blasting Addendum

Sound Level Analysis and Review
Proposed Warehouse Facilities
BLASTING ADDENDUM
U.S. Route 9W
Town of Cornwall, Orange County, New York
July 2023

Prepared for:

Treetop Development, LLC

Prepared by:

B. LAING ASSOCIATES
ENVIRONMENTAL CONSULTING
www.blaingassociates.com
103 Fort Salonga Road - Suite 5 Fort Salonga, NY 11768
(631) 261-7170, Fax: (631) 261-7454

1.1 **Purpose of Study**

B. Laing Associates, Inc. is an environmental consulting firm providing sound/noise analysis services for the proposed Planned Industrial Development (PID), herein referred to as the Project or the Site, located at 2615 US Route 9W, Cornwall, New York. The project site is approximately 197.7-acres and is known as Section 9, Block 1, Lot 25.22.

Per the Draft Environmental Impact Statement (DEIS) Final Adopted Scope, the applicant is proposing to develop "Class A" warehouse facilities totaling 1,726,126 square feet in gross floor area (GFA). The Project will include two access points along US Route 9W (with the northern-most being dominant) along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval.

The purpose of this analysis is to evaluate sound levels that may occur as a result of the proposed construction as some blasting will be required. This blasting is shown on drawings by Dynamic Earth, LLC., P. H. Howell, PE.

1.2 **Blasting Process and Results.**

Some blasting of the underlying bedrock on the site will occur to provide the necessary, more level grades to allow for safer and quieter truck/vehicle movement and proper drainage. Three areas of blasting are shown on drawings by Dynamic Earth, LLC. The smallest location will occur in the proposed parking area of Building E, towards the southern end of the site. A second, smaller location will occur in the proposed parking area between Buildings A and B towards the western end of the site. The largest location will occur in the proposed parking area of Building C, west of the proposed building. The process will require several weeks in the first two locations and several months in the third, largest location.

Cushion blasting is the process of cracking rock surface material (generally to level an area) by using a small amount of explosive substance so that the rock is broken into many pieces which are more readily removed, transported, and re-used. Conventional blasting operations include (1) drilling holes, (2) placing a charge and detonator in each hole, (3) covering the surface with heavy matting, (4) detonating the charge, and (5) clearing away the broken material. Modern blasting uses smaller explosive charges and extensive amounts of mats. A blasting mat is generally made of sliced-up rubber truck tires bound together with cables or chains. They are used during rock blasting to contain the blast, prevent flying rocks and suppress dust and noise. The ground movements (vertically) are less than 2 feet.

The blasting process will consist of two basic elements which will result in the highest noise levels from the cushion blasting process. The first is the rock *drilling* process. The rock drilling sounds will be for periods of an hour or so separated by time for retooling and relocating. The blasting sounds will be an impulsive noise, lasting only several seconds. The two sounds will not occur simultaneously in the same location.

The sound/noise results of the blasting operation on-site are shown below in Table 1 – Blasting Addendum. These data results are a compilation of noise sampling on a working construction site in the Hudson Valley area of New York during 2022. The blasting process was as described above.

As with operational sound/noise analysis, the proximity of the receptor to the activity will be the largest determining factor. The closest receptors to the two, smaller blasting areas will be the residential properties on Feather Lane and Knoll Crest Court along the *property line* . These locations are 750 and 830 feet, respectively, from the closest approach of the blasting areas associated with parking areas for Buildings A, B and E. They will experience rock drill levels of 58 dB(A) Leq and 75-76 dB(A) Lmax and from the rock blasting levels of 49.5 to 50 dB(A) Leq and 70-71 dB(A) Lmax. Since these are the two, smaller blasting areas, the duration will likely be a matter of weeks. The furthest receptor to the larger/largest blasting area are the *property lines* for the residential properties adjacent to the northerly, main entry road. This location will be 2,500 feet from the closest approach of the blasting area near Building C. It will experience rock drill levels of 49 dB(A) Leq and 66 to 67 dB(A) Lmax and from the rock blasting levels of 40.5 Leq and 62 dB(A) Lmax. Since this is the largest blasting area, the duration will likely be a matter of months.

The sound/noise levels during site construction in the Town of Cornwall are controlled not by decibel levels but by hours of occurrence. Per the Town of Cornwall, Chapter 101-2, no construction or demolition [blasting] related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday. No construction activities will occur on site during these times. It is often the practice of municipalities to limit Cushion blasting activities further as a mitigating measure (i.e., 7:00[24] or 8:00 a.m. to 6:00 or 7:00[25] p.m.).

[24] 2006 New York City Code - Blasting.
[25] IBID.

Table 1 – Blasting Addendum

Blasting Results - Proposed Warehouse Facilities, Cornwall, NY

Blasting	Leq*	Lmax*	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Date:	100 feet	100 feet	200 feet	200 feet	400 feet	400 feet	800 feet	800 feet	1600 feet	1600 feet	
4/4/2022	64.2	92.0	58.2	86.0	52.2	80.0	46.2	74.0	40.2	68.0	dB(A)
7/15/2022	73.7	90.2	67.7	84.2	61.7	78.2	55.7	72.2	49.7	66.2	dB(A)
7/19/2022	65.8	85.3	59.8	79.3	53.8	73.3	47.8	67.3	41.8	61.3	dB(A)
7/22/2022	72.8	91.7	66.8	85.7	60.8	79.7	54.8	73.7	48.8	67.7	dB(A)
8/23/2022	61.7	80.2	55.7	74.2	49.7	68.2	43.7	62.2	37.7	56.2	dB(A)
8/30/2022	66.5	93.7	60.5	87.7	54.5	81.7	48.5	75.7	42.5	69.7	dB(A)
	67.5	88.85	61.5	82.9	55.5	76.9	49.5	70.9	43.5	64.9	dB(A)

Note: * Recorded data during blasting - Actual New York 2022

	Leq**	Lmax**	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Rock Drill	250 feet	250 feet	500 feet	500 feet	1000 feet	1000 feet	2000 feet	2000 feet	
	67.6	85.6	61.6	79.6	55.6	73.6	49.6	67.6	dB(A)

Note: ** Recorded data prior to blasting - Actual New York 2022

	Blasting		Rock Drill		
RECEPTORS	Leq	Lmax	Leq	Lmax	Standard:
Point #1 South Residential Property Line	49.8	71.0	58.6	76.6	Controled by Hours not decibles.
Point #2 Northwest Residential Property Line	47.5	69.0	55.6	73.6	Monday-Friday 7AM-10PM
Point #3 Northwest Apartment Complex	44.5	65.9	58.6	76.6	Saturday-Sunday 7AM-11PM
Point #4A Eastern Ppty Line Entry Rd	40.5	61.9	48.6	66.6	
Point #4B Eastern Ppty Line NE Bldg C	42.0	62.4	49.6	67.6	
Knoll Crest Court	49.1	70.4	57.9	75.6	

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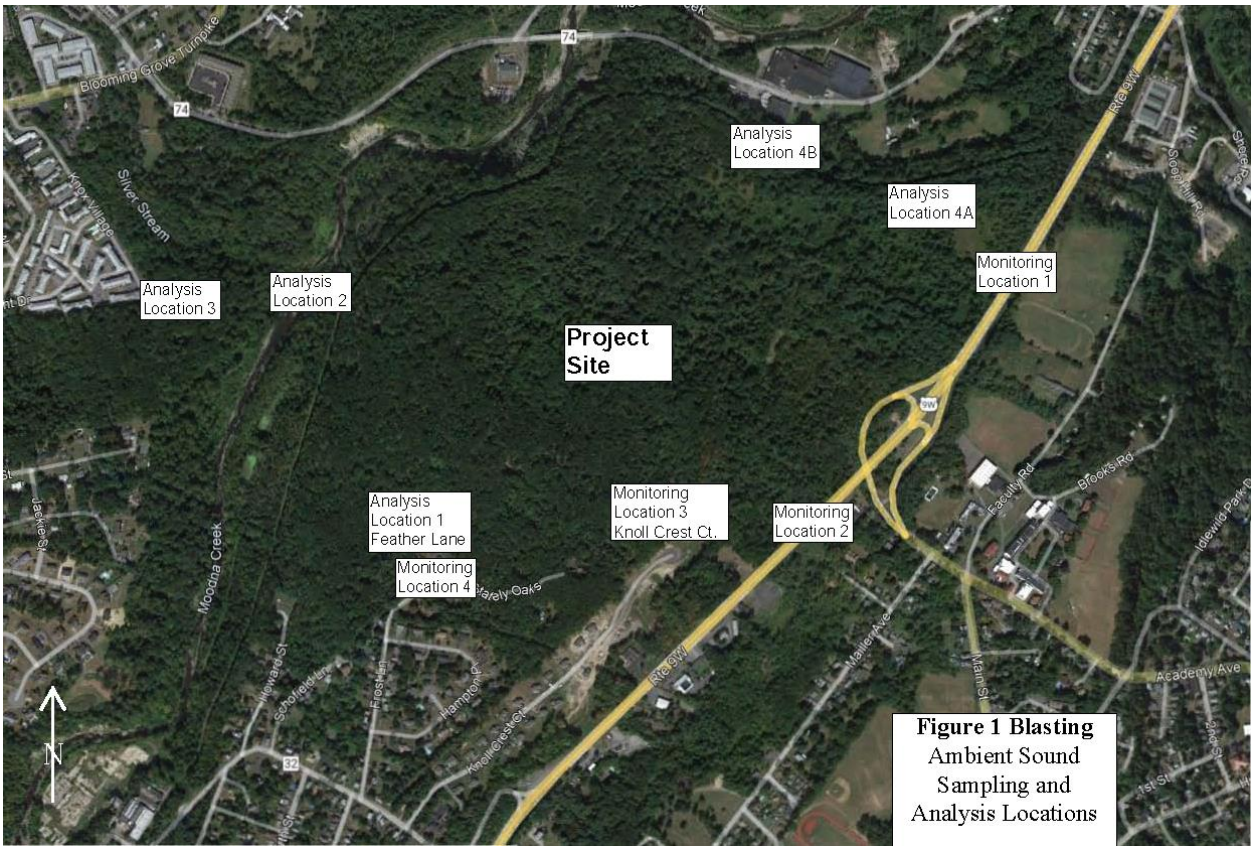

Figure 1 Blasting Ambient Sound Sampling and Analysis Locations

L – Sound Level Analysis and Review – Blasting Addendum, prepared by B. Laing Associates, dated July 2023

Sound Level Analysis and Review
Proposed Warehouse Facilities
BLASTING ADDENDUM
U.S. Route 9W
Town of Cornwall, Orange County, New York
July 2023

Prepared for:

Treetop Development, LLC

Prepared by:

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1.1 **Purpose of Study**

B. Laing Associates, Inc. is an environmental consulting firm providing sound/noise analysis services for the proposed Planned Industrial Development (PID), herein referred to as the Project or the Site, located at 2615 US Route 9W, Cornwall, New York. The project site is approximately 197.7-acres and is known as Section 9, Block 1, Lot 25.22.

Per the Draft Environmental Impact Statement (DEIS) Final Adopted Scope, the applicant is proposing to develop "Class A" warehouse facilities totaling 1,726,126 square feet in gross floor area (GFA). The Project will include two access points along US Route 9W (with the northern-most being dominant) along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval.

The purpose of this analysis is to evaluate sound levels that may occur as a result of the proposed construction as some blasting will be required. This blasting is shown on drawings by Dynamic Earth, LLC., P. H. Howell, PE.

1.2 **Blasting Process and Results.**

Some blasting of the underlying bedrock on the site will occur to provide the necessary, more level grades to allow for safer and quieter truck/vehicle movement and proper drainage. Three areas of blasting are shown on drawings by Dynamic Earth, LLC. The smallest location will occur in the proposed parking area of Building E, towards the southern end of the site. A second, smaller location will occur in the proposed parking area between Buildings A and B towards the western end of the site. The largest location will occur in the proposed parking area of Building C, west of the proposed building. The process will require several weeks in the first two locations and several months in the third, largest location.

Cushion blasting is the process of cracking rock surface material (generally to level an area) by using a small amount of explosive substance so that the rock is broken into many pieces which are more readily removed, transported, and re-used. Conventional blasting operations include (1) drilling holes, (2) placing a charge and detonator in each hole, (3) covering the surface with heavy matting, (4) detonating the charge, and (5) clearing away the broken material. Modern blasting uses smaller explosive charges and extensive amounts of mats. A blasting mat is generally made of sliced-up rubber truck tires bound together with cables or chains. They are used during rock blasting to contain the blast, prevent flying rocks and suppress dust and noise. The ground movements (vertically) are less than 2 feet.

The blasting process will consist of two basic elements which will result in the highest noise levels from the cushion blasting process. The first is the rock *drilling* process. The rock drilling sounds will be for periods of an hour or so separated by time for retooling and relocating. The blasting sounds will be an impulsive noise, lasting only several seconds. The two sounds will not occur simultaneously in the same location.

The sound/noise results of the blasting operation on-site are shown below in Table 1 – Blasting Addendum. These data results are a compilation of noise sampling on a working construction site in the Hudson Valley area of New York during 2022. The blasting process was as described above.

As with operational sound/noise analysis, the proximity of the receptor to the activity will be the largest determining factor. The closest receptors to the two, smaller blasting areas will be the residential properties on Feather Lane and Knoll Crest Court along the *property line* . These locations are 750 and 830 feet, respectively, from the closest approach of the blasting areas associated with parking areas for Buildings A, B and E. They will experience rock drill levels of 58 dB(A) Leq and 75-76 dB(A) Lmax and from the rock blasting levels of 49.5 to 50 dB(A) Leq and 70-71 dB(A) Lmax. Since these are the two, smaller blasting areas, the duration will likely be a matter of weeks. The furthest receptor to the larger/largest blasting area are the *property lines* for the residential properties adjacent to the northerly, main entry road. This location will be 2,500 feet from the closest approach of the blasting area near Building C. It will experience rock drill levels of 49 dB(A) Leq and 66 to 67 dB(A) Lmax and from the rock blasting levels of 40.5 Leq and 62 dB(A) Lmax. Since this is the largest blasting area, the duration will likely be a matter of months.

The sound/noise levels during site construction in the Town of Cornwall are controlled not by decibel levels but by hours of occurrence. Per the Town of Cornwall, Chapter 101-2, no construction or demolition [blasting] related activities may occur after 10:00 p.m. or before 7:00 a.m. Monday through Friday or between 11:00 p.m. or before 7:00 a.m. on Saturday and Sunday. No construction activities will occur on site during these times. It is often the practice of municipalities to limit Cushion blasting activities further as a mitigating measure (i.e., 7:00[1] or 8:00 a.m. to 6:00 or 7:00[2] p.m.).

[1] 2006 New York City Code - Blasting.
[2] IBID.

Table 1 – Blasting Addendum

Blasting Results - Proposed Warehouse Facilities, Cornwall, NY

Blasting	Leq*	Lmax*	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Date:	100 feet	100 feet	200 feet	200 feet	400 feet	400 feet	800 feet	800 feet	1600 feet	1600 feet	
4/4/2022	64.2	92.0	58.2	86.0	52.2	80.0	46.2	74.0	40.2	68.0	dB(A)
7/15/2022	73.7	90.2	67.7	84.2	61.7	78.2	55.7	72.2	49.7	66.2	dB(A)
7/19/2022	65.8	85.3	59.8	79.3	53.8	73.3	47.8	67.3	41.8	61.3	dB(A)
7/22/2022	72.8	91.7	66.8	85.7	60.8	79.7	54.8	73.7	48.8	67.7	dB(A)
8/23/2022	61.7	80.2	55.7	74.2	49.7	68.2	43.7	62.2	37.7	56.2	dB(A)
8/30/2022	66.5	93.7	60.5	87.7	54.5	81.7	48.5	75.7	42.5	69.7	dB(A)
	67.5	88.85	61.5	82.9	55.5	76.9	49.5	70.9	43.5	64.9	dB(A)

Note: * Recorded data during blasting - Actual New York 2022

	Leq**	Lmax**	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Rock Drill	250 feet	250 feet	500 feet	500 feet	1000 feet	1000 feet	2000 feet	2000 feet	
	67.6	85.6	61.6	79.6	55.6	73.6	49.6	67.6	dB(A)

Note: ** Recorded data prior to blasting - Actual New York 2022

	Blasting	**Rock Drill**			
RECEPTORS	Leq	Lmax	Leq	Lmax	Standard:
Point #1 South Residential Property Line	49.8	71.0	58.6	76.6	Controled by Hours not decibles.
Point #2 Northwest Residential Property Line	47.5	69.0	55.6	73.6	Monday-Friday 7AM-10PM
Point #3 Northwest Apartment Complex	44.5	65.9	58.6	76.6	Saturday-Sunday 7AM-11PM
Point #4A Eastern Ppty Line Entry Rd	40.5	61.9	48.6	66.6	
Point #4B Eastern Ppty Line NE Bldg C	42.0	62.4	49.6	67.6	
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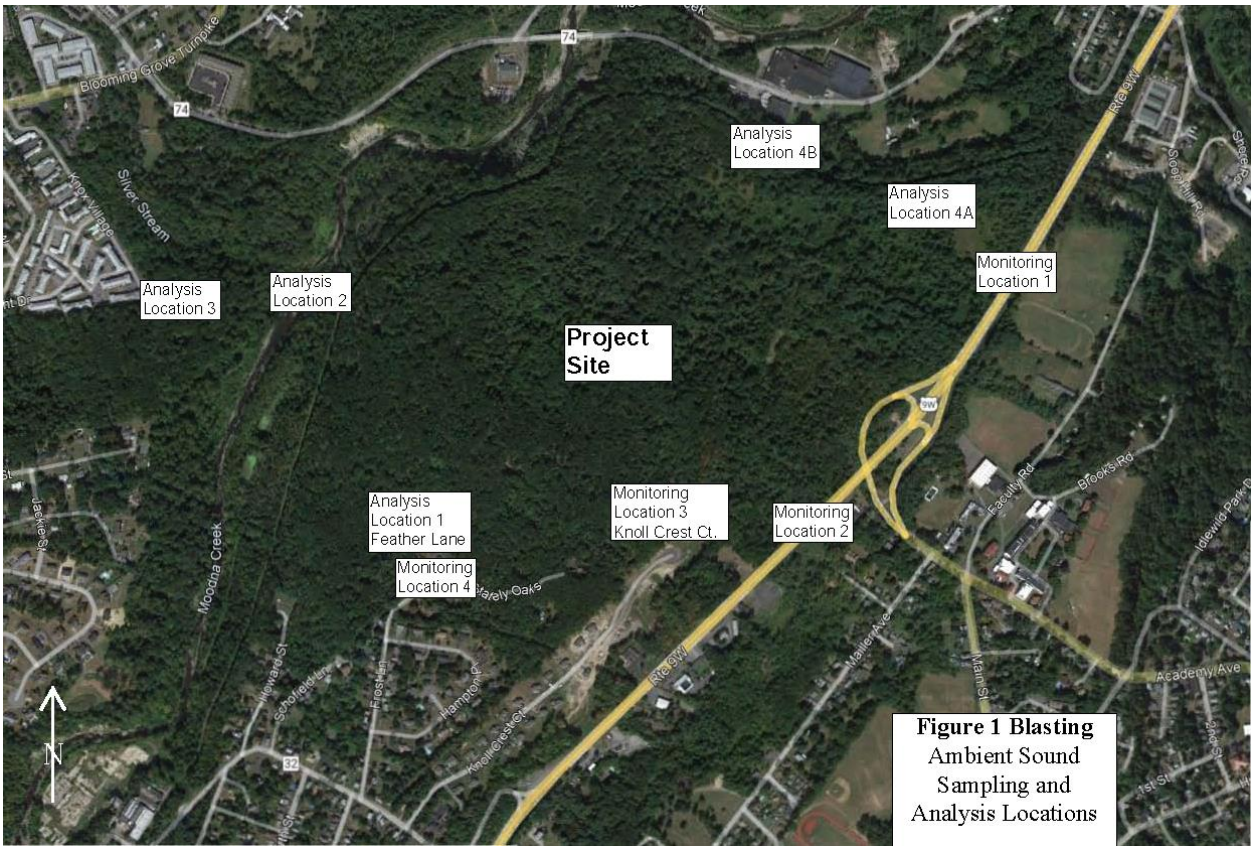

Figure 1 Blasting Ambient Sound Sampling and Analysis Locations

M – Air Quality Analysis and Impact Review, prepared by B. Laing Associates, dated November 16, 2022

AIR QUALITY ANALYSIS AND IMPACT REVIEW

PREPARED FOR:
TREETOP DEVELOPMENT, LLC

PROPOSED WAREHOUSE FACILITIES
U.S. ROUTE 9W
TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK

NOVEMBER 16, 2022

B. LAING ASSOCIATES
ENVIRONMENTAL CONSULTING
www.blaingassociates.com

AIR QUALITY ANALYSIS AND IMPACT REVIEW

PROPOSED WAREHOUSE FACILITIES

U.S. ROUTE 9W

TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK

NOVEMBER 16, 2022

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TABLES AND FIGURES

Background

B. Laing Associates, Inc. is an environmental consulting firm providing air quality analysis services for the proposed Planned Industrial Development (PID) located at 2615 US Route 9W, Cornwall, New York (Section 9, Block 1, Lot 25.22) (the "Project Site" or "Site"). See attached Figure 1 - Site Location Map.

Proposed Action

Per the Draft Environmental Impact Statement (DEIS) Final Adopted Scope, the project site is an approximately 197.7-acre parcel located northwest of US Route 9W in the Town of Cornwall. The Applicant is proposing to develop five Class A Modern Warehouse Facilities totaling approximately 2,053,593 square feet in gross floor area. The Project includes two access points along US Route 9W along with associated parking, loading, driveways, stormwater management facilities, lighting, landscaping and other related site improvements. The warehouse buildings will operate by virtue of receipt of goods, storage, distribution and order fulfillment with an office and customer service function, including potential returns and pick-up. A majority of the Site is classified in the PCD (Planned Commercial Development) zoning district with the balance classified in the HC (Highway Commercial) zoning district. PIDs are permitted by Special Permit in the PCD zoning district subject to Planning Board Site Plan approval. In addition, the Applicant will petition the Town Board for an amendment of the Town of Cornwall Zoning Map to re-map the entire site PCD. The Applicant may potentially seek an area variance from the Zoning Board of Appeals for the height of the proposed 44' tall warehouse buildings where a maximum height of 40' is permitted in the PCD zoning district, or seek a minor zoning text amendment to allow a maximum height of 50' for PID projects within the PCD zoning district. Alternatives to be considered during the SEQR review include; a PID Project without the Zoning Map amendment; a PID Project with a zoning text amendment to allow the proposed building heights without the need to seek an area variance; and a PID Project with a greater buffer at the southern and western property boundaries that abut residential development.

The purpose of this analysis is to evaluate temporary or permanent impacts to air quality that may occur as a result of the Project. Mitigation and assessment of significant air quality impacts will be addressed accordingly.

General Air Quality Characteristics

Existing Conditions

Climate

The climate in Cornwall, New York is warm during the summer when average temperatures tend to be in the 80's (degrees Fahrenheit) and very cold during winter when average temperatures tend to be in the 30's (degrees Fahrenheit). The National Oceanic and Atmospheric Administration (NOAA) record this local climate in Newburgh/Stewart, Orange County Airport, New York. The warmest month of the year is July with high average temperature of 84 degrees Fahrenheit, while the coldest months of the year are January and February with a high average of temperature 33 to 37 degrees Fahrenheit. Temperature variations between night and day tend to be consistent during summer season with a difference that can reach 20-21 degrees Fahrenheit, and comparable in winter months with an average difference of approximately 12-15 degrees Fahrenheit. The annual average precipitation in Cornwall is approximately 44 inches. This locale receives approximately 37 inches of snow per year on average.

Ambient Air Quality

Existing air quality is good for the Project site. The median air quality index (AQI) in 2021 for Orange County, New York was 34.[1] An AQI between 0 and 50 is excellent and air pollution poses little or no risk. An AQI between 51 and 100 is categorized as moderate and air pollution is acceptable; however, "there may be some health concern for a small number of unusually sensitive individuals" per the United States Environmental Protection Agency (EPA). An AQI above 100 is unhealthy. Existing air quality standards for New York State are found in the New York State Ambient Air Quality Standards (NYSAAQS) 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 tracked as provided in NYSDOT's The Environmental Manual (TEM).

Table 1 depicts the N/NYSAAQS.

NYSDEC monitors air quality throughout the state. As of 2020[2], there are currently 50 active air monitoring sites in New York State. Parameters observed vary from air monitoring sites. There are seven (7) monitoring sites located within NYSDEC Region 3 with three (3) of those monitoring sites in Orange County. The closest monitoring site to the Project is 36-071-0002 located at Public Safety Building 55 Broadway Newburgh, NY 12550. Parameters are described below:

Carbon Monoxide (CO) is not measured at station 36-071-0002 or in NYSDEC Region 3. The closest monitoring station is at station 36-005-0133 located at the Pfizer Lab/Botanical Gardens in the Bronx.[3] The highest one-hour value in 2020 was 1.92 ppm versus a standard of 35 ppm. The highest running eight-hour value was 1.30 ppm versus a standard of 9.0 ppm. The second highest one-hour value in 2020 was 1.72 ppm versus a standard of 35 ppm. The second highest running eight-hour value was 1.20 ppm versus a standard of 9.0 ppm.

At this station in 2019, the highest one-hour value for CO was 1.94 ppm versus a standard of 35 ppm. The highest running eight-hour value was 1.50 ppm versus a standard of 9.0 ppm. The second highest one-hour value in 2019 was 1.93 ppm versus a standard of 35 ppm. The second highest running eight-hour value was 1.30 ppm versus a standard of 9.0 ppm.

Lead (Pb) PM_{10} Samplers is monitored at station 36-071-3002 located at Wallkill Wakefern Food 260 Ballard Rd, Middletown, New York 10941. In 2020, the maximum 24-hour concentration of lead was recorded at 0.0839 ug/m^3 at the Wallkill Wakefern station (0.080 ug/m^3 in 2019). The three-month rolling average of lead in 2020 equaled 0.01 ug/m^3 (0.01 ug/m^3 in 2019). This three-month rolling average was well below the 0.15 ug/m^3 maximum allowed.

[1] According to the United States Environmental Protection Agency (EPA) Outdoor Air Quality Data, Air Quality Index Report. 2022 data is unavailable until May 1, 2023.
[2] Most recent NYS Ambient Air Quality Report.
[3] Bronx, New York is approximately 53 miles south of Project site and in an urban setting.

Nitrogen dioxide (NO_2) is not measured at station 36-071-0002. Monitoring sites are located in NYSDEC Regions 2, 8 and 9. The closest monitoring station is at the Botanical Gardens (Pfizer Lab) in the Bronx, New York.[4] The annual value in 2020 was 12.36 ppb versus a standard of 53 ppb. In 2019, the annual was 12.81 ppb versus a standard of 53 ppb.

The one-hour average for the 98th percentile over the last three years (2018-2020) for NO_2 is 50.5 ppb, with the highest value in 2020 recording at 60.2 ppb. The one-hour average for the 98th percentile averaged over 2017-2019 is 53.4 ppb, with the highest value in 2019 recording at 61.4 ppb. Thus, the values were below the one-hour NO_2 standard for the average of 98th percentile for last 3 years not to exceed 75 ppb.

Ozone is measured at station 36-071-5001, located at Valley Central High School 1175 Route 17 K Montgomery, Orange County New York 10940. Ozone 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 of emissions. It is the only pollutant that occasionally exceeds the standard in most NYSDEC Regions state-wide. The average 3-year annual mean for this pollutant was 0.060 parts per million (ppm) for the years 2018 to 2020. The first highest maximum daily eight-hour average was 0.062 ppm in 2020. The average 3-year annual mean for this pollutant was 0.060 parts per million (ppm) for the years 2017 to 2019. The first highest maximum daily eight-hour average was 0.062 ppm in 2019. Values were below the Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years of 0.070 ppm.

Per the NYSDEC 2022 Ozone Exceedances in New York State, no exceedances were recorded for ground level ozone in Orange County.

Particulate matter (PM 2.5) is measured at station 36-071-0002. This station had an annual mean standard for last three (3) years (2018-2020) of 5.8 ug/m^3. This annual mean was well below the 12 ug/m^3 standard. This station had an average of 98th percentile for last 3 years 16.2 ug/m^3. This station had an annual mean standard for 2017-2019 of 6.0 ug/m^3. versus a standard of 12 ug/m^3. This station had an average of 98th percentile for the years 2017-2019 of 16.9 ug/m^3; well below the 35 ug/m^3 standard.

Sulfur dioxide (SO_2) is monitored at station 36-079-0005, Mt. Ninham, located NYSDEC Multiple Use Area Gypsy Trail Road, Kent, Putnam County, New York 10512[5]. In 2020, the annual average was recorded at 0.12 parts per billion (ppb) (0.13 ppb in 2019) versus an annual standard not to exceed 30 ppb and the one-hour average for the last three years (2018-2020) was recorded at 2.0 ppb versus a standard of 75 ppb (3.6 ppb in 2017-2019).

[4] Ibid, 3.

[5] Mt Ninham, Kent, New York is approximately 45 miles east of Project site.

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/8542.html

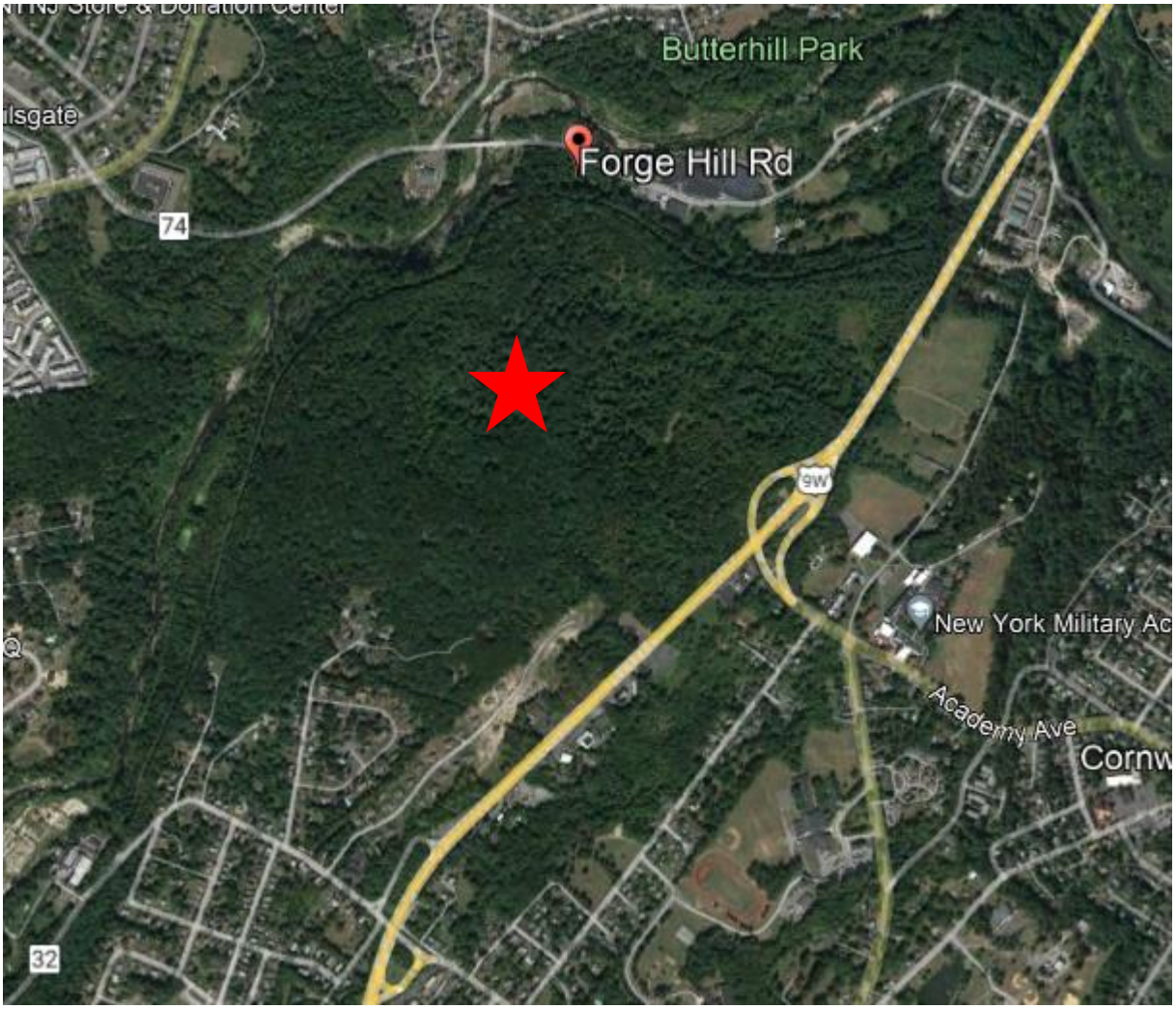

FIGURE 1

SITE LOCATION MAP

U.S. ROUTE 9W
TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK
(SOURCE: GOOGLE EARTH)

Proposed Action Analysis

Mobile 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). This Traffic Impact Study was provided by Dynamic Traffic dated August 2022 and is provided under separate cover. The TEM provides guidance on determination for a required microscale analysis which is based on the consideration of several standards. TEM is utilized for signalized intersections. Thus, TEM was used to guide the air quality qualitative analysis in this study.

Per TEM I-1 Level of Service (LOS) Screening, intersections potentially impacted by the Project must be screened for overall Build Level of Service (LOS). If the LOS is A, B, or C, no further analyses are required. If any signalized intersections in the Build condition 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 through field data collection. Manual Turning Movements (MTM) were recorded on June 14, 2022 and Automatic Traffic Recorder (ATR) on June 14 and June 20, 2022. Seventeen (17) existing intersections, as listed in Table 2 below, were analyzed by the engineer. Eight (8) of the analyzed intersections are currently signalized with the remaining nine (9) unsignalized. Traffic counts were conducted in the weekday peak AM and PM period. LOS was analyzed in the existing condition (2022) AM and PM peak street hour, future no build (2024) and future build conditions (2024) in the AM and PM peak street hour. Figure 2 depicts the analyzed intersections in aerial view.

TABLE 2
ANALYZED INTERSECTIONS

NO.	INTERSECTION	ANALYZED
1	US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road	signalized
2	US Route 9W and Academy Avenue (NYS Route 218)	unsignalized
3	US Route 9W and Union Avenue (CR 69)/Old Route 9W	signalized
4	Academy Avenue (NYS Route 218) and Mailler Avenue	unsignalized
5	Academy Avenue (NYS Route 218) and Main Street (CR 9)/Faculty Road	unsignalized
6	US Route 9W and Willow Avenue (CR 32)	unsignalized
7	US Route 9W and Laurel Avenue	signalized
8	US Route 9W and Quaker Avenue (CR 107)	unsignalized
9	US Route 9W and Angola Road (CR 9)	unsignalized
10	NYS Route 32 and Quaker Avenue (CR 107)	signalized
11	Main Street (CR 9) and Willow Avenue (CR 107)	signalized
12	Main Street (CR 9), Broadway, Quaker Avenue (CR 107), Hasbrouck Avenue, Continental Road, and Angola Road (CR 9) Roundabout	unsignalized
13	NYS Route 32, NYS Route 94, and NYS Route 300	signalized
14	Mailler Avenue and Willow Avenue (CR 32)	unsignalized
15	Old Route 9W and River Road	unsignalized
16	US Route 9W and I-84 Ramps (Eastbound/Westbound)	signalized
17	Forge Hill Road (CR 74) and NYS Route 94	signalized
18	US Route 9W and Northern Site Driveway	signalized

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). During this study, the New York

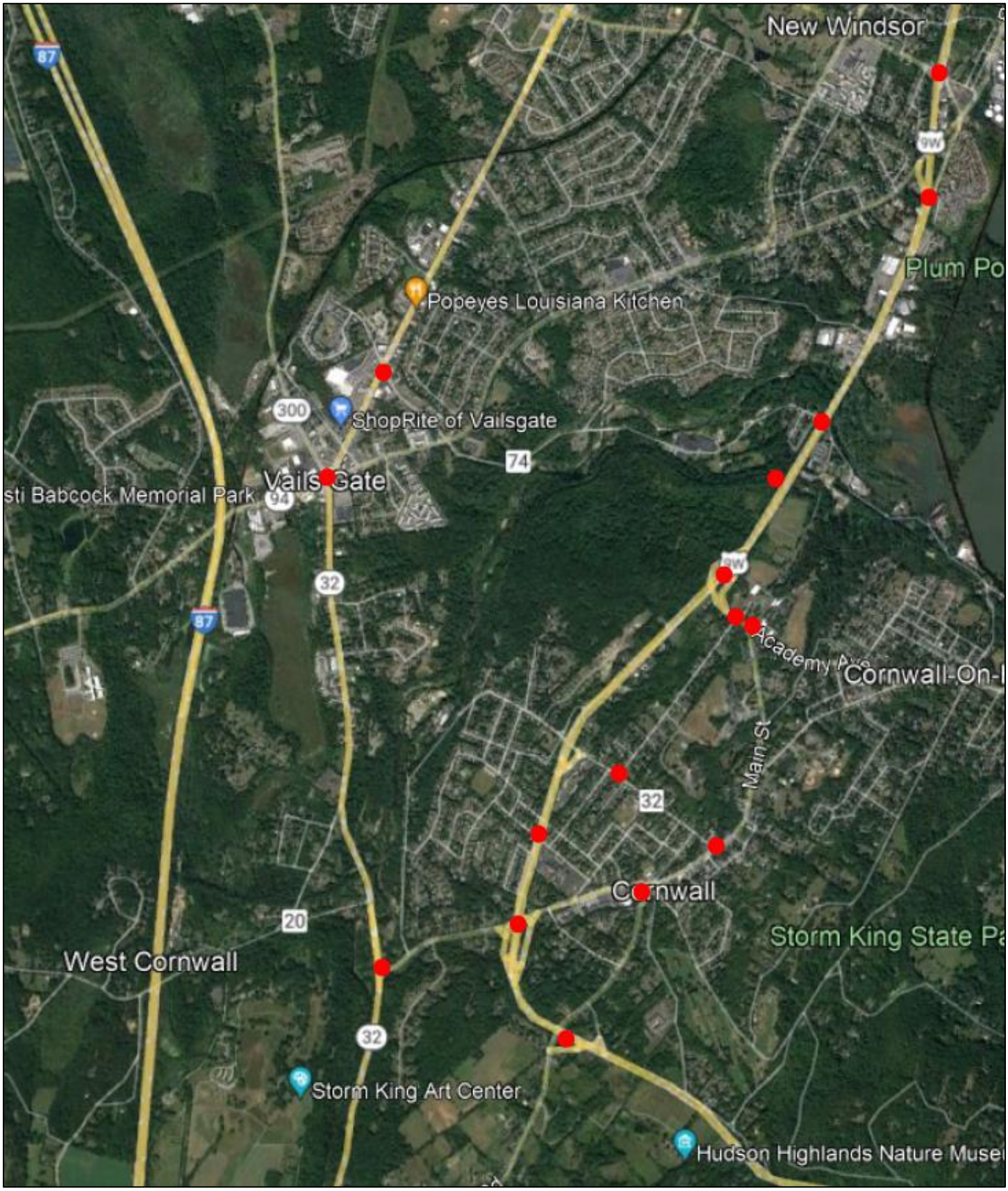

FIGURE 2 – ANALYZED INTERSECTION AERIAL MAP

*US Route 9W and I-84 not shown.

Military Academy was noted approximately 1,000 feet southeast of the site and the Cornwall Central Middle School was noted as located approximately 1,300 feet southwest of the subject site. It should be noted that 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.

Existing Conditions Capacity Analysis (2022)

AM Peak Street Hour Scenario

Seventeen (17) existing intersections were analyzed for the first level of screening in AM scenario in the Traffic Impact Report. Eight (8) of the analyzed intersections are currently signalized with the remaining nine (9) unsignalized. The first level of screening for the intersections were analyzed using guidance from The Environmental Manual (TEM).[6] In the AM condition, the findings of the capacity analysis determined that the LOS for seven (7) intersections in the existing/base condition achieves LOS of A, B or C. Those include US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and Laurel Avenue, NYS Route 32 and Quaker Avenue (CR 107), Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (eastbound/westbound) and Forge Hill Road (CR 74) and NYS Route 94. No further air quality analysis would be required for those intersections (at LOS A, B or C as cited above). Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

One (1) intersection, NYS Route 32, NYS Route 94 & NYS Route 300 resulted in overall LOS of D, E or F in the AM peak street hour traffic analysis in the existing condition. The majority of the approaches in this signalized intersection have significant control delay. Variables that may contribute to control delay include traffic signal operation, intersection geometry, reaction times, etc.

The remaining unsignalized intersections in the 2022 existing/base condition achieves LOS of A, B or C. No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners; however, in this case, the approaches resulted in an LOS of A, B or C. Thus, no additional analysis is required for the unsignalized intersections.

