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May 9, 2023

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

Re: Brookfield Junction to Bates Rock Substation Upgrade Project

Dear Ms. Bachman:

The Connecticut Light and Power Company doing business as Eversource Energy (“Eversource”) is requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the Brookfield Junction to Bates Rock Substation Upgrade Project (“Project”), which proposes modifications to the existing 1887, 1268, 1485, and 1622 lines, in the Towns of Brookfield, Newtown and Southbury, Connecticut (“Petition”).

Prior to submitting this Petition, representatives from Eversource briefed municipal officials in Brookfield, Newtown and Southbury about the Project. Eversource provided written notice of the proposed work to all abutters and of the filing of this Petition with the Connecticut Siting Council (“Council”). Maps and line lists identifying the abutting property owners who were notified of the Project are provided in the Petition as Attachment B: Brookfield Junction to Bates Rock Substation Upgrade Project – Petition Map Set.

Eversource is submitting this filing electronically and will deliver an original and 15 copies to the Council. A check for the \$625 filing fee will be sent under separate cover to the Council.

Sincerely,

A handwritten signature in cursive script that reads "Deborah Denfeld".

Deborah Denfeld

Enclosure

cc: Tara Carr, First Selectwoman, Town of Brookfield
Daniel Rosenthal, First Selectman, Town of Newtown
Jeff Manville, First Selectman, Town of Southbury

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
1887, 1268, 1485 and 1622 LINES IN THE TOWNS OF BROOKFIELD, NEWTOWN AND
SOUTHBURY, 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 the modifications to the 1887, 1268, 1485, and 1622 lines, 115-kilovolt (“kV”) transmission lines, located within existing transmission rights-of-way (“ROWS”) or on Eversource owned property in the Towns of Brookfield, Newtown and Southbury, Connecticut (“Towns”). These modifications are collectively referred to as the Brookfield Junction to Bates Rock Substation Upgrade Project and 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

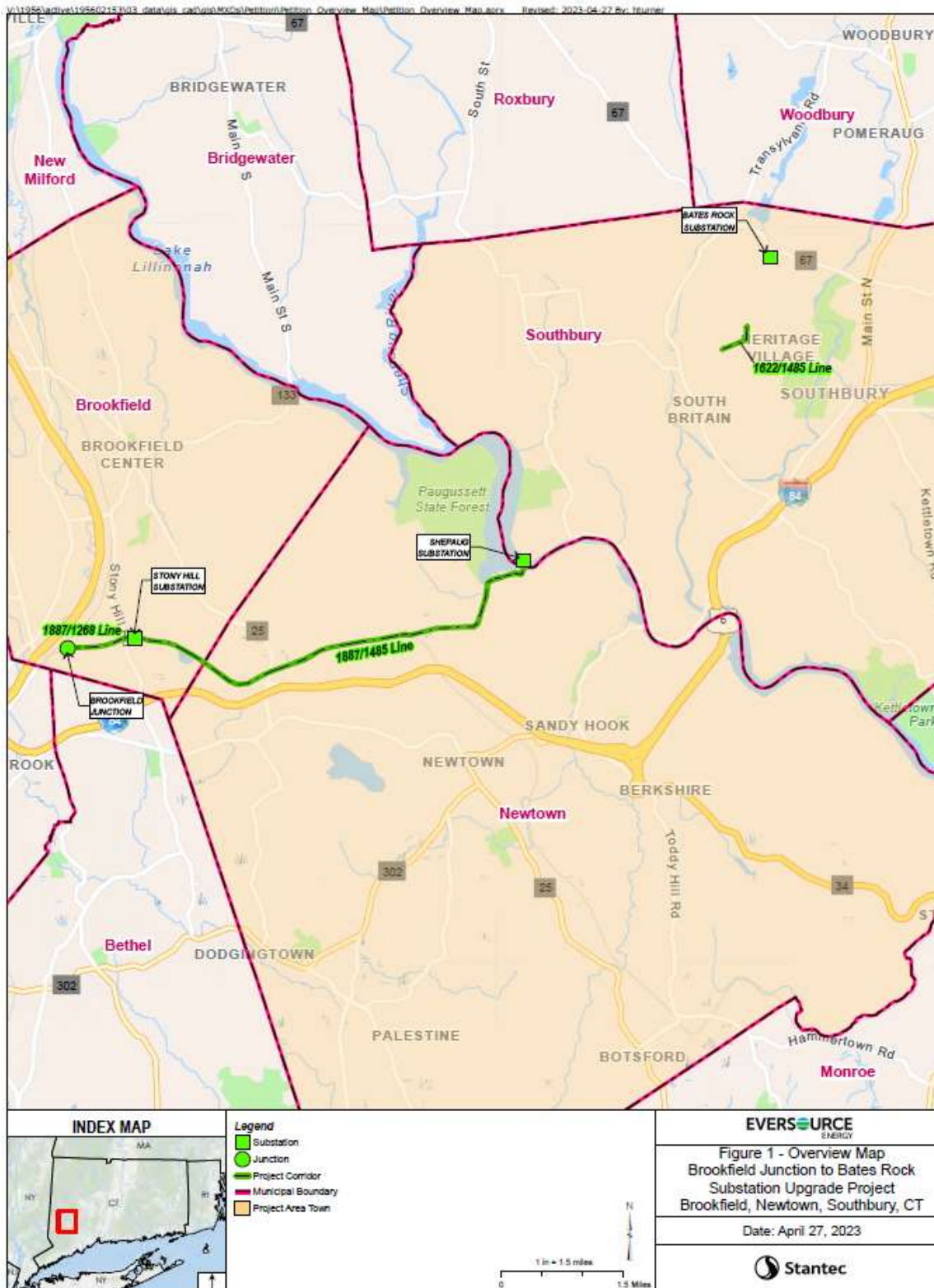
The purpose of the proposed Project is to replace structures, conductor and/or shield wire as follows on the 1887, 1268, 1485, and 1622 lines in the transmission line corridor from Brookfield Junction to Shepaug Substation and in a small section of the ROW between Shepaug Substation

