

July 3, 2023

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Pootatuck to West Devon Rebuild Project

Dear Ms. Bachman:

The Connecticut Light and Power Company doing business as Eversource Energy (“Eversource”) is requesting a Declaratory Ruling from the Connecticut Siting Council (“Council”) that no Certificate of Environmental Compatibility and Public Need is required for the Pootatuck to West Devon Rebuild Project (“Project”), which proposes modifications to the existing 1580, 1241, 1483 and 1545 lines, in the City of Shelton and Town of Stratford, Connecticut (“Petition”).

Prior to submitting this Petition, Eversource representatives briefed municipal officials about the Project and provided written notice to all abutters of the proposed work and also of the filing of this Petition with the Council. Maps and line lists identifying the notified property owners are provided in the Petition as Attachment A: Pootatuck to West Devon Rebuild Project – Aerial Maps.

Eversource is submitting this filing electronically and will deliver an original and 15 copies along with a check in the amount of \$625 for the required filing fee.

Sincerely,



Deborah Denfeld
Team Lead – Transmission Siting

Attachments

cc: Laura Hoydick , Mayor, Town of Stratford
Mark A. Lauretti, Mayor, City of Shelton

THE CONNECTICUT LIGHT AND POWER COMPANY

doing business as

EVERSOURCE ENERGY

PETITION TO THE CONNECTICUT SITING COUNCIL
FOR A DECLARATORY RULING OF
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT
FOR THE PROPOSED MODIFICATIONS TO THE EXISTING
1580, 1241, 1483, AND 1545 LINES IN THE CITY OF SHELTON
AND TOWN OF STRATFORD, CONNECTICUT

1. Introduction

The Connecticut Light and Power Company doing business as Eversource Energy (“Eversource” or the “Company”) hereby petitions the Connecticut Siting Council (“Council”) for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required pursuant to Section 16-50g et seq. of the Connecticut General Statutes for proposed modifications to the 1580, 1241, 1483 and 1545 115-kilovolt (“kV”) transmission lines located within Eversource’s existing transmission right-of-way (“ROW”) in the City of Shelton and Town of Stratford, Connecticut, as described herein (the “Project”). Eversource submits that a Certificate is not required because the proposed modifications would not have a substantial adverse environmental effect.

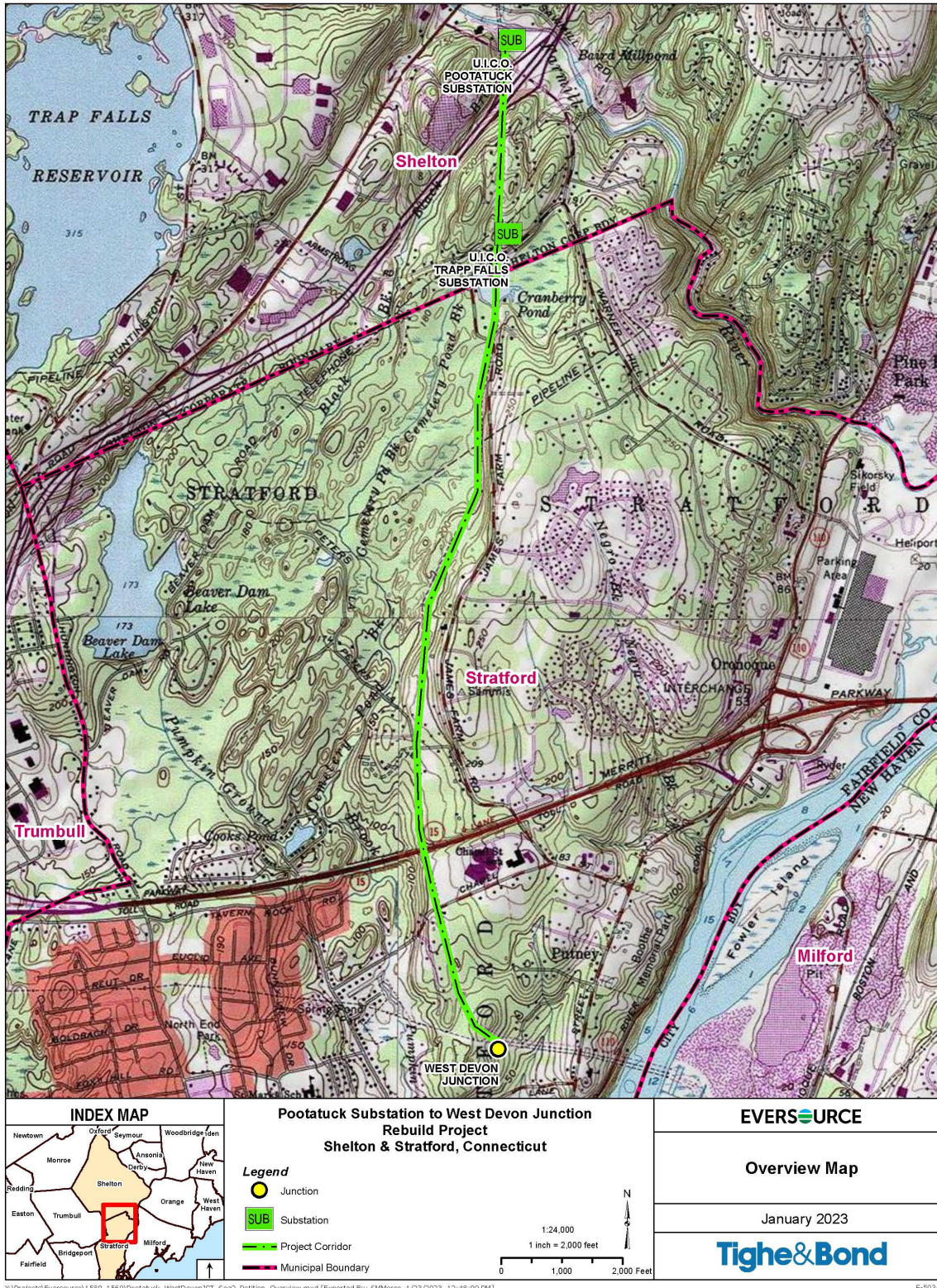
2. Purpose of the Project

The purpose of the Project is to replace structures and reconductor along approximately 3.3 miles of the 1580, 1241, 1483 and 1545 lines within the existing ROW that connects United Illuminating's (“UI”) Pootatuck Substation, located at 14 Old Stratford Road in Shelton (“Pootatuck”) to Eversource’s West Devon Junction, located near River Valley Road in Stratford (“West Devon”). Project work will also include replacing the existing shield wire.

The 1580, 1241, 1483 and 1545 lines are each supported on double-circuit transmission structures, along with three single-circuit monopoles, that share the ROW between Pootatuck, UI's Trap Falls Substation ("Trap Falls") and West Devon. Eversource has identified the existing copper conductor and copperweld shield wire as susceptible to failure and in need of replacement. As a result of the need to replace the existing conductor and shield wire, Eversource has determined that the existing structures require replacement due to their inability to physically support the new conductor and shield wire.

Figure 1 illustrates the general location of the proposed Project.

Figure 1: Project Overview Map



3. Existing Project Area

As shown on Attachment A, Pootatuck to West Devon Rebuild Project – Aerial Map, the existing Project area is an approximately 3.3-mile portion of the ROW from Pootatuck to West Devon. The ROW corridor between Pootatuck and West Devon was established in 1923 and contains the 1580 Line. The 1580 Line shares the ROW with the 1241 and 1483 lines from Pootatuck to Traps Falls and with the 1545 and 1483 lines from Trap Falls to West Devon.

The 1580 Line was built in 1923, the 1241, 1483 and 1545 lines were built in 1962. From Pootatuck to West Devon, the 1580, 1241, 1483, and 1545 lines are supported on a total of 53 structures. The 1580 Line is supported on 25 double-circuit steel lattice towers.¹ The 1241 and 1483 lines are supported on 7 structures (four double-circuit steel lattice structures, two single-circuit steel poles, and one double-circuit steel monopole). The 1545 and 1483 lines are supported on 21 structures (20 double-circuit steel lattice structures and one steel single-circuit pole).

The width of the existing ROW within the Project area is approximately 110 feet. No expansion of the existing ROW is proposed.

The ROW traverses through residential, municipal conservation space (James Farm Road Open Space and Roosevelt Forest, Stratford), commercial and public school (Flood Middle School, Stratford) use properties. The Project crosses Route 8, Route 15 (Meritt Parkway), and local roads. The Project also crosses over a gas line within the ROW.

¹ The 1580 Line is supported on structures that had also supported the 1590 transmission line conductor before the 1590 Line was decommissioned.

4. Project Description

The Project scope consists of conductor, static wire and structure replacements on the 1580, 1241, 1483 and 1545 lines for approximately 3.3 miles between Pootatuck Substation, Trap Falls and West Devon Junction. To accommodate the reconductoring and static wire replacements, the Project requires the replacement of 51 existing structures: 49 double-circuit lattice steel structures, one double-circuit steel pole and one single-circuit steel pole, with a total of 62 new weathering steel monopole replacement structures. Also, two single-circuit steel monopoles will remain².

The proposed modifications would involve the following:

1580 Line

- Replacement of 25 existing double-circuit steel lattice structures with 25 new single-circuit weathering steel monopoles³.
- Replacement of existing 4/0 copper conductor with 1590-kcmil aluminum conductor steel-supported (“ACSS”) conductor.
- Replacement of the existing 3/8-inch copperweld shield wire with optical ground wire (“OPGW”).

² Structures 1341A and 1341B on the 1483 and 1241 lines, respectively, will remain and not be replaced. These two structures are steel monopole structures and can support the new conductor. These structures were replaced by UI under Petition No. 1228 to facilitate UI’s project work. .

³ The decommissioned 1590 Line will be removed and not replaced.

1241 and 1483 Lines

- Replacement of three existing double-circuit steel lattice structures with three new double-circuit weathering steel monopoles⁴.
- Replacement of one existing double-circuit steel lattice structure⁵ with two new single-circuit weathering steel monopoles.
- Replacement of one existing double-circuit steel monopole structure with two new single-circuit weathering steel monopoles.
- Replacement of existing 795-kcmil aluminum conductor steel-reinforced (“ACSR”) with 1590-kcmil ACSS conductor.
- Replacement of the existing 3/8-inch copperweld shield wires with OPGW.

1483 and 1545 Lines

- Replacement of 11 existing double-circuit steel lattice structures with 11 new double-circuit weathering steel monopoles.
- Replacement of 9 existing double-circuit steel lattice structures with 18 new single-circuit weathering steel monopoles.
- Replacement of one single-circuit steel structure with one new single-circuit weathering steel monopole.
- Replacement of existing 795-kcmil ACSR with 1590-kcmil ACSS conductor.
- Replacement of the existing 3/8-inch copperweld shield wires with OPGW..

⁴ In addition, there are telecommunication antennas located on existing structures 1340 and 1321. The telecommunications carriers would be responsible for any required filings with the Council to relocate equipment after the replacement structures are in place.

⁵ The double-circuit lattice structure will be replaced with two single-circuit monopoles (one for for each circuit).

In addition to the work described above, lightning arrestors would be installed on approximately every fifth replacement structure⁶ in addition to the installation of new hardware and insulators on all structures and counterpoise, as needed.

The majority of existing double-circuit steel lattice structures would be replaced with double-circuit steel monopole structures in a “tangent” insulation configuration. The tangent structures are located primarily to keep the conductors within the ROW while maintaining appropriate clearances.

The existing double-circuit structures proposed to each be replaced with two single-circuit monopoles are considered “deadend” or “angle” structures. Typically, deadend structures are located at right-of-way angle points and at reasonable distances to facilitate the replacement construction of the line. Eversource’s current standard practice is to replace a double-circuit dead-end structure with single-circuit dead-end structures, one structure for each circuit.

The height of the existing structures to be replaced ranges from 81 feet to 101 feet. The replacement structures would range in height from 85 feet to 115 feet. The proposed structure height increases of the replacement structures range from approximately 2 feet to 37 feet above the corresponding existing structures. Fifteen structures will have height increases that are over 20 feet. These height increases are required to comply with current clearance requirements. Two replacement structures would have slightly reduced heights, as compared with the corresponding existing structures.

Attachment A: Aerial Maps depicts the locations of existing and proposed structures, as well as the approximate location and configuration of work pads and pull pads, access roads, and other

⁶ The existing lightning arrestors will be transferred to the new structures.

Project elements to be used for the Project. The cross-section drawings provided in Attachment B: Right of Way Cross Section depict typical views along the ROW of the existing and proposed structures. Attachment C: List of Structure Replacements provides more specific information on the heights of the existing and proposed structures.

5. Environmental Effects and Mitigation

The Project would be constructed entirely within Eversource's ROW between Pootatuck Substation, Trap Falls and West Devon. No expansion of the existing ROW is proposed for the Project. The Project would not have a substantial adverse environmental effect for the reasons explained more fully below.

Land Use

Land uses within and adjacent to the Project area consist of a mix of residential, commercial, transportation corridor (federal, state, and local roadways), educational (Flood Middle School), and municipal conservation open space (James Farm Road Open Space and Roosevelt Forest) areas. Though the Project would be traversing through some of these areas, the work will not impact adjacent land uses.

Vegetation Removal

No tree clearing is required for the Project. The width of the ROW is approximately 110 feet. The proposed work would be located within the ROW and would require mowing and brush removal within work pad areas and along access roads. Due to recent vegetation management activities within the ROW, Eversource anticipates that the removal of mature vegetation and pruning of side vegetation and removal of hazard trees along ROW edges would be limited.

In most cases, the cutting of vegetation within the ROW corridors and the pruning of trees and removal of hazard trees along the edges will be completed on foot by ground crews with chainsaws and climbing crews to trim and prune branches. However, in some locations the use of equipment to complete the work may be necessary.

Scenic, Recreational and Cultural Resources

The Project is not anticipated to have a substantial adverse impact to scenic, recreational, or cultural resources for the reasons explained below:

The Project will cross the Merritt Parkway (Route 15) in Stratford, which is a state and nationally designated scenic roadway⁷. Planned activities within the Eversource ROW at this location are temporary, including placement of a temporary wire pulling location and associated access.

The Project will not impact recreational resources. No hiking trails would be impacted during construction as identified through a desktop review of GIS (Geographic Information System) data available from the Connecticut Department of Energy and Environmental Protection (“CT DEEP”)⁸, Connecticut Forest and Park Association (“CFPA”)⁹, the City of Shelton’s Conservation Commission website¹⁰, the Town of Stratford’s Parks website¹¹, and verified through field reconnaissance. Adjacent public use recreational areas are limited to the James

⁷ Connecticut Department of Transportation (CTDOT), December 31, 2020 Connecticut State Scenic Roads. Available URL: <https://portal.ct.gov/DOT/Programs/Connecticut-Scenic-Roads>.

⁸ Connecticut Department of Energy and Environmental Protection, GIS Data URL: <https://portal.ct.gov/DEEP/GIS-and-Maps/Data/GIS-DATA>

⁹ Connecticut Forest & Park Association URL: <https://www.ctwoodlands.org/>

¹⁰ City of Shelton Conservation Commission URL: http://www.sheltonconservation.org/recreation/shelton_trails.html

¹¹ Town of Stratford, Parks URL: <https://www.stratfordct.gov/content/39842/default.aspx>

Farm Road Open Space and the Roosevelt Forest in Stratford. Recreational use of these properties would not be affected by the Project.

A Phase 1A cultural (archaeological and historical) resource assessment of the proposed Project was conducted by Heritage Consultants, LLC (“Heritage”) and detailed in its report, dated October 6, 2022. The review consisted of an initial desktop archaeological and historical resource review and pedestrian survey (“Phase 1A Cultural Resource Assessment” or “Phase 1A”).

The Phase 1A desktop evaluation determined that no previously identified archaeological sites or National/State Register of Historic Places properties/districts are located within 500 feet of the Project ROW. Based upon the presence of qualifying criteria (i.e., identification of areas that are likely to contain and/or retain archaeological deposits), the Phase 1A identified various locations within the Project area as having a moderate to high potential for archaeological sensitivity, thus prompting further investigation via the execution of a Phase 1B survey.

The Phase 1B survey consisted of shovel testing in select locations, which was completed in September 2022. The Phase 1B investigation resulted in reclassification of all moderate/high sensitivity areas as having no/low sensitivity where no further archaeological investigation was recommended.

The results of the Phase 1B survey has been provided to the State Historic Preservation Office (“SHPO”) and the Tribal Historic Preservation Offices (“THPO”) of the Connecticut Tribe of Mohegan Indians and the Mashantucket Pequot Tribal Nation for their review. SHPO reviewed the results of the Phase 1B assessment and concurred that no historic properties would be

affected by the Project. If received, written replies from a THPO will be provided to the Council by Eversource upon receipt.

Water Resource Areas

Eversource conducted delineations of wetlands and water resources in the Project area in October 2020. Wetland boundaries were reinspected and modified as needed in March 2021 and June 2022 (see Attachment D: Wetland Delineation Report and Attachment E: Vernal Pool Survey and Recommended Protection Measures). Water resources within the Project area include inland wetlands, watercourses (perennial and intermittent streams), ponds, vernal pools, and Federal Emergency Management Agency (“FEMA”) Flood Zones. All Project work in or near these areas would be conducted in accordance with Eversource’s April 2022 Best Management Practices Manual for Massachusetts and Connecticut (“BMPs”) and the Project specific Stormwater Pollution Control Plan (“SWPCP”) that Eversource would develop for the Project under a CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (“General Permit”). Details on each of these resource areas are provided below.

Wetlands

Wetlands located within the Project area were identified and delineated in accordance with industry standard methodology. A total of 17 wetlands were identified and delineated within or proximate to the Project area.

The Project would include removal of eight structures from wetlands and installation of 14 monopoles within wetland areas. Permanent wetland effects from placement of the 14 structures within wetlands would result in approximately 600 square feet (0.01 acre) of permanent wetland effects.

The Project will also result in approximately 2.88 acres of temporary effects to wetlands, which are associated with the temporary use of construction mats for access roads, pull pads and work pads and vegetation removal. All construction mats will be promptly removed upon Project completion and wetland areas will be restored in accordance with Eversource's BMPs. Table 1 below provides a summary of Project effects to wetlands and watercourses.

Watercourses and Waterbodies

A total of 6 watercourses have been identified and delineated within or proximate to the Project area. These include four (4) perennial watercourses and 2 intermittent watercourses. Named perennial watercourses and waterbodies include Wells Brook, Farmill River, Black Brook, and Cranberry Pond. No permanent or temporary impacts to watercourses are proposed. Temporary matting would extend into Cranberry Pond.

Existing stormwater culverts and drainage swales will be crossed along access roads at various locations throughout the Project. Existing stormwater management features within the Project area would be protected and/or stabilized in accordance with the Project Stormwater Pollution Control Plan and Eversource's BMPs.

Table 1: Summary of Project Effects to Wetlands and Watercourses

Wetland / Watercourse ID	200 Scale Map Sheet	Wetland/Watercourse Effects (± square feet / acres)	
		Temporary (Matting)	Permanent (Proposed Structures)
W2	1,2	7,916 / 0.18	
W3	1,2	2,568 / 0.06	
W4	3	2,498 / 0.06	
W5	3	2,025 / 0.05	
W6	3	18,823 / 0.43	80 / 0.002
W8	3,4	16,748 / 0.38	130 / 0.003
W10	4	2,400 / 0.06	30 / 0.0007
W11	4	6,055 / 0.14	
W12	4	942 / 0.02	
W13	5	15,114 / 0.35	100 / 0.002
W14	6	1,574 / 0.04	50 / 0.001
W15	6,7	48,594 / 1.11	210 / 0.005
Total		125,257 / 2.88	600 / 0.01s

Vernal Pools

The Project Area was surveyed for potential vernal pools in late 2020. Potential vernal pools were identified based on the presence of suitable hydrology (i.e., evidence of seasonally to permanently flooded wetlands) and the presence of other indicators such as concave and unvegetated surfaces. The Project also assessed potential vernal pool habitat during the spring of 2021 and 2022. The spring assessment methods included visual surveys to identify adults, larvae and egg masses, aural surveys of amphibian chorusing, and dip-net surveys to identify vernal pool species larvae.

One vernal pool (VP1) was identified adjacent to the ROW within wetland 4 (W4). The vernal pool envelope (area within 100 feet of a vernal pool depression) of VP1 extends into the ROW. A second vernal pool (VP2) was identified within the ROW within wetland 15 (W15). VP 2 and the vernal pool envelopes of VP1 and VP2 are shown in Attachment A. The results of the vernal pool survey and recommended protection measures are provided in Attachment E.

Project work would not result in either temporary or permanent effects to vernal pools. Proposed effects to 100-foot vernal pool envelopes would be minimized to the greatest extent practical through avoidance, minimization, and implementation of recommended protection measures, including the 2002 Connecticut Guidelines for Erosion and Sediment Control (“Connecticut Guidelines”), Eversource’s BMPs, and the methods detailed in Attachment E – Vernal Pool Survey.

FEMA Flood Zones

The Project crosses the FEMA-designated 100-year and 500-year flood zones associated with the Farmill River in Shelton. No new transmission structures are proposed within FEMA flood zones. Proposed temporary fills would be limited to placement of a pull pad within the 500-year flood zone of the Farmill River. There would be no permanent fill placed within the FEMA flood zone of the Farmill River. Temporary mats, construction materials and equipment would be properly secured where placed within the flood zone and will be removed from the flood zone immediately upon completion of construction.

Water Supply

Based on Aquifer Protection Area (“APA”) mapping maintained by the CTDEEP, no APAs extend into the ROW. The Project area is not within a public water supply watershed and does not cross any public supply reservoirs or public water supply wells.

Wildlife and Habitat

The Project area extends through a variety of habitats that support vegetation and wildlife common in maintained transmission line corridors. Habitats include upland and wetland shrubland and meadow, riparian corridors, active and fallow agricultural land, and unvegetated or sparsely vegetated ledge outcroppings.

CT DEEP Natural Diversity Database (“NDDB”) mapping depicts known or potential occurrences of state-listed endangered, threatened, or special concern species in the vicinity of the Project area. Eversource submitted a NDDB State-listed Species Review Request to the CT DEEP for the Project on October 12, 2022. Eversource received a response letter from CT DEEP on May 23, 2023 (NDDB Determination No.: 202210365) and will adhere to the recommendations for protection of listed species as detailed in the letter. In addition to listed species guidance that was provided by CT DEEP, Eversource is proposing to restore planned gravel work pads with native plant seed mix in NDDB areas following construction.

In addition to coordinating with the NDDB for the protection of state-listed species, Eversource consulted with the U.S. Fish & Wildlife Service’s (“USFWS”) Information, Planning, and Consultation (“IPaC”) service regarding federal-listed species that may be present within the Project area. The IPaC report indicated one federally listed threatened species, Northern Long-eared Bat (“NLEB”), and one candidate species, monarch butterfly, may potentially be found in proximity to the Project area.

NLEB roosts in certain trees in the warmer months of the year and at other times hibernates in caves and mines (bat “hibernacula”). However, according to the NLEB Areas of Concern in Connecticut map (dated March 6, 2019), there are currently no known NLEB maternity roost trees in Connecticut and no known NLEB hibernacula in the City of Shelton or Town of Stratford. Therefore, no impacts to this species are anticipated.

While monarch butterfly is currently identified as a candidate species, it is not yet federally listed or proposed for listing. As detailed in the USFWS Environmental Conservation Online System ¹², Consultation with USFWS under section 7 of the Endangered Species Act is not required for candidate species. Utility corridors provide linear habitat for monarch butterflies and other pollinators. Further, gravel work pad restoration in sensitive areas (e.g., NDDB areas, etc.) will be seeded with a CT DEEP approved seed mix that includes pollinator-friendly native vegetation, such as milkweed. As such, no impacts to this species are anticipated.

Invasive Species

Invasive species exist within the ROW. The Project would adhere to Eversource’s BMPs to minimize the disturbance and spread of soil and/or plant matter as specified in the BMP Manual, including the following additional actions to control the potential spread of invasive species:

- Clean vehicles, equipment, materials (including matting), gear, footwear or clothing of all visible soil and plant material on site in the infested area, or as near as practical to the infested area, prior to leaving the Project site.
- Cleaning may be accomplished using a brush, broom, or hand tools, by shaking or dropping mats in a controlled manner to dislodge attached soil and debris, or compressed air.

¹² USFWS, Environmental Conservation Online System URL: <https://ecos.fws.gov/ecp/species/9743>

Visual Effects

The 1580, 1241, 1483 and 1545 lines share the ROW. Though the Project would result in changes to the visual character of the line, Eversource does not believe that these would result in a significant environmental effect. Replacement structures, especially those converting from a lattice to a monopole design, would result in a uniform weathering steel material that would present a more streamlined appearance.

In addition, the replacement structure heights will be greater than the existing structures including 15 replacement structures with a height increase of 20 feet or greater. As a result, the Project would have only a minimal change to the existing visual character of the line along the ROW.

Noise

Project work would result in short-term and localized noise from construction activities. The temporary increase in noise would likely temporarily raise localized ambient sound levels immediately surrounding the work areas due to the operation of standard types of construction equipment (e.g., backhoe, bulldozer, drill rig, excavator mounted rock hammer, crane, trucks, etc.)¹³. Upon completion of construction and during operation of the lines, the proposed Project would not result in any effect on ambient noise levels.

¹³ Construction noise is exempted under the Connecticut regulations for the control of noise, RCSA §22a-69-1.8(g).

Air Quality

Short-term, localized effects on air quality may result from the Project work, primarily from fugitive dust and equipment emissions. To minimize the amount of dust generated by construction activities, the extent of exposed/disturbed areas at any one time would be minimized. Vehicle emissions will be limited by requiring contractors to properly maintain construction equipment and vehicles, and by minimizing the idling time of equipment and vehicles, including diesel construction equipment, in accordance with Connecticut regulatory requirements. Temporary gravel tracking pads would be installed at points of construction vehicle ingress/egress to minimize the potential for equipment to track dirt onto local roads. To further minimize dust, water may be used to wet down disturbed soils or work areas with heavy tracking, as needed.

Electric and Magnetic Fields

Eversource prepared calculations of the existing and post-Project Electric and Magnetic fields (“EMF”). The calculations were based on average annual loading conditions, as these are most representative of typical operating conditions. The calculations are made relative to the centerline of the proposed, modified transmission lines.

Tables 2 and 3 summarize the calculated electric and magnetic fields at the ROW edges before and after the modifications.

Table 2 – Summary of Calculated Magnetic Fields (with Average Annual Loads)

Calculated Magnetic Fields (Average Annual Loads(mG))				
Section		Left Edge of ROW	Max in ROW	Right Edge of ROW
West Devon Junction – Trap Falls S/S	Existing	9.6	19.0	14.8
	Proposed	7.8	23.7	10.5
Trap Falls S/S - Pootatuck S/S	Existing	8.3	14.8	7.1
	Proposed	4.9	14.3	3.6

Table 3 – Summary of Calculated Electric Fields

Calculated Electric Fields (kV/m)				
Section		Left Edge of ROW	Max in ROW	Right Edge of ROW
West Devon Jct – Pootatuck S/S	Existing	0.38	1.65	0.59
	Proposed	0.26	2.27	0.15

The results of the calculations show that the proposed modifications would not substantially increase, but will actually decrease, electric or magnetic fields at the edges of the corridor.