PM Peak Street Hour Scenario

In the PM condition, the findings of the capacity analysis determined that the LOS for five (5) intersections in the existing/base condition achieves LOS of A, B or C. Those include US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and Laurel Avenue, Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (eastbound/westbound) and Forge Hill Road (CR 74) and NYS Route 94. Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

Three (3) intersections, US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, NYS 32 & Quaker Avenue (CR 107) and NYS Route 32, NYS Route 94 & NYS Route 300, resulted in overall LOS of D, E or F in the PM Peak traffic analysis in the existing 2022 condition. The majority of the approaches in this signalized intersection have significant control delay due to traffic signal operation. US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road and NYS 32 & Quaker Avenue (CR 107) both have an average control delay of 40 seconds per vehicle which equates to LOS D. The intersection of NYS Route 32, NYS Route 94 & NYS Route 300 results in LOS E in the AM and LOS F in the PM hour. LOS D, E and F occurred in all of the approaches.

Two (2) unsignalized intersections, US Route 9W and Quaker Avenue (CR 107) northbound and southbound ramps and Old Route 9W & River Road resulted in approaches LOS of D, E or F in the PM traffic analysis. US Route 9W and Quaker Avenue (CR 107) northbound achieves LOS F in the northbound left turn movement. US Route 9W and Quaker

[6] TEM is utilized for signalized intersections. Thus, TEM was used to guide the air quality qualitative analysis in this study.

Avenue (CR 107) southbound achieves LOS E in the northbound left turn movement. Old Route 9W & River Road achieves LOS F in the eastbound left-through-right movement. The remaining approaches reach LOS A, B or C in each intersection.

No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners.

No Build Conditions (2024)

AM Peak Street Hour Scenario

Seventeen (17) existing intersections were analyzed for the first level of screening in AM scenario in the Traffic Impact Report. The first level of screening for the intersections were analyzed using guidance from The Environmental Manual (TEM).[7] In the AM condition, of the eight (8) signalized intersections analyzed, the findings of the capacity analysis determined that the LOS for six (6) intersections in the 2024 No Build condition achieves LOS of A, B or C. Those include US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and Laurel Avenue, Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (eastbound/westbound) and Forge Hill Road (CR 74) and NYS Route 94. No further air quality analysis would be required for those intersections (at LOS A, B or C as cited above). Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

Two (2) signalized intersections, NYS Route 32 & Quaker Avenue (CR 107) and NYS Route 32, NYS Route 94 & NYS Route 300 resulted in overall LOS of D, E or F in the AM 2024 No Build peak street hour traffic analysis. The majority of the approaches in these signalized intersections have significant control delay. Variables that may contribute to control delay include traffic signal operation, intersection geometry, reaction times, etc.

The remaining unsignalized intersections in the 2024 AM No Build condition achieves LOS of A, B or C. No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners; however, in this case, the approaches resulted in an LOS of A, B or C. Thus, no additional analysis is required for the unsignalized intersections.

PM Peak Street Hour Scenario

In the 2024 PM No Build condition, the findings of the capacity analysis determined that the LOS for five (5) intersections achieves LOS of A, B or C. Those include US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and Laurel Avenue, Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (eastbound/westbound) and Forge Hill Road (CR 74) and NYS Route 94. Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

Three (3) intersections, US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, NYS 32 & Quaker Avenue (CR 107) and NYS Route 32, NYS Route 94 & NYS Route 300, resulted in overall LOS of D, E or F in the PM Peak traffic analysis in the No Build 2024 condition. The majority of the approaches in this signalized intersection have significant control delay. Variables that may contribute to control delay include traffic signal operation, intersection geometry, reaction times, etc. US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road and NYS 32 & Quaker Avenue (CR 107) both have an average control delay between 35.1 to 55.0 seconds per vehicle which equates to LOS D. The intersection of NYS Route 32, NYS Route 94 & NYS Route 300 results in LOS F in the PM as the as the average control delay is greater than 80 seconds per vehicle. LOS D, E and F occurred in all of the approaches.

[7] TEM is utilized for signalized intersections. Thus, TEM was used to guide the air quality qualitative analysis in this study.

Two (2) unsignalized intersections, US Route 9W and Quaker Avenue (CR 107) northbound and southbound ramps and Old Route 9W & River Road resulted in approaches LOS of D, E or F in the PM traffic analysis. US Route 9W and Quaker Avenue (CR 107) achieves LOS F in the northbound left turn movement. US Route 9W and Quaker Avenue (CR 107) southbound achieves LOS F in the northbound left turn movement. Old Route 9W & River Road achieves LOS F in the eastbound left-through-right movement. The remaining approaches reach LOS A, B or C in each intersection.

No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners.

Build Conditions (2024)

AM Peak Street Hour Scenario

Eighteen (18) existing intersections were analyzed for the first level of screening in AM scenario in the Traffic Impact Report. The first level of screening for the intersections were analyzed using guidance from The Environmental Manual (TEM).[8] In the AM condition, of the nine (9) signalized intersections analyzed, the findings of the capacity analysis determined that the LOS for seven (7) intersections in the 2024 No Build condition achieves LOS of A, B or C. Those include US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and Laurel Avenue, Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (eastbound/westbound), Forge Hill Road (CR 74) and NYS Route 94 and US Route 9W and Northern Site Driveway. No further air quality analysis would be required for those intersections (at LOS A, B or C as cited above). Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

Two (2) signalized intersections, NYS Route 32 & Quaker Avenue (CR 107) and NYS Route 32, NYS Route 94 & NYS Route 300 resulted in overall LOS of D, E or F in the AM 2024 Build peak street hour traffic analysis. The majority of the approaches in this signalized intersection have significant control delay. Variables that may contribute to control delay include traffic signal operation, intersection geometry, reaction times, etc. NYS Route 32 & Quaker Avenue (CR 107) and NYS Route 32 achieves LOS D in both the No Build and Build scenarios. NYS Route 32, NYS Route 94 & NYS Route 300 achieves LOS F in both the No Build and Build scenarios. In this condition, there is also no increase in delay per vehicle. Thus, the overall LOS for the intersection, in the AM, will be D, E or F whether or not the project is built. Thus, the LOS level will not decrease as a result of the Project in 2024 and will not degrade as the Project is advanced.

The remaining unsignalized intersections in the 2024 AM Build condition achieves LOS of A, B or C. No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners; however, in this case, the approaches resulted in an LOS of A, B or C. Thus, no additional analysis is required for the unsignalized intersections.

Further, as proposed within the Traffic Impact Study (TIS) the intersection of NYS Route 32 & Quaker Avenue (CR 107) will undergo signal timing modifications. With this update, the overall LOS for the intersection would still result in LOS D; however, will operate equivalent to or better than the No-Build scenario in regards to average control delays. Per the TIS, "the proposed mitigation measures would need to be coordinated with the proper authorities, including but not limited to the Town of Cornwall, Orange County, NYSDOT, and the appropriate utility companies."

PM Peak Street Hour Scenario

In the 2024 PM Build condition, the findings of the capacity analysis determined that the LOS for six (6) intersections achieves LOS of A, B or C. Those include US Route 9W and Union Avenue (CR 69)/Old Route 9W, US Route 9W and

[8] TEM is utilized for signalized intersections. Thus, TEM was used to guide the air quality qualitative analysis in this study.

Laurel Avenue, Main Street (CR 9) and Willow Avenue (CR 32), US Route 9W and I-84 Ramps (westbound), Forge Hill Road (CR 74) and NYS Route 94 and US Route 9W and Northern Site Driveway. Those that achieve overall intersection LOS D, E or F were further qualitatively analyzed.

Four (4) intersections, US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road, NYS 32 & Quaker Avenue (CR 107), NYS Route 32, NYS Route 94 & NYS Route 300 and US Route 9W and I-84 Ramps (eastbound), resulted in overall LOS of D, E or F in the PM Peak traffic analysis in the Build 2024 condition. The majority of the approaches in this signalized intersection have significant control delay. Variables that may contribute to control delay include traffic signal operation, intersection geometry, reaction times, etc. US Route 9W and Forge Hill Road (CR 74)/Sloop Hill Road and NYS 32 & Quaker Avenue (CR 107) both have an average control delay between 55.1 to 80.0 seconds per vehicle which equates to LOS E. The intersection of NYS Route 32, NYS Route 94 & NYS Route 300 continues to result in LOS F in the PM as the as the average control delay is greater than 80 seconds per vehicle. LOS D, E and F occurred in all of the approaches. US Route 9W and I-84 Ramps (eastbound) will increase in control delay in the 2024 Build condition to LOS D from No Build condition of LOS C.

Two (2) unsignalized intersections, US Route 9W and Quaker Avenue (CR 107) northbound and southbound ramps and Old Route 9W & River Road resulted in approaches LOS of D, E or F in the PM traffic analysis. US Route 9W and Quaker Avenue (CR 107) achieves LOS f in the northbound left turn movement. US Route 9W and Quaker Avenue (CR 107) southbound achieves LOS f in the northbound left turn movement. Old Route 9W & River Road achieves LOS f in the eastbound left-through-right movement. The remaining approaches reach LOS A, B or C in each intersection.

No overall intersection LOS is provided for unsignalized intersections in the Traffic Impact Report. LOS at unsignalized intersections are defined by minor movements since the "through" movement on the main roadway is not affected by intersection traffic control. In addition, there is often much more unpredictability in the delay experienced by individual drivers in the minor movements at non-signalized intersections. The LOS of the location is typically a result of stacking by attempted turners.

As proposed within the TIS, the intersection of US Route 9W & Forge Hill Road/Sloop Hill Road, NYS Route 32 & Quaker Avenue (CR 107) and US Route 9W & I-84 ramp (eastbound) will undergo signal timing modifications. With this update, the overall LOS for the intersections of US Route 9W & Forge Hill Road/Sloop Hill Road and US Route 9W & I-84 ramp (eastbound) would achieve LOS C and would not require additional analysis under The Environmental Manual. NYS Route 32 & Quaker Avenue (CR 107) would still result in LOS D; however, will operate equivalent to or better than the No-Build scenario in regards to average control delays. Per the TIS, "the proposed mitigation measures would need to be coordinated with the proper authorities, including but not limited to the Town of Cornwall, Orange County, NYSDOT, and the appropriate utility companies."

NYS Route 32, NYS Route 94 & NYS Route 300, although LOS D, E or F in the future, should not require microscale analyses as capacity analysis would be comparable as to delay times and/or achieve reduced delay times as a result of proposed signal timing changes in the Build and No Build scenario. In summary, the overall LOS for the intersection will be D, E or F whether or not the project is built. Thus, the LOS level will not decrease as a result of the Project in 2024 and will not degrade as the Project is advanced.

As a result of the above traffic findings and proposed intersection modifications, no significant change in delays will occur as a result of the project build out. Thus, no significant change in the Level of Service will result from the proposed Project. Further mobile analysis should not be required for the Project as it would not result in a significant air quality impact based upon traffic changes.

Air Quality Impacts

No significant air quality impacts are anticipated as a result of the buildout of the Project. Eighteen (18) existing and proposed intersections were analyzed for the first level of screening in AM and PM scenarios in the Traffic Impact Report. These analyses were utilized to determine the impacts, if any, to air quality as a result of the proposed action. As provided above, comparable Levels of Service and delays will be experienced under the No Build and the proposed 2024 Build Conditions with proposed traffic modifications.

It should be noted that the subject property was previously approved for the Cornwall Commons mixed-use development which consisted of single-family homes, apartment units, hotel, care facility, office building, shopping center and restaurant. The previously approved use would result in 236 greater trips during the weekday morning peak hour and 456 greater trips during the weekday evening peak hour. Thus, the currently proposed action includes a significant vehicle trip reduction.

The site plan for the warehouse facility will provide for truck-trailer parking spaces. For parked trucks at the Project Site, Title 6 NYCRR Part/Subpart 217-3 of the New York State Environmental Conservation Law (ECL) prohibits heavy duty vehicles, including diesel trucks and buses, from idling for more than five minutes at a time. Thus, there will be no extended periods of truck idling at the site. This law was enacted to prevent air pollution in the environment. This regulation also prevents excessive noise and reduces fuel use.

Again, as a result of the above traffic findings and proposed intersection modifications, no significant change in delays will occur as a result of the project build out. Thus, no significant change in the Level of Service will result from the proposed Project. Further mobile analysis should not be required for the Project as it would not result in a significant air quality impact based upon traffic changes. As per the traffic analysis, many of the intersections in the analyzed intersections will run at LOS A, B or C in the Build Condition/Build Condition with mitigation scenarios. These intersections do not require additional microscale analysis per The Environmental Manual. Intersections that do not achieve this will run at LOS comparable to the No Build Condition/No Build Condition with mitigation scenarios. Thus, no significant impacts are anticipated.

As previously mentioned, sensitive receptors (i.e., schools, hospitals, etc.) were attempted 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). During this study, the New York Military Academy was noted approximately 1,000 feet southeast of the site and the Cornwall Central Middle School was noted as located approximately 1,300 feet southwest of the subject site. 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.

Climatic inversions are the result of a warm layer of air that rises and traps a layer of cooler air at ground level, usually for a period of a day or days. If this warm layer persists at the surface for a day or more, it prevents dispersion of pollutants, including vehicle emissions, dust and smoke. Such inversions are typical of areas with mountain valleys or areas clustered up against a mountain range. The local topographical and meteorological characteristics at this site are not conducive to the formations of climatic inversions.

Construction

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/or 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.

New York State Department of Environmental Conservation (NYSDEC) considers potential impacts as a result of blasting in the State Environmental Quality Review Act in the Environmental Assessment Form. If blasting occurs more than 1,500 feet from any residence, hospital, school, day care or nursing home, then no significant impacts are anticipated. A small impact may occur if blasting only occurs during the construction phase of the project. If blasting occurs within 1,500 feet of the above referenced residence receptors, no significant impacts will be anticipated as mitigating measures will be taken.

Measures will be taken to prevent air quality impacts to the surrounding environment, if blasting is required. Blasting mats will be utilized at the construction site. These mats will control the blast, as well as prevent high velocity fragments from damaging structures, prevent dust exposure and will suppress noise. Further, blasting blankets will be used in combination with the mats to provide further suppression of material. Vibration and airblasts as a result of blasting will not create a significant impact to receptors. The energy levels produced by blasting events decrease rapidly with distance.

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, if required.

Increases in pollutant emissions can, in some cases, result from construction traffic enroute to a project site. Construction traffic, specific to this project, is temporary, self-correcting and is not anticipated to decrease overall existing air quality. 40 CFR 93.123(c)(5) which states: "CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established "Guideline" methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." 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. In addition to the above, The Environmental Manual (TEM) will be utilized as an additional source of guidance for reducing potential impacts to air quality. However, as mentioned above construction traffic, specific to this project, is temporary, as such self-correcting and is not anticipated to decrease overall existing air quality.

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.

Stationary Sources

Sources of pollutants that are fixed in location, rather than mobile, are termed "stationary sources." Stationary sources that may cause air quality impacts include exhaust from boiler stack(s) or HVAC units used for the heating, hot water, ventilation, and air conditioning systems of a building; the process exhaust points of a manufacturing or industrial operation; the stack emissions from a nearby power generating station; or the emissions from incinerators or medical or chemical laboratory vents. In this case, the site's building HVAC systems are essentially too small to qualify for a permit and impacts are insignificant per state regulations.

Title 6 NYCRR, Chapter III Air Resources, Subchapter A. Prevention and Control of Air Contamination and Air Pollution Part 201-3.2 Exempt Activities states:
(1) Stationary or portable combustion installations with:
(i) a maximum rated heat input capacity less than 10 million Btu/hr. burning fuels other than coal or wood; or
(ii) a maximum rated heat input capacity of less than one million Btu/hr. burning coal or wood.

Since the Project's heating and cooling systems will each be rated at less than 10 million Btu/hr. and will be burning fuels other than coal or wood, no permitting will be required. Thus, no further analysis in regards to potential air quality impacts due to stationary sources is necessary as it would not result in a significant or extended impact on air quality as a result of the project.

Greenhouse Gas - Solar Panel Benefits

The proposed project will construct some 2,140,380 gross square feet of buildings. Assuming 75 percent is available for solar panel installation, them approximately 148,600 square meters (SM) of panels could be installed. Given the northeastern latitude and average weather patterns 150 W/d/SM of solar insolation occurs on average. With a 15 percent efficiency, 3,344.5 kWhr of gross power could be generated on site per day. When decreased high temperature efficiencies (i.e., commercial rooves heat up is daylight hours – especially in summer) and transmission losses are subtracted, a net 3,000 kWhr of generation could occur on site.

The site is expected to consume some 35,770 kWhr/d of electricity on average. The above generation would represent 8.3 percent of that usage. Assuming this generation was produced with petroleum combustion, Approximately 6,390

pounds of CO_2 or GHG equivalents per day or 2.3 million pounds of CO_2 or GHG equivalents per year would be "saved" by this action.

Conclusions:

In review of screening guidelines of The Environmental Manual (TEM), 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.

The use of solar panels on the rooftops of the warehouses would save some 2.3 million pounds of CO_2 or GHG equivalents per year.

N – Cultural Resources Survey, prepared for Cornwall Commons Project

NEW YORK STATE OF PARKS · RECREATION · HISTORIC PRESERVATION
Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643

December 11, 2006

Gerald N. Jacobowitz
Jacobowitz and Gubits, LLP
158 Orange Avenue
PO box 367
Walden, NY 12586-0367

Dear Mr. Jacobowitz,

Re: SEQRA
Proposed Cornwall Commons Development
Archaeological Review/Southern Parcel
Town of Cornwall, Orange County, NY
04PR01834

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) with regard to the potential for this project to affect significant historical/cultural resources. OPRHP has reviewed the archaeological report submitted for this project. Based on our review of that report, the OPRHP has no further archaeological concerns regarding this project.

Please note that if state and or federal permits are necessary, the project will need to be reviewed in accordance with Section 14.09 of the State Historic Preservation Act or Section 106 of the National Historic Preservation Act. While archaeological issues with the site have been addressed, it may be necessary to conduct further review for architectural resources.

Please contact me at extension 3291, or by e-mail at douglas.mackey@oprhp.state.ny.us, if you have any questions regarding these comments.

Sincerely

Douglas P. Mackey
Historic Preservation Program Analyst
Archaeology

PHASE I CULTURAL RESOURCES SURVEY
SITE ASSESSMENT AND SITE IDENTIFICATION PHASES
PROPOSED CORNWALL COMMONS DEVELOPMENT
TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK

Prepared for
Cornwall Commons, LLC
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Report CA553AB-2-2-06
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INTRODUCTORY SUMMARY

Residential development is proposed for an approximately 143.8-acre (58.2-hectare) parcel located in the northeastern part of the Town of Cornwall and the adjacent portion of the Town of New Windsor in eastern Orange County, New York. The project parcel is located northwest of NYS Route 9W, just east of and above Moodna Creek, and consists of generally flat to gently to steeply sloping former pasture and agricultural land now populated mostly by scrub vegetation and young forest.

A Phase IA site assessment study was carried out in September 2005 to update and extend an earlier investigation performed in 2001 for the New Windsor portion (Oberon 2001). The goal of this effort was to evaluate the potential for proposed construction to cause impact to standing or buried Native and/or European American era cultural resources. Based on known settlement patterns associated with each of these occupations, cultural resources documented for the immediate vicinity of the study area, and a reconnaissance of the property to identify subareas of greater and lesser archaeological sensitivity, the flatter portions of the affected area were considered to have an average potential for containing buried Native American cultural remains. This potential was seen to be somewhat lower than other nearby locations along Moodna Creek and the shore of the Hudson River.

As part of the Phase IA study, the potential for visual impact on significant standing structures adjacent to and within view of the study area was evaluated. No structures currently listed on, nominated to, or determined eligible for inclusion in the State or National Register of Historic Places are located within the project viewshed. No buildings that meet minimum age requirements for eligibility were noted to have a view of the proposed development.

A Phase IB site identification survey was recommended for flatter, better drained portions of the affected area where no serious prior disturbance to upper soils can be demonstrated. This survey was carried out in October and November 2005. One item relating to the Native American occupation of the region was encountered in each of two test holes located over 300 feet (91 meters) apart. Following standard practice for such cases, eight additional screened shovel tests were executed around each find spot. No more Native American cultural material was recovered and the finds were interpreted as representing casual rather than focused cultural behavior, associated with the opportunistic exploitation of glacially-deposited chert cobbles accessible on the ground surface. A scatter of European American era material was recovered in sampling in the vicinity of a surface refuse deposit identified during the 2001 survey. Consisting mostly of items dating from the second half of the twentieth century, these finds are seen as constituting secondary refuse deposition from an unknown source.

Based on these findings, the cultural material encountered may be considered to have little potential to contain significant cultural information or to be associated with more extensive archaeological deposits. Development as proposed the may therefore be seen to have no effect on potentially significant cultural resources and no further investigation is recommended.

PHASE IA SITE ASSESSMENT STUDY

PROJECT BACKGROUND

The study area encompasses approximately 143.8 acres (58.2 hectares) of generally flat to gently to moderately steeply sloping terrain in eastern Orange County, in the eastern portion of the State of New York. The parcel lies in the northeast portion of the Town of Cornwall abutting the Town of New Windsor, to the northwest of NYS Route 9W and some 0.9 miles (1.4 kilometers) southeast of the Vails Gate five-road intersection. Moodna Creek, a major local drainage and tributary of the Hudson River, flows below the western limits of the property, which is bounded on the southwest by single-family homes along Schofield Lane and Frost Lane, on the south and southeast by vacant land, the southeastern portion of which is owned by the New York Military Academy, and by Route 9W, this segment of which is a four-lane divided highway featuring scattered commercial structures along the east side. The northern limits of the study area abut the Town of New Windsor and a previously-approved development parcel. No buildings stand on the property, which contains approximately seven acres (2.8 hectares) of jurisdictional federal wetlands. The Catskill Aqueduct crosses the southwestern portion of the study area in a 50-foot (15-meter)-wide easement and 15-foot (4.5-meter)-wide sanitary sewer easement crosses the same part of the property some 430 feet (132 meters) to the southwest. The subject parcel is populated mostly by scrub vegetation and young forest with grassy subareas.

Proposed development involves clearing some of the existing vegetation, grading as needed, and the construction of three-story free-standing multi-unit senior citizen residences, attached two-story single family senior residences, a three-story congregate care unit, recreational facilities including a pool, club, putting green and tennis courts, a commercial building containing offices and a food service, 211 detached single-family houses, along with access roads, utilities, parking areas, walking trails, ponds, parkland and landscaping. Construction will be focused in the better-drained portions of the parcel, and other more poorly drained subareas, including the wetlands, being preserved as green space or parkland with ponds.

The proposed development site is located in the southeasternmost part of the Wallkill Valley portion of the Hudson-Mohawk Lowlands region of New York State, a broad, open valley drained by the Wallkill River. adjacent to the northeastern limits of the Hudson Hills portion of the New England Uplands region, characterized by rugged terrain eroded by fast-running streams. The west bank of the Hudson River located some 2.2 miles (3.6 kilometers) east of the study area. The Wallkill Valley is geologically characterized by shale and shaly sandstone bedrock covered by glacial drift, overlain by deep acid soils on glacial till, with igneous and metamorphic rocks underlying shallow acid soils on glacial till in the Hudson Hills (Thompson 1966: 28-29; Figs. 8 & 33). Soils within the study area are characterized by good to fair to poor drainage, with development to be focused on the better-drained locations.

As noted above, the ground surface of the study area consists of flat to gently to moderately sloping former farmland and pasture, with steeper slopes in the westernmost portion, adjacent to Moodna Creek. Mature trees are present along former hedgerows, many of which are marked by dry-laid fieldstone walls, which also border wetlands and divide spaces within the property.

A Phase IA site assessment study was performed in September 2005 by Stephen Oberon, serving as Principal Investigator, assisted by Kim Croshier, using resources of the Newburgh Free Library, the Orange County Historical Society in Goshen, the New York State Office of Parks, Recreation and Historic Preservation, the New York State Museum, the New York State Library, and the New York State Archives in Albany. A walking reconnaissance of the study area was carried out by the Principal Investigator, during which the relative archaeological potential of the various subareas was assessed, any prior disturbance and other factors likely to reduce such potential were noted, and any structures that have a view of the proposed development that meet the minimum age requirement for inclusion on the State and National Register of Historic Places were photodocumented.

CULTURAL BACKGROUND AND SENSITIVITY ASSESSMENT

As mentioned, the study area consists of gently to moderately to steeply sloping land previously devoted to agriculture and pasture. The southern portion of the property contains three wetlands, designated wetland A, C and D, with Wetland E located in the northeastern portion of the parcel, Steepest slopes are present in the westernmost portion nearest the bank of Moodna Creek. Most of the property is populated by scrub vegetation and young forest, with mature trees present along dry-laid field stone farm walls that cross the parcel at various angles, with grasses present in several subareas.

Historic Structures

Three sites in the vicinity of the study area have been determined to meet the eligibility requirements for listing on the State and National Register of Historic Places under Criterion C, in that they are considered by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) to embody the distinctive architectural characteristics. Unique Site A071.15.0707, the Haskell House or The Hermitage, which is listed on the National Register, is located some 0.5 miles (0.8 kilometers) west of the project area. Knox's Headquarters, another eighteenth century building standing approximately 0.3 miles (0.5 kilometers) to the northwest, is also listed (90NR02322). Captain Machin's Battery, a Revolutionary War era fortification (Unique Site AO71.15.0592) located roughly 0.9 miles (1.4 kilometers) to the northeast, is part of the Sloop Hill State Unique Area, has been determined National Register eligible. These properties all lie outside the project viewshed.

No other structures currently listed on the State or National Register, nominated or determined eligible for listing, or meet the minimum age requirements for eligibility were identified adjacent to the proposed development or within its viewshed.

Native American Era

Twelve sites of Native American cultural activity are listed in State Historic Preservation Office and New York State Museum (NYSM) files for this portion of the Town of Cornwall and the adjacent part of the Town of New Windsor within one mile (1.6 kilometers) of the study area. Additional sites are listed within a 2-mile (3.2-kilometer) radius. These run the gamut from traces of occupation with little information regarding their age, cultural affiliation or what function they served, through camps, villages and burial grounds that span a time frame from Palaeo-Indian through Archaic and Late Woodland times, a period extending from around 8000BC through the mid-seventeenth century. Some occupations along Moodna Creek and elsewhere in this area are known to have persisted into the early period of European American settlement. The Native American sites documented within one mile (1.6 kilometers) of the study area are summarized as follows.

NUMBER	NAME	TIME/CULTURE	DISTANCE
A071.15.0704	Cornwall Commons Stray Find #1	unknown	adjacent
A071.15.0705	Cornwall Commons Stray Find #2	unknown	adjacent
A071.15.0024	Canterbury Lane West Site	unknown	0.2mi/0.4km
A071.15.0125	Hudson Horizon Native American Site	Archaic	0.5mi/0.8km
A071-15.0028	Prehistoric Site	unknown	0.4mi/0.6km
A071.15.0123	none	unknown	0.6mi/1.0km
A071.15.0023	Plum Point Site	Archaic	0.7mi/1.2km
A071.15.0022	Lafayette Line B Site	Vosburg/ Laurentian Archaic	0.8mi/1.4km
A071.15.0018 NYSM 561	Nicoll Farm Site	Palaeo-Indian Late Woodland	0.5mi/0.8km
NYSM 4381	Parker Orange Co. unnumbered	Woodland "village"	0.9mi/1.5km
NYSM 563	Moodna Creek Site	unknown	0.3mi/0.5km
NYSM 562	none	unknown	0.4mi/0.7km

Other sites documented in this portion of the Hudson Valley point to the presence of aboriginal inhabitants from at least the Late Archaic through the Late Woodland periods, spanning a time from approximately 2000BC through the arrival of Europeans around AD 1680. In assessing the potential for Native American presence in the vicinity of the study area, it must also be noted that this area has never had the benefit of a systematic professional archaeological survey, with known sites having been encountered unexpectedly during construction of roads, railroads or buildings, through the clearing and cultivation of agricultural fields, by avocational archaeologists inspecting plowed fields, and through the investigation, such as is represented by the present survey, of specific areas for which some type of development or construction project is proposed (e.g., Oberon 2001). As a result, the number and range of Native American occupation sites present in this part of the Town of Cornwall and the adjacent Town of New Windsor are likely to be underrepresented in the site files with regard to both temporal and spatial distribution.

The potential must therefore be recognized for better-drained, flatter portions of the study area to have seen what would most likely have been seasonal occupations by small groups exploiting the plant and animal resources offered by the nearby stream and wetlands environments. Such occupations would most likely have been a component in the seasonal patterns of movement that characterized indigenous populations through at least the Archaic and Transitional periods, although small seasonal occupation sites were also present during later times.

As noted, Native American archaeological remains likely to be present in the study area would probably consist of small, seasonally occupied camps that would have supported small numbers of people for short periods of time, probably on a recurring basis. Cultural remains associated with such sites typically are sparse, shallow and spatially restricted, although they may include hearths, storage pits and/or traces of structures. Larger sites may also include extensive refuse deposits and fortifications. Exposed veins of lithic resources suitable for the manufacture of stone tools, and rock formations such as caves and overhangs that could provide shelter, are also likely to have attracted the indigenous population of the area, as are certain natural phenomena, such as springs and unique rock formations, that would have held religious significance. Reconnaissance of the affected area noted no exposed deposits of lithic material known to have been used in the manufacture of stone tools, no rock overhangs or caves that might have served as shelters, and no natural features known to have been endowed with religious significance. However, the potential may be seen to exist for the presence within the study area of Native American cultural remains pertaining to smaller, seasonally-occupied camps during at least the last four millennia during which this region saw human occupation. It must be noted that the study area is less likely to have constituted an attractive setting for occupation by indigenous inhabitants of the area than other nearby locations, particularly the lower area along Moodna Creek, where several Native American occupation sites, pertaining to a variety of time periods, have been documented. Systematic archaeological investigation of the neighboring parcel encountered only two stray finds (Oberon 2001).

European American Era

European American era occupation of this portion of what is now the Town of Cornwall and the nearby Town of New Windsor dates to the early decades of the eighteenth century, when most settlement was focused along the Hudson River at places such as Orangeville and the hamlet of New Windsor.

Inland from the river, small nucleated settlements developed around the intersections of major roads and at locations where suitable water power was available to drive small, locally-oriented industries. The hamlets of Orrs Mills (Flour Mills), Townsville and Canterbury to the south, and southeast and Vails Gate to the north are examples of this phenomenon. With the development of railroads during the post-Civil War era, commercial and industrial activity as well as residential settlement also focused around rail stops, such as Firthcliffe Station, Cornwall Station, and Meadow Brook Station.

As was the case in most of this region, most early settlement outside nucleated rural industrial and commercial centers was dispersed and focused along early roadways, near which farm houses and their associated outbuildings were erected. The portion of what is today NYS Route 9W that borders the southeastern limits of the study area dates from the twentieth century.

With the development of what became the City of Newburgh during the nineteenth century, spurred by the growth of the railroad and river shipping industries and the concentration of manufacturing around the commercial hub, the smaller river ports in the area mentioned above were eclipsed and the industrial aspects of the smaller hamlets declined in favor of a burgeoning role as primarily residential communities supported by local services such as stores and repair shops. This may clearly be seen in the development of the Village of Cornwall-on-Hudson (Canterbury) during the post-Civil War era, when the natural beauty of the area attracted residents from New York City and other urban locations as well as people from the local area. The vicinity of the study area, remained largely farmland through the early twentieth century, but a dramatic increase in the density of residential development may be seen along NYS Route 32 (Newburgh Road) and at locations such as Vails Gate and during the last three decades of the nineteenth century, accompanied by the disappearance of Townsville and Orangeville as place names on maps of this era.

Four sites pertaining to this period are listed in the NYS Office of Parks, Recreation and Historic Preservation site files within one mile of the study area. They are summarized as follows.

Number	Name	Period/Type	Distance
A071.15.0007	John Haskell Site	18th century house	0.5mi/0.8km
A071.15.0026	Hazard's Mill Lott	18th century industrial	0.9mi/1.5km
A071.15.0027	Old Icehouse	unknown/ice house	0.9mi/1.5km
A071.15.0019	O'Rourke Burial Site	no info/burial	0.4mi/0.6km

The Hazard's Mill Lott Industrial Complex, a mill complex and associated structures occupied from the eighteenth through the twentieth century, has been nominated for listing on the National Register of Historic Places (Connor 1979). The John Haskell Site is associated with the National Register listed property mentioned in a previous section of this report.

As noted, the portion of the township in which the study area is located appears to have been typical of the settlement pattern for areas outside nucleated communities described earlier, with a scatter of early individual farmsteads along roadways. It is located outside the primary areas discussed above where residential development was focused during the late nineteenth century.

Based on known European American era settlement patterns, a walking reconnaissance of the property and a search of historical texts and maps, there appears to be a low potential for buried cultural remains pertaining to this period of occupation to be present within the study area. The fact that the roadways adjacent to the west and southeastern limits of the property date from the post-World War II era and no antecedent roads are shown crossing or bordering this area on nineteenth century maps makes it unlikely that remains of early structures razed prior to the publication of detailed maps would be present here.

RECOMMENDATIONS

A Phase IB site identification survey is recommended for the flatter, better-drained portions of the affected area, as such locations in this physiographic setting must be considered to have a potential for the presence of buried Native American cultural remains. The potential for eighteenth and early nineteenth century structural remains and associated cultural features pertaining to undocumented early occupation of the property is considered low.

This Phase IB survey should employ sampling methods adequate for detecting traces of the small, seasonally occupied camps likely to occur in this physiographic setting, as well as any deposits associated with early European American era cultural activity areas and structures, along with any larger occupation sites and/or activity areas that might be present.

PHASE IB SITE IDENTIFICATION SURVEY

RESEARCH DESIGN

The Phase IA site assessment performed for this study area identified a potential for buried Native American cultural remains to be present within portions of the proposed approximately 143.8-acre (58.2-hectare) development site not characterized by poorly drained soils, steep slopes or serious prior upper soil disturbance. This assessment was based on the proximity of documented Native American occupation in this part of the Moodna Creek drainage in the Town of Cornwall and the adjacent Town of New Windsor and the fact that better-drained lands near streams and wetlands are known to have been attractive to indigenous inhabitants of the region.

Flatter, better-drained locations near a water source have been found to have been preferred by indigenous populations in the Northeast for occupations ranging from small camps to villages. In times of turmoil, defensive considerations were added to these criteria. Steeply sloping and poorly drained areas or wetlands would generally be seen as of low potential for the occurrence of Native American cultural resources.

Exceptions to this assessment would include steeply sloping locations where lithic resources such as chert would have been accessible to indigenous populations and/or where rock overhangs and caves that could have served as shelters are present. Although poorly-drained areas would seldom be expected to contain habitation sites, the more elevated, better-drained peripheries of such places are likely to have been selected for camps from which the plant and animal resources of the wetter areas would be exploited. Such camps would have served as temporary habitation sites and locations where food was prepared, tools completed and repaired, and animal resources processed (i.e., skinned, butchered, smoked, dried) after being procured nearby.

Smaller sites, which predominate prior to the later Woodland Period and continue to occur during this time, are known to have been occupied by indigenous populations in conjunction with what was usually a seasonal exploitation of plant and animal resources. Generally, these camps would be inhabited for short periods of time, although such episodes of occupation are known to have continued on a regular basis over many centuries.

The inventory of reported archaeological sites for this area indicates that Native American occupation of this part of the Moodna Creek drainage persisted from at least the Middle Archaic through the Late Woodland period (c. 4000BC-AD1650) and on into the era of European American settlement during the later seventeenth and eighteenth century, with information from one site implying a presence during Palaeo-Indian times some 10,000 years ago. Based on this information, the temporal and cultural affiliation of Native American era archaeological remains that might be expected to occur in this part of what is now the Town of Cornwall could represent any phase of human culture in this region.

As mentioned above, occupation through at least the Middle Woodland Period was considered likely to have occurred on a seasonal basis and to have usually been associated with the exploitation of nearby plant and animal resources. The material remains of sites reflecting such behavior are most likely to be sparse, shallow and spatially restricted, although deeper cultural features and remains of structures may be present. Larger sites, usually pertaining to Woodland period occupations, may include deep refuse deposits, remains of more substantial structures and defensive constructions, such as stockades.

Because reconnaissance had revealed no outcrops of lithic material likely to have been utilized in the manufacture of stone tools, the potential for the presence of bedrock quarry sites was considered low. The absence of caves and rock overhangs eliminates the potential for shelters associated with such features to be present within the affected area. The presence of glacial till near the ground surface raises the possibility of localized exploitation of accessible cobbles and boulders of chert, quartz, quartzite and other lithic resources suitable for the manufacture of stone tools and the presence of small stone processing stations and workshops.

Nineteenth and early twentieth century published sources give no indication that anything other that agricultural activity areas took place in this area. With the exception of the dry-laid field stone farm walls discussed previously, reconnaissance noted no structural features or remains and no other visible surface anomalies that might indicate prior construction on or pre-twentieth century utilization of the affected area for other than agricultural purposes. Only localized disturbance of upper soils was noted on the property.

As mentioned above, since European American settlement of this area dates to the eighteenth century, a general potential exists for the presence of remains of structures and activity areas that pre-date the publication of detailed maps for this area during the middle of the nineteenth century. Like smaller Native American sites, the archaeological remains of early buildings that were abandoned prior to the publication of area maps showing individual structures, eighteenth century military activity, and cultural features associated with such sites would be likely to be spatially restricted and characterized by sparse cultural material quite shallow in vertical extent and occurring near the ground surface in areas not characterized by stream or erosion deposition. However, because NYS Route 9W dates from the twentieth century and no other roads appear to have crossed or abutted the property, this potential may be seen to be sharply reduced for this project area.

METHODOLOGY

The study area ranges topographically from flat through gently and moderately sloping terrain, with steepest slopes present in the westernmost portion nearest Moodna Creek, where no impact is proposed. The affected area consists of abandoned agricultural fields and pasture land now populated mostly by young forest growth and scrub vegetation, with grasses present in some subareas. Mature trees are present along former hedge rows and adjacent to dry-laid fieldstone farm walls, as well as scattered as solitary figures across the property.

A subsurface sampling plan was developed that called for better-drained and flatter locations to be archaeologically sampled by means of hand-dug shovel test holes executed in a grid pattern and placed at intervals of approximately 50 feet (15 meters), with adjustments in spacing made as required to follow topographic features or avoid obstacles such as large trees and zones of obvious prior serious upper soil disturbance. Test holes would be dug using small hand tools and their contents would be screened through 1/4-inch (6.25-millimeter) hardware cloth to facilitate the recovery of smaller cultural items.

Any Native American era cultural items recovered would be marked with a numbered pin flag and their location later recorded on the project map along with that of other sampling units. Any relative concentrations of pre-World War II European American era material would also be marked for further investigation. Any isolated test holes that produced Native American cultural material would be more intensively sampled by means of four to eight additional shovel tests placed 10-feet and 5 feet (3 and 1.5 meters) at cardinal points around each find spot to determine whether a likely site of cultural activity or a stray find is indicated.

Such methods are considered adequate for detecting traces of smaller Native American camps, special purpose sites and early Euro-American era sites as well as any larger Native or European American era occupations that might be present. The smaller-interval sampling of the area nearest the standing residential structure was chosen to maximize the potential for noting evidence of the remains of very small buildings, such as privies, which are less likely to be detected by the 50-foot (15-meter) interval. Since the vicinity of small buildings is usually characterized by some scatter of cultural material, the smaller-interval sampling would be likely to at least reveal this presence of more concentrated presence of cultural items, which would in turn lead to the identification of these features and/or structural remains during the more intensive investigation that follows initial identification. Close observation of the area around the standing structures with the aim of detecting possible topographic or vegetative anomalies that might be present was also considered useful for identifying the sites of smaller buildings and cultural features that might elude shovel sampling.

Assessment of soils present within the affected area, which were found to contain gravels and other glacial deposits on or just beneath the ground surface, indicated a low potential for the presence of deeply buried culture-bearing soils within the portions of the property for which development impact is proposed.

FIELD INVESTIGATION

Phase IB field investigation of this phase if the proposed Cornwall Commons development was carried out in October and November 2005, under good to excellent field conditions, cool to moderate seasonal temperatures, and no precipitation. Ground visibility both in areas populated by grasses and in zones of scrub and young forest was generally poor due to the density of decayed vegetation. Soils were found to be somewhat moist to moderately dry in most places sampled. The Phase IB field investigation was directed by the Principal Investigator, assisted by Archibald Miller, Katrina Mobley and Jaking Lott.

Shovel test transects were laid out and executed parallel or perpendicular to property boundaries, stone field walls, and physiographic features where possible, to facilitate orientation in the field and later mapping. Subareas of very dense vegetation were first cleared using hand tools such as machetes, loppers and saws, along with a hand-held gasoline powered brush cutter. Transects were laid out as shown on the project map and any visible anomalies with the potential to signify the presence of buried cultural features were marked for testing.