and Bates Rock Substation.¹ The Project will include the replacement of 49 existing structures with 55 new structures in addition to adding six (6) new midspan structures for a total of 61 structures. Eversource has determined that the existing structures require replacement due to age-related degradation, as shown in the photographs in Attachment A, and/or their inability to physically support the new conductor and/or the new optical ground wire (“OPGW”). OPGW will replace the existing static wire between Brookfield Junction and Shepaug Substation. To minimize impacts to abutters and avoid the need for acquisition of additional rights from abutting private property owners to meet current National Electrical Safety Code (“NESC”) clearance requirements, the six (6) additional mid-span structures are required to reduce the span widths and constrain the conductors.

Figure 1 illustrates the general location of the proposed Project.

¹ While the Brookfield Junction to Bates Rock Substation corridor totals approximately 12.07 miles, Project work from Shepaug Substation to Bates Rock Substation will only occur in a small (0.46 mile) section of the ROW; from east of East Hill Road in Southbury, then northerly to east of Hilltop Road, also in Southbury. No other Project work is proposed in this section of the ROW.

Figure 1: Project Overview Map



3. Existing Project Area Description

As shown in Attachment B, Brookfield Junction to Bates Rock Substation Upgrade Project – Petition Map Set, the existing ROW extends from Brookfield Junction (Brookfield) to Shepaug Substation (Newtown), and from Shepaug Station to Bates Rock Substation (Southbury). However, Project work east of Shepaug Substation will only take place between east of East Hill Road to east of Hilltop Road in Southbury.

The Project corridor traverses residential and commercial properties, undeveloped forest land and agricultural lands. The ROW crosses the Housatonic Railroad, Housatonic River, Route 25, and local roads.

The width of the existing corridor within the Project area varies from approximately 65 feet to 210 feet. The corridor from Brookfield Junction to Shepaug Substation was established in the early to mid-1950's. The corridor from Shepaug Substation to Bates Rock Substation was established in the late 1960's and additional easements were acquired in the late 1970's increasing the width in this section of the ROW from 100 feet to 210 feet. No expansion of the existing ROW is proposed. Segment detail of the proposed Project area is provided below:

Brookfield Junction to Stony Hill Substation (1887 and 1268 Lines)

The Eversource corridor east of Brookfield Junction is located adjacent to the south side of the Housatonic Railroad. In the 0.9-mile segment from Structure 4654, east of Brookfield Junction, the 1887/1268 lines to the Stony Hill Substation are supported by six double circuit lattice towers. The 1268 Line terminates at the Stony Hill Substation.

The 1887 and 1268 structures were originally built in 1955². The conductor on the 1887 Line is 4/0 copper and was installed in 1955. The 795-kcmil aluminum steel supported (“ACSS”) conductor on the 1268 Line was installed in 1991. The shield wire on both the 1887 and 1268 lines is 3/8-inch copperweld and was installed in 1955.

For sections of the corridor where the ROW is less than 100 feet, the ROW is maintained to the full width of Eversource’s easement rights. In all other areas, the maintained width of the ROW corridor is approximately 100 feet.