See Attachment F: EMF Graphs.

Comparison of Calculated Fields to International Guidelines

The anticipated fields from the proposed transmission lines are well below the internationally establish exposure limits for 60-Hz electric and magnetic fields, specifically, the limits identified by the International Council on Electromagnetic Safety (“ICES”) and the

International Council on Non-Ionizing Radiation Protection (“ICNIRP”). These standards are summarized below in Table 4.

Table 4 – International Guidelines for EMF Exposure

	EF (kV/m)	MF(mG)
ICES	5	9,040
ICNIRP	4.2	2,000

6. Construction, Traffic Management and FAA

Construction-related vehicular and equipment movements would utilize public roads in the Project area to access the ROW. However, the Project-related traffic is generally expected to be temporary and highly localized in the vicinity of the ROW access points and at the staging area described in the following Construction Sequence Activities section. Due to the phasing of construction work, these Project-related traffic movements are not expected to significantly affect transportation patterns or levels of service on public roads¹⁴.

To safely move construction vehicles and equipment onto and off the ROW while minimizing disruptions to vehicular traffic along public roads, the construction contractor typically would be responsible for posting and maintaining construction warning signs along public roads near

¹⁴ Eversource is coordinating with CDOT for crossing Route 8 and the Merritt Parkway.

work sites and for coordinating the use of flaggers or police personnel to direct traffic, as required.

Construction vehicles and equipment associated with the work would include, but would not be limited to, pickup trucks, bucket trucks, flat-bed trucks, excavator, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, woodchippers, brush hogs/mower, forklifts, side booms, dump trucks and cranes. Pullers and tensioners would be used for the line work.

Construction Sequence and Activities

Project construction would include the following activities:

Establishing Staging Area/Laydown Yard

Eversource proposes to establish a staging area/laydown yard for the Project on Caswell Street located near 61 Caswell Street in Milford. This staging area/laydown yard is approximately 3 acres. This staging area/laydown yard would be used to store construction equipment and materials, (including tools, and supplies) conductor, insulators, hardware, poles and construction mats, for the Project. Office trailers may also be located at the staging area/laydown area, and transmission line components removed during the work (structure steel, conductor, hardware and insulators) may be temporarily accumulated and stored prior to removal off-site for salvage and/or disposal. The staging area/laydown may also be used by construction crew members for parking personal vehicles as well as for construction vehicles, and for performing minor maintenance, when needed, on construction equipment. Erosion and sedimentation (“E&S”) controls would be installed and maintained until completion of the work in accordance with Project permits and Eversource’s BMP’s. See Figure 2.

Figure 2: Staging Area/Laydown Yard



Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for erosion and sedimentation ("E&S") control, including those provided in the Connecticut Guidelines and Eversource's BMPs. This includes development of a Project specific Stormwater Pollution Control Plan ("SWPCP") and registration under CTDEEP's General Permit

Typical E&S control measures include, but are not limited to, straw blankets, straw bales, silt fencing, rock construction entrances, soil and slope protection, water bars, check dams, berms, swales, and plunge pools. Silt fence would be installed as needed to intercept and retain sediment and/or construction materials from disturbed areas and minimize the potential for sedimentation outside of the Project and staging areas.

Temporary E&S control measures will be installed prior to any site work and would be maintained and inspected for the duration of the Project to ensure their integrity and effectiveness and for compliance with the General Permit. SWPCP inspections would be performed in accordance with the General Permit requirements. Protection measures include but are not limited to contractor training and education, time of year best management practices, monitoring, and installation of exclusionary features as directed by qualified individuals. Following construction, seeding and/or mulching would be completed to permanently stabilize the areas disturbed by construction activities. Temporary E&S control measures would remain in place until the Project work is complete and all disturbed areas are stabilized.

Access Roads and Work Pads

Access to each existing and proposed structure location would be required during construction. Some gravel access roads are already established and Eversource would utilize

these existing access roads to the extent possible. However, new permanent access roads would be required within Eversource ROW, but would be limited to upland areas. Temporary construction matting would be used in wetlands as well as in other sensitive areas, such as NDDDB areas and lawns, to the greatest extent practicable.

Existing access roads may need to be improved (graded, widened, and/or reinforced) with additional material (gravel) in order to accommodate the safe passage of construction vehicles and equipment. Typically, the maximum travel surface of an access road is approximately 16 feet wide (additional width may be needed at turning or passing locations). E&S controls would be installed as necessary before the commencement of any improvements to or development of access roads.

At each transmission line structure location, a work pad is required to stage material for final on-site assembly and/or removal, and to provide a safe, level work base for the construction equipment. The work pads for the Project would range from approximately 75 feet by 75 feet to 110 feet (width of ROW) by 125 feet and may be used for both installation of new structures and removal of existing structures. Pull pads would have dimensions of approximately 75 feet by 110 feet. Work pads would be graveled where practical. Temporary matting would be installed to protect sensitive areas (i.e., regulated wetlands and watercourses, lawn areas, agricultural lands, etc.). To facilitate future transmission line maintenance, gravel access roads, work pads and pull pads would be left in place where feasible. Gravel work pads within NDDDB areas would be revegetated with a CTDEEP approved native seed mixture. If an individual property owner requests restoration measures, the Project representatives will work with the property owner on mitigation options.

The approximate locations and configuration of the work pads, as determined based on environmental field studies and constructability reviews, are shown on Attachment A.

Foundation Installation

Structures would have either direct-embed (17 structures) or drilled caisson (45 structures) foundations.

The foundation installation work would require the use of equipment such as mechanical excavators (drill rigs), pneumatic hammers, augers, drill rigs, dump trucks, concrete trucks, grapple trucks, cranes and light duty trucks. If groundwater is encountered, pumping (vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas. The water would then be discharged in accordance with applicable local, state and federal requirements.

Excavated soils that are generated during construction activities would be temporarily stored and later spread in an upland area within the ROW, to the extent practicable, or disposed of in accordance with applicable regulations.

Structure Installation

Structure sections, structure components and hardware would be delivered to the individual structure locations using flat-bed trucks and assembled on-site using a crane, bucket trucks and excavator.

Depending on site-specific soil conductivity, supplemental grounding (counterpoise, in uplands only) would be installed. A quad “ditch-witch” plow-cable trencher, or equivalent/similar type of equipment, would be used to install the counterpoise after the proposed structures are constructed.

Conductor Installation

The installation of the new conductors and OPGW would occur after the new structures have been erected. The equipment required for these activities would include conductor reels, compressors, conductor pulling and tensioning rigs, guard trucks or structures and bucket trucks.

Structure, Conductor and Static Wire Removal

The existing structures would be removed after the installation of the new weathering steel monopoles.

The removal of the existing conductor and shield wire would take place during the active installation of the new conductor and OPGW as the existing conductor and static wire would be used as pulling lines, where possible.

Restoration

Post-construction restoration of the ROW would include the removal of construction debris, signage, flagging, and temporary fencing, and temporary construction mats. Disturbed areas would be restored as practical and stabilized with vegetation or other measures before removing temporary E&S controls.

Eversource would perform ROW restoration in accordance with the protocols specified in Eversource's BMPs and in consultation with affected property owners. Eversource is proposing to apply fine processed gravel and seed gravel work pads in NDDDB areas following construction.

Waste Management

Waste materials, such as structure components (i.e. steel from the removed structures, conductor, shield wire, associated hardware, etc.) and any other construction debris would be reclaimed through the Eversource investment recovery system and/or disposed of in accordance with Eversource's BMPs, applicable regulations or recycled consistent with applicable rules and regulations and Eversource policies

Federal Aviation Administration (FAA)

Eversource filed a Notice of Proposed Construction or Alteration with the Federal Aviation Administration ("FAA") for the airports and heliport in the vicinity of the Project. Eversource has received a response from FAA stating "no hazard determination" for 62 structures and is waiting on a response on three structures as to whether marker balls or beacon lights would be required.

7. Construction Schedule and Work Hours

Construction work hours would typically be between 7:00 AM and 7:00 PM, six days per week (Monday through Saturday). Construction workers may arrive at and leave the laydown area outside of these times. In addition, during winter, snow plowing and de-icing activities will typically commence, when necessary, prior to 7:00 AM to ensure a safe environment for construction personnel prior to the start of the workday.

On occasion, Sunday work hours are anticipated to be required. The City of Shelton, Town of Stratford, and abutters would be provided advance notice of the proposed Sunday work hours.

8. Municipal and Property Owner Outreach

Eversource consulted with the City of Shelton and with the Town of Stratford in January 2023 to provide an initial briefing of the proposed Project. An in-person presentation was later provided to the City of Shelton in March 2023 and an in-person meeting with the Town of Stratford was held in June 2023 to review project details and proposed structure locations, including the proposed structure within the Eversource ROW off Peters Lane in Stratford. The Project Team will coordinate with the Town to install safety barriers during and after construction as well as a potential permanent guard rail installed by Eversource next to the structure. The Town officials expressed no concerns with the Project. In addition to providing a written notice of the Petition filing in June 2023, Eversource will continue to communicate with municipal officials throughout the project planning process.

Eversource initiated outreach to property owners in Fall 2022. Beginning in January 2023, Eversource conducted door-to-door outreach to property owners located along the ROW. In conjunction with the submission of this Petition, all abutting property owners were notified of the filing and provided details on how to obtain additional information on the Project, as well as how to submit comments to the Council. Eversource continues to meet with and work with affected property owners to address their concerns and provide reasonable mitigation options when feasible.

Eversource representatives will be in contact with abutting property owners to provide advance notification of start of construction activities and will update property owners throughout the phases of construction and restoration.

9. Conclusion

Based on the foregoing, Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment, nor would they damage existing scenic, historical or recreational values. Accordingly, Eversource requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect.

Communications regarding this Petition for a Declaratory Ruling should be directed to:

Deborah Denfeld
Lead – Transmission Siting
Eversource Energy
PO Box 270
Hartford, CT 06141-0270
Telephone: (860) 728-4654

By:

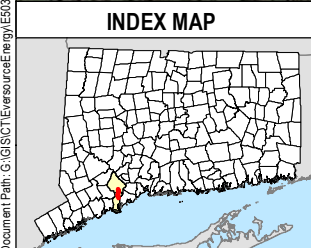
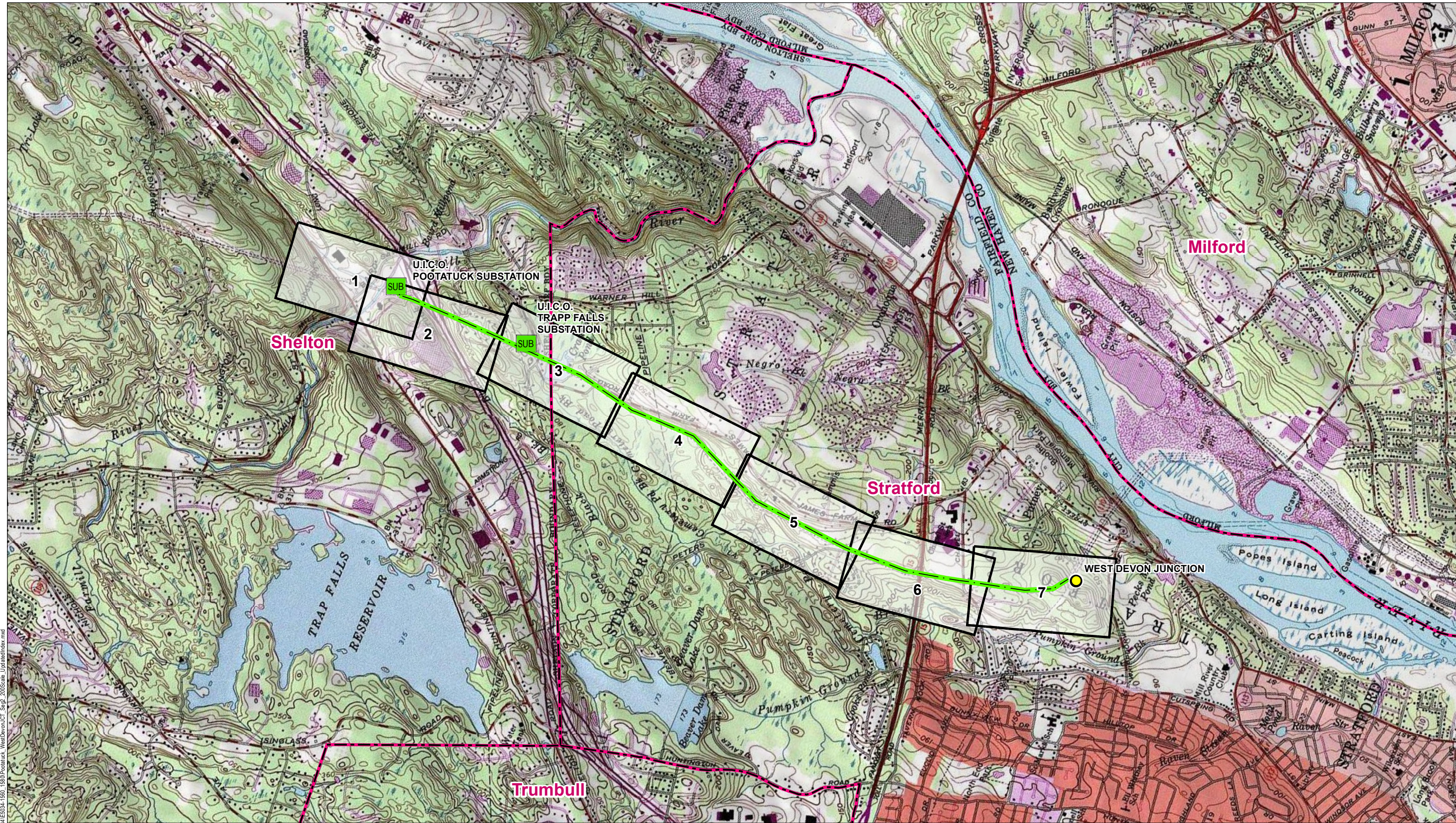


Deborah Denfeld
Team Lead – Transmission Siting

List of Attachments

Attachment A: Pootatuck to West Devon Rebuild Project – Aerial Maps
Attachment B: Right-of-Way Cross Sections
Attachment C: List of Structure Replacements
Attachment D: Wetlands Delineation Report
Attachment E: Vernal Pool Survey
Attachment F: EMF Graphs
Attachment G: Letter to the Abutters and Affidavit

ATTACHMENT A



- Legend**
- Junction
 - Substation
 - Project Corridor
 - Map Sheet
 - Municipal Boundary



1 inch = 2,000 feet

Base Map Source: ESRI USA Topographic Maps

EVERSOURCE

**Pootatuck to West Devon Junction
Rebuild Project**

Shelton & Stratford, Connecticut

Date: June 20, 2023

Tighe & Bond

NO.	DATE	REVISIONS	BY	CHK	APP	APP

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Mapsheet 1 of 7
 Pootatuck to West Devon Junction Rebuild Project
 Access to Existing Structures 1241/1483 Lines: 1341, 1341B
 Access to Existing Structures 1580 Line: 19200, 259
 City of Shelton, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Commercial
- Agricultural
- Black Brook, Farmill River, Wells Brook
- Undeveloped forest
- U.I.CO. Pootatuck Substation
- Floodway
- 100-Year Flood Zone
- 500-Year Flood Zone
- CT Route 8 Exit 12
- Maintained ROW
- Transmission Gas Line

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Commercial
- Agricultural
- Black Brook, Farmill River, Wells Brook
- U.I.CO. Pootatuck Substation
- Floodway
- 100-Year Flood Zone
- 500-Year Flood Zone
- CT Route 8 Exit 12
- Maintained ROW

Water Resources

- Wetland – W1, W2, W3,
- Wetland Cover Types – Emergent, Scrub-shrub
- Watercourses – S1 (Wells Brook), S2 (Farmill River), S3 (Black Brook)
- Vernal Pools – none

Wetland and Watercourse Crossings

- W2, W3

Right-of-Way Vegetation

- Agricultural
- Maintained ROW

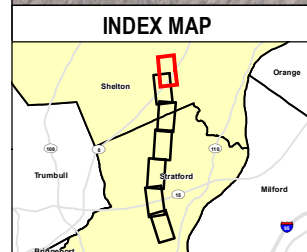
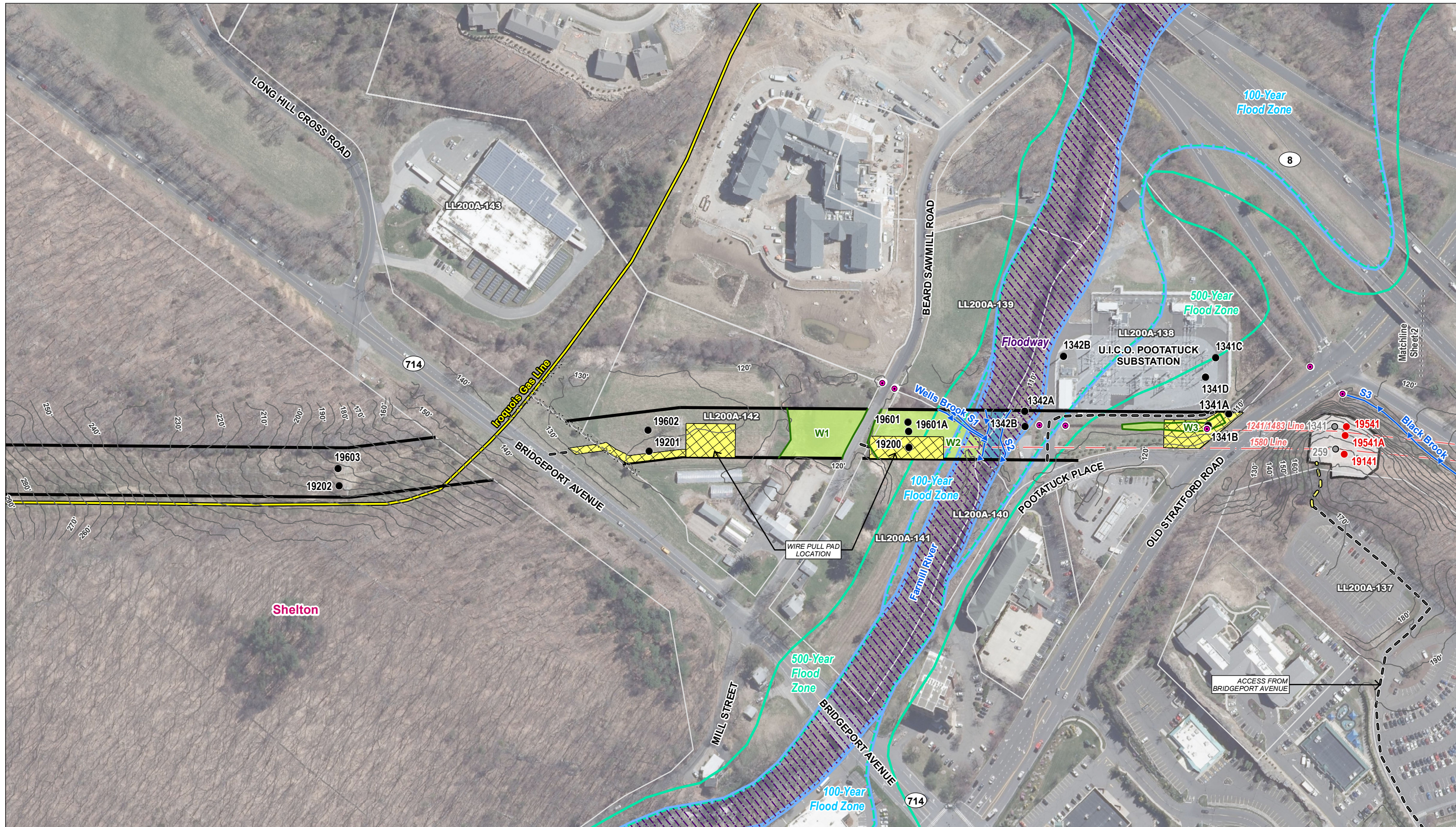
Access

- Wire pull pad: Proposed matting from Bridgeport Avenue
- Wire pull pad: Proposed matting from Beard Sawmill Road
- Wire pull pad: Existing paved access from Pootatuck Place
- Structures 259, 1341: Off-ROW existing paved and proposed gravel from Bridgeport Avenue

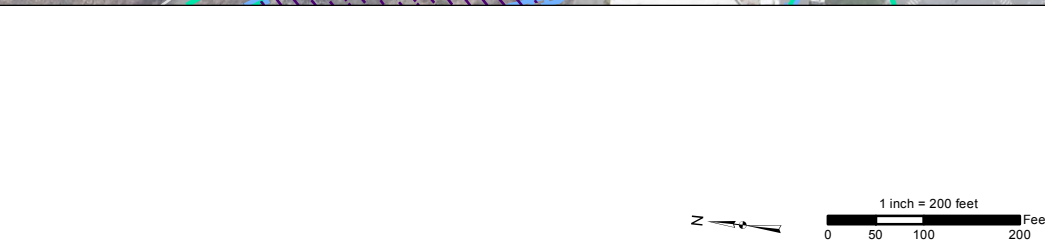
Road Crossings

- Beard Sawmill Road
- Old Stratford Road
- Pootatuck Place

Line List	Parcel Address	City	State	Owner Name
200A-142	0 BRIDGEPORT AVE	SHELTON	CT	EDITH B WELLS
200A-143	600 BRIDGEPORT AVE	SHELTON	CT	FAR MILL LLC
200A-137	710 BRIDGEPORT AVE	SHELTON	CT	AA SHELTON LLC
200A-138	14 OLD STRATFORD RD	SHELTON	CT	UNITED ILLUMINATING COMPANY
200A-139	0 BEARD SAWMILL RD	SHELTON	CT	ROYAL B WELLS
200A-140	0 OLD STRATFORD RD	SHELTON	CT	EDITH B WELLS
200A-141	656 BRIDGEPORT AVE	SHELTON	CT	EDITH B WELLS



Legend	
● Proposed Structure	— Existing Access
● Existing Structure	— Proposed Access
● Existing Structure to be Removed	— Delineated Perennial Watercourse
● Culvert	— Open Water
X=X Fence	— Field Delineated Wetland Boundary Outline
— Overhead Eversource Line	— Field Delineated Wetland
— Approximate Gas Line	— Proposed Stone Work Pad
— 5' Contours	— Temporary Construction Matting
— Existing Right-of-Way (ROW)	— FEMA Floodway
	— FEMA 100-Year Flood Zone
	— FEMA 500-Year Flood Zone
	— Parcel Boundary



EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Shelton, CT			Map Sheet 1 of 7		
Date: June 20, 2023					
NO.	DATE	REVISIONS	BY	CHK	APP



Mapsheet 2 of 7
 Pootatuck to West Devon Junction Rebuild Project
 Access to Existing Structures 1241/1483 Lines: 1340, 1339, 1338
 Access to Existing Structures 1580 Line: 260, 261, 262
 City of Shelton, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Natural Diversity Database Area (December 2022)

- Residential
- Commercial
- Black Brook
- CT Route 8 Exit 12
- Maintained ROW

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Natural Diversity Database Area (December 2022)
- Residential
- Commercial
- Black Brook
- CT Route 8 Exit 12
- Maintained ROW

Water Resources

- Wetland – none
- Wetland Cover Types – N/A
- Watercourses –S3 (Black Brook)
- Vernal Pools – none

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Maintained ROW
- Maintained lawn/residential landscaping

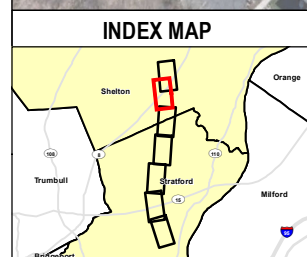
Access

- Structures 260, 1340: Existing gravel from Daybreak Lane
- Structures 261, 262, 1339, 1338: Proposed gravel from Daybreak Lane

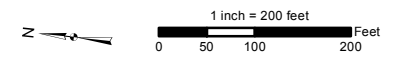
Road Crossings

- Route 8 and Exit 12 ramps
- Daybreak Lane

Line List	Parcel Address	City	State	Owner Name
200A-118	66 ARMSTRONG RD	SHELTON	CT	CRANBERRY HILL ESTATES
200A-121	54 DAYBREAK LA	SHELTON	CT	LINDA STEVENS
200A-122	27 PARTRIDGE LA	SHELTON	CT	MIGUEL A MALDONADO
200A-123	50 DAYBREAK LA	SHELTON	CT	TAMARA ROOT
200A-124	23 PARTRIDGE LA	SHELTON	CT	NANCY R STEINER TR
200A-125	46 DAYBREAK LA	SHELTON	CT	ROBERT E BAKER
200A-126	42 DAYBREAK LA	SHELTON	CT	JOSE DASILVA
200A-127	19 PARTRIDGE LA	SHELTON	CT	JOSEPH J NORTON JR
200A-128	15 PARTRIDGE LA	SHELTON	CT	JAROSLAV KOCUREK
200A-129	38 DAYBREAK LA	SHELTON	CT	JOHN BENSON
200A-130	19 DAYBREAK LA	SHELTON	CT	LINDA M SIMON-HENDERSON
200A-131	11 PARTRIDGE LA	SHELTON	CT	HALINA WEGIEL
200A-132	34 DAYBREAK LA	SHELTON	CT	ROBIN FRIEND
200A-133	7 PARTRIDGE LA	SHELTON	CT	HENRYK & ZENOBIA CZAJKOWSKI L/U
200A-134	30 DAYBREAK LA	SHELTON	CT	LEONARD PETRUCELLI
200A-135	3 PARTRIDGE LA	SHELTON	CT	BRETT A LEFERRIERE
200A-136	15 DAYBREAK LA	SHELTON	CT	JOANNE SHERWOOD
200A-137	710 BRIDGEPORT AVE	SHELTON	CT	AA SHELTON LLC
200A-138	14 OLD STRATFORD RD	SHELTON	CT	UNITED ILLUMINATING COMPANY
200A-139	0 BEARD SAWMILL RD	SHELTON	CT	ROYAL B WELLS
200A-140	0 OLD STRATFORD RD	SHELTON	CT	EDITH B WELLS
200A-141	656 BRIDGEPORT AVE	SHELTON	CT	EDITH B WELLS



- Legend**
- Proposed Structure
 - Existing Structure
 - Existing Structure to be Removed
 - Culvert
 - ⊕ Gate
 - ⊗ Fence
 - Stonewall
 - Overhead Eversource Line
 - 5' Contours
 - Existing Right-of-Way (ROW)
 - Existing Access
 - Proposed Access
 - Delineated Perennial Watercourse
 - Open Water
 - Field Delineated Wetland Boundary Outline
 - Field Delineated Wetland
 - Proposed Stone Work Pad
 - Temporary Construction Matting
 - Natural Diversity Database Area (Dec 2022)
 - FEMA Floodway
 - FEMA 100-Year Flood Zone
 - FEMA 500-Year Flood Zone
 - Parcel Boundary



EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Shelton, CT			Map Sheet 2 of 7		
Date: June 20, 2023					
NO.	DATE	REVISIONS	BY	CHK	APP