Culturally sterile soil consisted of orange, tan orange, bright orange, yellow orange, yellow, yellow tan, tan yellow and tan silt, sometimes with sand and/or clay under dark brown olive brown, grey brown, orange brown, medium brown or yellow brown silt or silt with varying proportions of clay and/or sand. Both strata were found to contain unsorted coarse, medium and fine gravels, cobbles and sometimes boulders. What appears to represent an old plow zone was noted in the northern portion of the sampling area but absent in the more southerly areas, and where soils are more poorly drained.

Culturally sterile soils were to be present at depths ranging from 4.4 to 16 inches (11 to 40 centimeters) beneath the ground surface. No problems occurred that might have influenced the process or outcome of the Phase IB field investigation.

Archaeological sampling identified one item associated with the Native American occupation of the area in each of two test holes located more than 300 feet (91 meters) apart. One find spot occurred adjacent to Wetland "C" and the other overlooking a small, seasonal stream that drains Wetland "D". Eight additional test holes executed around each find spot as outlined failed to encounter any additional cultural material. A scattered European American era material represented by glass, iron, plastic, rubber, and aluminum was encountered in sampling, mostly from the vicinity of a previously identified surface refuse deposit in the vicinity of a proposed roadway. No relative concentrations of cultural items were encountered.

CONCLUSIONS AND RECOMMENDATIONS

Systematic archaeological sampling of the proposed approximately 143.8-acre (58.2-hectare) project area by means of hand-dug screened shovel test holes produced two items associated with the Native American occupation of the region and a sparse scatter of European American era items. The Native American material, consisting of chert debitage occurring in an isolated context, is interpreted as representing casual rather than focused cultural activity and to reflect the opportunistic procurement of an available glacially-deposited lithic resource accessible on the ground surface, probably involving no more than one individual at each find spot. The subsequent and final stages of stone tool manufacture appear to have taken place at another location, possibly at occupation sites that have been documented below the project area along Moodna Creek. The European American items appear to represent scatter associated with a shallow refuse deposit containing late nineteenth and twentieth century items that was identified, investigated, and determined to require no further study by the earlier Phase I survey that included sampling of proposed roadways on this property (Oberon 2001).

In light of the findings of this Phase IB survey, little potential is seen to exist for significant cultural information relating to the Native American or European American occupations of the area to be present within the project area. Proposed development may therefore be considered to have no effect on potentially significant cultural resources and no further investigation is recommended.

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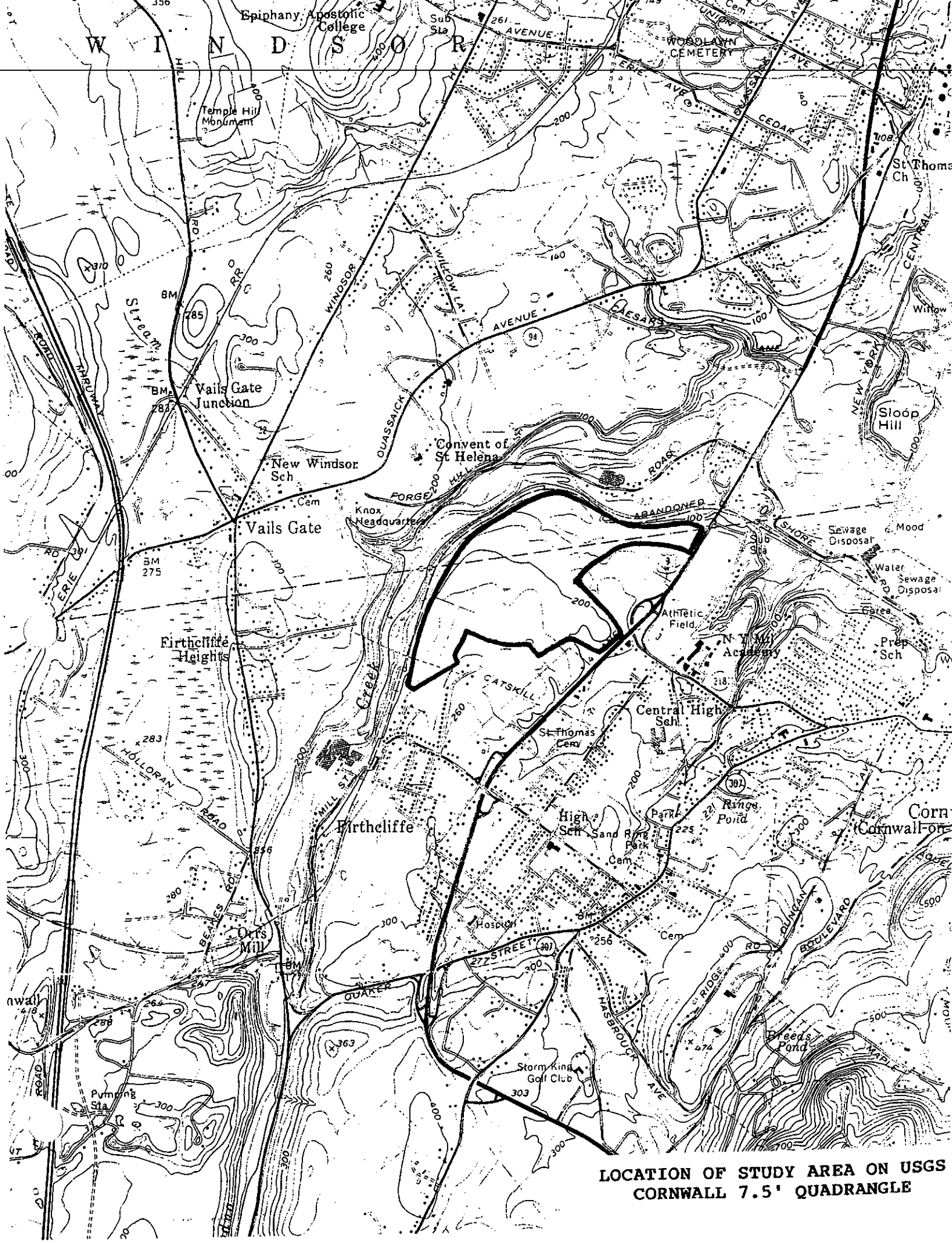
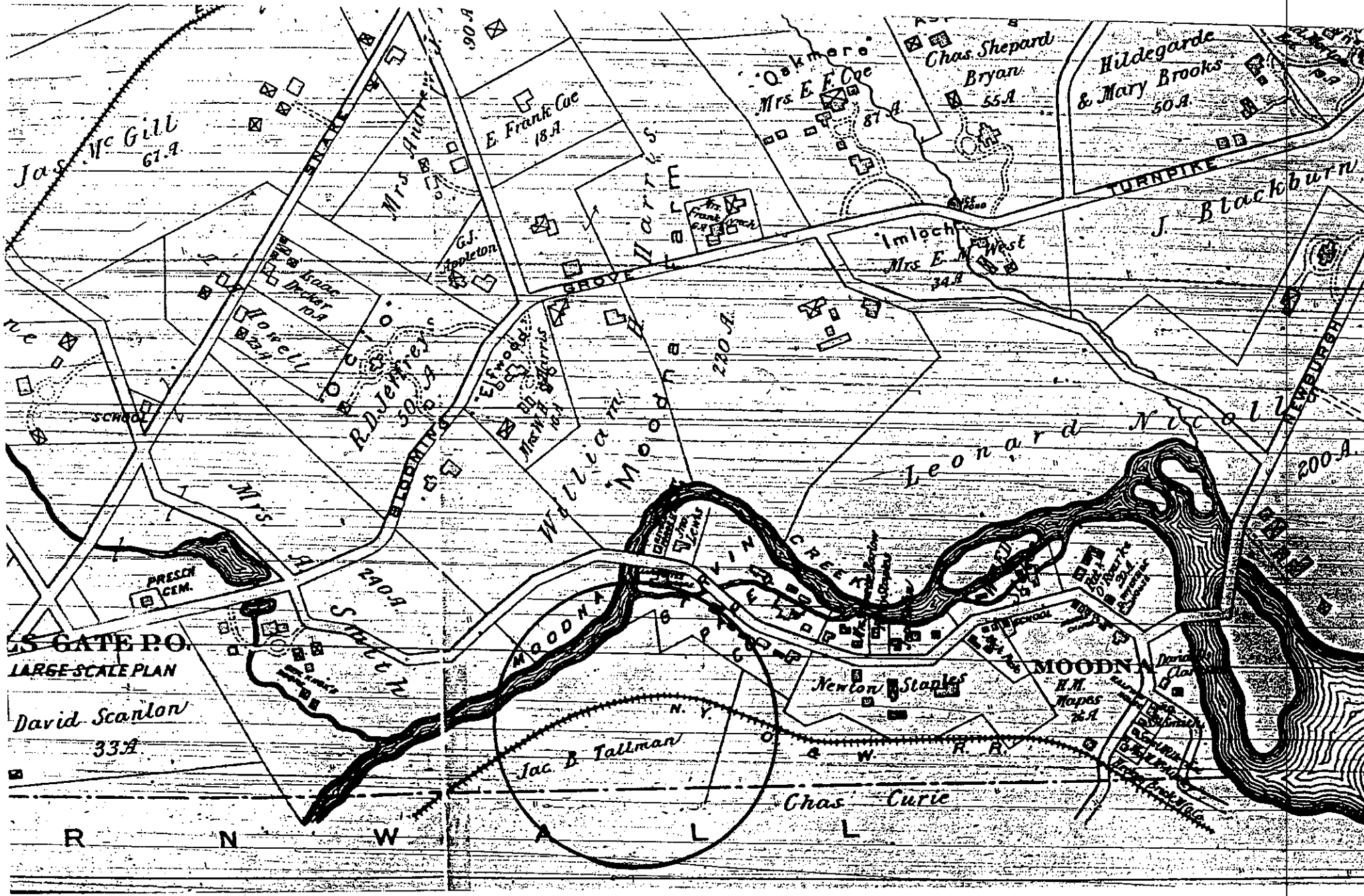
FIGURES

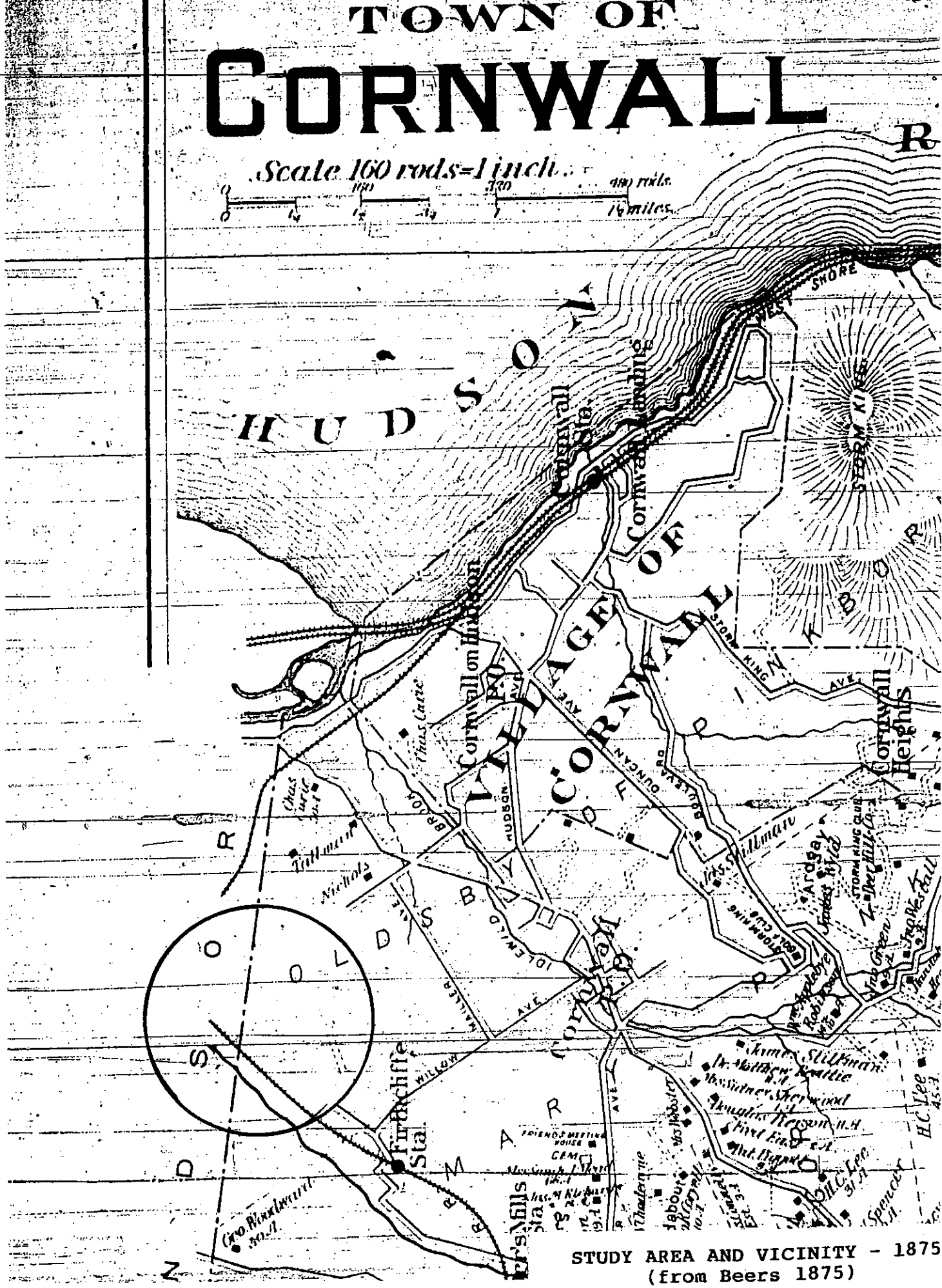


LOCATION OF STUDY AREA ON USGS CORNWALL 7.5' QUADRANGLE

STUDY AREA AND VICINITY - 1903
(from Lathrop 1903)



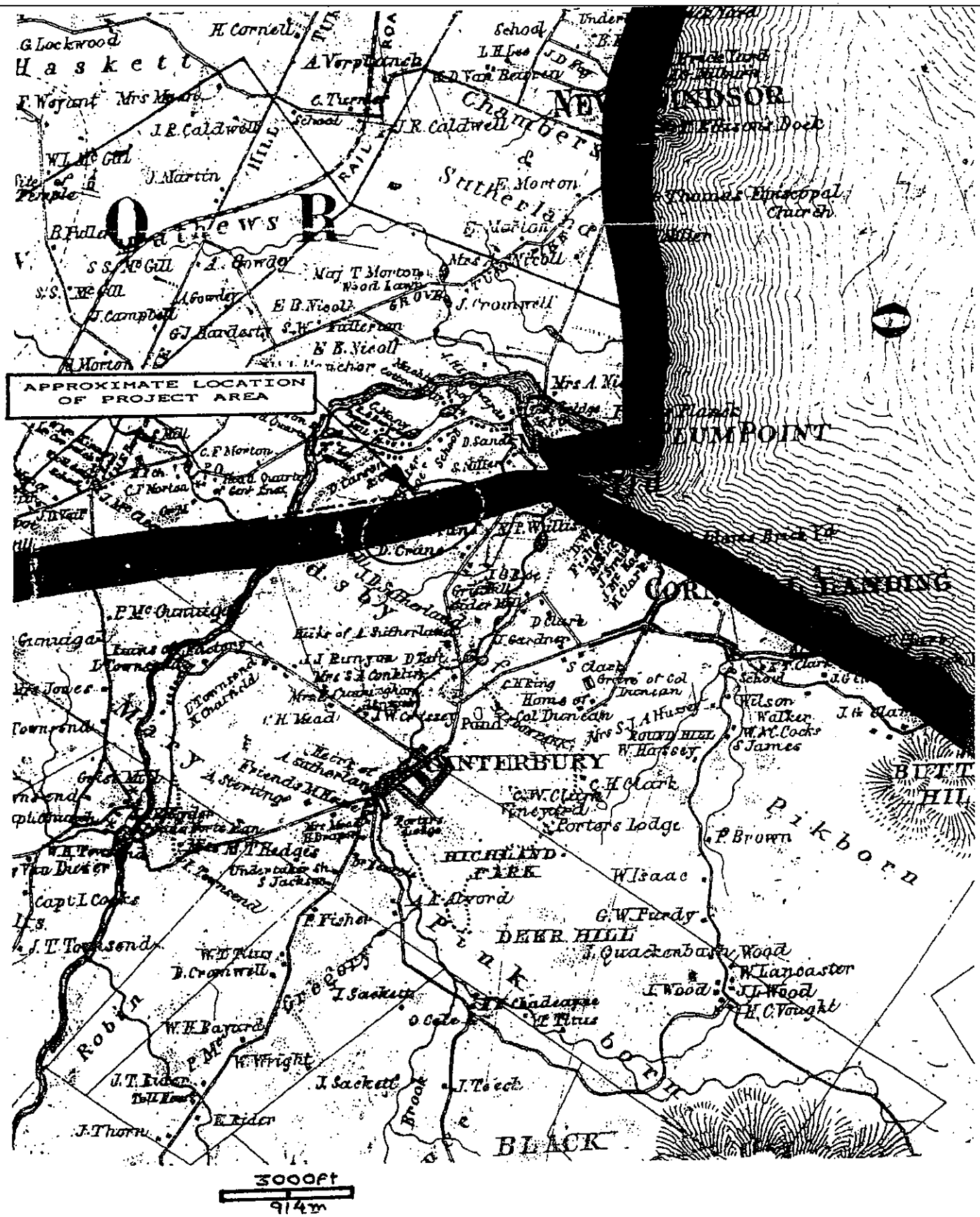
STUDY AREA AND VICINITY
TOWN OF NEW WINDSOR - 1903



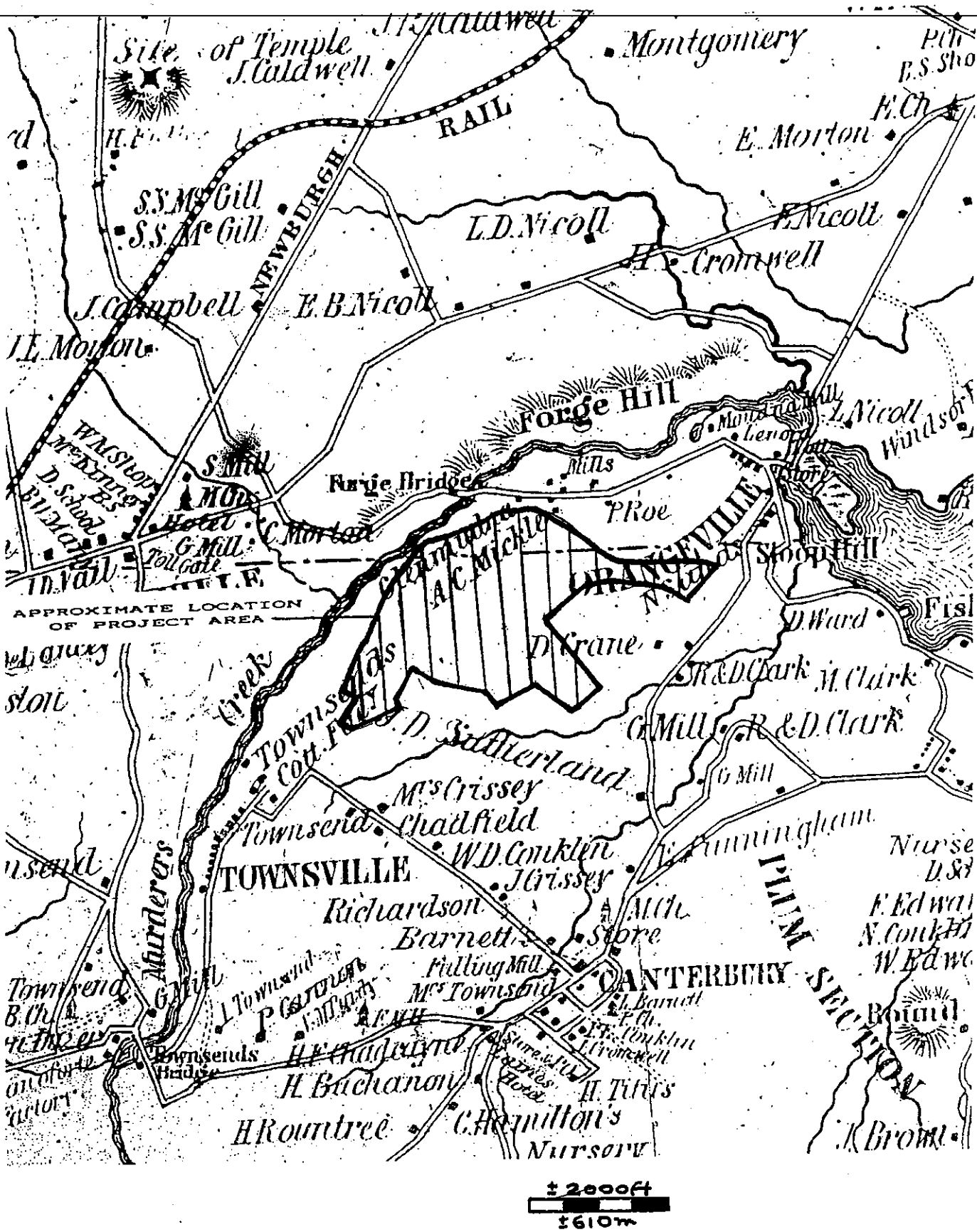
STUDY AREA AND VICINITY - 1875
(from Beers 1875)

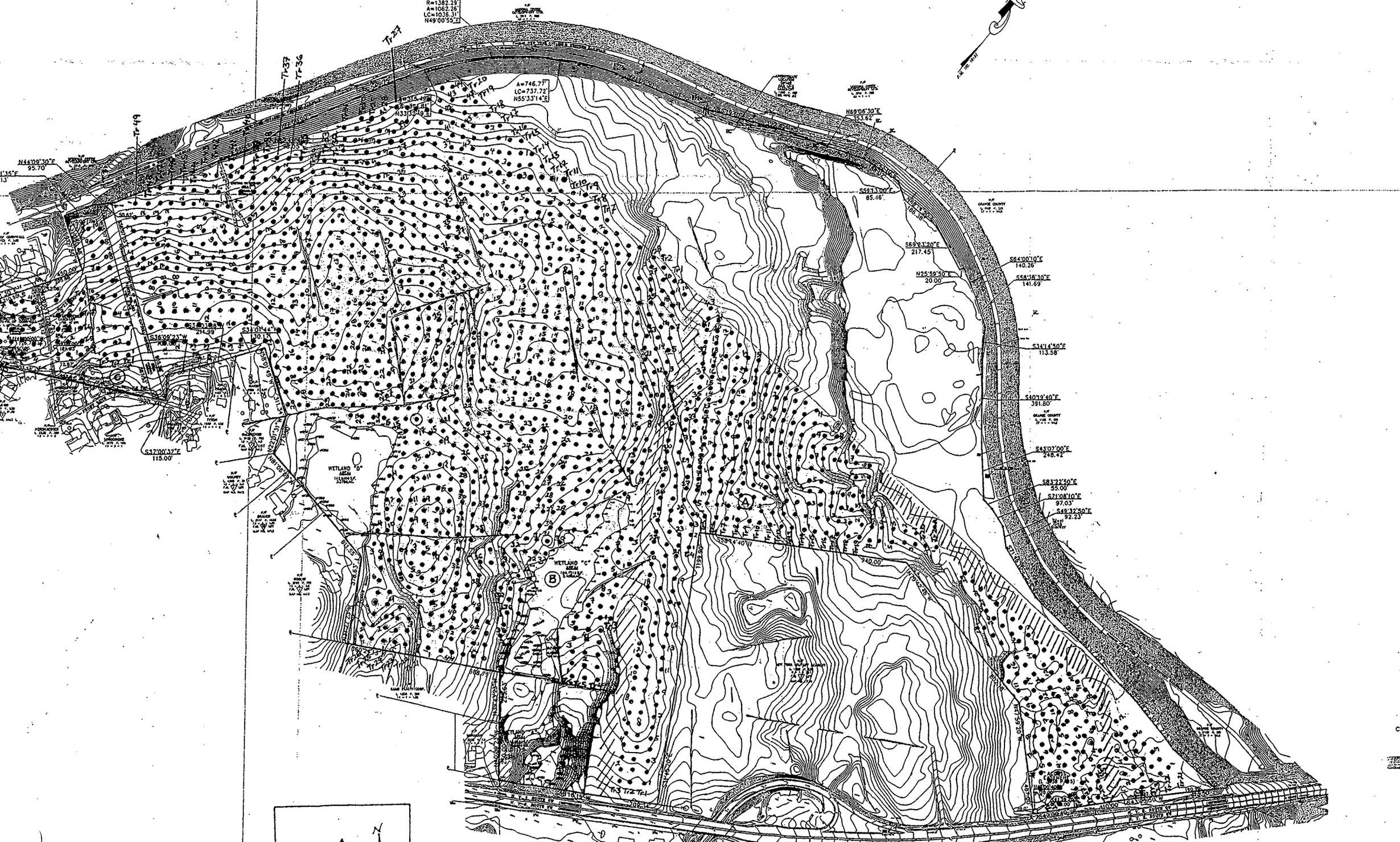
TOWN OF NEW WINDSOR - 1875
(from Beers 1875)

STUDY AREA AND VICINITY - 1859
(from French et al.1859)



STUDY AREA AND VICINITY
(from Sidney 1851)




WETLAND AREA "C"
WETLAND "C"
WETLAND
N69°06'30"E
153.62'
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S69°23'20"E
217.45'
S64°00'10"E
140.26'
S58°18'10"E
141.69'
N25°59'50"E
20.00'
S34°14'50"E
113.58'
S40°19'40"E
391.80'
S43°07'00"E
248.42'
S83°22'50"E
55.00'
S21°08'10"E
97.03'
S49°32'50"E
92.23'
S89°40'40"W
940.00'
N0°20'25"W
1199.80'
N1°55'20"W
S36°09'23"W
211.99'
S34°01'44"W
S37°00'37"E
115.00'
N44°09'30"E
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A=746.77'
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PHOTODOCUMENTATION

PHOTO 8 - Typcial fieldstone farm wall with low-lying terrain below (to SW)

PHOTO 9 - Typical view in western portion of project parcel (to WNW)

PHOTO 7 - Panorama of central portion of parcel (to NE)

PHOTO 5 - Typical view in far southwestern portion of project parcel (to SSW)

PHOTO 6 - Elevated subarea in southwestern portion of parcel (view to S)

PHOTO 3 - View of low-lying southwestern portion of parcel (to SW)

PHOTO 4 - Typical view in west-central portion of parcel (to N)

PHOTO 1 - View from proposed western roadway (stake) to wetlands (to WSW)

PHOTO 2 - Southeastern portion of project parcel (view to ENE)

SUBSURFACE SAMPLING RECORD

CORNWALL COMMONS CA553B

PHASE IB SUBSURFACE SAMPLING RECORD

UNIT	STRATUM	DEPTH(cm)	SOIL PROFILE	CULTURAL
SAMPLING SECTOR A				
TRANSECT 1				
TP-1	1	0-12	light to medium brown silt, cmf gravel cobbles, under dark brown root/leaf mat	none
	2	12-24+	tan orange silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-3	1	0-12	(same, some sand)	none
	2	12-23+	(same as above)	none
TP-4	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-5	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-6	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-8	1	0-10	light to medium brown silt, trace sand, cmf gravel, cobbles	none
	2	10-23+	tan clayey silt, cmf gravel, cobbles	none
TP-9	1	0-16	(same as above)	none
	2	16-21+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-24+	grey tan silt, trace clay, cmf gravel	none
TP-11	1	0-13	(same as above)	none
	2	13-22+	orange tan silt, trace clay, cmf gravel	none
TP-12	1	0-16	medium brown silt, trace sand, cmf gravel, cobbles	none
	2	16-28+	orange tan silt, cmf gravel	none
TP-13	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-14	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-15	1	0-12	(same as above)	none
	2	12-20+	(same, trace clay)	none
TP-16	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-17	1	0-10	medium brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	10-25+	tan silt, trace orange, cmf gravel, cobbles	none
TP-18	1	0-10	(same as above)	none
	2	10-22+	(same as above)	none

TP-19	1	0-10	(same as above)	none
	2	10-22+	(same as above)	none
TP-20	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-27+	tan silt, trace orange, cmf gravel, cobbles	none
TP-21	1	0-14	medium to dark brown silt, trace sand, cmf gravel	none
	2	14-30+	tan silt, trace orange, cmf gravel	none
TP-22	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-23	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-24+	(same as above)	none
TP-24	1	0-10	medium brown silt, trace sand, cmf gravel	none
	2	10-23+	orange tan silt, cmf gravel, cobbles	none
TP-25	1	0-8	(same, no root/leaf mat)	none
	2	8-20+	(same as above)	none
TP-26	1	0-13	(same, under dark brown root/leaf mat)	none
	2	13-22+	tan silt, trace orange, cmf gravel	none
TP-27	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-28	1	0-13	(same as above)	none
	2	13-30+	orange tan silt, cmf gravel, cobbles	none
TP-29	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-30	1	0-10	(same as above)	none
	2	10-22+	(same, denser cobbles)	none
TP-31	1	0-14	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	14-29+	tan silt, trace orange, cmf gravel	none
TP-32	1	0-13	(same as above)	none
	2	13-30+	(same as above)	none
TP-33	1	0-13	(same as above)	none
	2	13-28+	(same as above)	none
TP-34	1	0-12	(same as above)	none
	2	12-29+	(same as above)	none
TP-35	1	0-10	medium brown silt, trace sand, cmf gravel	none
	2	10-22+	orange tan silt, cmf gravel, denser cobbles	none
TP-36	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-37	1	0-14	(same, without root/leaf mat)	none
	2	14-26+	(same as above, less dense cobbles)	none
TP-38	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-39	1	0-12	(same, with dark brown root/leaf mat)	none
	2	12-24+	(same as above)	none
TP-40	1	0-10	(same, denser cobbles)	none
	2	10-27+	(same as denser cobbles)	none

TP-41	1	0-9	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	9-18+	tan silt, trace orange, cmf gravel, cobbles	none
TP-42	1	0-13	(same, no root/leaf mat)	none
	2	13-25+	(same as above)	none
TP-43	1	0-12	(same, with dark brown root/leaf mat)	none
	2	12-22+	(same as above)	none

TRANSECT 2

TP-1	1	0-12	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	12-27+	(same as above)	none
TP-2	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-3	1	0-8	(same, denser cobbles)	none
	2	8-20+	orange tan silt, dense cmf gravel and cobbles	none
TP-4	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-24+	tan silt, trace orange, cmf gravel	none
TP-5	1	0-12	(same, with dark brown root/leaf mat)	none
	2	12-25+	(same, with cobbles)	none
TP-6	1	0-12	(same as above)	none
	2	12-27+	(same as above)	none
TP-7	1	0-10	(same as above)	none
	2	10-23+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-8	1	0-9	(same, denser gravel and cobbles)	none
	2	9-21+	(same, denser gravel and cobbles)	none
TP-9	1	0-11	medium brown silt, trace sand, cmf gravel	none
	2	11-26+	tan silt, trace orange, cmf gravel, cobbles	none
TP-10	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-22+	(same as above)	none
TP-11	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-12	1	0-12	(same as above)	none
	2	12-25+	orange tan silt, cmf gravel, denser cobbles	none
TP-13	1	0-10	(same as above)	none
	2	10-22+	(same as above)	none
TP-14	1	0-14	medium brown silt, some sand, cmf gravel	none
	2	14-27+	tan silt, trace orange, some sand, cmf gravel	none
TP-15	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-22+	(same, with cobbles)	none
TP-16	1	0-12	(same, with cobbles)	none
	2	12-26+	(same as above)	none
TP-17	1	0-10	(same, denser gravel)	none
	2	10-21+	(same, more cobbles)	none
TP-18	1	0-9	(same as above)	none
	2	9-21+	(same as above)	none
TP-19	1	0-13	medium brown silt, some sand, cmf gravel	none
	2	13-24+	tan silt, trace orange, cmf gravel, cobbles	none

TP-20	1	0-13	(same, under dark brown root/leaf mat)	none
	2	13-28+	(same as above)	none
TP-21	1	0-12	(same as above)	none
	2	12-24+	(same, denser cobbles)	none
TP-22	1	0-10	(same, denser gravel and cobbles)	none
	2	10-24+	(same as above)	none
TP-23	1	0-11	medium brown silt, some sand, cmf gravel	none
	2	11-23+	tan silt, trace orange, cmf gravel, cobbles	none
TP-24	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-22	(same as above)	none
TP-25	1	0-8	(same, dense gravel and cobbles)	none
	2	8-21+	(same, denser gravel and cobbles)	none
TP-26	1	0-11	(same as above)	none
	2	11-28+	(same as above)	none
TP-27	1	0-9	(same as above ove)	none
	2	9-26+	(same as above)	none
TP-28	1	0-12	(same, without root/leaf mat)	none
	2	12-22+	(same as above)	none
TP-29	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-24+	tan silt, trace orange, cmf gravel, cobbles	none
TP-30	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-31	1	0-13	(same as above)	none
	2	13-28+	orange tan silt, cmf gravel, cobbles	none
TP-32	1	0-14	(same, under dark brown root/leaf mat	none
	2	14-26+	(same as above)	none
TP-33	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-34	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TRANSECT 3				
TP-1	1	0-11	(same as above)	none
	2	11-28+	(same as above)	none
TP-2	1	0-9	(same as above ove)	none
	2	9-26+	(same as above)	none
TP-3	1	0-12	(same, without root/leaf mat)	none
	2	12-22+	(same as above)	none
TP-4	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-24+	tan silt, trace orange, cmf gravel, cobbles	none
TP-5	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-6	1	0-13	(same as above)	none
	2	13-28+	orange tan silt, cmf gravel, cobbles	none
TP-7	1	0-14	(same, under dark brown root/leaf mat	none
	2	14-26+	(same as above)	none
TP-8	1	0-11	(same as above)	none
	2	11-28+	(same as above)	none

TP-9	1	0-9	(same as above)	none
	2	9-26+	(same as above)	none
TP-10	1	0-12	(same, without root/leaf mat)	none
	2	12-22+	(same as above)	none
TP-11	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-24+	tan silt, trace orange, cmf gravel, cobbles	none
TP-12	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-13	1	0-13	(same as above)	none
	2	13-28+	orange tan silt, cmf gravel, cobbles	none
TP-14	1	0-14	(same, under dark brown root/leaf mat	none
	2	14-26+	(same as above)	none
TP-15	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-16	1	0-12	(same, more sand)	none
	2	12-21+	(same as above)	none
TP-17	1	0-9	(same as above)	glass (NR)
	2	9-20+	(same as above)	none
TP-18	1	0-8	(same as above)	none
	2	8-21+	(same as above)	none
TP-19	1	0-10	(same as above)	none
	2	10-29+	(same as above)	none
TP-20	1	0-11	(same as above)	none
	2	11-21+	tan orange silt, trace sand, cmf gravel, cobbles	none
TP-21	1	0-11	(same as above)	none
	2	11-25+	(same as above)	none
TP-22	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-23	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-24	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-25	1	0-10	(same as above)	none
	2	10-25+	(same as above)	none
TP-26	1	0-12	(same as above)	none
	2	12-28+	(same as above)	none
TP-27	1	0-14	(same as above)	none
	2	14-29+	tan silt, trace orange, trace sand, cmf gravel, cobbles	none
TP-28	1	0-10	medium brown silt, trace sand, cmf gravel, cobbles	none
	2	10-25+	(same as above)	none
TP-29	1	0-12	(same as above)	none
	2	12-27+	(same as above)	none
TP-30	1	0-12	(same as above)	none
	2	12-28+	(same as above)	none
TP-31	1	0-13	(same as above)	none
	2	13-27+	(same as above)	none

TP-32	1	0-12	(same as above)	none
	2	12-28+	(same as above)	none

TRANSECT 4

TP-1	1	0-12	medium brown silt, trace sand, cmf gravel, cobbles	none
	2	12-27+	tan orange silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-4	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-6	1	0-10	(same, denser cobbles)	none
	2	10-23+	(same as above)	none
TP-7	1	0-13	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-24+	tan silt, trace orange, cmf gravel, cobble	none
TP-8	1	0-12	medium brown silt, cmf gravel, cobbles	none
	2	12-21+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-9	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-22+	ora tan silt, trace sand, cmf gravel, cobbles	none
TP-11	1	0-12	(same as above)	none
	2	12-24+	tan ora silt, some sand, cmf gravel, cobbles	none
TP-12	1	0-13	(same as above)	wire (NR)
	2	13-25+	(same as above)	none
TP-13	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-23+	(same as above)	none
TP-14	1	0-12	(same as above)	none
	2	12-26+	orange tan silt, cmf gravel, cobbles	none
TP-15	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-16	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-17	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-18	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none

TP-19	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-20	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-21	1	0-12	(same as above)	none
	2	12-24+	orange tan silt, trace sand cmf gravel, cobbles	none

TRANSECT 5

TP-1	1	0-13	medium brown silt, some sand, cmf gravel, cobbles	none
	2	13-24+	orange tan silt, trace sand, cmf gravel	none
TP-2	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-3	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-4	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, cmf gravel, cobbles	none
TP-6	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-8	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-9	1	0-15	(same as above)	none
	2	15-20+	(same as above)	none
TP-10	1	0-16	(same as above)	none
	2	16-23+	(same as above)	none
TP-11	1	0-11	(same, denser gravel)	none
	2	11-22+	(same as above)	none
TP-12	1	0-15	(same, less dense gravel)	none
	2	15-22+	(same as above)	none
TP-13	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-14	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-15	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-16	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-17	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none

TRANSECT 6

TP-1	1	0-13	medium brown silt, cmf gravel, cobbles	none
	2	13-23+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-4	1	0-12	(same as above)	none
	2	12-24+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-5	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-6	1	0-13	(same, under dark brown root/leaf mat)	none
	2	13-23+	(same as above)	none
TP-7	1	0-12	(same as above)	none
	2	12-30+	orange tan silt, cmf gravel, cobbles	none
TP-8	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-9	1	0-15	(same, dark brown root/leaf mat)	none
	2	15-23+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-11	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-12	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-14	1	0-12	(same as above)	none
	2	12-24+	tan orange silt, cmf gravel, cobbles	none
TP-15	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-16	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none

TRANSECT 7

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles	none
	2	14-25+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none

TP-5	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-6	1	0-14	(same as above)	none
	2	14-20+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-8	1	0-11	(same, denser gravel)	none
	2	11-22+	(same as above)	none
TP-9	1	0-15	(same, less dense gravel)	none
	2	15-22+	(same as above)	none
TP-10	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-11	1	0-12	medium brown silt, cmf gravel, cobbles	none
	2	12-21+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-12	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-13	1	0-14	(same as above)	none
	2	14-22+	ora tan silt, trace sand, cmf gravel, cobbles	none
TP-14	1	0-12	(same as above)	none
	2	12-24+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-15	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none

TRANSECT 8

TP-1	1	0-13	(medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-23+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-15	(same as above)	none
	2	15-30+	orange silt, trace tan, cmf gravel, cobbles	none
TP-3	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-4	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-6	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-7	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-8	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-24+	orange silt, trace sand, cmf gravel, cobbles	none
TP-10	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none

TP-11	1	0-11	(same as above)	none
	2	11-24+	tan orange silt, some sand, cmf gravel	none
TP-12	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-13	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-14	1	0-11	(same as above)	none
	2	11-26+	(same as above)	none
TP-15	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none

TRANSECT 9

TP-1	1	0-15	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	15-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-3	1	0-16	(same as above)	none
	2	16-23+	(same as above)	none
TP-4	1	0-12	(same, denser gravel)	none
	2	12-22+	(same as above)	none
TP-5	1	0-12	(same, less dense gravel)	none
	2	12-22+	(same as above)	none
TP-6	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-7	1	0-12	medium brown silt, cmf gravel, cobbles	none
	2	12-21+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-8	1	0-11	(same as above)	none
	2	11-25+	(same as above)	none
TP-9	1	0-10	(same as above)	none
	2	10-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-10	1	0-11	(same as above)	none
	2	11-24+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-11	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-12	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-30+	orange tan silt, cmf gravel, cobbles	none

TRANSECT 10

TP-1	1	0-14	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-25+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-15	(same as above)	none
	2	15-23+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-4	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-5	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-6	1	0-12	(same as above)	none
	2	12-22+	(same as above)	non
TP-7	1	0-12	(same as above)	none
	2	12-24+	orange silt, trace sand, cmf gravel, cobbles	none
TP-8	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-9	1	0-10	(same as above)	none
	2	10-24+	(same as above)	none
TP-10	1	0-10	(same as above)	none
	2	10-25+	(same as above)	none
TP-11	1	0-11	(same as above)	none
	2	11-22+	orange tan silt, cmf gravel, cobbles	none
TP-12	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-14	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none