Stony Hill Substation to Shepaug Substation (1887 and 1485 Lines)

East of Stony Hill Substation on Structure 4646, the 1887 Line is joined by the 1485 Line, which originates inside Stony Hill Substation. The existing tap Structure 4647B on the 1485 Line will remain. No structure replacement or work is proposed inside Stony Hill Substation. From outside Stony Hill Substation to Shepaug Substation, the 1887/1485 lines are supported on fifty-seven (57) structures: both lines are located on either double circuit lattice towers, or double and single circuit H-Frame structures over a total distance of 5.77 miles to the west side of the Housatonic River. Several wood structures on the 1887 and 1485 lines within the Project area were replaced due to asset condition.

The Housatonic Railroad is adjacent to the north side of the ROW for approximately 4 miles in this segment of the ROW until the Housatonic Railroad turns south, approximately 800 feet east of Parmalee Hill Road, near Structure 4620. The transmission ROW in this area has a width that varies between 65 and 210 feet. The transmission line crosses over the railroad and continues east to the Housatonic River crossing (where the First Light

² One structure for the 1887 Line (Structure 4655C) and three structures for the 1268 Line (Structures 4655A, 4655B and 10246A) located at Brookfield Junction were replaced in 2021 (Sub-petition 1293-BS-02).

Hydro Generating Company's facility is located at the dam on Lake Lillinonah) and to Eversource's Shepaug Substation located on the east side of the river.

The two lines separate at Structures 4601 and 4601A to cross the Housatonic River, with the 1887 line terminating at Shepaug Substation.

The 1887 and 1485 lines were built in 1955. The primary conductor on the 1887/1485 lines is 4/0 copper and was installed in 1955. The 1485 Line also uses 795- kcmil ACSS for 0.05 mile outside of Stony Hill Substation. The shield wire on both lines is 3/8-inch copperweld installed in 1955.

For sections of the corridor where the ROW is less than 100 feet, the ROW is maintained to the full width of Eversource's easement rights.. In all other areas, the maintained width of the corridor is approximately 100 feet.

Shepaug Substation to Bates Rock Substation (1622 and 1485 Lines) Southbury

From Shepaug Substation, the 1485 Line continues towards Bates Rock Substation and is joined by the 1622 Line, which terminates at Bates Rock Substation. From Shepaug Substation to Bates Rock Substation the width of the corridor varies from 100 feet to 210 feet and totals 5.4 miles in length; however, work will only occur in 0.46 miles of this segment of the ROW starting east of East Hill Road and ending east of Hilltop Road East. The 1485 and 1622 lines in this segment primarily consist of single circuit wood H-frames and single circuit wood poles.

The 1485 Line is supported by forty-seven (47) structures built in 1971.

The 1622 Line is supported by forty-four (44) structures built in 1980.

In addition, the 1485/1622 lines are supported by five (5) double circuit steel monopole structures built in 1980.

The conductor on the 1485 and 1622 lines is 795-kcmil aluminum conductor steel reinforced (“ACSR”) and was installed in 1980. The shield wire on the 1622 Line is 3/8-inch Alumoweld and was installed in 1980. The shield wire on the 1485 line was replaced with OPGW in 2022. One of the structures in this segment on the 1485 Line (Structure 5277) was replaced in 1984. In addition, several structures on the 1485 and 1622 lines within the Project area were replaced in 2021.³

The maintained ROW ranges from approximately 100 to 115 feet within this section of the ROW.

4. Project Description

The Project scope consists of a mix of structure, conductor, and static wire replacements on the 1887, 1268, 1485, and 1622 lines located between Brookfield Junction and Shepaug Substation and within a short section of the ROW between East Hill Road and Hilltop Road in Southbury. The Project requires the replacement of thirty-seven (37) lattice steel structures, two wood H-frame structures, one wood pole structure, three steel H-frame structures and six steel monopole structures with fifty-two (52) weathering steel monopoles and three weathering steel H-frame structures. The replacement structures and the 6 additional midspan weathering steel structures would have a mix of concrete foundations and direct-embed foundations. The cross-sections provided in Attachment C depict typical views along the ROW of the existing and proposed structures. The list of structure replacements in Attachment D provides more specific information

³ Three structures for the 1485 Line (Structures 5317, 5318 and 5321) and two structures for the 1622 Line (Structures 10143 and 10145) located in Southbury were replaced in 2021 (Sub-petition 1293-BS-02)

on the heights of the existing and proposed structures. The proposed modifications would involve the following:

Brookfield Junction to Stony Hill Substation (1887 and 1268 Lines)