Mapsheet 3 of 7

Pootatuck to West Devon Junction Rebuild Project

Access to Existing Structures 1241/1483 Lines: 1337

Access to Existing Structures 1241 Line: 1336A

Access to Existing Structures 1545/1483 Lines:, 1336, 1335, 1334

Access to Existing Structures 1580 Line: 263, 264, 265, 266

City of Shelton, Town of Stratford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Eversource owned property
- U.I.CO. Trap Falls Substation
- Open Water (Cranberry Pond)
- Vernal Pool (VP1)
- James Farm Road Open Space
- Undeveloped forest
- Natural Diversity Database Area (December 2022)
- Maintained ROW

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Residential
- Open Water (Cranberry Pond)
- 100' Vernal Pool Envelope
- James Farm Road Open Space
- Natural Diversity Database Area (December 2022)
- Maintained ROW

Water Resources

- Wetland – W4, W5, W6, W7, W8
- Wetland Cover Types – Scrub-Shrub, Emergent, Open Water
- Watercourses – S4
- Vernal Pools – VP1

Wetland and Watercourse Crossings

- W4, W5, W6, W8

Right-of-Way Vegetation

- Scrub-shrub
- Emergent
- Open water
- Maintained lawn/residential landscaping
- Maintained ROW

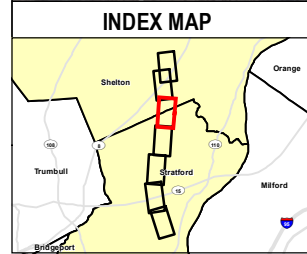
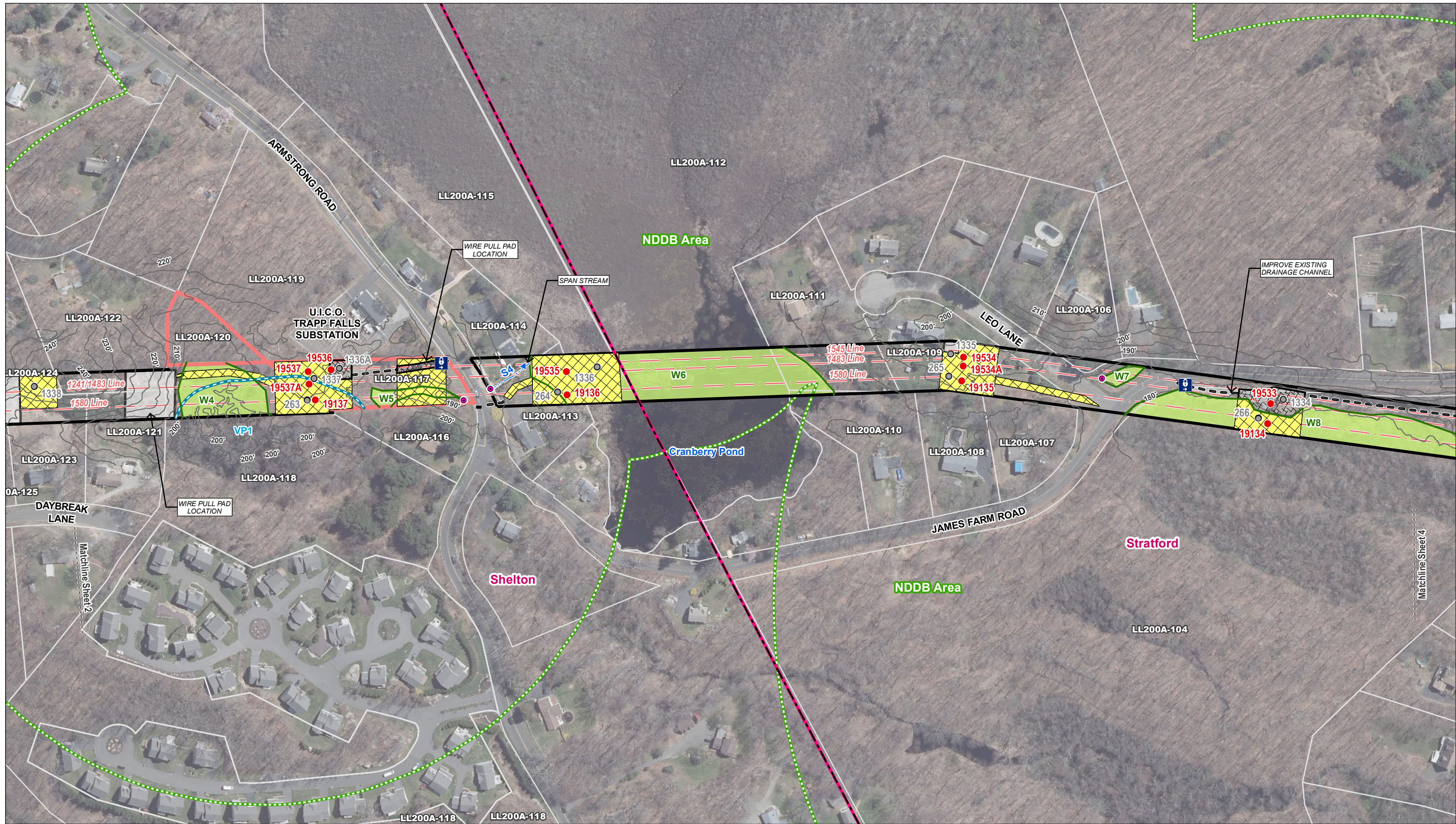
Access

- Wire pull pad: Existing gravel and proposed matting from Armstrong Road
- Structures 263, 1337, 1336A: Existing gravel from Armstrong Road
- Structures 264, 1336: Existing driveway and matting from Armstrong Road
- Structures 265, 1335: Proposed matting from Leo Lane
- Structures 266, 1334: Existing gravel from James Farm Road

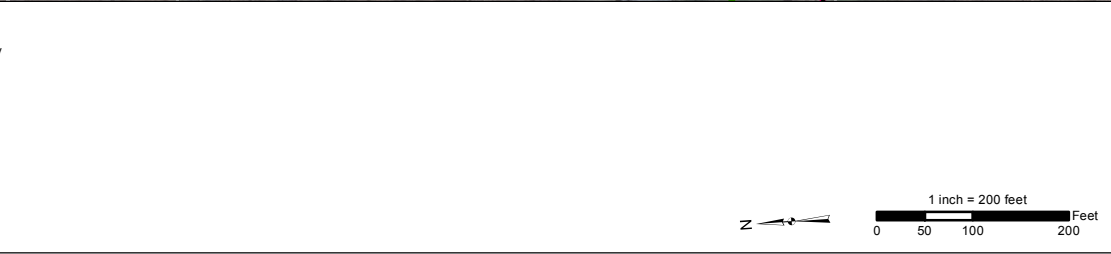
Road Crossings

- Armstrong Road
- James Farm Road
- Leo Lane

Line List	Parcel Address	City	State	Owner Name
200A-104	JAMES FARM RD	STRATFORD	CT	TOWN OF STRATFORD
200A-106	15 LEO LN	STRATFORD	CT	JUSTIN ANDERSON
200A-107	1970 JAMES FARM RD	STRATFORD	CT	SHALIS BIGGS
200A-108	2030 JAMES FARM RD	STRATFORD	CT	NEAL M KARKER
200A-109	60 LEO LN	STRATFORD	CT	DONALD W KOWALSKY
200A-110	2080 JAMES FARM RD	STRATFORD	CT	FELIPE L DOSSOU
200A-111	125 LEO LN	STRATFORD	CT	GERALD A MILLBAUER JR
200A-112	1930 JAMES FARM RD	STRATFORD	CT	T TUCKER PROPERTIES
200A-113	95 ARMSTRONG RD	SHELTON	CT	DOO KEUN KIM
200A-114	99 ARMSTRONG RD	SHELTON	CT	GILMAN S LEBELLE
200A-115	0 JAMES FARM RD	SHELTON	CT	BNM BUILDERS & DEVELOPERS LLC
200A-116	86 ARMSTRONG RD	SHELTON	CT	VLADIMIR ORDUZ
200A-117	0 ARMSTRONG RD	SHELTON	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-118	66 ARMSTRONG RD	SHELTON	CT	CRANBERRY HILL ESTATES
200A-120	0 ARMSTRONG RD	SHELTON	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-121	54 DAYBREAK LA	SHELTON	CT	LINDA STEVENS
200A-122	27 PARTRIDGE LA	SHELTON	CT	MIGUEL A MALDONADO
200A-123	50 DAYBREAK LA	SHELTON	CT	TAMARA ROOT
200A-124	23 PARTRIDGE LA	SHELTON	CT	NANCY R STEINER TR



Legend	
● Proposed Structure	— Proposed Access
● Existing Structure to be Removed	— Delineated Intermittent Watercourse
● Culvert	— Field Delineated Wetland Boundary Outline
Ⓜ Gate	— Field Delineated Wetland
— Overhead Eversource Line	— Proposed Stone Work Pad
— 5' Contours	— Existing Gravel
— Existing Right-of-Way (ROW)	— 100' Vernal Pool Envelope
— Existing Access	— Temporary Construction Matting
	— Natural Diversity Database Area (Dec 2022)
	— Eversource Owned Property
	— Parcel Boundary
	— Municipal Boundary



EVERSOURCE					
Pootuck to West Devon Junction Rebuild Project					
Shelton & Stratford, CT			Map Sheet 3 of 7		
Date: June 20, 2023					
Tighe&Bond					
NO.	DATE	REVISIONS	BY	CHK	APP

Mapsheet 4 of 7

Pootatuck to West Devon Junction Rebuild Project

Access to Existing Structures 1545/1483 Lines: 1333, 1332, 1331, 1330, 1329

Access to Existing Structures 1580 Line: 267, 268, 269, 270, 271

Town of Stratford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Natural Diversity Database Area (December 2022)
- James Farm Road Open Space
- Roosevelt Forest Open Space
- Undeveloped, forest
- Maintained ROW
- Transmission Gas Line

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Residential
- Natural Diversity Database Area (December 2022)
- James Farm Road Open Space
- Maintained ROW
- Transmission Gas Line

Water Resources

- Wetland –W8, W9, W10, W11, W12, W13
- Wetland Cover Types - Scrub-Shrub, Emergent
- Watercourses - None
- Vernal Pools - None

Wetland and Watercourse Crossings

- W8, W10, W11, W12, W13

Right-of-Way Vegetation

- Scrub-shrub
- Maintained ROW

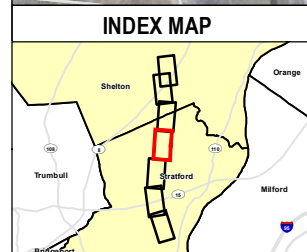
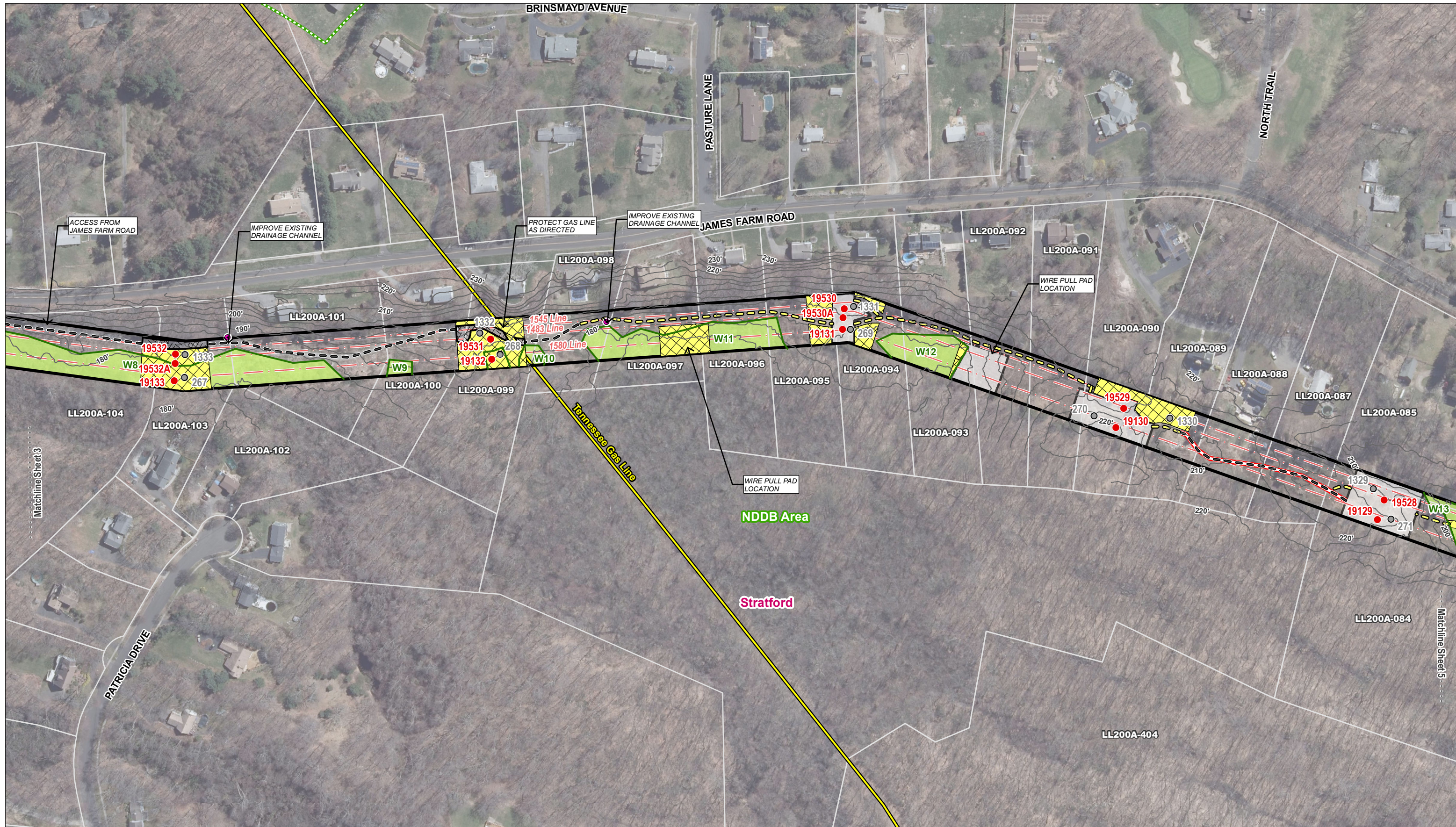
Access

- Structures 267, 268, 269, 270, 271, 1333, 1332, 1331, 1330, 1329: Existing and Proposed gravel from James Farm Road

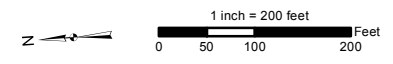
Road Crossings

- None

Line List	Parcel Address	City	State	Owner Name
200A-084	JAMES FARM RD	STRATFORD	CT	UNITED ILLUMINATING COMPANY
200A-085	1135 JAMES FARM RD	STRATFORD	CT	RAYMOND P KOSH
200A-087	1185 JAMES FARM RD	STRATFORD	CT	ERIC RANKIN
200A-088	1225 JAMES FARM RD	STRATFORD	CT	FATIMA VINHAIS
200A-089	1255 JAMES FARM RD	STRATFORD	CT	STEPHEN J EVANGELISTA
200A-090	1295 JAMES FARM RD	STRATFORD	CT	BARTO VAN STROE
200A-091	1335 JAMES FARM RD	STRATFORD	CT	ROGALIS LLC
200A-092	1365 JAMES FARM RD	STRATFORD	CT	JEFFREY J GRAY
200A-093	1395 JAMES FARM RD	STRATFORD	CT	FAUSTO B SILVA
200A-094	1425 JAMES FARM RD	STRATFORD	CT	JOSEPH J KOTY
200A-095	1455 JAMES FARM RD	STRATFORD	CT	GREGORY PHILPOTTS
200A-096	1485 JAMES FARM RD	STRATFORD	CT	STEPHANIE N WILLIAMS
200A-097	1525 JAMES FARM RD	STRATFORD	CT	MICHAEL GUY JOSEPH
200A-098	1545 JAMES FARM RD	STRATFORD	CT	ARTIS L NICHOLLS
200A-099	1625 JAMES FARM RD	STRATFORD	CT	JACOB HOLBROOK
200A-100	1655 JAMES FARM RD	STRATFORD	CT	SHANIQUE BARNES
200A-101	1685 JAMES FARM RD	STRATFORD	CT	AUDREY A VELEZ
200A-102	250 PATRICIA DR	STRATFORD	CT	RICHARD B & JOYCE AMON LIVING TRUST
200A-103	230 PATRICIA DR	STRATFORD	CT	KELLIE A WATKINS-COLWELL
200A-104	JAMES FARM RD	STRATFORD	CT	TOWN OF STRATFORD
200A-404	BEAVER DAM RD	STRATFORD	CT	TOWN OF STRATFORD



Legend	
● Proposed Structure	— Field Delineated Wetland Boundary Outline
○ Existing Structure to be Removed	■ Field Delineated Wetland
● Culvert	▭ Proposed Stone Work Pad
— Overhead Eversource Line	▭ Existing Gravel
— Approximate Gas Line	▭ Temporary Construction Matting
— 5' Contours	▭ Natural Diversity Database Area (Dec 2022)
— Existing Right-of-Way (ROW)	▭ Parcel Boundary
— Existing Access	
— Proposed Access	
— Access Road to be Improved	



EVSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Stratford, CT			Map Sheet 4 of 7		
Date: June 20, 2023					
NO.	DATE	REVISIONS	BY	CHK	APP



Mapsheet 5 of 7
 Pootatuck to West Devon Junction Rebuild Project
 Access to Existing Structures 1545/1483 Lines: 1328, 1327, 1326, 1325,1324
 Access to Existing Structures 1580 Line: 272, 273, 274, 275, 276
 Town of Stratford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Undeveloped, forest
- 100-Year Flood Zone
- Maintained ROW
- Natural Diversity Database Area (December 2022)
- Roosevelt Forest Open Space

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Residential
- Maintained ROW
- Natural Diversity Database Area (December 2022)

Water Resources

- Wetland – W13
- Wetland Cover Types – Emergent, Scrub-shrub
- Watercourses – None
- Vernal Pools - None

Wetland and Watercourse Crossings

- W13

Right-of-Way Vegetation

- Emergent, Scrub-shrub
- Maintained lawn/residential landscaping
- Maintained ROW

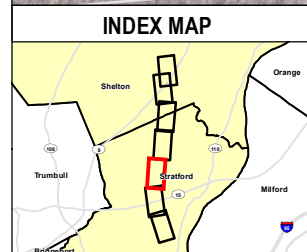
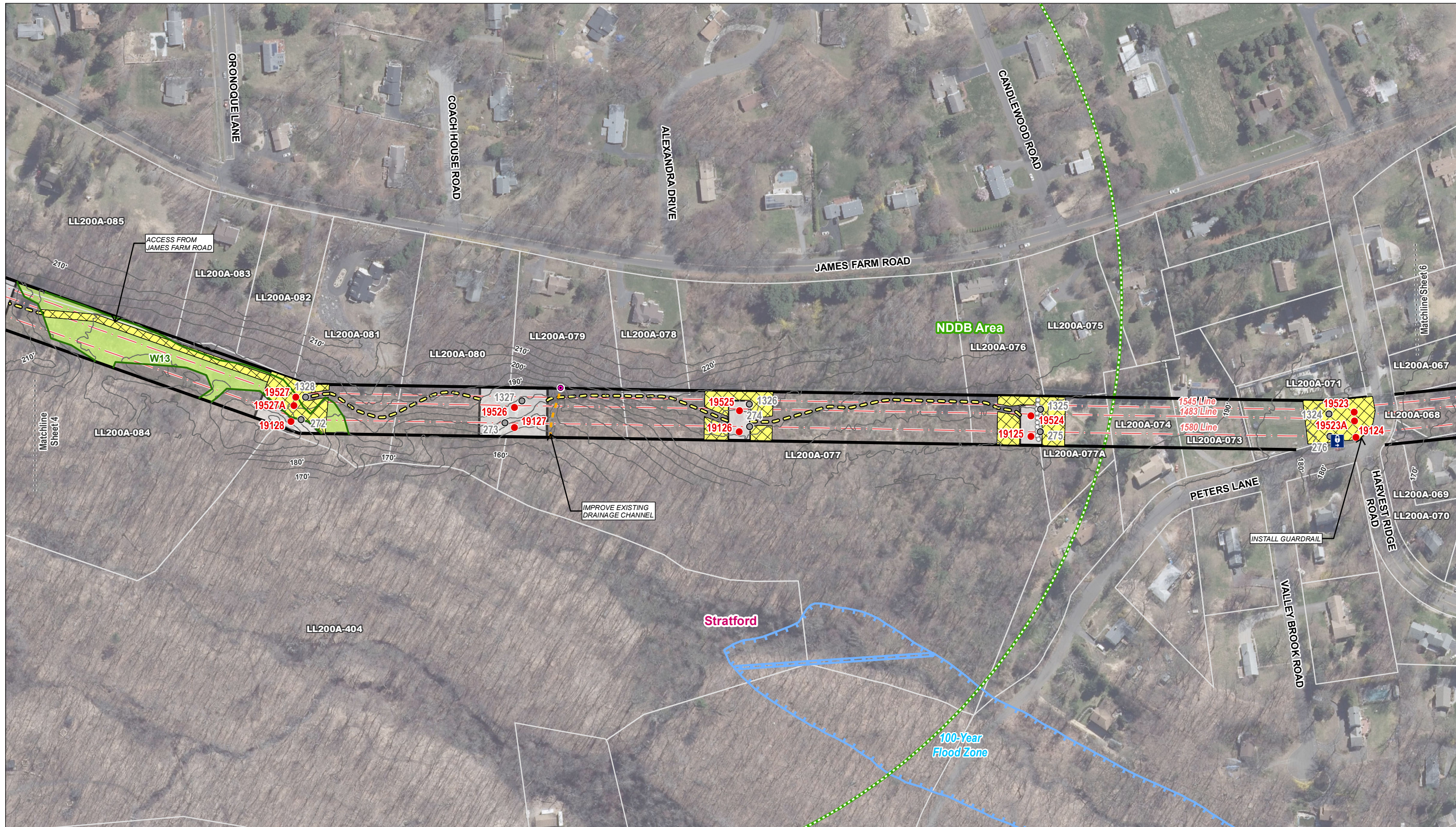
Access

- Structures 272, 273, 274, 275, 1328, 1327, 1326, 1325: Existing and proposed gravel and matted wetland crossings from James Farm Road
- Structures 276, 1324: Proposed matting from Peters Lane

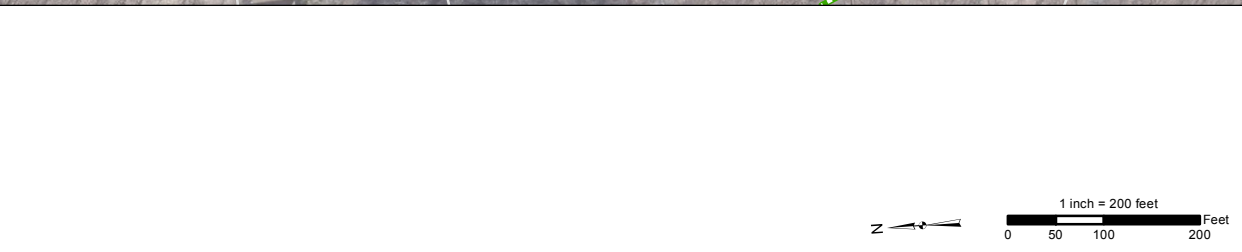
Road Crossings

- Peters Lane

Line List	Parcel Address	City	State	Owner Name
200A-067	175 PETERS LN	STRATFORD	CT	CHRISTOPHER BROWN
200A-068	185 PETERS LN	STRATFORD	CT	QUENTIN CUNNINGHAM
200A-069	195 PETERS LN	STRATFORD	CT	TIMOTHY F SCANLAN
200A-070	470 HARVEST RIDGE RD	STRATFORD	CT	FRANK A DAMIANO
200A-071	170 PETERS LN	STRATFORD	CT	ALEXANDER ZAPATA
200A-073	260 PETERS LN	STRATFORD	CT	ELISIA SPIVEY
200A-074	310 PETERS LN	STRATFORD	CT	JEFFREY ZIMNOCH
200A-075	685 JAMES FARM RD	STRATFORD	CT	JOLANTA SKIBA
200A-076	725 JAMES FARM RD	STRATFORD	CT	PAUL B SMITH
200A-077	795 JAMES FARM RD	STRATFORD	CT	JRB HOLDING CO LLC
200A-077A	PETERS LN	STRATFORD	CT	JEFFREY ZIMNOCH
200A-078	875 JAMES FARM RD	STRATFORD	CT	ELINORE I BATTISTA
200A-079	895 JAMES FARM RD	STRATFORD	CT	THOMAS A EVAN
200A-080	935 JAMES FARM RD	STRATFORD	CT	CHRISTIAN TAMDJJI NAOGBAN
200A-081	985 JAMES FARM RD	STRATFORD	CT	ALDO A LEONFOTI
200A-082	1025 JAMES FARM RD	STRATFORD	CT	CARLOS CAMPOVERDE
200A-083	1055 JAMES FARM RD	STRATFORD	CT	THOMAS P COLLINS
200A-084	JAMES FARM RD	STRATFORD	CT	UNITED ILLUMINATING COMPANY
200A-085	1135 JAMES FARM RD	STRATFORD	CT	RAYMOND P KOSH
200A-404	BEAVER DAM RD	STRATFORD	CT	TOWN OF STRATFORD



Legend	
● Proposed Structure	— Proposed Access
○ Existing Structure to be Removed	— Drainage Channel
● Culvert	— Field Delineated Wetland Boundary Outline
Ⓜ Gate	— Field Delineated Wetland
Ⓜ Stonewall	— Proposed Stone Work Pad
— Overhead Eversource Line	— Temporary Construction Matting
— 5' Contours	— Natural Diversity Database Area (Dec 2022)
— Existing Right-of-Way (ROW)	— FEMA 100-Year Flood Zone
	— Parcel Boundary



EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Stratford, CT			Map Sheet 5 of 7		
Date: June 20, 2023					
NO.	DATE	REVISIONS	BY	CHK	APP



Mapsheet 6 of 7
 Pootatuck to West Devon Junction Rebuild Project
 Access to Existing Structures 1545/1483 Lines: 1323, 1322, 1321, 1320
 Access to Existing Structures 1580 Line: 277, 278, 279, 280
 Town of Stratford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Eversource owned property
- Residential
- Flood Middle School, athletic fields
- Undeveloped forest
- 100-Year Flood Zone
- 500-Year Flood Zone
- Floodway
- Maintained ROW
- Natural Diversity Database Area (December 2022)
- Merritt Parkway

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Eversource owned property
- Residential
- Maintained ROW
- Natural Diversity Database Area
- Merritt Parkway

Water Resources

- Wetland – W14, W15
- Wetland Cover Types – Emergent, Scrub-shrub
- Watercourses - None
- Vernal Pools - None