TRANSECT 11

TP-1	1	0-13	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-25+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-3	1	0-10	(same, denser gravel)	none
	2	11-22+	(same as above)	none
TP-4	1	0-9	(same as above)	none
	2	9-22+	(same as above)	none
TP-5	1	0-10	(same as above)	none
	2	10-24+	(same as above)	none
TP-6	1	0-11	(same as above)	none
	2	11-24+	orange silt, trace sand, cmf gravel, cobbles	none

TP-7	1	0-12	(same, less dense gravel)	none
	2	12-23+	(same as above)	none
TP-8	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-9	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-24+	(same as above)	
TP-11	1	0-12	(same as above)	none
	2	12-22+	orange tan silt, cmf gravel, cobbles	none
TP-12	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none

TRANSECT 12

TP-1	1	0-10	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	10-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-3	1	0-12	(same, denser gravel and cobbles)	none
	2	12-22+	(same as above)	none
TP-4	1	0-9	(same, very dense gravel and cobbles)	none
	2	9-23+	(same, denser gravel)	none
TP-5	1	0-12	(same,less dense gravel and cobbles)	none
	2	12-25+	(same, less dense gravel)	none
TP-6	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-7	1	0-11	(same as above)	none
	2	11-23+	orange silt, trace sand, cmf gravel, cobbles	none
TP-8	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-25+	orange tan silt, cmf gravel, cobbles	none
TP-11	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-12	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none

TRANSECT 13

TP-1	1	0-10	medium brown silt, some sand, dense cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	10-21+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none

TP-3	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-4	1	0-12	(same, less dense gravel)	none
	2	12-26+	orange silt, trace sand, cmf gravel, cobbles	none
TP-5	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-6	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-29+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-26+	orange tan silt, cmf gravel, cobbles	none
TP-10	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none

TRANSECT 14

TP-1	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-27+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-4	1	0-10	(same, denser gravel)	none
	2	10-23+	(same, denser gravel)	none
TP-5	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-6	1	0-13	(same, less dense gravel)	none
	2	13-24+	orange silt, less dense cmf gravel, cobbles	none
TP-7	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-29+	(same as above)	none
TP-9	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-26+	orange tan silt, cmf gravel, cobbles	none
TP-11	1	0-13	(same as above)	none
	2	13-27+	(same as above)	none

TRANSECT 15

TP-1	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-29+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-4	1	0-11	(same, denser gravel)	none
	2	11-21+	(same, denser gravel)	none
TP-5	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-6		(steep slope - not dug)		
TP-7	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-22+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-8	1	0-13	(same as above)	none
	2	13-36+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-24+	(same, no cobbles)	none
TP-10	1	0-13	(same as above)	none
	2	13-24+	(same, with cobbles)	none

TRANSECT 16

TP-1	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-22+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-21+	(same as above)	none
TP-4	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-5		(steep slope - not dug)		
TP-6	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-23+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-7	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-8	1	0-10	(same, denser gravel)	none
	2	10-23+	(same, denser gravel)	none

TRANSECT 17

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-26+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-4	1	0-11	(same, denser gravel)	none
	2	11-23+	(same, denser gravel)	none
TP-5		(steep slope - not dug)		
TP-6		(steep slope - not dug)		
TP-7	1	0-12	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	12-22+	(same as above)	none
TP-8		(steep slope - not dug)		

TRANSECT 18

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-27+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-23	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-4	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-5		(steep slope - not dug)		
TP-6	1	0-10	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	10-19+	tan silt, trace orange, dense cmf gravel, cobbles	none
TP-7	1	0-12	(same, some sand)	none
	2	12-23+	orange tan silt, cmf gravel, cobbles	none
TP-8	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none

TRANSECT 19

TP-1	1	0-12	medium brown silt, trace sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	12-24+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-3		(steep slope - not dug)		

TP-4	1	0-10	medium brown silt, dense cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	10-22+	orange tan silt, cmf gravel, cobbles	none
TP-5		(steep slope - not dug)		
TP-6	1	0-11	medium brown silt, cmf gravel, cobbles, under dark brown root/leaf mat	none

TRANSECT 20

TP-1	1	0-8	medium brown silt, some sand, cmf gravel, cobbles	none
	2	8-23+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same, under dark brown root/leaf mat)	none
	2	13-22+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-4	1	0-11	(same, denser gravel)	none
	2	11-20+	(same, denser gravel)	none
TP-5		(steep slope - not dug)		

TRANSECT 20A

TP-1	1	0-4	medium brown silt, cmf gravel, cobbles	stripped
	2	4-22+	orange tan silt, some sand, cmf gravel	none
TP-2		(steep slope - not dug)		
TP-3	1	0-12	medium brown silt, cmf gravel, cobbles under dark brown root/leaf mat	none
	2	12-25+	orange tan silt, some sand, cmf gravel	none
TP-4	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-5	1	0-10	(same, denser gravel)	none
	2	10-22+	(same, denser gravel)	none
TP-6	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-7	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none

TRANSECT 21

TP-1	1	0-15	dark to medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	15-24+	orange tan silt, some sand, cmf gravel	none
TP-2	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-3	1	0-15	(same as above)	none
	2	15-23+	(same as above)	none

TP-4	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-6	1	0-14	(same as above)	none
	2	14-32+	(same as above)	none
TP-7	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-8	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-26+	orange tan silt, some sand, cmf gravel	none
TP-9	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-12	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-13	1	0-14	(same as above)	glass (NR)
	2	14-24+	tan silt, trace orange, some sand cmf gravel, cobbles	none
TP-14	1	0-15	(same as above)	none
	2	15-27+	(same as above)	none
TP-15	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-16	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-17	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-18	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-19	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-20	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-22	1	0-13	(same as above)	aluminum foil (NR)
	2	13-24+	(same as above)	none
TP-23	1	0-12	(same as above)	none
	2	12-22+	(same, denser gravel)	none
TP-24	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none

TRANSECT 22

TP-1	1	0-14	dark to medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-25+	orange tan silt, some sand, cmf gravel, cobbles	none

TP-2	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-24+	(same as above	none
TP-6	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-8	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-9	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-26+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-12	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-13	1	0-13	(same as above)	none
	2	13-22+	tan silt, trace orange, some sand, cmf gravel, cobbles	none
TP-14	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-15	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-16	1	0-12	(same, denser gravel)	none
	2	12-24+	(same as above)	none
TP-17	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-18	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-19	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-20	1	0-10	(same as above)	none
	2	10-19+	(same, denser gravel and cobbles)	none

(steep slope and no impact - transect abandoned)

TRANSECT 23

TP-1	1	0-15	dark to medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	15-27+	orange tan silt, some sand, cmf gravel, cobbles	none

TP-2	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-6	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	glass (NR)
	2	14-25+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-9	1	0-15	(same as above)	none
	2	15-25+	tan silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
TP-10	1	0-15	(same as above)	none
	2	15-23+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-12	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-13	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-14	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-15	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-16	1	0-11	medium brown silt, trace sand, dense cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	11-21+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-17	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-18	1	0-10	(same as above)	none
	2	10-19+	(same, denser gravel and cobbles)	none

TRANSECT 24

TP-1	1	0-15	dark to medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	15-25+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-21+	(same as above)	none

TP-4	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	13-24+	(same as above)	none
TP-5	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-6	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-8	1	0-12	(same, denser gravel)	none
	2	12-24+	(same as above)	none
TP-9	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-11	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-12	1	0-12	(same as above)	none
	2	12-24+	tan silt, trace orange, some sand, cmf gravel, cobbles	none
TP-14	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-15	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none

TRANSECT 25

TP-1	1	0-13	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	plastic cap (NR)
	2	13-22+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-6	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-7	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-8	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-24+	tan silt, trace orange, some sand, cmf gravel, cobbles	none

TP-10	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-11	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none

TRANSECT 26

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-23+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-6	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-8	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none

TRANSECT 27

TP-1	1	0-15	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	15-28+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-4	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-6	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none

TRANSECT 28

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-24+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-3	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-4	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none

TRANSECT 29

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-24+	orange tan silt, some sand, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-3	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none

SAMPLING SECTOR B
TRANSECT 1

TP-1	1	0-10	medium brown silt, dense cmf gravel and cobbles, under dark brown root/leaf mat	none
	2	10-20+	yellow tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-3	1	0-10	(same as above)	none
	2	10-24+	yellow tan silt, trace sand, cmf gravel,cobbles	none
TP-4	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-5	1	0-12	medium brown silt, trace sand, cmf gravel under dark brown root/leaf mat	none
	2	12-23+	yellow tan silt, some sand, cmf gravel	none
TP-6	1	0-12	(same as above)	none
	2	12-21+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-8	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-10	1	0-14	(same as above)	none
	2	14-24+	(same, moister)	none

TP-11	1	0-12	(same as above)	none
	2	12-22	(same as above)	none
TP-12	1	0-11	(sane as above)	none
	2	11-23+	(same as above)	none

TRANSECT 2

TP-1	1	0-13	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	13-30+	tan grey silt, cmf gravel	none
TP-2	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-3	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-4	1	0-12	(same, without root/leaf mat)	none
	2	12-22+	(same as above)	none
TP-5	1	0-11	medium brown silt, trace sand, cmf gravel	none
	2	11-24+	tan orange silt, cmf gravel	none
TP-6	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-7	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-8	1	0-9	(same, denser gravel, with cobbles)	none
	2	9-21+	(same, denser gravel, with cobbles)	none
TP-9	1	0-8	(same as above)	none
	2	8-19+	(same as above)	none
TP-10	1	0-9	(same as above)	none
	2	9-21+	(same as above)	none
TP-11	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-12	1	0-12	(same, less dense gravel)	none
	2	12-22+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-14	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none
TP-15	1	0-13	(same, under dark brown root/leaf mat	none
	2	13-23+	(same as above)	none
TP-16	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-17	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-18	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-19	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-20	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none

TP-21	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none

TRANSECT 3

TP-1	1	0-22	moist medium brown silt, trace sand cmf gravel	none
	2	22-32+	tan orange silt, cmf gravel	none
TP-2	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none
TP-3	1	0-24	(same as above)	none
	2	24-32+	(same as above)	none
TP-4	1	0-22	(same, denser gravel, less moist)	none
	2	22-34+	(same as above)	none
TP-5	1	0-25	(same as above)	none
	2	25-32+	(same as above)	none
TP-6	1	0-23	(same as above)	none
	2	23-30+	orange tan silt, cmf gravel	none
TP-7	1	0-26	(same, moister)	none
	2	26-36+	moist tan orange silt, cmf gravel	none
TP-8	1	0-26	(same as above)	none
	2	26-34+	(same as above)	none
TP-9	1	0-25	(same as above)	none
	2	25-34+	(same as above)	none
TP-10	1	0-23	(same, less moist)	none
	2	23-33+	(same as above)	none
TP-11	1	0-14	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	14-30+	tan silt, cmf gravel	none
TP-12	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-24+	(same, trace grey)	none
TP-14	1	0-10	medium brown silt, trace sand, cmf gravel	none
	2	10-23+	orange tan silt, cmf gravel	none
TP-15	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none
TP-16	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-17	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-18	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-19	1	0-11	(same, denser gravel)	none
	2	11-21+	(same, denser gravel)	none
TP-20	1	0-8	(same as above)	none
	2	8-20+	(same as above)	none

TP-21	1	0-8	(same, dense cobbles)	none
	2	8-17+	(same dense cobbles)	none
TP-22	1	0-11	(same, less dense gravel and cobbles)	none
	2	11-23+	(same, less dense gravel and cobbles)	none
TP-23	1	0-10	(same as above)	none
	2	10-19+	(same as above)	none
TP-24	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-25	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-26	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-27	1	0-9	(same, denser gravel and cobbles)	none
	2	9-20+	(same, denser gravel and cobbles)	none
TP-28	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none

TRANSECT 4

TP-1	1	0-20	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	20-32+	tan orange silt, cmf gravel	none
TP-2	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none
TP-3	1	0-24	(same as above)	none
	2	24-32+	(same as above)	none
TP-4	1	0-22	(same as above)	none
	2	22-34+	(same as above)	none
TP-5	1	0-25	(same as above)	none
	2	25-32+	(same as above)	none
TP-6	1	0-23	(same, moister)	none
	2	23-30+	orange tan silt, trace grey, cmf gravel	none
TP-7	1	0-26	(same as above)	none
	2	26-36+	grey tan silt, cmf gravel	none
TP-8	1	0-26	(same as above)	none
	2	26-34+	(same as above)	none
TP-9	1	0-25	(same, less moist)	none
	2	25-34+	(same as above)	none
TP-10	1	0-23	(same, moister)	none
	2	23-33+	(same, moist)	none
TP-11	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-12	1	0-22	(same as above)	none
	2	22-32+	(same as above)	none
TP-13	1	0-22	(same as above)	none
	2	22-35+	(same as above)	none
TP-14	1	0-19	(same, less moist)	none
	2	19-30+	(orange tan silt, cmf gravel)	none

TP-15	1	0-14	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	14-29+	tan silt, cmf gravel	none
TP-16	1	0-13	(same as above)	none
	2	13-30+	(same as above)	none
TP-17	1	0-13	(same as above)	none
	2	13-28+	(same as above)	none
TP-18	1	0-12	(same as above)	none
	2	12-29+	(same as above)	none
TP-19	1	0-9	medium brown silt, trace sand, cmf gravel	none
	2	9-22+	orange tan silt, cmf gravel	none
TP-20	1	0-12	medium brown silt, cmf gravel, cobbles	none
	2	12-21+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-21	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-22	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-23	1	0-12	(same as above)	none
	2	12-24+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-24	1	0-13	(same as above)	wire nail (NR)
	2	13-25+	(same as above)	none
TP-25	1	0-15	(same, dark brown root/leaf mat)	none
	2	15-23+	(same as above)	none
TP-26	1	0-12	(same as above)	none
	2	22-30+	orange tan silt, cmf gravel, cobbles	none
TP-27	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-28	1	0-15	(same, dark brown root/leaf mat)	none
	2	15-23+	(same as above)	none
TP-29	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-31	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none

TRANSECT 5

TP-1	1	0-22	medium brown silt, trace sand cmf gravel	none
	2	22-32+	tan orange silt, cmf gravel	none
TP-2	1	0-22	(same as above)	chert
	2	22-30+	(same as above)	none
TP-3	1	0-24	(same as above)	none
	2	24-32+	(same as above)	none
TP-4	1	0-22	(same, denser gravel)	none
	2	22-34+	(same as above)	none

TP-5	1	0-25	(same as above)	none
	2	25-32+	(same as above)	none
TP-6	1	0-23	(same as above)	none
	2	23-30+	orange silt, trace tan, cmf gravel	none
TP-7	1	0-26	(same as above)	none
	2	26-36+	tan orange silt, cmf gravel	none
TP-8	1	0-26	(same as above)	none
	2	26-34+	(same as above)	none
TP-9	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-12	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-14	1	0-12	(same as above)	none
	2	12-24+	orange silt, cmf gravel, cobbles	none
TP-15	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-16	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-17	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-18	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, cmf gravel, cobbles	none
TP-19	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-20	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-21	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-22	1	0-15	(same as above)	none
	2	15-20+	(same as above)	none
TP-23	1	0-16	(same as above)	none
	2	16-23+	(same as above)	none
TP-24	1	0-11	(same, denser gravel)	none
	2	11-22+	(same as above)	none

TRANSECT 6

TP-1	1	0-22	medium brown silt, trace sand cmf gravel	none
	2	22-32+	tan orange silt, cmf gravel	none
TP-2	1	0-21	(same as above)	none
	2	21-33+	(same as above)	none
TP-3	1	0-24	(same as above)	none

	2	24-32+	(same as above)	none
TP-4	1	0-20	(same as above)	none
	2	22-31+	(same as above)	none
TP-5	1	0-25	(same, moister)	none
	2	25-32+	(same, moister)	none
TP-6	1	0-22	(same as above)	none
	2	22-30+	moist grey tan silt, cmf gravel	none
TP-7	1	0-26	(same as above)	none
	2	26-36+	tan orange silt, cmf gravel	none
TP-8	1	0-26	(same as above)	none
	2	26-34+	(same as above)	none
TP-9	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-10	1	0-20	(same as above)	none
	2	20-33+	(same as above)	none
TP-11	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-12	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-13	1	0-13	medium to dark brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	13-28+	tan silt, trace orange cmf gravel	none
TP-14	1	0-11	(same as above)	none
	2	11-25+	(same as above)	none
TP-15	1	0-12	(same as above)	none
		12-22+	(same as above)	none
TP-16	1	0-12	medium brown silt, trace sand, cmf gravel	none
	2	12-27+	(same as above)	none
TP-17	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-18	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-19	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-20	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-21	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-23	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-24	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-25	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-26	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-27	1	0-15	(same as above)	none
	2	15-31+	(same as above)	none

TP-28	1	0-15	(same as above)	none
	2	15-30+	(same as above)	none
TP-29	1	0-16	(same, with cobbles)	none
	2	16-27+	(same, with cobbles)	none
TP-30	1	0-16	(same as above)	none
	2	16-27+	(same as above)	none
TP-31	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-32	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-33	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none

TRANSECT 7

TP-1	1	0-13	medium brown silt, some sand, cmf gravel under dark brown root/leaf mat	none
	2	13-26+	orange tan silt, some sand, cmf gravel	none
TP-2	1	0-11	(same as above)	none
	2	11-26+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-4	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-5	1	0-12	(same as above)	none
	2	12-25+	tan silt, trace orange, cmf gravel	none
TP-6	1	0-10	(same as above)	none
	2	10-22+	(same as above)	none
TP-7	1	0-12	medium to dark brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	12-27+	tan silt, trace orange, cmf gravel	none
TP-8	1	0-13	(same as above)	iron
	2	13-22+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-12	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-13	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-14	1	0-15	(same as above)	none
	2	15-30+	(same as above)	none
TP-15	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-16	1	0-16	(same as above)	none
	2	16-26+	(same as above)	none

TP-17	1	0-15	(same as above)	none
	2	15-23+	(same as above)	none
TP-18	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-19	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-20	1	0-22	medium brown silt, trace sand cmf gravel	none
	2	22-32+	tan orange silt, cmf gravel	none
TP-21	1	0-22	(same, moister)	none
	2	22-30+	(same as above)	none
TP-22	1	0-24	(same as above)	none
	2	24-32+	(same as above)	none
TP-23	1	0-22	(same, denser gravel)	none
	2	22-34+	(same as above)	none
TP-24	1	0-25	(same as above)	none
	2	25-32+	(same as above)	none
TP-25	1	0-23	(same as above)	none
	2	23-30+	orange silt, trace tan, cmf gravel	none
TP-26	1	0-26	(same as above)	none
	2	26-36+	tan orange silt, cmf gravel	none
TP-27	1	0-26	(same as above)	none
	2	26-34+	(same as above)	none
TP-28	1	0-25	(same as above)	none
	2	25-34+	(same as above)	none

TRANSECT 8

TP-1	1	0-14	medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	14-27+	tan silt, trace orange, cmf gravel	none
TP-2	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-4	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-6	1	0-15	(same as above)	none
	2	15-24+	orange tan silt, cmf gravel	none
TP-7	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-8	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none

TP-10	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-11	1	0-15	(same as above)	none
	2	15-29+	(same as above)	none
TP-12	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-13	1	0-16	(same as above)	none
	2	16-27+	(same as above)	none
TP-14	1	0-16	(same as above)	none
	2	16-26+	(same as above)	none
TP-15	1	0-16	(same as above)	none
	2	16-28+	(same as above)	none
TP-16	1	0-13	(same as above)	none
	2	23-25+	(same as above)	none
TP-17	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-18	1	0-22	dark to medium brown silt, trace sand cmf gravel	none
	2	22-32+	tan orange silt, cmf gravel	none
TP-19	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none
TP-20	1	0-24	(same as above)	none
	2	24-32+	(same as above)	none
TP-21	1	0-22	(same, moister)	none
	2	22-34+	(same as above)	none
TP-22	1	0-25	(same as above)	none
	2	25-32+	(same as above)	none
TP-23	1	0-23	(same as above)	none
	2	23-30+	orange silt, trace tan, cmf gravel	none
TP-24	1	0-26	(same as above)	none
	2	26-36+	tan orange silt, cmf gravel	none
TP-25	1	0-24	(same as above)	none
	2	24-34+	(same as above)	none
TP-26	1	0-25	(same as above)	none
	2	25-34+	(same as above)	none
TP-27	1	0-22	(same as above)	none
	2	22-33+	(same as above)	none
TP-28	1	0-22	(same as above)	none
	2	22-34+	(same as above)	none
TP-29	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-30	1	0-17	(same as above)	none
	2	17-25+	(same as above)	none

TRANSECT 9

TP-1	1	0-14	medium brown silt, trace sand, cmf gravel under dark brown root/leaf mat	none
	2	14-28+	orange tan silt, cmf gravel	none

TP-2	1	0-16	(same as above)	none
	2	16-22+	(same as above)	none
TP-3	1	0-16	(same as above)	none
	2	16-26+	(same as above)	none
TP-4	1	0-18	(same as above)	none
	2	18-20+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-6	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-7	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-10	1	0-16	(same as above)	none
	2	16-27	(same as above)	none
TP-11	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-12	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-13	1	0-16	(same as above)	none
	2	16-29+	(same as above)	none
TP-14	1	0-15	(same as above)	none
	2	15-30+	(same as above)	none
TP-15	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-16	1	0-17	(same as above)	none
	2	17-24+	(same as above)	none
TP-17	1	0-16	(same as above)	none
	2	16-27+	(same as above)	none
TP-18	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-19	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-20	1	0-15	(same as above)	none
	2	15-27+	(same as above)	none
TP-21	1	0-16	(same as above)	none
	2	16-31+	(same as above)	none
TP-22	1	0-17	(same as above)	none
	2	17-29+	(same as above)	none
TP-23	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-24	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-25	1	0-18	medium to dark brown silt, cmf gravel, under dark brown root/leaf mat	none

	2	18-30+	tan silt, trace orange, cmf gravel	none
TP-26	1	0-19	(same as above)	none
	2	19-32+	(same as above)	none
TP-27	1	0-19	(same as above)	none
	2	19-30+	orange silt, cmf gravel	none
TP-28	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-29	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none
TP-30	1	0-22	(same as above)	none
	2	22-32+	(same as above)	none
TP-31	1	0-20	(same as above)	chert
	2	20-30+	(same as above)	none
TP-31A	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-31B	1	0-22	(same as above)	none
	2	22-32+	(same as above)	none
TP-31C	1	0-22	(same as above)	none
	2	22-31+	(same as above)	none
TP-31D	1	0-21	(same as above)	none
	2	21-34+	(same as above)	none
TP-31E	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none
TP-31F	1	0-22	(same as above)	none
	2	22-31+	(same as above)	none
TP-31G	1	0-21	(same as above)	none
	2	21-33+	(same as above)	none
TP-31H	1	0-22	(same as above)	none
	2	22-34+	(same as above)	none
TP-32	1	0-16	medium brown silt, dense cmf gravel	none
	2	16-24+	orange silt, cmf gravel	none

TRANSECT 10

TP-1	1	0-16	medium brown silt, some sand, cmf gravel	none
	2	16-25+	orange tan silt, cmf gravel	none
TP-2	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-3	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-4	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-5	1	0-22	(same, with cobbles)	none
	2	22-32+	(same as above)	none
TP-6	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-7	1	0-20	(same, no cobbles)	none
	2	20-30+	(same as above)	none
TP-8	1	0-22	medium brown silt, some sand cmf gravel	none

	2	22-34+	orange tan silt, cmf gravel	none
TP-9	1	0-23	(same as above)	none
	2	23-30+	(same as above)	none
TP-10	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-11	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-12	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-13	1	0-21	(same as above)	none
	2	21-34+	(same as above)	none
TP-14	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-15	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-16	1	0-16	medium brown silt, some sand cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	16-26+	orange silt, trace tan, cmf gravel	none
TP-17	1	0-18	medium brown silt, trace sand, cmf gravel	none
	2	18-28+	orange tan silt, cmf gravel	none
TP-18	1	0-17	(same as above)	none
	2	17-29+	(same as above)	none
TP-19	1	0-17	(same as above)	none
	2	17-30+	(same as above)	none
TP-20	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-21	1	0-20	medium brown silt, trace sand, cmf gravel	none
	2	20-31+	orange tan silt, trace sand, cmf gravel	none
TP-22	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-23	1	0-22	(same as above)	none
	2	22-34+	(same as above)	none
TP-24	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-25	1	0-22	moist medium to dark brown silt	none
	2	22-32+	moist grey tan silt	none
TP-26	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none
TP-27	1	0-19	(same as above)	none
	2	19-31+	(same as above)	none
TP-28	1	0-23	moist medium to dark brown silt	none
	2	23-34+	moist grey tan silt	none
TP-29	1	0-12	medium to dark brown silt, trace sand, cmf gravel, cobbles	none
	2	12-24+	yellow tan silt, trace sand, cmf gravel, cobbles	none

TP-30	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-31	1	0-12	(same as above)	none
	2	12-22+	(same, trace orange)	none
TP-32	1	0-13	medium brown silt, some sand, cmf gravel, cobbles	none
	2	13-22+	(same as above)	none
TP-33	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-34	1	0-10	(same as above)	none
	2	10-23+	(same as above)	none
TP-35	1	0-11	(same, denser gravel and cobbles)	none
	2	11-19+	(same, dense gravel and cobbles)	none
TP-36	1	0-9	(same as above)	none
	2	9-18+	(same as above)	none

TRANSECT 11

TP-1	1	0-13	medium to dark brown silt, trace sand, cmf gravel	none
	2	13-23+	yellow tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-16	(same as above)	none
	2	16-25+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-4	1	0-13	medium to dark brown silt, cmf gravel, cobbles	none
	2	13-25+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-6	1	0-15	(same as above)	none
	2	15-27+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-8	1	0-15	(same as above)	none
	2	15-27+	(same as above)	none
TP-9	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-11	1	0-15	(same as above)	none
	2	15-30+	(same as above)	none

TRANSECT 12

TP-1	1	0-18	medium brown sandy silt, cmf gravel under dark brown root/leaf mat	none
	2	18-26+	orange tan silt, some silt, cmf gravel	none
TP-2	1	0-17	(same as above)	none
	2	17-29+	(same as above)	none
TP-3	1	0-17	(same as above)	none
	2	17-30+	(same as above)	none
TP-4	1	0-18	(same as above)	none
	2	18-26+	(same as above)	none
TP-5	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-6	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-7	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-8	1	0-17	(same as above)	none
	2	17-26+	(same as above)	none
TP-9	1	0-20	medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	20-27+	orange tan silt, cmf gravel	none
TP-10	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-11	1	0-20	(same as above)	none
	2	20-33+	(same as above)	none
TP-12	1	0-21	(same, with cobbles)	none
	2	21-30+	(same as above)	none
TP-13	1	0-22	(same as above)	none
	2	22-34+	(same as above)	none
TP-14	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-15	1	0-22	(same, no cobbles)	none
	2	22-32+	(same as above)	none
TP-16	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-17	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-18	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-19	1	0-18	(same, no cobbles)	none
	2	18-26+	(same as above)	none
TP-20	1	0-16	(same, with cobbles)	none
	2	16-27+	orange tan silt, cmf gravel	none
TP-21	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none

TP-22	1	0-16	(same as above)	none
	2	16-26+	(same as above)	none
TP-23	1	0-12	medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	12-24+	orange silt, trace tan, trace sand, cmf gravel	none
TP-24	1	0-12	(same as above)	none
	2	12-30+	(same as above)	none
TP-25	1	0-13	(same as above)	none
	2	13-28+	(same as above)	none
TP-26	1	0-12	(same as above)	none
	2	12-30+	(same as above)	none
TP-27	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-28	1	0-21	(same as above)	none
	2	21-34+	(same as above)	none
TP-29	1	0-20	(same as above)	none
	2	20-30+	orange tan silt, cmf gravel	none
TP-30	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-31	1	0-14	dark brown silt, cmf gravel, cobbles	none
	2	14-26+	orange tan silt, cmf gravel, cobbles	none
TP-32	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-33	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-34	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-35	1	0-13	(same as above)	none
	2	13-28+	(same as above)	none
TP-36	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-37	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-38	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-39	1	0-9	(same, denser gravel)	none
	2	9-20+	(same, denser gravel)	none

TRANSECT 13

TP-1	1	0-12	medium to dark brown silt, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	12-22+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-3	1	0-14	(same, trace sand)	none
	2	14-30+	(same as above)	none

TP-4	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-27+	(same as above)	none
TP-6	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-30+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none

TRANSECT 14

TP-1	1	0-13	medium to dark brown silt, trace sand, cmf gravel, cobbles	none
	2	13-30	yellow tan silt, trace orange cmf gravel, cobbles	none
TP-2	1	0-11	(same as above)	none
	2	11-28+	(same as above)	none
TP-3	1	0-11	(same as above)	none
	2	11-26+	(same as above)	none
TP-4	1	0-9	(same as above)	none
	2	9-22+	(same as above)	none
TP-5	1	0-11	medium brown silt, trace sand, cmf gravel	none
	2	11-24+	orange tan silt, cmf gravel	none
TP-6	1	0-10	medium to dark brown silt, trace sand, cmf gravel, cobbles	none
	2	10-21+	(same as above)	none
TP-7	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-8	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-9	1	0-12	(same as above)	none
	2	12-23+	orange tan silt, cmf gravel	none
TP-10	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-25+	(same, trace yellow)	none
TP-12	1	0-13	(same as above)	none
	2	13-27+	(same as above)	none
TP-13	1	0-14	(same as above)	none
	2	14-22+	(same, denser gravel)	none

TP-14	1	0-15	(same as above)	none
	2	15-27+	(same as above)	none
TP-15	1	0-11	(same, under dark brown root/leaf mat	none
	2	11-23+	(same as above)	none

TRANSECT 15

TP-1	1	0-11	medium to dark brown silt, trace sand, cmf gravel, cobbles	none
	2	11-29+	yellow tan silt, trace orange, cmf gravel	none
TP-2	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-28+	(same as above)	none
TP-4	1	0-12	(same as above)	none
	2	12-29+	(same as above)	none
TP-5	1	0-13	medium brown silt, trace sand, cmf gravel cobbles	none
	2	13-22+	orange tan silt, cmf gravel, cobbles	none
TP-6	1	0-13	medium to dark brown silt, trace sand cmf gravel, cobbles	none
	2	13-28+	tan silt, trace orange cmf gravel	none
TP-7	1	0-11	(same as above)	none
	2	11-25+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-9	1	0-13	medium brown silt, trace sand, cmf gravel	none
	2	13-27+	(same as above)	none
TP-10	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none
TP-11	1	0-13	medium to dark brown silt, some sand, cmf gravel, cobbles	none
	2	13-26+	tan silt, trace sand, cmf gravel	none
TP-12	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-13	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-14	1	0-21	(same, under dark brown root/leaf mat)	none
	2	21-32+	(same as above)	none
TP-15	1	0-19	(same as above)	none
	2	19-32+	(same as above)	none
TP-16	1	0-21	(same, with cobbles)	none
	2	21-32+	(same as above)	none
TP-17	1	0-21	(same as above)	none
	2	21-31+	(same as above)	none
TP-18	1	0-22	(same as above)	none
	2	22-32+	(same as above)	none

TP-19	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-20	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-21	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-22	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-23	1	0-19	(same, dense gravel, cobbles)	none
	2	19-20+	(same, dense gravel, cobbles)	none
TP-24	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-25	1	0-17	(same as above)	none
	2	17-27+	(same as above)	none
TP-26	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-27	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-28	1	0-18	(same as above)	none
	2	18-30+	(same as above)	none
TP-29	1	0-16	(same as above)	none
	2	16-27+	(same as above)	none

TRANSECT 16

TP-1	1	0-12	medium to dark brown silt, some sand, cmf gravel, cobbles	none
	2	12-27+	tan silt, trace orange, cmf gravel	none
TP-2	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-3	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-4	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-27+	tan silt, trace orange, trace sand, cmf gravel	none
TP-6	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-7	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-8	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-9	1	0-14	medium brown silt, trace sand, cmf gravel, cobbles	none
	2	14-28+	orange tan silt, cmf gravel	none
TP-10	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none

TP-11	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-12	1	0-11	(same, under dark brown root/leaf mat)	none
	2	11-20+	(same as above)	none
TP-13	1	0-14	(same, darker brown)	none
	2	4-21+	(same as above)	none
TP-14	1	0-12	medium brown silt, cmf gravel, cobbles	none
	2	12-21+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-15	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-16	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-17	1	0-12	(same as above)	none
	2	12-24+	tan orange silt, some sand, cmf gravel, cobbles	none
TP-18	1	0-13	(same as above)	wire nail (NR)
	2	13-25+	(same as above)	none
TP-19	1	0-15	(same, dark brown root/leaf mat)	none
	2	15-23+	(same as above)	none
TP-20	1	0-12	(same as above)	none
	2	22-30+	orange tan silt, cmf gravel, cobbles	none
TP-21	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-22	1	0-15	(same, dark brown root/leaf mat)	none
	2	15-23+	(same as above)	none
TP-23	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-24	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-25	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-26	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-27	1	0-12	(same as above)	none
	2	12-24+	orange silt, cmf gravel, cobbles	none
TP-28	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-29	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-30	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-31	1	0-14	(same as above)	none
	2	14-22+	orange tan silt, cmf gravel, cobbles	none
TP-32	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-33	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none

TP-34	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-35	1	0-15	(same as above)	none
	2	15-20+	(same as above)	none
TP-36	1	0-16	(same as above)	none
	2	16-23+	(same as above)	none
TP-37	1	0-11	(same, denser gravel)	none
	2	11-22+	(same as above)	none
TP-38	1	0-15	(same, less dense gravel)	none
	2	15-22+	(same as above)	none
TP-39	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-40	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-41	1	0-13	(same as above)	none
	2	13-26+	(same as above)	none
TP-42	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-43	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-44	1	0-13	(same as above)	none
	2	13-23+	(same as above)	none

TRANSECT 17

TP-1	1	0-13	medium brown silt, trace sand, cmf gravel cobbles under dark brown root/leaf mat	none
	2	13-25+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-2	1	0-12	(same as above)	none
	2	12-30+	(same as above)	none
TP-3	1	0-11	(same as above)	none
	2	11-30+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-5	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-6	1	0-11	(same as above)	none
	2	11-27+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-28+	orange silt, trace tan, cmf gravel, cobbles	none
TP-8	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-9	1	0-11	(same, with cobbles)	none
	2	11-26+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-11	1	0-12	(same as above)	none

	2	12-25+	(same as above)	none
TP-12	1	0-10	(same as above)	none
	2	10-26+	(same as above)	none
TP-13	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-14	1	0-11	(same as above)	none
	2	11-28+	(same as above)	none
TP-15	1	0-15	(same as above)	none
	2	15-21+	(same as above)	none
TP-16	1	0-16	(same as above)	none
	2	16-23+	tan silt, cmf gravel	none
TP-17	1	0-16	medium brown silt, trace clay, cmf gravel, dark brown root/leaf mat	none
	2	16-27+	(same as above)	none
TP-18	1	0-17	(same as above)	none
	2	17-22+	(same as above)	none
TP-19	1	0-16	(same as above)	none
	2	16-26+	(same as above)	none
TP-20	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-21	1	0-15	(same as above)	none
	2	15-21+	(same as above)	none
TP-22	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-23	1	0-16	(same as above)	none
	2	16-28+	(same as above)	none
TP-24	1	0-14	medium brown silt, cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	14-22+	orange tan silt, cmf gravel	none
TP-25	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-26	1	0-13	(same as above)	none
	2	13-20+	(same as above)	none
TP-27	1	0-9	(same, denser gravel)	none
	2	9-21+	(same, denser gravel)	none
TP-28	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-29	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none
TP-30	1	0-14	(same, less dense gravel)	none
	2	14-24+	(same, less dense gravel)	none
TP-31	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-32	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-33	1	0-13	(same, with cobbles)	none
	2	13-24+	(same as above)	none

TP-34	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-35	1	0-12	(same as above)	none
	2	12-21+	(same as above)	none
TP-36	1	0-9	medium brown silt, dense cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	9-19+	tan silt, trace sand, dense cmf gravel	none
TP-37	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-38	1	0-10	(same as above)	none
	2	10-19+	(same as above)	none
TP-39	1	0-12	(same, less dense gravel)	none
	2	12-25+	(same, less dense gravel)	none
TP-40	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-41	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-42	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-43	1	0-13	(same as above)	none
	2	13-20+	(same as above)	none
TP-44	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none

TRANSECT 18

TP-1	1	0-12	medium brown silt, trace sand, cmf gravel, cobbles	none
	2	12-24+	tan orange silt, cmf gravel, cobbles	none
TP-2	1	0-12	(same as above)	none
	2	12-26+	(same as above)	none
TP-3	1	0-15	(same as above)	none
	2	15-22+	(same as above)	none
TP-4	1	0-14	(same, denser gravel)	none
	2	14-24+	(same as above)	none
TP-5	1	0-15	(same as above)	none
	2	15-24+	(same as above)	none
TP-6	1	0-12	(same, under dark brown root/leaf mat)	none
	2	12-23+	orange silt, trace tan, cmf gravel	none
TP-7	1	0-10	(same as above)	none
	2	10-26+	tan orange silt, cmf gravel	none
TP-8	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-9	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-10	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none

TP-11	1	0-12	(same, denser gravel)	none
	2	12-24+	(same as above)	none
TP-12	1	0-11	(same as above)	none
	2	11-18+	(same as above)	none
TP-13	1	0-12	(same as above)	none
	2	12-25+	(same as above)	none
TP-14	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-15	1	0-13	(same as above)	none
	2	13-20+	(same as above)	none
TP-16	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-17	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-18	1	0-9	(same, dense gravel)	none
	2	9-20+	(same, dense gravel)	none
TP-19	1	0-10	(same as above)	none
	2	10-18+	(same as above)	none
TP-20	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-21	1	0-12	(same less dense)	none
	2	12-21+	(same as above)	none
TP-22	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-23	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-24	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-25	1	0-14	(same as above)	none
	2	14-20+	(same as above)	none
TP-26	1	0-13	(same as above)	none
	2	13-20+	(same as above)	none
TP-27	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-28	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-29	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-30	1	0-14	(same as above)	none
	2	14-27+	(same as above)	none
TP-31	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-32	1	0-14	(same as above)	none
	2	14-20+	(same as above)	none

TP-33	1	0-12	(same, with cobbles)	none
	2	12-23+	(same as above)	none
TP-34	1	0-12	medium brown silt, some sand, cmf gravel, cobbles, dark brown root/leaf mat	none
	2	12-22+	orange tan silt, trace sand, cmf gravel	none
TP-35	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-36	1	0-14	(same as above)	none
	2	14-26+	(same as above)	none
TP-37	1	0-13	(same as above)	none
	2	13-20+	(same as above)	none
TP-38	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-39	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-40	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-41	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-42	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-43	1	0-12	(same, with cobbles)	none
	2	12-23+	(same as above)	none
TP-44	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none

TRANSECT 19

TP-1	1	0-13	medium to dark brown silt, dense cmf gravel, cobbles	none
	2	13-30+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-14	(same as above)	none
	2	14-28+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-30+	(same as above)	none
TP-4	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-5	1	0-10	(same, under dark brown root/leaf mat)	none
	2	10-23+	(same as above)	none
TP-6	1	0-14	moist dark brown silt, trace sand, under dark brown root/leaf mat	none
	2	14-25+	(same, moister, trace sand)	none
TP-7	1	0-15	(same as above)	none
	2	15-26+	(same as above)	none
TP-8	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-9	1	0-14	(same as above)	none
	2	14-24+	(same, some clay)	none

TP-10	1	0-12	(same as above)	none
	2	12-24+	(same as above)	none
TP-11	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-12	1	0-15	(same, very moist)	none
	2	15-25+	(same, very moist)	none
TP-13	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-14	1	0-12	(same, no cobbles)	none
	2	12-22+	(same as above)	none
TP-15	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-16	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-17	1	0-13	(same as above)	none
	2	13-21+	(same as above)	none
TP-18	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-19	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-20	1	0-11	(same, denser gravel)	none
	2	11-23+	(same as above)	none
TP-21	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-22	1	0-11	(same as above)	none
	2	11-24+	(same as above)	none
TP-23	1	0-14	(same, less dense gravel)	none
	2	14-22+	(same as above)	none
TP-24	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-25	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-26	1	0-11	(same as above)	none
	2	11-23+	(same as above)	none
TP-27	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-28	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-29	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-30	1	0-14	(same as above)	none
	2	14-21+	(same as above)	none
TP-31	1	0-14	(same as above)	none
	2	14-20+	(same as above)	none
TP-32	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-33	1	0-11	(same, with cobbles)	none
	2	11-23+	tan silt, trace orange, trace sand, cmf gravel	none