- Replacement of five (5) existing double-circuit steel lattice structures with five (5) new double-circuit weathering steel monopoles due to asset condition.
- Replacement of one (1) existing double-circuit steel lattice structure with two (2) new single-circuit weathering steel monopole to meet strain conductor conditions.
- Replacement of one (1) existing double-circuit steel lattice structure with one (1) new single-circuit weathering steel monopole.⁴
- Replacement of one (1) existing single-circuit steel monopole with one (1) new single-circuit weathering steel monopole to facilitate the redesigned structure alignment to meet clearance requirements.
- Addition of one (1) new double-circuit weathering steel monopole mid-span structure to meet conductor clearance requirements without expansion of the ROW.
- Replacement of existing 4/0 copper and 795-kcmil ACSS conductor on both 1887 and 1268 Lines with 1272-kcmil ACSS conductor.
- Replacement of the existing copperweld shield wires for both the 1887 and 1268 lines with OPGW.

⁴ This structure (Structure 4648) carries the single-circuit 1887 Line and so does not need to be replaced with a double circuit design.

Stony Hill Substation to Shepaug Substation (1887 and 1485 Lines)

- Replacement of twenty-five (25) existing double-circuit steel lattice structures with twenty-five (25) new double-circuit weathering steel monopole structures due to asset condition.
- Replacement of four (4) existing double-circuit steel lattice structures with eight (8) new single-circuit weathering steel monopole structures to meet strain conductor conditions.
- Replacement of one (1) existing double-circuit steel lattice structure with one (1) new single-circuit weathering steel monopole.⁵
- Replacement of one (1) existing single-circuit wood H-Frame with one (1) new single-circuit weathering steel monopole structure due to asset condition.
- Replacement of two (2) existing single-circuit steel H-Frames with two (2) new single-circuit weathering steel H-Frames due to asset condition.
- Replacement of one (1) existing double-circuit steel H-Frame with one (1) new double-circuit weathering steel H-Frame due to asset condition.
- Addition of two (2) new double-circuit weathering steel monopole mid-span structures to meet conductor clearance requirements without expansion of the ROW.

⁵ This structure (Structure 4647) carries the single-circuit 1887 Line and so does not need to be replaced with a double circuit design.

- Addition of one (1) new double-circuit weathering steel H-Frame mid-span structure to meet conductor clearance requirements without expansion of the ROW.
- Addition of two (2) new single-circuit weathering steel H-Frame mid-span structures to meet conductor clearance requirements without expansion of the ROW.
- Replacement of existing 4/0 Copper on the 1887 Line and 795-kcmil ACSS conductor on the 1485 Line with 1272-kcmil ACSS conductor.
- Replacement of the existing copperweld shield wires with OPGW on the 1887 Line and the 1485 Line.

Shepaug Substation to Bates Rock Substation (1622 and 1485 Lines) Southbury Project

work would be limited to a 0.46-mile section of the ROW between a location east of East Hill Road and a location east of Hilltop Road in Southbury. This work would include:

- Replacement of four (4) existing double-circuit steel pole structures with four (4) new double-circuit weathering steel monopole structures due to asset condition.
- Replace of one existing double-circuit steel pole structure with two (2) new single circuit weathering steel monopole structures to meet conductor strain conditions.
- Replacement of one (1) existing single-circuit wood monopole structure with one (1) new single-circuit weathering steel monopole structure.
- Replacement of one (1) single circuit wood H-frame structure with one (1) new single-circuit weathering steel monopole structure.
- Transfer of existing conductor and existing Alumoweld and OPGW shield wire to the new replacement structures.

5. Existing Environment, Environmental Effects and Mitigation

Project construction would be performed entirely within the existing transmission ROW or on Eversource-owned property. No expansion of the existing ROW would be required for the Project work. The Project would not have a substantial adverse environmental effect, as explained more fully below.

Land Use

The Project area is located in the southern portion of the Town of Brookfield and northwestern portions of the Towns of Newtown and Southbury. Land use along the Project ROW is primarily a mix of commercial, residential and undeveloped land with additional residential developments and undeveloped areas becoming more prevalent farther to the east. Lake Lillinonah and the Housatonic River are noted area water features associated with the Project area. The Housatonic Railroad freight line runs parallel with the Project ROW in the Towns of Brookfield and Newtown. The Project ROW crosses the Algonquin Gas transmission line in two locations (Brookfield and Newtown) and matting will be used to bridge the lines to protect this feature.

Due to the location of the Project in an area with a long history of use for electric transmission, the Project would have minimal impacts to adjacent land uses.