Wetland and Watercourse Crossings

- W14, W15

Right-of-Way Vegetation

- Emergent wetland
- Maintained lawn/residential landscaping
- Maintained ROW

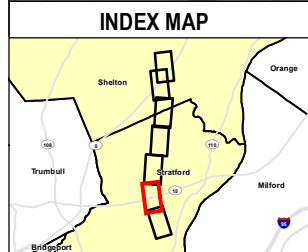
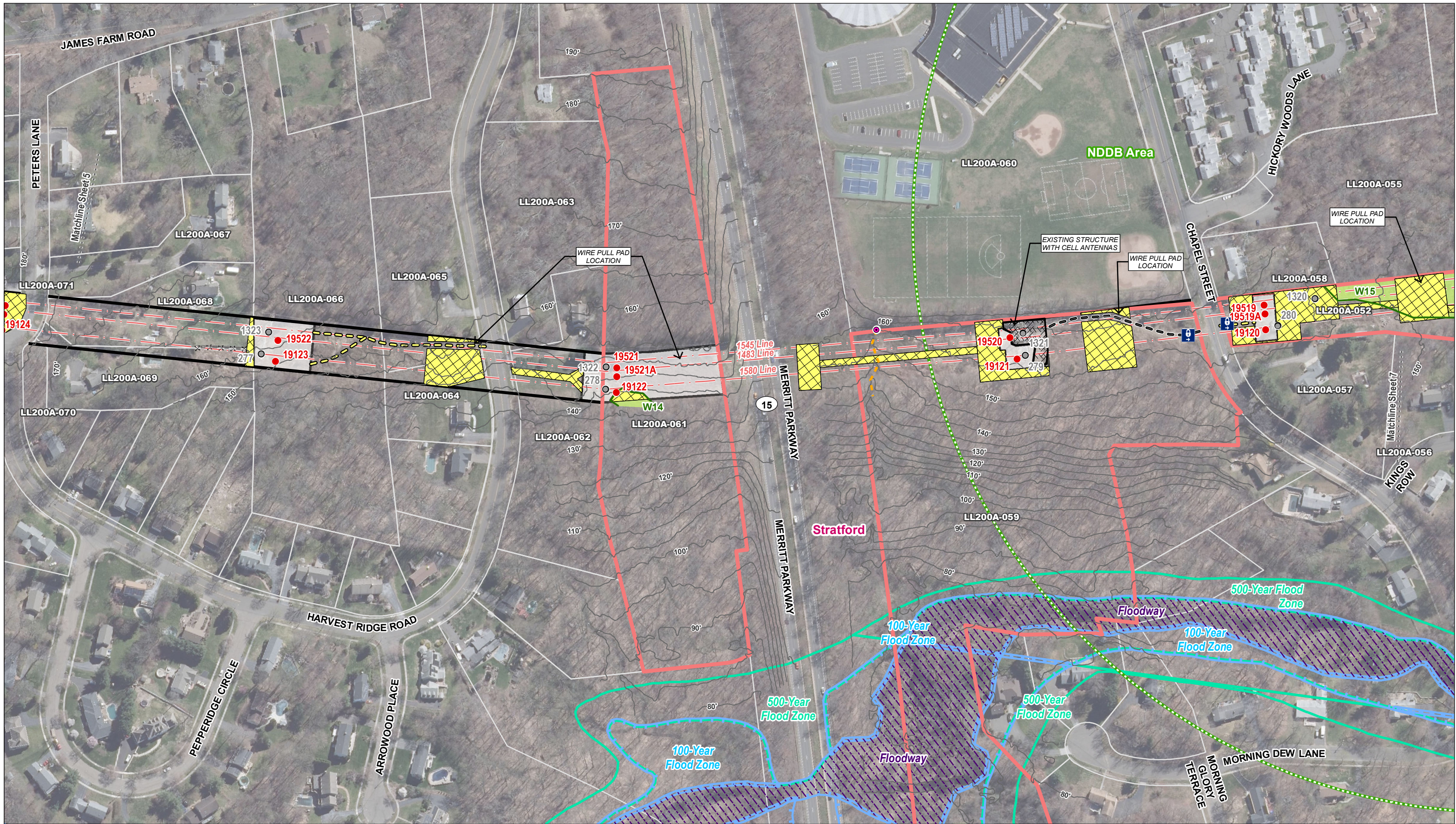
Access

- Wire pull pad and structures 277, 1323: Proposed gravel from Harvest Ridge Road
- Wire pull pad and structures 278, 1322: Proposed matting from Harvest Ridge Road
- Wire pull pad and structures 279, 1321: Existing gravel from Chapel Street
- Structures 280, 1320: Proposed gravel from Chapel Street
- Wire pull pad: Proposed gravel and matting from Chapel Street

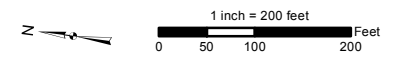
Road Crossings

- Peters Lane
- Harvest Ridge Road
- Merritt Parkway
- Chapel Street

Line List	Parcel Address	City	State	Owner Name
200A-052	CHAPEL ST	STRATFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-055	2725 MAIN ST	STRATFORD	CT	TOWN OF STRATFORD
200A-056	30 KINGS ROW	STRATFORD	CT	CARMEN ROMANO
200A-057	695 CHAPEL ST	STRATFORD	CT	BARBARA A EVANKO
200A-058	645 CHAPEL ST	STRATFORD	CT	ANTHONY MARTIGNETTI
200A-059	CHAPEL ST	STRATFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-060	490 CHAPEL ST	STRATFORD	CT	TOWN OF STRATFORD
200A-061	CHAPEL ST	STRATFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-062	225 HARVEST RIDGE RD	STRATFORD	CT	RICHARD L BECKER
200A-063	135 HARVEST RIDGE RD	STRATFORD	CT	BILLY APOLLON
200A-064	160 HARVEST RIDGE ROAD	STRATFORD	CT	CAMILLE MARIE MYERS
200A-065	80 HARVEST RIDGE RD	STRATFORD	CT	MICHAEL CAHILL
200A-066	JAMES FARM RD	STRATFORD	CT	WILLIE MCALLISTER
200A-067	175 PETERS LN	STRATFORD	CT	CHRISTOPHER BROWN
200A-068	185 PETERS LN	STRATFORD	CT	QUENTIN CUNNINGHAM
200A-069	195 PETERS LN	STRATFORD	CT	TIMOTHY F SCANLAN
200A-070	470 HARVEST RIDGE RD	STRATFORD	CT	FRANK A DAMIANO
200A-071	170 PETERS LN	STRATFORD	CT	ALEXANDER ZAPATA



Legend	
●	Proposed Structure
○	Existing Structure to be Removed
⊙	Culvert
Ⓜ	Gate
—X—X—	Fence
—	Overhead Eversource Line
—	5' Contours
—	Existing Right-of-Way (ROW)
—	Existing Access
—	Proposed Access
—	Drainage Channel
—	Field Delineated Wetland Boundary Outline
—	Field Delineated Wetland
—	Proposed Stone Work Pad
—	Existing Gravel
—	Temporary Construction Matting
—	Natural Diversity Database Area (Dec 2022)
—	FEMA Floodway
—	FEMA 100-Year Flood Zone
—	FEMA 500-Year Flood Zone
—	Eversource Owned Property
—	Parcel Boundary



EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Stratford, CT			Map Sheet 6 of 7		
Date: June 20, 2023					
Tighe & Bond					
NO.	DATE	REVISIONS	BY	CHK	APP

Mapsheet 7 of 7
 Pootatuck to West Devon Junction Rebuild Project
 Access to Existing Structures 1545/1483 Lines: 1319, 1318, 1317
 Access to Existing Structures 1580 Line: 281, 282, 283
 Town of Stratford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Eversource owned property
- Residential
- Agriculture, pasture, crops
- Undeveloped, forest
- Pumpkin Ground Brook
- Vernal Pool
- 100-Year Flood Zone
- 500-Year Flood Zone
- Floodway
- Maintained ROW
- Natural Diversity Database Area (December 2022)
- Coastal Boundary
- West Devon Junction

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Eversource owned property
- Residential
- 100-Year Flood Zone
- Vernal Pool (VP2)
- Maintained ROW
- Natural Diversity Database Area (December 2022)
- West Devon Junction

Water Resources

- Wetland – W15
- Wetland Cover Types - Scrub-shrub, herbaceous
- Watercourses – none
- Vernal Pools – VP2

Wetland and Watercourse Crossings

- W15

Right-of-Way Vegetation

- Emergent, Scrub-shrub
- Maintained ROW

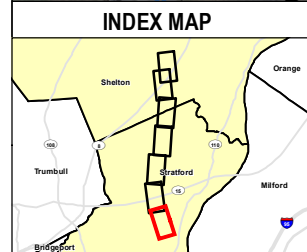
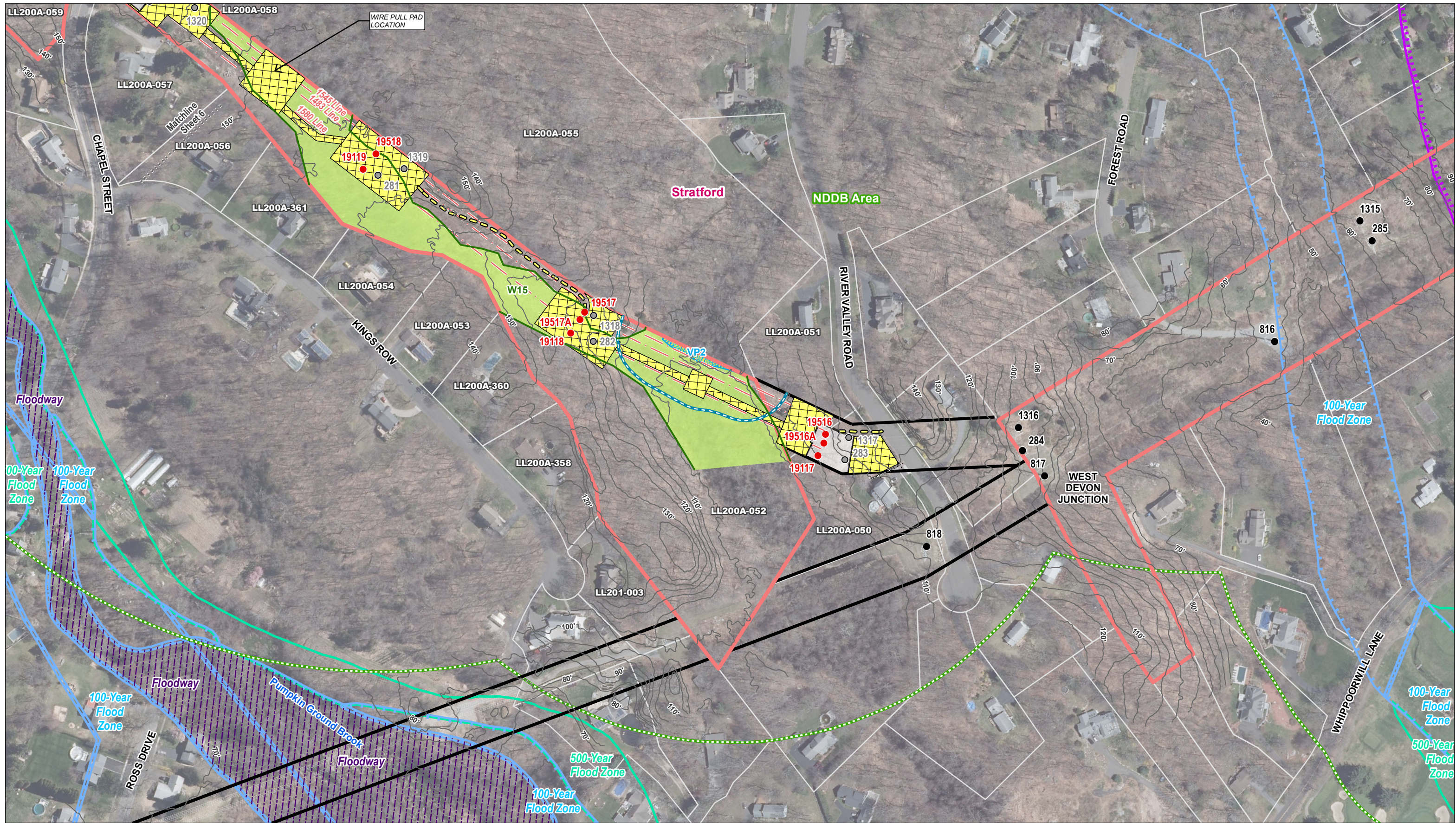
Access

- Wire pull pad and structures 281, 282, 283, 1320, 1319, 1318, 1317: Proposed gravel and matting from Chapel Street and River Valley Road

Road Crossings

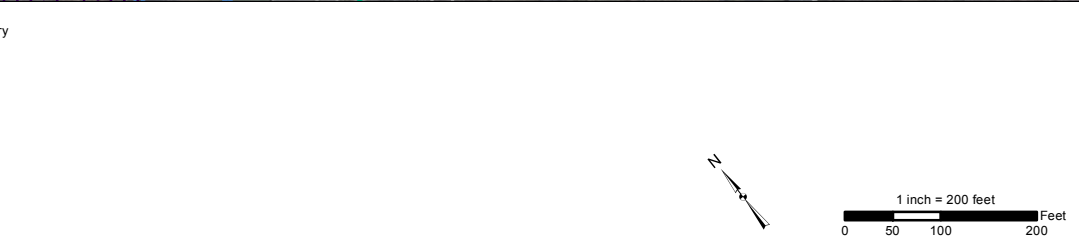
- None

Line List	Parcel Address	City	State	Owner Name
200A-050	520 RIVER VALLEY RD	STRATFORD	CT	DONALD F JULIAN
200A-051	440 RIVER VALLEY RD	STRATFORD	CT	JOHN A FALZONE
200A-052	CHAPEL ST	STRATFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY
200A-053	150 KINGS ROW	STRATFORD	CT	LORA ANNE PEREIRA
200A-055	2725 MAIN ST	STRATFORD	CT	TOWN OF STRATFORD
200A-056	30 KINGS ROW	STRATFORD	CT	CARMEN ROMANO
200A-057	695 CHAPEL ST	STRATFORD	CT	BARBARA A EVANKO
200A-058	645 CHAPEL ST	STRATFORD	CT	ANTHONY MARTIGNETTI
200A-358	230 KINGS ROW	STRATFORD	CT	MARY CAPOSSIELLO
200A-360	190 KINGS ROW	STRATFORD	CT	JOSEPH K ADAMS
200A-361	70 KINGS ROW	STRATFORD	CT	COBERN E MCGRAW
201-003	300 KINGS ROW	STRATFORD	CT	JR JOHN R LOMBARD



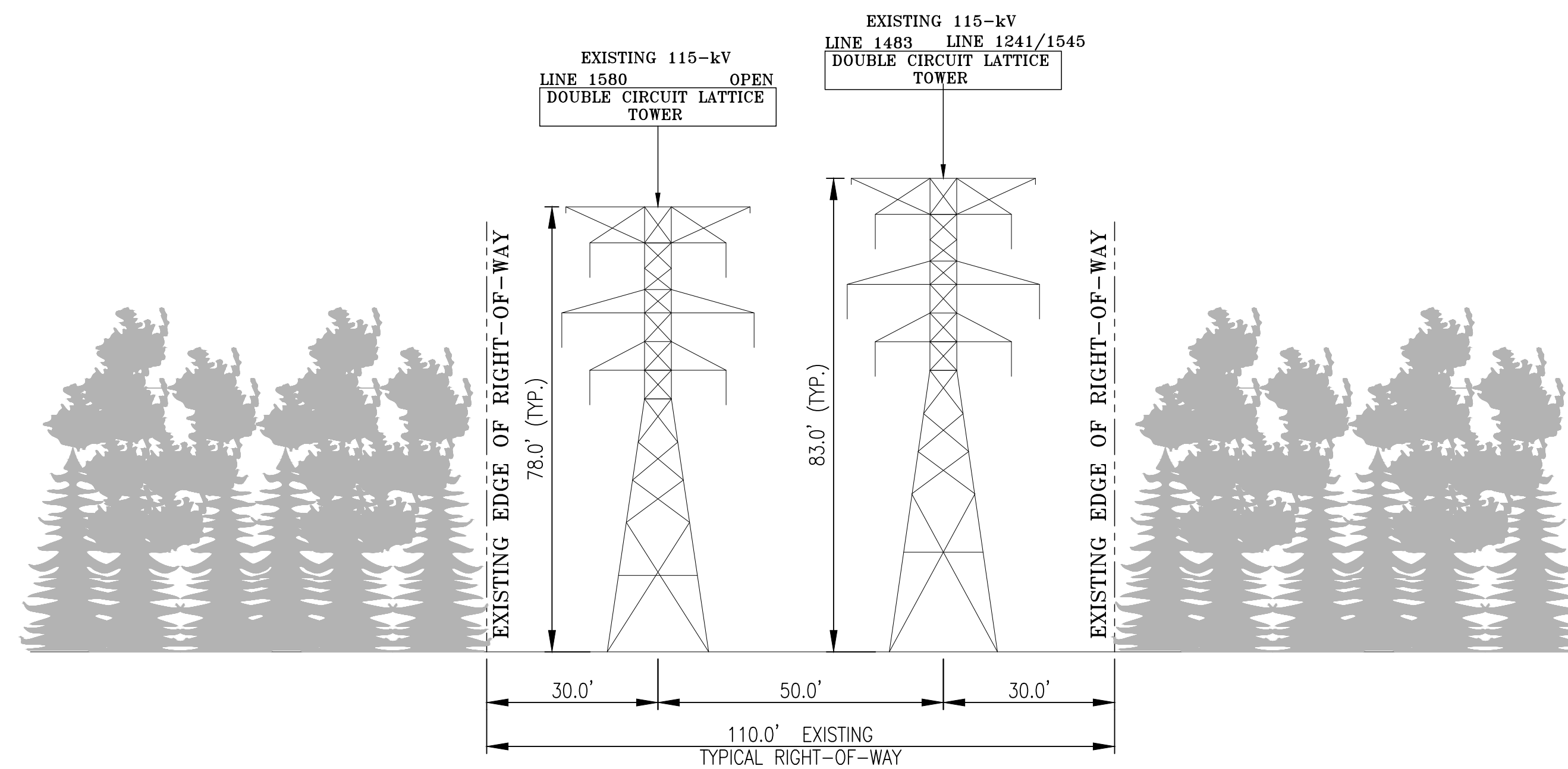
Legend

- Proposed Structure (Red dot)
- Existing Structure (Black dot)
- Existing Structure to be Removed (Grey dot)
- Fence (Dashed line)
- Overhead Eversource Line (Red line)
- 5' Contours (Thin grey line)
- Existing Right-of-Way (ROW) (Black line)
- Proposed Access (Yellow dashed line)
- Field Delineated Wetland Boundary Outline (Green dashed line)
- Field Delineated Wetland (Green shaded area)
- Proposed Stone Work Pad (Grey rectangle)
- Confirmed Vernal Pool Extent (Blue wavy line)
- 100' Vernal Pool Envelope (Blue dashed line)
- Temporary Construction Matting (Yellow hatched area)
- Natural Diversity Database Area (Dec 2022) (Green hatched area)
- Coastal Boundary (Purple dashed line)
- FEMA Floodway (Blue dashed line)
- FEMA 100-Year Flood Zone (Blue shaded area)
- FEMA 500-Year Flood Zone (Green shaded area)
- Eversource Owned Property (Red shaded area)
- Parcel Boundary (Thin grey line)

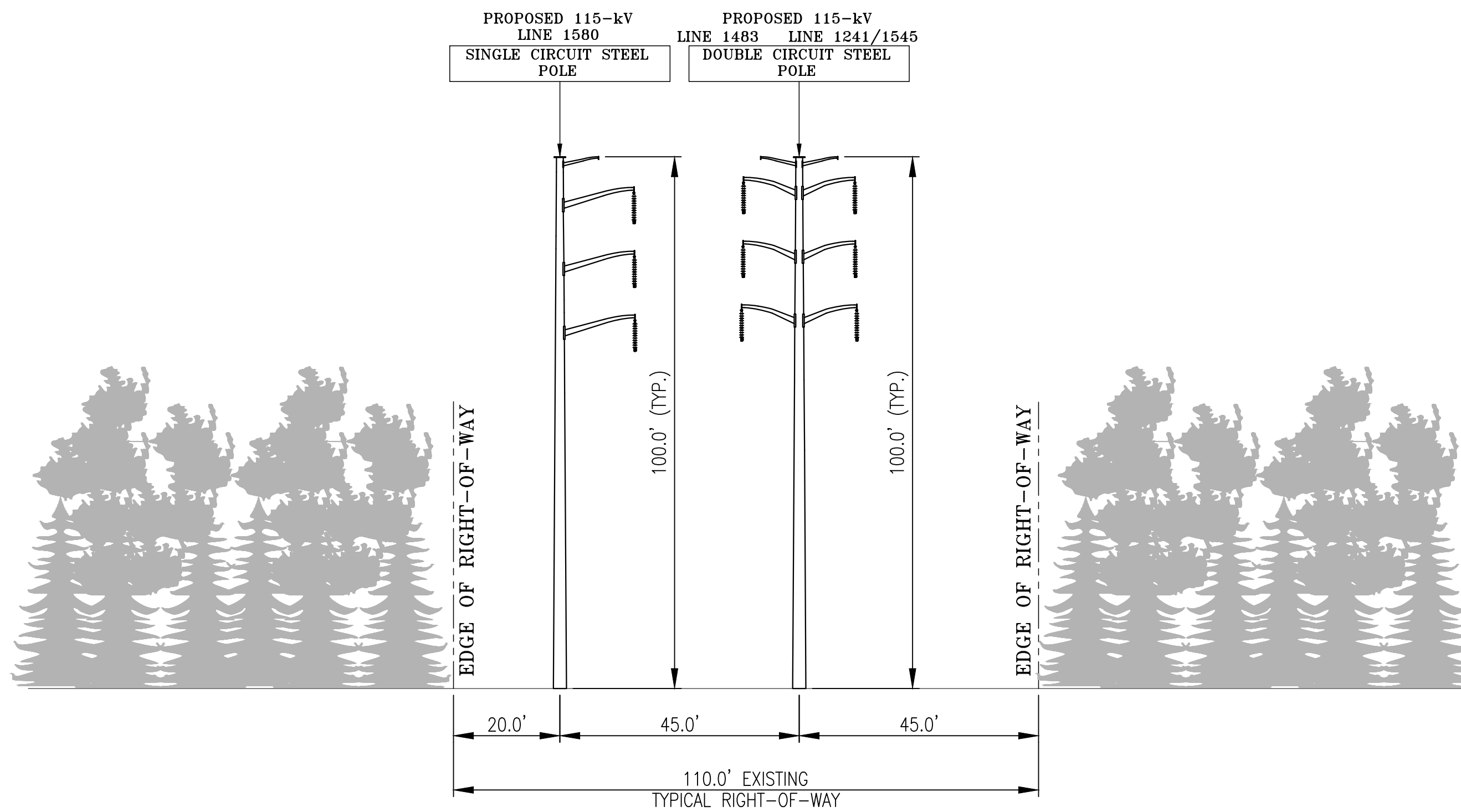


EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Stratford, CT			Map Sheet 7 of 7		
Date: June 20, 2023					
Tighe & Bond					
NO.	DATE	REVISIONS	BY	CHK	APP