TP-34	1	0-9	(same, denser gravel)	none
	2	9-19+	(same as above)	none
TP-35	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-36	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-37	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-38	1	0-12	(same as above)	none
	2	12-22+	(same as above)	none
TP-39	1	0-12	(same as above)	none
	2	12-20+	(same as above)	none
TP-40	1	0-13	(same, less dense gravel, no cobbles)	none
	2	13-23+	orange tan silt, cmf gravel	none
TP-41	1	0-12	(same as above)	none
	2	12-23+	(same as above)	none
TP-42	1	0-10	(same, denser gravel)	none
	2	10-21+	(same as above)	none
TP-43	1	0-10	(same as above)	none
	2	10-18+	(same as above)	none
TP-44	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none

TRANSECT 20

TP-1	1	0-14	medium to dark brown silt, dense cmf gravel, cobbles	none
	2	14-25+	orange tan silt, cmf gravel, cobbles	none
TP-2	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-23+	(same as above)	none
TP-4	1	0-11	(same, under dark brown root/leaf mat)	none
	2	11-23+	(same as above)	none
TP-5	1	0-4	(same, no root/leaf mat)	none
	2	4-22+	(same as above)	none
TP-6	1	0-10	medium brown silt, some sand, cmf gravel under dark brown root/leaf mat	none
	2	10-23+	tan silt, trace orange, some sand, cmf gravel	none
TP-7	1	0-16	(same as above)	none
	2	16-26+	(same as above)	non
TP-8	1	0-8	(same as above)	none
	2	8-17+	(same as above)	none
TP-9	1	0-9	(same, with cobbles)	none
	2	9-19+	(same as above)	none
TP-10	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-11	1	0-10	(same as above)	none

	2	10-20+	(same, with cobbles)	none
TP-12	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-13	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-14	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-15	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-16	1	0-11	(same as above)	none
	2	11-19+	(same as above)	none
TP-17	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-18	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-19	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-20	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-21	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none
TP-22	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none
TP-23	1	0-13	(same, less dense gravel)	none
	2	13-22+	(same as above)	none
TP-24	1	0-12	(same, no cobbles)	none
	2	12-23+	(same as above)	none
TP-25	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-26	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-27	1	0-12	(same as above)	none
	2	13-23+	(same as above)	none
TP-28	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-29	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-30	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-31	1	0-13	(same as above)	none
	2	13-24+	(same as above)	none
TP-32	1	0-13	(same as above)	none
	2	13-25+	(same as above)	none
TP-33	1	0-19	(same, denser gravel, cobbles)	none
	2	19-29+	(same, cobbles)	none
TP-34	1	0-21	(same, less dense gravel)	none
	2	21-33+	(same as above)	none
TP-35	1	0-23	(same, no cobbles)	none
	2	23-32+	(same, no cobbles)	none

TP-36	1	0-23	(same as above)	none
	2	23-31+	(same as above)	none
TP-37	1	0-21	(same, with cobbles)	none
	2	21-32+	(same as above)	none
TP-38	1	0-21	(same as above)	none
	2	21-33+	(same, with cobbles)	none
TP-39	1	0-19	(same, denser gravel)	none
	2	19-28+	(same, denser gravel)	none
TP-40	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none
TP-41	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-42	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-43	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none

TRANSECT 21

TP-1	1	0-13	medium to dark brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	13-24+	orange tan silt, some sand, cmf gravel	none
TP-2	1	0-14	(same as above)	none
	2	14-22+	(same as above)	none
TP-3	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-4	1	0-15	(same as above)	none
	2	15-32+	(same, moister)	none
TP-5	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-6	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-7	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-8	1	0-18	(same, dense graved)	none
	2	18-26+	(same as above)	none
TP-9	1	0-20	(same, less dense gravel)	none
	2	20-30+	(same, less dense gravel)	none
TP-10	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-11	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-12	1	0-22	(same as above)	none
	2	22-32+	(same as above)	none
TP-13	1	0-22	(same as above)	none
	2	22-31+	(same as above)	none
TP-14	1	0-21	(same as above)	none
	2	21-34+	(same as above)	none

TP-15	1	0-21	(same as above)	none
	2	21-33+	(same as above)	none
TP-16	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-17	1	0-22	medium brown silt, trace sand, cmf gravel, cobbles dark brown root/leaf mat	none
	2	22-34+	orange tan silt, trace sand, cmf gravel, cobbles	none
TP-18	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-19	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none
TP-20	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-21	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-22	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-23	1	0-18	(same, denser gravel and cobbles)	none
	2	18-36+	(same, denser gravel)	none
TP-24	1	0-20	(same as above)	none
	2	20-38+	(same as above)	none
TP-25	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-26	1	0-21	(same as above)	none
	2	21-29+	(same as above)	none
TP-27	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-28	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-29	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-30	1	0-20	(same as above)	none
	2	20-32+	(same as above)	none
TP-31	1	0-19	medium brown silt, trace sand, dense cmf gravel, cobbles, dark brown root/leaf mat	none
	2	19-29+	orange tan silt, trace sand, dense cmf gravel	none
TP-32	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-33	1	0-21	(same as above)	none
	2	21-39+	(same as above)	none
TP-34	1	0-18	(same, very dense gravel)	none
	2	18-28+	(same as above)	none
TP-35	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-36	1	0-22	(same, less dense gravel)	none
	2	22-32+	(same as above)	none
TP-37	1	0-22	(same as above)	none
	2	22-30+	(same as above)	none

TP-38	1	0-21	(same as above)	none
	2	21-31+	(same as above)	none
TP-39	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none
TP-40	1	0-19	medium brown silt, trace sand, dense cmf gravel, cobbles, dark brown root/leaf mat	none
	2	19-27+	tan orange silt, trace sand, dense cmf gravel	
TP-41	1	0-18	(same as above)	none
	2	18-30+	(same as above)	none
TP-42	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-43	1	0-16	(same as above)	none
	2	16-28+	(same as above)	none
TP-44	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none

TRANSECT 22

TP-1	1	0-14	medium to dark brown silt, cmf gravel	none
	2	14-25+	orange tan silt, cmf gravel	none
TP-2	1	0-13	(same as above)	none
	2	13-22+	(same as above)	none
TP-3	1	0-14	very moist grey brown silt, some clay	none
	2	14-24+	very moist grey tan silt, some clay	none
TP-4	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-5	1	0-14	(same as above)	none
	2	14-24+	(same as above)	none
TP-6	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-7	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-8	1	0-18	(same as above)	none
	2	18-26	(same as above)	none
TP-9	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-10	1	0-21	(same as above)	none
	2	21-29+	(same as above)	none
TP-11	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-12	1	0-20	(same as above)	none
	2	20-29+	(same as above)	none
TP-13	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-14	1	0-21	(same as above)	none
	2	21-33+	(same as above)	none

TP-15	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-16	1	0-19	medium brown silt, trace sand, dense cmf gravel, cobbles, dark brown root/leaf mat	none
	2	19-28+	tan orange silt, trace sand, dense cmf gravel	none
TP-17	1	0-18	(same as above)	none
	2	18-30+	(same as above)	none
TP-18	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-18A	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-18B	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-18C	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-18D	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-18E	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-18F	1	0-19	(same as above)	none
	2	19-30	(same as above)	none
TP-18G	1	0-19	(same as above)	none
	2	19-31+	(same as above)	none
TP-18H	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-19	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-20	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-21	1	0-21	(same as above)	none
	2	21-29+	(same as above)	none
TP-22	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-23	1	0-19	(same as above)	none
	2	19-30+	(same, with cobbles)	none
TP-24	1	0-20	(same as above)	none
	2	20-31+	(same, no cobbles)	none
TP-25	1	0-20	(same as above)	none
	2	20-31+	(same as above)	none
TP-26	1	0-21	(same as above)	none
	2	21-28+	(same as above)	none
TP-27	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-28	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-29	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none

TP-30	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-31	1	0-21	(same as above)	none
	2	21-29+	(same as above)	none
TP-32	1	0-19	(same as above)	none
	2	19-28+	(same, cobbles)	none
TP-33	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-34	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-35	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-36	1	0-19	(same as above)	none
	2	19-27+	(same, dense gravel and cobbles)	none
TP-37	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-38	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-39	1	0-20	(same as above)	none
	2	20-29+	(same as above)	non
TP-40	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-41	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-42	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-43	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-44	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none

TRANSECT 23

TP-1	1	0-9	(same as above)	none
	2	9-19+	(same as above)	none
TP-2	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-3	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none
TP-4	1	0-10	(same as above)	none
	2	10-18+	(same as above)	none
TP-5	1	0-8	(same as above)	none
	2	8-17+	(same as above)	none
TP-6	1	0-15	(same as above)	none
	2	15-25+	(same as above)	none
TP-7	1	0-13	(same as above)	none
	2	13-28+	(same as above)	none

TP-8	1	0-12	(same as above)	none
	2	12-29+	(same as above)	none
TP-9	1	0-14	medium brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	14-25+	(same as above)	none
TP-10	1	0-16	(same, moister)	none
	2	16-28+	(same, moister)	none
TP-11	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-12	1	0-21	(same as above)	none
	2	21-30+	(same as above)	none
TP-13	1	0-16	(same as above)	none
	2	16-29+	(same as above)	none
TP-14	1	0-20	most dark brown silt, cmf gravel, under dark brown root/leaf mat	none
	2	20-29+	moist tan silt, cmf gravel	none
TP-15	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-16	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-17	1	0-18	(same as above)	none
	2	18-26+	(same as above)	none
TP-18	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-19	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-20	1	0-20	(same as above)	none
	2	20-30+	(same, trace orange)	none
TP-21	1	0-18	(same as above)	none
	2	18-26+	(same, no orange)	none
TP-22	1	0-20	(same as above)	none
	2	20-30+	(same as above)	none
TP-23	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-24	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-25	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-26	1	0-20	(same as above)	none
	2	20-28+	(same as above)	none
TP-27	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-28	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-29	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-30	1	0-19	(same as above)	none
	2	19-31+	(same as above)	none

TP-31	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-32	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-33	1	0-16	(same as above)	none
	2	16-29+	(same as above)	none
TP-34	1	0-17	(same as above)	none
	2	17-31+	(same as above)	none
TP-35	1	0-17	(same as above)	none
	2	17-29+	(same as above)	none
TP-36	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-37	1	0-18	(same as above)	none
	2	18-26+	(same as above)	none
TP-38	1	0-18	medium brown silt, some sand, dense cmf gravel, cobbles, dark brown root/leaf mat	none
	2	18-28+	tan orange silt, some sand, dense cmf gravel	none
TP-39	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-40	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-41	1	0-16	(same as above)	none
	2	16-30+	(same as above)	none
TP-42	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-43	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-44	1	0-18	(same as above)	none
	2	18-30+	(same as above)	none
TP-45	1	0-18	(same as above)	none
	2	18-27+	(same as above)	none
TP-46	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-47	1	0-18	(same as above)	none
	2	18-26+	(same as above)	none

SAMPLING SECTOR C
TRANSECT 1

TP-1	1	0-18	medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	18-29+	orange silt, some sand, cmf gravel	none
TP-2	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-3	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none

TP-4	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none

TRANSECT 2

TP-1	1	0-19	medium brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	19-30+	orange silt, some sand, cmf gravel	none
TP-2	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-3	1	0-19	(same as above)	none
	2	19-28+	(same as above)	none
TP-4	1	0-19	(same as above)	none
	2	9-27+	(same as above)	none
TP-5	1	0-10	(same as above)	none
	2	10-19+	(same as above)	none
TP-6	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none
TP-7	1	0-9	(same as above)	none
	2	9-21+	(same as above)	none
TP-8	1	0-9	(same as above)	none
	2	9-18+	(same as above)	none
TP-9	1	0-11	(same, more soil)	none
	2	11-19+	(same as above)	none
TP-10	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none

TRANSECT 3

TP-1	1	0-18	medium brown silt, some sand, cmf gravel under dark brown root/leaf mat	none
	2	18-27+	orange silt, some sand, cmf gravel	none
TP-2	1	0-19	(same as above)	none
	2	19-29+	(same as above)	none
TP-3	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-4	1	0-19	(same as above)	none
	2	19-31+	(same as above)	none
TP-5	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-6	1	0-9	(same as above)	none
	2	9-21+	(same as above)	none
TP-7	1	0-9	(same as above)	none
	2	9-18+	(same as above)	none
TP-8	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-9	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none

TP-10	1	0-8	(same as above)	none
	2	8-19+	(same as above)	none

TRANSECT 4

TP-1	1	0-18	medium brown silt, some sand, cmf gravel, under dark brown root/leaf mat	none
	2	18-29+	orange silt, some sand, cmf gravel	none
TP-2	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-3	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-4	1	0-14	(same as above)	none
	2	14-25+	(same as above)	none
TP-5	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none
TP-6	1	0-10	(same as above)	none
	2	10-22+	(same as above)	none

TRANSECT 5

TP-1	1	0-16	medium brown silt, trace sand, cmf gravel, under dark brown root/leaf mat	none
	2	16-26+	orange silt, trace sand, cmf gravel	none
TP-2	1	0-17	(same as above)	none
	2	17-31+	(same as above)	none
TP-3	1	0-18	(same as above)	none
	2	18-30+	(same as above)	none
TP-4	1	0-15	(same as above)	none
	2	15-28+	(same as above)	none
TP-5	1	0-18	(same as above)	none
	2	18-30+	(same, less dense)	none
TP-6	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-7	1	0-19	(same as above)	none
	2	19-31+	(same as above)	none
TP-8	1	0-8	(same, dense gravel, cobbles)	none
	2	8-18+	(same as above)	none
TP-9	1	0-8	medium brown silt, trace sand, dense cmf gravel, cobbles, under dark brown root/leaf mat	none
	2	8-17+	tan silt, trace sand, dense cmf gravel, cobbles	none
TP-10	1	0-11	(same as above)	none
	2	11-20+	(same as above)	none

TRANSECT 6

TP-1	1	0-16	medium brown silt, trace sand, cmf gravel under dark brown root/leaf mat	none
	2	16-28+	orange silt, trace tan, trace sand, cmf gravel	none
TP-2	1	0-17	(same as above)	none
	2	17-30+	(same as above)	none
TP-3	1	0-18	(same as above)	none
	2	18-29+	(same as above)	none
TP-4	1	0-11	(same as above)	none
	2	11-22+	(same as above)	none
TP-5	1	0-9	(same as above)	none
	2	9-17+	(same as above)	none
TP-6	1	0-8	(same as above)	none
	2	8-17+	(same as above)	none
TP-7	1	0-8	(same as above)	none
	2	8-18+	(same as above)	none
TP-8	1	0-8	(same as above)	none
	2	8-16+	(same as above)	none
TP-9	1	0-9	(same as above)	none
	2	9-17+	(same as above)	none
TP-10	1	0-8	(same as above)	none
	2	8-19+	(same as above)	none

TRANSECT 7

TP-1	1	0-18	(same as above)	none
	2	18-28+	(same as above)	none
TP-2	1	0-19	(same as above)	none
	2	19-30+	(same as above)	none
TP-3	1	0-17	(same as above)	none
	2	17-28+	(same as above)	none
TP-4	1	0-16	(same as above)	none
	2	16-27+	(same as above)	none
TP-5	1	0-10	(same as above)	none
	2	10-18+	(same as above)	none
TP-6	1	0-10	(same as above)	none
	2	10-20+	(same as above)	non
TP-7		(steep slope - not dug)		
TP-8		(steep slope - not dug)		
TP-9	1	0-9	(same as above)	none
	2	9-19+	(same as above)	none

TRANSECT 8

TP-1	1	0-11	(same, less rocky)	none
	2	11-20+	(same as above)	none
TP-2	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none

TP-3	1	0-10	(same as above)	none
	2	10-21+	(same as above)	none
TP-4	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-5	1	0-11	(same as above)	none
	2	11-21+	(same as above)	none
TP-6	1	0-10	(same as above)	none
	2	10-20+	(same as above)	none
TP-7	1	0-9	(same as above)	none
	2	9-20+	(same as above)	none

ARTIFACT CATALOGUE

CORNWALL COMMONS DEVELOPMENT - CA553B

PHASE IB ARTIFACT CATALOGUE

QUANTITY	DESCRIPTION	PROVENIENCE
1	dark grey chert fragment w/cortex	TrB9 TP-31, Level 1
1	dark grey block core w/cortex	TrB22 TP-18, Level 1

ABBREVIATIONS

Tr - shovel test transect
TP - shovel test hole

O – Threatened & Endangered Species, correspondence provided by Capital Environmental

Kelly DeGuzman

From: dec.sm.Wildlife.R3 <Wildlife.R3@dec.ny.gov>
Sent: Thursday, December 8, 2022 3:25 PM
To: Kelly DeGuzman
Subject: Re: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Kelly,

The project is located 1.9 miles from an Indiana Bat maternity colony, 0.75 miles from an active Bald Eagle nest, and 0.3 miles from a Least Bittern breeding area. Please see the attached document for general guidance on assessing and avoiding potential impacts to. Indiana Bats, Bald Eagles and Least Bittern. Here is link to general guidance for Least Bittern Least Bittern Guide - New York Natural Heritage Program (nynhp.org) If you are planning a project that would take place in the vicinity of a Threatened or Endangered species, the project location may contain occupied habitat. Occupied habitats are locations where individuals of a listed species have been documented to be breeding, nesting, roosting, hibernating, or foraging. If your proposed project may result in either direct harm or disturbance to listed species, or reduce the amount or quality of occupied habitat, your project may result in a "take" of a listed species as defined in 6NYCRR Part 182 and described on New York's Endangered Species Regulations webpage. An incidental take permit is required for any activity that is likely to result in take. For specific guidance on how to avoid potential impacts associated with your proposed project and feedback on whether your project may need an incidental take permit, please submit a detailed description of your proposed project, including specific location information and site plans, if you have them, to wildlife.R3@dec.ny.gov. Any additional information you can provide following the attached guidance, such as habitat assessments or proposed take-avoidance measures, would also be helpful.

Bureau of Wildlife
New York State Department of Environmental Conservation
21 South Putt Corners Road, New Paltz, NY 12561
P: (845) 256-3098 | F: (845) 255-4659 | wildlife.R3@dec.ny.gov
www.dec.ny.gov | | | |
NEW YORK STATE | Department of Environmental Conservation

From: Kelly DeGuzman <kdeguzman@capitalenviro.com>
Sent: Wednesday, December 7, 2022 2:49 PM
To: dec.sm.Wildlife.R3 <Wildlife.R3@dec.ny.gov>
Cc: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; Greg Fleischer <gfleischer@capitalenviro.com>; Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

To Whom It May Concern,

Good afternoon. We received the attached letter report from Region 3 Division of Environmental Permits dated September 29, 2022. Per the Department's direction, we are proceeding to analyze if there would be potential impacts to the bald eagle or least bittern from a proposed project at the subject property located at 2615 Route 9W in Cornwall, NY. As such, we require more specific information as to the approximate location of the identified bald eagle and least bittern. Correspondence with NHP in August 2022 (attached) indicates the least bittern was observed 1/3 mile from the project site and the bald eagle ¾ miles. Any additional information you can provide would be greatly appreciated.

However, if you cannot provide specific/detailed locations of the nesting locations, please confirm that the nesting areas coincide with the mouth of Moodna Creek at the confluence with the Hudson River and can be assumed to be located within the vicinity of the locations noted on the attached aerial analysis. The aerials were developed based on the NHP provided distances and the site boundary.

We appreciate your assistance.

Thank you,
Kelly

Kelly DeGuzman
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Cell: (845) 800-4998
Gen: (845) 383-1114 Ext. 2

Email: kdeguzman@capitalenviro.com
Website: www.capitalenviro.com

From: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Sent: Wednesday, December 7, 2022 2:35 PM
To: Kelly DeGuzman <kdeguzman@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Good afternoon Kelly,

Thank you for your email and I apologize for the delay in getting back to you on this. In regards to specific information about the approximate location of the Bald Eagle or Least Bittern in association for the project, in order to determine

possible impacts, should be deferred to our Bureau of Wildlife. They will be able to work with you regarding the species. Their email is wildlife.r3@dec.ny.gov. Please let me know if there are any additional questions.

Best regards,

Glennys Romero Medina
Environmental Engineering Technician, Division of Environmental Permits

New York State Department of Environmental Conservation
21 South Putt Corners Rd, New Paltz, NY 12561
845-256-2250 (p) glennys.romeromedina@dec.ny.gov
www.dec.ny.gov

From: Kelly DeGuzman <kdeguzman@capitalenviro.com>
Sent: Wednesday, December 07, 2022 2:04 PM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; dec.sm.DEP.R3 <DEP.R3@dec.ny.gov>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>; Greg Fleischer <gfleischer@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Good afternoon Glennys,

I just wanted to follow up on the below email to see if there is any information you can provide, as it is pertinent to our analyses.

Thank you,
Kelly

Kelly DeGuzman
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Cell: (845) 800-4998
Gen: (845) 383-1114 Ext. 2

Email: kdeguzman@capitalenviro.com
Website: www.capitalenviro.com

From: Kelly DeGuzman
Sent: Monday, November 28, 2022 10:24 AM
To: Greg Fleischer <gfleischer@capitalenviro.com>; 'Romero Medina, Glennys A (DEC)' <Glennys.Romeromedina@dec.ny.gov>; 'dec.sm.DEP.R3' <DEP.R3@dec.ny.gov>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning. I hope you had a nice Thanksgiving break. I just wanted to follow up on the below email as it is pertinent to our analyses.

Thank you,
Kelly

Kelly DeGuzman
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Cell: (845) 800-4998
Gen: (845) 383-1114 Ext. 2

Email: kdeguzman@capitalenviro.com
Website: www.capitalenviro.com

From: Kelly DeGuzman
Sent: Tuesday, November 22, 2022 1:18 PM
To: Greg Fleischer <gfleischer@capitalenviro.com>; Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; dec.sm.DEP.R3 <DEP.R3@dec.ny.gov>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good afternoon. Thank you for your letter report dated September 29, 2022. Per the Department's direction, we are proceeding to analyze if there would be potential impacts to the bald eagle or least bittern from a proposed project at the subject property located at 2615 Route 9W in Cornwall. As such, we require more specific information as to the approximate location of the identified bald eagle and least bittern. Correspondence with NHP in August 2022 (attached) indicates the least bittern was observed 1/3 mile from the project site and the bald eagle ¾ mile. Any additional information you can provide would be greatly appreciated.

However, if you cannot provide specific/detailed locations of the nesting locations, please confirm that the nesting areas coincide with the mouth of Moodna Creek at the confluence with the Hudson River and can be assumed to be located

within the vicinity of the locations noted on the attached aerial analysis. The aerials were developed based on the NHP provided distances and the site boundary.

We appreciate your assistance.

Thank you,
Kelly

Kelly DeGuzman
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Cell: (845) 800-4998
Gen: (845) 383-1114 Ext. 2

Email: kdeguzman@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer <gfleischer@capitalenviro.com>
Sent: Thursday, September 29, 2022 10:37 AM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; dec.sm.DEP.R3 <DEP.R3@dec.ny.gov>
Cc: Kelly DeGuzman <kdeguzman@capitalenviro.com>; Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Glennys,

No worries at all. I'm sure you guys are swamped. We are just getting a lot of pressure from ownership to obtain this information. We certainly appreciate your time and assistance.

Best,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Sent: Thursday, September 29, 2022 10:33 AM
To: Greg Fleischer <gfleischer@capitalenviro.com>; dec.sm.DEP.R3 <DEP.R3@dec.ny.gov>
Cc: Kelly DeGuzman <kdeguzman@capitalenviro.com>; Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

Hello Greg,

I apologize for the delay. I have sent the completed letter to you in a separate email. Please let me know if you have any additional questions.

Best,

Glennys Romero Medina
Environmental Engineering Technician, Division of Environmental Permits

New York State Department of Environmental Conservation
21 South Putt Corners Rd, New Paltz, NY 12561
845-256-2250 (p) glennys.romeromedina@dec.ny.gov
www.dec.ny.gov

From: Greg Fleischer <gfleischer@capitalenviro.com>
Sent: Thursday, September 29, 2022 8:53 AM
To: dec.sm.DEP.R3 <DEP.R3@dec.ny.gov>
Cc: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>; Shannon Rattigan <srattigan@capitalenviro.com>
Subject: IMPORTANT - Cornwall Treetop Planned Industrial Development Review Request

NYSDEC Region 3 Permit Staff/Glennys,

Good morning, I hope this finds you all well.

I'm just checking in again. I understand staff is very busy, but we are now approaching almost two months since our original request (August 8th).

Can someone at Region 3 please provide a status update to me this morning so I can update the project team on my call later today?

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer
Sent: Monday, September 19, 2022 1:15 PM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>; dep.r3@dec.ny.gov
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good afternoon, I hope this finds you well.

I'm just checking in again. I understand staff is very busy, but we are approaching a month since you last said we'd have it in a week.

At the very least, please provide a status update to me this afternoon so I can update the project team on my call later today.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1

Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer
Sent: Thursday, September 15, 2022 9:02 AM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning, I hope this finds you well.

I'm just checking in again. I understand staff is very busy, but we are approaching a month since you last said we'd have it in a week.

At the very least, please provide a status update to me this morning so I can update the project team on my call later today.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer
Sent: Wednesday, September 7, 2022 11:42 AM
To: 'Romero Medina, Glennys A (DEC)' <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>

Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning, just checking in again.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer
Sent: Thursday, September 1, 2022 11:53 AM
To: 'Romero Medina, Glennys A (DEC)' <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning, just checking in again.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1

Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer
Sent: Wednesday, August 31, 2022 10:05 AM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>; Kelly DeGuzman <kdeguzman@capitalenviro.com>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning. I'm just checking in on this one.

I have a team meeting tomorrow morning and it would be great to have the Department's response beforehand. Anything you could do would be very appreciated.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Sent: Thursday, August 25, 2022 8:21 AM
To: Greg Fleischer <gfleischer@capitalenviro.com>; Kelly DeGuzman <kdeguzman@capitalenviro.com>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Hello Greg,

Thank you for your email and I apologize for the delay in response. I have been reviewing the submitted materials and working with other staff in order to finalize your review request and should have a letter finalized and sent back to you by next week. If anything should change then I will update you, but otherwise we should be good to go. Please let me know if you have any other questions! Thank you for your time and patience.

Best regards,

Glennys Romero Medina
Environmental Engineering Technician, Division of Environmental Permits

New York State Department of Environmental Conservation
21 South Putt Corners Rd, New Paltz, NY 12561
845-256-2250 (p) glennys.romeromedina@dec.ny.gov
www.dec.ny.gov

NEW YORK STATE | Department of Environmental Conservation

From: Greg Fleischer <gfleischer@capitalenviro.com>
Sent: Tuesday, August 23, 2022 9:54 AM
To: Kelly DeGuzman <kdeguzman@capitalenviro.com>; Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Good morning. I just wanted to check in regarding the below email. Can you provide any update on the below request?

Receiving it in the next day or two would be very helpful to us.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Kelly DeGuzman <kdeguzman@capitalenviro.com>
Sent: Thursday, August 18, 2022 12:50 PM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Cc: Shannon Rattigan <srattigan@capitalenviro.com>; Greg Fleischer <gfleischer@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Good afternoon Glennys,

I just wanted to check in regarding the below email. Can you provide any update on the below request?

Thank you,
Kelly

Kelly DeGuzman
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Cell: (845) 800-4998
Gen: (845) 383-1114 Ext. 2

Email: kdeguzman@capitalenviro.com
Website: www.capitalenviro.com

From: Greg Fleischer <gfleischer@capitalenviro.com>
Sent: Monday, August 8, 2022 2:14 PM
To: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Cc: Kelly DeGuzman <kdeguzman@capitalenviro.com>; Shannon Rattigan <srattigan@capitalenviro.com>
Subject: RE: Cornwall Treetop Planned Industrial Development Review Request

Glennys,

Thank you for reaching out to me and I apologize for the confusion. Currently, the project is still in the scoping phase and at this juncture, we are making this non-project specific request for the purpose of due diligence for the overall property. As such, we are looking for a general assessment of the property with respect to the following potential permitting requirements:

- Protection of Water
    - List of protected streams and associated classifications.
- Freshwater Wetland
    - Presence/absence of NYSDEC jurisdictional wetlands.

- Water Quality Certification
    - Water quality classifications of onsite waterbodies.
- State-listed Threatened and Endangered Species
    - List of any rare or state-listed species, natural communities, or other significant habitats on or adjacent to the site.
    - Associated distance to any rare or state-listed species, natural communities, or other significant habitats.

We've narrowed the scope of our request to just include potential permitting requirements based on existing conditions and removed project specific review requests. If you would like to discuss further, you can reach me any time at 845-430-7665.

Thank you,

Greg

Greg Fleischer, PWS
Capital Environmental Consultants, Inc.

Mailing Address and Overnight Shipping:
243 Fair Street, Suite #4
Kingston, NY 12401

Gen: (845) 383-1114 Ext. 1
Cell: (845) 430-7665
Email: gfleischer@capitalenviro.com
Website: www.capitalenviro.com

From: Romero Medina, Glennys A (DEC) <Glennys.Romeromedina@dec.ny.gov>
Sent: Wednesday, August 3, 2022 1:34 PM
To: Greg Fleischer <gfleischer@capitalenviro.com>
Subject: Cornwall Treetop Planned Industrial Development Review Request

Hello,

I am reaching out in regards to a submission received by our office for a review request regarding a project at 2615 United States Route 9W, SBL: 9-1-25.22, Cornwall, NY 12518 ("Treetop Planned Industrial Development"). I would just like to clarify whether you would like us to provide comments now or when the DEIS is accepted and promulgated? We have received the draft scope and necessary materials to complete a review at this time, but we could wait for the DEIS in order to do that and provide comments. Please let me know what would be preferable in this case. Thank you and please let me know if you have any questions.

Sincerely,

Glennys Romero Medina
Environmental Engineering Technician, Division of Environmental Permits

New York State Department of Environmental Conservation
21 South Putt Corners Rd, New Paltz, NY 12561
845-256-2250 (p) glennys.romeromedina@dec.ny.gov
www.dec.ny.gov

This message contains confidential information. Unless you are the addressee (or authorized to receive for the addressee), you may not copy, use, or distribute this information. If you have received this message in error, please advise Capital Environmental Consultants, Inc. immediately at (845) 383-1114 or return it promptly by email and delete the original message from your email system and/or computer database.

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

August 16, 2022

Shannon Rattigan
Capital Environmental Consultants, Inc.
243 Fair Street, Suite #4
Kingston, NY 12401

Re: 2615 Route 9W, Cornwall
County: Orange Town/City: Cornwall

Dear Shannon Rattigan:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

The following state-listed animals have been documented in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for the project, please contact the NYSDEC Region 3 Office, Department of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

The following species has been documented within 1/3 mile of the project site.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Birds				
Least Bittern *Breeding*	*Ixobrychus exilis*	Threatened		8403

The following species has been documented within 3/4 mile of the project site.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Birds				
Bald Eagle *Breeding*	*Haliaeetus leucocephalus*	Threatened		1153

The following species has been documented within 2 miles of the project site. Individual animals may travel 2.5 miles from documented locations. The main impact of concern is the cutting or removal of potential roost trees.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Mammals				
Indiana Bat *Maternity colony*	*Myotis sodalis*	Endangered	Endangered	11288

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

The following significant natural communities and animal assemblages have been documented in the vicinity of the project site.

We recommend that potential impacts of the proposed project on these assemblages or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

Animal Assemblages

Waterfowl Winter Concentration Area

Documented along a stretch of the Moodna Creek that flows near the western edge of the project site. 1984: Large, medium gradient stream with lower mile of stream in tidal range with emergent marsh and wooded islands and tidal flat. 1932

Anadromous Fish Concentration Area

Documented along a stretch of the Moodna Creek that flows near the western edge of the project site. 1987: Large medium gradient stream with lower mile of stream in tidal range with emergent marsh and wooded islands and tidal flats. 9587

The following natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. Each community is either an example of a community type that is rare in the state, or a high-quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*

Wetland/Aquatic Communities

Brackish Intertidal Mudflats — High Quality Occurrence of Rare Community Type

Documented within 1/4 mile east of the project site. This is a small occurrence in good condition within a relatively good landscape context. 59

Brackish Tidal Marsh — High Quality Occurrence of Uncommon Community Type

Documented within 1/4 mile east of the project site. The marsh is moderate to small-sized, in good condition within a moderate quality landscape. 8492

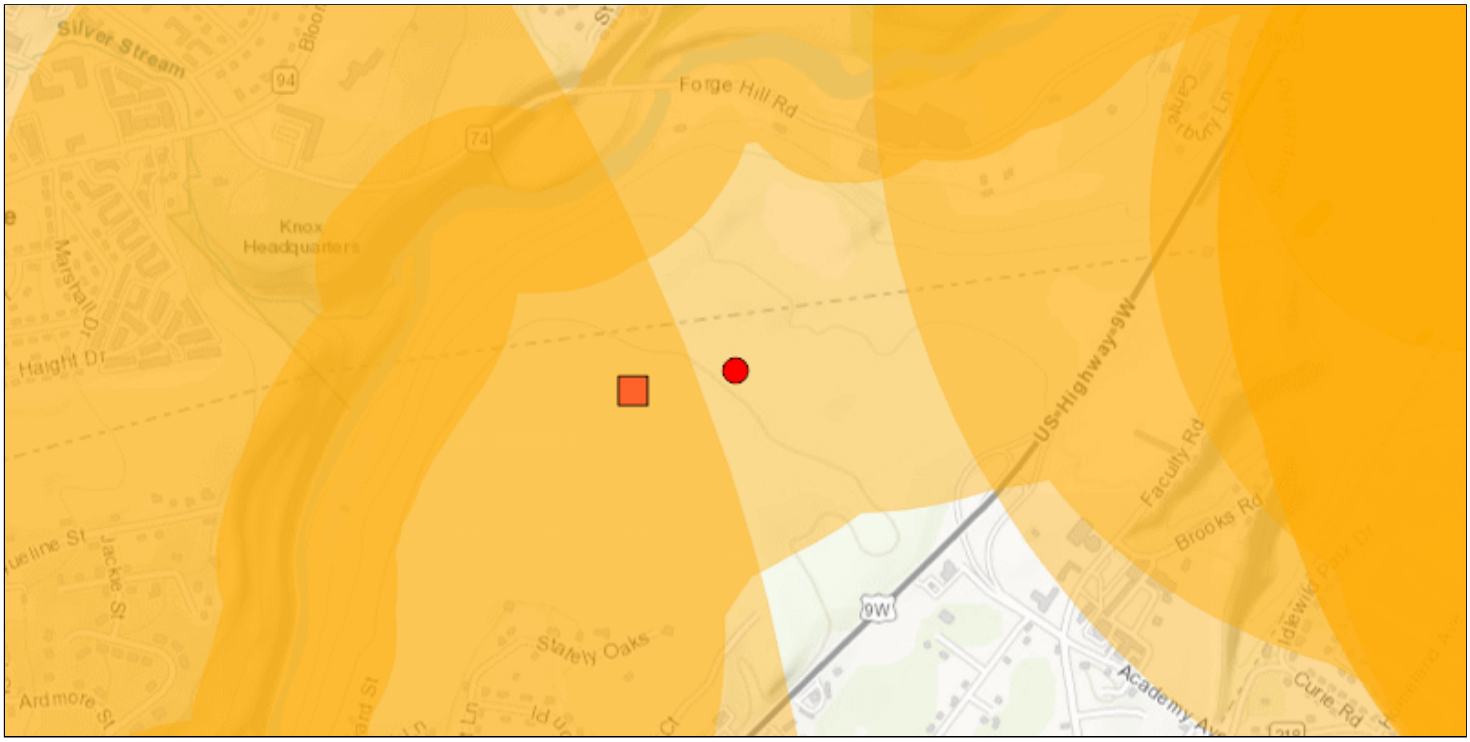
This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	**Easting:**	580382.0406436118	**Northing:**	4589361.2884875145
Longitude/Latitude	**Longitude:**	-74.0376316752869	**Latitude:**	41.4518197094859

The approximate address of the point you clicked on is:
12518, Cornwall, New York

County: Orange
Town: Cornwall
USGS Quad: CORNWALL-ON-HUDSON

Rare Plants and Rare Animals

This location is in the vicinity of Significant Anadromous Fish Concentration Area – Contact NYSDEC

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information		
Name of Action or Project:		
Project Location (describe, and attach a location map):		
Brief Description of Proposed Action:		
Name of Applicant or Sponsor:	Telephone: E-Mail:	
Address:		
City/PO: q	State:	Zip Code:

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☐	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	NO ☐	YES ☐

3. a. Total acreage of the site of the proposed action? _____ acres
   b. Total acreage to be physically disturbed? _____ acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☐
b. Consistent with the adopted comprehensive plan?	☐	☐	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☐

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☐	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. 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?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Indiana Bat, Least Bittern,...	☐	☑
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☐
If Yes, a. Will storm water discharges flow to adjacent properties?	☐	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☐
If Yes, briefly describe: _____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:_____ _____	☐	☐
~~1~~9. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____ _____	☐	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____ _____	☐	☑

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

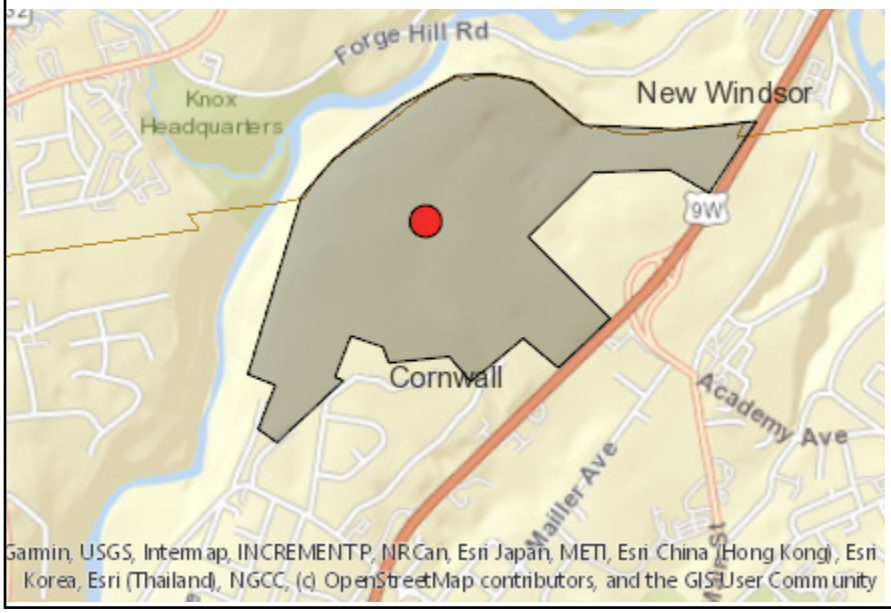
Applicant/sponsor/name: _____ Date:_____

Signature: _____Title:_____

PRINT FORM

EAF Mapper Summary Report

Friday, February 18, 2022 3:59 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Indiana Bat, Least Bittern, Bald Eagle
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To:
Project Code: 2022-0010547
Project Name: Dynamic Cornwall

February 18, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

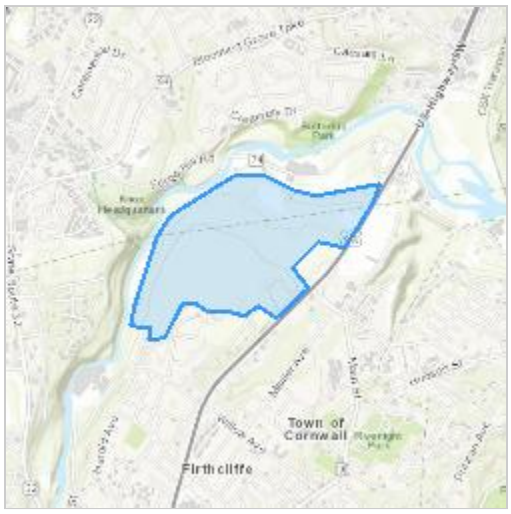
This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Project Code: 2022-0010547
Event Code: None
Project Name: Dynamic Cornwall
Project Type: Commercial Development
Project Description: The project site is located at 5126 US Route 9W, Cornwall, NY.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.4506799,-74.03962476743595,14z



Counties: Orange County, New York

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Reptiles

NAME	STATUS
Bog Turtle *Glyptemys muhlenbergii* Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Small Whorled Pogonia *Isotria medeoloides*	Threatened

Population:

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/1890

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Name: Shannon Rattigan
Address: 243 Fair Street, Suite 4
City: Kingston
State: NY
Zip: 12401
Email srattigan@capitalenviro.com
Phone: 8453831114

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 3
21 South Putt Corners Road, New Paltz, NY 12561-1620
P: (845) 256-3054 | F: (845) 255-4659
www.dec.ny.gov

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

September 29, 2022

VIA EMAIL

Capital Environmental Consultants, Inc.
Greg Fleischer
gfleischer@capitalenviro.com

Re: CORNWALL TREETOP PLANNED INDUSTRIAL DEVELOPMENT
Town of Cornwall, Orange County
DEC ID: 3-3324-00139/00001
Permit Jurisdiction Inquiry

Dear Greg Fleischer,

The Department of Environmental Conservation (DEC or Department) received your permit jurisdiction inquiry on June 14th, 2022. The proposal involves Construction of five warehouse buildings totaling approximately 2,053,593 square-feet in gross floor area with associated site improvements, and other related site improvements. The project site is located at 2615 Route 9W in Cornwall. The comments below are associated with the location of the lot itself and are *not* specific to the proposed development itself. Further comments specific to the proposed development would be provided separately.