Tree Removal and Vegetation Management

The Project ROW varies in width from 65 feet to 210 feet, with a maintained corridor that varies in width. While most of the Project would be located within the maintained portion of the ROW, mowing along access roads, pruning of side vegetation, selective tree removal, removal of non-compatible vegetation, and removal of hazard trees within the ROW would be required to meet safety clearances. Some tree clearing would be necessary, with the majority

of tree clearing (approximately 3.06 acres from south of Vail Road in Brookfield to Structure 4620, west of Hanover Road in Newtown) required to allow for adequate clearance from wires to vegetation to conform to Eversource standard clearance practices.⁶

In addition, there will be a realignment of the transmission lines directly associated with the Housatonic River crossing to facilitate a more efficient circuit routing of the 1485 Line around Shepaug Substation that would result in approximately 0.41 acre of additional tree clearing. Areas that require tree clearing are identified within Attachment B: Brookfield Junction to Bates Rock Substation Upgrade Project – Petition Map Set.

The tree clearing work associated with the Project would result in an estimated total permanent conversion of approximately 3.47 acres of upland forest habitat to early successional scrub-shrub or herbaceous habitat areas. Providing additional shrubland and early successional habitat (and the preservation of such existing habitat) along the ROW or access roads is beneficial for many species of wildlife because shrubland habitat is otherwise declining in New England.

In most locations, vegetation removal would be accomplished using mechanical methods. This work typically requires the use of flat-bed trucks, mowers, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers. In limited areas, Eversource would require the contractor to use low-impact methods to protect wetlands, watercourses, state-listed species and their habitats, and cultural resources. Low-

⁶ Eversource Vegetation Management has currently scheduled this ROW for maintenance mid-2024 under the Transmission ROW Reliability Program (TRRP), which undertakes ROW edge to edge vegetation removal of incompatible species that grow taller than 15 feet at maturity. Clearing requirements described in this Petition are for the Project work, only, and do not represent the Vegetation Management scope in the ROW that will result from the TRRP vegetation management work.

impact methods incorporate a variety of approaches, techniques, and equipment to minimize site disturbance. Eversource would require the contractor to use some or all of the following low-impact methods, depending on the specific settings and situations:

- Consider soil and weather conditions when scheduling vegetation and/or tree clearing removal activities, such as during periods of heavy rainfall;
- Maximize the use of uplands for vegetation removal and tree clearing access routes;
- Utilize hand clearing methods for vegetation removal and/or tree clearing work within sensitive wetland and vernal pool areas;
- Use appropriately sized equipment for site conditions, where possible, to minimize impacts; and,
- Where practical, cut brush or trees close to the ground, leaving root systems and stumps, to retain soil stability.

After the installation of the rebuilt line, Eversource would perform ROW restoration in accordance with the protocols specified in Eversource's April 2022 *Construction & Maintenance Environmental Requirements, Best Management Practices Manual for Massachusetts, and Connecticut* ("BMPs") and based on consultations with any property owners affected by the Project.

Scenic, Recreational and Cultural Resources

The Project is not anticipated to have a substantial adverse effect to scenic, recreational, and cultural resources. No portion of the ROW traverses or is located near a locally or state

designated scenic roadway.⁷ The nearest state designated scenic roadway is Connecticut Route 67 East, located approximately 7 miles to the north of the ROW in the Town of Roxbury.

A desktop review was conducted of the Connecticut Department of Energy and Environmental Protection's ("CT DEEP") GIS and Connecticut Forest and Park Association Blue-Blazed Hiking Trail System to identify where portions of the ROW traverse or are adjacent to public open space property or trails. The review determined that a single resource, the Paugussett State Forest, a state managed forest located in the Town of Newtown, is located approximately 450 feet to the northwest of the ROW (see Attachment B, Map Sheet 11). This parcel encompasses over 2,000 acres and is managed by CT DEEP with allowed uses including boating, fishing, hiking, and hunting. Because of its distance from the ROW, the Project is not expected to impact this resource.

A Phase 1A Cultural Resources Assessment Survey ("Phase 1A") review was conducted by Heritage Consultants, LLC ("Heritage") in September of 2022 (amended in February of 2023) to evaluate the potential presence of archaeological and historical resources within or proximate to the Project area. This assessment included a review of previously recorded cultural resources on file with the Connecticut State Historic Preservation Office ("SHPO"). No properties listed on the National or State Register of Historic Places are located within 500 feet of the Project area. Two standing structures are located at 24 Hawleyville Road and 66 Barnabas Road in Newtown and were inventoried by the Newtown Historical Society in 1996. However, both buildings have since undergone substantial alterations to their historical fabric since they were recorded. It is the opinion of Heritage that these structures are not eligible for listing on the National or State Registers of Historic Places. Subsequently SHPO concurred

⁷ Connecticut Department of Transportation (CTDOT), October 1, 2019 Connecticut State Scenic Roads. Accessed October 18, 2021, 2020. Available URL: <https://portal.ct.gov/DOI/Programs/Connecticut-Scenic-Roads>.

with Heritage's findings and issued a letter dated February 22, 2023, confirming that no historic properties will be affected by the proposed Project. Therefore, the Project is not anticipated to have any adverse effects to above-ground cultural resources including visual impacts associated with the height increases.

