REPORT OF PRELIMINARY GEOTECHNICAL AND STORMWATER BASIN AREA INVESTIGATION

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

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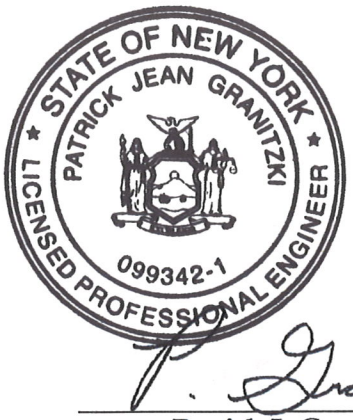

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APPENDICES

1.0 EXECUTIVE SUMMARY

Dynamic Earth, LLC (Dynamic Earth) has completed a preliminary geotechnical investigation at the subject site. The subsurface conditions encountered as part of this investigation included natural glacial till deposits underlain by weathered rock/rock. Based on the subsurface conditions encountered, conventional shallow foundations and ground supported floor slabs bearing within approved subgrade materials are expected to be suitable for the proposed site development. Due to the moisture sensitivity of on-site soils, at least partial overexcavation and replacement and/or subgrade stabilization should be anticipated within proposed pavement and floor slab areas. In addition, due to the cobbles/boulders and underlying weathered rock/rock encountered as part of this investigation, difficult excavation should be anticipated, particularly where existing site elevations are lowered as part of the site grading.

The scope of our subsurface investigation also included performing soil profile pits and in-situ infiltration testing at the site within the area of anticipated stormwater management facilities. Detailed results of the stormwater management investigation are included herein.

2.0 PROJECT DETAILS

The subject site is located at 2615 US Route 9 West in the Town of Cornwall, Orange County, New York and is further identified as Section 9; Block 1, Lot 25.22. The subject site is bounded to the north by Moodna Creek with Forge Hill Road beyond; to the east by US Route 9 West with commercial properties beyond; to the south by residential properties; and to the west by Moodna Creek with residential properties beyond. The site of the proposed construction is shown on the attached *Test Location Plan* in the Appendix of this report.

At the time of our investigation, the subject site was undeveloped and wooded. Based on a December 13, 2022 *Overall Grading Plan* prepared by our affiliate company, Dynamic Engineering Consultants, PC (Dynamic), the proposed site development will include construction of five warehouse buildings occupying a total footprint area of approximately 1.725 million square feet, as described below:

- **Building A (Northwestern Portion of Site):** Proposed Building A will occupy a footprint area of 362,094 square feet and have a preliminary finished floor elevation of approximately 223.0 feet. Earth cuts on the order of seven feet are proposed within the southwestern portion of the building footprint, and earth fills on the order of 18 feet are proposed within the northeastern portion of the building.
- **Building B (Western Portion of Site):** Proposed Building B will occupy a footprint area of

145,281 square feet and have a preliminary finished floor elevation of approximately 230.0 feet. Earth cuts on the order of one foot are proposed within the western portion of the building footprint and earth cuts on the order of four feet are proposed within the eastern portion of the building;

- **Building C (Northeastern Portion of Site):** Proposed Building C will occupy a footprint area of 752,943 square feet and have a preliminary finished floor elevation of approximately 194.0 feet. Earth cuts on the order of 12 foot are proposed within the southwestern portion of the building footprint, and earth fills on the order of up to 30 feet are proposed within the eastern portion of the building;
- **Building D (Southern Portion of Site):** Proposed Building D will occupy a footprint area of 273,495 square feet and have a preliminary finished floor elevation of approximately 230.0 feet. Earth cuts on the order of eight foot are proposed within the central portion of the building footprint, and earth fills on the order of up to 10 feet are proposed within the southern portion of the building.
- **Building E (Southeastern Portion of Site):** Proposed Building E will occupy a footprint area of 191,663 square feet and have a preliminary finished floor elevation of approximately 204.5 feet. Earth cuts on the order of six feet are proposed within the eastern portion of the building footprint, and earth fills on the order of up to 25 feet are proposed within the southern portion of the building.
- **Pavement Areas:** Proposed parking areas and roadways will be located throughout the site (surrounding the buildings) and an access road connecting to Route 9W will be located within the eastern portion of the overall site. The majority of proposed pavement areas will include earth cuts and fills on the order of five to ten feet; however relatively deeper earth cuts on the order of 20 to 25 feet will be required within the central portion of the site, and large earth fills up to approximately 50 feet are anticipated within proposed pavement/roadway areas within the eastern portion of the overall site.

Earth retaining wall structures are proposed throughout the site that will typically have maximum exposed wall heights on the order of 20 to 30 feet. In addition, proposed stormwater management basins are proposed at various locations throughout the site.

Existing site conditions and topographic information were provided on a May 18, 2021 *Wetlands Map* prepared by Lanc & Tully Engineering and Surveying. The existing 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; reaching low elevations of approximately 136.0 feet near the northern and eastern property boundaries.

The final structural loads have not been developed at this time. Based on our experience with similar facilities, we assume that the maximum loads will be less than the following:

- Axial Column Loads – 120 kips;
- Wall Loads – 3.0 kips per linear foot;
- Floor Slab Loads – 600 pounds per square feet;
- Light Duty Pavement – 60,000 Equivalent Single Axle Loads (ESAL's); and
- Heavy Duty Pavement – 1,700,000 Equivalent Single Axle Loads (ESAL's)

3.0 SCOPE OF SERVICES

3.1 Field Investigation

Field exploration of the project site was conducted by means of 20 soil borings (identified as Borings B-1 through B-19 and offset Boring B-7A); seven rock probes (identified as P-1 through P-7); a total of 63 soil profile pits (identified as SPP-1 through SPP-25 and SPP-101 through SPP-138); and 59 corresponding in-situ infiltration tests (identified as PT-1 through PT-138, excluding PT-119, PT-120, PT-123, and PT-134). The borings and rock probes were drilled with an all-terrain-vehicle (ATV) mounted drill rig and the soil profile pits were performed using a track-mounted excavator. Prior to drilling the borings/probes and excavating soil profile pits, the track-mounted excavator was used to clear vegetation/trees to provide access to the test locations. The test locations are shown on the accompanying *Test Location Plan* in the Appendix of this report.

TEST LOCATION SUMMARY		
Number	**Proposed Location**	**Final Depth (feet)**
B-1	Warehouse Building D	11.5 [2]
B-2		20.5 [1]
B-3		15.5 [2]
B-4	Warehouse Building E	6.2 [2]
B-5		8.3 [2]
B-6		20.0 [2]
B-7	Warehouse Building B	2.2 [2]
B-7A		13.5 [2]
B-8	Warehouse Building A	20.1 [2]
B-9	Warehouse Building B	9.5 [2]
B-10	Warehouse Building A	4.4 [2]
B-11		7.8 [2]
B-12	Pavement/West of Warehouse Building C	17.0 [2]
B-13		25.0 [1]
B-14		20.8 [2]
B-15	Warehouse Building C	22.0

TEST LOCATION SUMMARY		
Number	**Proposed Location**	**Final Depth (feet)**
B-16	East of Warehouse Building C	22.0
B-17	Warehouse Building C	25.8 [2]
B-18	Northeastern Stormwater Basin Area	19.0 [1]
B-19		27.0 [1]
P-1	Warehouse Building B	50.0
P-2		50.0
P-3	Warehouse Building D	50.0
P-4		50.0
P-5	Warehouse Building E	50.0
P-6		50.0
P-7	Warehouse Building C	50.0
SPP-1/PT-1	Potential Stormwater Management Area – Southern Portion of Site	9.8 [2]
SPP-2/PT-2		6.7 [2]
SPP-3/PT-3		9.2 [2]
SPP-4/PT-4	Potential Stormwater Management Area – Western Portion of Site	11.0
SPP-5/PT-5		12.3
SPP-6/PT-6		11.5
SPP-7/PT-7		12.2
SPP-8/PT-8		7.5 [2]
SPP-9/PT-9		11.7 [2]
SPP-10/PT-10		10.8 [2]
SPP-11/PT-11		8.8 [2]
SPP-12/PT-12		10.8
SPP-13/PT-13	Potential Stormwater Management Area – Central Portion of Site	8.2
SPP-14/PT-14		11.3
SPP-15/PT-15	Potential Stormwater Management Area – Southern Portion of Site	11.2
SPP-16/PT-16		8.0 [2]
SPP-17/PT-17		11.5
SPP-18/PT-18	Potential Stormwater Management Area – Northern Portion of Site	10.7
SPP-19/PT-19		9.9
SPP-20/PT-20		14.5 [2]
SPP-21/PT-21		11.2
SPP-22/PT-22	Potential Stormwater Management Area – Eastern Portion of Site	11.2
SPP-23/PT-23		13.0
SPP-24/PT-24		11.5
SPP-25/PT-25		14.0
SPP-101/PT-101	Potential Stormwater Management Area – Southern Portion of Site	3.7 [2]
SPP-102/PT-102		5.0 [2]
SPP-103/PT-103		3.5 [2]

TEST LOCATION SUMMARY		
Number	**Proposed Location**	**Final Depth (feet)**
SPP-104/PT-104		9.3 [2]
SPP-105/PT-105		3.0 [2]
SPP-106/PT-106		3.0 [2]
SPP-107/PT-107		2.5 [2]
SPP-108/PT-108		4.0 [2]
SPP-109/PT-109	Potential Stormwater Management Area – Central Portion of Site	4.5 [2]
SPP-110/PT-110		4.5 [2]
SPP-111/PT-111		4.2 [2]
SPP-112/PT-112	Potential Stormwater Management Area – Central Portion of Site	6.0 [2]
SPP-113/PT-113		7.0 [2]
SPP-114/PT-114	Potential Stormwater Management Area – Northwestern Portion of Site	7.0 [2]
SPP-115/PT-115		11.0
SPP-116/PT-116		11.0
SPP-117/PT-117		12.0
SPP-118/PT-118		8.5 [2]
SPP-119/PT-119	Potential Stormwater Management Area – Northeastern Portion of Site	4.5 [2]
SPP-120/PT-120		8.5 [2]
SPP-121/PT-121		8.0 [2]
SPP-122/PT-122		7.0 [2]
SPP-123/PT-123		4.9 [2]
SPP-124/PT-124		11.0
SPP-125/PT-125		10.1
SPP-126/PT-126		11.3
SPP-127/PT-127		12.0
SPP-128/PT-128		13.2 [2]
SPP-129/PT-129	Potential Stormwater Management Area – Eastern Portion of Site	7.0 [2]
SPP-130/PT-130		11.0
SPP-131/PT-131		10.8
SPP-132/PT-132		11.1
SPP-133/PT-133		10.8
SPP-134/PT-134		8.3 [2]
SPP-135/PT-135		9.0 [2]
SPP-136/PT-136		12.0
SPP-137/PT-137		12.0
SPP-138/PT-138		12.0

[1] Rock coring was performed

[2] Refusal on underlying weathered rock/boulders

The soil borings, soil profile pits, rock probes and in-situ infiltration tests were completed in the presence of a Dynamic Earth engineer who performed field tests, recorded visual classifications, and collected samples of the various strata encountered. The test locations were located in the field using conventional taping procedures and/or a handheld GPS device, and are presumed to be accurate within several feet of the location plotted on the plans.

Soil borings and standard penetration tests (SPTs) were conducted in general accordance with ASTM D5783 (*Standard Guide for Use of Direct Rotary Drilling with water based drilling fluid for Geoenvironmental Exploration and the installation of subsurface water quality monitoring devices)* and ASTM D1586 (*Standard Test Method for Standard Penetration Test and Split Barrel Sampling of Soils)*, respectively. Unconfined compressive strength (Q_p) values were assessed with a pocket penetrometer within the fine-grained soils. The N-value and/or unconfined compressive strength for various soil types can be correlated with engineering behavior of soils to develop foundation and earthwork recommendations.

Rock cores were obtained using a diamond bit core barrel in accordance with ASTM designation D 2113 (*Standard Practice for Rock Core Drilling and Sampling of Rock for Site Exploration)*. Rock Quality Designations (RQD's) were determined in accordance with ASTM D 6032 (*Standard Test Method for Determining Rock Quality Designation (RQD) of Rock* Core) and are provided on the boring logs within the appendix of this report. RQD is defined as the sum of the length of core fragments four inches or greater between natural breaks divided by the length of the core run and is expressed as a percentage. RQD is an indication of the relative frequency of jointing or natural fracturing of the bedrock.

The soils encountered within the area of the proposed/anticipated stormwater management facilities were classified using the United States Department of Agriculture (USDA) Classification System and observations were made for groundwater and/or soil mottling and mineral deposits potentially indicative of zones of saturation or seasonal high groundwater.

In-situ infiltration testing was performed at soil profile pit locations in general accordance with the January *New York State Stormwater Management Design Manual 2015 – Appendix D: Infiltration Testing*. Detailed results of the infiltration testing are included herein.

Groundwater level observations were recorded during and at the completion of field operations prior to backfilling the borings. Seasonal variations, temperature, anthropogenic, seasonality, soil permeability, and precipitation will influence the actual and observed groundwater levels. Groundwater elevations derived from sources other than seasonally observed groundwater monitoring wells may not be representative of true groundwater levels.

3.2 Laboratory Testing

Physical/Textural Analysis: Each sample was visually classified in general accordance with the visual-manual method (ASTM D2488). In addition, representative samples of selected strata encountered were subjected to a laboratory testing program which included moisture content determinations (ASTM D2216), Atterberg limits (ASTM D4318), and washed gradation analyses (ASTM D422) in order to perform supplementary engineering soil classifications in general accordance with ASTM D2487. The soil strata tested were classified by the Unified Soil Classification System (USCS) and results of the laboratory testing are summarized in the following table.

SUMMARY OF LABORATORY TEST RESULTS							
Boring	**Sample No.**	**Depth (feet)**	**Moisture Content (%)**	**Liquid Limit**	**Plasticity Index**	**Percent Passing No. 200 (%)**	**USCS Classification**
B-1	S-5	8-10	10.4	Not Tested		38	SC
B-2	S-1	0-2	26.2	Not Tested		56	CL
B-3	S-2	2-4	11.1	28	11	37	CL
B-12	S-5	8-10	9.3	25	10	46	SC
B-13	S-4	6-8	9.2	25	10	44	SC
B-14	S-2	2-4	9.6	Not Tested		20	SM
B-15	S-4	6-8	5.6	Not Tested		9	SW-SM
B-16	S-7	15-17	6.8	Not Tested		11	GP-GM
B-17	S-2	2-4	10.3	23	9	41	SC
B-18	S-6	10-12	11.1	Not Tested		13	SM
B-19	S-3	4-6	10.5	Not Tested		16	GC

The engineering classifications are useful when considered in conjunction with the additional site data to estimate other properties of the soil types encountered and to predict the soil's behavior under construction and service loads.

4.0 SUMMARY OF SUBSURFACE CONDITIONS

4.1 Site Geology

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. The glacial till deposits reportedly include heterogeneous deposits of sand, silt, clay and cobble/boulder-sized fragments. Graywacke and shale bedrock are mapped underlying a relatively small area within the southeastern portion of the site.

4.2 United States Department of Agriculture (USDA) Soil Survey

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 described below.

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 (limit of the report). 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. (limit of the report). 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 (limit of the report). 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 three inches; underlain by gravelly fine sandy loam to a depth of 60 inches below the natural ground surface (limit of the report). 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 below the ground surface (limit of the report). Groundwater is reported to be approximately between 24 to 72 inches below the natural ground surface.

Water (W): This soil series is mapped within a relatively small area within the eastern portion of the site. The typical soil profile (as reported in the soil survey) generally consists of water.

4.3 Subsurface Soil Profile

Details of the subsurface materials encountered are presented on the *Records of Subsurface Exploration* presented in the Appendix of this report. The subsurface soil conditions encountered in the soil borings and soil profile pits consisted of the following generalized strata in order of increasing depth.

Surface Cover: The soil borings and soil profile pits were performed within undeveloped areas and encountered approximately two inches to 17 inches of topsoil at the surface. Relatively deeper roots mats/roots were observed within the soil profile pits to depths up to 86 inches below the ground surface.

Glacial Till Deposits: Beneath the surface cover, natural glacial till deposits were encountered that consisted variably of gravel (USCS: GM, GP, GW, GC, GC-GM and GP-GM), sand (USCS: SC, SW-SM, and SM), silt (USCS: ML) and clay (USCS: CL and CL-ML). In addition, oversized cobble/boulder sized fragments were observed within this stratum within the soil profile pit excavations. The natural glacial deposits were encountered to depths ranging between approximately two feet and 20 feet below the ground surface; corresponding to elevations ranging between 231.8 feet and 122.0 feet. Except where split spoon sampler refusal was encountered, SPT N-values ranged between three blows per foot (bpf) and 73 bpf, and averaged approximately 29 bpf, generally indicating a relatively medium dense condition within the coarse-grained soils.

Unconfined compressive strength (Q_p) pocket penetrometer values within this stratum ranged between 0.25 tons per square foot (tsf) and 4.5 tsf; and averaged approximately 2.1 tsf, generally indicating a relatively very stiff consistency within the fine-grained soils.

Weathered Rock: Beneath the natural glacial deposits, weathered rock was encountered that generally sampled as sand (USCS: SW and SC), clay (USCS: CL and CL-ML) and gravel sized rock fragments (USCS: GW, GP, GC, and GM). The weathered rock was encountered to refusal depths ranging between approximately 2.5 feet and 25.8 feet below the ground surface; corresponding to elevations ranging between 224.5 feet and 119.0 feet. Except where split spoon sampler refusal was encountered, SPT N-values ranged between 31 bpf and 71 bpf, and averaged approximately 49 bpf, generally indicating a relatively dense condition. Refusal is anticipated to be the top of rock.

Bedrock: Beneath the weathered rock, rock was encountered within rock probes and during coring operations performed at Borings B-2, B-13, B-18, and B-19. Based on the rock core samples, the rock encountered generally consisted of moderately to highly weathered, extremely fractured shale. Rock coring was performed to boring termination depths ranging between 19 feet and 27 feet below the ground surface; corresponding to elevations ranging between 215.5 feet and 114.0 feet. Rock was encountered within rock probes to termination depths up to 50 feet below the ground surface; corresponding to elevations ranging between 182.0 feet and 155.0 feet. Rock core recoveries from the coring operations ranged from 50 and 93 percent; and the Rock Quality Designation (RQD) encountered in the core samples ranged between approximately zero and 43 percent; generally corresponding to a relatively very poor rock mass quality.

4.4 Seasonal High Groundwater and Groundwater

Indicators of seasonal high groundwater (i.e. based on soil mottling) were encountered within the soil profile pits at depths ranging between 1.2 feet and 9.0 feet below the ground surface; corresponding to elevations ranging between 227.0 feet and 133.5 feet. Groundwater was encountered within the soil borings and soil profile pits at depths ranging between two feet and 15 feet below the ground surface; corresponding to elevations ranging between 226.0 feet and 129.5 feet. Apparent perched water was encountered within the soil borings and soil profile pits at depths ranging between one foot and 5.5 feet below the ground surface, corresponding to elevations ranging between 235.0 feet and 131.7 feet. Groundwater levels are expected to fluctuate seasonally and following significant periods of precipitation.

5.0 PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

5.1 General

The following preliminary considerations are based on the soil conditions encountered during our limited subsurface investigation for the proposed site development and are intended to provide general characteristics of the subsurface conditions for preliminary planning purposes and should not be utilized for final design of structural foundations, floor slabs, or pavements. Final recommendations pertaining to the geotechnical aspects of the site development will need to be developed from a supplemental subsurface investigation and engineering analyses of the final site development plans.

Conventional shallow foundations and ground supported floor slabs are expected to be feasible for proposed structures bearing within approved on-site materials and/or controlled compacted structural fill material, provided the subgrade soils are properly prepared and tested during construction. The on-site soils are preliminarily expected to be suitable for support of proposed floor slabs and pavements. Due to moisture sensitivity of the on-site soils, at least partial overexcavation, replacement, and/or moisture conditioning should be included as part of project planning for the proposed development.

Relatively shallow refusal and difficult drilling/excavating was encountered during this investigation due to apparent cobbles/boulders and underlying weathered rock. As such, the contractor should anticipate difficult excavation to remove cobbles/boulders and weathered rock/rock, particularly where existing site elevations are lowered as part of the proposed site grading.

5.2 Preliminary Shallow Foundation Design Recommendations

Anticipated Bearing Strata: Proposed foundations are expected to bear within the natural glacial deposits, underlying weathered rock/rock, and/or newly placed compacted structural fill material placed to raise site grades. Approved portions of these materials are expected to be suitable for support of proposed foundations, provided they are properly tested and inspected during construction. Due to the moisture sensitivity of the on-site soils, project planning should include at least partial overexcavation and replacement and/or moisture conditioning.

Conventional Shallow Foundations: The proposed structures may be supported on conventional shallow foundations bearing within newly placed compacted structural fill material and/or approved natural soils. Foundations may preliminarily be designed to impart a maximum allowable net bearing pressure of 3,000 pounds per square foot (psf). Regardless of loading

conditions, proposed foundations should be sized no less than a minimum of 24 inches for continuous wall footings and 36 inches for isolated column footings.

Footings should be designed so that the maximum toe pressure due to the combined effect of vertical loads and overturning moment does not exceed the recommended maximum allowable net bearing pressure recommended above. In addition, positive contact pressure should be maintained throughout the base of the footings such that no uplift or tension exists between the base of the footings and the supporting soil. Uplift loads should be resisted by the weight of the concrete. Side friction should be neglected when proportioning the footings so that lateral resistance should be provided by friction resistance at the base of the footings.

Lateral resistance should be provided by friction at the base of the footing with a recommended coefficient of friction against sliding as follows:

- Formed concrete on gravel subbase material – 0.40;
- Mass concrete on gravel subbase material – 0.45; and
- Mass concrete on on-site natural soils - 0.35.

Inspection/Overexcavation Criteria: The suitability of the bearing soils along and below the footing bottoms must be verified by Dynamic Earth's geotechnical engineer prior to placing concrete, especially to confirm that unsuitable materials are removed (if encountered) and new fills are adequately placed and compacted. If required, any overexcavation to be restored with structural fill (on-site or imported) will need to extend at least one foot laterally beyond footing edges for each vertical foot of overexcavation. The bottom of overexcavations should be compacted with smooth drum rollers, walk-behind compactors, vibrating plates or plate tampers ("jumping jacks") to compact locally disturbed materials and densify underlying natural soil zones. Unsuitable materials should be overexcavated prior to placing new fill material where site grades are to be raised.

Settlement: Dynamic Earth preliminarily estimates post construction settlements of proposed foundations on the order of one inch if the recommendations outlined in this report are properly implemented. Differential settlements of foundations should be less than one-half inch. Final evaluation of the design loads and supplemental geotechnical investigation will be needed to confirm these estimates.

Partial Rock Support: Footings should not bear partially on rock and partially on soil due to the risk of brittle fracture at hinging points. Any foundation subgrades that would result in partially supported rock conditions should be overexcavated an additional six inches and replaced with well

graded, compacted structural fill, to provide a cushion against brittle fracture. Alternatively, isolated spread footings may be extended to bear entirely on rock.

Frost Depth: Footings subject to frost action should be placed at least 40 inches below adjacent exterior grades or as required by the local building code to provide protection from frost penetration. Interior footings not subject to frost action (including during the period of construction) may be placed at a minimum depth of 18 inches below the slab subgrade.

5.3 Preliminary Floor Slab Recommendations

Dynamic Earth anticipates that the approved on-site soils and/or compacted structural fill material placed over approved natural subgrades will be suitable for support of the proposed floor slabs, provided these materials are properly evaluated, compacted and proofrolled as detailed herein. **Due to the moisture sensitivity of the on-site soils, at least partial overexcavation and replacement and/or subgrade stabilization should be anticipated below proposed floor slabs.** Depending on construction phase evaluation, overexcavation may be limited (to a typical depth of approximately two feet) with the use of geogrid reinforcement (such as Tensar TX-5 or TX-7 or equivalent). In addition, any areas that become softened or disturbed as a result of wetting and/or repeated exposure to construction traffic should be removed and replaced with compacted structural fill. Alternatively, moisture conditioning methods may be evaluated by Dynamic Earth at the time of construction. We preliminarily expect that the properly prepared on-site soils are will yield a minimum subgrade modulus (k) of 125 psi/in.

A minimum four-inch layer of stone should be installed below the floor slabs to provide a capillary break. A moisture vapor barrier beneath the floor slab is recommended. Total and post-construction settlements of floor slabs installed in accordance with the recommendations outlined in this report are estimated to be less than one-quarter inch.

5.4 Preliminary Pavement Recommendations

The on-site soils are preliminarily expected to be suitable for support of proposed pavements. **Due to the moisture sensitivity of the on-site soils, at least partial overexcavation and replacement and/or subgrade stabilization should be anticipated below proposed pavements.** Pavement life may benefit from using a geogrid (such as Tensar TX-5 or TX-7 or equivalent) to provide additional subgrade reinforcement to minimize the amount of overexcavation and attempt to stabilize marginally suitable subgrade soils. Depending on the overall subgrade conditions and weather conditions, more extensive mitigation efforts may be required.

Preliminary Design Criteria: A preliminary design California Bearing Ratio (CBR) value of seven has been assigned to the anticipated properly prepared subgrade soils for pavement design

purposes. Pavement section recommendations should be developed based on supplemental Geotechnical Investigation.

5.5 Preliminary Groundwater Considerations

Groundwater and/or perched zones of saturation above the underlying rock stratum may be encountered within proposed excavations, particularly where existing site elevations will be lowered as part of the proposed grading. **As such, the contractor should anticipate the need for groundwater control during construction.**

While groundwater control means and methods are the responsibility of the contractor, excavations extending to depths of approximately two feet below the static groundwater elevation typically may be controlled by sump pumps and strategically placed sump pits in and adjacent to excavations for relatively small areas. Larger excavations and excavations extending deeper than two feet below groundwater may require deeper well recovery points. Surface water runoff must be controlled and diverted away from construction areas by grading and limiting the exposure of excavations to rainfall.