PROTECTION OF WATERS STREAM DISTURBANCE

The following stream is located within or near the site you indicated:

Name	Class	DEC Water Index Number	Status
Subtribs. of Hudson River	C	H-88-1	Non-protected
Moodna Creek	C	H-89 portions	Non-protected

A permit is not required to disturb the bed or banks of “non-protected” streams.

If a permit is not required, please note, however, you are still responsible for ensuring that work shall not pollute any stream or waterbody. Care shall be taken to stabilize any disturbed areas promptly after construction, and all necessary precautions shall be taken to prevent contamination of the stream or waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.

FRESHWATER WETLANDS

Your project/site is not within a New York State-protected Freshwater Wetland. However, please contact your town officials and the United States Army Corps of Engineers in New York City, telephone (917) 790-8411, for any permitting they might require.

WATER QUALITY CERTIFICATION

If the US Army Corps of Engineers requires a permit pursuant to Section 404 of the Clean Water Act for the discharge to fill in Waters of the U.S., then a Section 401 Water Quality Certification (WQC) will be required. Issuance of these certifications is delegated in New York State to DEC. If the project qualifies for a Nationwide Permit, it may be eligible for coverage under a DEC Blanket WQC. Coverage under a Blanket requires compliance with all conditions for the corresponding Nationwide Permit. For more information and to view the DEC Blanket WQCs, please visit https://www.dec.ny.gov/permits/6546.html. A determination on Corps jurisdiction and Nationwide Permit eligibility is likely necessary for a DEC jurisdictional determination.

STATE-LISTED SPECIES

DEC has reviewed the State's Natural Heritage records. We have determined that the site is located within or near record(s) of the following state-listed species:

Name	Status
Indiana Bat (*Myotis sodalis*)	Endangered
Bald Eagle (*Haliaeetus leucocephalus*)	Threatened
Least Bittern (*Ixobrychus exilis*)	Threatened

A permit is required for the incidental taking of any species listed as "endangered" or "threatened", which can include removal of habitat.

Indiana Bat

Tree removal associated with this project should occur within the appropriate time of the year work window, October 1 through March 31, to avoid direct impacts to individuals and the need for an Article 11 take permit. If more than 10 acres of tree removal is required, a review of impacts to habitat including an analysis of change in percent forest cover and indirect impacts to the species related to noise, lighting, dust, chemical use, etc. as specified in the attached USFWS Indiana Bat fact sheet is needed for this site. If the impacts to habitat or indirect impacts to the species are adverse, or impair and essential behavior, an Article 11 permit would be needed.

Bald Eagle

Bald Eagles nests have been documented in proximity to the project location. The acceptable work window that would not result in any impacts to breeding eagles in the area would be October 1st to December 31st. Blasting, rock removal and pile driving can have impacts on noise levels in the area above ambient conditions. For work proposed outside of this window, additional information is needed including when construction activities are proposed to take place, the duration of those activities, what equipment would be used, noise levels from construction and operational activities as compared to ambient noise levels. If project related impacts cannot be fully avoided or minimized, a permit for incidental take may be needed. The information on eagle nest locations represents our current knowledge of these resources, new eagle nests could be documented with each breeding season and would at that point, need to be addressed as well. In the absence of current survey data for the project, it is best to check in each year to see if any new nests have been established.

Least Bittern
There is the potential for noise impacts. Please submit information on activities proposed during the nesting season (April 15th to August 15th) to the NYSDEC Bureau of Wildlife. For work proposed during the nesting season window, additional information is needed including when construction activities are proposed to take place, the duration of those activities, what equipment would be used, noise levels from construction and operational activities as compared to ambient noise levels.

The absence of data does not necessarily mean that other rare or state-listed species, natural communities or significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which 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 sources may be required to fully assess impacts on biological resources.

COASTAL MANAGEMENT ZONE

The project site is located within the Coastal Management Zone. If the Department had individual permit approvals for this project, the Department would review it in accordance with Coastal Management Program requirements. For additional information about the Coastal Management Zone, please contact the NYS Department of State at (518)-474-6000 or doscstlcr@dos.ny.gov.

CULTURAL RESOURCES

We have reviewed the statewide inventory of archaeological resources maintained by the New York State Museum and the New York State Office of Parks, Recreation, and Historic Preservation. These records indicate that the project is located within an area considered to be sensitive with regard to archaeological resources.

OTHER

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified. More information about DEC permits may be found at our website, www.dec.ny.gov, under “Regulatory” then “Permits and Licenses.” Application forms may be downloaded at http://www.dec.ny.gov/permits/6081.html.

Please feel free to contact this office if you have questions regarding the above information. Thank you.

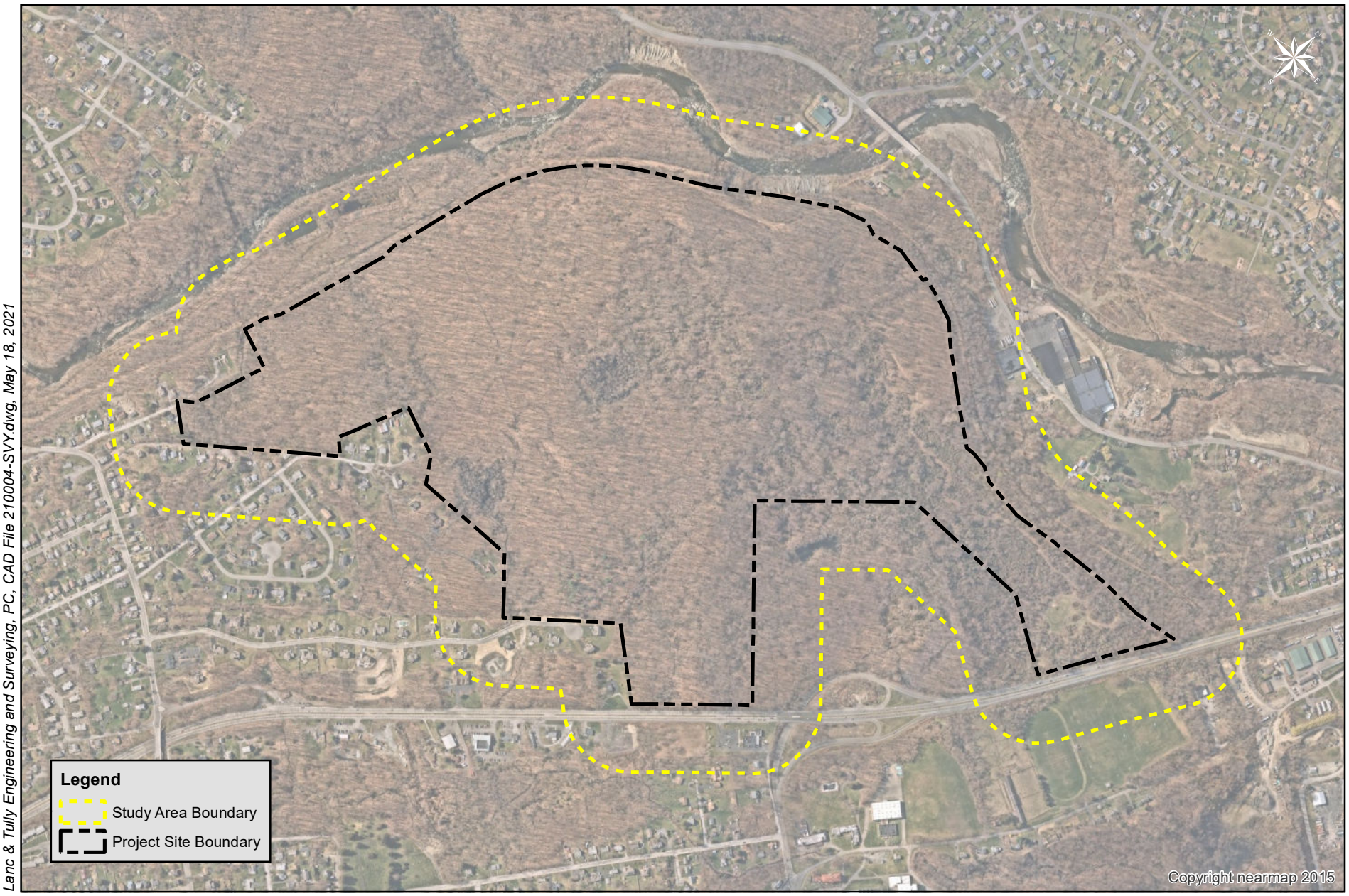
Sincerely,

Glennys Romero Medina
Division of Environmental Permits
Region 3, Telephone No. (845)256-2250
Glennys.RomeroMedina@dec.ny.gov

Enclosure: Indiana Bat Project Review Fact Sheet

ecc: NYSDEC Bureau of Wildlife
NYS Coastal Management Program Consistency Review Unit
Cornwall Logistics LLC, Applicant

P – Flora and Fauna Section Figures



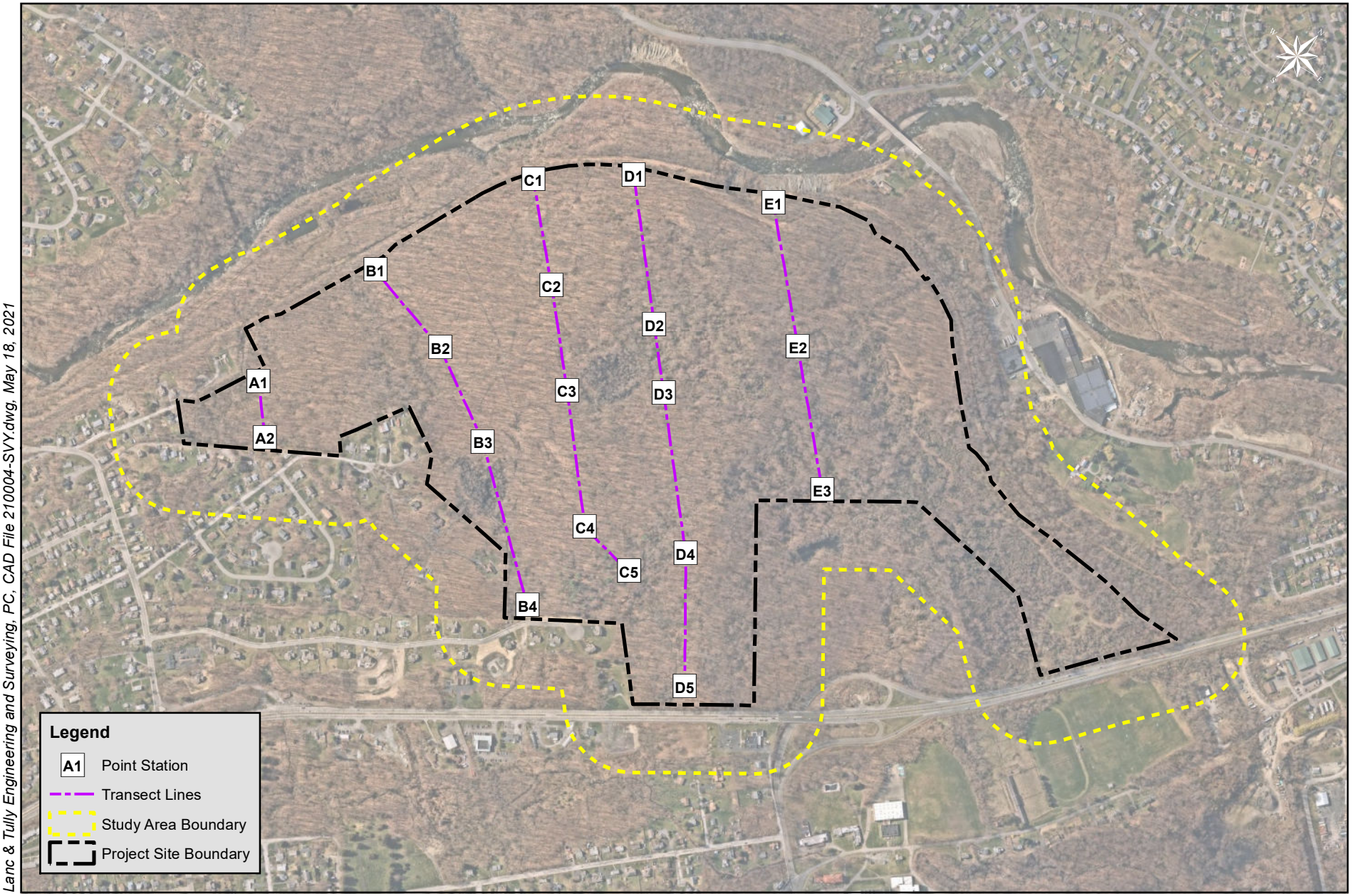
Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

0 400 800 Feet

2615 US Route 9W, Cornwall, NY

Study Area

Figure III.C-1



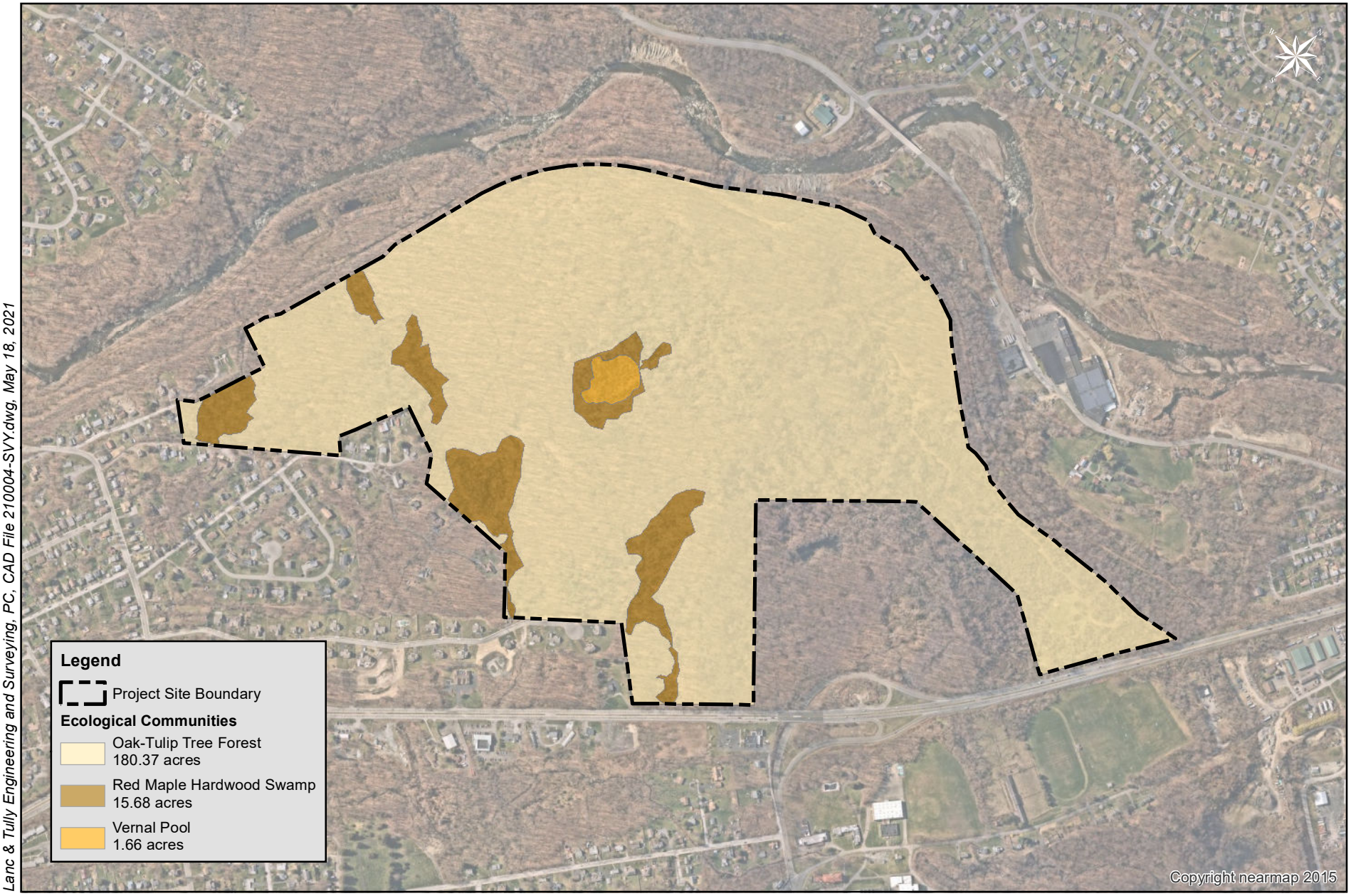
Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

0 400 800 Feet

Transect Map

2615 US Route 9W, Cornwall, NY

Figure III.C-2



Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

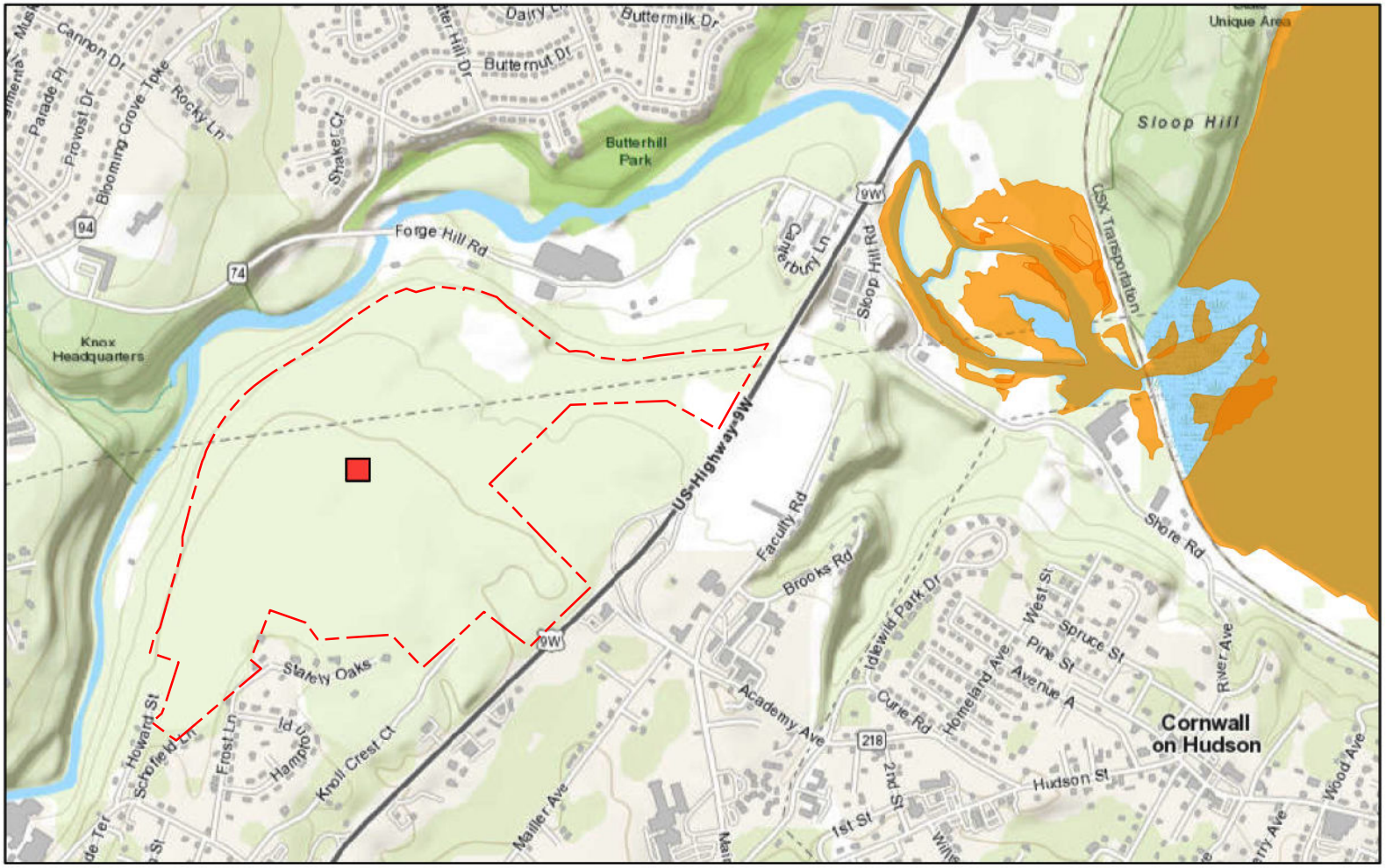
0 400 800 Feet

Ecological Communities

2615 US Route 9W, Cornwall, NY

Figure III.C-3

Significant Natural Communities



December 14, 2022

Legend

- Project Site Boundary
- Significant Natural Communities

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

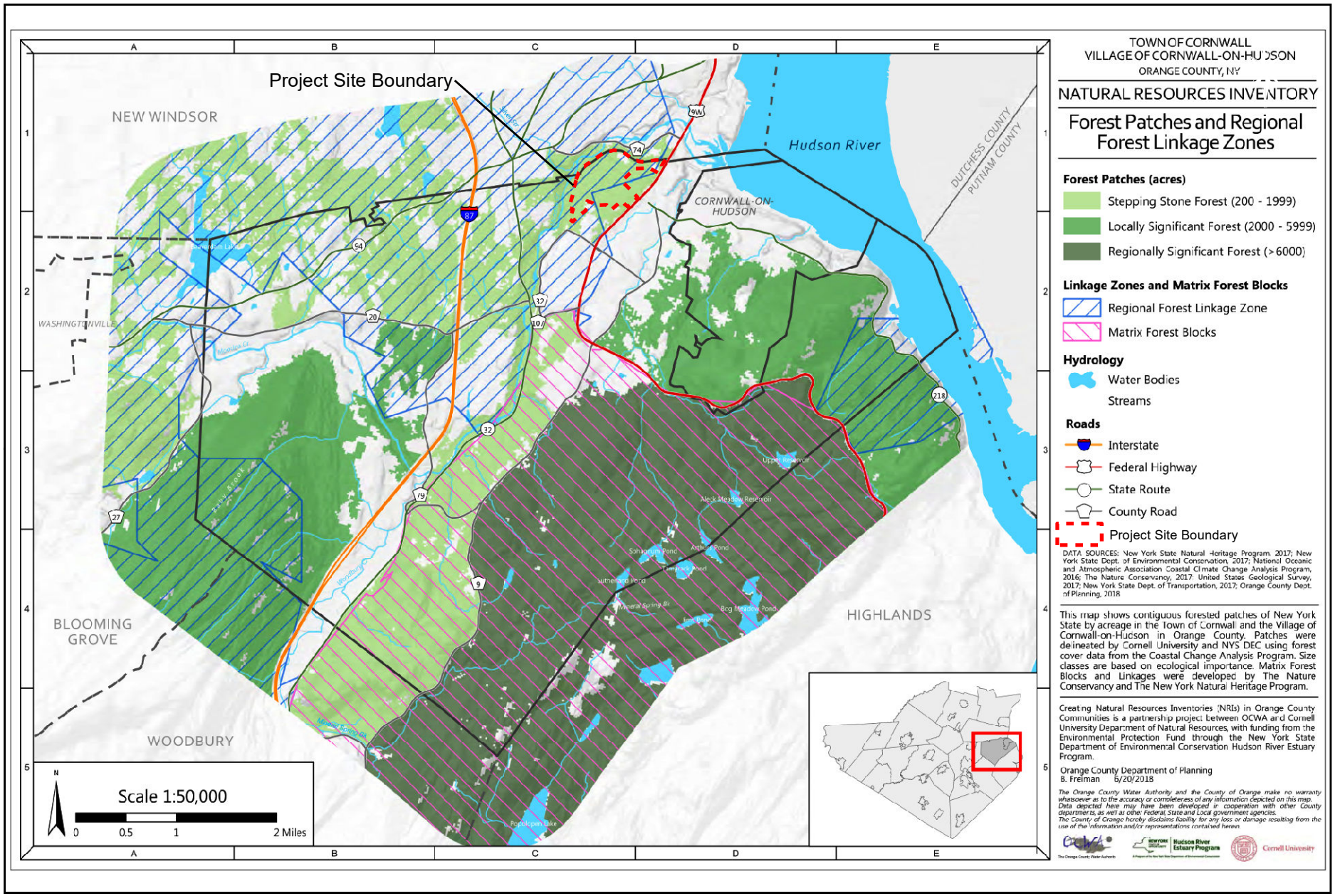
NYS Department of Environmental Conservation

Not a legal document

Significant Natural Communities

2615 US Route 9W, Cornwall, NY

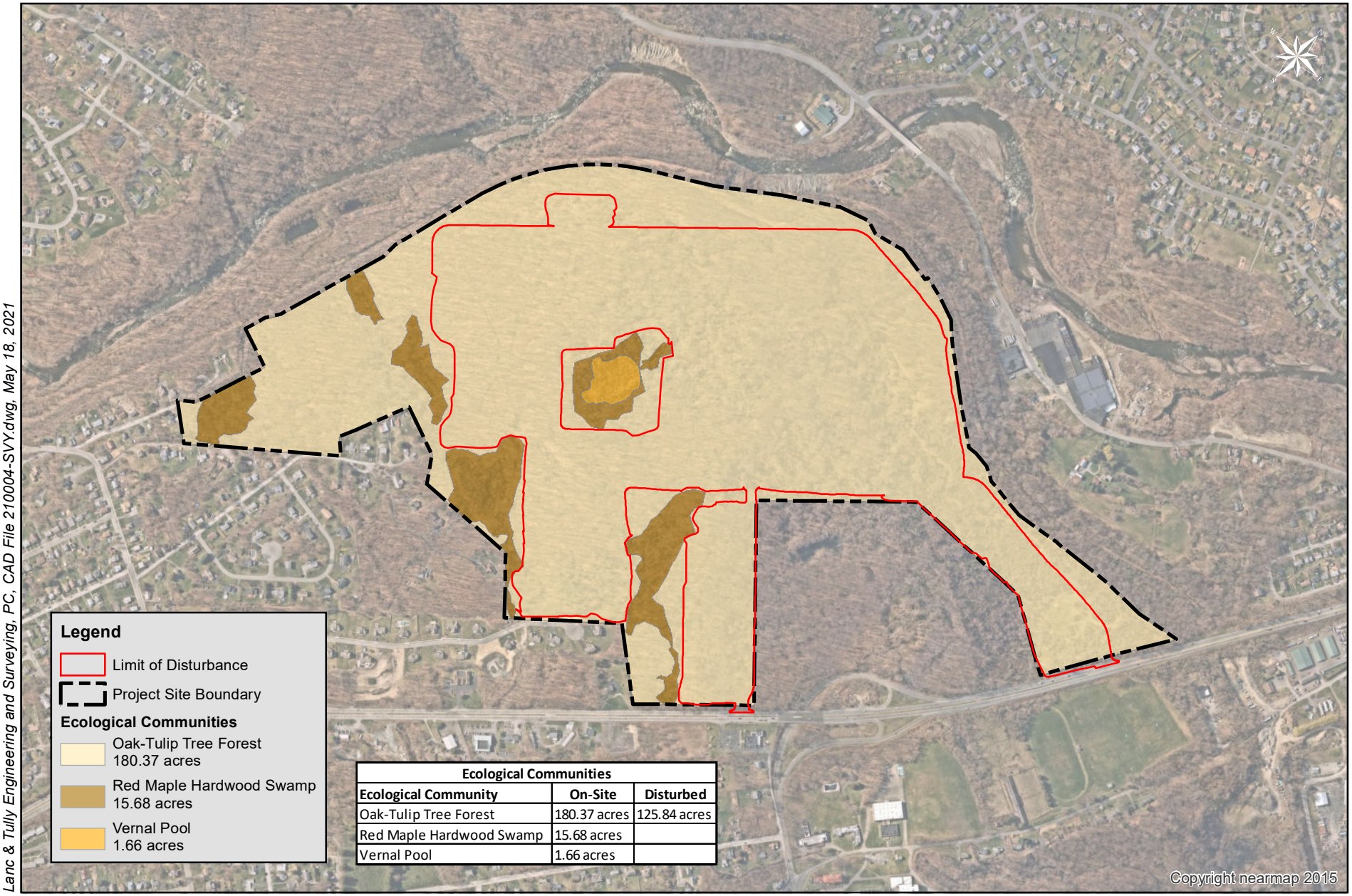
Figure III.C-4



Forest Map

Figure III.C-5

2615 US Route 9W, Cornwall, NY



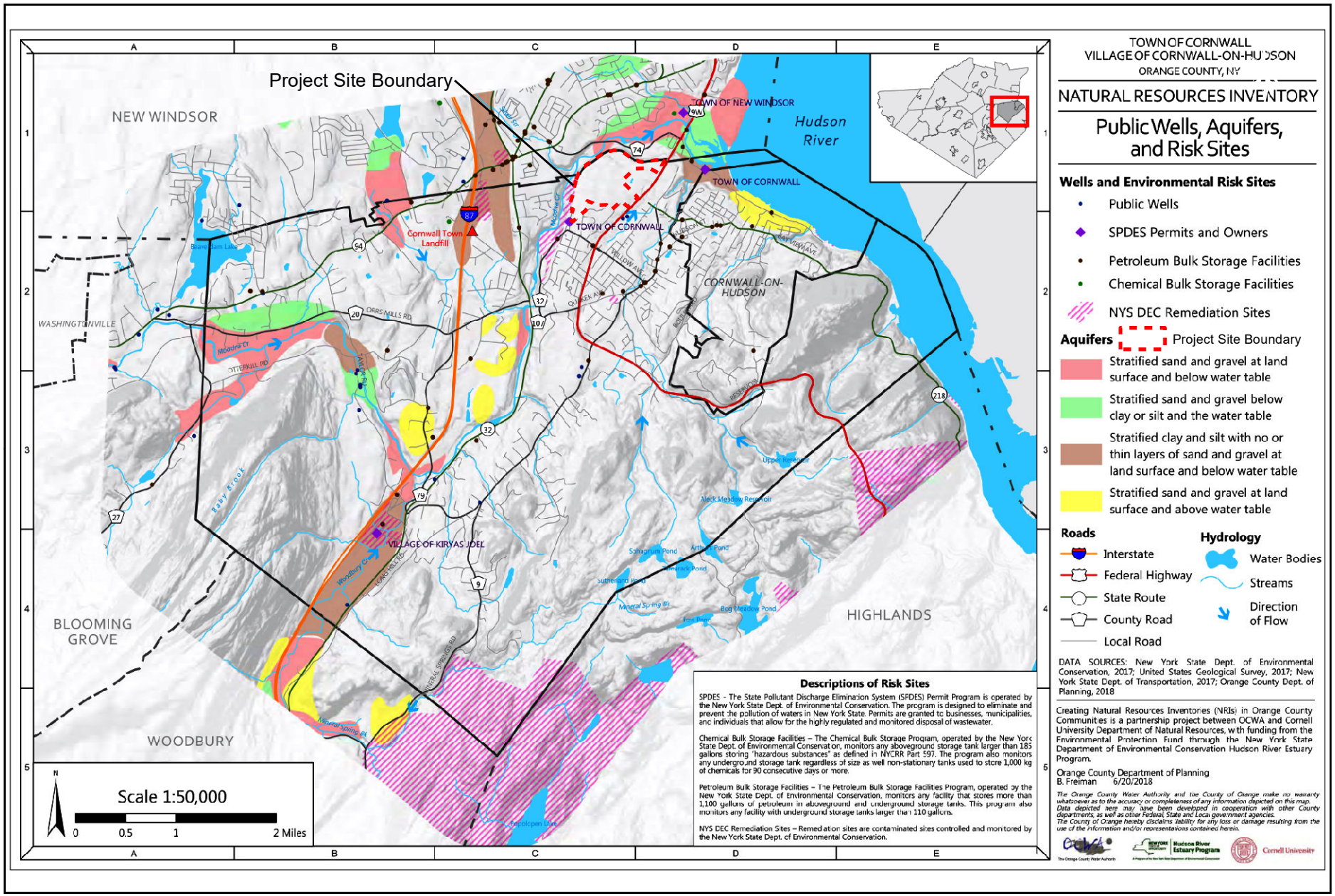
Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

Ecological Communities with Development Outline

2615 US Route 9W, Cornwall, NY

Figure III.C-6

Q – Subsurface and Surface Water Figures



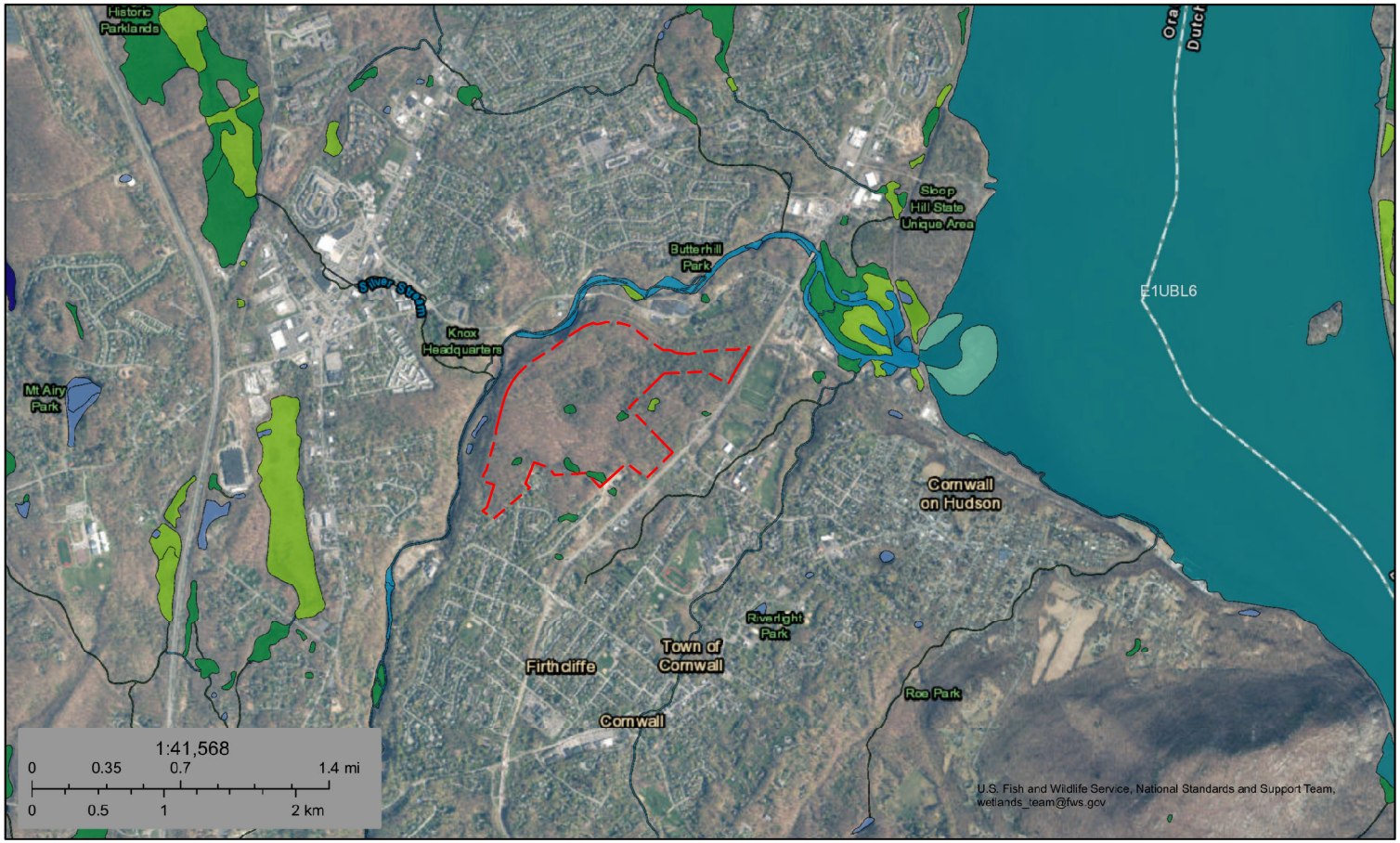
Aquifer Map

Figure III.F-1

2615 US Route 9W, Cornwall, NY

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI



December 13, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Legend

- Project Site Boundary

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

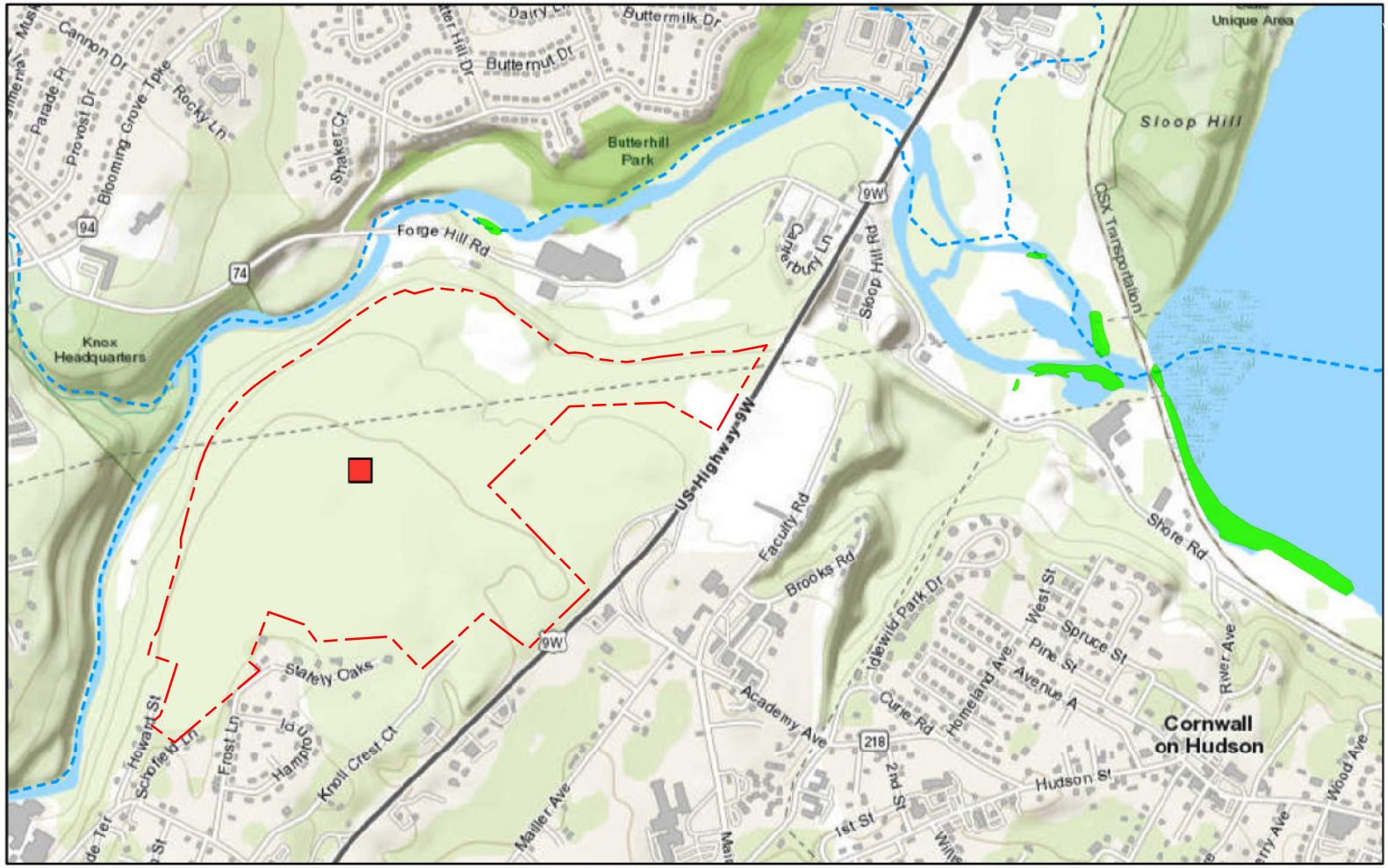
0 1,600 3,200 Feet

National Wetlands Inventory

2615 US Route 9W, Cornwall, NY

Figure III.F-2

Migratory Fish Runs and Submerged Aquatic Vegetation



December 14, 2022

Legend

- Project Site Boundary
- Submerged Aquatic Vegetation
- Migratory Fish Runs

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

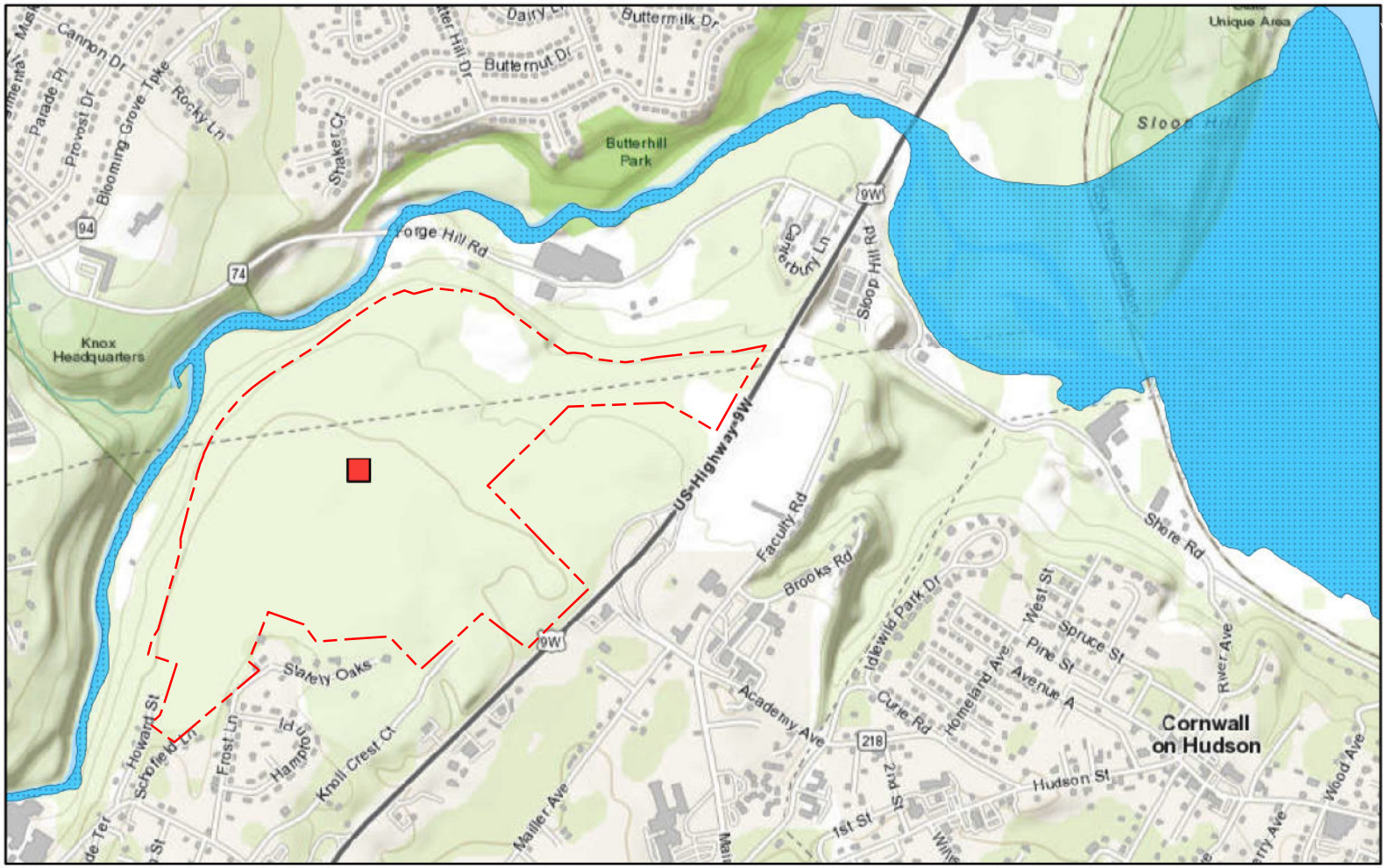
NYS Department of Environmental Conservation
Not a legal document