ATTACHMENT B

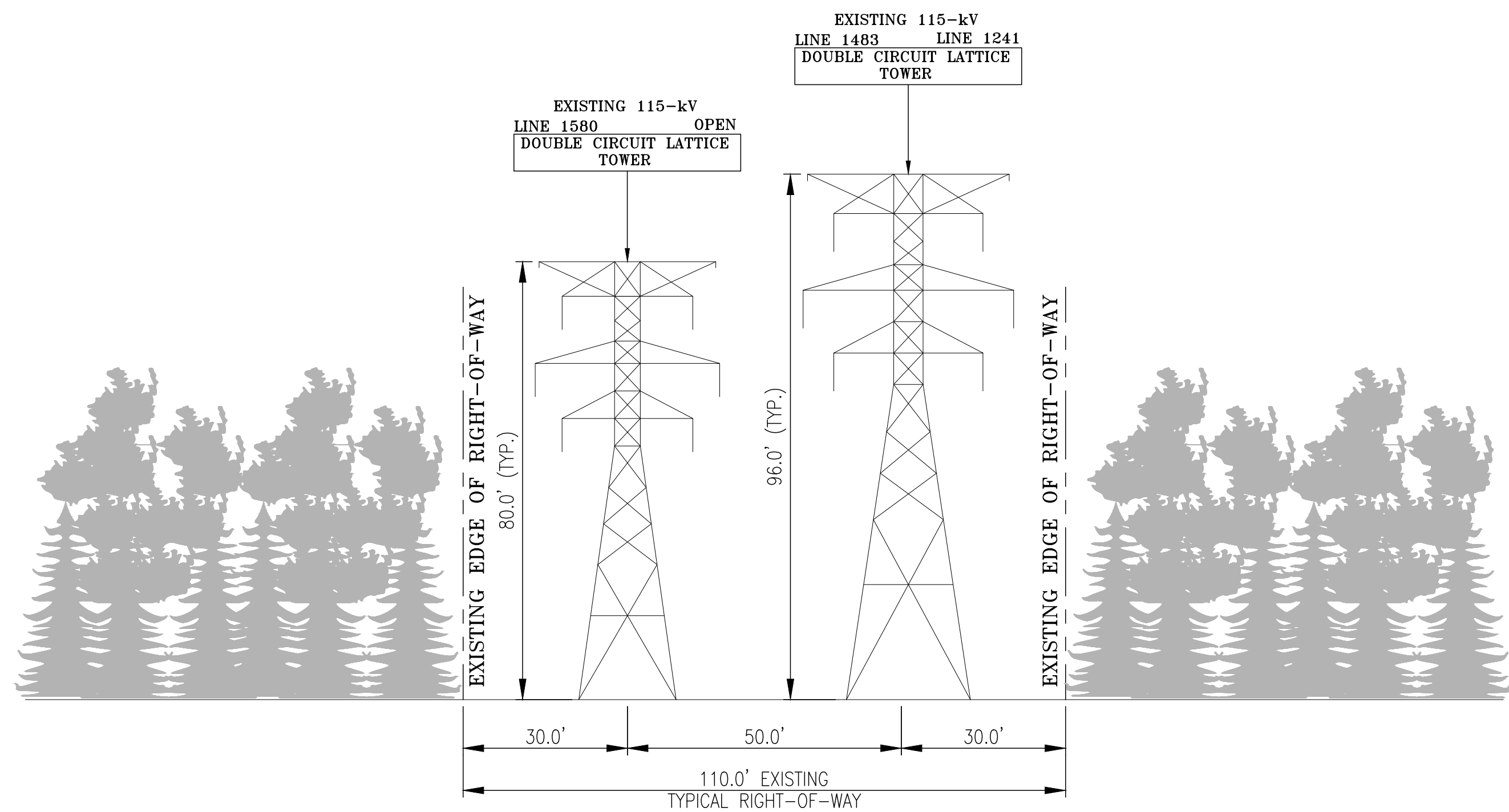


**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE VERTICAL DESIGN
LOOKING FROM W. DEVON JCT. TO POOTATUCK S/S**

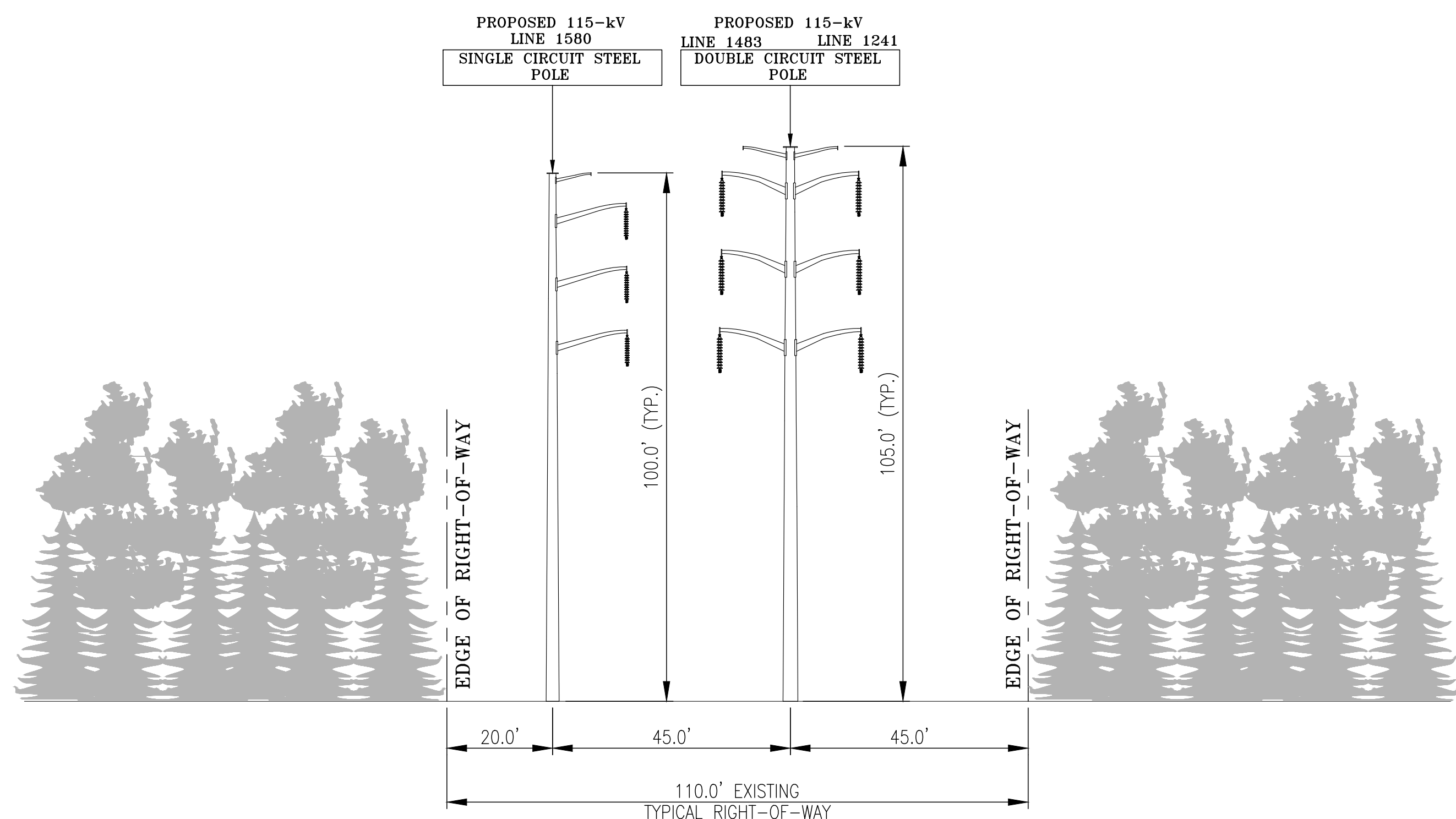


**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL MONOPOLE/DOUBLE
CIRCUIT STEEL VERTICAL DESIGN
LOOKING FROM W. DEVON JCT. TO POOTATUCK S/S**

EVERSOURCE ENERGY					
TITLE POOTATUCK TO WEST DEVON REBUILD PROJECT TYPICAL CROSS SECTION SHELTON & STRATFORD, CT					
BY	AM/BMcD	DWG	BG/BMcD	APP	ND/BMcD
DATE	6/23/23	DATE	6/23/23	DATE	6/23/23
H-SCALE	1"=20'	SIZE	D	FIELD BOOK & PAGES	
V-SCALE	1"=20'	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				DWG NO.	01250-8500p001

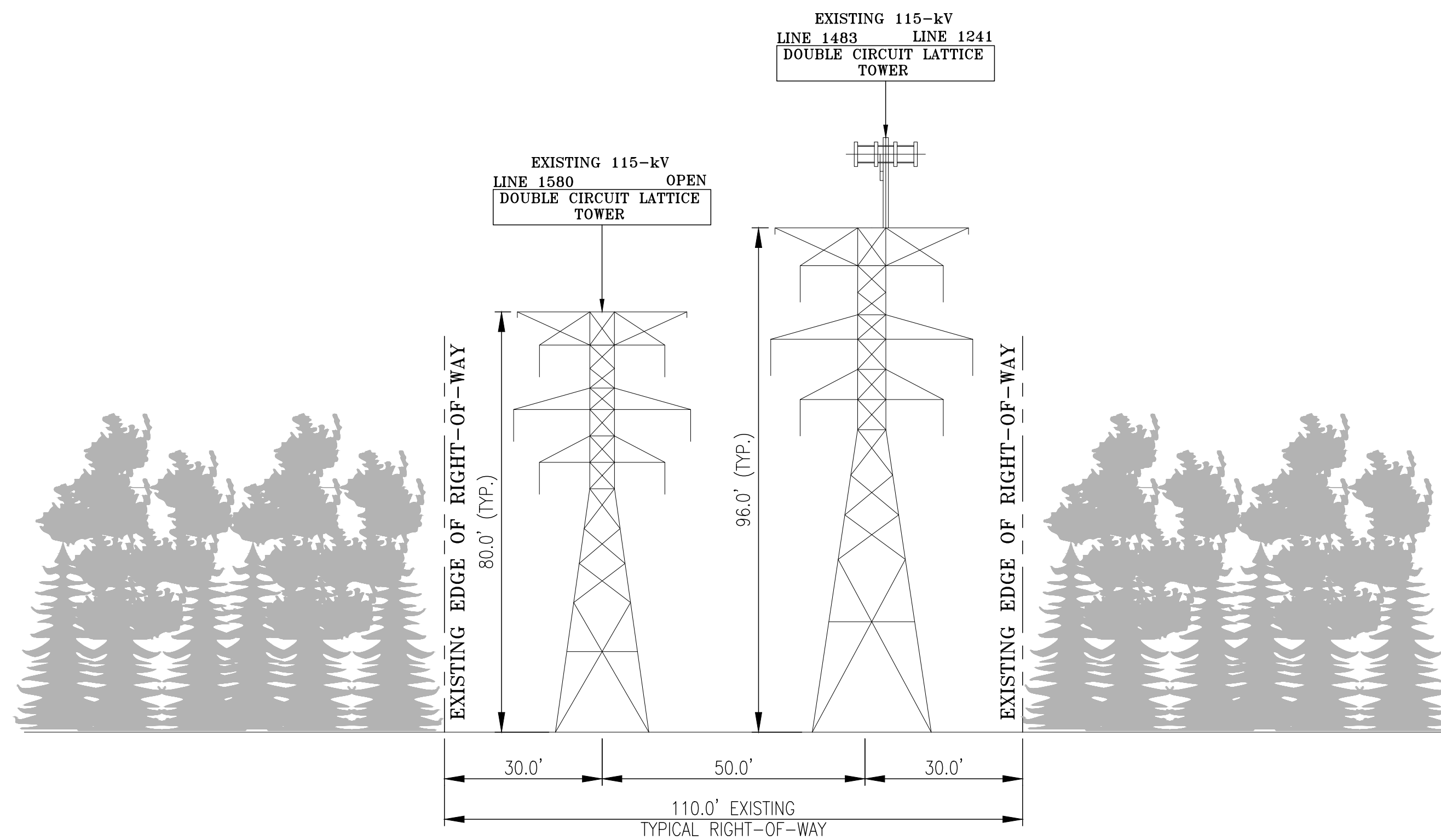


**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**

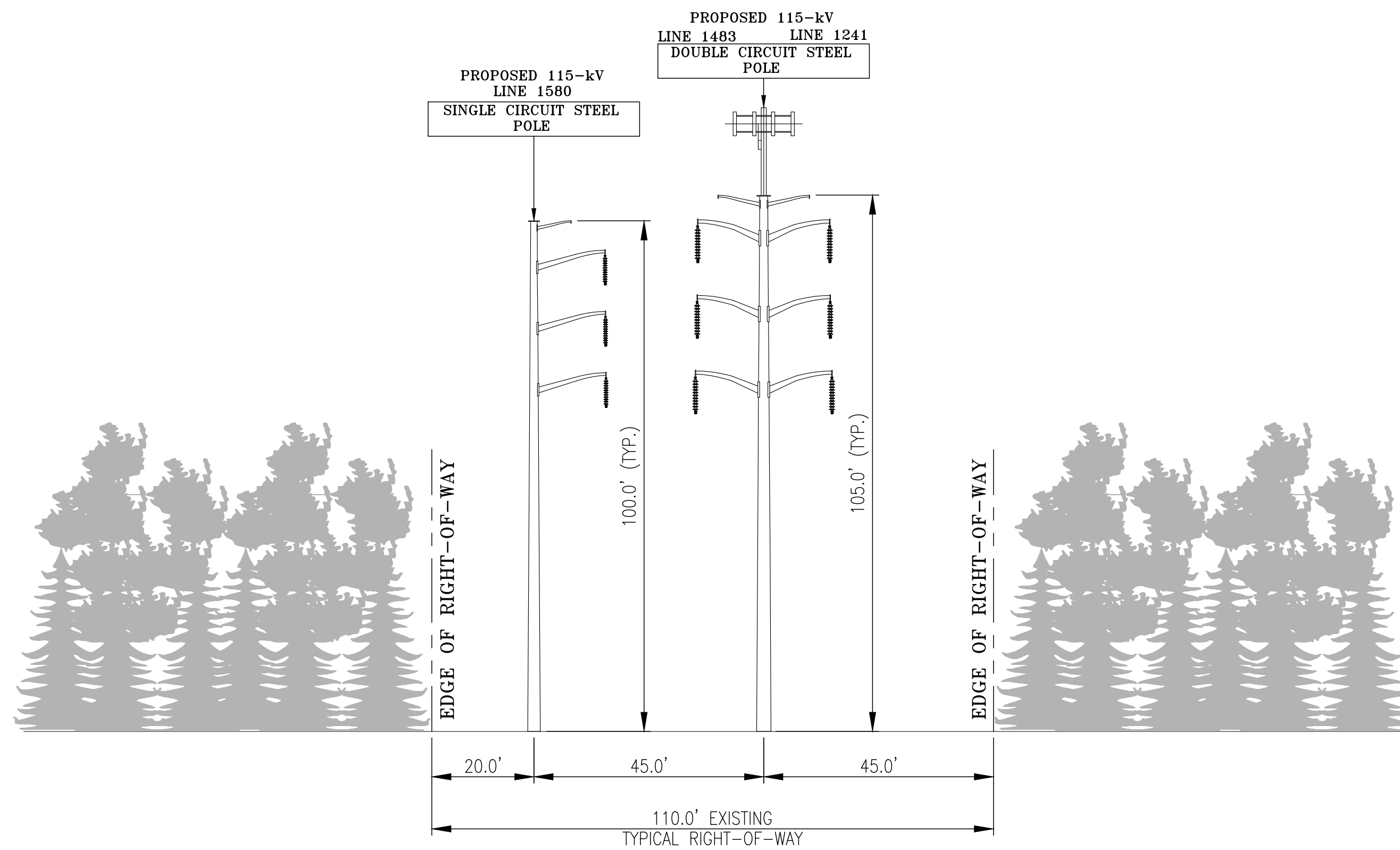


**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL MONOPOLE/DOUBLE
CIRCUIT STEEL VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**

EVERSOURCE ENERGY					
TITLE POOTATUCK TO WEST DEVON REBUILD PROJECT TYPICAL CROSS SECTION SHELTON & STRATFORD, CT					
BY	AM/BMcD	DWG	BG/BMcD	APP	ND/BMcD
DATE	6/23/23	DATE	6/23/23	DATE	6/23/23
H-SCALE	1"=20'	SIZE	D	FIELD BOOK & PAGES	
V-SCALE	1"=20'	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				DWG NO.	01250-85006p002

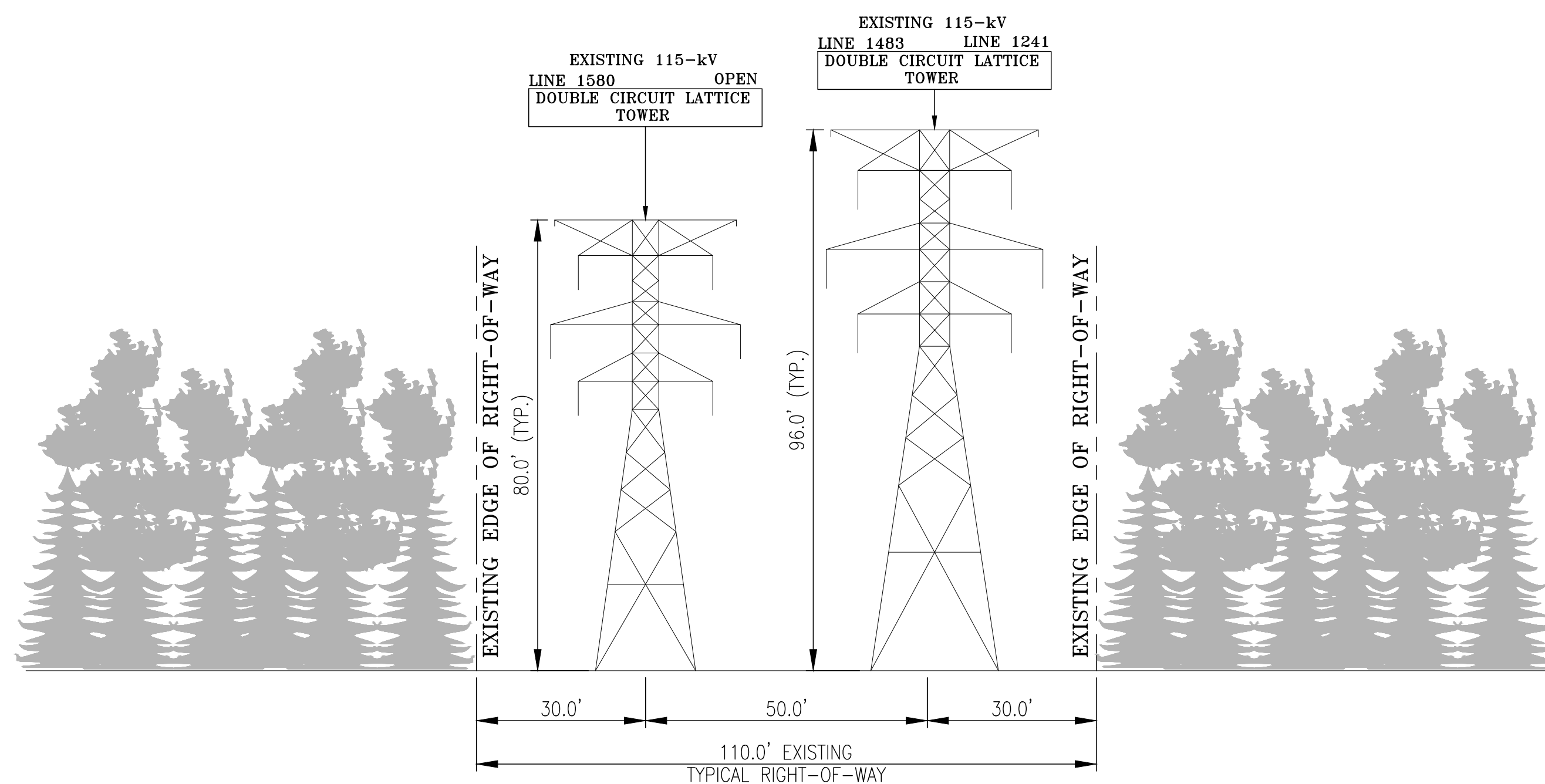


**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**

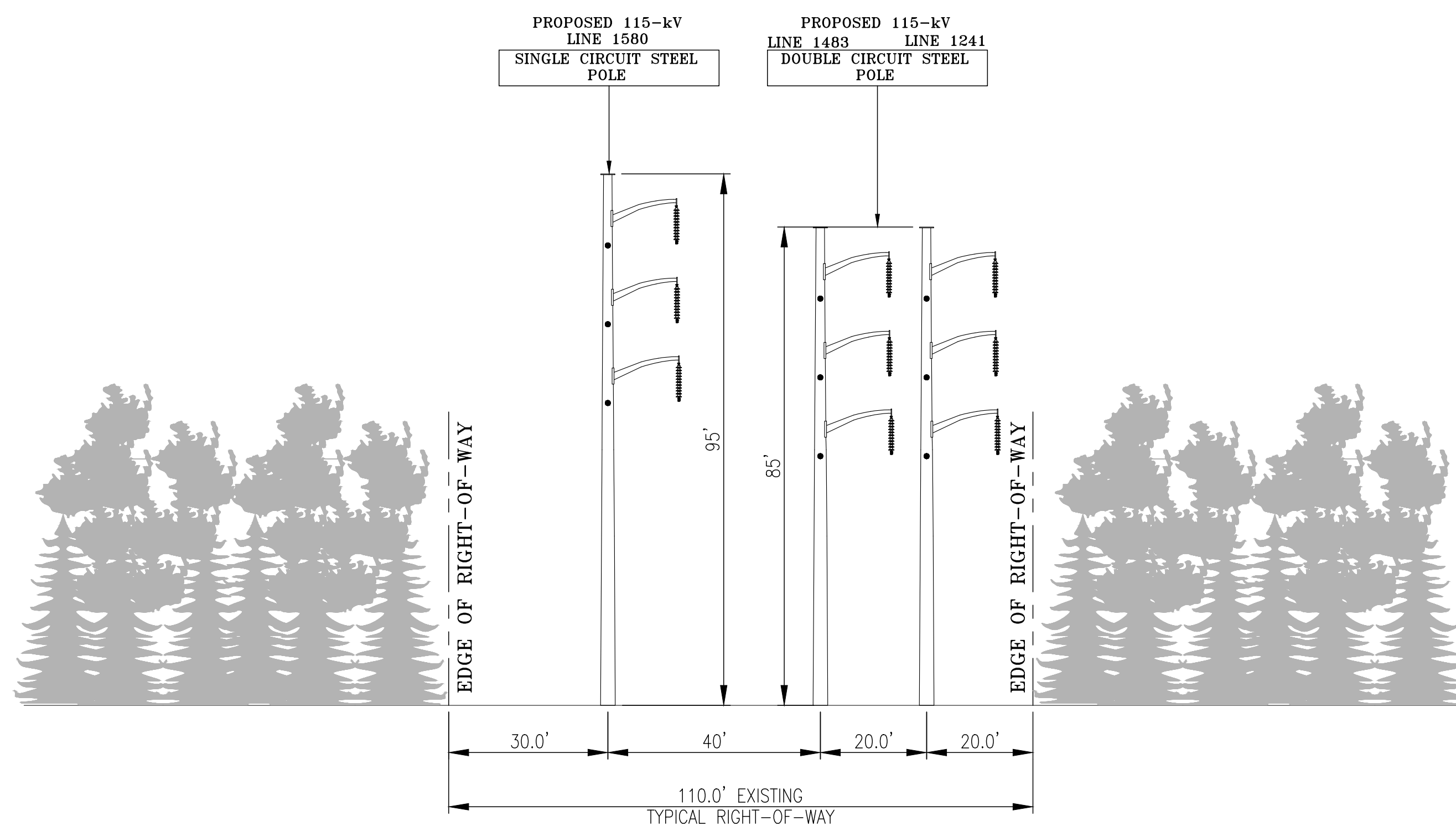


**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL MONOPOLE/DOUBLE
CIRCUIT STEEL VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**

EVERSOURCE ENERGY					
TITLE POOTATUCK TO WEST DEVON REBUILD PROJECT TYPICAL CROSS SECTION SHELTON & STRATFORD, CT					
BY	AM/BMcD	DWG	BG/BMcD	APP	ND/BMcD
DATE	6/23/23	DATE	6/23/23	DATE	6/23/23
H-SCALE	1"=20'	SIZE	D	FIELD BOOK & PAGES	
V-SCALE	1"=20'	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				DWG NO.	01250-85006p003



**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**



**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL MONOPOLE/DOUBLE
CIRCUIT STEEL VERTICAL DESIGN
LOOKING FROM TRAP FALLS S/S TO POOTATUCK S/S**

EVERSOURCE ENERGY					
TITLE POOTATUCK TO WEST DEVON REBUILD PROJECT TYPICAL CROSS SECTION SHELTON & STRATFORD, CT					
BY	AM/BMcD	DRG	BG/BMcD	APP	ND/BMcD
DATE	6/23/23	DATE	6/23/23	DATE	6/23/23
H-SCALE	1"=20'	SIZE	D	FIELD BOOK & PAGES	
V-SCALE	1"=20'	V.S.		R.E. DWG	
R.E. PROJ. NUMBER					DWG NO. 01250-85006p004

ATTACHMENT C

Attachment C: Structure List

KEY: SCSP = Single-circuit Steel Pole, DCSP = Double-circuit Steel Pole, DCLT = Double-circuit Lattice Structure

1241/1483 and 1545/1483 LINES							
Circuit(s)	Old Structure Number	New Structure Number	EXISTING	PROPOSED	Existing Height (feet)	Proposed Height (feet)	Height Increase (feet)
			Structure Type	Structure Type			
Pootatuck SS to Trapp Falls SS							
1241 & 1483	1341A	19542	SCSP	TO REMAIN	96.00		REUSE
1241 & 1483	1341B	19542A	SCSP	TO REMAIN	95.00		REUSE
1241 & 1483	1341	19541	DCLT	SCSP	96.00	85	-11
1241 & 1483		19541A		SCSP		85	NEW STR
1241 & 1483	1340*	19540	DCLT	DCSP	101.00	110	9
1241 & 1483	1339	19539	DCLT	DCSP	83.00	85	2
1241 & 1483	1338	19538	DCLT	DCSP	88.00	95	7
1241 & 1483	1337	19537	DCSP	SCSP	86.00	105	19
1241 & 1483		19537A		SCSP		105	NEW STR
Trapp Falls SS to West Devon Jct							
1545 & 1483	1336A	19536	SCSP	SCSP	86.00	105	19
1545 & 1483	1336	19535	DCLT	DCSP	88.00	115	27
1545 & 1483	1335	19534	DCLT	SCSP	81.00	105	24
1545 & 1483		19534A		SCSP		105	NEW STR
1545 & 1483	1334	19533	DCLT	DCSP	83.00	115	32
1545 & 1483	1333	19532	DCLT	SCSP	82.00	105	23
1545 & 1483		19532A		SCSP		105	NEW STR
1545 & 1483	1332	19531	DCLT	DCSP	83.00	100	17
1545 & 1483	1331	19530	DCLT	SCSP	82.00	95	13
1545 & 1483		19530A		SCSP		95	NEW STR
1545 & 1483	1330	19529	DCLT	DCSP	82.00	98	16
1545 & 1483	1329	19528	DCLT	DCSP	85.00	98	13
1545 & 1483	1328	19527	DCLT	SCSP	82.00	90	8
1545 & 1483		19527A		SCSP		90	NEW STR
1545 & 1483	1327	19526	DCLT	DCSP	83.00	98	15
1545 & 1483	1326	19525	DCLT	DCSP	85.00	88.5	3.5
1545 & 1483	1325	19524	DCLT	DCSP	93.00	98	5
1545 & 1483	1324	19523	DCLT	SCSP	82.00	100	18
1545 & 1483		19523A		SCSP		100	NEW STR
1545 & 1483	1323	19522	DCLT	DCSP	82.00	100	18
1545 & 1483	1322	19521	DCLT	SCSP	92.00	110	18
1545 & 1483		19521A		SCSP		110	NEW STR
1545 & 1483	1321*	19520	DCLT	DCSP	101.00	100	-1
1545 & 1483	1320	19519	DCLT	SCSP	83.00	95	12
1545 & 1483		19519A		SCSP		95	NEW STR
1545 & 1483	1319	19518	DCLT	DCSP	83.00	88.5	5.5
1545 & 1483	1318	19517	DCLT	SCSP	83.00	100	17
1545 & 1483		19517A		SCSP		100	NEW STR
1545 & 1483	1317	19516	DCLT	SCSP	103.00	110	7
1545 & 1483		19516A		SCSP		110	NEW STR

*Telecommunication antennas are located on the existing structures 1340 and 1321.

1580 LINE*							
Circuit(s)	Old Str #	New Str #	EXISTING	PROPOSED	Existing Height (feet)	Proposed Height (feet)	Height Increase (feet)
			Type	Type			
Pootatuck SS to Trap Falls SS							
1580	259	19141	DCLT	SCSP	78.00	95	17.00
1580	260	19140	DCLT	SCSP	78.00	115	37.00
1580	261	19139	DCLT	SCSP	78.00	88.5	10.50
1580	262	19138	DCLT	SCSP	78.00	93.5	15.50
1580	263	19137	DCLT	SCSP	78.00	105	27.00
Trapp Falls SS to West Devon Jct							
1580	264	19136	DCLT	SCSP	78.00	107.5	29.50
1580	265	19135	DCLT	SCSP	78.00	100	22.00
1580	266	19134	DCLT	SCSP	78.00	107.5	29.50
1580	267	19133	DCLT	SCSP	80.00	105	25.00
1580	268	19132	DCLT	SCSP	78.00	88.5	10.50
1580	269	19131	DCLT	SCSP	78.00	100	22.00
1580	270	19130	DCLT	SCSP	78.00	98	20.00
1580	271	19129	DCLT	SCSP	78.00	93.5	15.50
1580	272	19128	DCLT	SCSP	78.00	90	12.00
1580	273	19127	DCLT	SCSP	78.00	110	32.00
1580	274	19126	DCLT	SCSP	78.00	93.5	15.50
1580	275	19125	DCLT	SCSP	78.00	98	20.00
1580	276	19124	DCLT	SCSP	78.00	100	22.00
1580	277	19123	DCLT	SCSP	78.00	98	20.00
1580	278	19122	DCLT	SCSP	97.00	115	18.00
1580	279	19121	DCLT	SCSP	88.00	110	22.00
1580	280	19120	DCLT	SCSP	78.00	95	17.00
1580	281	19119	DCLT	SCSP	78.00	88.5	10.50
1580	282	19118	DCLT	SCSP	90.00	100	10.00
1580	283	19117	DCLT	SCSP	88.00	110	22.00

*The decommissioned 1590 Line will be removed and not replaced.