In addition, the project structural engineer and architect should review the groundwater and seasonal high groundwater levels encountered and evaluate the potential need for permanent groundwater control measures.

5.6 Preliminary Earthwork Considerations

Surface Cover Stripping: Prior to the start of construction, all utilities should be identified and secured. If encountered, existing structural elements, such as concrete foundations, slabs, and remnant basement walls, should be removed entirely from below proposed foundations and slabs and excavated to at least two feet below pavement subgrades. Remnant structural elements may remain in-place below these depths below pavements provided they do not interfere with future construction. Any slabs left in-place should be thoroughly fractured to promote vertical drainage in the presence of a qualified Geotechnical Engineer and should be backfilled with structural fill in accordance with the recommendations included herein.

The surface cover materials, including vegetation and topsoil, should be removed from within, and at least five feet beyond the limits of the proposed buildings and new pavement areas as well as any other area which will require fill placement. Removal of trees should include root mats and tree stumps. Based on the existing site conditions, areas The contractor

Surface Preparation/Proofrolling: Prior to placing any fill or subbase materials to raise or restore grades to the desired building pad or pavement subgrade elevations, the existing exposed soils

should be compacted to a firm and unyielding surface with several passes in two perpendicular directions with a vibratory, smooth drum roller during favorable moisture conditions. The drum roller should be operated in the static mode or a kneading "sheepsfoot" roller should be used where fine-grained soils are encountered at the subgrade elevation and/or where water is suspected near subgrade elevations. The surface should then be proofrolled with a loaded tandem axle truck in the presence of Dynamic Earth to help identify soft or loose pockets which may require removal and replacement or further investigation. Dynamic Earth anticipates at least partial overexcavation if the subgrade is wetted or subjected to repeated construction traffic. Any fill or backfill should be placed and compacted in accordance with the recommendations included herein.

Subgrade Protection and Inspection: Portions of the on-site soils are considered extremely moisture sensitive and every effort should be made to minimize disturbance of the on-site soils by construction traffic and surface runoff. The on-site soils will likely become unsuitable if exposed to moisture and/or construction traffic. If these materials become overly wetted, the on-site soils will likely require increased handling such as discing and drying during extended periods of favorable weather and/or partial overexcavation and stabilization. Stabilization methods that can be evaluated for the site include the use of a triaxle geogrid such as Tensar TX-5 of TX-7, or cement/lime mixing as directed by the geotechnical engineer. Therefore, the subgrades and soil stockpiles should be sealed daily and construction traffic be minimized to designated non-structural areas and following periods of precipitation as an attempt to minimize deterioration of otherwise suitable subgrade soils. Dynamic Earth should be retained as the Geotechnical Engineer of Record to inspect soil conditions during construction and verify the suitability of prepared foundation, floor slab and pavement subgrades for support of design loads.

Import/On-site Structural Fill Material: Soils placed as structural fill material should consist of well graded sand or gravel with a maximum particle size of three inches in diameter and less than 15 percent of material passing the number 200 sieve. These materials should be free of objectionable debris (clay clumps, organic and/or deleterious material, etc.) and within moisture contents suitable for compaction. Alternative soil types with higher percentages of silt and clay may be considered, provided that the contractor is able to achieve proper compaction and maintain suitable subgrade once the material is placed. Fine-grained soils and/or granular soils with higher percentages of silt and clay are extremely moisture sensitive and will only be suitable for reuse as structural fill material under ideal weather conditions. Materials wetted beyond the optimum moisture content; that contain oversized rock or debris; or with increased amounts of objectionable debris will not be suitable for reuse as structural fill material without special handling. As such, the contractor should be responsible for importing structural fill material and/or processing on-site soils as required so that these materials are suitable for structural fill placement.

If encountered, cobbles/boulders and/or weathered rock/rock fragments greater than three inches in diameter will need to be separated from material to be placed as structural fill. Approved

material between three to 12 inches in diameter may be crushed or individually placed in fill layers deeper than two feet below proposed subgrade levels. Care must be taken to individually seat any large particles and to compact soil around large particles with hand operated equipment to minimize the risk of void formation. The larger material should not be placed near areas of the proposed utility or planned excavation. Boulders and/or rock fragments larger than approximately 12 inches are not expected to be adequate for use as fill or backfill and should be removed from the site or crushed to an adequate size.

The on-site materials included natural glacial deposits and underlying weathered rock/rock. Portions of the natural glacial deposits are preliminarily expected to be suitable for reuse as structural fill material, provided moisture contents are within tolerable limits to achieve compaction and oversized materials are separated and/or processed to an acceptable size. Portions of the natural glacial deposits are considered extremely moisture sensitive and will likely require moisture conditioning to be suitable for reuse as structural fill material. Moisture conditioning methods may include discing/aerating soils during a period of favorable weather, mixing with lime or cement, and/or mixing with granular soils. Portions of the underlying weathered rock/rock may be suitable for reuse on-site, provided they are processed to an acceptable size and gradation as detailed herein. Reuse of these materials will be contingent upon further evaluation during construction.

Rock Fill Material: An alternative to exporting oversized weathered rock/rock materials, considerations for using these materials as rock fill may be evaluated, provided these materials are processed and placed in accordance with the recommendations included herein. Rock fills should not be used in areas that will interfere with future construction (i.e. below proposed footings or near proposed utility excavations). Rock fills typically should not be placed within 15 feet of proposed utilities or foundations or within three feet of the ground surface.

Rock fills generally consist of placing rock in controlled lifts so that void space is minimized. The material should be placed evenly with a dozer so overall lift thickness is less than 1.5 times the largest particle size. Based on our regional experience and the average estimated particle size encountered during this investigation, we preliminary expect that lifts thickness on the order of approximately 18 inches to 24 inches should be expected. Thicker lifts may be evaluated once excavated material is stockpiled, but in no case shall the lifts be thicker than 36 inches (for 24 inch diameter sized rock). Rock larger than 24 inches in diameter shall be processed to a smaller size (less than 24 inches) or removed from the site. The stockpiled material should be evaluated prior to fill placement and test lifts should be perform to confirm the suitability and requirements for use of rock fill.

Rock fills should be compacted with a 20 ton, vibratory, smooth drum roller. Soil particle size with a maximum diameter less than the void space within the rock fill material should be placed over the lift until there is no visible movement and prevent soil from migrating into the rock fill. Alternatively, geotextiles may be considered to prevent the soil from migrating to the rock fill.

Compaction and Placement Requirements: Structural fill and backfill should be placed in maximum 12 inch loose lifts and compacted to 95 percent of the maximum dry density within a targeted two percent of the optimum moisture content as determined by ASTM D 1557 (Modified Proctor). Variations in moisture content may be acceptable subject to Dynamic Earth's on-site geotechnical engineer's approval if the contractor is able to achieve the necessary compaction. Dynamic Earth recommends using a minimum 20-ton smooth drum roller to compact subgrade soils beneath pavements or slabs and hand operated vibratory jumping jacks and plate compactors within confined excavations for foundations or utilities. The drum roller should be operated in the static mode or a kneading "sheepsfoot" roller should be used to compact fine-grained soils. Fill material compacted with hand operated equipment, static drum roller and/or sheepsfoot roller, may need to be placed in thinner, loose lifts and an increased number of passes may be required to achieve proper compaction.

Structural Fill Testing: Before filling operations begin, representative samples of each proposed fill material (on-site and imported) should be collected. The samples should be tested to determine the maximum dry density, optimum moisture content, natural moisture content, gradation, and plasticity of the soil. These tests are needed for quality control during compaction and also to determine if the fill material is acceptable. The placement of all fill and backfill will need to be monitored by Dynamic Earth to ensure that the specified material and lift thicknesses are properly installed. A sufficient number of in-place density tests should be performed during fill placement to ensure that the specified compaction is achieved throughout the height of the fill or backfill.

Difficult Excavation: Difficult auger refusal and split spoon refusal was encountered while drilling as shallow as one feet below the ground surface. **As such, difficult excavation to remove oversized materials, cobble and boulder sized fragments and/or debris should be anticipated, particularly where existing site elevations are lowered as part of the site development (such as within portions of the central, southern and western areas of the site).** Construction budgets should include unit rate cost and schedules related to difficult excavation.

While small boulders and cobbles may typically be removed with conventional excavation equipment, heavy excavation equipment will likely be required for larger cobbles/boulders and/or rock fragments. The speed and ease of excavation will depend on the type of grading equipment, the skill of the equipment operators, and the structure of the refusal material itself. Planned

excavation depths beyond refusal depths may require more extensive excavation efforts to remove the cobbles/boulders and/or weathered rock.

Submerged Fill: The initial 18 to 24 inches of backfill at excavations that extend below the groundwater level (in conjunction with dewatering methods) may consist of nominally one inch, crushed stone (such as AASHTO #57 Stone) placed to raise grades above groundwater levels before subsequent lifts of structural fill. Submerged fill should be separated from surrounding soils (below, adjacent, and above) with a fines barrier geotextile, such as Mirafi FW700 or equivalent to prevent future migration of fines content from surrounding soils.

5.7 Retaining Walls and Lateral Earth Pressure Recommendations

General: Based on the proposed grading plans, retaining walls are anticipated as part of the proposed site development that will generally be located around the perimeter of proposed pavement/parking areas. The specific type and layout of retaining walls have not been defined at this time; however, the walls are expected to have maximum exposed wall heights on the order of 20 to 30 feet. As such, Dynamic Earth presents the following preliminary design recommendations for earth retaining structures. Dynamic Earth recommends a supplemental geotechnical investigation is performed within proposed retaining wall areas to assist with designing of the walls. Dynamic Earth can provide retaining wall design services, if requested.

Soil Parameters and Design Considerations: Proposed retaining walls that are free to rotate generally can be designed to resist active earth pressures. Restrained walls and retaining wall corners need to be designed to resist at-rest earth pressures. Backfill soils adjacent to retaining structures should consist of freely draining materials composed primarily of sand and gravel. The soil parameters provided below apply to properly compacted granular fill and backfill placed in a well-drained, level condition and may be used for preliminary design of retaining structures.

SUMMARY OF LATERAL EARTH PRESSURE PARAMETERS						
Stratum	**Moist Density, γ_{moist}, (pcf)**	**Internal Friction Angle, Φ (degrees)**	**Coefficient of Active Earth Pressure (K_a)**	**Coefficient of Passive Earth Pressure (K_p)**	**Coefficient of At-Rest Earth Pressure (K_o)**	**Cohesion (psf)**
Natural Glacial Till & Deposits (Fine Grained)	125	20	0.49	2.04	0.66	750
Natural Glacial Till & Deposits (Granular)	135	30	0.33	3.0	0.50	0

SUMMARY OF LATERAL EARTH PRESSURE PARAMETERS						
Stratum	**Moist Density, γ_{moist}, (pcf)**	**Internal Friction Angle, Φ (degrees)**	**Coefficient of Active Earth Pressure (K_a)**	**Coefficient of Passive Earth Pressure (K_p)**	**Coefficient of At-Rest Earth Pressure (K_o)**	**Cohesion (psf)**
Weathered Rock/Rock	150	36	0.26	3.85	0.41	0
Import/ Compacted Granular Soil	135	32	0.31	3.25	0.47	0

The effect of any surcharge loads including construction equipment, traffic, proposed/existing structures and temporary and permanent stockpiles also will need to be included in earth pressure calculations. Dynamic Earth would be pleased to assist with the calculation of lateral earth pressures based on the soil parameters presented herein during the structural design phase.

Retaining walls should be designed so that the combined effect of vertical and horizontal resultant loads and overturning moment does not exceed the maximum allowable soil bearing capacity recommended in this report.

Adequate drainage of water which may collect on the backfill side of the retaining walls should be incorporated into the design and/or hydrostatic pressures should be added to the pressure calculations. A system of perforated drain pipes should be used at the base of the backfill side of the wall structure to collect and remove the water and relieve hydrostatic pressure.

Dynamic Earth recommends that granular soils be used to backfill the proposed subgrade and retaining walls. Clays and silts or soils with a fine fraction with a liquid limit exceeding 40 or a plastic index exceeding 20 should not be used as backfill. Acceptable backfill should be placed in maximum nine-inch loose lifts and compacted to 95 percent of the maximum dry density, within two percent of the optimum moisture content, as determined by ASTM D 1557 (Modified Proctor). A maximum density of 135 pounds per cubic foot should not be exceeded in order to avoid creating excessive lateral pressure on the walls during compaction operations.

Dynamic Earth recommends that backfill directly behind the walls be compacted with light, hand-held compactors. Heavy compactors and grading equipment should not be allowed to operate within a zone measured at a 45-degree angle from the base of the walls during backfilling to avoid developing excessive temporary or long-term lateral soil pressures.

Due to the cobbles/boulders encountered within the on-site soils and underlying weathered rock/rock, difficult excavation should be anticipated within the area of proposed retaining walls.

5.8 Temporary Excavations

The granular soils encountered during the investigation are consistent with Type C Soil Conditions as defined by 29 CFR Part 1926 (OSHA) which require a maximum unbraced excavation angle of 1.5:1 (horizontal: vertical). Actual conditions encountered during construction should be evaluated by a competent person (as defined by OSHA) to ensure that safe excavation methods and/or shoring and bracing requirements are implemented.

5.9 Preliminary Seismic and Liquefaction Considerations

The soils are most consistent with a Site Class D defined by the *International Building Code*. Based on the seismic zone and soil profile, liquefaction considerations are not expected to have a substantial impact on design.

5.10 Seasonal High Groundwater and Infiltration

Evidence of seasonal high groundwater (soil mottling) was encountered within the soil profile pits at depths ranging between approximately 1.2 feet and nine feet below the ground surface; corresponding to elevations ranging between 227.0 feet and 133.5 feet. In-situ infiltration rates ranged between zero inches per hour and 24.0 inches per hour. In-situ infiltration testing was not performed at soil profile pit locations SPP-119, SPP-120, SPP-123, and SPP-134 due to an excessive amount of coarse fragments encountered within the soil profile. A summary of the seasonal high groundwater levels and in-situ infiltration testing is presented in the following table:

SOIL MOTTLING, GROUNDWATER, AND INFILTRATION SUMMARY							
Location	Approximate Surface Elevation	Mottling		Groundwater		Infiltration	
		Depth (Feet)	Elevation (Feet)	Depth (Feet)	Elevation (Feet)	Depth (inches)	Rate (in/hour)
SPP-1	226.0	Not Encountered		Not Encountered		48	2.0
SPP-2	220.0	1.8	218.2	Not Encountered		36	5.0
SPP-3	222.0	Not Encountered		Not Encountered		48	2.5
SPP-4	230.0	3.3	226.7	4.0	226.0	36	0.5
SPP-5	224.0	2.7	221.3	Not Encountered		24	0.1
SPP-6	229.0	2.0	227.0	4.3	224.7	18	0.1
SPP-7	231.0	5.8	225.2	11.6	219.4	36	0.1
SPP-8	212.0	3.0	209.0	3.0	209.0	24	0.2
SPP-9	211.0	2.3	208.7	4.0	207.0	30	0.1
SPP-10	216.0	5.5	210.5	Not Encountered		48	0.1

SOIL MOTTLING, GROUNDWATER, AND INFILTRATION SUMMARY							
Location	Approximate Surface Elevation	Mottling		Groundwater		Infiltration	
		Depth (Feet)	Elevation (Feet)	Depth (Feet)	Elevation (Feet)	Depth (inches)	Rate (in/hour)
SPP-11	200.0	3.0	197.0	6.0	194.0	24	0.3
SPP-12	189.0	1.3	187.7	5.3	183.7	36	5.0
SPP-13	210.0	1.3	208.7	2.8	207.2	18	0.1
SPP-14	193.0	2.0	191.0	10.0	183.0	48	0.0
SPP-15	203.0	1.5	201.5	7.6	195.4	24	0.5
SPP-16	207.0	1.4	205.6	Not Encountered		36	0.1
SPP-17	197.0	2.0	195.0	Not Encountered		48	1.0
SPP-18	191.0	3.0	188.0	8.5	182.5	48	0.5
SPP-19	140.0	1.3	138.7	7.0	133.0	48	4.0
SPP-20	143.0	6.5	136.5	Not Encountered		24	0.5
SPP-21	152.0	2.5	149.5	2.5	149.5	24	3.0
SPP-22	145.0	Not Encountered		Not Encountered		24	0.5
SPP-23	140.0	Not Encountered		Not Encountered		48	3.5
SPP-24	137.0	2.5	134.5	7.5	129.5	48	6.0
SPP-25	136.0	2.5	133.5	3.5	132.5	24	2.5
SPP-101	220.0	2.3	217.7	Not Encountered		16	0.25
SPP-102	224.0	Not Encountered		Not Encountered		30	1.0
SPP-103	228.0	Not Encountered		Not Encountered		24	0.5
SPP-104	222.0	2.7	219.3	Not Encountered		24	2.75
SPP-105	222.0	Not Encountered		Not Encountered		12	20.5
SPP-106	219.0	Not Encountered		Not Encountered		14	24.0
SPP-107	224.0	Not Encountered		Not Encountered		12	0.1
SPP-108	222.0	Not Encountered		Not Encountered		24	0.25
SPP-109	214.0	Not Encountered		Not Encountered		24	0.4
SPP-110	216.0	Not Encountered		Not Encountered		20	0.25
SPP-111	214.0	Not Encountered		Not Encountered		12	0.4
SPP-112	211.0	Not Encountered		Not Encountered		30	0.25
SPP-113	208.0	Not Encountered		Not Encountered		32	0.0
SPP-114	206.0	Not Encountered		Not Encountered		21	0.1
SPP-115	206.0	Not Encountered		Not Encountered		18	2.75
SPP-116	197.0	8.5	188.5	Not Encountered		51	24.0

SOIL MOTTLING, GROUNDWATER, AND INFILTRATION SUMMARY							
Location	Approximate Surface Elevation	Mottling		Groundwater		Infiltration	
		Depth (Feet)	Elevation (Feet)	Depth (Feet)	Elevation (Feet)	Depth (inches)	Rate (in/hour)
SPP-117	193.0	9.0	184.0	Not Encountered		47	24.0
SPP-118	187.0	Not Encountered		5.5	182.0	41	24.0
SPP-119	142.0	Not Encountered		Not Encountered		N/A	
SPP-120	143.0	Not Encountered		Not Encountered		N/A	
SPP-121	142.0	5.0	137.0	Not Encountered		48	0.25
SPP-122	140.0	3.3	136.7	Not Encountered		32	0.0
SPP-123	142.0	Not Encountered		Not Encountered		N/A	
SPP-124	165.0	Not Encountered		Not Encountered		36	24.0
SPP-125	140.0	Not Encountered		Not Encountered		16	24.0
SPP-126	142.0	1.2	140.8	5.2	136.8	14	0.0
SPP-127	166.0	Not Encountered		11.0	155.0	48	24.0
SPP-128	142.0	Not Encountered		Not Encountered		30	10.0
SPP-129	137.0	Not Encountered		Not Encountered		48	24.0
SPP-130	137.0	Not Encountered		Not Encountered		24	0.75
SPP-131	137.0	Not Encountered		Not Encountered		48	24.0
SPP-132	137.0	Not Encountered		5.0	132.0	16	0.5
SPP-133	137.0	Not Encountered		5.3	131.7	24	1.0
SPP-134	140.0	Not Encountered		Not Encountered		N/A	
SPP-135	137.0	Not Encountered		Not Encountered		24	6.0
SPP-136	137.0	Not Encountered		Not Encountered		16	0.5
SPP-137	137.0	Not Encountered		Not Encountered		32	14.0
SPP-138	136.0	Not Encountered		Not Encountered		24	1.25

5.11 Supplemental Evaluation and Investigation

Final Design/Supplemental Investigation: Since these preliminary geotechnical investigation activities have been completed during the initial design phase, many critical assumptions or preliminarily details regarding assumed structural loads, existing and proposed elevations, etc. affect the geotechnical analysis. The preliminary considerations presented herein should be considered to help develop the optimum site design and grading, and Dynamic Earth should remain involved during final design. Supplemental investigation with soil borings and standard penetration testing with specific geotechnical recommendations should be developed as the design progresses and/or to satisfy tenant specific geotechnical requirements. In addition, supplemental

investigation with additional soil borings, rock probes, and/or test pit excavations should be completed to provide supplemental recommendations for the proposed site development.

Construction Monitoring and Testing: The recommendations presented herein are contingent on the owner retaining Dynamic Earth to perform inspection, testing and consultation during construction as described in previous sections of this report. **Construction phase evaluation by means of proofroll inspections and soil probes will be needed to confirm adequate support for the proposed structures.** Monitoring and testing should also be performed to verify that suitable materials are used for controlled fill, and that they are properly placed and compacted over suitable subgrade soils. Testing of fill placement will also be critical to limiting differential settlement.

6.0 GENERAL COMMENTS AND LIMITATIONS

Supplemental recommendations will be required upon finalization of conceptual site plans or if significant changes are made in the characteristics or location of the proposed structures. Dynamic Earth should be included as a consultant to the design team and should be provided final plans for review to confirm these criteria apply or to modify recommendations as necessary.

The recommendations presented herein should be utilized by a qualified engineer in preparing preliminary design concepts and site grading. The engineer should consider these recommendations as minimum physical standards that may be superseded by local and regional building codes and structural considerations. These recommendations are prepared for the use of the client for the specific project detailed and should not be used by any third party. These recommendations are relevant to the preliminary design phase and should not be substituted for construction specifications.

The possibility exists that conditions between test locations may differ from those at specific test pit locations, and conditions may not be as anticipated by the designers or contractors. In addition, the construction process may itself alter soil conditions. Therefore, Dynamic Earth Geotechnical Engineers or their representatives should observe and document the final construction procedures used and the conditions encountered, as well as conduct testing and inspection to ensure the design criteria are met or recommendations to address deviations are implemented.

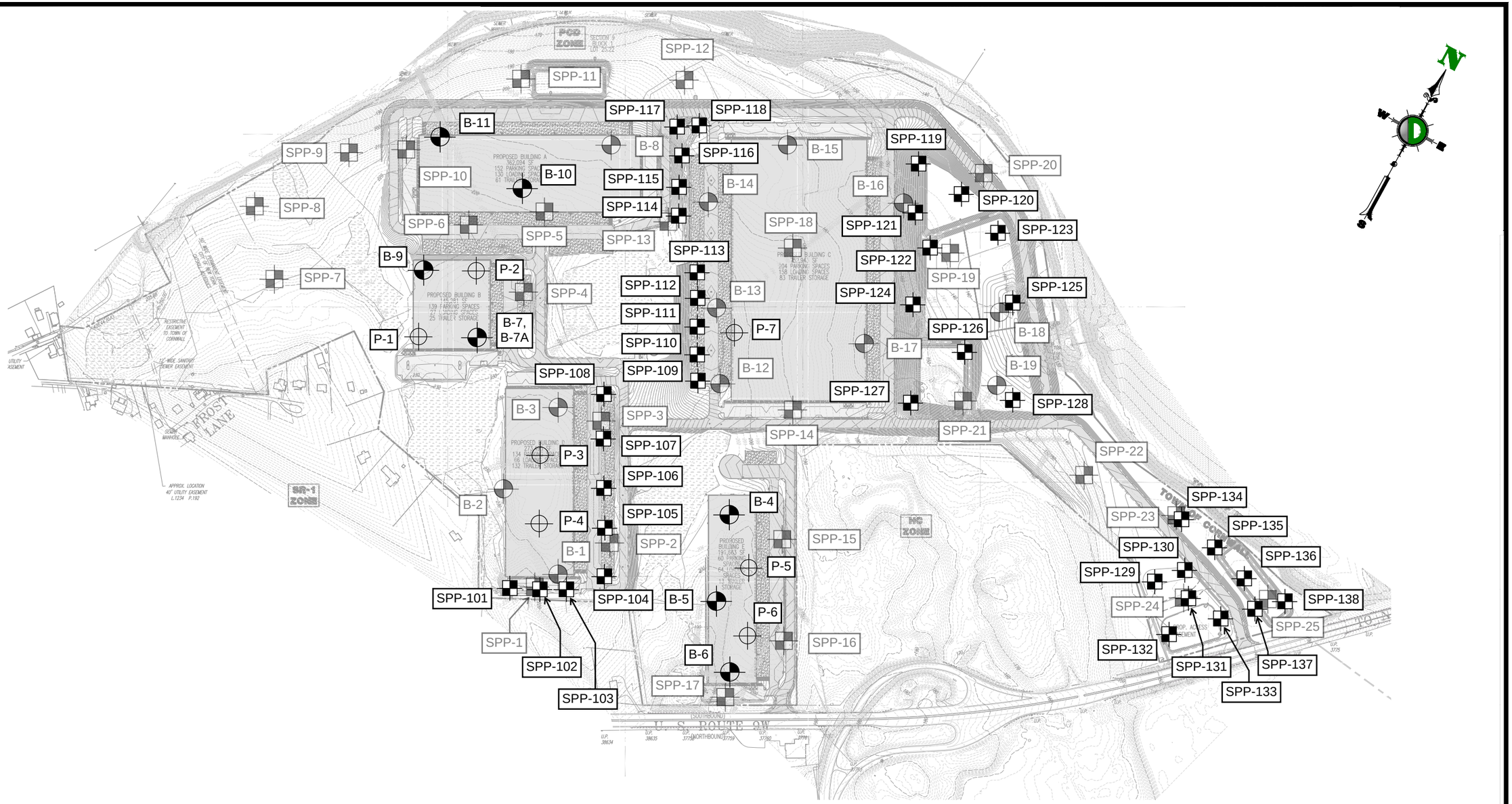
Dynamic Earth assumes that a qualified contractor will be employed to perform the construction work, and that the contractor will be required to exercise care to ensure all excavations are performed in accordance with applicable regulations and good practice. Particular attention should be paid to avoiding damaging or undermining adjacent properties and maintaining slope stability.

The exploration and analysis of the foundation conditions reported herein are presented to form a reasonable basis for preliminary site evaluation. The recommendations submitted for the proposed

construction are based on the available soil information and the preliminary design details furnished or assumed. Deviations from the noted subsurface conditions encountered during construction should be brought to the attention of the geotechnical engineer.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been promulgated after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics, and engineering geology. No other warranties are implied or expressed.