Migratory Fish Runs and Submerged Aquatic Vegetation

2615 US Route 9W, Cornwall, NY

Figure III.F-3

Significant Coastal Fish and Wildlife Habitat



December 14, 2022

Legend

- Project Site Boundary
- Significant Coastal Fish & Wildlife Habitat

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

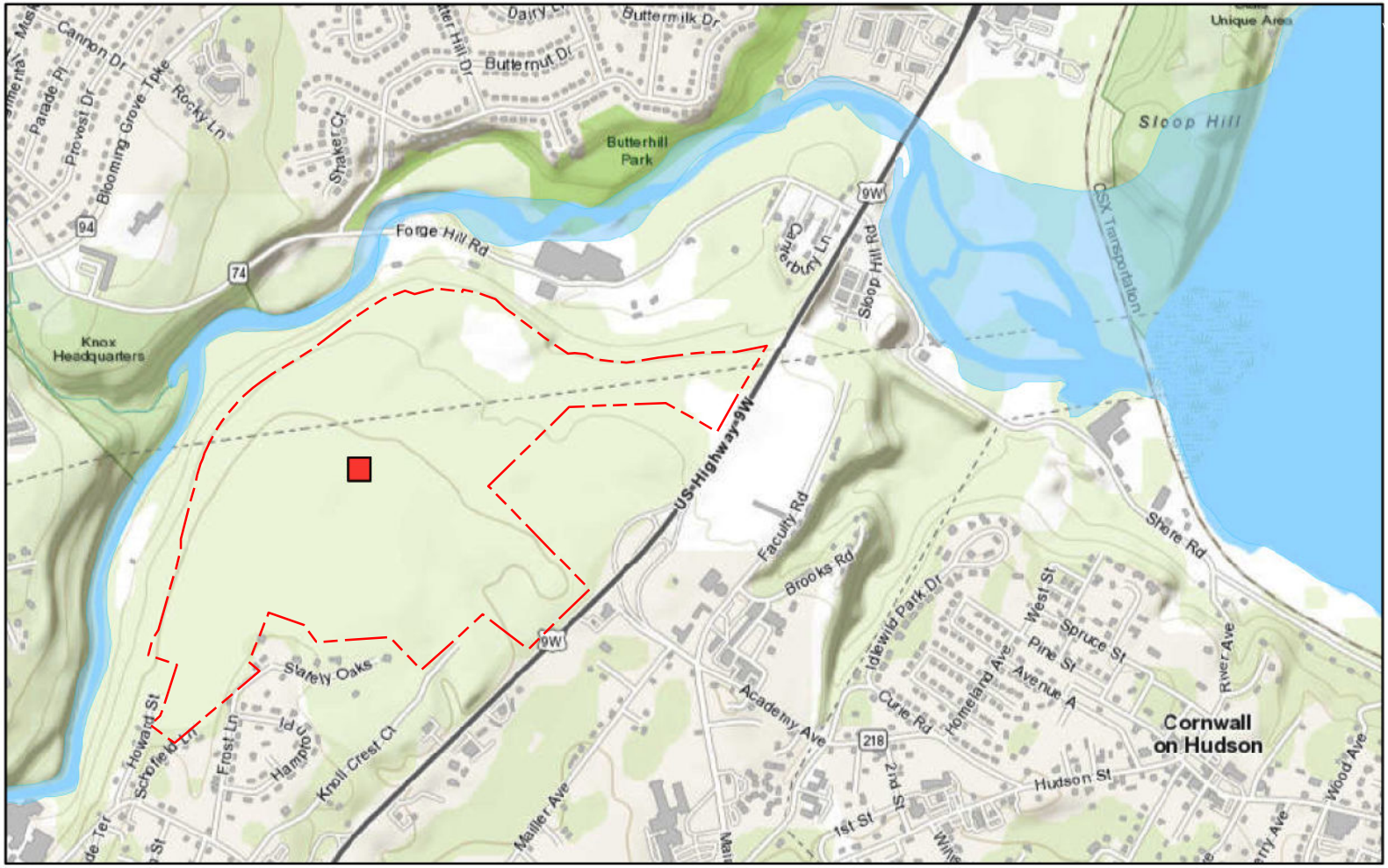
NYS Department of Environmental Conservation
Not a legal document

Significant Coastal Fish and Wildlife Habitat

2615 US Route 9W, Cornwall, NY

Figure III.F-4

Significant Biodiversity Areas



December 14, 2022

Legend

- Project Site Boundary
- Significant Biodiversity Areas in the Hudson River Valley

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

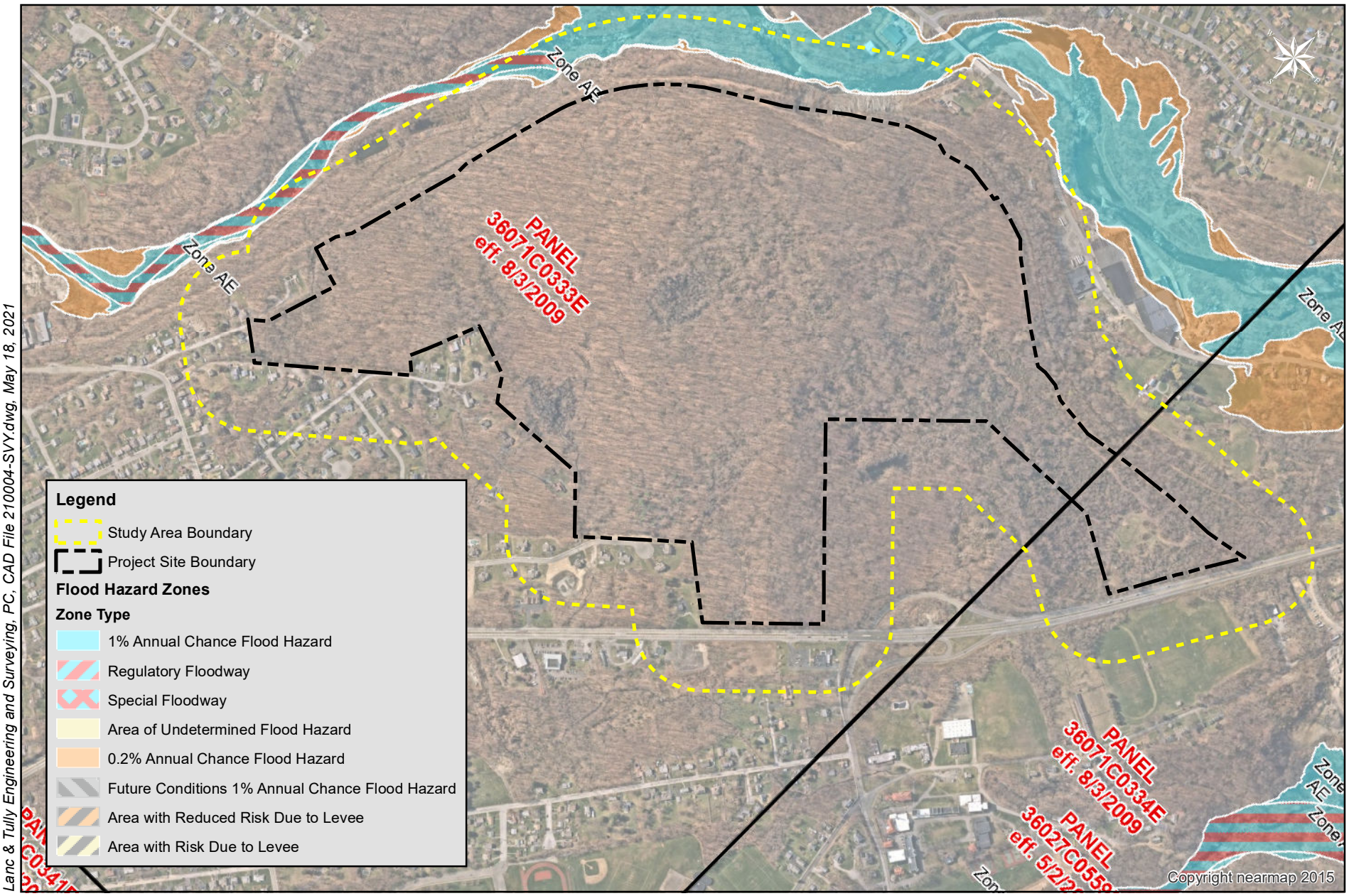
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

NYS Department of Environmental Conservation
Not a legal document

Significant Biodiversity Areas

2615 US Route 9W, Cornwall, NY

Figure III.F-5



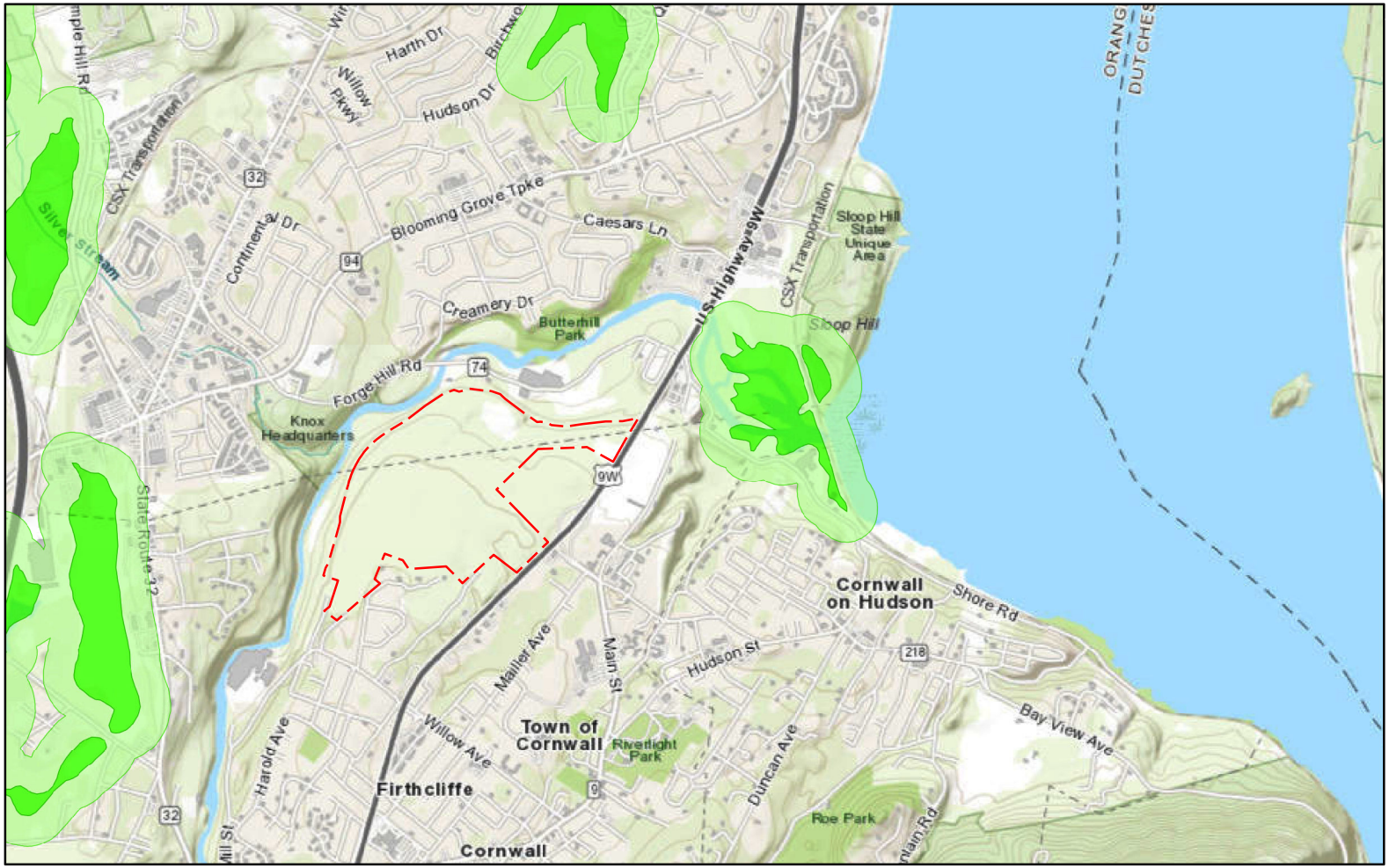
Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

FEMA Flood Insurance Rate Map

2615 US Route 9W, Cornwall, NY

Figure III.F-6

ERM



December 13, 2022

Legend

- Project Site Boundary
- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone

1:36,112

0 0.23 0.45 0.9 mi

0 0.35 0.7 1.4 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

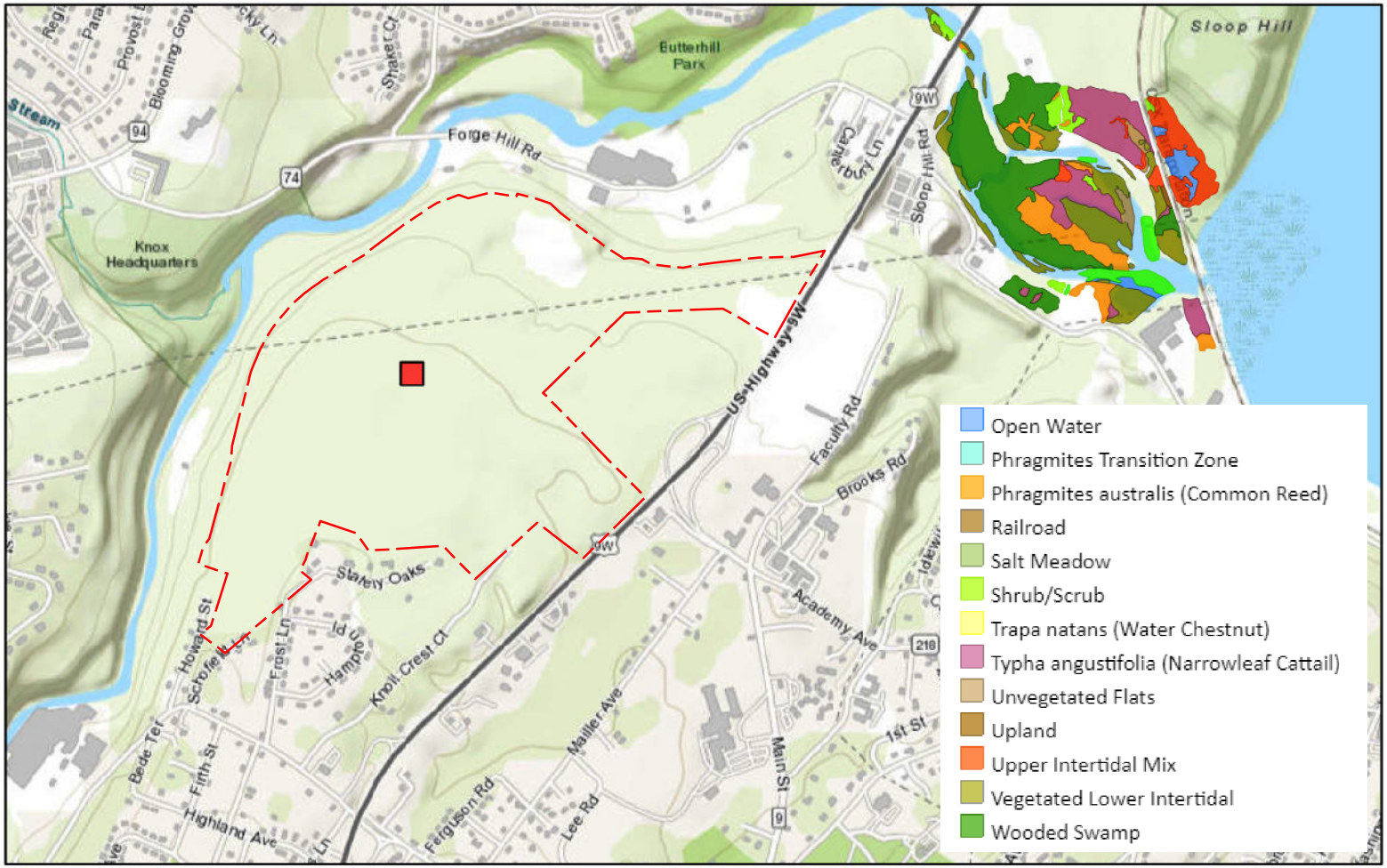
NYS Department of Environmental Conservation
Not a legal document

Environmental Resource Mapper

2615 US Route 9W, Cornwall, NY

Figure III.F-7

TW Map



December 14, 2022

Legend

Project Site Boundary

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

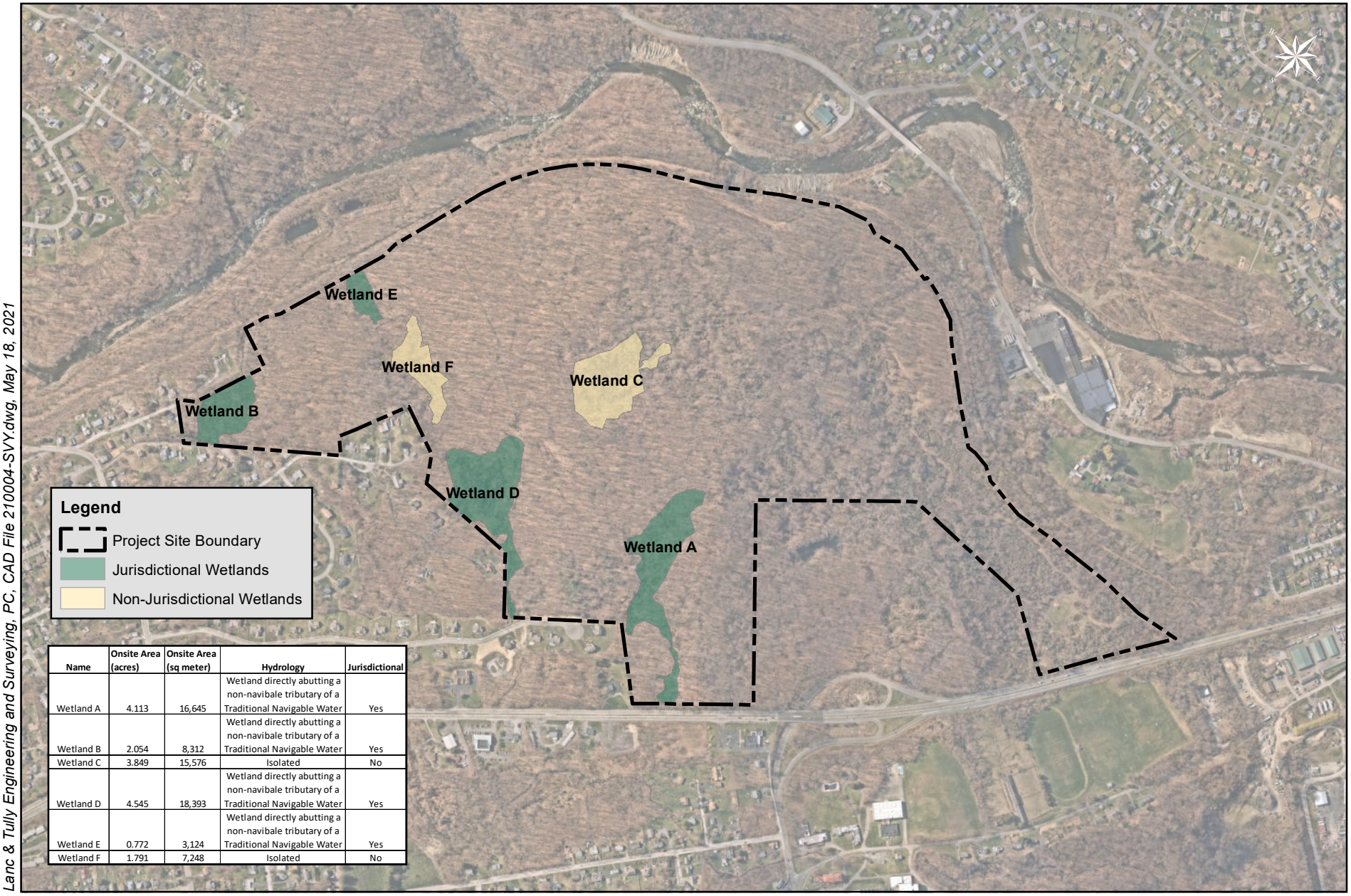
NYS Department of Environmental Conservation

Not a legal document

Tidal Wetland Map

2615 US Route 9W, Cornwall, NY

Figure III.F-8



Name	Onsite Area (acres)	Onsite Area (sq meter)	Hydrology	Jurisdictional
Wetland A	4.113	16,645	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland B	2.054	8,312	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland C	3.849	15,576	Isolated	No
Wetland D	4.545	18,393	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland E	0.772	3,124	Wetland directly abutting a non-navibale tributary of a Traditional Navigable Water	Yes
Wetland F	1.791	7,248	Isolated	No

Source: Nearmap Aerial, 4/13/2022
Lanc & Tully Engineering and Surveying, PC, CAD File 210004-SVY.dwg, May 18, 2021

0 400 800 Feet

Waters of the US

2615 US Route 9W, Cornwall, NY

Figure III.F-9

R – Hydrant Flow Tests, prepared by MSGFire, Inc., dated 11/06/2023

MSGFire Inc.
Fire Protection Engineering
5142 West Valley Pond Rd
Farmingdale NJ 07727
Tel: 732-938-3131
Web: www.MSGFire.com

Hydrant Flow Test

MSG FIRE PROJECT #9726

PROJECT NAME: Flow Test Willow Ave & Mailler Ave

PROJECT LOCATION: Academy Ave & Mailler Ave
Cornwall, NY

PROJECT MUNICIPALITY: MUA

DATE OF TEST: 11-06-2023

TIME OF TEST: 10:30 am

WEATHER: Cold & Fair

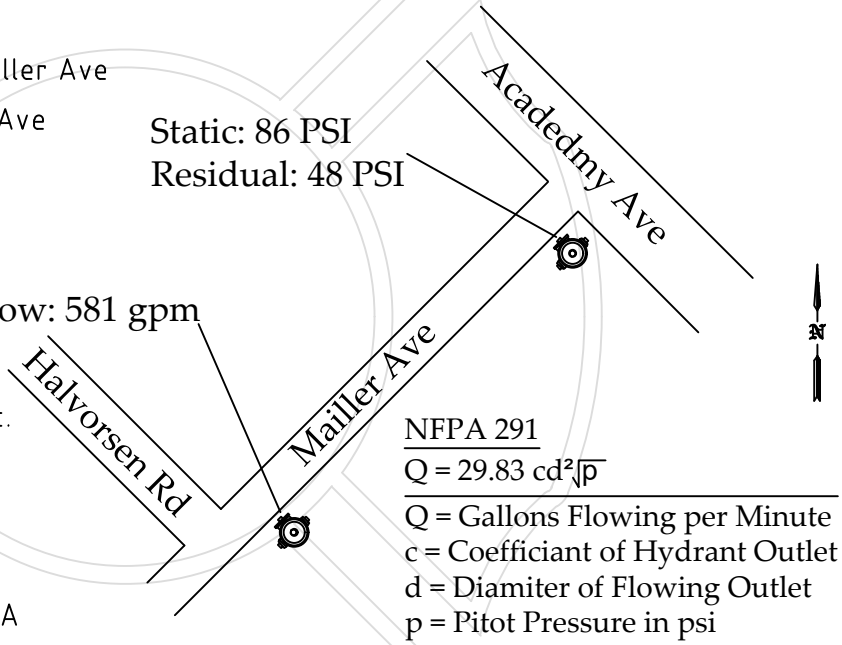
TEST CONDUCTED BY: MSGFire & Safety, Inc.

TEST WITNESSED BY: MUA

ELEVATION OF HYDRANT # 1 + 2'-0"

ELEVATION OF HYDRANT # 2 + 2'-0"

ELEVATION OF BUILDING FINISHED FLOOR N/A



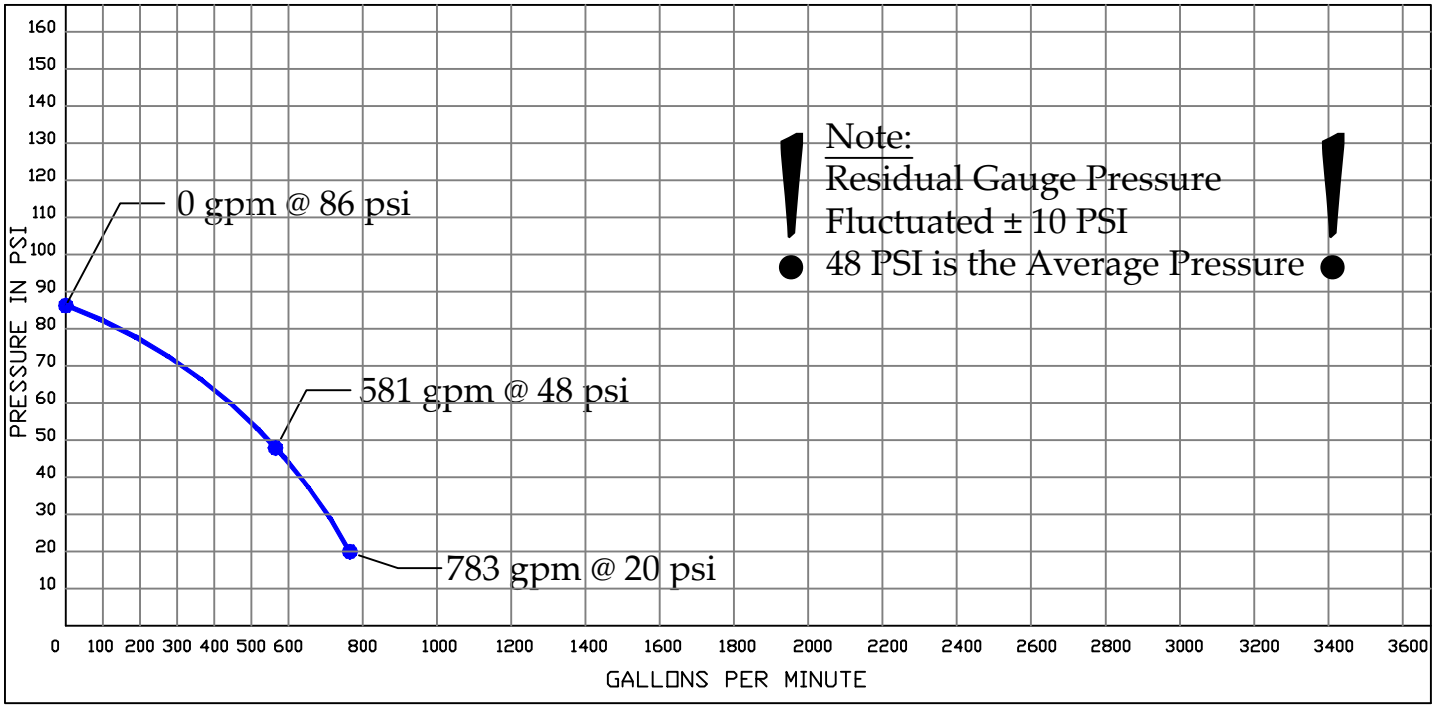
NFPA 291

$Q = 29.83\ cd^2\sqrt{p}$

Q = Gallons Flowing per Minute
c = Coefficiant of Hydrant Outlet
d = Diamiter of Flowing Outlet
p = Pitot Pressure in psi

FLOW TEST RESULTS

Hydrant: # 1	Static psi: 86		Residual psi: 48		
Hydrant: # 2	p= 12 psi	d= 2.5"	c= 0.90	Q= 581 gpm	Q @ 20 psi = 783 gpm



Note:
Residual Gauge Pressure
Fluctuated ± 10 PSI
48 PSI is the Average Pressure

MSGFire Inc.
Fire Protection Engineering
5142 West Valley Pond Rd
Farmingdale NJ 07727
Tel: 732-938-3131
Web: www.MSGFire.com

Hydrant Flow Test

MSG FIRE PROJECT #9726

PROJECT NAME: Flow Test Willow Ave & Mailler Ave

PROJECT LOCATION: Willow Ave & Old Mill St
Cornwall, NY

PROJECT MUNICIPALITY: MUA

DATE OF TEST: 11-06-2023

TIME OF TEST: 10:00 am

WEATHER: Cold & Fair

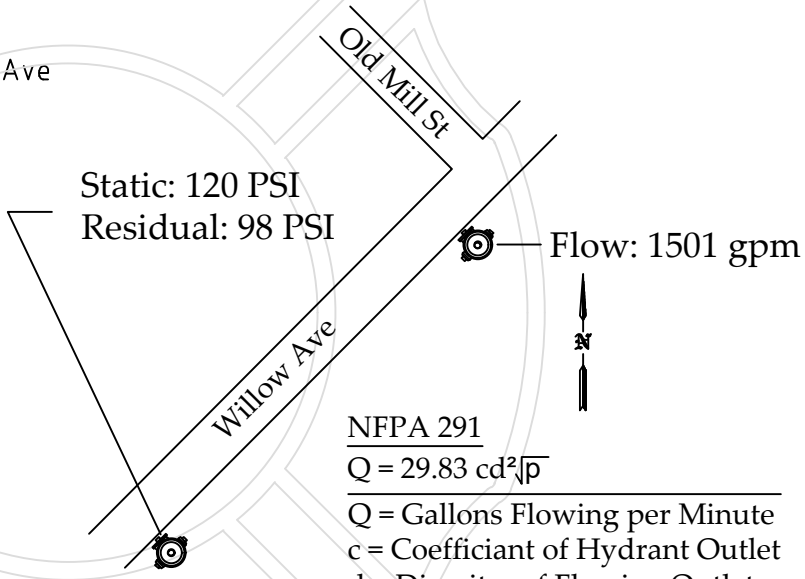
TEST CONDUCTED BY: MSGFire & Safety, Inc.

TEST WITNESSED BY: MUA

ELEVATION OF HYDRANT # 1 + 2'-0"

ELEVATION OF HYDRANT # 2 + 2'-0"

ELEVATION OF BUILDING FINISHED FLOOR N/A



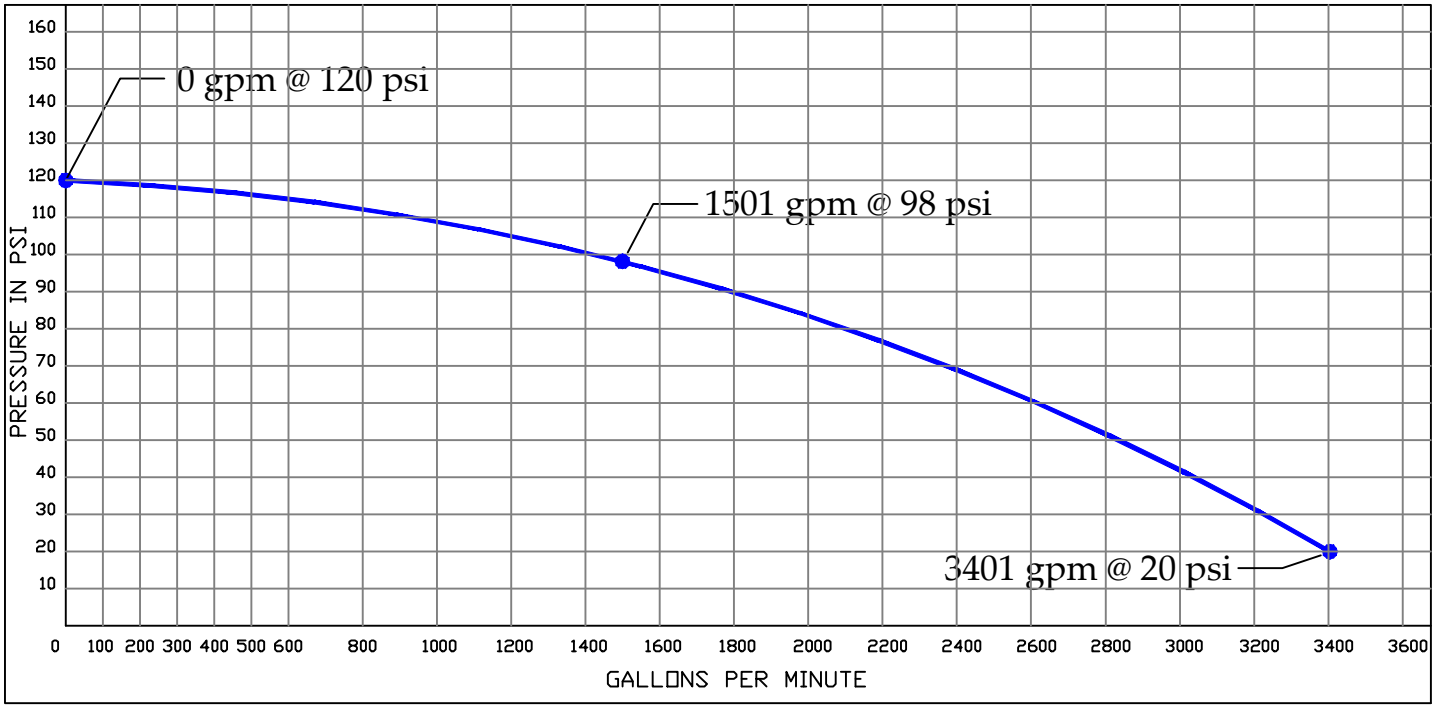
NFPA 291

$Q = 29.83\ cd^2\sqrt{p}$

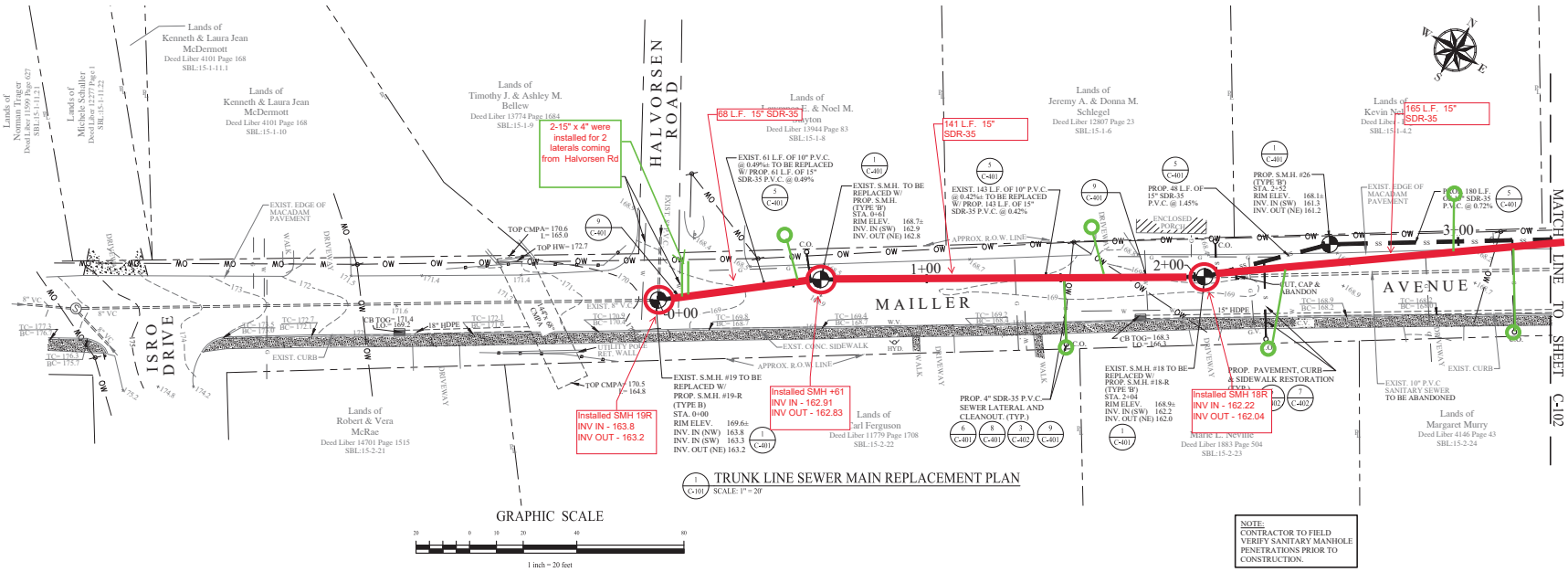
Q = Gallons Flowing per Minute
c = Coefficiant of Hydrant Outlet
d = Diamiter of Flowing Outlet
p = Pitot Pressure in psi

FLOW TEST RESULTS

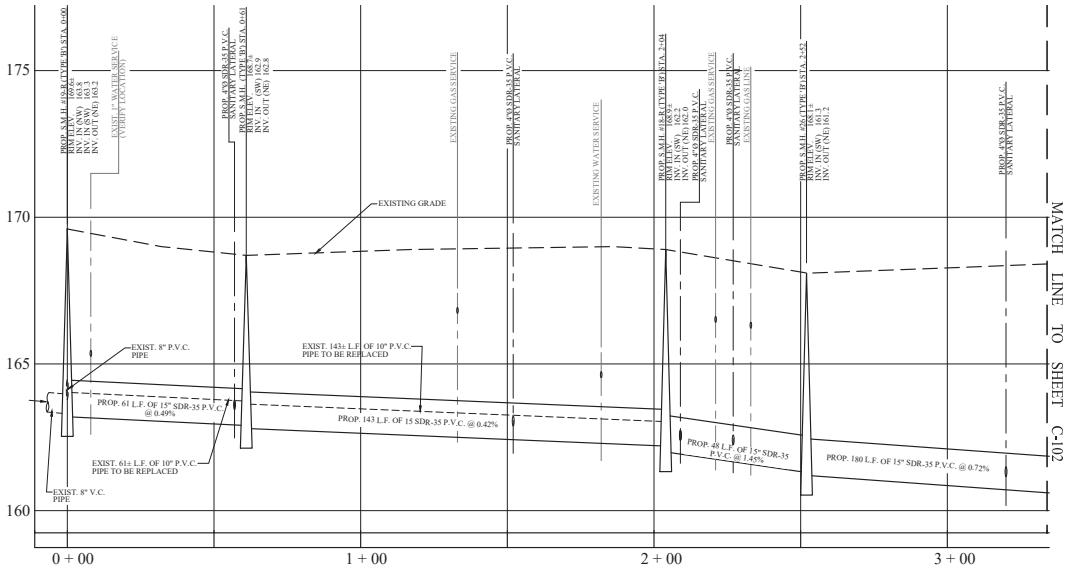
Hydrant: # 1	Static psi: 120		Residual psi: 98		
Hydrant: # 2	p= 80 psi	d= 2.5"	c= 0.90	Q= 1,501 gpm	Q @ 20 psi = 3,401 gpm



S – Trunk Line Sewer Main Replacement As-Built Drawings, prepared by MHE Consulting Engineers, dated 06/23/2021, last revised 05/23/2023



1 C-101 TRUNK LINE SEWER MAIN REPLACEMENT PLAN
SCALE: 1" = 20'



2 C-101 TRUNK LINE SEWER MAIN REPLACEMENT PROFILE
SCALE: HORIZ. - 1" = 20'
VERT. - 1" = 2'

MHE
CONSULTING ENGINEERS, D.P.C.
33 Airport Center Drive, Suite 202 New Windsor, New York 12553 (845) 567-3100
111 Wheatfield Drive, Suite 1 Milford, Pennsylvania 18337 (570) 296-2765

BID SET

Dig Safely. New York Call811 before you dig

SEWER DISTRICT No. 1
INFLOW & INFILTRATION AND SURCHARGING MITIGATION
CONTRACT 1G - GENERAL CONSTRUCTION
CONTRACT 2G - TRENCHLESS CONSTRUCTION
TOWN OF CORNWALL
183 MAIN STREET
CORNWALL, NEW YORK 12518

TRUNK LINE SEWER MAIN REPLACEMENT PLAN/PROFILE

REVISIONS

NO.	DESCRIPTION	DATE

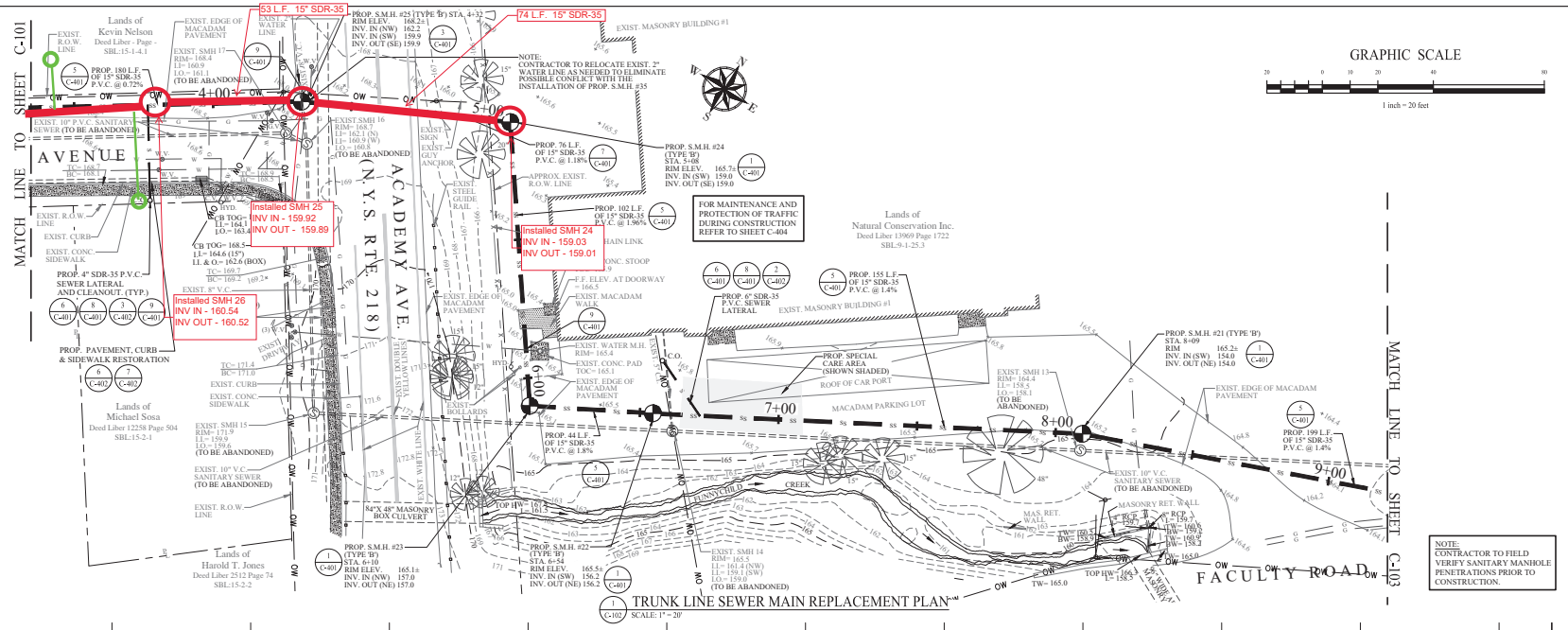
ISSUED DATE:	23 June, 2021
DESIGN BY:	S.E.A.
DRAWN BY:	J.R.J.
CHECKED BY:	S.E.A.
REVIEWED BY:	M.W.W.