ATTACHMENT D

Wetland Report:**Pootatuck to West Devon Junction Rebuild Project**

TO: Sara Fusco, PSS, CPESC, Eversource Energy
FROM: Richard Canavan, PSS, PWS, Tighe & Bond
COPY: --
DATE: June 20, 2023

Tighe & Bond performed wetland and watercourse delineations in support of the Pootatuck to West Devon Junction Rebuild Project in October 2020, March 2021, and June 2022.

Wetland and Watercourse Delineation Methodology

Wetlands and watercourses were delineated in accordance with the requirements of the Connecticut Inland Wetlands and Watercourses Act (§22a-38 CGS), and the U. S. Army Corps of Engineers Wetlands Delineation Manual (1987) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region* (Version 2.0) (January 2012). The limits of the wetlands and watercourses were identified in the field by consecutively numbered flags. Pink "Wetland Delineation" flagging was used for delineating wetlands and blue flagging was used for delineating watercourses. Flag locations were surveyed at the time of the investigation using Global Positioning System (GPS) units capable of submeter accuracy. Wetlands were classified using the Cowardin System.

Delineated wetlands and watercourses within the Project Area are summarized in Table 1, and Army Corps of Engineers Wetland Determination Data Forms are attached.

TABLE 1

Delineated Wetlands and Watercourses within the Pootatuck to West Devon Junction Rebuild Project

Map Sheet No.	Wetland No. ¹	Determination Data Sheet Wetland No. ²	Dominant NWI Class ³	Other NWI Classes	Dominant Water Regime	Associated Watercourse ⁴	Associated Vernal Pool ⁵
1	W1	257 1A	PEM		Seasonally Flooded/Saturated		
1	W2	258 1A	PEM		Seasonally Flooded/Saturated	S1, S2	
1	W3	258 W38	PEM		Temporarily Flooded		
1, 2	-	-	-	-	Perennial	S3	
3	W4	263 W41	PSS	PEM	Seasonally Flooded/Saturated		VP1
3	W5	263 W40	PEM	PSS	Seasonally Flooded/Saturated		
3	W6	263 W39	PSS	LAB3	Permanently Flooded	S4, Cranberry Pond	
3	W7	265 W42	PEM		Temporarily Flooded		
3, 4	W8	265 W43	PEM	PSS	Seasonally Flooded		
4	W9	267 1A	PEM		Seasonally Flooded/Saturated		
4	W10	268 2A	PEM		Seasonally Flooded/Saturated		
4	W11	268 1A	PEM		Seasonally Saturated		
4	W12	269 1A	PEM	PSS	Seasonally Saturated		
4, 5	W13	273 1A	PEM	PSS	Seasonally Flooded/Saturated		
6	W14	278 W1	PEM		Seasonally Flooded/Saturated		
6, 7	W15	282	PSS	PEM	Seasonally Flooded/Saturated		VP2

¹ Wetland No. refers to the number on the Map Set for the Pootatuck to West Devon Junction Rebuild Project

² Data Sheet Wetland No. refers to the code assigned during delineation and referenced on the delineation data form

³ Wetlands classified according to Cowardin et al 1979; PEM= Palustrine Emergent Wetland; PSS= Palustrine Scrub-Shrub Wetland; PFO= Palustrine Forested Wetland; POW= Palustrine Open Water

⁴ Associated Watercourse refers to the identification number in the project map set

⁵ Vernal Pools were identified in 2020 and surveyed in 2021 and 2022 by Tighe & Bond.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Naugatuck Sampling Date: 2020-10-21
Applicant/Owner: Eversource State: Connecticut Sampling Point: 257-1A
Investigator(s): Rkv,jsc Section, Township, Range:
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%):
Subregion (LRR or MLRA): R 144A Lat: 41.2778931 Long: -73.1187468 Datum: NAD 83
Soil Map Unit Name: 60B Canton and Charlton fine sandy loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [checked] (If no, explain in Remarks.)
Are Vegetation [checked], Soil [checked], or Hydrology [checked] significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation [checked], Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No [checked]
Hydic Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 257 1A
Remarks: (Explain alternative procedures here or in a separate report.)
Active agricultural field. Vegetation is problematic

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) [checked] Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes No [checked] Depth (inches):
Saturation Present? Yes No [checked] Depth (inches):
Wetland Hydrology Present? Yes [checked] No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 257-1A

	Absolute % Cover	Dominant Species?	Indicator Status																													
Tree Stratum (Plot size: <u>30 ft r</u>)																																
1.																																
2.																																
3.																																
4.																																
5.																																
6.																																
7.																																
	_____ = Total Cover																															
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																																
1.																																
2.																																
3.																																
4.																																
5.																																
6.																																
7.																																
	_____ = Total Cover																															
Herb Stratum (Plot size: <u>5 ft r</u>)																																
1.																																
2.																																
3.																																
4.																																
5.																																
6.																																
7.																																
8.																																
9.																																
10.																																
11.																																
12.																																
	_____ = Total Cover																															
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																																
1.																																
2.																																
3.																																
4.																																
	_____ = Total Cover																															
<p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>0</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)</p> <hr/> <p>Prevalence Index worksheet:</p> <table style="width:100%; border:none;"> <tr> <td style="width:50%;"></td> <td style="text-align:center;">Total % Cover of:</td> <td style="width:50%;"></td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>0</u> (A)</td> <td></td> <td style="text-align:center;"><u>0</u> (B)</td> </tr> </table> <p style="text-align:right;">Prevalence Index = B/A = <u>0.0</u></p> <hr/> <p>Hydrophytic Vegetation Indicators:</p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is >50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤3.0¹</p> <p><input type="checkbox"/> 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height.</p> <hr/> <p>Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/></p>						Total % Cover of:		Multiply by:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>0</u> (A)		<u>0</u> (B)
	Total % Cover of:		Multiply by:																													
OBL species	<u>0</u>	x 1 =	<u>0</u>																													
FACW species	<u>0</u>	x 2 =	<u>0</u>																													
FAC species	<u>0</u>	x 3 =	<u>0</u>																													
FACU species	<u>0</u>	x 4 =	<u>0</u>																													
UPL species	<u>0</u>	x 5 =	<u>0</u>																													
Column Totals:	<u>0</u> (A)		<u>0</u> (B)																													
Remarks: (Include photo numbers here or on a separate sheet.)																																

SOIL

Sampling Point: 257-1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 5	10YR 3/1	95	7.5YR 4/4	5	C	M	Silt Loam	
5 - 11	10YR 4/1	85	10YR 4/6	15	C	M	Sandy loam	Refusal at 11"
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-21
Applicant/Owner: Eversource State: Connecticut Sampling Point: 258 1A SME
Investigator(s): SME, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR or MLRA): R 144A Lat: 41.2777405 Long: -73.1189147 Datum: NAD 83
Soil Map Unit Name: 4 Leicester fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No 4 (If no, explain in Remarks.)
Are Vegetation 4, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 4 No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes 4 No
Hydric Soil Present? Yes 4 No
Wetland Hydrology Present? Yes 4 No
Is the Sampled Area within a Wetland? Yes 4 No
If yes, optional Wetland Site ID: 258 1A
Remarks: (Explain alternative procedures here or in a separate report.)
Drought
Active agricultural field

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No 4 Depth (inches):
Water Table Present? Yes No 4 Depth (inches):
Saturation Present? Yes No 4 Depth (inches):
Wetland Hydrology Present? Yes 4 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 258 1A SME

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>40</u></td> <td>x 1 = <u>40</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>160</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.6</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>160</u> (B)	Prevalence Index = B/A = <u>1.6</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>40</u>	x 1 = <u>40</u>																			
FACW species <u>60</u>	x 2 = <u>120</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>160</u> (B)																			
Prevalence Index = B/A = <u>1.6</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Persicaria sagittata</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
2. <u>Phalaris arundinacea</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Impatiens capensis</u>	<u>10</u>	_____	<u>FACW</u>																	
4. <u>Onoclea sensibilis</u>	<u>10</u>	_____	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																

SOIL

Sampling Point: 258 1A SME

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10YR 2/1	90	7.5YR 4/6	10	C	PL	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-22
Applicant/Owner: Eversource State: Connecticut Sampling Point: 258 W38 RKV
Investigator(s): RKV, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Convex Slope (%): 0-3
Subregion (LRR or MLRA): R 144A Lat: 41.2760315 Long: -73.1184640 Datum: NAD 83
Soil Map Unit Name: 75C Hollis-Chatfield-Rock outcrop complex NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [checked] (If no, explain in Remarks.)
Are Vegetation [checked], Soil [checked], or Hydrology [checked] significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes [checked] No
Hydic Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 258 W38
Remarks: (Explain alternative procedures here or in a separate report.)
Drought
Man made swale. Hydrologic input from storm drain outlets

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes [checked] No Depth (inches): 2
Saturation Present? Yes [checked] No Depth (inches): 0
Wetland Hydrology Present? Yes [checked] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 258 W38 RKV

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Herb Stratum (Plot size: <u>5 ft r</u>)				
1.	<u>Typha angustifolia</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>
2.	<u>Bidens frondosa</u>	<u>5</u>		<u>FACW</u>
3.	<u>Persicaria arifolia</u>	<u>5</u>		<u>OBL</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>60%</u>		_____ = Total Cover
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
				_____ = Total Cover
Remarks: (Include photo numbers here or on a separate sheet.)				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>55</u>	x 1 = <u>55</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u> (A)	<u>65</u> (B)

Prevalence Index = B/A = 1.1

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: 258 W38 RKV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 4/2	90	7.5YR 4/6	10	C	M	Loamy sand	Gravelly loamy sand Rock refusal
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-22
Applicant/Owner: Eversource State: Connecticut Sampling Point: 263 W41 RKV
Investigator(s): RKV, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3
Subregion (LRR or MLRA): R 144A Lat: 41.2680359 Long: -73.1188438 Datum: NAD 83
Soil Map Unit Name: NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [checked] (If no, explain in Remarks.)
Are Vegetation [checked], Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes [checked] No
Hydric Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 263 W41
Remarks: (Explain alternative procedures here or in a separate report.)
Drought
Veg management removed shrubs
PVP 5 within wetland boundaries

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) [checked] Water-Stained Leaves (B9) [checked] Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) [checked] Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) [checked] Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) [checked] Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) [checked] Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) [checked] Other (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) [checked]

Field Observations:
Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes No [checked] Depth (inches):
Saturation Present? Yes No [checked] Depth (inches):
Wetland Hydrology Present? Yes [checked] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 263 W41 RKV

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. <u>Acer rubrum</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>30%</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>185</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.6</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>185</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>25</u>	x 2 = <u>50</u>																	
FAC species <u>45</u>	x 3 = <u>135</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>185</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Clethra alnifolia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. <u>Alnus incana</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Ilex verticillata</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>35%</u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Carex scoparia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>5%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
Vegetation management																		
<table style="width:100%; border:none;"> <tr> <td style="width:70%;">Hydrophytic Vegetation Present?</td> <td>Yes <input checked="" type="checkbox"/></td> <td>No _____</td> </tr> </table>				Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____												
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____																

SOIL

Sampling Point: 263 W41 RKV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10YR 2/1	100					Silt Loam	Refusal at 16. Rock
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-22
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 263 W40
 Investigator(s): RKV, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0-3
 Subregion (LRR or MLRA): R 144A Lat: 41.2669983 Long: -73.1187468 Datum: NAD 83
 Soil Map Unit Name: 73C - Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>263 W40</u>
Remarks: (Explain alternative procedures here or in a separate report.) Drought Wetland associated with an excavated swale, altered soils Vegetation management for electric transmission ROW	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
draught, area graded for drainage

VEGETATION – Use scientific names of plants.

Sampling Point: 263 W40

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>205</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.93</u>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>205</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>15</u>	x 2 = <u>30</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>205</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Cephalanthus occidentalis</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. <u>Sambucus nigra</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>10%</u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
1. <u>Reynoutria japonica</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Impatiens capensis</u>	<u>10</u>	_____	<u>FACW</u>															
3. <u>Symplocarpus foetidus</u>	<u>10</u>	_____	<u>OBL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>60%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 263 W40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 18	10YR 3/1	100					Silt Loam	Man made swaleRefusal at 18
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: rock
 Depth (inches): 18

Hydric Soil Present? Yes No

Remarks:

The existing swale area was determined to have an Aquic soil and developing hydric soil conditions based on dark surface soils, hydrology and vegetation indicators.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-22
Applicant/Owner: Eversource State: Connecticut Sampling Point: 263 W39 RKV
Investigator(s): RKV, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-3
Subregion (LRR or MLRA): R 144A Lat: 41.2658997 Long: -73.1188510 Datum: NAD 83
Soil Map Unit Name: 73C Charlton-Chatfield complex NWI classification: PSS1/PEM1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [checked] (If no, explain in Remarks.)
Are Vegetation [checked], Soil [checked], or Hydrology [checked] significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes [checked] No
Hydric Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 263 W39
Remarks: (Explain alternative procedures here or in a separate report.)
Drought
Impounded water/pond
Veg maintenance and maintained lawn

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) [checked] Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) [checked] Marl Deposits (B15)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) [checked]
Drift Deposits (B3) Presence of Reduced Iron (C4) [checked]
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) [checked]
Iron Deposits (B5) Thin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) [checked] Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) [checked]

Field Observations:
Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes No [checked] Depth (inches):
Saturation Present? Yes [checked] No Depth (inches): 0
Wetland Hydrology Present? Yes [checked] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 263 W39 RKV

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. <u>Acer rubrum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>10%</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>130</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.86</u>	Total % Cover of:	Multiply by:	OBL species <u>25</u>	x 1 = <u>25</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>130</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>25</u>	x 1 = <u>25</u>																	
FACW species <u>30</u>	x 2 = <u>60</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>130</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Cephalanthus occidentalis</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. <u>Alnus incana</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Cornus amomum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
4. <u>Sambucus nigra ssp. canadensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>45%</u> = Total Cover				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Persicaria arifolia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. <u>Impatiens capensis</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Onoclea sensibilis</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>20%</u> = Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Vitis riparia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>5%</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 263 W39 RKV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 24	10YR 2/1	100					Mucky Peat	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-22
Applicant/Owner: Eversource State: Connecticut Sampling Point: 265 W42 RKV
Investigator(s): RKV, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR or MLRA): R 144A Lat: 41.2626343 Long: -73.1189642 Datum: NAD 83
Soil Map Unit Name: 62D Canton and Charlton fine sandy loams NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No [checked] (If no, explain in Remarks.)
Are Vegetation [checked], Soil [checked], or Hydrology [checked] significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes [checked] No
Hydic Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 265 W42
Remarks: (Explain alternative procedures here or in a separate report.)
Drought
Storm water detention basin
Culvert under roads is hydrology source

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) [checked] Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B15)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) [checked]
Drift Deposits (B3) Presence of Reduced Iron (C4)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surface (C7)
[checked] Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) [checked]

Field Observations:
Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes No [checked] Depth (inches):
Saturation Present? Yes No [checked] Depth (inches):
Wetland Hydrology Present? Yes [checked] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 265 W42 RKV

<u>Tree Stratum</u> (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>95</u></td> <td>x 2 = <u>190</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u></td> <td>(A) <u>190</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>95</u>	x 2 = <u>190</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u>	(A) <u>190</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>95</u>	x 2 = <u>190</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>95</u>	(A) <u>190</u> (B)																	
_____ = Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft r</u>)																		
1. <u>Cornus amomum</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>)																		
1. <u>Phragmites australis</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Impatiens capensis</u>	<u>10</u>	_____	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
_____ = Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)														
Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																		

SOIL

Sampling Point: 265 W42 RKV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 2/1	95	7.5YR 4/6	5	C	M	Loamy sand	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 8

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Stratford Sampling Date: 2020-10-22
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 265 W43 RKV
 Investigator(s): RKV, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
 Subregion (LRR or MLRA): R 144A Lat: 41.2593079 Long: -73.1198366 Datum: NAD 83
 Soil Map Unit Name: 18 Catden and Freetown soils NWI classification: PFO/PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation , Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>265 W43</u>
Remarks: (Explain alternative procedures here or in a separate report.) Drought Vegetation maintenance	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION – Use scientific names of plants.

Sampling Point: 265 W43 RKV

	Absolute % Cover	Dominant Species?	Indicator Status																
Tree Stratum (Plot size: <u>30 ft r</u>)																			
1. <u>Acer rubrum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)															
2. _____																			
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
		<u>15%</u> = Total Cover																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																			
1. <u>Ilex verticillata</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u></td> <td>(A) <u>175</u></td> <td>(B)</td> </tr> </table> Prevalence Index = B/A = <u>2.3</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u>	(A) <u>175</u>	(B)
Total % Cover of:	Multiply by:																		
OBL species <u>0</u>	x 1 = <u>0</u>																		
FACW species <u>50</u>	x 2 = <u>100</u>																		
FAC species <u>25</u>	x 3 = <u>75</u>																		
FACU species <u>0</u>	x 4 = <u>0</u>																		
UPL species <u>0</u>	x 5 = <u>0</u>																		
Column Totals: <u>75</u>	(A) <u>175</u>	(B)																	
2. <u>Clethra alnifolia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																
3. <u>Cornus amomum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																
4. _____																			
5. _____																			
6. _____																			
7. _____																			
		<u>35%</u> = Total Cover																	
Herb Stratum (Plot size: <u>5 ft r</u>)																			
1. <u>Osmundastrum cinnamomeum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)															
2. <u>Onoclea sensibilis</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
11. _____																			
12. _____																			
		<u>25%</u> = Total Cover																	
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																			
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.															
2. _____																			
3. _____																			
4. _____																			
		_____ = Total Cover																	
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____															
Remarks: (Include photo numbers here or on a separate sheet.)																			

SOIL

Sampling Point: 265 W43 RKV

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 13	10YR 2/1	100					Silt Loam	
13 - 24	10YR 4/1						Sandy loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Straford Sampling Date: 2020-10-23
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 267-1A-4-sme
 Investigator(s): SME, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): R 144A Lat: 41.2579346 Long: -73.1198830 Datum: NAD 83
 Soil Map Unit Name: 18 Catden and Freetown soils NWI classification: PEM5

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation , Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>267 1A</u>
Remarks: (Explain alternative procedures here or in a separate report.) <h2 style="margin: 0;">Drought</h2>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____ _____ _____	
Remarks: _____ _____ _____	

VEGETATION – Use scientific names of plants.

Sampling Point: 267-1A-4-sme

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>120</u></td> <td>x 2 = <u>240</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>245</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.96</u>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>120</u>	x 2 = <u>240</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>245</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>120</u>	x 2 = <u>240</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>125</u> (A)	<u>245</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Phragmites australis</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Onoclea sensibilis</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>															
3. <u>Persicaria sagittata</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>105%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Rubus hispidus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>20%</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present?														
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																		
Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																		

SOIL

Sampling Point: 267-1A-4-sme

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 2	10YR 3/1	100					Sandy Loam	
2 - 16	10YR 4/2	70	7.5YR 5/6	30	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 16

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Stratford Sampling Date: 2020-10-23
Applicant/Owner: Eversource State: Connecticut Sampling Point: 268 2A 3 sme
Investigator(s): SME, JSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3
Subregion (LRR or MLRA): R 144A Lat: 41.2576599 Long: -73.1199108 Datum: NAD 83
Soil Map Unit Name: 52C Sutton fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [checked] No
Are Vegetation [checked], Soil [checked], or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes [checked] No
Hydric Soil Present? Yes [checked] No
Wetland Hydrology Present? Yes [checked] No
Is the Sampled Area within a Wetland? Yes [checked] No
If yes, optional Wetland Site ID: 268 2A

Remarks: (Explain alternative procedures here or in a separate report.)

Drought, immediately post rainfall, vegetation management for gas and electric transmission lines, evidence of soil disturbance

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) [checked] High Water Table (A2) [checked] Saturation (A3) [checked] Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)
Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) [checked]

Field Observations:

Surface Water Present? Yes No [checked] Depth (inches):
Water Table Present? Yes [checked] No Depth (inches): 6
Saturation Present? Yes [checked] No Depth (inches): 0
Wetland Hydrology Present? Yes [checked] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 268 2A 3 sme

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>120</u></td> <td>x 2 = <u>240</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>135</u> (A)</td> <td><u>300</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.22</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>120</u>	x 2 = <u>240</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>135</u> (A)	<u>300</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>120</u>	x 2 = <u>240</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>135</u> (A)	<u>300</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Rosa multiflora</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>15%</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Phragmites australis</u>	<u>20</u>	_____	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>120%</u> = Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 268 2A 3 sme

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 2	10YR 3/1	100					Silt Loam	
2 - 18	10YR 4/2	80	7.5YR 6/6	20	C	PL / M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 18

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Stratford Sampling Date: 2020-10-23
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 268 1A
 Investigator(s): SME, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR or MLRA): R 144A Lat: 41.2573547 Long: -73.1199107 Datum: NAD 83
 Soil Map Unit Name: 52C Sutton fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation , Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>268 1A</u>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Drought and immediately post rainfall. Vegetation management in electric transmission ROW.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	___ Drainage Patterns (B10)
___ High Water Table (A2)	___ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Crayfish Burrows (C8)
___ Sediment Deposits (B2)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Stunted or Stressed Plants (D1)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ Microtopographic Relief (D4)
___ Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
___ Water-Stained Leaves (B9)	
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres on Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No _____ Depth (inches): 1
 Water Table Present? Yes No _____ Depth (inches): 0
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 268 1A

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Salix nigra</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>10%</u>	= Total Cover																
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Rosa multiflora</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>200</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.22</u>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>65</u>	x 2 = <u>130</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>90</u> (A)	<u>200</u> (B)																	
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>15%</u>	= Total Cover																
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Phragmites australis</u>	<u>65</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>65%</u>	= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
2. _____																		
3. _____																		
4. _____																		
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 268 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 18	10YR 2/1	100					Mucky Peat	18+ inches of organics
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Naugatuck Sampling Date: 2020-10-23
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 269-1A-7-sme
 Investigator(s): SME, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): _____
 Subregion (LRR or MLRA): R 144A Lat: 41.2556152 Long: -73.1200901 Datum: NAD 83
 Soil Map Unit Name: 73C Charlton-Chatfield complex NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>269 1A</u>
Remarks: (Explain alternative procedures here or in a separate report.) Drought	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) ___ Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION – Use scientific names of plants.

Sampling Point: 269-1A-7-sme

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>200</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.8</u>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>20</u>	x 1 = <u>20</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>200</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Cornus amomum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Ilex verticillata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>40%</u> = Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Impatiens capensis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Onoclea sensibilis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Scirpus expansus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
4. <u>Bidens aristosa</u>	<u>10</u>	_____	<u>FACW</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>70%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 269-1A-7-sme

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 3/1	100					Silt Loam	
4 - 10	10YR 3/1	50	10YR 6/1	40	D	M		
4 - 10			7.5YR 4/6	10	C	PL	Silt Loam	
10 - 20	2.5Y 7/1	80	2.5Y 6/6	20	C	M	Silt	
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580: 2020 City/County: Shelton Sampling Date: 2020-10-23
 Applicant/Owner: Eversource State: Connecticut Sampling Point: 273-1A-4-sme
 Investigator(s): SME, JSC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): R 144A Lat: 41.2504578 Long: -73.1227148 Datum: NAD 83
 Soil Map Unit Name: 73E Charlton-Chatfield complex NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>273 1A</u>
Remarks: (Explain alternative procedures here or in a separate report.) Drought	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) 	Secondary Indicators (minimum of two required) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION – Use scientific names of plants.

Sampling Point: 273-1A-4-sme

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u></td> <td>(A) <u>155</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.8</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u>	(A) <u>155</u> (B)	Prevalence Index = B/A = <u>1.8</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>15</u>	x 1 = <u>15</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>85</u>	(A) <u>155</u> (B)																			
Prevalence Index = B/A = <u>1.8</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Sambucus nigra ssp. canadensis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>NI</u>																	
2. <u>Vaccinium corymbosum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>60%</u> = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phragmites australis</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. <u>Onoclea sensibilis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Epilobium coloratum</u>	<u>10</u>	_____	<u>OBL</u>																	
4. <u>Symplocarpus foetidus</u>	<u>5</u>	_____	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>65%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																				
				Remarks: (Include photo numbers here or on a separate sheet.)																

SOIL

Sampling Point: 273-1A-4-sme

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10YR 2/1	100					Sandy Loam	
3 - 12	10YR 6/1	75	10YR 6/8	25	C	M	Sandy loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock
 Depth (inches): 12

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pootatuck to West Devon Junction City/County: Stratford Sampling Date: 6/16/22
 Applicant/Owner: Eversource State: CT Sampling Point: W 278
 Investigator(s): RWC Section, Township, Range: _____
 Landform (hillside, terrace, etc.): side slope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41°14'25.51"N Long: 73° 7'23.98"W Datum: _____
 Soil Map Unit Name: Sutton fine sandy loam, 0 to 8 percent slopes, very stony NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>x</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W 278

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30</u>)				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
6.	_____	_____	_____	
7.	_____	_____	_____	
	_____	=Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1.	<u>Rubus idaeus</u>	20	Yes	FACU
2.	<u>Lindera benzoin</u>	5	Yes	FACW
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
	_____	=Total Cover		
Herb Stratum (Plot size: <u>5</u>)				
1.	<u>Phalaris arundinacea</u>	70	Yes	FACW
2.	<u>Symplocarpus foetidus</u>	10	No	OBL
3.	<u>Impatiens capensis</u>	5	No	FACW
4.	<u>Veratrum viride</u>	2	No	FACW
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
	_____	=Total Cover		
Woody Vine Stratum (Plot size: <u>30</u>)				
1.	<u>Vitis riparia</u>	15	Yes	FAC
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
	_____	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>82</u>	x 2 = <u>164</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>127</u> (A)	<u>299</u> (B)
Prevalence Index = B/A = <u>2.35</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes x No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W 278

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					Sandy	sandy loam
6-10	10YR 4/1	95	10YR 5/1	5	d	m	Sandy	faint pore linings masked by OM
10-14	10YR 5/1	80	10YR 6/1	15	d	m	Sandy	some gravel
			7.5YR 4/4	5	c	m		Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- ? Dark Surface (S7)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- High Chroma Sands (S11) (**LRR K, L**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- Coast Prairie Redox (A16) (**LRR K, L, R**)
- 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- Polyvalue Below Surface (S8) (**LRR K, L**)
- Thin Dark Surface (S9) (**LRR K, L**)
- Iron-Manganese Masses (F12) (**LRR K, L, R**)
- Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Evidence of disturbance in the area with large rocks placed at the surface and graded slopes.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Line 1580 City/County: Milford Sampling Date: 2021-03-05
Applicant/Owner: Eversource State: Connecticut Sampling Point: 282 W82
Investigator(s): MHZ, RKV Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5
Subregion (LRR or MLRA): R 144A Lat: 41.2328186 Long: -73.1216606 Datum: WGS 84
Soil Map Unit Name: 73C - Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky NWI classification: PSS1, PEM5

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [checked] No
Are Vegetation [checked], Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No [checked]
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Table with 2 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present? and Is the Sampled Area within a Wetland? with checkboxes and site ID 282.

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetation management within ROW

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary and Secondary) and Field Observations (Surface Water, Water Table, Saturation).