Test Location Plan



SCALE: N.T.S.	JOB No: 2803-99-012E	
SHEET No: 1 OF 1	DRAWN BY: GS	
	DESIGNED BY: --	
	CHECKED BY: FVC	
	DATE: 01/13/2022	

TITLE: **TEST LOCATION PLAN**

PROJECT: **CORNWALL LOGISTICS, LLC**
c/o TREETOP DEVELOPMENT, LLC
PROPOSED INDUSTRIAL WAREHOUSE
SECTION 9; BLOCK 1; LOT 25.22
2615 US ROUTE 9 WEST
TOWN OF CORNWALL, ORANGE COUNTY, NEW YORK

Rev. # 0 | DEC Client Code: 2803

LEGEND:

- B-X — APPROXIMATE LOCATION OF SOIL BORING - MARCH 2022
- B-X — APPROXIMATE LOCATION OF SOIL BORING - NOVEMBER 2022
- SPP-X — APPROXIMATE LOCATION OF SOIL PROFILE PIT - MARCH 2022
- P-X — APPROXIMATE LOCATION OF ROCK PROBE - NOVEMBER 2022
- SPP-1XX — APPROXIMATE LOCATION OF SOIL PROFILE PIT - NOVEMBER 2022

NOTES:
1. THIS PLAN IS NOT FOR CONSTRUCTION AND WAS PREPARED TO ILLUSTRATE TEST LOCATIONS ONLY AND MAY NOT REFLECT THE MOST CURRENT REVISION OF THE BASE PLAN.
2. BASE PLAN OBTAINED FROM A DECEMBER 13, 2022 OVERALL GRADING PLAN PREPARED BY DYNAMIC ENGINEERING CONSULTANTS, P.C.

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Records of Subsurface Exploration

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-1

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC
Surface Elevation:	230.0 feet	**Date Started:**	03-17-2022
Termination Depth:	11.5 feet	**Date Completed:**	03-17-2022
Proposed Location:	Proposed Building D	**Logged by:**	J. Gomez
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings
Hammer Type:	Auto	**Rig Type:**	Diedrich D50

Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
While Drilling: ▽	NE	-			
At Completion: ▼	NE	-			

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
0.0-2.0	S-1	SS	1	--	2 2 2 3	4		Surface Cover		6 inches of topsoil	
								Glacial Till & Alluvial Deposits		No recovery	
2.0-4.0	S-2	SS	0	--	2 2 5 4	7				No recovery	
4.0-6.0	S-3	SS	4	--	2 2 5 6	7	5			Gray coarse to fine gravel, little yellow brown clay, trace silt, trace coarse to fine sand, wet, loose (GC)	Apparent perched water at 4.0 feet
6.0-8.0	S-4	SS	16	--	4 4 9 15	13				Yellow brown clay, some coarse to fine gravel, some coarse to fine sand, moist, stiff (CL)	Qp = 2.0 tsf
8.0-10.0	S-5	SS	13	--	18 18 18 35	36		Weathered Rock		Yellow brown coarse to fine sand and clay, some coarse to fine gravel, moist, dense (SC)	Difficult drilling at 9 feet
10.0-11.1	S-6	SS	5	--	25 49 50/1 --	99/7	10			Bluish gray coarse to fine gravel, little coarse to fine sand, little yellow brown clay, moist, very dense (GC)	
							15			Boring B-1 encountered refusal at approximately 11.5 feet below the ground surface on apparent rock.	
							20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-2

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth	El.	Additional Groundwater Data	Depth	El.
Surface Elevation:	236.0 feet	**Date Started:**	03-17-2022		(ft)	(ft)		(ft)	(ft)
Termination Depth:	20.5 feet	**Date Completed:**	03-17-2022						
Proposed Location:	Proposed Building D	**Logged by:**	J. Gomez	**While Drilling:** ▽	NE	-			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE	-			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
0.0-1.1	S-1	SS	8	--	1 1 / 50/1 --	51/7		Surface Cover		4 inches of topsoil	
										Yellow clay, some coarse to fine sand, little coarse to fine gravel, wet, hard (CL)	Qp = 1.0 tsf
											Apparent perched water at 1.0 feet
2.0-4.0	S-2	SS	17	--	6 8 / 8 16	16				Yellow silt, little coarse to fine gravel, little clay, moist, very stiff (ML)	Qp = 2.0 tsf
4.0-6.0	S-3	SS	14	--	7 12 / 12 17	24	5	Glacial Till & Alluvial Deposits		Yellow brown clay, little silt, little coarse to fine gravel, moist, hard (CL)	Difficult drilling at 4.0 feet Qp = 2.5 tsf
6.0-8.0	S-4	SS	13	--	12 15 / 18 15	33				Yellow brown clay, little coarse to fine gravel, trace silt, moist, hard (CL)	Qp = 2.5 tsf
8.0-10.0	S-5	SS	12	--	14 14 / 15 18	29				Yellow brown clay, some coarse to fine gravel, trace silt, trace coarse to fine sand, moist, very stiff (CL)	Qp = 2.75 tsf
10.0-12.0	S-6	SS	10	--	13 13 / 26 32	39	10	Weathered Rock		Gray coarse to fine gravel, some silt, trace clay, trace coarse to fine sand, moist, dense (GM)	
15.0-17.0	S-7	SS	19	--	15 21 / 25 30	46	15			Blue coarse to fine sand, little clay, trace coarse to fine sand, moist, dense (GP)	
18.0-20.5	RC-1	NX	28	43	02:57 / 03:10 / 00:43	--	20	Rock		Bluish gray shale, moderately weathered, moderately hard, extremely fractured	Auger refusal at 18.0 feet Rock core terminated due to rock barrel jam
										Boring B-2 was terminated at approximately 20.5 feet below the ground surface.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-3

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC
Surface Elevation:	228.0 feet	**Date Started:**	03-18-2022
Termination Depth:	15.5 feet	**Date Completed:**	03-18-2022
Proposed Location:	Proposed Building D	**Logged by:**	J. Gomez
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings
Hammer Type:	Auto	**Rig Type:**	Diedrich D50

Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
While Drilling: ▽	15.0	213.0			
At Completion: ▼	12.0	216.0			

Sample Information									
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
0.0-2.0	S-1	SS	10	--	2 2 / 2 15	4		Surface Cover	4 inches of topsoil	
									Yellow brown clay, little silt, moist, trace fine roots, moist, medium stiff (CL)	Qp = 1.0 tsf
2.0-4.0	S-2	SS	12	--	12 11 / 8 6	19			Yellow brown clay, some silt, little coarse to fine gravel, trace coarse to fine sand, moist, very stiff (CL)	Qp = 3.25 tsf
4.0-6.0	S-3	SS	4	--	6 11 / 8 10	19	5	Glacial Till & Alluvial Deposits	Yellow brown silt, some coarse to fine gravel, little clay, trace coarse to fine sand, moist, very stiff (ML)	Qp = 2.0 tsf
6.0-6.8	S-4	SS	3	--	10 50/3 / -- --	50/3			Bluish gray coarse to fine gravel, little clay, trace silt, trace coarse to fine sand, moist, very dense (GC)	
8.0-10.0	S-5	SS	11	--	6 6 / 6 8	12			Yellow brown clay, some coarse to fine gravel, trace silt, trace coarse to fine sand, moist, stiff (CL)	Qp = 1.5 tsf
10.0-11.4	S-6	SS	14	--	10 16 / 50/5 --	66/11	10		Yellow brown clay, some coarse to fine gravel, trace silt, trace coarse to fine sand, moist, very stiff (CL)	Qp = 2.5 tsf
							▼	Weathered Rock	Bluish gray coarse to fine gravel, little coarse to fine sand, moist, very dense (GP)	
15.0-15.5	S-7	SS	2	--	50/5 -- / -- --	50/5	▽15		Bluish gray coarse to fine gravel, little coarse to fine sand, trace silt, wet, very dense (GW)	
							20		Boring B-3 encountered refusal at approximately 15.5 feet below the ground surface on apparent rock.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-4

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	207.0 feet	**Date Started:**	11-21-2022	**Groundwater Data**	**Depth**	**El.**	**Additional Groundwater Data**	**Depth**	**El.**
Termination Depth:	6.2 feet	**Date Completed:**	11-21-2022		**(ft)**	**(ft)**		**(ft)**	**(ft)**
Proposed Location:	Proposed Building E	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information								Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N					
0.0-2.0	S-1	SS	12	--	4	6	16		Surface Cover		6 inches of topsoil	
					10	19			Glacial Till & Alluvial Deposits		Brown coarse to fine gravel, some coarse to fine sand, trace silt, moist, medium dense (GP)	
2.0-4.0	S-2	SS	12	--	42	50/4	50/4				Gray coarse to fine gravel, some coarse to fine sand, little silt, moist medium dense (GP)	
					--	--						
4.0-6.0	S-3	SS	2	--	50/3	--	50/3	5			As above, moist (GP)	
					--	--						
6.0-6.2	S-4	SS		--	50/2	--	50/2				No recovery	
					--	--					Boring B-4 was terminated at approximately 6.2 feet below the ground surface.	
								10				
								15				
								20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-5

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	196.0 feet	**Date Started:**	11-21-2022	**Groundwater Data**	**Depth**	**El.**	**Additional Groundwater Data**	**Depth**	**El.**
Termination Depth:	8.3 feet	**Date Completed:**	11-21-2022		**(ft)**	**(ft)**		**(ft)**	**(ft)**
Proposed Location:	Proposed Building E	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information								Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N					
0.0-2.0	S-1	SS	16	--	1	2	4		Surface Cover		6 inches of topsoil	
					2	5					Light yellow brown silt, little medium to fine sand, trace coarse to fine gravel, moist, medium stiff (ML)	Qp = 2.5 tsf
2.0-4.0	S-2	SS	18	--	8	27	73				Gray coarse to fine gravel, some coarse to fine sand, trace silt, moist, very dense (GM)	Weathered Rock
					46	32						
4.0-6.0	S-3	SS	12	--	17	25	42	5	Glacial Till & Alluvial Deposits		As above, moist, dense (GM)	
					17	45						
6.0-8.0	S-4	SS	12	--	40	50/4	50/4				As above, moist, very dense (GM)	
					--	--						
8.0-8.3	S-5	SS	3	--	50/4	--	50/4					Auger and spoon refusal
					--	--					Boring B-5 was terminated at approximately 8.3 feet below the ground surface.	
								10				
								15				
								20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-6

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth	El.	Additional Groundwater Data	Depth	El.
Surface Elevation:	202.0 feet	**Date Started:**	11-21-2022		(ft)	(ft)		(ft)	(ft)
Termination Depth:	20.0 feet	**Date Completed:**	11-21-2022						
Proposed Location:	Proposed Building E	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information									
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
0.0-2.0	S-1	SS	8	--	1 3 / 3 3	6		Surface Cover	4 inches of topsoil	
									Yellow brown silt, some coarse to fine sand, trace gravel, moist medium stiff (ML)	
2.0-4.0	S-2	SS	10	--	9 26 / 50 41	76			Yellow brown silt, some coarse to fine gravel, trace coarse to fine sand, hard (ML)	
4.0-6.0	S-3	SS	14	--	20 23 / 38 50/3	61	5		Yellow brown coarse to fine sand, some silt, little coarse to fine gravel moist, very dense (SM)	
6.0-8.0	S-4	SS	24	--	28 34 / 40 40	74		Glacial Till & Alluvial Deposits	As above (SM)	
8.0-10.0	S-5	SS	4	--	8 29 / 50/5 --	79/11			Yellow brown coarse to fine sand, some coarse to fine gravel, little silt, moist, very dense (SM)	
							10			
13.0-15.0	S-6	SS	8	--	33 50/4 / -- --	50/4			Gray coarse to fine gravel, some silt, little coarse to fine sand, moist, very dense (SM)	
							15	Weathered Rock		
18.0-20.0	S-7	SS	4	--	50/4 -- / -- --	50/4			As above (SM)	
							20		Boring B-6 encountered refusal at approximately 20 feet below the ground surface.	Auger refusal at 20.0 feet

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-7

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	234.0 feet	**Date Started:**	11-21-2022	**Groundwater Data**	**Depth**	**El.**	**Additional Groundwater Data**	**Depth**	**El.**
Termination Depth:	2.2 feet	**Date Completed:**	11-21-2022		**(ft)**	**(ft)**		**(ft)**	**(ft)**
Proposed Location:	Proposed Building B	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Mobile						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
0.0-2.0	S-1	SS	12	--	3 4 / 9 14	13		Surface Cover		2 inches of topsoil	Qp = 2.25 tsf
								Glacial Till & Alluvial Deposits		Yellow brown silt, some coarse to fine gravel, moist, stiff (ML)	
2.0-2.2	S-2	SS	0	--	50/2 -- / -- --	50/2				No recovery	
										Boring B-7 encountered refusal at approximately 2.2 feet below the ground surface.	
							5				
							10				
							15				
							20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-7A

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth	El.	Additional Groundwater Data	Depth	El.
Surface Elevation:	234.0 feet	**Date Started:**	11-21-2022		(ft)	(ft)		(ft)	(ft)
Termination Depth:	13.5 feet	**Date Completed:**	11-21-2022						
Proposed Location:	Proposed Building B	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Mobile						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
								FILL		Offset from B-7	Augered to 4 feet
4.0-6.0	S-1	SS	18	--	15 14 / 15 11	29	5			Light brown silt, some coarse to fine gravel, little coarse to fine sand moist, stiff (ML)	
6.0-8.0	S-2	SS	24	--	16 23 / 29 50/4	52				As above (ML)	
8.0-10.0	S-3	SS	20	--	26 27 / 22 28	49		Glacial Till & Alluvial Deposits		Gray coarse to fine gravel, some silt, little coarse to fine sand moist, dense (SM)	Weathered Rock
							10				Qp = 4.5 tsf
13.0-13.5	S-4	SS	1	--	50/1 -- / -- --	50/1				Light yellow silt, some coarse to fine gravel, trace medium to fine sand, moist, very dense (SM)	Auger refusal
										Boring B-7A encountered refusal at approximately 13.5 feet below the ground surface.	
							15				
							20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-8

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	207.0 feet	**Date Started:**	03-25-2022						
Termination Depth:	20.1 feet	**Date Completed:**	03-25-2022						
Proposed Location:	Proposed Building A	**Logged by:**	J. Gomez	**While Drilling:** ▽	2.0	205.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	24.0	183.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information											
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N	Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
0.0-2.0	S-1	SS	15	--	1	4	10	0	Surface Cover	6 inches of topsoil	
					6	7				Yellow brown clay, little silt, little fine gravel, trace coarse to fine sand, moist, roots, medium stiff (CL)	Qp = 1.5 tsf
2.0-4.0	S-2	SS	18	--	7	9	19	▽		Yellow brown clay, little silt, little coarse to fine sand, trace coarse to fine gravel, wet, stiff (CL)	Qp = 0.5 tsf
					10	16					
4.0-6.0	S-3	SS	18	--	11	7	19	5		Yellow brown clay, some coarse to fine gravel, little silt, trace coarse to fine sand, wet, stiff (CL)	Qp = 0.5 tsf
					12	15					
6.0-8.0	S-4	SS	12	--	13	28	43		Glacial Till & Alluvial Deposits	Bluish gray coarse to fine gravel, some clay, trace silt, trace coarse to fine sand, wet, dense (GP)	
					15	16					
8.0-10.0	S-5	SS	3	--	24	18	31			Bluish gray coarse to fine gravel, some coarse to fine sand, trace yellow brown silt, wet, dense (GP)	
					13	14		10			
10.0-12.0	S-6	SS	13	--	4	36	58			Brown and bluish gray coarse to fine gravel, little coarse to fine sand, little clay, trace silt, wet, very dense (GP)	Boulder at 10 feet Difficult drilling at 10 feet
					22	40					
											Boulder at 14 feet
15.0-15.3	S-7	SS	3	--	50/3	--	50/3	15		Bluish gray coarse to fine gravel, trace coarse to fine sand, trace clay, wet, very dense (GP)	
									Weathered Rock		
20.0-20.1	S-8	SS	1	--	50/1	--	50/1	20		Bluish gray coarse gravel, trace coarse to fine sand, trace clay, wet, very dense (GP)	
										Boring B-8 encountered refusal at approximately 20.1 feet below the ground surface on apparent rock.	
								▼			

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-9

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	230.0 feet	**Date Started:**	11-21-2022						
Termination Depth:	9.5 feet	**Date Completed:**	11-21-2022						
Proposed Location:	Proposed Building B	**Logged by:**	A. Park	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedritch D50						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N				
0.0-2.0	S-1	SS	16	--	1 2 / 4 10	6		Surface Cover	6 inches of topsoil	
									Light brown silt, little coarse to fine sand, trace coarse to fine gravel, trace medium roots, moist, very stiff (ML)	Qp = 4.0 tsf
2.0-4.0	S-2	SS	20	--	39 43 / 27 40	70			Light brown and gray coarse to fine gravel, little silt, trace coarse to fine sand, moist, hard (GM)	
4.0-6.0	S-3	SS	22	--	18 14 / 10 13	24	5	Glacial Till & Alluvial Deposits	Light brown silt, some coarse to fine gravel, trace coarse to fine sand moist, very stiff (ML)	Qp = 4.0 tsf
6.0-8.0	S-4	SS	12	--	14 17 / 14 20	31			As above (ML)	Qp = 3.0 tsf
8.0-9.5	S-5	SS	16	--	7 11 / 50/1 --	61/7			As above (ML)	Qp = 4.0 tsf
								Weathered Rock	Gray coarse to fine gravel, some silt (GM)	
							10		Boring B-9 encountered refusal at approximately 9.5 feet below the ground surface.	
							15			
							20			

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-10

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	217.0 feet	**Date Started:**	11-23-2022	**Groundwater Data**	**Depth (ft)**	**El. (ft)**	**Additional Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth:	4.4 feet	**Date Completed:**	11-23-2022						
Proposed Location:	Proposed Building A	**Logged by:**	G. Seselgis	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedritch D50						

Sample Information								Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
0.0-2.0	S-1	SS	2	--	4 4 / 8 13	12			Surface Cover	6 inches of topsoil	
									Glacial Till & Alluvial Deposits	Light yellow brown silt and coarse to fine gravel, some coarse to fine sand, with cobbles and boulders, moist, very stiff (ML)	
2.0-4.0	S-2	SS	15	--	30 36 / 28 29	64				As above, hard (ML)	Qp > 4.0 tsf
4.0-4.4	S-3	SS	5	--	50/5 -- / -- --	50/5			Weathered Rock	Gray coarse to fine gravel and coarse to fine sand, moist, very dense, weathered rock (GP)	
								5		Boring B-10 encountered refusal at approximately 4.4 feet below the ground surface on weathered rock.	
								10			
								15			
								20			

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-11

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	209.0 feet	**Date Started:**	11-23-2022	**Groundwater Data**	**Depth (ft)**	**El. (ft)**	**Additional Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth:	7.8 feet	**Date Completed:**	11-23-2022						
Proposed Location:	Proposed Building A	**Logged by:**	G. Seselgis	**While Drilling:** ▽	NE				
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	NE				
Hammer Type:	Auto	**Rig Type:**	Diedritch D50						

Sample Information								Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N					
0.0-2.0	S-1	SS	18	--	1	2	9		Surface Cover		5 inches of topsoil	
					7	14			Glacial Till & Alluvial Deposits		Yellow brown silt, little medium to fine sand, some coarse to fine gravel, moist, very stiff (ML)	Qp = 2.25 tsf
2.0-4.0	S-2	SS	17	--	17	16	29				Light yellow brown silt, little medium to fine sand, some coarse to fine gravel, moist, stiff (ML)	Qp = 2.0 tsf
					13	13						
4.0-6.0	S-3	SS	1	--	50/4	--	50/4	5			As above, with cobbles and boulders (ML)	
					--	--						
6.0-7.8	S-4	SS	24	--	24	36	77				As above (ML)	
					41	50/4			Weathered Rock		Gray (weathered rock) coarse to fine gravel and coarse to fine sand, moist, very dense (GP)	
											Boring B-11 encountered refusal at approximately 7.8 feet below the ground surface on weathered rock.	
								10				
								15				
								20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-12

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC
Surface Elevation:	209.0 feet	**Date Started:**	03-18-2022
Termination Depth:	17.0 feet	**Date Completed:**	03-18-2022
Proposed Location:	Proposed Building C	**Logged by:**	J. Gomez
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings
Hammer Type:	Auto	**Rig Type:**	Diedrich D50

Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
While Drilling: ▽	5.0	204.0			
At Completion: ▼	8.0	201.0			

Sample Information								Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N					
0.0-2.0	S-1	SS	11	--	2	2	4		Surface Cover		6 inches of topsoil	
					2	3					Yellow brown clay, little silt, moist, trace fine roots, moist, medium stiff (CL)	Qp = 1.0 tsf
2.0-4.0	S-2	SS	16	--	4	8	24				Yellow brown silt, some clay, trace fine gravel, trace coarse to fine sand, moist, very stiff (ML)	Qp = 2.5 tsf
					16	19						
4.0-6.0	S-3	SS	11	--	15	28	59	▽ 5			Yellow brown silt, some bluish gray, coarse to fine gravel, little blue clay, trace coarse to fine sand, moist, very stiff (ML)	Qp = 3.0 tsf
					31	50						
6.0-8.0	S-4	SS	7	--	31	20	47				Brown silt, some coarse to fine gravel, little coarse to fine sand, little clay, wet, very stiff (ML)	Qp = 3.25 tsf
					27	30		▼	Glacial Till & Alluvial Deposits			
8.0-10.0	S-5	SS	18	--	18	18	32				Yellow brown coarse to fine sand, some clay, little coarse to fine gravel, wet, dense (SC)	
					14	26		10				
10.0-11.1	S-6	SS	5	--	11	41	91/7				Yellow brown clay, some silt, some coarse to fine sand, little coarse to fine gravel, wet, very stiff (CL-ML)	Qp = 2.5 tsf
					50/1	--						Rough drilling at 11 feet
15.0-15.8	S-7	SS	4	--	50	50/3	50/3	15	Weathered Rock		Bluish gray coarse to fine sand, some coarse to fine gravel, little clay, trace silt, wet, very dense (SW)	
					--	--					Boring B-12 encountered refusal at approximately 17 feet below the ground surface on apparent rock.	Auger refusal at 17.0 feet
								20				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-13

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	207.0 feet	**Date Started:**	03-21-2022						
Termination Depth:	25.0 feet	**Date Completed:**	03-21-2022						
Proposed Location:	Proposed Building C	**Logged by:**	J. Gomez	**While Drilling:** ▽	6.0	201.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	13.0	194.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N				
0.0-2.0	S-1	SS	12	--	2 4 / 4 8	8		Surface Cover	6 inches of topsoil	
									Yellow brown silt, trace clay, trace fine sand, roots, moist, medium stiff to stiff (ML)	
2.0-4.0	S-2	SS	14	--	15 18 / 24 26	42			Yellow brown silt, some coarse to fine gravel, little coarse to fine sand, moist, hard (ML)	Qp = 4.25 tsf
4.0-6.0	S-3	SS	6	--	15 25 / 15 18	40	5		Yellow brown silt, some clay, some coarse to fine gravel, trace coarse to fine sand, moist, hard (ML)	Qp = 4.0 tsf
							▽			
6.0-8.0	S-4	SS	15	--	21 18 / 21 14	39		Glacial Till & Alluvial Deposits	Yellow brown coarse to fine sand and clay, trace coarse to fine gravel, moist to wet, dense (SC)	
8.0-10.0	S-5	SS	18	--	21 18 / 11 15	29			Yellow brown clay, little silt, little coarse to fine gravel, trace coarse to fine sand, wet, very stiff (CL)	Qp = 3.25 tsf
10.0-12.0	S-6	SS	15	--	15 13 / 20 34	33	10		Yellow brown clay, some coarse to fine gravel, little silt, trace coarse to fine sand, wet, hard (CL)	Qp = 4.5 tsf
							▼			
15.0-15.3	S-7	SS	3	--	50/3 --	50/3	15	Weathered Rock	Bluish gray coarse to fine gravel, trace silt, trace coarse to fine sand, wet, very dense (GP)	Auger refusal at 15.3 feet
15.5-25.0	RC-1	NX	91	18	03:13 02:57 02:36 03:18 03:20 02:47 02:54 02:30 03:01 02:43	--	20	Rock	Bluish gray shale, moderately to highly weathered, moderately hard, extremely fractured	
									Boring B-13 was terminated at approximately 25 feet below the ground surface.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-14

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	198.0 feet	**Date Started:**	03-24-2022	**Groundwater Data**	**Depth (ft)**	**El. (ft)**	**Additional Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth:	20.8 feet	**Date Completed:**	03-24-2022						
Proposed Location:	Pavement	**Logged by:**	J. Gomez	**While Drilling:** ▽	5.0	193.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	5.0	193.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information								Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)			
0.0-2.0	S-1	SS	8	--	1 2 / 3 4	5		Surface Cover	4 inches of topsoil	
									Yellow brown silt, some coarse to fine gravel, trace clay, trace coarse to fine sand, moist, stiff (ML)	Qp = 1.5 tsf
2.0-4.0	S-2	SS	3	--	2 3 / 8 22	11			Yellow brown coarse to fine sand, some coarse to fine gravel, some silt, moist, medium dense (SM)	
4.0-6.0	S-3	SS	9	--	23 40 / 31 18	71	▼ 5		Bluish gray coarse to fine gravel, little yellow brown clay, little silt, little coarse to fine sand, wet, very dense (GC-GM)	
6.0-8.0	S-4	SS	8	--	11 30 / 25 38	55		Glacial Till & Alluvial Deposits	Yellow brown clay, some coarse to fine gravel, little silt, trace coarse to fine sand, wet, very stiff (CL)	Qp = 2.0 tsf
8.0-9.8	S-5	SS	3	--	30 35 / 40 50/3	75			Yellow brown clay, some coarse to fine gravel, little silt, little coarse to fine sand, wet, very stiff (CL)	Qp = 3.0 tsf
10.0-12.0	S-6	SS	4	--	24 23 / 20 32	43	10		Gray coarse to fine gravel, little coarse to fine sand, little silt, little clay, wet, dense (GC-GM)	
										Rough drilling at 13 feet
15.0-15.7	S-7	SS	2	--	30 50/2 / -- --	50/2	15	Weathered Rock	Bluish gray gravel, trace coarse to fine sand, trace silt, wet, very dense (GP)	
20.0-20.8	S-8	SS	0	--	50 50/3 / -- --	50/3	20		No recovery	
									Boring B-14 encountered refusal at approximately 20.8 feet below the ground surface on apparent rock.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-15