SHEET NO.

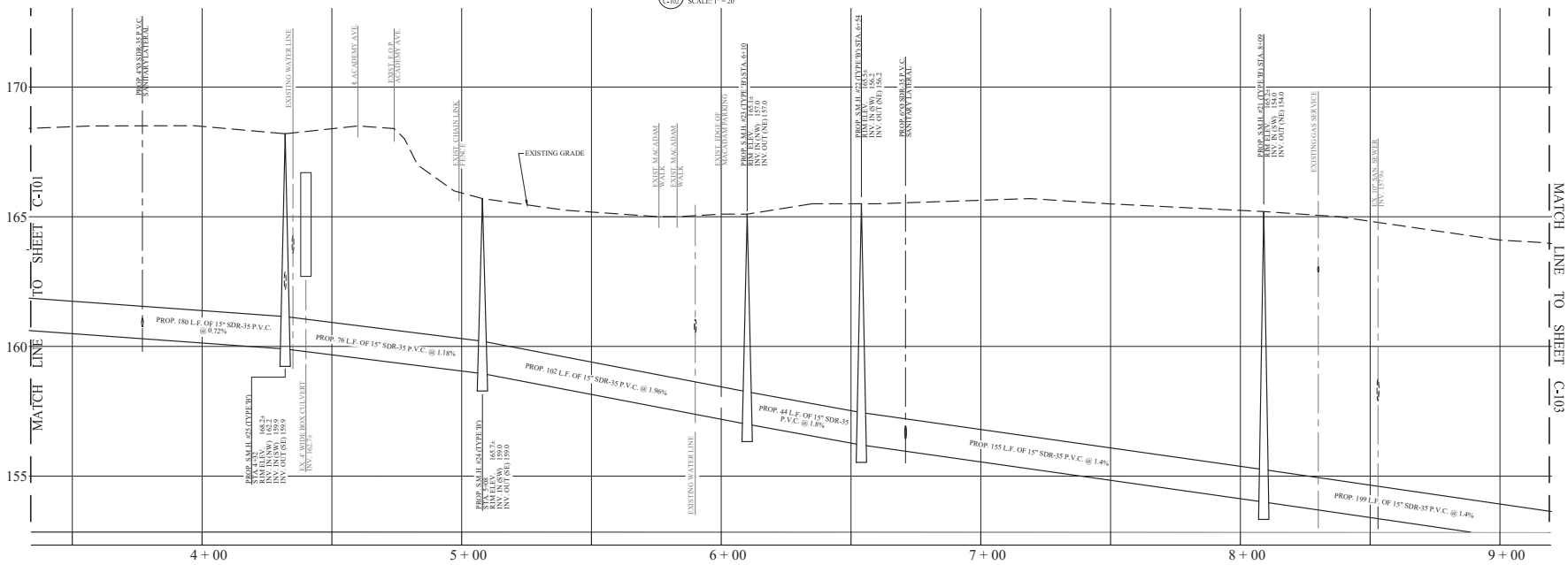
C-101

PROJECT # 17-142 PHASE #

T:\2017\17-142 Cornwall I & I Rehab Design\17-142 I Sewer District No. 1 Replacement of Surcharging Sewer Main\Drafting\SE CIVIL\17-142 Cornwall SewerDistrict 1 Replacement.dwg, C-101, 6/24/2021 1:23:16 PM



TRUNK LINE SEWER MAIN REPLACEMENT PLAN
(2) C-102 SCALE: 1" = 20'



TRUNK LINE SEWER MAIN REPLACEMENT PROFILE
(2) C-102 SCALE: HORIZ. - 1" = 20' VERT. - 1" = 2'

MHE
CONSULTING ENGINEERS, D.P.C.
33 Airport Center Drive, Suite 202 New Windsor, New York 12553 (845) 567-3100
111 Wheatfield Drive, Suite 1 Milford, Pennsylvania 18337 (570) 296-2765

BID SET

Dig Safely. New York Call811 before you dig

SEWER DISTRICT No. 1
INFLOW & INFILTRATION AND SURCHARGING MITIGATION
CONTRACT 1G - GENERAL CONSTRUCTION
CONTRACT 2G - TRENCHLESS CONSTRUCTION
TOWN OF CORNWALL
183 MAIN STREET
CORNWALL, NEW YORK 12518

TRUNK LINE SEWER MAIN REPLACEMENT PLAN/PROFILE

REVISIONS

NO.	DESCRIPTION	DATE

ISSUED DATE: 23 June, 2021
DESIGN BY: S.E.A.
DRAWN BY: J.R.J.
CHECKED BY: S.E.A.
REVIEWED BY: M.W.W.

SHEET NO.
C-102

PROJECT # 17-142 PHASE #

T:\2017\17-142 Cornwall I & I Rehab Design\17-142 I Sewer District No. 1 Replacement of Surcharging Sewer Mains\Drafting\SE CIVIL\17-142 Cornwall SewerDistrict No 1 Replacement.dwg, C-102, 6/24/2021 1:23:20 PM

T – Correspondence with Michael P. Trainor, Sr., Water Superintendent of Village of Cornwall-on-Hudson Water Department, dated 07/07/2023

Adam Goldberg

From: Michael Trainor <watersupt@cornwall-on-hudson.org>
Sent: Friday, July 7, 2023 3:26 PM
To: Kyle Smith
Cc: Ryan McDermott; Adam Goldberg; Richard Ortiz
Subject: RE: Treetop Cornwall - Route 9W - Proposed Warehouse Buildings - Utility Coordination
Attachments: Preliminary Survey - Mill Street near Howard Street (002).pdf

Categories: Filed by Newforma

Hi Kyle –

My apologies for the delay. Attached is a marked up copy of the Preliminary Survey you provided. The Red line is where we extended the 12" water main last fall. The Red circle is a future connection which consists of a 12" valve that your project will connect to. I hope this helps.

Please let me know if you need any other information. Thanks.

Regards,

Mike
Michael P. Trainor, Sr.
Water Superintendent

Village of Cornwall-on-Hudson
325 Hudson Street
Cornwall-on-Hudson, New York 12520
Office: (845) 534-4200 Ext. 318
Fax: (845) 534-7607
Email: watersupt@cornwall-on-hudson.org

From: Kyle Smith <ksmith@dynamicec.com>
Sent: Thursday, July 6, 2023 11:22 AM
To: Michael Trainor <watersupt@cornwall-on-hudson.org>
Cc: Ryan McDermott <rmcdermott@dynamicec.com>; Adam Goldberg <agoldberg@dynamicec.com>; Richard Ortiz <rortiz@dynamicec.com>
Subject: FW: Treetop Cornwall - Route 9W - Proposed Warehouse Buildings - Utility Coordination

Good Morning Mike,

I hope you had a great Fourth of July! Are you able to review the plan to confirm our tie-in point?

Thank you!
Kyle

Kyle A. Smith, PE, CME
Principal
Dynamic Engineering Consultants, PC

Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 | Ext. 1219 | Fax: (732) 974-3521

From: Kyle Smith <ksmith@dynamicec.com>
Sent: Monday, June 26, 2023 4:24 PM
To: watersupt@cornwall-on-hudson.org
Cc: Ryan McDermott <rmcdermott@dynamicec.com>; Adam Goldberg <agoldberg@dynamicec.com>; Richard Ortiz <rortiz@dynamicec.com>
Subject: RE: Treetop Cornwall - Route 9W - Proposed Warehouse Buildings - Utility Coordination

Good Afternoon Mike,

It was nice catching up with you. As discussed, it would be great if you could provide guidance on which valve circled on Mill Street is the existing 12-inch valve which we can extend the proposed water main. Also, if you have any drawings or hand sketches of the work completed in this area, it would be helpful to have.

Please note this is preliminary survey work and we have not added all features nor performed QA/QC. I figured we can confirm the location of the 12-inch main within this working drawing to properly lay out the proposed extension.

Thank you!
Kyle

Kyle A. Smith, PE, CME
Principal
Dynamic Engineering Consultants, PC
Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 | Ext. 1219 | Fax: (732) 974-3521

From: Richard Ortiz <rortiz@dynamicec.com>
Sent: Monday, October 31, 2022 4:39 PM
To: Michael Trainor <watersupt@cornwall-on-hudson.org>
Cc: Ryan McDermott <rmcdermott@dynamicec.com>; Kyle Smith <ksmith@dynamicec.com>; Adam Goldberg <agoldberg@dynamicec.com>
Subject: RE: Treetop Cornwall - Route 9W - Proposed Warehouse Buildings - Utility Coordination

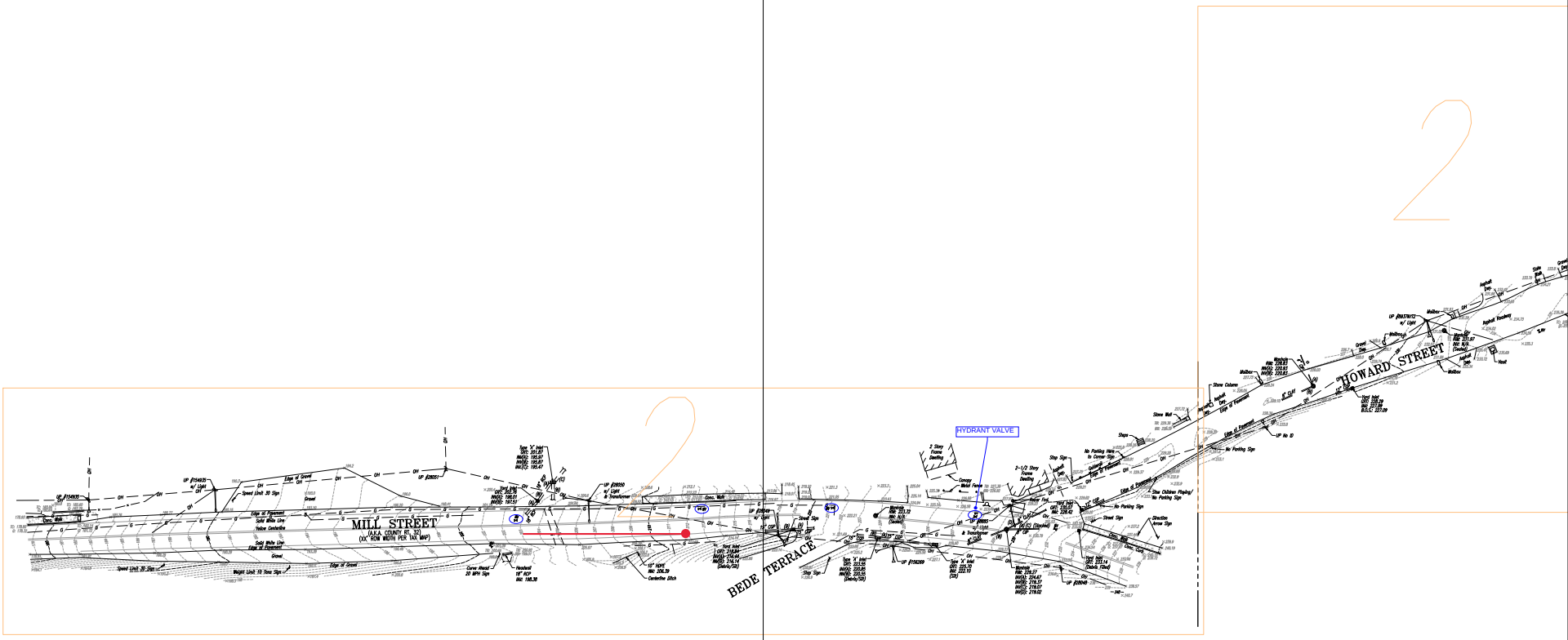
Thank you for the prompt response and information Michael.

We'll download, review and let you know if we have any questions or comments.

Richard Ortiz
Project Manager
Dynamic Engineering Consultants, PC
Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 |Ext: 1119 | Fax: (732) 974-3521

U – Preliminary Survey Water Utility Markup, prepared by Michael P. Trainor, Sr., Water Superintendent of Village of Cornwall-on-Hudson Water Department


MILL STREET
(AKA COUNTY RT. 20)
(XX' ROW WIDTH PER TAX MAP)
HYDRANT VALVE
BEDE TERRACE
HOWARD STREET

V – Correspondence with Jason Malizia, Central Hudson Gas & Electric Company, dated 07/07/2023

Adam Goldberg

From: Malizia, Jason <JMalizia@cenhud.com>
Sent: Thursday, September 28, 2023 7:49 AM
To: Adam Goldberg; Chambers, Corey
Cc: Richard Ortiz; Ryan McDermott; Kyle Smith
Subject: RE: Gas & Electric Service Inquiry - US Highway 9W Cornwall NY

To Whom it May Concern,

Please accept this document/email as our "Will Serve" letter.

The proposed project located in Cornwall, New York is within the service franchise area of Central Hudson Gas & Electric Corp.

Central Hudson shall supply Electric and Gas services, in compliance with our New York State filed tariff. Specifics to costs and layout to be determined.

Should services not be directly onsite, or offsite upgrades be necessary to serve project, Central Hudson to design and invoice within the rules through our filed tariff to New York State.

If you need additional information, please feel free to contact me by e-mail at jmalizia@cenhud.com or by telephone at 845-563-4529.

Sincerely,

Jason Malizia

Jason Malizia
District Director

From: Adam Goldberg <agoldberg@dynamicec.com>
Sent: Wednesday, September 27, 2023 4:30 PM
To: Malizia, Jason <JMalizia@cenhud.com>; Chambers, Corey <CChambers@cenhud.com>
Cc: Richard Ortiz <rortiz@dynamicec.com>; Ryan McDermott <rmcdermott@dynamicec.com>; Kyle Smith <ksmith@dynamicec.com>
Subject: RE: Gas & Electric Service Inquiry - US Highway 9W Cornwall NY

Good Afternoon Jason,

Just reaching out to confirm that our office is in receipt of your below message and we are working closely with the applicant and respective design consultants to provide the information you requested.

In the interim, could you please confirm the below information at your earliest convenience? The Town of Cornwall Planning Board is requesting same as part of the DEIS/SEQRA process for the project's application.

- Who/what is the entity of the utility provider for the proposed gas and electric utilities
- Who/what is the entity of the respective operators for the proposed utility connections

Please let me know if you have any questions.

Thank you,

Adam Goldberg
Design Engineer
Dynamic Engineering Consultants, PC
Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 Ext. 1176 | Fax: (732) 974-3521

From: Malizia, Jason <JMalizia@cenhud.com>
Sent: Thursday, August 17, 2023 2:47 PM
To: Adam Goldberg <agoldberg@dynamicec.com>; Chambers, Corey <CChambers@cenhud.com>
Cc: Richard Ortiz <rortiz@dynamicec.com>; Ryan McDermott <rmcdermott@dynamicec.com>; Kyle Smith <ksmith@dynamicec.com>
Subject: RE: Gas & Electric Service Inquiry - US Highway 9W Cornwall NY

Afternoon

I am further processing your applications.

May I assume the gas loads are strictly roof top heating units and water heaters?

For electric, is the load tenant driven and tenants are unknown or may I assume warehouse only space?
Reason being, without a load letter, I would apply approximate watt per square foot.
Based on historical comps.

If there is to be a larger user than just warehouse space, I need mores specifics on the electrical appliances.

Thank you in advance.

Jason

From: Adam Goldberg <agoldberg@dynamicec.com>
Sent: Monday, June 26, 2023 4:31 PM
To: Malizia, Jason <JMalizia@cenhud.com>; Pajak, Stan <SPajak@cenhud.com>; Chambers, Corey <CChambers@cenhud.com>
Cc: Richard Ortiz <rortiz@dynamicec.com>; Ryan McDermott <rmcdermott@dynamicec.com>; Kyle Smith <ksmith@dynamicec.com>
Subject: RE: Gas & Electric Service Inquiry - US Highway 9W Cornwall NY

Good Afternoon All,

Please find attached the completed Gas & Electric service applications for the above mentioned property. As previously discussed and detailed in the applications, the scope of the project includes the construction of five (5) warehouse buildings on an approximately 176-acre site . Please see the attached Electric & Gas Utility Markup and Overall Utility Plan for reference as to where the anticipated utility rooms will be located for each building.

You will also momentarily receive a link to the full Site Plan Set, including all Utility specific plan sheets for your reference.

At your earliest convenience, please confirm receipt of the attached applications and site plan drawings. Upon your review, we can further discuss the formal responses to the below inquiries as needed.

Thank you,

Adam Goldberg
Design Engineer
Dynamic Engineering Consultants, PC
Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 Ext. 1176 | Fax: (732) 974-3521

From: Malizia, Jason <JMalizia@cenhud.com>
Sent: Friday, November 18, 2022 8:22 AM
To: Adam Goldberg <agoldberg@dynamicec.com>; Pajak, Stan <SPajak@cenhud.com>
Cc: Richard Ortiz <rortiz@dynamicec.com>; Ryan McDermott <rmcdermott@dynamicec.com>; Chambers, Corey <CChambers@cenhud.com>
Subject: RE: Gas & Electric Service Inquiry - US Highway 9W Cornwall NY

Good Morning

Responses within, however formal responses to be given once details are known.
Size of bldg.,
Size of electrical services.
Btus for gas appliances, etc.

Jason

1. Please confirm that **gas and electric service can be provided** to the subject parcel from Central Hudson Gas & Electric Corporation.
   Electric can be provided to this site, costs and entitlements to be determined. If easements prevent extension to site, the developer/owner is responsible for retrieving. Also, authority having jurisdiction permitting must be considered. IE a county road authority or DOT. Natural gas is not directly on the road frontage, but potentially can be extended to the site. Costs and entitlements to be determined. The electric notes apply in this case as well, with regards to easements and road authority.

2. Please provide **distribution maps of the existing gas and electric main infrastructure** within the vicinity of the subject parcel.
   Central Hudson does not supply distribution maps of our infrastructure. For underground infrastructure, the developer/engineer can call 811 for exploratory mark out. Please be advised the parcel has transmission gas along the northern boundary.

3. Please **advise if there are capacity issues**, connection moratoriums, or road opening moratoriums currently in affect or planned in the foreseeable future.
   Loads above 3 million btus and 300kw of demand shall have a system study analysis completed prior to supplying feedback. Based on the study results, Central Hudson could then provide feedback on capacity constraints. Such analysis requires a load letter from developer/engineer.

4. Please advise if there are connection fees required for new services and/or the reconstruction of existing services. If available, we request you please provide a **connection fee schedule**.
   To be determined based on scope of work for Central Hudson to interconnect, when evaluating entitlements.

5. Please advise if there are specific **application procedures** required to obtain approval from your office for the proposed gas and electric service.
   Applications attached. For commercial building, load letter required as well, for both gas and electric.

   Jason

If you have any questions, require additional information, or would like to set up a time to discuss further, please do not hesitate to contact myself or this office at the number noted below.

Thank you,

Adam Goldberg
Design Engineer
DYNAMIC ENGINEERING
Licensed Professional Engineers throughout the United States

1904 Main Street | Lake Como, New Jersey 07719
PH: (732) 974-0198 Ext. 1176 | Fax: (732) 974-3521

Additional office locations:
Florida (Delray Beach) - 100 NE 5th Ave | Suite B2 | Delray Beach, FL 33483 | PH: (561) 921-8570
Maryland (Annapolis) - 125 West Street | Annapolis, MD 21401 | PH: (410) 567-5000
New Jersey (Belmar) - 825 8th Avenue | Belmar, NJ 07719 | PH: (732) 974-0198 | Fax: (732) 974-3521
New Jersey (Chester) - 245 Main Street | Suite 110 | Chester, NJ 07930 | PH: (908) 879-9229
New Jersey (Newark) - 50 Park Place | Mezzanine Level | Newark, NJ 07102 | PH: (973) 755-7200
New Jersey (Toms River) - 40 Main Street | 3rd Floor | Toms River, NJ 08753 | PH: (732) 678-0000
Pennsylvania (Lehigh Valley) - 95 Highland Ave | Suite 170 | Bethlehem, PA 18017| PH: (610) 598-4400
Pennsylvania (Newtown) - 826 Newtown Yardley Road | Suite 201 | Newtown, PA 18940 | PH: (267) 685-0276
Pennsylvania (Philadelphia) - 1515 Market Street | Suite 1920 | Philadelphia, PA 19102 | PH: (215) 253-4888
Texas (Austin) - 901 Mopac Expressway South | Barton Oaks Plaza One | Suite 300 | Austin, TX 78746 | PH: (512) 646-2646
Texas (Dallas) - 714 S. Greenville Avenue | Suite 100 | Allen, TX 75002 | PH: (972) 534-2100
Texas (Houston) - 6925 Portwest Drive | Suite 100 | Houston, TX 77024 | PH: (281) 789-6400

Please visit our websites:

DYNAMIC ENGINEERING [dynamicec.com] DYNAMIC EARTH [dynamic-earth.com] DYNAMIC SURVEY [dynamic-surveyservices.com] DYNAMIC TRAFFIC [dynamic-traffic.com]

Connect with us:

[facebook.com] [linkedin.com] [twitter.com]

Dynamic Engineering News

- Dynamic is hiring! Qualified candidates seeking a position with one of our growing companies should submit their resumes to hr@dynamicec.com . Please see our website for more details.
- Dynamic Engineering has been placed on NJBIZ's Best Places to Work in 2022 for the 11th year in a row!
- Dynamic Engineering Consultants, PC is pleased to announce Connor McManus, P.E. as the Branch Manager of their new office location in Annapolis, MD.
- Dynamic Traffic, LLC is pleased to announce that Louis Luglio, P.E. has joined their team as a Principal in our Newark, NJ office.
- Dynamic heads to Phoenix, Arizona to attend ICSC CenterBuild November 29th – December 2nd.
- Dynamic to complete the year at ICSC NY December 6th – 8th.

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W – Central Hudson Gas & Electric Utility Applications, submitted 06/26/2023

J# TBD Acct# TBD

People. Power. Possibilities.
Central Hudson
A FORTIS COMPANY

284 South Ave, Poughkeepsie, NY 12601-4838

COMMERCIAL ELECTRICAL DATA FORM

(845) 452-2700 OR 1-800-527-2714 FAX: (845) 486-5657

Customer Name Cornwall Logistics LLC **Contractor** Business Name TBD
New Service Address US Highway 9 **Electrician** Name TBD ID____
Town Cornwall Zip 12518 Address____
Mailing Address 500 Frank W Burr Blvd #47 Town____ Zip____
Town Teaneck Zip 07666
Phone #____/____/____ Fax #____/____/____
Home #____/____/____ Work ____/____/____ Cell #____/____/____ Pager ____/____/____
Cell # 201 / 697 / 8298
E-mail address rtwersky@treetopcompanies.cor E-mail address____

Appointment for site meeting needed? ☐ Yes ☑ No "Electrical Specifications" at www.CentralHudson.com

COMPLETE SECTION "1" OR "2"

1. ☐ **Upgrade** Amps from____ to____ ☐ # Addt mtrs____ Total # mtrs____
☐ **Relocate** Point of attachment. If yes, how far____ft Is service open 3 wire ☐ Yes ☐ No
☐ **Repair** Type of repair ☐main brkr ☐entrance cable ☐main disconnect ☐riser ☐chg panel bx ☐other____
☐ **Retire** Date required for retirement____

Existing Meter #____
The **existing** service is ☐ Overhead ☐ Underground. The **upgraded** service will be ☐ Overhead ☐ Underground

TBD based on provided connection options

2. ☑ **New Service** ☐ Temporary **or** ☑ Permanent ☐ Overhead **or** ☐ Underground **Date service desired** TBD
Service type: O Single phase ☑ Three phase
Voltage requested: ☐ 120 / 240 ☐ 120 / 208 ☑ 277 / 480 ☐ 4kv ☐ 13.2kv ☐ 34.5kv
Service Size (Amps): 13500 Service Entrance Conductor Size: TBD # of sets of Conductors: TBD
Conduit size: ☐ 2" ☐ 4" ☐ 5" Number of meters : 5

TBD based on provided connection options

See attached markup for potential meter locations

LIGHTING	HEAT	REFRIGERATION	AIR CONDITIONING	MOTORS
1ph____kw	1ph____kw	1ph____kw	1ph____tons	1ph____#motors, Total hp___code___
3ph____kw	3ph____kw	3ph____kw	3ph____tons	3ph____#motors, Total hp___code___

Total connected KW____ **Demand KW**____
Nearest Central Hudson (**enter number**): Pole #____ Splice box#____ Pad #____

Is foundation installed: ☐ Yes ☐ No If no, when is the expected date____(Required if foundation is not installed)
Date structure to be completed____Distance to structure from the road____

Do you want natural gas service (if available): ☐ Yes ☐ No If yes, a Natural Gas Service Request will be required.

Provide nearest intersecting road: US Route 9W, Forge Hill Road, Willow Avenue, Knoll Crest Court

Directions to property:

US Route 9W (see attached Markup)
Directly east of Moodna Creek
Directly north of Knoll Crest Court
Directly west of US Route 9
Directly south of Forge Hill Road

NATURAL GAS SERVICE AGREEMENT

Please fill out completely and sign to ensure prompt service.

J#: TBD

CUSTOMER INFORMATION

Customer Account Number TBD

Name Cornwall Logistics LLC

Address for New Service US Highway 9

City / State / Zip Cornwall / NY / 12510

Legal Description: Lot 25, 22 *Block* 1

Is this address a County Road or State Highway Yes ☒ No ☐

Nearest Crossed Street Forge Hill Road

PREFERRED METER LOCATION

Please be specific or attach survey with meter location clearly marked.
Facing the building from the street, where should the meter be installed?
* Central Hudson has ultimate decision on meter location.

☐ Opposite garage, _____ feet back from front corner

☐ Other location, _____

Meter sets should be located away from potential damage from vehicles.
Meters exposed to potential vehicle damage will require guard posts.

Will meter be exposed to potential vehicle damage? ☐ **YES** ☑ **NO**

PLUMBER INFORMATION

Company Name TBD

Contact Name _____

Phone ( ) _____

Fax ( ) _____

Mobile ( ) _____

Address _____

City / State / Zip _____

CONSTRUCTION STATUS AT TIME OF APPLICATION

Dwelling type:
☐ Townhouse ☐ Single family ☐ Commercial ☐ Other Industrial

Foundation completed? Yes ☐ No ☑
All exterior walls framed? Yes ☐ No ☑
Graded to within 6" of final grade? Yes ☐ No ☑

Requested install date TBD *Closing date* TBD

Estimated square footage _____ See attached markup for exact building SF

Plumber/Customer requesting site meeting? Yes ☐ No ☑

GAS LOAD INFORMATION

Please indicate the number of appliances that require natural gas:
Total Heating Load: 18 hrs/day in winter

☐	Furnace(s) or boiler(s)	Total BTUs _____
☐	Tankless water heater (s)	Total BTUs _____
☐	Water heater(s)	Total BTUs 4 hrs/day in winter
☐	Fireplace(s)	Total BTUs _____
☐	Range(s) Cooktop(s), or Oven(s)	Total BTUs 0 hrs/day
☐	Dryer(s)	Total BTUs _____
☐	Pool heater(s)	Total BTUs _____
☐	Garage heater(s)	Total BTUs _____
☐	Generators	Total BTUs _____

Please indicate other heat sources on your property:

Air source Heat Pump	Yes ☐	No ☐
Geothermal Heat Pump	Yes ☐	No ☐
Oil	Yes ☐	No ☐
Propane	Yes ☐	No ☐

See attached markup and anticipated BTU for each building below:

Building A: 4,200,000 BTU
Building B: 1,600,000 BTU
Building C: 8,500,000 BTU
Building D: 3,000,000 BTU
Building E: 2,100,000 BTU

What gas pressure is required for your home / business:

☐ 7" water column
☐ 7" – 12" water column

Minimum of 1 PSI required for each building (5 total)

* Standard residential delivery pressure is 7" water column which equals ¼ PSI.

When multiple meters (2 or more and larger) are installed, Central Hudson will label each meter with a house unit number using a permanent marker. The customer will be responsible for labeling the house piping as stipulated in Central Hudson's Gas Specification book connecting the correct meter to the appropriate house piping.

There is a basic customer charge per meter, per month. Billing for this basic charge will commence within 60 days of meter installation. Any additional installation charges, not withstanding tariff are to be paid in full prior to construction.

Initials of applicant: RT

Central Hudson Gas & Electric ● 284 South Avenue ● Poughkeepsie, NY 12601
Phone: 845.452.2700 ● Fax: 845.486.5657 ● email: newbusinessdesk@cenhud.com

NATURAL GAS SERVICE LINE GUIDELINES

- Minimum of 3’ from property line (unless easement exists)
- Approximately 6’ from building structure, if line will be parallel to it
- Approximately 8’ from buried fuel tanks (varies by municipality)
- Approximately 10’ from wells and septic tanks
- Installed in a straight line perpendicular to main when possible
- Conduit crossings must be installed prior to service line Installation (if applicable)

INSTALLATION SITE READY CHECKLIST

- Site must be within 6” of final grade
- Basement / Foundation in and backfilled
- Clear 8’ wide path from the gas main to service entrance
- All exterior walls must be framed before meter can be installed
- Request 7” or 7-12” water column
- * Clearly mark / stake the location of all private underground
- utilities located on your property such as:
  - ○ Sewer lines
  - ○ Invisible fences
  - ○ Electric lines
  - ○ Water wells
  - ○ Septic systems
  - ○ Underground sprinkler systems
  - ○ Sump pump extensions
  - ○ Drain fields
  - ○ Buried fuel lines

* Central Hudson and our representatives are not responsible for damage to these items if they are not clearly marked at the time of installation.

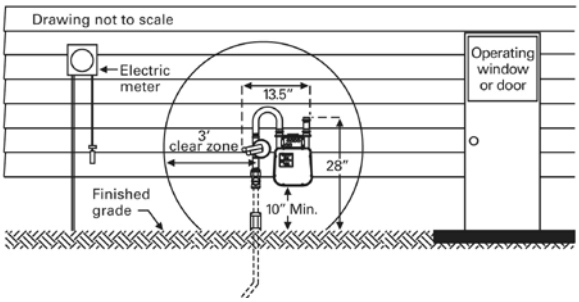
NATURAL GAS METER REQUIREMENTS

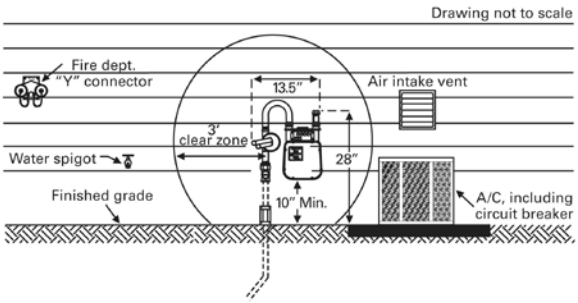
Maintaining the 3’ clear zone is required.

- 3’ from fresh air intake or any opening to building
- 3’ from opening doors or windows
- 3’ from water spigots
- 3’ from ignition source

Avoid locations directly below roof valleys, water downspouts, decks, stairs or partial overhangs to help prevent damage from falling ice.
Banked meters are preferable for townhouse buildings.
Regulator and relief valve must be located where gas can escape freely away from any opening into the building.
Gas appliances must be installed prior to meter being set.
Meter sets should be located away from potential damage from vehicles. Meters exposed to potential vehicle damage will require guard posts.
Should there be a request to move the meter after the initial installation, or the customer does not adhere to the minimum clearance requirements detailed below, the customer will be responsible for all costs to relocate the meter.

Minimum clearances for gas meter installation (for illustrative purposes)





TERMS AND CONDITIONS OF SERVICE

Gas Service Equipment Ownership – The entire gas service facility, which includes the gas service line from the gas main to the exterior wall of the dwelling, inclusive of the gas meter, will remain the property of Central Hudson. Maintenance of the gas service facility will be the responsibility of Central Hudson at its expense.

Restoration Policy – It is understood that if the Company shall dig the gas service pipe trench, the Company will backfill the excavation required in the installation of the gas service. All restoration work on the customer’s property thereafter, will be the responsibility of the customer. Service supplied under this application will be taken and paid for by the customer in accordance with the rules and regulations, and at the rates, contained in company’s tariffs and schedules as filed from time to time with the Public Service Commission of the State of New York.

Acceptance and Terms of Agreement - This application shall not be binding upon the Central Hudson Gas & Electric Corporation until accepted by it through an authorized representative, and shall not be modified or affected by any promise, agreement or representation by any agent or employee of Central Hudson made before or after signing, unless incorporated in writing herein before acceptance by Company. This application shall remain in effect for a period not to exceed 180 days after acceptance by Central Hudson Gas and Electric Corporation (“Central Hudson”). The customer shall be responsible to pay the cost of the installed natural gas service line for their dwelling if natural gas service is not completed within 180 days of this Natural Gas Service Agreement, and the delay is not in any way the responsibility of Central Hudson. The current cost for a natural gas service line installation is estimated to be $4,500. In circumstances where by the customer has paid the applicable cost, the customer shall receive a refund when gas service is activated (less depreciation as noted herein). Reference is made herein to the applicable Tariff agreement (“Schedule for Gas Service”, leaf 18, section 5, paragraph D): “Whenever the Company installs facilities at the request of an applicant who does not immediately desire service, the applicant shall bear the entire reasonable expense of facilities but shall be entitled to a refund whenever service is begun for such part of the expense as the Company is herein before required to assume. The refund shall be cost of the facilities, less depreciation at the rate of three percent per year”.

Applicants Signature: Reuben Twersky Date: 4/19/2023

Company Authorized Representative: Reuben Twersky, Director Date: 4/19/2023

Central Hudson Gas & Electric ● 284 South Avenue ● Poughkeepsie, NY 12601
Phone: 845.452.2700 ● Fax: 845.486.5657 ● email: newbusinessdesk@cenhud.com

NATURAL GAS INSTALLATION
PROPERTY SURVEY

Central Hudson Gas & Electric ("Central Hudson" or the "Company") requires a minimum 8 foot wide area throughout the requested gas installation site. Please confirm, by checking ***YES*** or ***NO***, if any of the following site conditions exist.

Important: This survey is required to expedite the processing of your request for gas service from Central Hudson. The Company will use the information provided on this form to estimate, design and construct your gas service. The Company is not responsible for damage to customer property/landscaping during the installation of the gas service line. At the excavation site the ground will be restored to former grade and raked out. Seeding and straw cover is the responsibility of the homeowner.

	YES	NO
In the vicinity of the gas installation are there any:		
Paved areas – Asphalt (driveway, sidewalks or v-ditch)		
Concrete (driveway, sidewalk or v-ditch)		
Brick or Flag Stone (patio, sidewalk or pathway)		
Other		
Is the ground:		
Level to slightly sloped		
Severely sloped, large drop offs, or terraced		
Rocky		
Is there any landscaping in the area that would interfere with our installation:		
Bushes, Shrubbery or Large Trees		
Plants / Bedding		
Landscape Timbers or Retaining Walls etc.		
Are underground utility lines present: (A utilities mark-out will be completed prior to the start of excavation)		
Electric		
Telephone		
Cable		
Water		
Are any of the following in the area:		
Well		
Buried oil or propane tank and any associated pipes		
Septic Field		
Municipal Sewer lines		
Underground Sprinkler System		
Invisible pet fencing		
Drainage systems, pool lines or any other buried systems		
Are there any environmental concerns:		
Soil treatments, tree save areas, etc.		
Will the gas meter be exposed to traffic (near driveway, garage, etc.)		
Will the proposed gas line run from the street through your property only?		
Do you know of any issues that may prevent or make it difficult to install the gas line within a minimum of an 8 ft. wide area?		
Comment Area:		

I have reviewed the above survey and have listed the site conditions for my property.

Customer Signature: Reuben Twersky Date: 4/19/2023

Address: 500 Frank W Burr Blvd #47, Teaneck, NJ 07666 **J#:** _____

Print Customer Name: Cornwall Logistics, LLC Phone #: 201-697-8298

Company Authorized Representative: Reuben Twersky Date: 4/19/2023