Field Observations: Surface Water Present? Yes [checked] Depth (inches): 3
Water Table Present? Yes [checked] Depth (inches): 0
Saturation Present? Yes [checked] Depth (inches): 0
Wetland Hydrology Present? Yes [checked]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water present in some depression areas

VEGETATION – Use scientific names of plants.

Sampling Point: 282 W82

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>395</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.39</u>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>395</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>70</u>	x 3 = <u>210</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>165</u> (A)	<u>395</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. <u>Cornus amomum</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Frangula alnus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Betula populifolia</u>	<u>10</u>		<u>FAC</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
<u>70%</u> = Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Phalaris arundinacea</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Solidago rugosa</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Thelypteris palustris</u>	<u>10</u>		<u>FACW</u>															
4. <u>Juncus effusus</u>	<u>5</u>		<u>OBL</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>95%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: 282 W82

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 2/1	100					Sandy Loam	
8 - 12	10YR 3/1		10YR 5/1	5	C	PL	Loam	
12 - 16	10YR 6/1	85	10YR 7/1	15	D	M	Sandy Loam	Depleted horizon texture coarser than surface
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

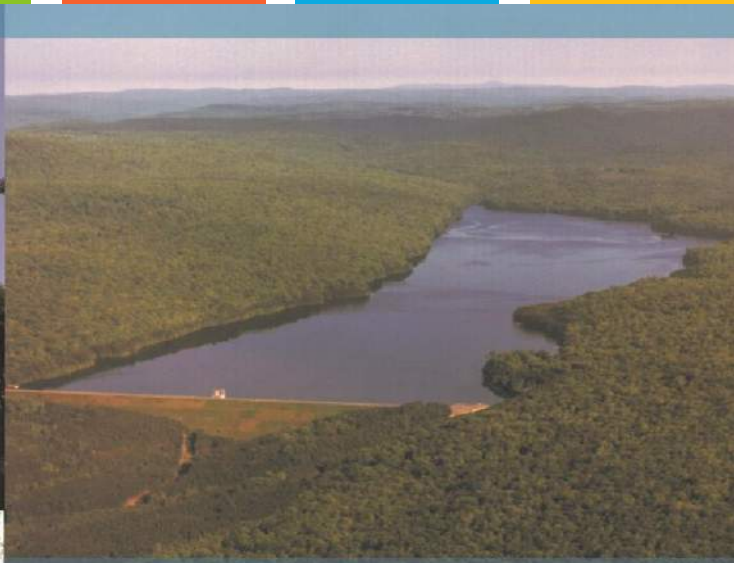
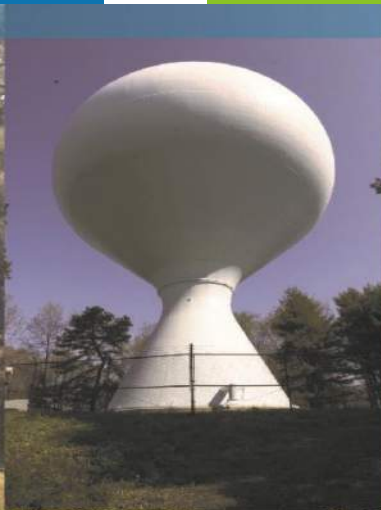
Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

ATTACHMENT E



Pootatuck to West Devon Junction Rebuild Project
Shelton and Stratford, Connecticut

Vernal Pool Report

Eversource Energy

June 2023

Tighe&Bond

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Appendices

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B Project Plan Sheets

Section 1 Introduction

The following report details the vernal pool habitat assessment conducted by Tighe & Bond in support of Eversource Energy Service Company's ("Eversource") Petition to the Connecticut Siting Council for the Pootatuck to West Devon Junction Rebuild Project ("Project"). The Project is planned within an approximate 3.3-mile section of an existing transmission line right-of-way ("ROW") in the towns of Shelton and Stratford, Connecticut. The Project will require the construction of temporary and permanent access roads and work pads to facilitate rebuild activities, including removal and installation of new transmission structures and associated overhead transmission components. The Project will not require widening of the ROW or tree clearing that would result in a conversion of cover type. The Project will not result in any direct impacts to vernal pool depressions. Impacts to 100-foot vernal pool envelopes will be minimized to the greatest extent practicable through avoidance, minimization, and the use of Best Management Practices ("BMPs") as detailed within this report.

Section 2 Vernal Pool Determination and Regulations

The Connecticut Siting Council ("Council") published the *Electric and Fuel Transmission Line Facility* application guide ("Guidelines") in April 2010. Section VIII of the Guidelines provides an outline of the contents for an application to the Council. Specifically, Section VI.I.D requires the applicant to depict vernal pools in the existing conditions plans, along with a 100-foot buffer around each pool.

Projects subject to the Council's jurisdiction are not subject to local inland wetland commission regulations in Connecticut. Connecticut's Inland Wetlands and Watercourse Act ("Act"), enacted in 1972, did not originally address vernal pools. The regulation of vernal pools is provided through a later amendment, P.A. 95-313. This 1995 amendment expanded the definition of "watercourse" to include "*all other bodies of water, natural or artificial, vernal or intermittent.*" Neither the Act nor its amendment provide a definition for vernal pool.

Under authority granted by Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers ("Corps") - New England District issued the *Department of the Army Regional General Permits for the State of Connecticut* ("GP", effective date December 15, 2021). Within the GP, vernal pools are included as one of six wetland habitats defined as "Special Wetlands" by the Connecticut Department of Energy and Environmental Protection's ("CTDEEP") associated Water Quality Certification program.

A number of vernal pool definitions have been developed by regulatory authorities and conservation organizations. The Corps GP defines vernal pools ("VPs") as "*depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frog, spotted salamander, blue spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish.*"

Calhoun and Klemens (2002) *Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States* ("BDP Manual") provides the following operational definition of vernal pools:

*Vernal pools are seasonal bodies of water that attain maximum depths in the spring or fall and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, varies depending upon the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than one year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including Ambystomid salamanders (*Ambystoma* spp., called "mole salamanders"*

because they live in burrows), wood frogs (*Rana sylvatica*), and fairy shrimp (*Eubranchipus spp.*).

2.1 Vernal Pool Identification Methods

Vernal pool physical characteristics can vary widely while still providing habitat for indicator species. "Classic" vernal pools are natural depressions in a wooded upland with no hydrologic connection to other wetland systems. Anthropogenic depressions such as quarry holes, old farm ponds and borrow pits can also provide similar habitat. Often, vernal pools are depressions or impoundments embedded within larger wetland systems. These vernal pool habitats are commonly referred to as "cryptic" vernal pools.

Several species of amphibians depend on vernal pools for reproduction and development. These species are referred to as "indicator"¹ vernal pool species, and their presence in a temporary wetland during the breeding season helps to identify that area as a vernal pool. Indicator species present in Connecticut include the following:

- Blue-spotted salamander (*Ambystoma laterale*)
- Wood frog (*Rana sylvatica*)
- Spotted salamander (*Ambystoma maculatum*)
- Jefferson salamander (*Ambystoma jeffersonianum*)
- Eastern spadefoot toad (*Scaphiopus holbrookii*)
- Marbled salamander (*Ambystoma opacum*)
- Fairy shrimp (*Branchiopoda anostraca*)

Facultative vernal pool species are fauna that utilize but do not necessarily require vernal pools for reproductive success. Examples of facultative species include spotted turtle (*Clemmys guttata*), spring peeper (*Pseudacris crucifer*), and four-toed salamander (*Hemidactylium scutatum*). These species may breed or feed in vernal pools but are also capable of carrying out all phases of their lifecycle in other types of wetlands or water bodies. Evidence of breeding by facultative species alone is not sufficient for a vernal pool classification.

For this report, a vernal pool is defined as an area that meets the physical characteristics described above and contains evidence of breeding activity of any of the indicator species listed above, including the presence of egg masses and larvae. This vernal pool assessment also makes an important distinction between wetlands in which indicator species may breed and those wetlands where they breed and successfully develop.

Vernal pool species breeding can also occur in bodies of water such as road ruts or man-made basins where the development and metamorphosis of larvae is unsuccessful. These

¹ Calhoun and Klemens (2002) argue that "indicator" species is a better word than the commonly used "obligate" species, as they will occasionally breed in roadside ditches and small ponds that are not vernal pools.

are referred to as “decoy vernal pools”. In the BDP Manual, Calhoun and Klemens note the negative impact associated with ruts:

Site clearing can cause water-filled ruts. These ruts intercept amphibians moving toward the vernal pool and may induce egg deposition. Often these ruts do not hold water long enough to allow development of amphibians and therefore acts as “sinks” that result in populations declines.

Decoy vernal pools often lack vegetation for egg mass attachment and dry more rapidly than classic or cryptic vernal pools, limiting larval survivorship.

Section 3 Means and Methods

Potential vernal pools (PVPs) were identified during the wetland delineation in the fall of 2020. A Tighe & Bond Certified Wildlife Biologist (CWB) and Professional Wetland Scientist (PWS) conducted field surveys of the PVPs identified during the delineation on April 8, April 25, and May 13 of 2022. Previous field survey work by environmental scientists (including CWB and PWS certified staff) occurred on March 25 and 26, April 2, 8, and 9, May 27, and June 18 of 2021. Any observed areas of surface water in the Project ROW observed during Spring field work were assessed for vernal pool habitat conditions. Field surveys were conducted to observe and monitor each PVP habitat area. Survey methods included a visual search for adults, larvae and egg masses, aural surveys to listen for chorusing, and dip-net surveys to identify amphibian larvae. The follow-up field surveys were conducted to confirm that hydrology and hydroperiod remained adequate to support breeding and development. Photographs of each location are provided in Appendix A.

The methodology described in the BDP Manual was used to assess each pool qualitatively. This assessment methodology utilizes a three-tiered rating system, with the tier designation determined by examining the biological value of the pool in conjunction with the condition of the habitat surrounding the pool, which is the area used by vernal pool amphibians during the non-breeding season. The higher the species diversity and abundance, coupled with an undeveloped and forested landscape surrounding the pool, the higher the tier rating. Tier I pools are considered the highest quality pools, while Tier III are the lowest. Analysis of the landscape condition within 750 feet of the pools is required to complete the full BDP analysis; this was conducted as the sites permitted due to constraints related to property rights and boundaries. For areas outside of the ROW and access roads, land use assessment was based on aerial photograph assessment. The BDP Manual defines Tier I and II pools are those pools that meet at least one of the following *biological* criteria:

1. The presence of a breeding state-listed species (such as blue-spotted salamander, Jefferson salamander, spadefoot toad, wood turtle, or eastern box turtle); or
2. Two or more indicator species breeding; or
3. 25 or more total egg masses of any vernal pool indicator species.

The tier rating of a pool is based on which of the above *biological* criteria are met coupled with an analysis of the level of development within two landscape management zones surrounding the pools, the Vernal Pool Envelope (VPE, 0-100 feet from the pool) and the Critical Terrestrial Habitat (CTH, 100-750 feet from the pool).

A Tier I pool must meet one of the above *biological* criteria *and* have at least 75% undeveloped land within the Vernal Pool Envelope (VPE, 0-100 feet from the pool) and at least 50% undeveloped land within the Critical Terrestrial Habitat (CTH, 100-750 feet from the pool).

A Tier II pool must meet one of the above *biological* criteria along with one of the landscape criteria, either 75% undeveloped land within the VPE *or* 50% undeveloped land within the CTH.

A Tier III pool is a pool that either has high *biological* value coupled with a high percentage of developed land within the VPE and CTH *or* low biological value coupled with one of the landscape criteria being met (either 75% undeveloped land within the VPE *or* 50% undeveloped land within the CTH). Typical, Tier III pools exhibit low species diversity and abundance.

Section 4 Results

A total of two (2) PVPs were identified during the initial wetland delineation and were confirmed to be VPs during the field assessment. The VPs are located within larger wetland systems and are isolated depressions within the wetlands that are seasonally inundated. These areas include scrub-shrub and emergent wetlands in the ROW and forested wetland outside of the ROW. The adjacent land use includes forested upland and wetland and residential areas. The VPs are located almost entirely within forested areas with a minimum of 75% undisturbed Vernal Pool Envelope and 60% Critical Terrestrial Habitat.

No additional VPs or decoy vernal pools were found in the project area during the survey.

The study period was drier than typical, and the duration of standing water affected development of the tadpoles in the Spring of 2021 and 2022, as detailed below.

Table 4-1 provides a summary of the biological findings and Tier Rating for each pool using the BDP Methodology.

TABLE 4-1

Summary Vernal Pool Findings

Vernal Pool Number	Maximum Egg Mass Totals		Facultative Species Observed	Cowardin Code(s)*	Tier Rating	Pool Type**	Petition Map Sheet No.
	Wood Frog	Spotted Salamander					
2022							
1	16	24	Spring Peeper	PSS/PFO1C	I	CR	3
2	2	7	None	PEM/PFO1C	I	CR	7
2021							
1	12	4	None	PSS/PFO1C	I	CR	3
2	-	4	Spotted Turtle	PEM/PFO1C	I	CR	7

*Cowardin code(s)

PSS1 - Palustrine scrub-shrub

PFO1 - Palustrine forested wetland broad leaved deciduous

*Water Regime

C - Seasonally flooded

**Pool Type

CR - Cryptic

4.1 Vernal Pool 1

Vernal Pool 1 (VP1) is located northwest of the Trapp Falls Substation at Armstrong Road, in Shelton. The limit of the pool of VP1 is near but beyond the western edge of the ROW adjacent to existing Structures 263 and 1337 (Photographs No. 1 through 3 in Appendix A). VP1 is embedded within the larger wetland system W4. The cryptic vernal pool depression lies recessed within the larger wetland boundary. It is largely forested with some scattered scrub-shrub vegetation within. Dominant vegetation observed during the site visits included red maple (*Acer rubrum*), skunk cabbage (*Symplocarpus foetidus*), highbush blueberry (*Vaccinium corymbosum*), and a variety of sedge species (*Carex* spp.).

During the April 8 survey, 12 wood frog and 24 spotted salamander egg masses were observed, and a breeding chorus of spring peepers was noted. On April 25, a total of 16 wood frog and 5 spotted salamander egg masses were counted. During the final May 13 monitoring event, 10 egg masses of each species were found to be fully hatched and hundreds of wood frog tadpoles were observed within the pool. These results are similar to those observed in 2021, where a maximum of 12 wood frog and four spotted salamander egg masses were observed in the month of April, and hundreds of wood frog tadpoles were observed in May and June.

The surface water area and depth varied over the course of the 2021 and 2022 survey seasons. In 2022, the water depth was recorded at an average of 9 inches during the first survey on April 8. This average pool depth raised to 10.3 inches during the April 24 monitoring event and dropped slightly to 10 inches during the final site visit on May 13.

VP1 is assigned a Tier I rating for the 2021 and 2022 monitoring seasons due to the presence of two indicator species, and the percentage of undeveloped land in the VPE and CTH.

4.2 Vernal Pool 2

Vernal Pool 2 (VP2) is located at the eastern edge of the ROW, southeast of existing Structures 282 and 1318, (Photographs No. 4 through 6, Attachment A). The cryptic vernal pool depression lies recessed within the larger boundary of Wetland W15. It is largely forested with scattered scrub-shrub vegetation within. Dominant vegetation observed during the site visits included red maple, skunk cabbage, common reed (*Phragmites australis*), highbush blueberry, and a variety of sedge species.

During the April 8 survey, two wood frog and seven spotted salamander egg masses were observed. On April 25, only one wood frog egg mass and one spotted salamander egg mass were counted. During the final May 13 monitoring event, no egg masses of any species were observed within the pool. The density of *Phragmites* in the VP at the ROW may have limited the presence of tadpoles or larvae during the May 13th observation, where dense plant stems were present in the ponded area. These numbers are similar to those observed in 2021, where a maximum of four spotted salamander and no wood frog egg masses were observed in the month of April. However, hundreds of wood frog tadpoles were observed in May and June of the 2021 monitoring season; this was not observed to occur again at any point during the 2022 site visits. A spotted turtle (*Clemmys guttata*) was observed at VP2 during the May 27th monitoring in 2021.

The surface water area and depth varied over the course of the 2021 and 2022 survey seasons. In 2022, the water depth was recorded at an average of 10.6 inches during the first survey on April 8. This average pool depth dropped to 9.6 inches during the April 24 monitoring event and raised slightly to 10.3 inches during the final site visit on May 13.

VP2 was assigned a Tier I rating during the 2021 and 2022 monitoring seasons due to the presence of two indicator species (assumed from the presence of wood frog and spotted salamander egg masses) as well as the percentage of undeveloped land in the VPE and CTH.

4.3 Study Period Weather

The studied vernal pools appeared to be potentially limited in their ability to provide amphibian breeding habitat during the 2021 and 2022 survey seasons due to the loss of water volume in the spring, as rainfall conditions during the study period were drier than typical. Reported monthly rainfall for the period from March through May 2021 was below normal with Fairfield County at 85% and New Haven County at 92% of normal precipitation for that three-month period. This trend continued in 2022, with reported monthly rainfall for the period from March through July being below normal for Fairfield County at 82% and New Haven County at 77% of normal precipitation for that similar five-month period (ct.gov/water/drought/drought-home).

As such, conditions at the pools studied for this report are expected to vary from year to year in response to variable and changing weather conditions.

Section 5 Discussion

This section discusses potential impacts to vernal pools due to the Project construction and discusses avoidance and minimization measures incorporated into the Project design.

5.1 Potential Impacts to Vernal Pools

A total of two (2) vernal pools were identified within the Project Area. These vernal pools were found to support two vernal pool indicator species, wood frog and spotted salamander. Both pools are classified as Tier I due to the observation of multiple indicator species, and 75% or greater undeveloped VPE and/or 50% or greater undeveloped CTH.

The Project does not propose any activities within vernal pool depressions and avoids direct impacts to vernal pools. The principal construction activities that could affect vernal pools include:

- The construction of new or improved access roads within VPEs (i.e., within 100 feet of the vernal pool)
- The construction of work pads within VPEs
- The demolition and construction of electric transmission structures in VPEs
- The movement of vehicles and equipment through amphibian migratory routes
- The potential for erosion and sedimentation into vernal pools
- The destruction of fossorial habitat through soil compaction and grading

5.1.1 Vernal Pool 1

The Project includes the installation of a temporary work pad and access road within the VPE of VP1. The work pad and access road within the VPE will be installed with temporary timber matting to minimize disturbance of the VPE. The project will include the removal of an existing structure and installation of two replacement structures within the VPE.

5.1.2 Vernal Pool 2

The Project includes the placement of temporary timber matting for an access road and work pad within the VPE of VP2. No existing or proposed structures are within the VPE of VP2.

5.2 Avoidance and Minimization Measures

The potential for adverse impacts on vernal pools may be minimized by implementing a variety of BMPs aimed at minimizing the effects of both permanent and temporary construction-related activities. The following types of measures may be considered to minimize potential impacts on vernal pools:

Construction Activities during Migration, Breeding & Larval Development Periods

Where feasible in areas proximate to vernal pools, avoid or minimize construction activities during periods of peak migration, breeding and larval development as described below for each indicator species:

Wood frog:

- Breeding and larval development period: from March through July.
- Migration period: migration into pools occurs predominantly between mid-March and mid-April.

Spotted salamander:

- Breeding and larval development period: from March through June.
- Migration period: migration from pools occurs predominantly between late summer and early fall.

For Project activities that must occur adjacent to vernal pools during amphibian migration periods, implement measures on a site-specific basis as necessary to facilitate unencumbered amphibian access to and from vernal pools, such as elevated construction matting. Mitigation measures will be identified after considering site-specific conditions, including the type of construction activity in proximity to a vernal pool, the amphibian species known to occur in the vernal pool, and seasonal conditions.

Vegetation Clearing:

- Minimize the removal of low-growing vegetation surrounding vernal pools. If low growing woody vegetation (shrubs) will be removed, the cut vegetation (slash) should be left in place to provide cover and promote the development of coarse woody debris and detritus.
- Where possible, the stumps of cut woody debris should be left in place to minimize soil disturbance.
- Woody shrub cover should remain intact to the maximum extent practicable.

Erosion and Sedimentation Controls

- Erosion control measures should be designed in a manner that allows unencumbered amphibian access to vernal pools and migratory pathways. Such measures may include but are not limited to syncopated silt fencing and/or straw wattles in the immediate vicinity of vernal pools, and aligning erosion and sedimentation controls to avoid bisecting vernal pool habitat.
- Install appropriate erosion and sediment controls around distinct work sites and access roads to minimize the potential for sediment deposition into vernal pools and remove such controls promptly after final site stabilization.
- Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including amphibians. No permanent erosion control products or reinforced silt fence should be used. Temporary erosion control products should be composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.

Access Roads and Work Pads

- Evaluate the use of temporary timber mat access roads in lieu of constructing gravel access roads to minimize the loss of vegetated areas within the VPE.
- Use bridging when installing timber mats to provide for access under timber mat roads.
- Minimize the removal of shrub cover associated with work pad and access road construction within 25 feet of vernal pools.
- Where feasible, remove new gravel fill associated with construction work pads and pull pads.

Prevention of Decoy Vernal Pools

- Permanent access road crossings should be constructed in a manner that wetland hydrology is maintained, and surface water impoundment does not occur.
- Access road grading or improvements necessary to accommodate project construction vehicles should eliminate any existing depressions or ruts that may be functioning as decoy vernal pools.
- Avoid siting temporary sediment traps near vernal pools as they may function as decoy pools.

Section 6 References

Calhoun, A.J.K. and M.W. Klemens. 2002. *Best Development Practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States*. MCA Technical Paper No. 5 Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York. 57 p.

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Klemens, M.W. 1993. *Amphibians and Reptiles of Connecticut and Adjacent Regions*. State Geological and Natural History Survey of Connecticut, Bulletin No. 112, Connecticut Department of Environmental Protection, Hartford, CT.

Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service. FWS/OBS-79/31. Washington, D.C. 103 p.

Tighe&Bond

APPENDIX A

Photographic Log

Client: Eversource Energy

Job Number: E5034-120

Site: Pootatuck to West Devon Junction Rebuild Project, Shelton and Stratford, Connecticut

Photograph No.: 1	Date: 04/08/2022	Direction Taken: Southwest
--------------------------	-------------------------	-----------------------------------

Description: Overview of Vernal Pool 1 (PFO1C), taken during the site visit on April 8, 2022.



Photograph No.: 2	Date: 04/25/2022	Direction Taken: Southwest
--------------------------	-------------------------	-----------------------------------

Description: Overview of Vernal Pool 1, taken during the site visit on April 25, 2022.



Photographic Log

Client: Eversource Energy

Job Number: E5034-120

Site: Pootatuck to West Devon Junction Rebuild Project, Shelton and Stratford, Connecticut

Photograph No.: 3	Date: 05/13/2022	Direction Taken: Southwest
Description: Overview of Vernal Pool 1, taken during the site visit on May 13, 2022.		
		

Photograph No.: 4	Date: 04/08/2022	Direction Taken: North
Description: Overview of Vernal Pool 2 (PFO1C), taken during the site visit on April 8, 2022.		
		


Photographic Log

Client: Eversource Energy

Job Number: E5034-120

Site: Pootatuck to West Devon Junction Rebuild Project, Shelton and Stratford, Connecticut

Photograph No.: 5	Date: 04/25/2022	Direction Taken: North
Description: Overview of Vernal Pool 2, taken during the site visit on April 25, 2022.		
		

Photograph No.: 6	Date: 05/13/2022	Direction Taken: North
Description: Overview of Vernal Pool 2, taken during the site visit on May 13, 2022.		
		

Client: Eversource Energy

Job Number: E5034-120

Site: Pootatuck to West Devon Junction Rebuild Project, Shelton and Stratford, Connecticut


Photograph No.: 7	Date: 04/08/2022	Direction Taken: N/A
Description: Spotted salamander (<i>Ambystoma maculatum</i>) egg masses were observed within Vernal Pool 1 in 2022, at varying stages of maturity over the study period.		
		


Photograph No.: 8	Date: 05/13/2022	Direction Taken: N/A
Description: Wood frog (<i>Lithobates sylvaticus</i>) tadpoles and egg masses were observed within Vernal Pool 1 in 2022, at varying stages of maturity.		
		

Client: Eversource Energy

Job Number: E5034-120

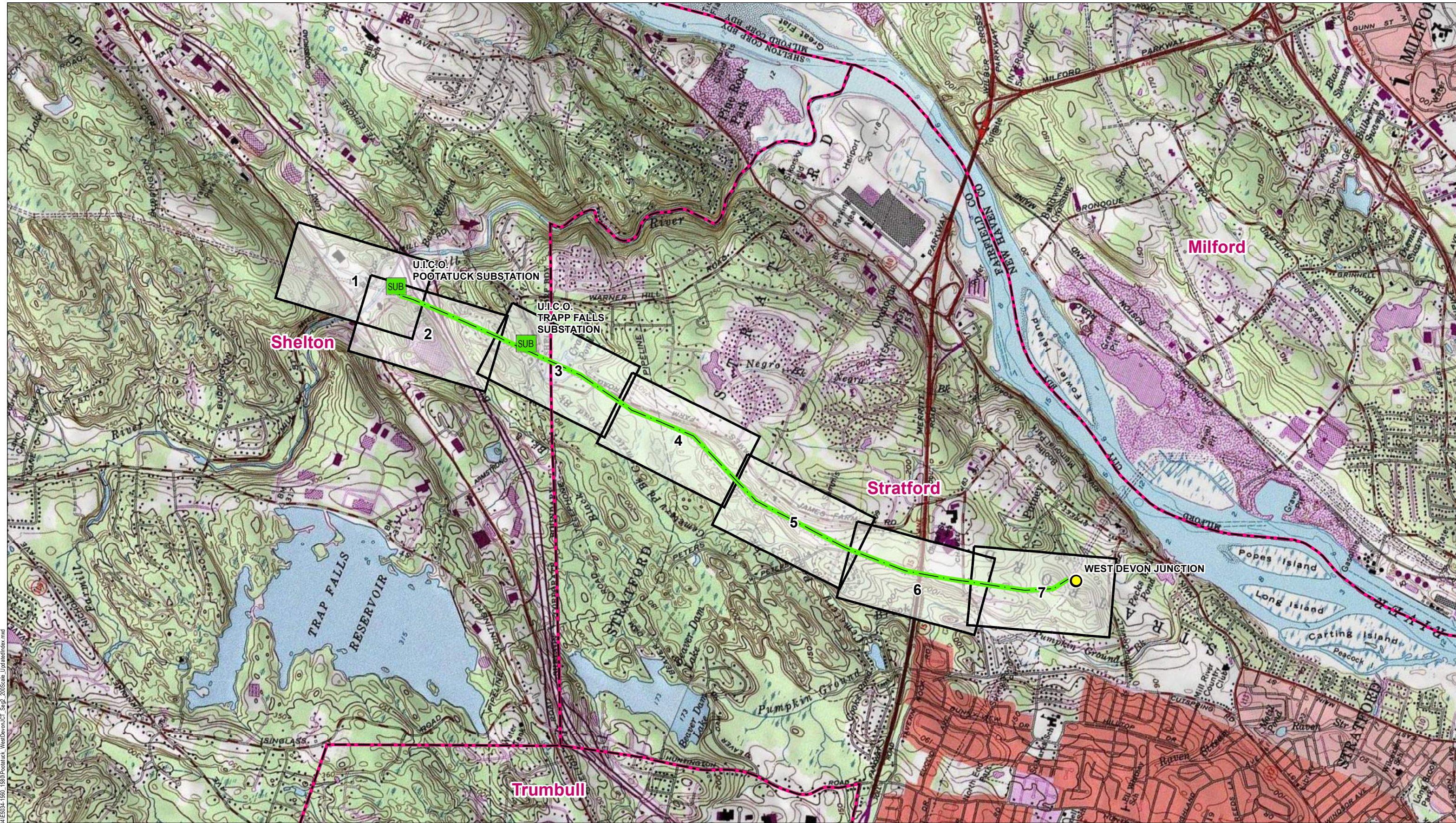
Site: Pootatuck to West Devon Junction Rebuild Project, Shelton and Stratford, Connecticut

Photograph No.: 9	Date: 04/25/2022	Direction Taken: N/A
Description: Spotted salamander egg masses were observed within Vernal Pool 2 in 2022, at varying stages of maturity.		
		