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	183.0 feet	**Date Started:**	03-24-2022						
Termination Depth:	22.0 feet	**Date Completed:**	03-24-2022						
Proposed Location:	Proposed Building C	**Logged by:**	J. Gomez	**While Drilling:** ▽	15.0	168.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	11.0	172.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information								Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)				
0.0-2.0	S-1	SS	14	--	2 1 / 2 3	3		Surface Cover		6 inches of topsoil	
										Reddish brown silt, trace clay, trace fine roots, wet, very soft (ML)	Qp = 0.5 tsf
2.0-4.0	S-2	SS	5	--	9 11 / 8 10	19				Bluish gray coarse to fine gravel, little coarse to fine sand, trace reddish brown clay, trace silt, medium dense (GW)	
4.0-6.0	S-3	SS	8	--	13 14 / 13 13	27	5			Bluish gray and brown coarse to fine gravel, some coarse to fine sand, trace clay, moist, medium dense (GW)	
6.0-8.0	S-4	SS	10	--	13 11 / 12 13	23				Bluish gray and brown coarse to fine sand, and some brown coarse to fine gravel, trace silt, trace clay, moist, medium dense (SW-SM)	
8.0-10.0	S-5	SS	10	--	13 16 / 22 40	38				As above, dense (SW-SM)	
10.0-12.0	S-6	SS	3	--	27 50 / 20 16	70	10 ▼	Glacial Till & Alluvial Deposits		Bluish gray and brown coarse to fine gravel, some coarse to fine sand, trace silt, moist, very dense (GP)	Possible boulder at 10 feet
							▽ 15				
15.0-17.0	S-7	SS	6	--	15 13 / 18 18	31				Bluish gray fine gravel, some blue clay, little coarse to fine sand, wet, dense (GC)	
							20				
20.0-22.0	S-8	SS	5	--	13 44 / 27 28	71		Weathered Rock		Bluish gray coarse to fine gravel, little coarse to fine sand, trace silt, little clay, quartz, wet, very dense (GP)	
										Boring B-15 was terminated at approximately 22 feet below the ground surface.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-16

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC
Surface Elevation:	153.0 feet	**Date Started:**	03-24-2022
Termination Depth:	22.0 feet	**Date Completed:**	03-25-2022
Proposed Location:	Northeastern SWM Basin	**Logged by:**	J. Gomez
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings
Hammer Type:	Auto	**Rig Type:**	Diedrich D50

Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
While Drilling: ▽	8.0	145.0			
At Completion: ▼	8.0	145.0			

Sample Information									
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
0.0-2.0	S-1	SS	12	--	2 5 / 6 10	11		Surface Cover	3 inches of topsoil	
									Yellow brown clay, and silt, little coarse to fine gravel, trace coarse to fine sand, trace fine roots, wet, stiff (CL-ML)	
2.0-4.0	S-2	SS	5	--	11 20 / 12 12	32			Gray coarse to fine gravel, little coarse to fine sand, little silt, trace clay, moist, dense (GM)	
4.0-6.0	S-3	SS	3	--	32 14 / 14 12	28	5		Bluish gray coarse to fine gravel, trace coarse to fine sand, trace silt, moist, medium dense (GP)	
6.0-8.0	S-4	SS	7	--	9 9 / 9 12	18			Bluish gray coarse to fine gravel, little coarse to fine sand, little silt, moist, medium dense (GM)	
8.0-10.0	S-5	SS	12	--	16 9 / 10 11	19			Bluish gray coarse to fine gravel, some brown coarse to fine sand, trace silt, wet, medium dense (GP)	
10.0-12.0	S-6	SS	1	--	28 23 / 18 19	41	10	Glacial Till & Alluvial Deposits	Bluish gray coarse to fine gravel, little coarse to fine sand, trace silt, wet, dense (GP)	Difficult drilling at 11 feet
15.0-17.0	S-7	SS	4	--	15 17 / 16 24	33	15		Bluish gray coarse to fine gravel, some brown coarse to fine sand, little silt, wet, dense (GP-GM)	
20.0-22.0	S-8	SS	2	--	20 28 / 25 20	53	20	Weathered Rock	Bluish gray clay, little coarse to fine gravel, little silt, wet, hard (CL-ML)	
									Boring B-16 was terminated at approximately 22 feet below the ground surface.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-17

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	164.0 feet	**Date Started:**	03-24-2022						
Termination Depth:	25.8 feet	**Date Completed:**	03-24-2022						
Proposed Location:	Proposed Building C	**Logged by:**	J. Gomez	**While Drilling:** ▽	5.0	159.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	6.0	158.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information										
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N	Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
0.0-2.0	S-1	SS	8	--	1 2 / 5 9	7		Surface Cover	Approximately 4 inches of topsoil	
									Yellow brown clay, little silt, trace fine roots, moist, medium stiff (CL)	Qp = 1.25 tsf
2.0-4.0	S-2	SS	18	--	13 13 / 13 15	26			Yellow brown coarse to fine sand and clay, moist, medium dense (SC)	
4.0-6.0	S-3	SS	14	--	11 11 / 11 10	22	▽ 5 ▼		Yellow brown clay, trace silt, trace fine gravel, trace coarse to fine sand, moist to wet, very stiff (CL)	Difficult drilling at 4.0 feet Qp = 1.5 tsf
6.0-8.0	S-4	SS	14	--	11 43 / 17 15	60			Yellow brown clay, little coarse to fine gravel, trace silt, wet, very stiff (CL)	Qp = 2.0 tsf
8.0-10.0	S-5	SS	11	--	16 17 / 17 15	34			Yellow brown clay, some coarse to fine gravel, trace silt, trace coarse to fine sand, wet, very stiff (CL)	Qp = 2.0 tsf
10.0-12.0	S-6	SS	21	--	7 6 / 11 18	17	10	Glacial Till & Alluvial Deposits	Yellow brown clay, little coarse to fine gravel, trace coarse to fine sand, trace silt, wet, very stiff (CL)	Qp = 1.25 tsf
15.0-17.0	S-7	SS	4	--	9 25 / 40 61	65	15		Blue coarse to fine sand, little clay, trace coarse to fine sand, moist, dense (GP)	
19.0-20.9	RC-1	NX	23	0	02:49 / 03:01	--	20	Boulder	Bluish gray shale, moderately hard, highly weathered, extremely fractured	Cored through apparent boulder
								Glacial Till & Alluvial Deposits		

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-17

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	164.0 feet	**Date Started:**	03-24-2022	**Groundwater Data**	**Depth**	**El.**	**Additional Groundwater Data**	**Depth**	**El.**
Termination Depth:	25.8 feet	**Date Completed:**	03-24-2022		**(ft)**	**(ft)**		**(ft)**	**(ft)**
Proposed Location:	Proposed Building C	**Logged by:**	J. Gomez	**While Drilling:** ▽	5.0	159.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	6.0	158.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
25.0-25.8	S-8	SS	10	--	17 50/3 -- --	50/3		Glacial Till & Alluvial Deposits		Bluish gray coarse to fine gravel, trace silt, trace coarse to fine sand, wet, very dense (GP)	
										Boring B-17 encountered refusal at approximately 25.8 feet below the ground surface on apparent rock.	
							30				
							35				
							40				
							45				

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-18

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	141.0 feet	**Date Started:**	03-22-2022						
Termination Depth:	19.0 feet	**Date Completed:**	03-22-2022						
Proposed Location:	Northeastern SWM Basin	**Logged by:**	J. Gomez	**While Drilling:** ▽	10.0	131.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	12.0	129.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
0.0-2.0	S-1	SS	10	--	1 5 / 6 6	11		Surface Cover		6 inches of topsoil	
								Glacial Till & Alluvial Deposits		Reddish brown clay, some silt, some coarse to fine gravel, trace coarse to fine sand, moist, stiff (CL-ML)	Qp = 0.5 tsf
2.0-4.0	S-2	SS	12	--	20 27 / 30 26	57		Weathered Rock		Bluish gray coarse to fine gravel, little coarse to fine sand, little silt, trace clay, moist, very dense (GM)	
4.0-6.0	S-3	SS	9	--	18 39 / 29 21	68	5			Gray coarse to fine gravel, some coarse to fine sand, trace silt, trace clay, moist, very dense (GP)	Difficult drilling at 4 feet
6.0-7.3	S-4	SS	5	--	27 22 / 50/3 --	72/9				Gray coarse to fine gravel, some coarse to fine sand, little clay, little silt, moist, very dense (GC-GM)	
8.0-9.2	S-5	SS	3	--	23 34 / 50/2 --	84/8				Gray coarse to fine gravel, little coarse to fine sand, little clay, trace silt, moist, very dense (GC)	
							▽ 10				
10.0-12.0	S-6	SS	7	--	21 27 / 49 25	76				Bluish gray coarse to fine sand, and coarse to fine gravel, trace silt, trace clay, wet, very dense (SM)	
							▼				
14.0-19.0	RC-1	NX	30	8	02:36 / 01:42 / 01:39 / 02:17 / 01:43	--	15	Rock		Bluish gray shale, moderately hard, highly weathered, extremely fractured	Auger refusal at 14 feet
							20			Boring B-18 was terminated at approximately 19 feet below the ground surface.	

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-19

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

				Groundwater Data	Depth (ft)	El. (ft)	Additional Groundwater Data	Depth (ft)	El. (ft)
Surface Elevation:	141.0 feet	**Date Started:**	03-22-2022						
Termination Depth:	27.0 feet	**Date Completed:**	03-22-2022						
Proposed Location:	Northeastern SWM Basin	**Logged by:**	J. Gomez	**While Drilling:** ▽	4.0	137.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	6.0	135.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information								Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)		N					
0.0-2.0	S-1	SS	7	--	1	1	4		Surface Cover		5 inches of topsoil	
					3	4					Brown clay, little silt, trace fine roots, moist, medium stiff (CL)	Qp = 1.5 tsf
2.0-4.0	S-2	SS	8	--	6	5	14				Brown silt, little clay, little coarse to fine gravel, trace coarse to fine sand, moist, stiff (ML)	
					9	25		▽				Qp = 1.0 tsf
4.0-6.0	S-3	SS	8	--	14	13	36				Bluish gray coarse to fine gravel, and coarse to fine sand, little clay, wet, very dense (GC)	
					23	37		5 ▼				
6.0-8.0	S-4	SS	14	--	26	16	30				Bluish gray coarse to fine gravel, some yellow brown clay, trace coarse to fine sand, medium dense to dense, wet (GC)	Difficult drilling at 6 feet
					14	14			Glacial Till & Alluvial Deposits			
8.0-10.0	S-5	SS	12	--	17	30	49				Yellow brown clay, little silt, little coarse to fine gravel, little fine sand, wet, hard (CL)	
					19	20						Qp = 1.25 tsf
10.0-12.0	S-6	SS	16	--	32	13	27	10			As above, very stiff (CL)	
					14	15						Qp = 1.0 tsf
15.0-15.9	S-7	SS	8	--	39	50/5	50/5				Bluish gray coarse to fine gravel, some blue clay, little coarse to fine sand, wet, very dense (GC)	
					--	--		15				
									Weathered Rock			
20.0-20.8	S-8	SS	6	--	48	50/3	50/3	20			Bluish gray coarse to fine gravel, some blue coarse to fine sand, little clay, wet, very dense (GP)	
					--	--						
												Auger refusal at 22 feet
22.0-27.0	RC-1	NX	55	0	01:59		--		Rock		Bluish gray shale, moderately hard, highly weathered, extremely fractured	
					01:58							
					02:06							

DYNAMIC EARTH

BOREHOLE LOG

Boring No : B-19

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	2615 US Route 9 West, Town of Cornwall, Orange County, NY	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	141.0 feet	**Date Started:**	03-22-2022	**Groundwater Data**	**Depth**	**El.**	**Additional Groundwater Data**	**Depth**	**El.**
Termination Depth:	27.0 feet	**Date Completed:**	03-22-2022		**(ft)**	**(ft)**		**(ft)**	**(ft)**
Proposed Location:	Northeastern SWM Basin	**Logged by:**	J. Gomez	**While Drilling:** ▽	4.0	137.0			
Drill/Test Method:	HSA/SPT	**Contractor:**	General Borings	**At Completion:** ▼	6.0	135.0			
Hammer Type:	Auto	**Rig Type:**	Diedrich D50						

Sample Information							Depth (ft)	Strata		DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill time (mm:ss)	N					
22.0-27.0	RC-1	NX	55	0	02:21 01:45	--		Rock		As above	
										Boring B-19 was terminated at approximately 27 feet below the ground surface.	
							30				
							35				
							40				
							45				

DYNAMIC EARTH

PROBE LOG

Probe No.: P-1

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	232.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)** / **El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22					
Proposed Location:	Building B	**Logged by:**	G. Seselgis	**While Drilling:**	30.0	202.0		
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--		
		Rig Type:	IR ECM-590					

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (25 seconds to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-22							20	Rock	Gray Rock (2 minutes 30 seconds to advance 12 feet)	
22-34							30		Gray Rock (5 minutes 10 seconds to advance 12 feet)	Wet at 30 feet
34-46							40		Gray Rock (6 minutes 40 second to advance 12 feet)	
46-50							50		Gray Rock (2 minutes to advance 4 feet)	Probe P-1 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-2

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	233.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building B	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (40 seconds to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-16									Brown silty sand (40 seconds to advance 6 feet)	
16-22							20	Rock	Gray rock (1 minute 20 seconds to advance 6 feet)	
22-34							30		Gray rock (3 minutes 45 seconds to advance 12 feet)	
34-46							40		Gray rock (7 minutes 20 seconds to advance 12 feet)	
46-50							50		Gray rock (1 minute 50 seconds to advance 4 feet)	Probe P-2 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-3

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	237.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building D	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (35 seconds to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-22							20	Rock	Gray rock (3 minutes to advance 12 feet)	
22-34							30		Gray rock (3 minutes 50 seconds to advance 12 feet)	
34-46							40		Gray rock (3 minutes 40 seconds to advance 12 feet)	
46-50							50		Gray rock (1 minute to advance 4 feet)	Probe P-3 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-4

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	237.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building D	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (35 seconds to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-22							20	Rock	Gray rock (1 minute 30 seconds to advance 12 feet)	
22-34							30		Gray rock (2 minutes 50 seconds to advance 12 feet)	
34-46							40		Gray rock (4 minutes 40 seconds to advance 12 feet)	
46-50							50		Gray rock (50 seconds to advance 4 feet)	Probe P-4 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-5

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	210.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building E	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (35 seconds to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-22							20		Brown silty sand (1 minute 20 seconds to advance 12 feet)	
22-34							30	Rock	Gray rock (3 minutes 10 seconds to advance 12 feet)	
34-46							40		Gray rock (2 minutes 50 seconds to advance 12 feet)	
46-50							50		Gray rock (50 seconds to advance 4 feet)	Probe P-5 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-6

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	208.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building E	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-10							10	Glacial Till & Alluvial Deposits	Brown silty sand (2 minutes to advance 10 feet)	Description based on cuttings Suspected cobbles/boulders within glacial till
10-22							20	Rock	Gray rock (6 minutes to advance 12 feet)	
22-34							30		Gray rock (5 minutes 30 seconds to advance 12 feet)	
34-46							40		Gray rock (4 minutes to advance 12 feet)	
46-50							50		Gray rock (1 minute 30 seconds to advance 4 feet)	Probe P-6 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

PROBE LOG

Probe No.: P-7

Project:	Proposed Industrial Warehouse	**Proj. No.:**	2803-99-012E
Location:	US Highway 9W, Cornwall, Orange County, New York	**Client:**	Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation:	205.0	**Date Started:**	12/13/22	**Ground Water Data**	**Depth (ft)**	**El. (ft)**	**Additional Ground Water**	**Depth (ft)**	**El. (msl)**
Termination Depth:	50 feet	**Date Completed:**	12/13/22						
Proposed Location:	Building C	**Logged by:**	G. Seselgis	**While Drilling:**	NE	--			
Drill/Test Method:	Probe	**Contractor:**	Northwest Explosives	**At Completion:**	NE	--			
		Rig Type:	IR ECM-590						

Sample Information							Depth (ft)	Strata	DESCRIPTION OF MATERIALS (Classification)	Remarks
Depth (Feet)	Number	Type	Rec (in)	RQD %	Blows per 6" or drill	N				
0-9								Glacial Till & Alluvial Deposits	Brown silty sand (1 minute to advance 10 feet) ~ 6 seconds per foot	Description based on cuttings Suspected cobbles/boulders within glacial till
9-10							10	Rock	Gray rock (6 seconds to advance 1 foot)	
10-22							20		Gray rock (2 minutes 40 seconds to advance 12 feet)	
22-34							30		Gray rock (5 minutes 20 seconds to advance 12 feet)	
34-46							40		Gray rock (9 minutes to advance 12 feet)	
46-50							50		Gray rock (2 minutes 40 seconds to advance 4 feet)	Probe P-7 was terminated at approximately 50 feet below the ground surface

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-1

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	226.0	**Date Started:**	3/1/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)** / **Groundwater Comments**
Termination Depth (ft):	9.8	**Date Completed:**	3/1/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	NE / -
		Rig Type:	Deere Excavator		

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-10	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
10-26	Yellowish Brown (10YR 5/4)	CLAY LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE			BAG	18	S-1	
26-70	Yellowish Brown (10YR 5/4)	GRAVELLY SANDY CLAY LOAM	15	10	5	0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE TO MEDIUM	NONE			BAG	48	S-2	PT-1 @ 48" = 2.0 IPH
70-116	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY LOAM	30	15	10	5	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		NONE			BAG	80	S-3	

Additional Remarks: Two inches of snow cover encountered on ground surface. Soil Profile Pit SPP-1 encountered refusal at approximately 9.8 feet below the ground surface due to boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-2

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	220.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	6.7	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE	-
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	1.8	218.2
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 22" - 52" due to potential perched condition

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-9	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
9-22	Brown (10YR 5/3)	SILTY CLAY	10	5	0	0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	20	S-1	
22-52	Yellowish Brown (10YR 5/4)	GRAVELLY SANDY LOAM	20	10	5	0	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	FEW (5% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	36	S-2	PT-2 @ 36" = 5.0 IPH
52-80	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY LOAM	30	15	10	5	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		NONE			BAG	70	S-3	

Additional Remarks: One to two inches of snow cover encountered on ground surface. Weathered rock encountered between 52" and 80". Soil Profile Pit SPP-2 encountered refusal at approximately 6.7 feet below the ground surface due to rock .

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-3

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 222.0
Termination Depth (ft): 9.2
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 3/1/22
Date Completed: 3/1/22
Logged by: J. Gomez
Contractor: Carroccia
Rig Type: Deere Excavator

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-8	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
8-60	Yellowish Brown (10YR 5/4)	SILTY CLAY	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE TO MEDIUM	NONE			BAG	30	S-1	
			20	10	5	5																		
60-90	Brown (10YR 5/3)	GRAVELLY & COBBLY SILTY CLAY LOAM	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	GRADUAL <5"	WAVY	NONE		NONE			BAG	70	S-2	PT-3 @ 48" = 2.5 IPH
			30	20	10	5																		
90-110	Brown (10YR 5/3)	GRAVELLY & COBBLY SILTY CLAY LOAM	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	WEAK	COARSE	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	96	S-3	
			30	40	20	5																		

Additional Remarks: One inch of snow cover encountered on ground surface. Weathered rock encountered between 90" and 110". Soil Profile Pit SPP-3 encountered refusal at approximately 9.2 feet below the ground surface on apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-4

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	230.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.0	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	4.0	226.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	3.3	226.7
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 40" - 60"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-8	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
8-40	Yellowish Brown (10YR 5/4)	SILTY CLAY	10	5	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	24	S-1	PT-4 @ 36" = 0.5 IPH
40-60	Yellowish Brown (10YR 5/4)	GRAVELLY & COBBLY SILT LOAM	25	10	5	5	SUBANGULAR BLOCKY	MODERATE	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	FEW (5% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	46	S-2	
60-98	Dark Yellowish Brown (10YR 4/4)	GRAVELLY & COBBLY SILTY CLAY	20	15	10	5	SUBANGULAR BLOCKY	MODERATE	FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	ABRUPT <1"	SMOOTH	NONE		NONE			BAG	72	S-3	
98-132	Olive Brown (2.5Y 4/4)	CLAY	10	5	5	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		NONE			BAG	110	S-4	

Additional Remarks: One inch of snow cover encountered on ground surface. Soil Profile Pit SPP-4 was terminated at approximately 11 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-5

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	224.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	12.3	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE	-
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.7	221.3
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 32" - 148"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-9	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
9-32	Yellowish Brown (10YR 5/6)	SILTY CLAY	15	10	5	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE TO COARSE	NONE			BAG	20	S-1	PT-5 @ 24" = 0.1 IPH
32-84	Dark Yellowish Brown (10YR 4/4)	GRAVELLY & COBBLY SILT LOAM	20	15	5	0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		FEW (5% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	78	S-2	
84-116	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY LOAM	25	15	10	5	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	96	S-3	
116-148	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	30	15	10	5	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	120	S-4	

Additional Remarks: One inch of snow cover encountered on ground surface. Weathered rock encountered between 116" and 148". Soil Profile Pit SPP-5 was terminated at approximately 12.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-6

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	229.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.5	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	4.3	224.7
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.0	227.0
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 24" - 138"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-9	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
9-24	Dark Yellowish Brown (10YR 4/4)	GRAVELLY & COBBLY SILTY CLAY	20	15	5	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	VERY FINE TO MEDIUM	NONE			BAG	36	S-1	PT-6 @ 18" = 0.1 IPH
24-98	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY CLAY	30	20	10	5	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	COARSE >15MM	DISTINCT	BAG	96	S-2	
98-138	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	40	25	15	10	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		CMN (20% MAX)	COARSE >15MM	DISTINCT	BAG	110	S-3	

Additional Remarks: Soil Profile Pit SPP-6 was terminated at approximately 11.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-7

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	231.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	12.2	**Date Completed:**	3/3/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	11.6	219.4
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	5.8	225.2
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 70" - 130"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-14	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
14-70	Dark Yellowish Brown (10YR 4/4)	GRAVELLY, COBBLY & STONEY SILTY CLAY	30	20	15	25	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	36	S-1	PT-7 @ 36" = 0.1 IPH
70-130	Olive Brown (2.5Y 4/3)	GRAVELLY & COBBLY CLAY	25	25	20	15	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	90	S-2	
130-146	Olive Brown (2.5Y 4/3)	GRAVELLY & COBBLY SILT	20	15	10	10	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		NONE			BAG	136	S-3	

Additional Remarks: One inch of snow cover encountered on surface. Soil Profile Pit SPP-7 was terminated at approximately 12.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-8

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	212.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	7.5	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	3.0	209.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	3.0	209.0
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 36" - 90"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-14	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
14-36	Brown (10YR 4/3)	STONEY CLAY	10	15	20	10	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	20	S-1	PT-8 @ 24" = 0.2 IPH
36-55	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	20	15	20	10	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	COARSE >15MM	PROMINENT	BAG	36	S-2	
55-90	Olive Brown (2.5Y 4/4)	GRAVELLY CLAY	15	10	10	5	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	66	S-3	

Additional Remarks: Soil Profile Pit SPP-8 encountered refusal at approximately 7.5 feet below the ground surface due to apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-9

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	211.0	**Date Started:**	3/2/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.7	**Date Completed:**	3/2/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	4.0	207.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.3	208.7
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 28" - 70"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-11	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
11-28	Brown (10YR 5/3)	SILTY CLAY	10	5	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	20	S-1	
28-36	Dark Yellowish Brown (10YR 3/4)	GRAVELLY SILT LOAM	15	15	10	15	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	MEDIUM	MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	30	S-2	PT-9 @ 30" = 0.1 IPH
36-70	Dark Yellowish Brown (10YR 4/4)	COBBLY SILTY CLAY LOAM	10	25	10	5	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	48	S-3	
70-105	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY CLAY	10	30	15	10	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	NONE		NONE			BAG	80	S-4	
105-140	Dark Yellowish Brown (10YR 4/4)	GRAVELLY & COBBLY SILT	35	35	20	10	SUBANGULAR BLOCKY	WEAK	VERY COARSE	WET	FRIABLE	MODERATELY STICKY	NONPLASTIC			NONE		NONE			BAG	112	S-5	

Additional Remarks: Soil Profile Pit SPP-9 was terminated at approximately 11.7 feet below the ground surface due to apparent rock. Weathered rock encountered between 105" and 140"

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-10

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 216.0
Termination Depth (ft): 10.8
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 3/5/22
Date Completed: 3/5/22
Logged by: J. Gomez
Contractor: Carroccia
Rig Type: Deere Excavator

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	Light Gray (10 YR 7/1) mottling 66" - 129"
Mottling	5.5	210.5	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-9	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
9-66	Yellowish Brown (10YR 5/4)	GRAVELLY & COBBLY CLAY	15	20	10	5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINE TO COARSE	NONE			BAG	36	S-1	PT-10 @ 48" = 0.1 IPH
66-129	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY CLAY	35	25	15	5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC			NONE		CMN (20% MAX)	COARSE >15MM	PROMINENT	BAG	42	S-2	

Additional Remarks: Soil Profile Pit SPP-10 encountered refusal at approximately 10.8 feet below the ground surface due to apparent boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-11