With respect to the four previously recorded archaeological sites identified in the Phase 1A, it was determined that two of the archaeological areas would not be impacted because they are outside of Project work area. The two other archaeological sites are located within the Project work area; however, since the work at these locations does not require ground disturbance (no structure replacement or road building) and will be protected with matting, the Phase 1A determined there would be no impact to these resources.

The Phase 1A also identified 36 Project items, including 22 structures, five pull pads, and nine access roads, that retained moderate/high sensitivity for intact archaeological deposits. A pedestrian survey revealed 23 of the locations for above-referenced items possessed a no/low archaeological sensitivity and no subsurface testing of those item locations were completed since they were located on steep slopes, were disturbed in the past, or contained wet soils. Of the remaining 13 Project items, eight structure replacement locations, two pull pad locations, and three proposed access road locations retained a moderate/high potential to produce intact archaeological deposits and were subjected to subsurface testing as part of Phase 1B survey. Shovel tests were employed throughout the 13 work locations and did not result in any cultural materials or provide evidence of any archaeological features. Thus, Heritage has determined that the Project will not result in any impacts to cultural resources in these locations and no additional archaeological examination is recommended.

Wetlands, Watercourses, Waterbodies and Flood Zones

Eversource identified and delineated water resources within the Project area during May and June of 2021 and conducted a follow-up vernal pool survey in April 2022 (see Attachment E: Wetlands Delineation Report and Vernal Pool Survey). The map sheets provided in Attachment B depict these water resources, which include inland wetlands, watercourses (perennial and intermittent streams), Housatonic River, open water/ponded areas, vernal pools, and Federal Emergency Management Agency (“FEMA”) Flood Zones. All work in or near these areas would be conducted in accordance with Eversource’s BMPs and applicable conditions imposed by regulatory agencies in permit conditions and approvals. Details regarding each of these resource areas are summarized below.

Wetlands

Wetlands in the Project area were identified and delineated in accordance with industry standard methodology. A total of thirty-five wetlands were identified in the Project area. Five steel lattice frame structures that will be replaced with weathering steel monopole structures are located within wetlands. Four of these structures would be replaced within their respective wetlands and one structure will be relocated from a wetland to the adjacent upland area. In addition, two structures currently located in an upland area would be relocated into an adjacent wetland area to accommodate the re-alignment of the 1887 and 1485 lines at that location. A total of six replacement structures would be located in wetlands and would result in approximately 120 square feet (sf) of permanent wetland effects. An additional 921 sf of permanent wetland effects are anticipated with the installation of the proposed gravel work pads at Structures 4649 and 4650A (see Attachment B, Map Sheet 2). The impacts of these two work pads are unavoidable due to the steep terrain and the proposed structure locations, which are necessary to meet proper

engineering alignment criteria for this section of the ROW. To minimize the permanent impacts to wetlands, Eversource has reduced the workspace as much as possible while still maintaining a safe work area. Eversource would also utilize sheet piles to stabilize the work pad for Structure 4650A, eliminating the need to extend rip-rap down the slope and further into the wetland.

The Project would also result in approximately 2.5 acres of temporary effects to wetlands due to the placement of construction mats for access roads and work pads. All matting would be promptly removed upon Project completion and wetland areas would be restored in accordance with Eversource's BMPs. For these wetland impacts, self-verification notification forms will be submitted to the U.S. Army Corp of Engineers ("ACOE") prior to start of construction.

Anticipated effects to wetlands from the Project are detailed on Table W-1.

In addition to the effects described above, the Project would result in approximately 0.43 acre of secondary effects to wetlands due to the conversion of forested canopy cover to scrub-shrub habitat from the removal of trees from wetlands and from the construction of temporary work pads and access roads in wetlands. This change in habitat represents a cover type change to wetland habitat, but not a permanent loss of wetlands.

Temporary construction mats would be installed at all wetland and watercourse crossings to provide a stable base for equipment. Such temporary support would minimize disturbances to wetland soils, and the mats would be removed after the activities are complete. Work activities in wetlands, including the proposed tree removal work, would be conducted in accordance with Eversource's BMPs and comply with Project permits and approvals.