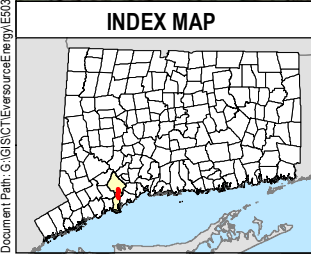
Photograph No.: 10	Date: 04/08/2022	Direction Taken: N/A
Description: Wood frog egg masses and tadpoles were observed within Vernal Pool 2 in 2022, at varying stages of maturity.		
		

Tighe&Bond

APPENDIX B



Document Path: G:\GIS\CT\EversourceEnergy\ES034-1560_1580\Pootatuck_WestDevon\CT_Seg_2023Scale_UpratedIndex.mxd



- Legend**
- Junction
 - SUB Substation
 - Project Corridor
 - Map Sheet
 - Municipal Boundary



1 inch = 2,000 feet

Base Map Source: ESRI USA Topographic Maps

NO.	DATE	REVISIONS	BY	CHK	APP	APP

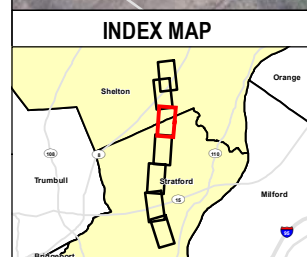
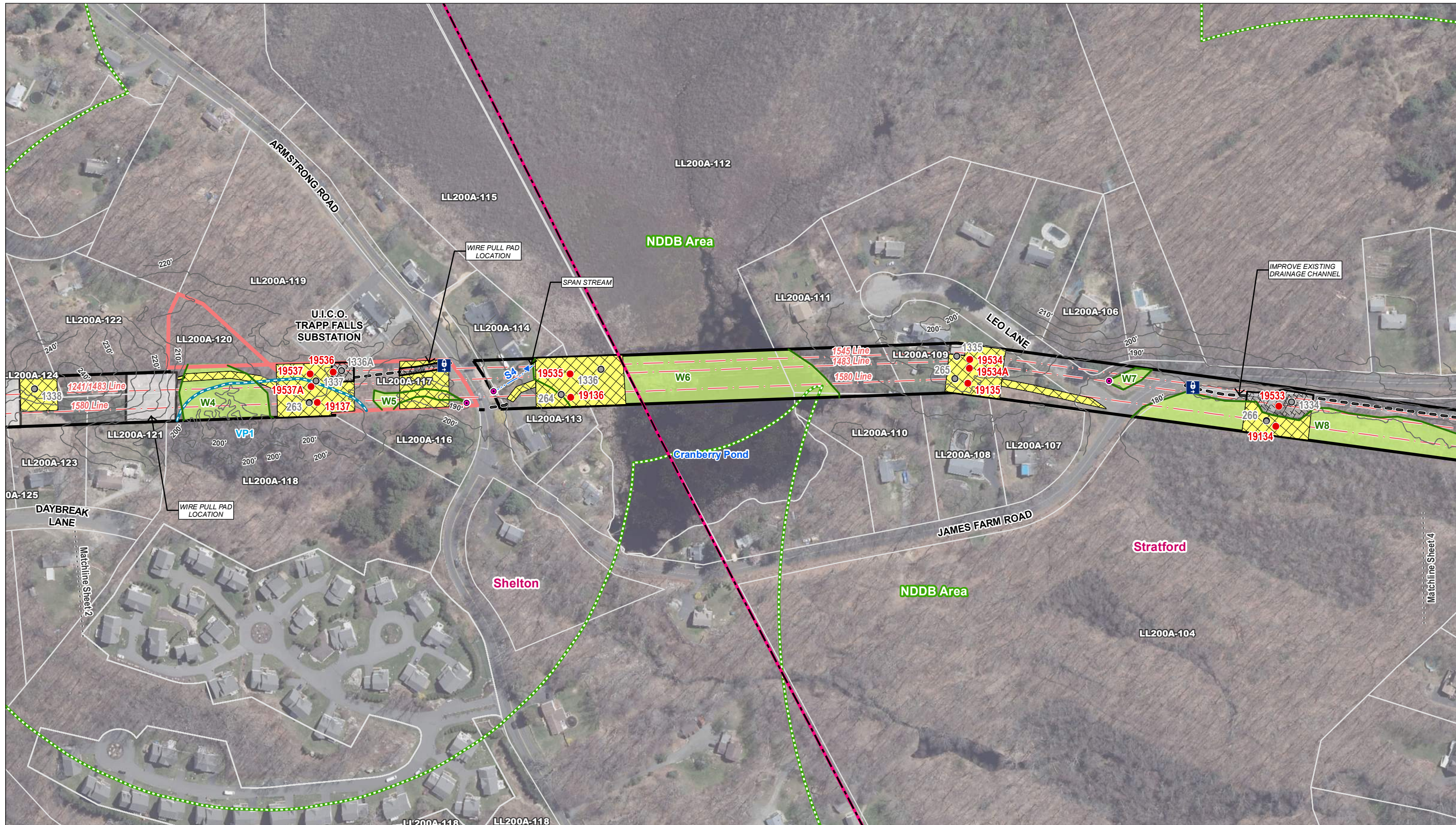
EVERSOURCE

**Pootatuck to West Devon Junction
Rebuild Project**

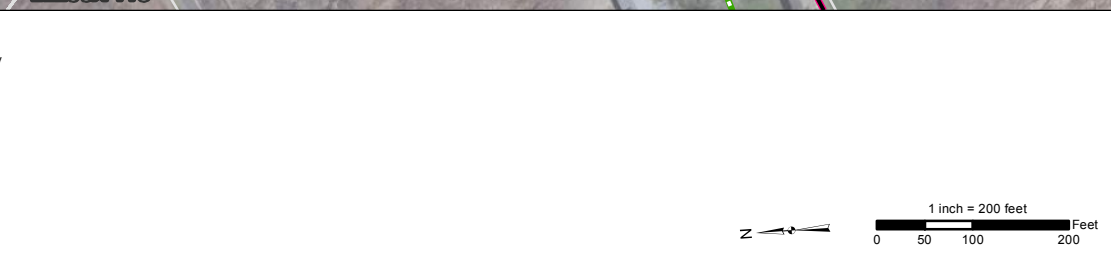
Shelton & Stratford, Connecticut

Date: June 20, 2023

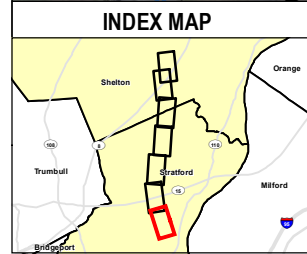
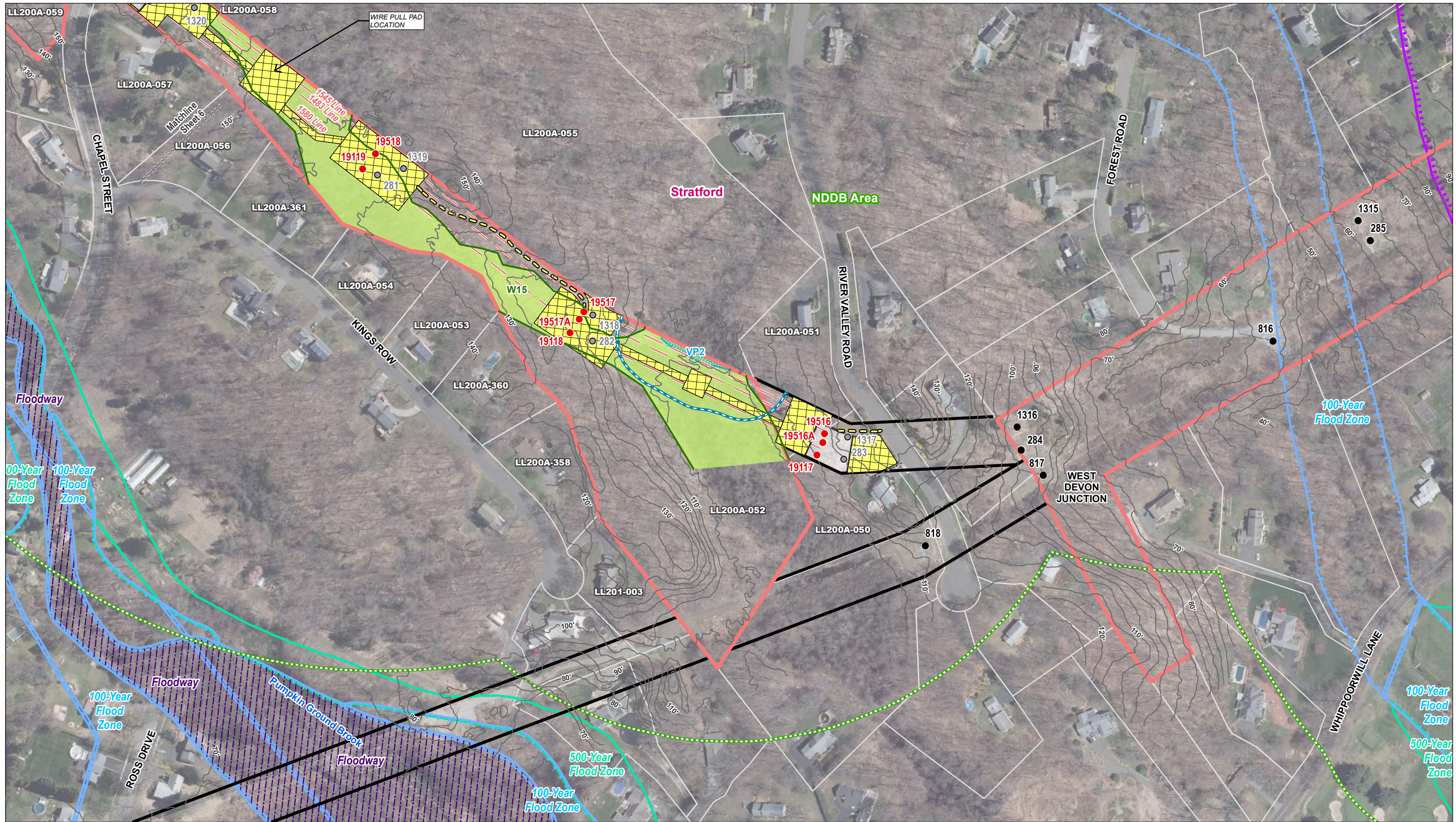
Tighe & Bond



Legend	
● Proposed Structure	— Proposed Access
○ Existing Structure to be Removed	— Delineated Intermittent Watercourse
● Culvert	— Field Delineated Wetland Boundary Outline
Ⓜ Gate	— Field Delineated Wetland
— Overhead Eversource Line	— Proposed Stone Work Pad
— 5' Contours	— Existing Gravel
— Existing Right-of-Way (ROW)	— 100' Vernal Pool Envelope
— Existing Access	— Temporary Construction Matting
— Parcel Boundary	— Natural Diversity Database Area (Dec 2022)
— Municipal Boundary	— Eversource Owned Property

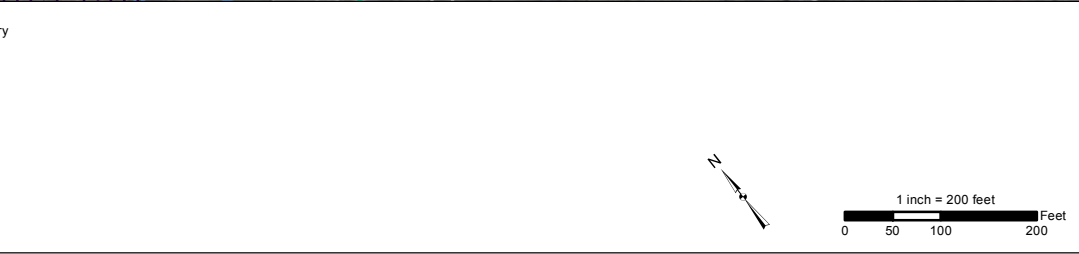


EVERSOURCE					
Pootuck to West Devon Junction Rebuild Project					
Shelton & Stratford, CT			Map Sheet 3 of 7		
Date: June 20, 2023					
Tighe&Bond					
NO.	DATE	REVISIONS	BY	CHK	APP



Legend

- Proposed Structure (Red dot)
- Existing Structure (Black dot)
- Existing Structure to be Removed (Grey dot)
- Fence (Dashed line)
- Overhead Eversource Line (Red line)
- 5' Contours (Thin grey line)
- Existing Right-of-Way (ROW) (Black line)
- Proposed Access (Yellow dashed line)
- Field Delineated Wetland Boundary Outline (Green dashed line)
- Field Delineated Wetland (Green shaded area)
- Proposed Stone Work Pad (Grey rectangle)
- Confirmed Vernal Pool Extent (Blue hatched area)
- 100' Vernal Pool Envelope (Blue dashed line)
- Temporary Construction Matting (Yellow hatched area)
- Natural Diversity Database Area (Dec 2022) (Green hatched area)
- Coastal Boundary (Purple dashed line)
- FEMA Floodway (Blue dashed line)
- FEMA 100-Year Flood Zone (Blue shaded area)
- FEMA 500-Year Flood Zone (Green shaded area)
- Eversource Owned Property (Red shaded area)
- Parcel Boundary (Thin grey line)



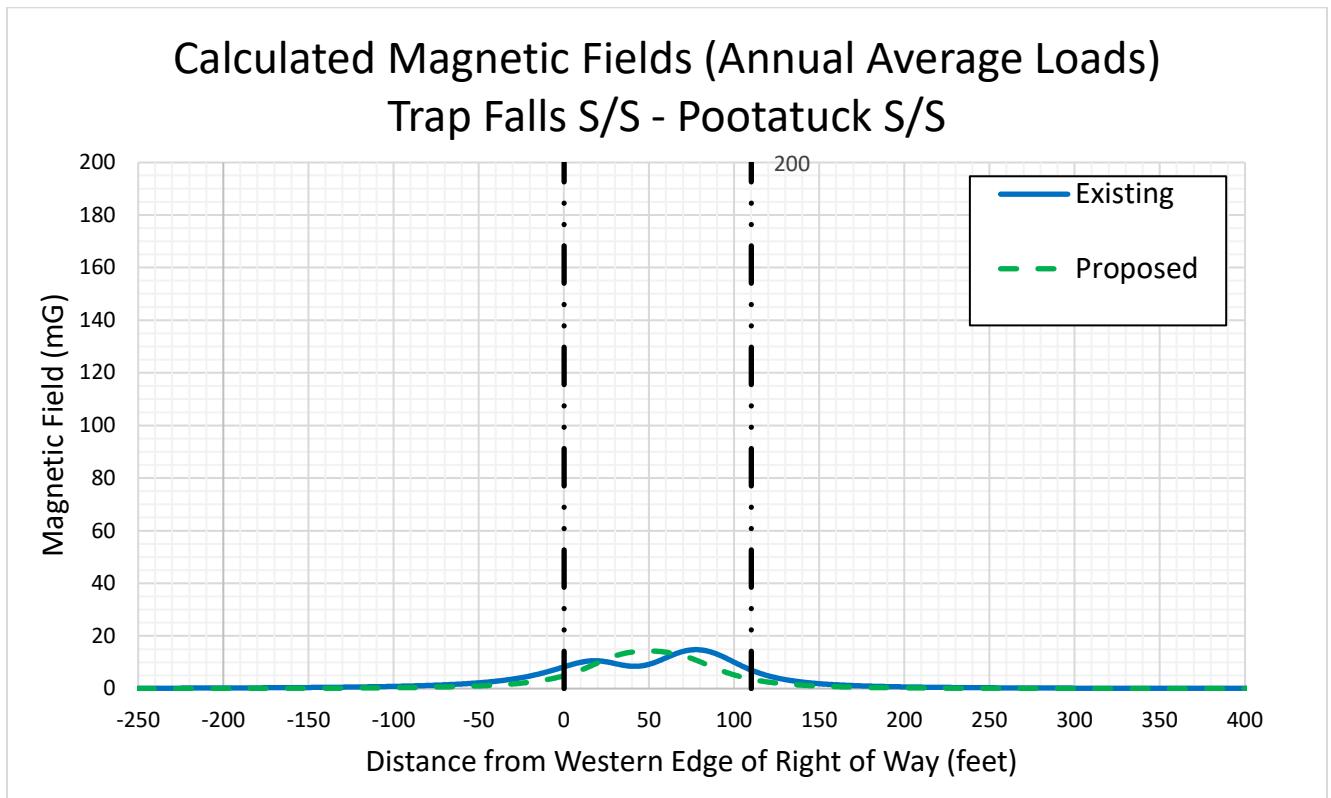
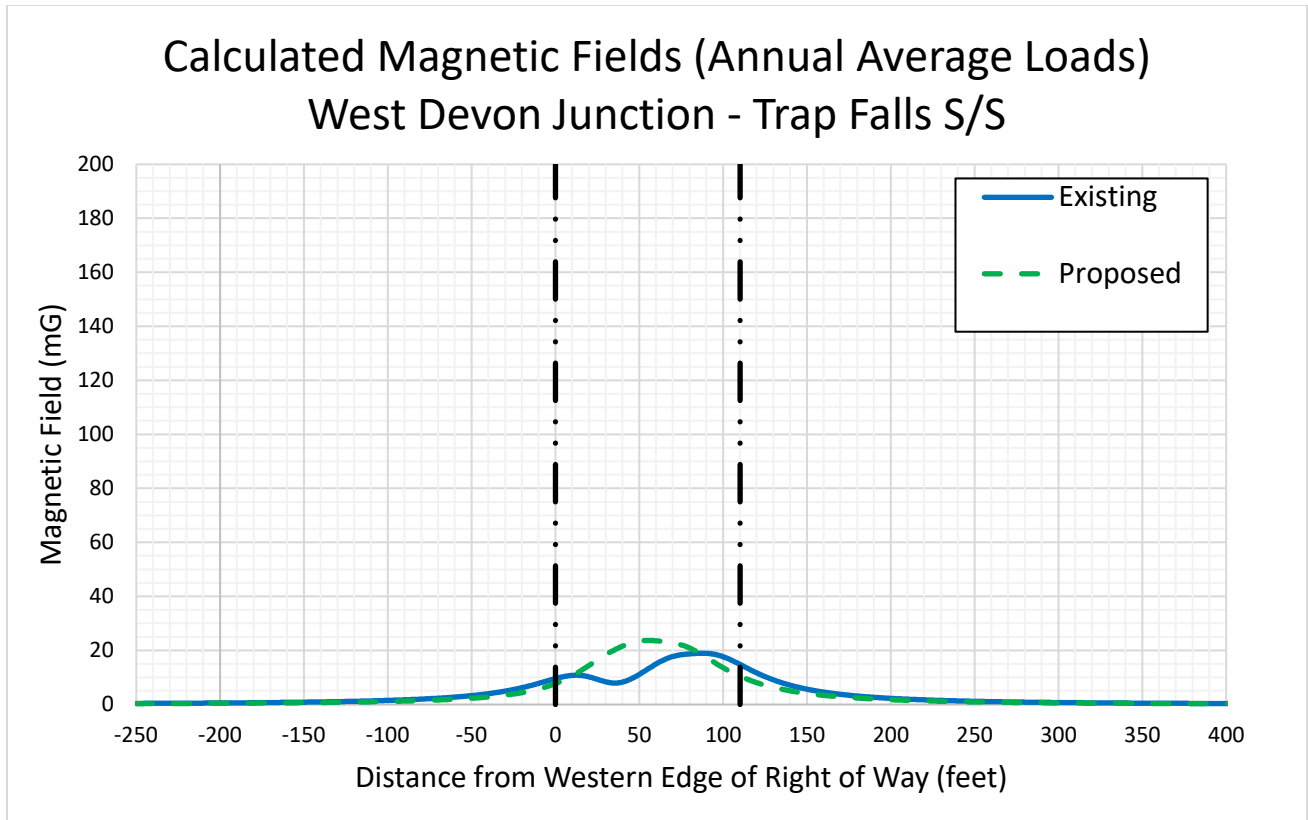
EVERSOURCE					
Pootatuck to West Devon Junction Rebuild Project					
Stratford, CT			Map Sheet 7 of 7		
Date: June 20, 2023					
NO.	DATE	REVISIONS	BY	CHK	APP



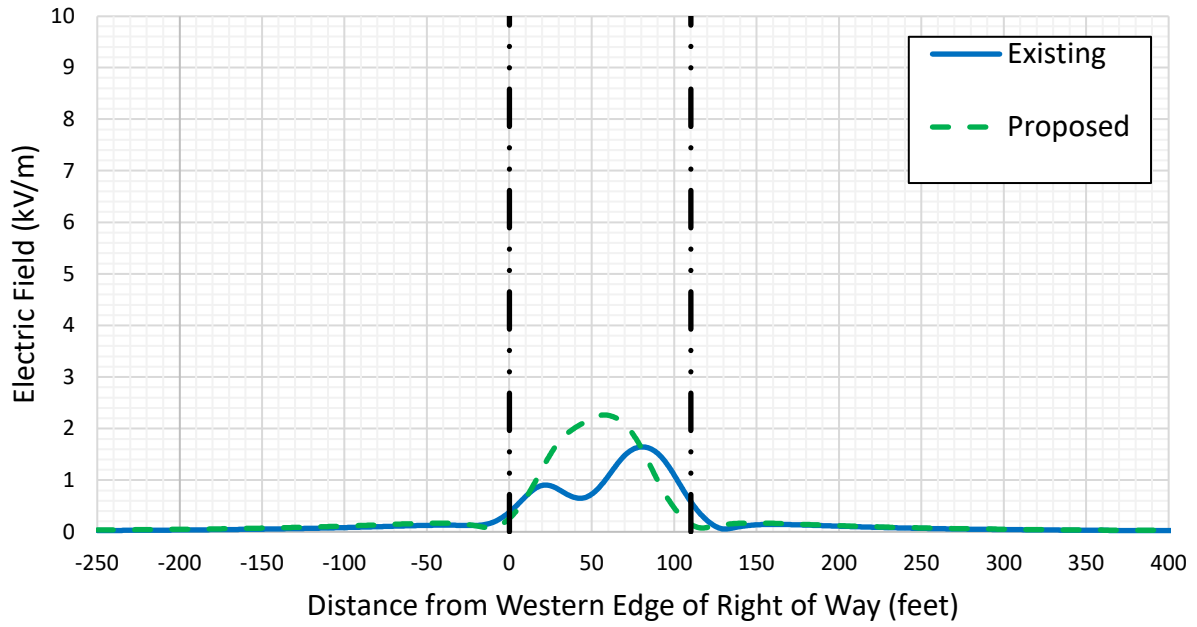


ATTACHMENT F

Attachment F: EMF Graphs



Calculated Electric Fields (Annual Average Loads) West Devon Junction - Pootatuck S/S



ATTACHMENT G

June 30, 2023

Dear Neighbor,

At Eversource, we're always working to serve you better. We are submitting a Petition to the Connecticut Siting Council (CSC) for a proposed electric reliability project in your area.

Proposed Project Information

The Project, called the Pootatuck to West Devon Junction Rebuild Project ("Project"), is one of several projects designed to support the continued reliability of the transmission system in your region. The Project work would be located within the existing Eversource right-of-way (powerline corridor) on or near your property in the City of Shelton or Town of Stratford.

The proposed Project includes rebuilding approximately 3.3 miles of the transmission line infrastructure between the Pootatuck Substation off Old Stratford Road in Shelton and West Devon Junction off River Valley Road in Stratford. This work includes:

- Replace all existing steel lattice towers with new steel monopole structures, with a finish that "weathers" or darkens over time. The location and heights of the new structures will vary depending on location, topography, and other factors. In select areas, additional new monopole structures will be installed within the right-of-way to meet updated engineering and electric code standards.
- Replace the existing conductor (energized wires) with new, upgraded conductor of the same voltage (115-kV).
- Replace the shield wire (top-most wire) with Optical Ground Wire (OPGW). The new wire will improve electric reliability by enabling communications between substations.
- Remove vegetation within the right-of-way as needed for construction and to comply with electric safety standards.
- Build or improve gravel roads and work pads to provide access to structure locations and to create a stable work area for equipment. Temporary construction matting will be used in and around environmentally sensitive areas (e.g., wetlands).

What You Can Expect

Pending receipt of the necessary approvals for this proposed work, construction is expected to begin in the fall of 2023.

Contact Information

Eversource is committed to being a good neighbor and doing our work with respect for you and your property. For more information, please call our Projects Hotline at 1-800-793-2202 or send an email to ProjectInfo@eversource.com.

If you would like to send comments regarding Eversource's Petition to the CSC, please send them via email to siting.council@ct.gov or send a letter to the following address: Melanie Bachman, Executive Director, Connecticut Siting Council, Ten Franklin Square, New Britain, CT 06051.

Sincerely,

Taylor LaPierre

Project Manager – Eversource Energy

AFFIDAVIT OF SERVICE OF NOTICE

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Sec. 16-50j-40 of the Regulations of Connecticut State Agencies ("RCSA") provides that proof of notice to the affected municipalities, property owners and abutters shall be submitted with a petition for declaratory ruling to the Connecticut Siting Council. In accordance with that RCSA section, I hereby certify that I caused notice of The Connecticut Light and Power Company doing business as Eversource Energy's proposed transmission facility modifications to be served by mail upon the following municipal officials:

Municipal Officials

Honorable Laura Hoydick
Town of Stratford Mayor
Stratford Town Hall
2725 Main Street
Stratford, CT 06615

Honorable Mark A. Lauretti
City of Shelton Mayor
Shelton Town Hall
54 Hill Street
Shelton, CT 06484

I also certify that I caused notice of the proposed modifications to be served by mail upon 87 owners of abutting properties shown on the maps in Attachment A to the Petition.


Helen Taylor
Project Siting Specialist

On this the 22nd day of June, 2023, before me, the undersigned representative, personally appeared, Helen Taylor, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument and acknowledged that she executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



Notary Public
My Commission expires: 10/27

SUSAN NAPOLITANO
Notary Public, State of Connecticut
My Commission Expires 10/27