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	200.0	**Date Started:**	3/3/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	8.8	**Date Completed:**	3/3/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	6.0	194.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	3.0	197.0
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 36" - 106"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-12	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
12-36	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	15	20	10	15	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM	NONE			BAG	36	S-1	PT-11 @ 24" = 0.3 IPH
36-60	Light Olive Brown (2.5Y 5/3)	GRAVELLY & COBBLY SILTY CLAY	30	20	15	15	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	82	S-2	
60-106	Light Olive Brown (2.5Y 5/3)	GRAVELLY & COBBLY SILTY CLAY	30	20	15	15	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	82	S-2	

Additional Remarks: Soil Profile Pit SPP-11 encountered refusal at approximately 8.8 feet below the ground surface due to large boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-12

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 189.0
Termination Depth (ft): 10.8
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 3/3/22
Date Completed: 3/3/22
Logged by: J. Gomez
Contractor: Carroccia
Rig Type: Deere Excavator

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	5.3	183.7	Light Gray (10 YR 7/1) mottling 15" - 129"
Mottling	1.3	187.7	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-11	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
11-15	Dark Yellowish Brown (10YR 3/6)	CLAY	10	5	5	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINETO COARSE	NONE			BAG	14	S-1	
15-64	Dark Yellowish Brown (10YR 3/4)	GRAVELLY & COBBLY LOAMY SAND	35	20	10	15	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	VERY FINE TO FINE	MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	30	S-2	PT-12 @ 36" = 5.0 IPH
64-100	Brown (10YR 4/3)	GRAVELLY & COBBLY CLAY LOAM	30	20	15	5	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	70	S-3	
100-129	Light Olive Brown (2.5Y 5/4)	GRAVELLY & COBBLY CLAY LOAM	40	25	15	10	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	112	S-4	

Additional Remarks: Soil Profile Pit SPP-12 was terminated at approximately 10.8 feet below the ground surface. Weathered rock encountered between 100" and 129"

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-13

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 210.0
Termination Depth (ft): 8.2
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 3/3/22
Date Completed: 3/3/22
Logged by: J. Gomez
Contractor: Carroccia
Rig Type: Deere Excavator

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	2.8	207.2	Light Gray (10 YR 7/1) mottling 16" - 70"
Mottling	1.3	208.7	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-16	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
16-20	Dark Yellowish Brown (10YR 3/6)	GRAVELLY & COBBLY SILTY CLAY	25	15	10	5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE TO COARSE	MNY (>20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	14	S-1	PT-13 @ 18" = 0.1 IPH
20-70	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY LOAMY SAND	30	20	10	10	SUBANGULAR BLOCKY	WEAK	COARSE	WET	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	40	S-2	
70-98	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	40	30	15	10	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		NONE			BAG	80	S-3	

Additional Remarks: Soil Profile Pit SPP-13 encountered refusal at approximately 8.2 feet below the ground surface due to test pit cave-in.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-14

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	193.0	**Date Started:**	3/4/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.3	**Date Completed:**	3/4/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	10.0	183.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.0	191.0
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 24" - 136"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-13	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
13-24	Yellowish Brown (10YR 5/4)	GRAVELLY & COBBLY SILTY CLAY	15	20	15	10	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINE TO COARSE	NONE			BAG	36	S-1	
24-120	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY CLAY	30	25	15	15	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	86	S-2	PT-14 @ 48" = 0.0 IPH
120-136	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SILTY CLAY	40	20	10	5	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		MNY (>20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	130	S-3	

Additional Remarks: Soil Profile Pit SPP-14 was terminated at approximately 11.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-15

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	203.0	**Date Started:**	3/5/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.2	**Date Completed:**	3/5/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	7.6	195.4
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	1.5	201.5
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 18" - 134"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-7	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
7-18	Yellowish Brown (10YR 5/4)	SILTY CLAY LOAM	10	5	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINE TO MEDIUM	NONE			BAG	20	S-1	
18-91	Olive Brown (2.5Y 4/3)	GRAVELLY & COBBLY SILTY CLAY LOAM	20	15	10	5	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	SMOOTH	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	40	S-2	PT-15 @ 24" = 0.5 IPH
91-134	Light Olive Brown (2.5Y 5/4)	GRAVELLY & COBBLY SILTY CLAY	30	25	20	15	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	115	S-3	

Additional Remarks: Soil Profile Pit SPP-15 was terminated at approximately 11.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-16

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	207.0	**Date Started:**	3/7/22	**Groundwater Data**	
Termination Depth (ft):	8.0	**Date Completed:**	3/7/22		
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Seepage**	
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Groundwater**	
		Rig Type:	Deere Excavator	**Mottling**	

Groundwater Data	Depth (ft)	El. (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	1.4	205.6

Groundwater Comments: Light Gray (10 YR 7/1) mottling 17" - 96"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-17	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
17-60	Yellowish Brown (10YR 5/4)	CLAY	10	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINE TO COARSE	MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	18	S-1	PT-16 @ 36" = 0.1 IPH
60-96	Light Olive Brown (2.5Y 5/4)	GRAVELLY & COBBLY SILTY CLAY	25	20	20	15	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	DISTINCT	BAG	40	S-2	

Additional Remarks: Soil Profile Pit SPP-16 encountered refusal at approximately eight feet below the ground surface due to apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-17

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	197.0	**Date Started:**	3/7/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)**
Termination Depth (ft):	11.5	**Date Completed:**	3/7/22		
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Seepage**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Groundwater**	NE / -
		Rig Type:	Deere Excavator	**Mottling**	2.0 / 195.0

Groundwater Comments: Light Gray (10 YR 7/1) mottling 24" - 138"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-12	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
12-24	Yellowish Brown (10YR 5/4)	SILTY CLAY	10	5	5	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE TO COARSE	MNY (>20% MAX)			BAG	18	S-1	
24-70	Light Olive Brown (2.5Y 5/6)	GRAVELLY SILT LOAM	20	10	5	5	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	40	S-2	PT-17 @ 48" = 1.0 IPH
70-138	Light Olive Brown (2.5Y 5/4)	GRAVELLY & COBBLY SILTY CLAY	25	20	20	10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	90	S-3	

Additional Remarks: Soil Profile Pit SPP-17 was terminated at approximately 11.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-18

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 191.0
Termination Depth (ft): 10.7
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 3/7/22
Date Completed: 3/7/22
Logged by: J. Gomez
Contractor: Carroccia
Rig Type: Deere Excavator

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	8.5	182.5	Light Gray (10 YR 7/1) mottling 36" - 128"
Mottling	3.0	188.0	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-7	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
7-36	Yellowish Brown (10YR 5/4)	COBBLY SILTY CLAY	10	15	5	0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	VERY FINE TO MEDIUM	NONE			BAG	18	S-1	
36-64	Dark Yellowish Brown (10YR 4/4)	GRAVELLY & COBBLY SANDY CLAY LOAM	20	25	10	5	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	DISTINCT	BAG	48	S-2	PT-18 @ 48" = 0.5 IPH
64-128	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY CLAY	20	25	15	10	SUBANGULAR BLOCKY	WEAK	VERY FINE	WET	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC			NONE		MNY (>20% MAX)	COARSE >15MM	DISTINCT	BAG	80	S-3	

Additional Remarks: Soil Profile Pit SPP-18 was terminated at approximately 10.7 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-19

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	140.0	**Date Started:**	3/22/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)**
Termination Depth (ft):	9.9	**Date Completed:**	3/22/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	7.0 / 133.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	1.3 / 138.7
		Rig Type:	Deere Excavator		

Groundwater Comments: Light Gray (10 YR 7/1) mottling 15" - 119"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-15	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
15-52	Yellowish Brown (10YR 5/4)	GRAVELLY SANDY LOAM	10	15	10	10	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO VERY COARSE	FEW (5% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	30	S-1	PT-19 @ 48" = 4.0 IPH
52-84	Dark Yellowish Brown (10YR 3/4)	SILT	5	10	0	0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	COARSE >15MM	DISTINCT	BAG	54	S-2	
84-119	Dark Yellowish Brown (10YR 4/4)	EXTREMELY GRAVELLY & COBBLY SILT LOAM	30	20	20	20	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE		CMN (20% MAX)	COARSE >15MM	DISTINCT	BAG	84	S-3	

Additional Remarks: Soil profile pit SPP-19 encountered refusal at approximately 9.9 feet due to cave-in.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-20

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	143.0	**Date Started:**	3/22/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	14.5	**Date Completed:**	3/22/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE	-
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	6.5	136.5
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 78" - 174"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-10	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
10-78	Brown (7.5YR 5/4)	EXTREMELY STONY & BOULDERY SILTY CLAY	15	20	30	25	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	NONE		NONE			BAG	24	S-1	PT-20 @ 24" = 0.5 IPH
78-120	Brown (7.5YR 5/4)	EXTREMELY GRAVELLY, COBBLY, STONY & BOULDERY SANDY CLAY LOAM	20	20	20	30	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		MNY (>20% MAX)	COARSE >15MM	PROMINENT	BAG	72	S-2	
120-174	Dark Brown (7.5YR 3/2)	EXTREMELY GRAVELLY, COBBLY, STONY & BOULDERY LOAMY SAND	25	15	20	30	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE		CMN (20% MAX)	COARSE >15MM	PROMINENT	BAG	130	S-3	

Additional Remarks: Soil profile pit SPP-20 encountered refusal at approximately 14.5 below the ground surface on apparent boulders

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-21

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	152.0	**Date Started:**	3/22/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)**
Termination Depth (ft):	11.2	**Date Completed:**	3/22/22	**Seepage**	2.5 / 149.5
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	2.5 / 149.5
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.5 / 149.5
		Rig Type:	Deere Excavator		

Groundwater Comments: Light Gray (10 YR 7/1) mottling 30" - 134"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-8	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
8-30	Very Dark Gray (2.5Y 3/1)	GRAVELLY LOAMY SAND	25	5	0	0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO VERY COARSE	NONE			BAG	16	S-1	PT-21 @ 24" = 3.0 IPH
30-65	Gray (2.5Y 6/1)	GRAVELY & COBBLY SILTY CLAY	25	20	10	5	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	48	S-2	
65-134	Gray (2.5Y 5/1)	GRAVELY & COBBLY SANDY CLAY LOAM	20	25	10	15	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	PROMINENT	BAG	100	S-3	

Additional Remarks: Soil profile pit SPP-21 terminated at approximately 11.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-22

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	145.0	**Date Started:**	3/22/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)**
Termination Depth (ft):	11.2	**Date Completed:**	3/22/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	NE / -
		Rig Type:	Deere Excavator		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-6	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
6-40	Olive Brown (2.5Y 4/3)	STONEY SILTY CLAY	5	15	20	5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	27	S-2	PT-22 @ 24" = 0.5 IPH
40-134	Dark Olive Brown (2.5Y 3/3)	GRAVELY & COBBLY SAND	25	20	20	10	SUBANGULAR BLOCKY	MODERATE	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE		NONE			BAG	98	S-2	

Additional Remarks: Soil profile pit SPP-22 was terminated at approximately 11.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-23

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	140.0	**Date Started:**	3/22/22	**Groundwater Data**	**Depth (ft)** / **El. (ft)**
Termination Depth (ft):	13.0	**Date Completed:**	3/22/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	NE / -
		Rig Type:	Deere Excavator		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-4	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	GRAVEL 5	COBBLES 0	STONES 0	BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
4-42	Brown (7.5YR 4/4)	STONEY SILTY CLAY	GRAVEL 5	COBBLES 10	STONES 20	BOULDERS 5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE TO COARSE	NONE			BAG	24	S-1	
42-120	Dark Olive Brown (2.5Y 3/3)	GRAVELLY & COBBLY LOAMY SAND	GRAVEL 25	COBBLES 15	STONES 20	BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE		NONE			BAG	48	S-2	PT-23 @ 48" = 3.5 IPH
120-156	Olive Brown (2.5Y 4/4)	GRAVELLY & COBBLY SANDY CLAY LOAM	GRAVEL 25	COBBLES 15	STONES 20	BOULDERS 15	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		NONE			BAG	126	S-3	

Additional Remarks: Soil profile pit SPP-23 was terminated at approximately 13 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-24

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	137.0	**Date Started:**	3/21/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	11.5	**Date Completed:**	3/21/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	7.5	129.5
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.5	134.5
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 30" - 162"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-6	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
6-30	Brown (10YR 4/3)	STONEY SILTY CLAY	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	Very Fine Fine	NONE			BAG	10	S-1	
			10	10	20	5																		
30-90	Dark Brown (7.5YR 3/3)	GRAVELLY & COBBLY LOAMY SAND	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST TO WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	COARSE >15MM	FAINT	BAG	30	S-2	PT-24 @ 48" = 6.0 IPH
			30	20	25	10																		
90-138	Dark Brown (7.5YR 3/4)	EXTREMELY GRAVELLY, COBBLY, STONY & BOULDERY SANDY CLAY LOAM	GRAVEL	COBBLES	STONES	BOULDERS	SUBANGULAR BLOCKY	MODERATE	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		CMN (20% MAX)	COARSE >15MM	DISTINCT	BAG	96	S-3	
			30	15	35	10																		

Additional Remarks: Soil profile pit SPP-24 was terminated at approximately 11.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-25

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	136.0	**Date Started:**	3/21/22	**Groundwater Data**	**Depth (ft)**	**El. (ft)**
Termination Depth (ft):	14.0	**Date Completed:**	3/21/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	2.5	133.5
Excavation / Test Method:	Visual Observation	**Contractor:**	Carroccia	**Mottling**	2.5	133.5
		Rig Type:	Deere Excavator			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 30" - 162"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-6	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	5	0	0	0	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	MEDIUM TO VERY COARSE	NONE						
6-30	Brown (7.5YR 4/3)	STONEY SANDY CLAY LOAM	5	15	20	5	SUBANGULAR BLOCKY	MODERATE	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE TO COARSE	NONE			BAG	26	S-1 T-1	PT-25 @ 24" = 2.5 IPH
30-96	Dark Olive Gray (5Y 3/2)	EXTREMELY GRAVELLY, COBBLY, STONY & BOULDERY LOAMY SAND	45	20	15	5	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	36	S-2	
96-168	Olive Brown (2.5Y 4/4)	EXTREMELY GRAVELLY, COBBLY, STONY & BOULDERY SAND	45	25	15	10	SUBANGULAR BLOCKY	MODERATE	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC			NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	100	S-3	

Additional Remarks: Soil profile pit SPP-25 was terminated at approximately 14 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-101

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	220.0	**Date Started:**	11/11/22	**Groundwater Data**	**Depth (ft)**	**El (ft)**
Termination Depth (ft):	3.7	**Date Completed:**	11/11/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE	-
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	2.3	217.7
		Rig Type:	Bobcat E60			

Groundwater Comments: Light Gray (10 YR 7/1) mottling 28" - 44"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-11	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
11-28	Light Yellowish Brown (10YR 6/4)	COBBLY SILT LOAM	GRAVEL 10, COBBLES 10, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	16	S-2	PT-101 @ 16" = 0.25 IPH
28-44	Gray Weathered Rock (10YR 5/1)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 60, COBBLES 20, STONES 10, BOULDERS 0	PLATY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	FEW (5% MAX)	FINE <5MM	FAINT	BAG	36	S-3	

Additional Remarks: Soil profile pit SPP-101 encountered refusal on weathered rock at approximately 3.7 feet below the ground surface on apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-102

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 224.0
Termination Depth (ft): 5.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/11/22
Date Completed: 11/11/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
8-36	Light Yellowish Brown (10YR 6/4)	VERY STONEY SILT LOAM	GRAVEL 15, COBBLES 10, STONES 10, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	24	S-2	PT-102 @ 30" = 1.0 IPH
36-48	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 30, COBBLES 20, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	48	S-3	
48-60	Yellow Brown (10YR 5/4) Weathered Rock	EXTREMELY GRAVELLY SANDY LOAM	GRAVEL 40, COBBLES 30, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	60	S-4	

Additional Remarks: Soil profile pit SPP-102 encountered refusal at approximately 5.0 feet below the ground surface on apparent rock

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-103

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	228.0	**Date Started:**	11/11/22	**Groundwater Data**	**Depth (ft)** / **El (ft)**
Termination Depth (ft):	3.5	**Date Completed:**	11/11/22		
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Seepage**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Groundwater**	NE / -
		Rig Type:	Bobcat E60	**Mottling**	NE / -

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 0; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
8-30	Yellowish Brown (10YR 5/4)	COBBLY SILT LOAM	GRAVEL 10; COBBLES 10; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	24	S-2	PT-103 @ 24" = 0.5 IPH
30-42	Yellow Brown (10YR 5/4) Weathered Rock	EXTREMELY GRAVELLY SANDY LOAM	GRAVEL 30; COBBLES 20; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC			NONE	NONE			BAG	36	S-3	

Additional Remarks: Soil profile pit SPP-103 encountered refusal at approximately 3.5 feet below the ground surface on apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-104

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 222.0
Termination Depth (ft): 9.3
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/10/22
Date Completed: 11/10/22
Logged by: U. Khan
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	Light gray (10 YR 7/1) mottling 32" - 58"
Mottling	2.7	219.3	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (In)	No.	
0-9	TOPSOIL Brown (7.5YR 4/2)	GRAVELLY SILT LOAM	GRAVEL 20 / COBBLES 0 / STONES 0 / BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	ABRUPT <1"	SMOOTH	MNY (>20% MAX)	VERY COARSE	NONE						
9-32	Yellowish Brown (10YR 5/4)	VERY COBBLY SANDY LOAM	GRAVEL 20 / COBBLES 20 / STONES 0 / BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	20	S-1	PT-104 @ 24" = 2.75 IPH
32-58	Light Olive Brown (2.5Y 5/6)	VERY COBBLY SILT LOAM	GRAVEL 30 / COBBLES 30 / STONES 0 / BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	VERY FINE	FEW (5% MAX)	FINE <5MM	FAINT	BAG	50	S-2	
58-112	Light Olive Brown (2.5Y 5/6)	EXTREMELY BOULDERY SILT LOAM	GRAVEL 10 / COBBLES 20 / STONES 20 / BOULDERS 40	SUBANGULAR BLOCKY	WEAK	VERY COARSE	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			FEW (5% MAX)	FINE	NONE						

Additional Remarks: 0 to 9 inches of topsoil encountered. Roots encountered to approximately 86 inches below the ground surface. Soil profile pit SPP-104 encountered refusal at approximately 9.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-105

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 222.0
Termination Depth (ft): 3.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/10/22
Date Completed: 11/10/22
Logged by: U. Khan
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	El (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	NE	-

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-7	TOPSOIL Brown (7.5YR 4/2)	GRAVELLY SILT LOAM	GRAVEL 20; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	ABRUPT <1"	WAVY	MNY (>20% MAX) VERY COARSE	NONE						
7-24	Yellowish Brown (10YR 5/4)	VERY STONEY LOAMY SAND	GRAVEL 20; COBBLES 20; STONES 20; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX) MEDIUM	NONE			BAG	10	S-1	PT-105 @ 12" = 20.5 IPH
24-36	Light Olive Brown (2.5Y 5/6)	STONEY LOAMY SAND	GRAVEL 10; COBBLES 30; STONES 50; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	VERY COARSE	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	36	S-2	

Additional Remarks:Weathered rock encountered from 24 inches to 36 inches. Soil profile pit SPP-105 encountered refusal at approximately 3.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-106

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	219.0	**Date Started:**	11/11/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	3.0	**Date Completed:**	11/11/22		
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Seepage**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Groundwater**	NE / -
		Rig Type:	Bobcat E60	**Mottling**	NE / -

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-8	TOPSOIL Dark Brown (7.5YR 3/3)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
8-26	Light Yellowish Brown (10YR 6/4)	VERY GRAVELLY LOAMY SAND	GRAVEL 30; COBBLES 20; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	16	S-2	PT-106 @ 14" = 24.0 IPH
26-36	Gray Weathered Rock (10YR 5/1)	EXTREMELY GRAVELLY LOAMY SAND	GRAVEL 50; COBBLES 20; STONES 20; BOULDERS 10	PLATY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	36	S-3	

Additional Remarks: Soil profile pit SPP-106 encountered refusal at approximately 3.0 feet below the ground surface on apparent weathered rock

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-107

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 224.0
Termination Depth (ft): 2.5
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/14/22
Date Completed: 11/14/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	El (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	VERY BOULDERY SILT LOAM	GRAVEL 10, COBBLES 10, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
8-24	Light Yellowish Brown (10YR 6/4)	EXTREMELY BOULDERY SILT LOAM	GRAVEL 20, COBBLES 20, STONES 20, BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	12	S-2	PT-106 @ 12" = 0.1 IPH
24-30	Gray Weathered Rock (10YR 5/1)	EXTREMELY STONEY SILT LOAM	GRAVEL 20, COBBLES 30, STONES 30, BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	30	S-3	

Additional Remarks: Soil profile pit SPP-107 encountered refusal on apparent weathered rock at approximately 2.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-108

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 222.0
Termination Depth (ft): 4.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/14/22
Date Completed: 11/14/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	El (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	NE	-

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
9-40	Light Yellowish Brown (10YR 6/4)	VERY BOULDERY SILT LOAM	GRAVEL 10; COBBLES 20; STONES 10; BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	24	S-2	PT-108 @ 24" = 0.25 IPH
40-48	Gray Weathered Rock (10YR 5/1)	EXTREMELY COBBLY SANDY LOAM	GRAVEL 20; COBBLES 30; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	44	S-3	

Additional Remarks: Soil profile pit SPP-108 encountered refusal on apparent weathered rock at approximately 4.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-109

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	214.0	**Date Started:**	11/14/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	4.5	**Date Completed:**	11/14/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments:

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	5	S-1	
9-22	Light Yellowish Brown (10YR 6/4)	STONEY SILT LOAM	GRAVEL 5; COBBLES 10; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	16	S-2	PT-109 @ 24" = 0.4 IPH
22-48	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SANDY LOAM	GRAVEL 30; COBBLES 20; STONES 20; BOULDERS 10	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	36	S-3	
48-54	Gray Weathered Rock (10YR 5/1)	EXTREMELY GRAVELLY SANDY LOAM	GRAVEL 10; COBBLES 30; STONES 30; BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	50	S-4	

Additional Remarks: Soil profile pit SPP-109 encountered refusal on apparent weathered rock at approximately 4.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-110

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	216.0	**Date Started:**	11/15/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	4.5	**Date Completed:**	11/15/22		
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Seepage**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Groundwater**	NE / -
		Rig Type:	Bobcat E60	**Mottling**	NE / -

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
8-22	Light Yellowish Brown (10YR 6/4)	STONEY SILT LOAM	GRAVEL 10; COBBLES 10; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	20	S-2	PT-110 @ 20" = 0.25 IPH
22-48	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 30; COBBLES 20; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	42	S-3	
48-54	Gray Weathered Rock (10YR 5/1)	EXTREMELY GRAVELLY SANDY LOAM	GRAVEL 30; COBBLES 20; STONES 20; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	54	S-4	

Additional Remarks: Soil profile pit SPP-110 encountered refusal on weathered rock at approximately 4.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-111

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 214.0
Termination Depth (ft): 4.2
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/16/22
Date Completed: 11/16/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
8-30	Light Yellowish Brown (10YR 6/4)	STONEY SILT LOAM	GRAVEL 10; COBBLES 10; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	24	S-2	PT-111 @ 12" = 0.4 IPH
30-40	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 30; COBBLES 20; STONES 20; BOULDERS 10	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	36	S-3	
40-50	Light Yellowish Brown (10YR 6/4) Weathered Rock	EXTREMELY COBBLY SANDY LOAM	GRAVEL 30; COBBLES 30; STONES 20; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	SLIGHTLY PLASTIC			NONE	NONE			BAG	46	S-4	

Additional Remarks: Soil profile pit SPP-111 encountered refusal on apparent weathered rock at approximately 4.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-112

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 211.0
Termination Depth (ft): 6.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/16/22
Date Completed: 11/16/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	COBBLY SILT LOAM	GRAVEL 10, COBBLES 10, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	5	S-1	
9-36	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 20, COBBLES 20, STONES 20, BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	30	S-2	PT-112 @ 30" = 0.25 IPH
36-60	Light Yellowish Brown (10YR 6/4)	EXTREMELY COBBLY SILT LOAM	GRAVEL 30, COBBLES 30, STONES 20, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	40	S-3	
60-72	Yellow Brown (10YR 5/4) Weathered Rock	EXTREMELY STONEY SANDY LOAM	GRAVEL 20, COBBLES 30, STONES 30, BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	72	S-4	

Additional Remarks: Soil profile pit SPP-112 encountered refusal in weathered rock at approximately 6.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-113

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 208.0
Termination Depth (ft): 7.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/16/22
Date Completed: 11/16/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	El (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	NE	-

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	3	S-1	
10-36	Light Yellowish Brown (10YR 6/4)	GRAVELLY SANDY CLAY LOAM	GRAVEL 10; COBBLES 10; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	20	S-2	PT-113 @ 32" = 0.0 IPH
36-78	Light Yellowish Brown (10YR 6/4)	VERY COBBLY SILT LOAM	GRAVEL 20; COBBLES 30; STONES 20; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	38	S-3	
78-84	Yellow Brown (10YR 5/4) Weathered Rock	EXTREMELY COBBLY SILT LOAM	GRAVEL 20; COBBLES 30; STONES 30; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	78	S-4	

Additional Remarks: Soil profile pit SPP-113 encountered refusal on apparent weathered rock at approximately 7.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-114

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 206.0
Termination Depth (ft): 7.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/16/22
Date Completed: 11/16/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	NE	-

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-12	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 10, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
12-26	Yellowish Brown (10YR 5/6)	VERY COBBLY SILT LOAM	GRAVEL 15, COBBLES 20, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	20	S-2	PT-114 @ 21" = 0.1 IPH
26-78	Light Yellowish Brown (10YR 6/4)	VERY COBBLY SILT LOAM	GRAVEL 20, COBBLES 30, STONES 20, BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	VERY FIRM	NONSTICKY	NONPLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	48	S-3	
78-84	Light Yellowish Brown (10YR 6/4) (Weathered Rock)	EXTREMELY COBBLY SANDY LOAM	GRAVEL 30, COBBLES 30, STONES 30, BOULDERS 10	SUBANGULAR BLOCKY	STRONG	COARSE	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	78	S-4	