Watercourses and Waterbodies

A total of thirty-three watercourses and waterbodies were delineated within the Project area. These include sixteen perennial streams, twelve intermittent streams, and five open water/ponded areas. Named watercourses and waterbodies include Pond Brook, Lake Lillinonah, and Housatonic River. Lake Lillinonah is directly adjacent to the ROW in Newtown (see Attachment B, Map Sheet 11 and 12) but is located outside of the Project area.

A total of nine temporary watercourse crossings would be required during construction, including six for work pads and four for access roads. Each of the temporary crossings would be spanned using temporary construction mats. All matting would be promptly removed upon Project completion and wetland areas would be restored in accordance with Eversource's BMPs. Table W-1 below provides a summary of Project effects to wetlands and watercourses:

Table W-1: Summary of Project Effects to Wetlands and Watercourses

Wetland/Watercourse ID	200 Scale Petition Mapping Sheet No.	Wetland/Watercourse Effects (± square feet)		
		Temporary (Matting)	Permanent (Structures and Work Pads)	Secondary (Tree Removal)
W02	1	1,987	0	0
W03	1	8,131	0	6,930
W04	2	8,612	921	0
W05	2	12,904	20	0
W06, WB03	3	19,321	40	0
W07, S03	4	13,049	20	0
W08	5	3,835	40	0
W10, S08	5	4,154	0	0
W11, S09	5	5,659	0	0
W15, S11, S12	6	3,213	0	2,365
W16	6	1,101	0	0
W17	6	1,626	0	3,121
W21	8	0	0	6,124
W25	9	23,984	0	0
W26, S22	10	976	0	0
W30	11	624	0	0
TOTALS		109,176 (2.50 acres)	1,041 (0.02 acre)	18,540 (0.43 acre)

Vernal Pools

Two vernal pools were verified within the ROW (CVP01 and CVP02) on May 2, 2022. The surveys involved searching for amphibian breeding activity, primarily the presence of egg masses and use by other vernal pool dependent species. Information was collected on the physical characteristics of the pool such as the likely hydro-period (i.e., how long surface water will remain in the pool) and the presence and type of inlet and/or outlet as well as the surrounding terrestrial landscape. Vernal pools and vernal pool envelopes (areas within 100 feet of a vernal pool depression) are shown in Attachment B.

Existing and proposed work areas and/or access roads would be in close proximity to vernal pools or vernal pool envelopes. This work would include temporary construction matting for access road and work pad installation (guard truck pad) (See Attachment B). No new structures or construction matting would be located directly within a vernal pool. Temporary construction matting would be placed within the vernal pool envelope of Confirmed Vernal Pool 2 (“CVP2”) and there are no anticipated impacts.

To minimize potential effects to CVP2, Eversource would implement measures in accordance with Eversource’s BMPs. Should Project construction occur during the active vernal pool season at these locations, the following protection measures would be employed by the Project: air bridge matting (elevated/stacked matting) to offer a “bridge” under temporary access roads allowing for animal travel from vernal pools to surrounding habitat, as needed, selective silt fence installation to offer openings/access away from work zones, as well as functioning as barriers into work zones, and hand cutting of trees in the vernal pool depression.

FEMA Flood Zones

The Project area extends across FEMA-designated 100-year flood zones associated with Pond Brook, an unnamed tributary to Pond Brook and Cavanaugh Brook/Lake Lillinonah in Newtown, and the Housatonic River in Newtown and Southbury.

Three transmission line structures are proposed within the 100-year flood zone and one is proposed to be removed. Additional work proposed within the 100-year flood zone is associated with temporary work pads, access road matting, and gravel work pad. However, the placement of the permanent gravel work pad will involve the removal of an equal amount of underlying soils to create the pad, resulting in no net fill within the 100-

year floodplain. As a result, this work is not anticipated to have any impacts on the flood zones and will not affect flood storage.

Water Supply

Based on Aquifer Protection Areas (“APA”) mapping maintained by CT DEEP, there are two APAs within or proximate to the Project ROW. There are no Public Water Supply Watersheds within or proximate to the Project ROW. No public water supply reservoirs or public water supply wells are located within the Project area. No private water supply wells were observed within the Project area during field investigation activities.

Eversource would require its contractors to employ best management practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease, and other lubricants, to protect water quality within the Project area. Construction activities would conform to Eversource’s BMPs, as well as to the requirements of the Project-specific Stormwater Pollution Control Plan, which would be prepared prior to the commencement of construction.

Wildlife and Habitat

The Project area is located within the Southern Marble Valley and Southwest Hills ecoregion of the state and includes a variety of habitat types, including managed shrubland, agricultural fields, forest edges, emergent marsh, wet meadow, and scrub-shrub wetland habitat types.