Additional Remarks: Soil profile pit SPP-114 encountered refusal on apparent weathered rock at approximately 7.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-115

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	206.0	**Date Started:**	11/17/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	11.0	**Date Completed:**	11/17/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments:

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-12	TOPSOIL Dark Gray (10YR 4/1)	VERY BOULDERY SILT LOAM	GRAVEL 10; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
12-32	Yellowish Brown (10YR 5/6)	VERY GRAVELLY SANDY LOAM	GRAVEL 15; COBBLES 20; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	24	S-2	PT-115 @ 18" = 2.75 IPH
32-48	Light Yellowish Brown (10YR 6/4)	EXTREMELY GRAVELLY SILT LOAM	GRAVEL 20; COBBLES 30; STONES 20; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	VERY FIRM	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	36	S-3	
48-132	Light Yellowish Brown (10YR 6/4) (Weathered Rock)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 30; COBBLES 30; STONES 30; BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	72	S-4	

Additional Remarks: Soil profile Pit SPP-115 was terminated at approximately 11.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-116

Project: Proposed Industrial Warehouse
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Project No.: 2803-99-012E 2803-99-012E
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	197.0	**Date Started:**	11/17/22	**Groundwater Data**	**Depth (ft)**	**El (ft)**	**Groundwater Comments**
Termination Depth (ft):	11.0	**Date Completed:**	11/17/22	**Seepage**	NE	-	
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE	-	Reddish brown mottling (2.5yr 5/4) 102" - 132"
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	8.5	188.5	
		Rig Type:	Bobcat E60				

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 10; COBBLES 10; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
10-102	Weak Red (10R 5/4)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 30; COBBLES 40; STONES 10; BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	36	S-2	PT-116 @ 51" = 24.0 IPH
102-132	Light Yellowish Brown (10YR 6/4)	EXTREMELY COBBLY LOAM	GRAVEL 20; COBBLES 30; STONES 20; BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	CMN 2%-20%	MEDIUM 5MM-15MM	FAINT	BAG	108	S-3	

Additional Remarks: Soil Profile Pit SPP-116 was terminated at approximately 11.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-117

Project: Proposed Industrial Warehouse
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Project No.: 2803-99-012E 2803-99-012E
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	193.0	**Date Started:**	11/17/22	**Groundwater Data**	**Depth (ft)**	**EL (ft)**
Termination Depth (ft):	12.0	**Date Completed:**	11/17/22	**Seepage**	NE	-
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE	-
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	9.0	184.0
		Rig Type:	Bobcat E60			

Groundwater Comments: Reddish brown mottling (2.5YR 5/4) 108" - 144"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5 / COBBLES 5 / STONES 0 / BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
9-28	Yellowish Brown (10YR 5/4)	EXTREMELY COBBLY SILT LOAM	GRAVEL 20 / COBBLES 30 / STONES 10 / BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	LOOSE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	20	S-2	PT-117 @ 47" = 24.0 IPH
28-108	Yellowish Brown (10YR 5/4)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 30 / COBBLES 40 / STONES 10 / BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	48	S-3	
108-144	Light Yellowish Brown (10YR 6/4)	EXTREMELY BOULDERY SILT LOAM	GRAVEL 20 / COBBLES 20 / STONES 20 / BOULDERS 20	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC			NONE	CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	120	S-4	

Additional Remarks: Soil profile pit SPP-117 was terminated at approximately 12.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-118

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 187.0
Termination Depth (ft): 8.5
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 11/18/22
Date Completed: 11/18/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	5.5	181.5	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-12	TOPSOIL Dark Gray (10YR 4/1)	STONEY SILT LOAM	GRAVEL 5 COBBLES 5 STONES 5 BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	4	S-1	
12-38	Yellowish Brown (10YR 5/4)	GRAVELLY SANDY LOAM	GRAVEL 20 COBBLES 10 STONES 0 BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	24	S-2	
38-66	Yellowish Brown (10YR 5/4)	VERY GRAVELLY LOAMY SAND	GRAVEL 25 COBBLES 10 STONES 10 BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	48	S-3	PT-118 @ 41" = 24.0 IPH
66-84	Grayish Brown (10YR 5/2)	EXTREMELY GRAVELLY LOAMY SAND	GRAVEL 80 COBBLES 10 STONES 5 BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		WET	LOOSE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	72	S-4	
84-96	Light Yellowish Brown (10YR 6/4)	EXTREMELY COBBLY SILT LOAM	GRAVEL 30 COBBLES 40 STONES 10 BOULDERS 10	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	90	S-5	
96-102	Gray Weathered Rock (10YR 5/1)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 30 COBBLES 40 STONES 20 BOULDERS 10	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	102	S-6	

Additional Remarks: Soil profile pit SPP-118 encountered refusal on apparent weathered rock at approximately 8.5 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-119

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	142.0	**Date Started:**	11/18/22	**Groundwater Data**	**Depth (ft)** / **El (ft)**
Termination Depth (ft):	4.5	**Date Completed:**	11/18/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	VERY COBBLY SILT LOAM	GRAVEL 20; COBBLES 30; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
10-54	Light Yellowish Brown (10YR 6/4)	EXTREMELY BOULDERY SILT LOAM	GRAVEL 10; COBBLES 20; STONES 20; BOULDERS 40	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	36	S-2	

Additional Remarks: Infiltration test not performed due to significant cobbles and boulders. Soil profile pit SPP-119 encountered refusal at approximately 4.5 feet below the ground surface on apparent boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-120

Project: Proposed Industrial Warehouse
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Project No.: 2803-99-012E 2803-99-012E
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	143.0	**Date Started:**	11/22/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	8.5	**Date Completed:**	11/22/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	STONEY SILT LOAM	GRAVEL 5 / COBBLES 10 / STONES 10 / BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	6	S-1	
9-48	Yellowish Brown (10YR 5/4)	EXTREMELY STONEY SANDY LOAM	GRAVEL 10 / COBBLES 30 / STONES 30 / BOULDERS 20	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	24	S-2	
48-96	Yellowish Brown (10YR 5/4)	EXTREMELY STONEY LOAMY SAND	GRAVEL 10 / COBBLES 30 / STONES 30 / BOULDERS 10	STRUCTURELESS SINGLE GRAIN			MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	72	S-3	
96-102	Gray Weathered Rock (10YR 5/1)	EXTREMELY STONEY LOAMY SAND	GRAVEL 10 / COBBLES 30 / STONES 30 / BOULDERS 20	STRUCTURELESS SINGLE GRAIN			MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	102	S-4	

Additional Remarks: Infiltration test not performed due to high percentage of coarse fragments. Soil profile pit SPP-120 encountered refusal at approximately 8.5 feet below the ground surface on apaprent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-121

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 142.0
Termination Depth (ft): 8.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation

Date Started: 11/18/22
Date Completed: 11/18/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	5.0	137.0

Groundwater Comments: Reddish brown (2.5YR 5/4) mottling 60" - 96"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 10; COBBLES 0; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	5	S-1	
9-60	Yellowish Brown (10YR 5/4)	GRAVELLY SANDY CLAY LOAM	GRAVEL 20; COBBLES 10; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	40	S-2	PT-121 @ 48" = 0.25 IPH
60-96	Light Yellowish Brown (10YR 6/4)	VERY GRAVELLY SANDY LOAM	GRAVEL 25; COBBLES 10; STONES 10; BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	FIRM	NONSTICKY	NONPLASTIC			NONE	CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	72	S-3	

Additional Remarks: Soil profile pit SPP-121 encountered refusal at approximately 8.0 feet below the ground surface on apparent boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-122

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	140.0	**Date Started:**	11/22/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	7.0	**Date Completed:**	11/22/22		
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Seepage**	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Groundwater**	NE / -
		Rig Type:	Bobcat E60	**Mottling**	3.3 / 136.7

Groundwater Comments: Reddish brown mottling (2.5YR 5/4) 40" - 78"

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5, COBBLES 5, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE			BAG	6	S-1	
10-40	Light Yellowish Brown (10YR 6/4)	COBBLY SILT LOAM	GRAVEL 5, COBBLES 20, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	24	S-2	PT-122 @ 32" = 0.0 IPH
40-54	Light Yellowish Brown (10YR 6/4)	GRAVELLY SILT LOAM	GRAVEL 5, COBBLES 5, STONES 5, BOULDERS 0	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	FAINT	BAG	42	S-3	
54-78	Light Yellowish Brown (10YR 6/4)	VERY COBBLY SILT LOAM	GRAVEL 20, COBBLES 20, STONES 10, BOULDERS 0	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE		CMN (20% MAX)	MEDIUM 5MM-15MM	DISTINCT	BAG	66	S-4	
78-84	Dark Gray Weathered Rock (10YR 5/1)	EXTREMELY STONEY SANDY LOAM	GRAVEL 20, COBBLES 30, STONES 30, BOULDERS 20	SUBANGULAR BLOCKY	STRONG	MEDIUM	MOIST	HARD	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	78	S-5	

Additional Remarks: Soil profile pit SPP-122 encountered refusal at approximately 7.0 feet below the ground surface on apparent rock.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-123

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 142.0
Termination Depth (ft): 4.9
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/8/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (In)	No.	
0-10	Black (7.5YR 2.5/1)	CLAY LOAM	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE	NONE						
10-25	Gray (10YR 5/1)	VERY BOULDERY CLAY LOAM	GRAVEL 10, COBBLES 10, STONES 10, BOULDERS 30	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE	NONE			BAG	16	S-1	
25-59	Yellowish Brown (10YR 5/6)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 10, COBBLES 15, STONES 15, BOULDERS 30	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		NONE			BAG	30	S-2	

Additional Remarks: Infiltration test not performed due to excessive coarse fragments. Soil Profile Pit SPP-123 encountered refusal at approximately 4.9 feet due to apparent boulders

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-124

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	165.0	**Date Started:**	11/22/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	11.0	**Date Completed:**	11/22/22	Seepage	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	Groundwater	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	Mottling	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 10 / COBBLES 0 / STONES 0 / BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE			BAG	4	S-1	
10-24	Light Yellowish Brown (10YR 6/4)	SILT LOAM	GRAVEL 10 / COBBLES 0 / STONES 0 / BOULDERS	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	20	S-2	
24-60	Light Yellowish Brown (10YR 6/4)	GRAVELLY SAND	GRAVEL 20 / COBBLES 10 / STONES 0 / BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE		NONE			BAG	40	S-3	PT-124 @ 36" = 24.0 IPH
60-132	Light Yellowish Brown (10YR 6/4)	VERY GRAVELLY SAND	GRAVEL 30 / COBBLES 20 / STONES 10 / BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	72	S-4	

Additional Remarks: Soil profile pit SPP-124 was terminated at approximately 11.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-125

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 140.0
Termination Depth (ft): 10.1
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/8/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (In)	No.	
0-13	TOPSOIL Dark Gray (10YR 4/1)	SILTY CLAY	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE	NONE						
13-27	Light Yellowish Brown (2.5Y 6/4)	VERY BOULDERY LOAMY SAND	GRAVEL 10, COBBLES 10, STONES 10, BOULDERS 30	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE	NONE			BAG	24	S-1	PT-125 @ 16" = 24.0 IPH
27-98	Light Yellowish Brown (10YR 6/4)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 10, COBBLES 10, STONES 10, BOULDERS 40	SUBANGULAR BLOCKY	WEAK	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	VERY FINE	NONE			BAG	36 55	S-2 S-3	
98-121	Light Yellowish Brown (2.5Y 6/4)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 20, COBBLES 10, STONES 10, BOULDERS 30	SUBANGULAR BLOCKY	WEAK	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			FEW (5% MAX)	VERY FINE	NONE			BAG	102	S-4	

Additional Remarks: Soil profile pit SPP-125 encountered refusal at approximately 10.1 feet below the ground surface on apparent boulders.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-126

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 142.0
Termination Depth (ft): 11.3
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/9/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	--	
Groundwater	5.2	136.8	Light gray mottling (10 YR 7/1) 14" - 30"; possible perched condition
Mottling	1.2	140.8	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-14	TOPSOIL Dark Gray (10YR 4/1)	LOAM	GRAVEL 5, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX) MEDIUM	NONE						
14-30	Yellowish Brown (10YR 5/6)	GRAVELLY SILT	GRAVEL 10, COBBLES 5, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX) MEDIUM	FEW	MEDIUM	DISTINCT	BAG	20	S-1	PT-126 @ 14" = 0.0 IPH
30-84	Yellowish Brown (10YR 5/6)	VERY GRAVELLY LOAMY SAND	GRAVEL 20, COBBLES 5, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	32	S-2	
84-120	Yellowish Brown (10YR 5/6)	VERY GRAVELLY LOAMY SAND	GRAVEL 20, COBBLES 10, STONES 10, BOULDERS 5	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	86	S-3	
120-136	Yellowish Brown (10YR 5/6)	STONEY SANDY LOAM	GRAVEL 10, COBBLES 10, STONES 10, BOULDERS 5	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE	NONE			BAG	126	S-4	

Additional Remarks: Soil profile pit SPP-126 was terminated at approximately 11.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-127

Project: Proposed Industrial Warehouse
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Project No.: 2803-99-012E 2803-99-012E
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	166.0	**Date Started:**	11/23/22	**Groundwater Data**	**Depth (ft)** / **EL (ft)**
Termination Depth (ft):	12.0	**Date Completed:**	11/23/22	**Seepage**	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	11.0 / 155.0
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE / --
		Rig Type:	Bobcat E60		

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-9	TOPSOIL Dark Gray (10YR 4/1)	LOAM	GRAVEL 10, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX) MEDIUM	NONE			BAG	5	S-1	
9-24	Yellowish Brown (10YR 5/4)	SANDY LOAM	GRAVEL 5, COBBLES 0, STONES 0, BOULDERS 10	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	18	S-2	
24-48	Yellowish Brown (10YR 5/4)	SAND	GRAVEL 10, COBBLES 0, STONES 0, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	36	S-3	
48-52	Light Yellowish Brown (10YR 6/4)	LOAMY SAND	GRAVEL 3, COBBLES 0, STONES 0, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE	NONE			BAG	50	S-4	PT-127 @ 48" = 24.0 IPH
52-132	Grayish Brown (10YR 5/2)	SAND	GRAVEL 5, COBBLES 0, STONES 0, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	GRADUAL <5"	SMOOTH	NONE	NONE			BAG	96	S-5	
132-144	Brownish Yellow (10YR 6/8)	GRAVELLY SAND	GRAVEL 25, COBBLES 10, STONES 0, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		WET	LOOSE	NONSTICKY	NONPLASTIC			NONE	NONE			BAG	144	S-6	

Additional Remarks: Soil profile pit SPP-127 was terminated at approximately 12.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-128

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 142.0
Termination Depth (ft): 13.2
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/8/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	El. (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (in)	No.	
0-12	TOPSOIL Dark Gray (10YR 4/1)	SILTY CLAY	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0		STRONG	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX) FINE	NONE						
12-20	Yellowish Brown (10YR 5/6)	BOULDERY SILTY CLAY	GRAVEL 10, COBBLES 5, STONES 5, BOULDERS 15	SUBANGULAR BLOCKY	STRONG	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX) FINE	NONE			BAG	16	S-1	
20-32	Yellowish Brown (10YR 5/6)	VERY BOULDERY SANDY CLAY LOAM	GRAVEL 10, COBBLES 5, STONES 5, BOULDERS 25	SUBANGULAR BLOCKY	MODERATE	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX) VERY FINE	NONE			BAG	26	S-2	PT-128 @ 30" = 10.0 IPH
32-65	Yellowish Brown (10YR 5/6)	VERY BOULDERY LOAM	GRAVEL 10, COBBLES 5, STONES 5, BOULDERS 25	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	36	S-3	
60-98	Yellowish Brown (10YR 5/6)	VERY BOULDERY LOAMY SAND	GRAVEL 25, COBBLES 5, STONES 5, BOULDERS 25	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	65	S-4	
98-120	Yellowish Brown (10YR 5/6)	VERY GRAVELLY SANDY CLAY LOAM	GRAVEL 25, COBBLES 5, STONES 5, BOULDERS 20	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	GRADUAL <5"	WAVY	NONE	NONE			BAG	104	S-5	
120-158	Weak Red (10R 5/4)	EXTREMELY CHANNERY LOAMY SAND	CHANNERS 40, FLAGSTONES 50, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	COARSE	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE	NONE			BAG	124	S-6	

Additional Remarks: Weathered rock encountered from 120" - 158". Soil profile pit SPP-128 was terminated at approximately 13.2 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-129

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	137.0	**Date Started:**	12/12/22	**Groundwater Data**	**Depth (ft)**	**El (ft)**	**Groundwater Comments**
Termination Depth (ft):	7.0	**Date Completed:**	12/12/22	**Seepage**	NE	-	
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE	-	
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE	-	
		Rig Type:	Bobcat E60				

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-8	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 10; COBBLES 10; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE			BAG	4	S-1	
8-32	Yellowish Brown (10YR 5/6)	COBBLY SILT LOAM	GRAVEL 15; COBBLES 15; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	FEW (5% MAX)	FINE	NONE			BAG	24	S-2	
32-84	Yellowish Brown (10YR 5/6)	EXTREMELY GRAVELLY LOAMY SAND	GRAVEL 30; COBBLES 20; STONES 10; BOULDERS 10	STRUCTURELESS SINGLE GRAIN			MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	48	S-3	PT-129 @ 48" = 24.0 IPH

Additional Remarks: Soil profile pit SPP-129 encountered refusal on apparent boulders at approximately 7.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-130

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	137.0	**Date Started:**	12/12/22	**Groundwater Data**	**Depth (ft)**	**El (ft)**	**Groundwater Comments**
Termination Depth (ft):	11.0	**Date Completed:**	12/12/22	**Seepage**	NE	-	
Proposed Location:	SWM	**Logged by:**	G. Seselgis	**Groundwater**	NE	-	
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE	-	
		Rig Type:	Bobcat E60				

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 5; STONES 0; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE			BAG	5	S-1	
10-36	Yellowish Brown (10YR 5/6)	BOULDERY SILT LOAM	GRAVEL 5; COBBLES 10; STONES 10; BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	20	S-2	PT-130 @ 24" = 0.75 IPH
36-132	Yellowish Brown (10YR 5/6)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 20; COBBLES 35; STONES 10; BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	50	S-3	

Additional Remarks: Soil profile pit SPP-130 was terminated at approximately 11.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-131

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 137.0
Termination Depth (ft): 10.3
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/9/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-11	Black (7.5YR 2.5/1)	VERY BOULDERY SILTY CLAY	GRAVEL 10 COBBLES 15 STONES 15 BOULDERS 20	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX) MEDIUM	NONE						
11-22	Brownish Yellow (10YR 6/6)	VERY BOULDERY SANDY CLAY LOAM	GRAVEL 10 COBBLES 15 STONES 15 BOULDERS 20	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX) FINE	NONE			BAG	16	S-1	
22-38	Brownish Yellow (10YR 6/6)	EXTREMELY BOULDERY SILTY CLAY	GRAVEL 10 COBBLES 20 STONES 20 BOULDERS 20	SUBANGULAR BLOCKY	WEAK	VERY FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX) FINE	NONE			BAG	30	S-2	
38-112	Yellowish Brown (10YR 5/6)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 10 COBBLES 20 STONES 20 BOULDERS 20	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	44	S-3	PT-131 @ 48" = 24.0 IPH
112-124	Yellowish Brown (10YR 5/6)	EXTREMELY BOULDERY SANDY CLAY LOAM	GRAVEL 10 COBBLES 20 STONES 20 BOULDERS 20	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE	NONE			BAG	116	S-4	

Additional Remarks: Soil profile pit SPP-131 was terminated at approximately 10.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-132

Project: Proposed Industrial Warehouse — **Project No.:** 2803-99-012E — 2803-99-012E

Location: US Highway 9W, Town of Cornwall, Orange County, New York — **Client:** Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	137.0	**Date Started:**	12/8/22	**Groundwater Data**	**Depth (ft)**	**EL (ft)**
Termination Depth (ft):	11.1	**Date Completed:**	12/9/22	**Seepage**	5.0	132.0
Proposed Location:	SWM	**Logged by:**	J. Gomez	**Groundwater**	NE	--
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	**Mottling**	NE	--
		Rig Type:	Bobcat E60			

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (In)	No.	
0-8	Brownish Yellow (10YR 6/6)	VERY BOULDERY SILTY CLAY LOAM	GRAVEL 10 / COBBLES 10 / STONES 10 / BOULDERS 10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE	NONE						
8-23	Brownish Yellow (10YR 6/6)	VERY BOULDERY CLAY LOAM	GRAVEL 10 / COBBLES 10 / STONES 10 / BOULDERS 10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE	NONE			BAG	16	S-1	
23-60	Brownish Yellow (10YR 6/8)	VERY BOULDERY SANDY CLAY LOAM	GRAVEL 10 / COBBLES 10 / STONES 10 / BOULDERS 20	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	30	S-2	PT-132 @ 16" = 0.5 IPH
60-133	Dark Brown (10YR 3/3)	VERY BOULDERY LOAMY SAND	GRAVEL 10 / COBBLES 10 / STONES 10 / BOULDERS 20	SUBANGULAR BLOCKY	WEAK	FINE	WET	FRIABLE	SLIGHTLY STICKY	NONPLASTIC			NONE		NONE			BAG	69	S-3	

Additional Remarks: Soil profile pit SPP-132 was terminated at approximately 11.1 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-133

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 137.0
Termination Depth (ft): 10.8
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/9/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	5.3	131.7	
Groundwater	NE	--	
Mottling	NE	--	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS	MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography		Quantity	Size	Contrast	Type	Depth (In)	No.	
0-10	Brownish Yellow (10YR 6/6)	SILTY CLAY	GRAVEL 0, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX) FINE	NONE						
10-31	Brownish Yellow (10YR 6/6)	VERY STONEY SANDY CLAY LOAM	GRAVEL 10, COBBLES 20, STONES 20, BOULDERS 10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	VERY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX) FINE	NONE			BAG	20	S-1	PT-133 @ 24" = 1.0 IPH
31-64	Brown (10YR 5/3)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 10, COBBLES 20, STONES 20, BOULDERS 20	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	NONE	NONE			BAG	36	S-2	
64-129	Brown (10YR 5/3)	EXTREMELY BOULDERY LOAMY SAND	GRAVEL 10, COBBLES 20, STONES 20, BOULDERS 20	SUBANGULAR BLOCKY	WEAK	MEDIUM	WET	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE	NONE			BAG	76	S-3	

Additional Remarks: Soil profile pit SPP-133 was terminated at approximately 10.8 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-134

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 140.0
Termination Depth (ft): 8.3
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/8/22
Date Completed: 12/9/22
Logged by: J. Gomez
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (In)	No.	
0-9	TOPSOIL	VERY STONEY SILTY CLAY LOAM	GRAVEL COBBLES STONES BOULDERS 10 20 20 10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	MNY (>20% MAX)	FINE	NONE						
9-32	Brownish Yellow (10YR 6/6)	EXTREMELY STONEY SILTY CLAY LOAM	GRAVEL COBBLES STONES BOULDERS 10 25 25 10	SUBANGULAR BLOCKY	WEAK	FINE	MOIST	FRIABLE	SLIGHTLY STICKY	MODERATELY PLASTIC	CLEAR <2.5"	WAVY	CMN (20% MAX)	FINE	NONE			BAG	18	S-1	
32-71	Brown (10YR 5/3)	EXTREMELY GRAVELLY LOAMY SAND	GRAVEL COBBLES STONES BOULDERS 25 20 20 10	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	FEW (5% MAX)	FINE	NONE			BAG	40	S-2	
71-99	Brown (10YR 5/3)	EXTREMELY GRAVELLY LOAM	GRAVEL COBBLES STONES BOULDERS 25 20 20 15	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	SLIGHTLY STICKY	SLIGHTLY PLASTIC			NONE		NONE			BAG	95	S-3	

Additional Remarks: Infiltration testing not performed due to high coarse fragments. Soil profile pit SPP-134 encountered refusal on apparent boulders at approximately 8.3 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-135

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft):	137.0	**Date Started:**	12/12/22	**Groundwater Data**	**Depth (ft)** / **El (ft)**
Termination Depth (ft):	9.0	**Date Completed:**	12/12/22	Seepage	NE / -
Proposed Location:	SWM	**Logged by:**	G. Seselgis	Groundwater	NE / -
Excavation / Test Method:	Visual Observation	**Contractor:**	Neighbors Property Management	Mottling	NE / -
		Rig Type:	Bobcat E60		

Groundwater Comments:

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Gray (10YR 4/1)	SILT LOAM	GRAVEL 5; COBBLES 5; STONES 5; BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE			BAG	4	S-1	
10-32	Yellowish Brown (10YR 5/6)	VERY COBBLY SANDY LOAM	GRAVEL 10; COBBLES 15; STONES 10; BOULDERS 0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	SMOOTH	FEW (5% MAX)	FINE	NONE			BAG	24	S-2	PT-135 @ 24" = 6.0 IPH
32-108	Yellowish Brown (10YR 5/6)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 20; COBBLES 30; STONES 20; BOULDERS 10	STRUCTURELESS / SINGLE GRAIN			MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	40	S-3	

Additional Remarks: Soil profile pit SPP-135 encountered refusal on apparent boulders at approximately 9.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-136

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 137.0
Termination Depth (ft): 12.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/15/22
Date Completed: 12/15/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)
Seepage	NE	-
Groundwater	NE	-
Mottling	NE	-

Groundwater Comments

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)				STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
							Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
			GRAVEL	COBBLES	STONES	BOULDERS																		
0-11	TOPSOIL Dark Yellow Brown (10YR 4/4)	LOAM	5	0	0	0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE						
11-24	Yellowish Brown (10YR 5/6)	VERY GRAVELLY SILT LOAM	20	10	10	0	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	16	S-1	PT-136 @ 16" = 0.5 IPH
24-84	Yellowish Brown (10YR 5/6)	EXTREMELY COBBLY SAND	30	40	10	10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	48	S-2	
84-120	Grayish Brown (10YR 5/2)	EXTREMELY COBBLY SAND	30	40	10	10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	96	S-3	
120-144	Grayish Brown (10YR 5/2)	VERY GRAVELLY SAND	25	10	5	0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	132	S-4	

Additional Remarks: Soil profile pit SPP-136 was terminated at approximately 12.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-137

Project: Proposed Industrial Warehouse
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Project No.: 2803-99-012E
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 137.0
Termination Depth (ft): 12.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/15/22
Date Completed: 12/15/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-10	TOPSOIL Dark Yellow Brown (10YR 4/4)	LOAM	GRAVEL 5, COBBLES 0, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE						
10-30	Yellowish Brown (10YR 5/6)	BOULDERY SILT LOAM	GRAVEL 10, COBBLES 10, STONES 0, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	CLEAR <2.5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	20	S-1	
30-96	Yellowish Brown (10YR 5/6)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 20, COBBLES 30, STONES 20, BOULDERS 20	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	48	S-2	PT-137 @ 32" = 14.0 IPH
96-144	Grayish Brown (10YR 5/2)	EXTREMELY GRAVELLY SAND	GRAVEL 40, COBBLES 30, STONES 10, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	132	S-3	

Additional Remarks: Soil profile pit SPP-137 was terminated at approximately 12.0 feet below the ground surface.

DYNAMIC EARTH

SOIL PROFILE PIT LOG

Soil Profile Pit: SPP-138

Project: Proposed Industrial Warehouse
Project No.: 2803-99-012E
Location: US Highway 9W, Town of Cornwall, Orange County, New York
Client: Cornwall Logistics, LLC c/o Treetop Development, LLC

Surface Elevation (ft): 136.0
Termination Depth (ft): 12.0
Proposed Location: SWM
Excavation / Test Method: Visual Observation
Date Started: 12/15/22
Date Completed: 12/15/22
Logged by: G. Seselgis
Contractor: Neighbors Property Management
Rig Type: Bobcat E60

Groundwater Data	Depth (ft)	EL (ft)	Groundwater Comments
Seepage	NE	-	
Groundwater	NE	-	
Mottling	NE	-	

DEPTH (IN)	COLOR	SOIL TEXTURE	COARSE FRAGMENTS (%)	STRUCTURE			WATER CONTENT	CONSISTENCY			BOUNDARY		ROOTS		MOTTLING			SAMPLING			LAB RESULTS
				Shape	Grade	Size		Resistance to Rupture	Stickiness	Plasticity	Distinctness	Topography			Quantity	Size	Contrast	Type	Depth (in)	No.	
0-11	TOPSOIL Dark Yellow Brown (10YR 4/4)	LOAM	GRAVEL 0, COBBLES 5, STONES 0, BOULDERS 0	SUBANGULAR BLOCKY	WEAK	MEDIUM	MOIST	FRIABLE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	CMN (20% MAX)	MEDIUM	NONE						
11-36	Yellowish Brown (10YR 5/6)	VERY COBBLY SILT LOAM	GRAVEL 10, COBBLES 15, STONES 10, BOULDERS 10	SUBANGULAR BLOCKY	MODERATE	MEDIUM	MOIST	FRIABLE	NONSTICKY	SLIGHTLY PLASTIC	GRADUAL <5"	WAVY	FEW (5% MAX)	FINE	NONE			BAG	24	S-1	PT-138 @ 24" = 1.25 IPH
36-78	Yellowish Brown (10YR 5/6)	EXTREMELY COBBLY LOAMY SAND	GRAVEL 30, COBBLES 40, STONES 20, BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	WAVY	NONE		NONE			BAG	60	S-2	
78-120	Dark Yellowish Brown (10YR 4/4)	EXTREMELY COBBLY SAND	GRAVEL 30, COBBLES 40, STONES 20, BOULDERS 10	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC	CLEAR <2.5"	SMOOTH	NONE		NONE			BAG	96	S-3	
120-144	Grayish Brown (10YR 5/2)	VERY GRAVELLY SAND	GRAVEL 30, COBBLES 10, STONES 0, BOULDERS 0	SINGLE GRAIN	STRUCTURELESS		MOIST	LOOSE	NONSTICKY	NONPLASTIC			NONE		NONE			BAG	132	S-4	

Additional Remarks: Soil profile pit SPP-138 was terminated at approximately 12 feet below the ground surface.

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-1/SPP-1
Project:	Proposed Industrial Warehouse	**Date:**	3/1/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 226.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	22	2	1	2.0
2	24	22	2	1	2.0
3	24	22	2	1	2.0
4	**24**	**22**	**2**	**1**	**2.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-2/SPP-2
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve
Surface Elevation:	220.0 ft.	**Test Depth:**	3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	19	5	1	5.0
2	24	19	5	1	5.0
3	24	19	5	1	5.0
4	**24**	**19**	**5**	**1**	**5.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-3/SPP-3
Project:	Proposed Industrial Warehouse	**Date:**	3/1/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 222.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	21.5	2.5	1	2.5
2	24	21.5	2.5	1	2.5
3	24	21.5	2.5	1	2.5
4	**24**	**21.5**	**2.5**	**1**	**2.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-4/SPP-4
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 230.0 ft. **Test Depth:** 3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.5	0.5	1	0.5
3	24	23.5	0.5	1	0.5
4	**24**	**23.5**	**0.5**	**1**	**0.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-5/SPP-5
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 224.0 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-6/SPP-6
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 229.0 ft. **Test Depth:** 1.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-7/SPP-7
Project:	Proposed Industrial Warehouse	**Date:**	3/3/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 231.0 ft. **Test Depth:** 3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-8/SPP-8
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 212.0 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.8	0.2	1	0.2
2	24	23.8	0.2	1	0.2
3	24	23.8	0.2	1	0.2
4	**24**	**23.8**	**0.2**	**1**	**0.2**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-9/SPP-9
Project:	Proposed Industrial Warehouse	**Date:**	3/2/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 211.0 ft. **Test Depth:** 3.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-10/SPP-10
Project:	Proposed Industrial Warehouse	**Date:**	3/5/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 216.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-11/SPP-11
Project:	Proposed Industrial Warehouse	**Date:**	3/3/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 200.0 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.7	0.3	1	0.3
2	24	23.7	0.3	1	0.3
3	24	23.7	0.3	1	0.3
4	**24**	**23.7**	**0.3**	**1**	**0.3**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-12/SPP-12
Project:	Proposed Industrial Warehouse	**Date:**	3/3/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 189.0 ft. **Test Depth:** 3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	19.0	5.0	1	5.0
2	24	19.0	5.0	1	5.0
3	24	19.0	5.0	1	5.0
4	**24**	**19.0**	**5.0**	**1**	**5.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-13/SPP-13
Project:	Proposed Industrial Warehouse	**Date:**	3/3/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 210.0 ft. **Test Depth:** 1.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-14/SPP-14
Project:	Proposed Industrial Warehouse	**Date:**	3/4/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 193.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	24	0	1	0
2	24	24	0	1	0
3	24	24	0	1	0
4	**24**	**24**	**0**	**1**	**0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-15/SPP-15
Project:	Proposed Industrial Warehouse	**Date:**	3/5/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 203.0 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.5	0.5	1	0.5
3	24	23.5	0.5	1	0.5
4	**24**	**23.5**	**0.5**	**1**	**0.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-16/SPP-16
Project:	Proposed Industrial Warehouse	**Date:**	3/7/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 207.0 ft. **Test Depth:** 3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-17/SPP-17
Project:	Proposed Industrial Warehouse	**Date:**	3/7/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 197.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23	1	1	1.0
2	24	23	1	1	1.0
3	24	23	1	1	1.0
4	**24**	**23**	**1**	**1**	**1.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-18/SPP-18
Project:	Proposed Industrial Warehouse	**Date:**	3/7/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 191.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.5	0.5	1	0.5
3	24	23.5	0.5	1	0.5
4	**24**	**23.5**	**0.5**	**1**	**0.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-19/SPP-19
Project:	Proposed Industrial Warehouse	**Date:**	3/22/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 140.0 ft. **Test Depth:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	20	4.0	1	4.0
2	24	20	4.0	1	4.0
3	24	20	4.0	1	4.0
4	**24**	**20**	**4.0**	**1**	**4.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-20/SPP-20
Project:	Proposed Industrial Warehouse	**Date:**	3/22/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 143 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.5	0.5	1	0.5
3	24	23.5	0.5	1	0.5
4	**24**	**23.5**	**0.5**	**1**	**0.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-21/SPP-21
Project:	Proposed Industrial Warehouse	**Date:**	3/22/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 152 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	21	3	1	3.0
2	24	21	3	1	3.0
3	24	21	3	1	3.0
4	**24**	**21**	**3**	**1**	**3.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-22/SPP-22
Project:	Proposed Industrial Warehouse	**Date:**	3/22/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 145 ft. **Test Depth:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.50	0.50	1	0.50
2	24	23.50	0.50	1	0.50
3	24	23.50	0.50	1	0.50
4	**24**	**23.50**	**0.50**	**1**	**0.50**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-23/SPP-23
Project:	Proposed Industrial Warehouse	**Date:**	3/22/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 140 ft. **Test Depth/Elevation:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	20.5	3.5	1	3.5
2	24	20.5	3.5	1	3.5
3	24	20.5	3.5	1	3.5
4	**24**	**20.5**	**3.5**	**1**	**3.5**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-24/SPP-24
Project:	Proposed Industrial Warehouse	**Date:**	3/21/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 137 ft. **Test Depth/Elevation:** 4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	18	6	24	6.0
2	24	18	6	24	6.0
3	24	18	6	24	6.0
4	**24**	**18**	**6**	**24**	**6.0**

INFILTRATION TEST REPORT

Client:	Treetop Development, LLC	**Test Hole No.:**	PT-25/SPP-25
Project:	Proposed Industrial Warehouse	**Date:**	3/21/2022
Location:	Cornwall, NY	**Weather:**	Clear 40°F
Project No.:	2803-99-012E	**Project Manager:**	F. Van Cleve

Surface Elevation: 136 ft. **Test Depth/Elevation:** 2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	21.5	2.5	1	2.5
2	24	21.5	2.5	1	2.5
3	24	21.5	2.5	1	2.5
4	**24**	**21.5**	**2.5**	**1**	**2.5**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-101/SPP-101

Project: Proposed Industrial Warehouse
Date: 11/11/2022

Location: Cornwall, NY
Weather: Cloudy 65 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 220.0 ft.
Test Depth: 1.3 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24.0	23.50	0.5	1	0.50
2	24.0	23.75	0.25	1	0.25
3	24.0	23.75	0.25	1	0.25
4	**24.0**	**23.75**	**0.25**	**1**	**0.25**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-102/SPP-102

Project: Proposed Industrial Warehouse
Date: 11/11/2022

Location: Cornwall, NY
Weather: Cloudy 65 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 224.0 ft
Test Depth: 2.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24.0	22.75	1.25	1	1.25
2	24.0	23	1.0	1	1.0
3	24.0	23	1.0	1	1.0
4	**24.0**	**23**	**1.0**	**1**	**1.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-103/SPP-103
Project: Proposed Industrial Warehouse
Date: 11/11/2022
Location: Cornwall, NY
Weather: Cloudy 65 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 228.0 ft
Test Depth: 2.0 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.25	0.75	1	0.75
2	24	23.5	0.50	1	0.50
3	24	23.5	0.50	1	0.50
4	**24**	**23.5**	**0.50**	**1**	**0.50**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-104/SPP-104
Project: Proposed Industrial Warehouse
Date: 11/10/2022
Location: Cornwall, NY
Weather: Cloudy 62 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 222.0 ft.
Test Depth: 2.0 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	21	3	1	3
2	24	21.25	2.75	1	2.75
3	24	21.25	2.75	1	2.75
4	**24**	**21.25**	**2.75**	**1**	**2.75**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-105/SPP-105
Project: Proposed Industrial Warehouse
Date: 11/10/2022
Location: Cornwall, NY
Weather: Cloudy 62 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 222.0 ft
Test Depth: 1.0 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	2	22	1	22
2	24	2	22	1	22
3	24	3	21	1	21
4	**24**	**3.5**	**20.5**	**1**	**20.5**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-106/SPP-106
Project: Proposed Industrial Warehouse
Date: 11/11/2022
Location: Cornwall, NY
Weather: Cloudy 65 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 219.0 ft
Test Depth: 1.2 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-107/SPP-107
Project: Proposed Industrial Warehouse
Date: 11/14/2022
Location: Cornwall, NY
Weather: Sunny 40 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 224.0 ft.
Test Depth: 1.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**23.9**	**0.1**	**1**	**0.1**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-108/SPP-108
Project: Proposed Industrial Warehouse
Date: 11/14/2022
Location: Cornwall, NY
Weather: Sunny 42 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 222.0 ft
Test Depth: 2.0 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.75	0.25	1	0.25
2	24	23.75	0.25	1	0.25
3	24	23.75	0.25	1	0.25
4	**24**	**23.75**	**0.25**	**1**	**0.25**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-109/SPP-109
Project: Proposed Industrial Warehouse
Date: 11/14/2022
Location: Cornwall, NY
Weather: Sunny 42 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 214.0 ft
Test Depth: 2.0 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.6	0.4	1	0.4
3	24	23.6	0.4	1	0.4
4	**24**	**23.6**	**0.4**	**1**	**0.4**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-110/SPP-110
Project: Proposed Industrial Warehouse
Date: 11/14/2022
Location: Cornwall, NY
Weather: Cloudy 38 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 216.0 ft
Test Depth: 1.7 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.75	0.25	1	0.25
2	24	23.75	0.25	1	0.25
3	24	23.75	0.25	1	0.25
4	**24**	**23.75**	**0.25**	**1**	**0.25**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-111/SPP-111

Project: Proposed Industrial Warehouse
Date: 11/16/2022

Location: Cornwall, NY
Weather: Cloudy 43 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 214.0 ft.
Test Depth: 1.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.50	0.5	1	0.5
2	24	23.6	0.4	1	0.4
3	24	23.6	0.4	1	0.4
4	24	23.6	**0.4**	1	**0.4**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-112/SPP-112

Project: Proposed Industrial Warehouse
Date: 11/16/2022

Location: Cornwall, NY
Weather: Cloudy 43 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 211.0 ft.
Test Depth: 2.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.75	0.25	1	0.25
2	24	23.75	0.25	1	0.25
3	24	23.75	0.25	1	0.25
4	**24**	**23.75**	**0.25**	**1**	**0.25**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-113/SPP-113

Project: Proposed Industrial Warehouse
Date: 11/16/2022

Location: Cornwall, NY
Weather: Cloudy 43 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 208.0 ft.
Test Depth: 2.7 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	24	0.0	1	0.0
3	24	24	0.0	1	0.0
4	**24**	24	**0.0**	**1**	**0.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-114/SPP-114

Project: Proposed Industrial Warehouse
Date: 11/16/2022

Location: Cornwall, NY
Weather: Cloudy 43 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 206.0 ft.
Test Depth: 1.8 ft

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.9	0.1	1	0.1
2	24	23.9	0.1	1	0.1
3	24	23.9	0.1	1	0.1
4	**24**	**24**	**0.0**	**1**	**0.1**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-115/SPP-115
Project: Proposed Industrial Warehouse
Date: 11/17/2022
Location: Cornwall, NY
Weather: Cloudy 43 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 206.0 ft.
Test Depth: 1.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	21	3.0	1	3.0
2	24	21	3.0	1	3.0
3	24	21.25	2.75	1	2.75
4	**24**	**21.25**	**2.75**	**1**	**2.75**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-116/SPP-116
Project: Proposed Industrial Warehouse
Date: 11/17/2022
Location: Cornwall, NY
Weather: Sunny 33 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 197.0 ft.
Test Depth: 4.25 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-117/SPP-117
Project: Proposed Industrial Warehouse
Date: 11/17/2022
Location: Cornwall, NY
Weather: Sunny 33 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 193.0 ft.
Test Depth: 3.9 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-118/SPP-118
Project: Proposed Industrial Warehouse
Date: 11/21/2022
Location: Cornwall, NY
Weather: Sunny 33 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 187.0 ft.
Test Depth: 3.4 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-121/SPP-121

Project: Proposed Industrial Warehouse
Date: 11/18/2022

Location: Cornwall, NY
Weather: Sunny 38 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 142.0 ft.
Test Depth: 4.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.5
2	24	23.75	0.25	1	0.25
3	24	23.75	0.25	1	0.25
4	**24**	**23.75**	**0.25**	**1**	**0.25**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-122/SPP-122

Project: Proposed Industrial Warehouse
Date: 11/22/2022

Location: Cornwall, NY
Weather: Sunny 45 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 140.0 ft.
Test Depth: 2.7 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	24	0.0	1	0.0
2	24	24	0.0	1	0.0
3	24	24	0.0	1	0.0
4	**24**	**24**	**0.0**	**1**	**0.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-124/SPP-124

Project: Proposed Industrial Warehouse
Date: 11/23/2022

Location: Cornwall, NY
Weather: Sunny 45 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 165.0 ft.
Test Depth: 3.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	24.0

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-125/SPP-125

Project: Proposed Industrial Warehouse
Date: 11/23/2022

Location: Cornwall, NY
Weather: Cloudy 32 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 140.0 ft.
Test Depth: 1.3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-126/SPP-126

Project: Proposed Industrial Warehouse
Date: 12/15/2022

Location: Cornwall, NY
Weather: Sunny 36 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 142.0 ft.
Test Depth: 1.2 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	24	0	1	0.0
2	24	24	0	1	0.0
3	24	24	0	1	0.0
4	**24**	**24**	**0**	**1**	**0.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-127/SPP-127

Project: Proposed Industrial Warehouse
Date: 12/15/2022

Location: Cornwall, NY
Weather: Sunny 36 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 166.0 ft.
Test Depth: 4.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-128/SPP-128

Project: Proposed Industrial Warehouse
Date: 12/8/2022

Location: Cornwall, NY
Weather: Cloudy 32 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 142.0 ft.
Test Depth: 2.5 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	14	10.0	1	10.0
2	24	14	10.0	1	10.0
3	24	14	10.0	1	10.0
4	**24**	14	**10.0**	**1**	**10.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-129/SPP-129

Project: Proposed Industrial Warehouse
Date: 12/16/2022

Location: Cornwall, NY
Weather: Cloudy 37 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 137.0 ft.
Test Depth: 4.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
3	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-130/SPP-130
Project: Proposed Industrial Warehouse
Date: 12/15/2022
Location: Cornwall, NY
Weather: Sunny 36 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 137.0 ft.
Test Depth: 2.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.25	0.75	1	0.75
2	24	23.25	0.75	1	0.75
3	24	23.25	0.75	1	0.75
4	**24**	**23.25**	**0.75**	**1**	**0.75**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-131/SPP-131
Project: Proposed Industrial Warehouse
Date: 12/15/2022
Location: Cornwall, NY
Weather: Sunny 36 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 137.0 ft.
Test Depth: 4.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	0	24	1	24.0
2	24	0	24	1	24.0
3	24	0	24	1	24.0
4	**24**	**0**	**24**	**1**	**24.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-132/SPP-132
Project: Proposed Industrial Warehouse
Date: 12/15/2022
Location: Cornwall, NY
Weather: Sunny 36 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 137.0 ft.
Test Depth: 1.3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.5	1	0.50
2	24	23.5	0.5	1	0.50
3	24	23.5	0.5	1	0.50
4	**24**	**23.5**	**0.5**	**1**	**0.50**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-133/SPP-133
Project: Proposed Industrial Warehouse
Date: 12/15/2022
Location: Cornwall, NY
Weather: Sunny 36 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 137.0 ft.
Test Depth: 2.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23	1	1	1.0
2	24	23	1	1	1.0
3	24	23	1	1	1.0
4	**24**	**23**	**1**	**1**	**1.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-135/SPP-135

Project: Proposed Industrial Warehouse
Date: 12/15/2022

Location: Cornwall, NY
Weather: Sunny 36 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 137.0 ft.
Test Depth: 2.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	18	6	1	6.0
2	24	18	6	1	6.0
3	24	18	6	1	6.0
4	**24**	**18**	**6**	**1**	**6.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-136/SPP-136

Project: Proposed Industrial Warehouse
Date: 12/15/2022

Location: Cornwall, NY
Weather: Sunny 36 F

Project No.: 2803-99-012E
Project Manager: F. Van Cleve

Surface Elevation: 137.0 ft.
Test Depth: 1.3 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	23.5	0.50	1	0.5
2	24	23.5	0.50	1	0.5
3	24	23.5	0.50	1	0.5
4	**24**	**23.5**	**0.50**	**1**	**0.5**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-137/SPP-137
Project: Proposed Industrial Warehouse
Date: 12/16/2022
Location: Cornwall, NY
Weather: Rain 37 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 137.0 ft.
Test Depth: 2.7 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	11	13	1	13.0
2	24	11	13	1	13.0
3	24	10	14	1	13.0
4	**24**	**10**	**14**	**1**	**13.0**

INFILTRATION TEST REPORT

Client: Treetop Development, LLC
Test Hole No.: PT-138/SPP-138
Project: Proposed Industrial Warehouse
Date: 12/16/2022
Location: Cornwall, NY
Weather: Rain 37 F
Project No.: 2803-99-012E
Project Manager: F. Van Cleve
Surface Elevation: 136.0 ft.
Test Depth: 2.0 ft.

Reading No.	Water Level (Inches)		Water Level Fall (Inches)	Time Interval (Hours)	Rate of Flow (Inches/ Hour)
	Start	Finish			
1	24	22.75	1.25	1	1.25
2	24	22.75	1.25	1	1.25
3	24	22.75	1.25	1	1.25
4	**24**	**22.75**	**1.25**	**1**	**1.25**

Laboratory Test Results

Dynamic Earth #2803-99-012E
Proposed Warehouse
LABORATORY TESTING DATA SUMMARY

BORING NO.	SAMPLE NO.	DEPTH (ft)	IDENTIFICATION TESTS						REMARKS
			WATER CONTENT (%)	LIQUID LIMIT (-)	PLASTIC LIMIT (-)	PLAS. INDEX (-)	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	
B-1	S-5	8-10	10.4				SC	38	
B-2	S-1	0-2	26.2				CL	56	
B-3	S-2	2-4	11.1	28	17	11	CL	37	
B-12	S-5	8-10	9.3	25	15	10	SC	46	
B-13	S-4	6-8	9.2	25	15	10	SC	44	
B-14	S-2	2-4	9.6				SM	20	
B-15	S-4	6-8	5.6				SW-SM	9	
B-16	S-7	15-17	6.8				GP-GM	11	
B-17	S-2	2-4	10.3	23	14	9	SC	41	
B-18	S-6	10-12	11.1				SM	13	
B-19	S-3	4-6	10.5				GC	16	

Note: (1) USCS symbol based on visual observation and Sieve and Atterberg limits reported.

Open Symbols: Sieve analysis by ASTM D6913
Filled symbols: Hydrometer analysis by ASTM D7928 corrected for complete sample

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□	10.4				SC		Brown, Clayey sand with gravel, Insufficient sample size	06/01/22
◇	26.2				CL		Brown, Sandy lean clay , Insufficient sample size	06/01/22
○								

Symbol	□	◇	○
Boring	B-1	B-2	
Sample	S-5	S-1	
Depth	8-10	0-2	
% +3"	0	0	
% Gravel	31	16	
% SAND	31	28	
%C SAND	6	5	
%M SAND	9	8	
%F SAND	16	15	
% FINES	38	56	
D_{100} (mm)	38.1	25.4	
D_{60} (mm)	1.19	0.114	
D_{30} (mm)			
D_{10} (mm)			
Cc			
Cu			

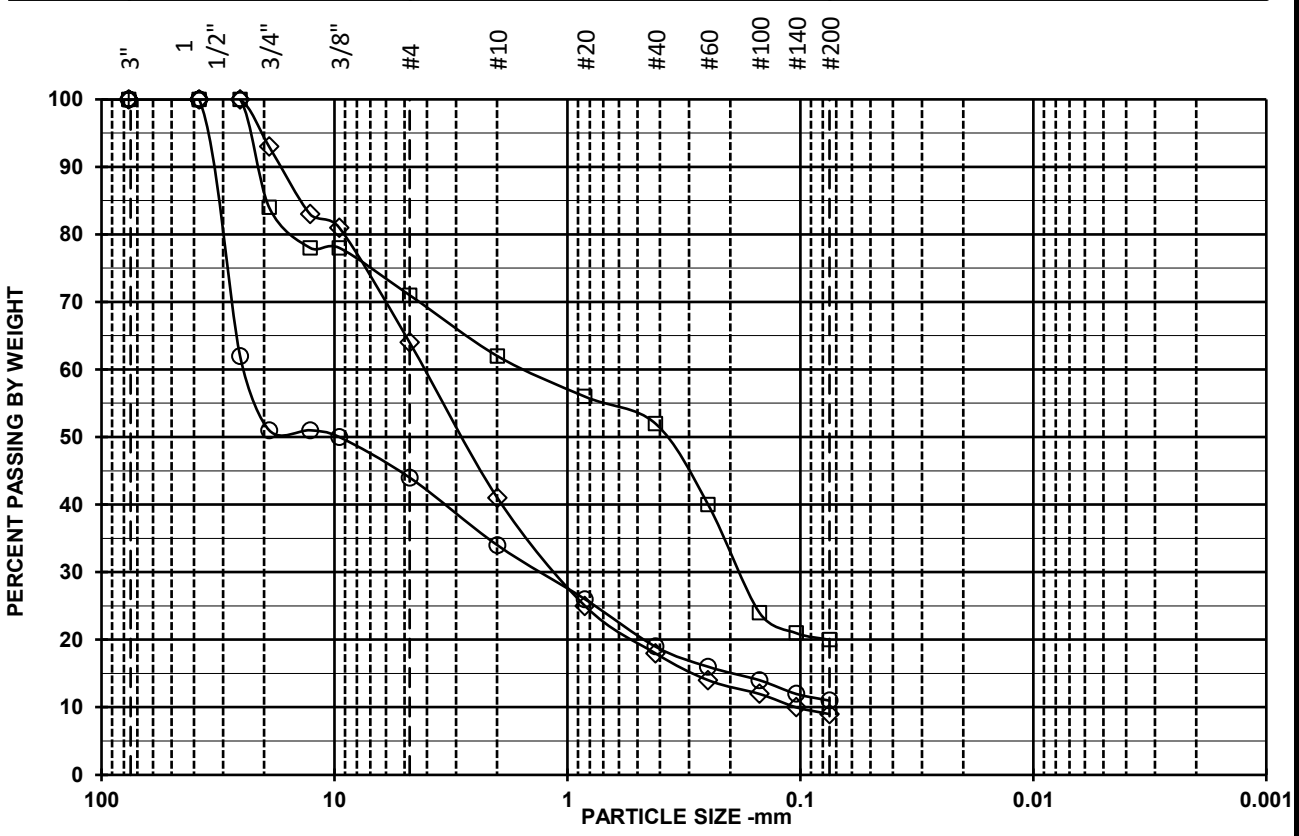
Sieve Size/ID #	Percent Finer Data		
6"	100	100	
4"	100	100	
3"	100	100	
1 1/2"	100	100	
1"	90	100	
3/4"	81	96	
1/2"	79	95	
3/8"	75	92	
#4	69	84	
#10	63	79	
#20	58	74	
#40	54	71	
#60	50	67	
#100	45	63	
#140	42	59	
#200	38	56	
5μ m			
2μ m			
1μ m			

Dynamic Earth #2803-99-012E

TerraSense #22005011A

Proposed Warehouse

PARTICLE SIZE DISTRIBUTION
ASTM D6913 & ASTM D7928



Open Symbols: Sieve analysis by ASTM D6913
Filled symbols: Hydrometer analysis by ASTM D7928 corrected for complete sample

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□	9.6				SM		Brown, Silty sand with gravel organic mat'l noted, Insufficient sample size	06/01/22
◇	5.6				SW-SM		Brown, Well-graded sand with silt and gravel, Insufficient sample size	06/01/22
○	6.8				GP-GM		Brown, Poorly graded gravel with silt and sand, Insufficient sample size	06/01/22

Dynamic Earth #2803-99-012E

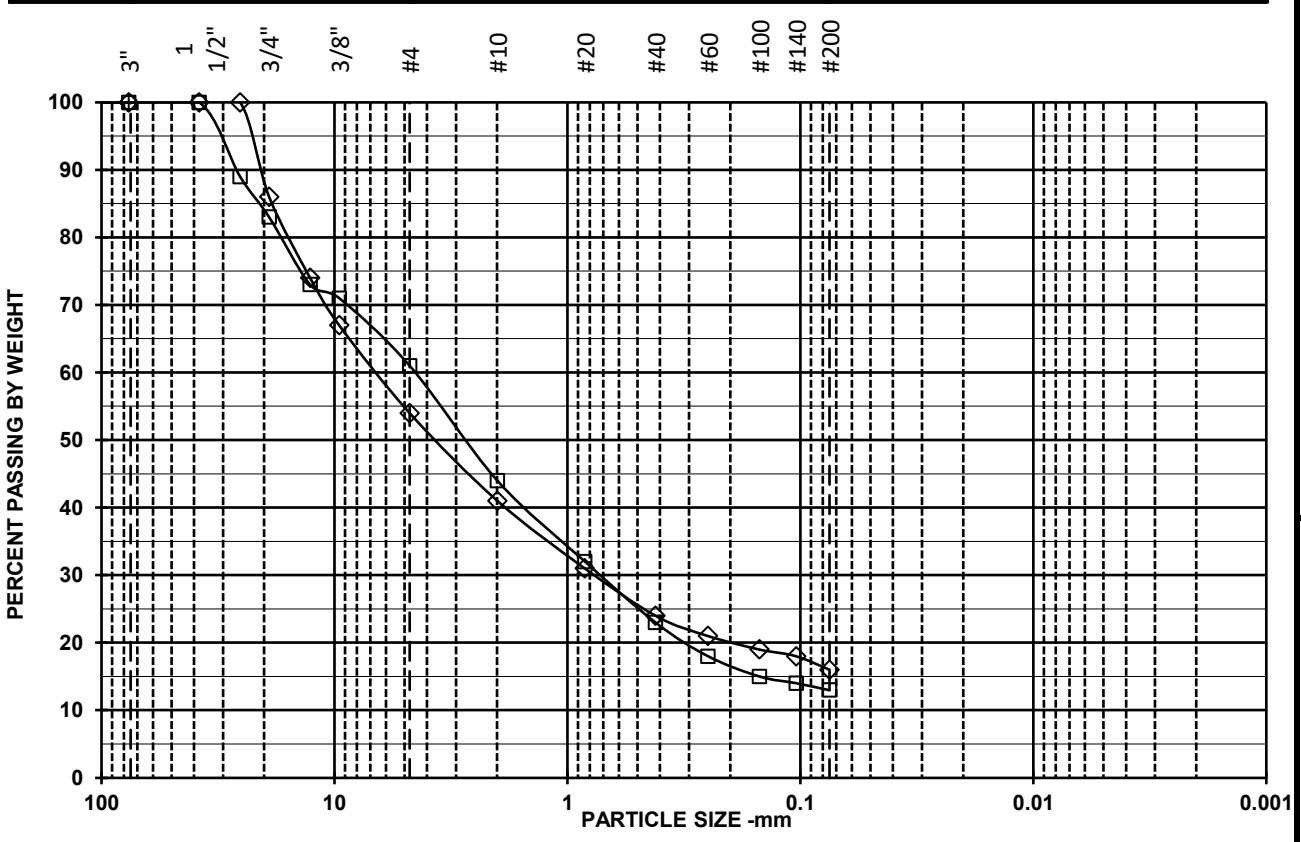
TerraSense #22005011A

Proposed Warehouse

Symbol	□	◇	○
Boring	B-14	B-15	B-16
Sample	S-2	S-4	S-7
Depth	2-4	6-8	15-17
% +3"	0	0	0
% Gravel	29	36	56
% SAND	51	55	33
%C SAND	9	23	10
%M SAND	10	23	15
%F SAND	32	9	8
% FINES	20	9	11
D_{100} (mm)	25.4	25.4	38.1
D_{60} (mm)	1.5	4.09	24.1
D_{30} (mm)	0.18	1.1	1.3
D_{10} (mm)		0.1	
Cc		3	
Cu		40.9	

Sieve Size/ID #	Percent Finer Data		
6"	100	100	100
4"	100	100	100
3"	100	100	100
1 1/2"	100	100	100
1"	100	100	62
3/4"	84	93	51
1/2"	78	83	51
3/8"	78	81	50
#4	71	64	44
#10	62	41	34
#20	56	25	26
#40	52	18	19
#60	40	14	16
#100	24	12	14
#140	21	10	12
#200	20	9	11
5μ m			
2μ m			
1μ m			

PARTICLE SIZE DISTRIBUTION
ASTM D6913 & ASTM D7928



Open Symbols: Sieve analysis by ASTM D6913
Filled symbols: Hydrometer analysis by ASTM D7928 corrected for complete sample

SYMBOL	w (%)	LL	PL	PI	USCS	AASHTO	USCS DESCRIPTION AND REMARKS	DATE
□	11.1				SM		Brown, Silty sand with gravel, Insufficient sample size	06/01/22
◇	10.5				GC		Brown, Clayey gravel with sand, Insufficient sample size	06/01/22
○								

Symbol	□	◇	○
Boring	B-18	B-19	
Sample	S-6	S-3	
Depth	10-12	4-6	
% +3"	0	0	
% Gravel	39	46	
% SAND	48	38	
%C SAND	17	13	
%M SAND	21	17	
%F SAND	10	8	
% FINES	13	16	
D_{100} (mm)	38.1	25.4	
D_{60} (mm)	4.51	6.55	
D_{30} (mm)	0.72	0.76	
D_{10} (mm)			
Cc			
Cu			

Sieve Size/ID #	Percent Finer Data		
6"	100	100	
4"	100	100	
3"	100	100	
1 1/2"	100	100	
1"	89	100	
3/4"	83	86	
1/2"	73	74	
3/8"	71	67	
#4	61	54	
#10	44	41	
#20	32	31	
#40	23	24	
#60	18	21	
#100	15	19	
#140	14	18	
#200	13	16	
5μ m			
2μ m			
1μ m			

Dynamic Earth #2803-99-012E

TerraSense #22005011A

Proposed Warehouse

PARTICLE SIZE DISTRIBUTION
ASTM D6913 & ASTM D7928

USDA-NCRS Custom Soil Resource Report of Orange County, NY

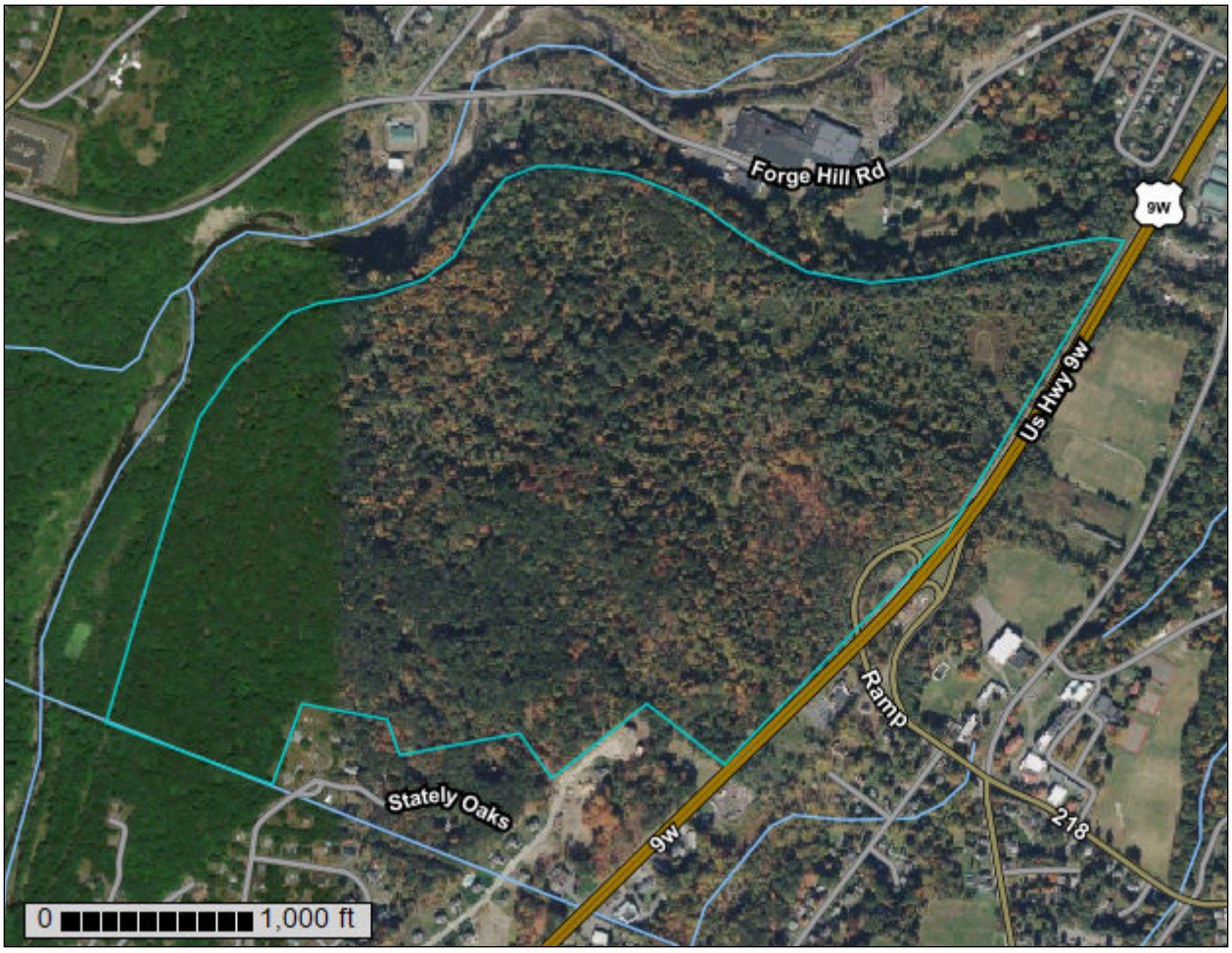
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Orange County, New York



April 20, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

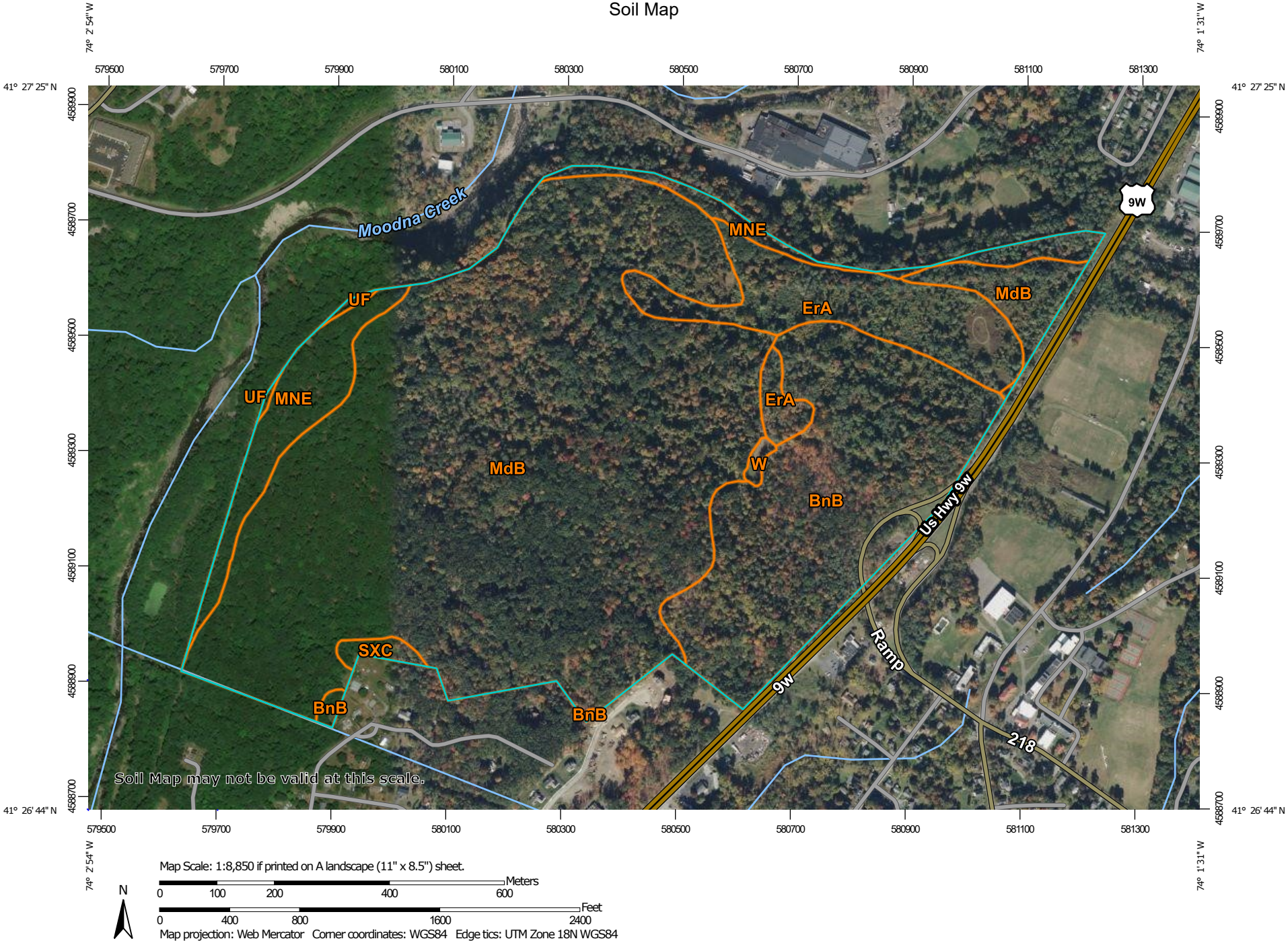
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:8,850 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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 22, Aug 29, 2021

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—Oct 14, 2020

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	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%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not

mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Orange County, New York

BnB—Bath-Nassau channery silt loams, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9vtn
Elevation: 600 to 1,800 feet
Mean annual precipitation: 42 to 52 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Bath and similar soils: 50 percent
Nassau and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bath

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from gray and brown siltstone, sandstone, and shale

Typical profile

H1 - 0 to 9 inches: channery silt loam
H2 - 9 to 29 inches: channery silt loam
H3 - 29 to 53 inches: very channery silt loam
H4 - 53 to 57 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 22 to 38 inches to fragipan; 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 24 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F140XY030NY - Well Drained Dense Till
Hydric soil rating: No

Description of Nassau

Setting

Landform: Benches, ridges, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till derived mainly from local slate or shale

Typical profile

H1 - 0 to 10 inches: channery silt loam
H2 - 10 to 19 inches: very channery silt loam
H3 - 19 to 23 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: D
Ecological site: F144AY033MA - Shallow Dry Till Uplands
Hydric soil rating: No

Minor Components

Lordstown

Percent of map unit: 9 percent
Hydric soil rating: No

Mardin

Percent of map unit: 5 percent
Hydric soil rating: No

Erie

Percent of map unit: 5 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

ErA—Erie gravelly silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9vv8
Elevation: 100 to 1,360 feet
Mean annual precipitation: 42 to 52 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Erie and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Erie

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till derived from siltstone, sandstone, shale, and limestone

Typical profile

H1 - 0 to 10 inches: gravelly silt loam
H2 - 10 to 18 inches: channery silt loam
H3 - 18 to 56 inches: channery silt loam
H4 - 56 to 70 inches: channery silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 10 to 21 inches to fragipan
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: F144AY037MA - Moist Dense Till Uplands
Hydric soil rating: No

Minor Components

Wurtsboro
Percent of map unit: 5 percent
Hydric soil rating: No

Bath
Percent of map unit: 5 percent
Hydric soil rating: No

Mardin
Percent of map unit: 5 percent
Hydric soil rating: No

Alden
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Swartswood
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: No

MdB—Mardin gravelly silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2v30j
Elevation: 330 to 2,460 feet
Mean annual precipitation: 31 to 70 inches
Mean annual air temperature: 39 to 52 degrees F
Frost-free period: 105 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Mardin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mardin

Setting
Landform: Hills, mountains
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile
Ap - 0 to 8 inches: gravelly silt loam

Bw - 8 to 15 inches: gravelly silt loam
E - 15 to 20 inches: gravelly silt loam
Bx - 20 to 72 inches: gravelly silt loam

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 14 to 26 inches to fragipan
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 13 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: D
Ecological site: F144AY008CT - Moist Till Uplands
Hydric soil rating: No

Minor Components

Volusia

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve, base slope, side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Lordstown

Percent of map unit: 5 percent
Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Mountaintop, interfluve, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Bath

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

MNE—Mardin soils, steep

Map Unit Setting

National map unit symbol: 2v30q
Elevation: 330 to 2,460 feet
Mean annual precipitation: 31 to 70 inches
Mean annual air temperature: 39 to 52 degrees F
Frost-free period: 105 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Mardin and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mardin

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till

Typical profile

A - 0 to 4 inches: gravelly silt loam
Bw - 4 to 15 inches: gravelly silt loam
E - 15 to 20 inches: gravelly silt loam
Bx - 20 to 72 inches: gravelly silt loam

Properties and qualities

Slope: 25 to 35 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 14 to 26 inches to fragipan
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 13 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F144AY008CT - Moist Till Uplands
Hydric soil rating: No

Minor Components

Bath

Percent of map unit: 8 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Lordstown, very stony

Percent of map unit: 7 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, nose slope, side slope, free face
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volusia

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

SXC—Swartswood and Mardin soils, sloping, very stony

Map Unit Setting

National map unit symbol: 2v30r
Elevation: 330 to 2,460 feet
Mean annual precipitation: 31 to 70 inches
Mean annual air temperature: 39 to 52 degrees F
Frost-free period: 105 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Swartswood, very stony, and similar soils: 41 percent
Mardin, very stony, and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swartswood, Very Stony

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from quartzite, conglomerate, and sandstone

Typical profile

H1 - 0 to 3 inches: gravelly loam
H2 - 3 to 31 inches: gravelly fine sandy loam
H3 - 31 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 36 inches to fragipan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 23 to 31 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F140XY030NY - Well Drained Dense Till
Hydric soil rating: No

Description of Mardin, Very Stony

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy till

Typical profile

A - 0 to 4 inches: gravelly silt loam
Bw - 4 to 15 inches: gravelly silt loam
E - 15 to 20 inches: gravelly silt loam
Bx - 20 to 72 inches: gravelly silt loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 14 to 26 inches to fragipan
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 13 to 24 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: F144AY008CT - Moist Till Uplands
Hydric soil rating: No

Minor Components

Wurtsboro, very stony

Percent of map unit: 5 percent
Landform: Hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Bath, very stony

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volusia, very stony

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Side slope, interfluve, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Lordstown

Percent of map unit: 5 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, nose slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

UF—Udifluvents-Fluvaquents complex, frequently flooded

Map Unit Setting

National map unit symbol: 9vxb
Elevation: 100 to 3,000 feet
Mean annual precipitation: 42 to 52 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Udifluvents, frequently flooded, and similar soils: 45 percent
Fluvaquents and similar soils: 30 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udifluvents, Frequently Flooded

Setting

Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium with a wide range of texture

Typical profile

H1 - 0 to 4 inches: gravelly loam
H2 - 4 to 70 inches: very gravelly sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 24 to 72 inches
Frequency of flooding: FrequentNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Fluvaquents

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium with highly variable texture

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 70 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Minor Components

Canandaigua

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Humaquepts

Percent of map unit: 5 percent
Landform: Swamps, marshes
Hydric soil rating: Yes

Palms

Percent of map unit: 5 percent
Landform: Marshes, swamps
Hydric soil rating: Yes

Wayland

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

Wallkill

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

W—Water

Map Unit Setting

National map unit symbol: 9vxh
Mean annual precipitation: 42 to 52 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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Geotechnical Terms and Symbols

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GEOTECHNICAL TERMS AND SYMBOLS

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N: Standard Penetration Value: Blows per ft. or a 140 lb. hammer falling 30" on a 2" O.D. split-spoon.
Qu: Unconfined compressive strength, TSF.
Qp: Penetrometer value, unconfined compressive strength, TSF.
Mc: Moisture content, %
LL: Liquid limit, %
PI: Plasiticity index, %
δd: Natural dry density, PCF.
▼: Apparent groundwater level at time noted after completion of boring.
=

DRILLING AND SAMPLING SYMBOLS

NE: Not Encountered (Groundwater was not encountered)
SS: Split-Spoon – 1⅜" I.D., 2" O.D., except where noted
ST: Shelby Tube – 3" O.D., except where noted
AU: Auger Sample
OB: Diamond Bit
CB: Carbide Bit
WS: Washed Sample

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

Term (Non-Cohesive Soils)	Standard Penetration Resistance
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

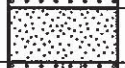
Term (Cohesive Soils)	Qu (TSF)
Very Soft	0-0.25
Soft	0.25-0.50
Firm (Medium)	0.50-1.00
Stiff	1.00-2.00
Very Stiff	2.00-4.00
Hard	4.00 +

PARTICLE SIZE

Boulders	8 in. +	Coarse Sand	5mm-0.6mm	Silt	0.074mm-0.005mm
Cobbles	8 in. – 3 in.	Medium Sand	0.6mm-0.2mm	Clay	- 0.005mm
Gravel	3 in. – 5mm	Fine Sand	0.2mm – 0.074mm		

USCS Standard Classification System

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488

MAJOR DIVISION			GROUP SYMBOL	LETTER SYMBOL	GROUP NAME
COARSE GRAINED SOILS CONTAINS MORE THAN 50% FINES	**GRAVEL AND GRAVELLY SOILS** MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVEL WITH * 5% FINES		GW	Well-graded GRAVEL
				GP	Poorly graded GRAVEL
		GRAVEL WITH BETWEEN 5% AND 15% FINES		GW-GM	Well-graded GRAVEL with silt
				GW-GC	Well-graded GRAVEL with clay
				GP-GM	Poorly graded GRAVEL with silt
				GP-GC	Poorly graded GRAVEL with clay
		GRAVEL WITH ≥ 15% FINES		GM	Silty GRAVEL
				GC	Clayey GRAVEL
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SAND WITH * 5% FINES		SW	Well-graded SAND
				SP	Poorly graded SAND
		SAND WITH BETWEEN 5% AND 15% FINES		SW-SM	Well-graded SAND with silt
				SW-SC	Well-graded SAND with clay
				SP-SM	Poorly graded SAND with silt
				SP-SC	Poorly graded SAND with clay
		SAND WITH ≥ 15% FINES		SM	Silty SAND
				SC	Clayey SAND
FINE GRAINED SOILS CONTAINS MORE THAN 50% FINES	SILT AND CLAY	LIQUID LIMIT LESS THAN 50		ML	Inorganic SILT with low plasticity
				CL	Lean inorganic CLAY with low plasticity
				OL	Organic SILT with low plasticity
		LIQUID LIMIT GREATER THAN 50		MH	Elastic inorganic SILT with moderate to high plasticity
				CH	Fat inorganic CLAY with moderate to high plasticity
				OH	Organic SILT or CLAY with moderate to high plasticity
HIGHLY ORGANIC SOILS				PT	PEAT soils with high organic contents

NOTES:

1) Sample descriptions are based on visual field and laboratory observations using classification methods of ASTM D2488. Where laboratory data are available, classifications are in accordance with ASTM D2487.

2) Solid lines between soil descriptions indicate change in interpreted geologic unit. Dashed lines indicate stratigraphic change within the unit.

3) Fines are material passing the U.S. Std. #200 Sieve.