The habitats within the Project area can support a variety of shrubland and woodland birds typical to the managed ROW and surrounding forested areas. In general, the ROW also provides varying amounts of berry and nut producing species, woody debris, and shrub

stands, which are considered features important to wildlife. Due to the proximity to wetland and vernal pools, nesting habitat for amphibians such as aquatic turtles, salamanders and some species of frogs may be present. The Project activities are not anticipated to have a substantial adverse environmental effect on wildlife habitat.

In November 2022, Eversource submitted a Natural Diversity Database (“NDDB”) State-listed Species Review request to the CT DEEP for the proposed work activities for the Project within the NDDB-mapped habitat area and is currently awaiting a response.

In addition to coordinating with the NDDB for the protection of state-listed species, Eversource consulted with the United States Fish and Wildlife Service (“USFWS”) through its Information, Planning, and Consultation (“IPaC”) service regarding federal-listed species that may be present within the Project area. The IPaC report indicated two federally listed threatened species, Northern Long-eared Bat (*Myotis septentrionalis*) (“NLEB”) and Bog Turtle (*Glyptemys muhlenbergii*), including one candidate species, Monarch Butterfly (*Danaus plexippus*), may be affected in this geographic location. Based on the IPaC submission, including an effects determination using the available NLEB range-wide determination key, the Project “is not likely to result in an unauthorized take” of the NLEB. With respect to bog turtles, on March 20, 2023, Eversource conducted a Phase 1 Habitat Assessment (Phase 1) within portions of the ROW immediately adjacent to the Housatonic Railroad, in the Towns of Brookfield and Newtown that were identified as within the range of the bog turtle by the USFWS IPaC query. As a result, it was determined that the characteristics of the potential habitat evaluated would not likely support populations of bog turtles. Furthermore, after providing the USFWS with the Phase 1 report, the iPaC issued a “No effect” determination for the Project.

For gravel work pads within NDDDB areas and key habitat areas of the New England Cottontail (NEC), Eversource is proposing restoration utilizing a top-dress of stockpiled soil and/or processed stone with a native conservation seed mix, which can provide habitat that benefits pollinator species, such as bees, moths, and butterflies. The size of gravel work pads located in NEC focus areas will be reduced in size where feasible, to minimize potential effects to NEC habitat in accordance with Eversource's 2020 New England Cottontail Best Management Practices.

Invasive species do exist within the ROW uplands and wetlands. The Project would implement Eversource's BMPs to minimize the disturbance and spread of soil and/or plant matter as specified in its BMP Manual for the control of invasive species. These include:

- 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.

Federal Aviation Administration ("FAA") Review

Due to the proximity of the Project area to the Waterbury-Oxford Airport, an Aeronautical Impact Study was performed on the proposed structures and determined that the proposed structure heights and locations pose no hazard to air navigation, per FAA regulations and guidelines. During construction, crane permits may need to be acquired from the FAA by the contractor as the temporary cranes will be taller than the structures.

Visual Effects

The replacement structures, while taller and of a different design than the existing structures they are replacing, would be located entirely within the existing ROW or on Eversource-owned property. The Project would result in some change to the visual character of the line; however, the weathering steel monopole replacement structures will resemble the appearance of wood structures and will blend in with the predominantly wooded surrounding landscape.

The heights of the existing structures range from 52 to 102 feet. The height of the replacement structures would range from 62 to 124 feet. Most of the replacement structures will be taller than the corresponding existing structures, with height increases ranging from 2 feet to 38 feet, though heights of 13 structures will decrease by 3.1 to 11.5 feet. For those replacement structures that are increasing in height, the average height increase is approximately 8.7 feet. The height increases are necessary to conform to current NESC and Eversource vertical clearance standards. The new mid-span structures range in height from 74 feet to 100 feet and are an average of 89.7 feet in height.

Due to the height increases associated with some of the structures and overall design change, the Project would change some views from select locations along the ROW. The visual effects of the proposed structures are minimized by the smaller footprint of the proposed monopoles than the existing lattice towers and are also softened by utilizing weathering steel monopoles, which blend in more easily with the surrounding area's vegetation. Therefore, it is expected that the height increases or additional structures would not result in a significant change to the existing visual character of the lines.

Sound Levels

The construction of the Project would result in short-term and localized noise, as is typical of similar construction projects. The temporary increases in noise would likely raise ambient sound levels immediately surrounding the work areas due to the operation of standard types of construction equipment. (e.g., backhoe, bulldozer, crane, trucks, etc.).⁸ Upon completion of construction and during operation, the proposed Project would not have any effect on noise or sound pressure levels. Once in service, the rebuilt lines would continue to comply with Connecticut's noise regulations in RCSA § 22a-69 et seq.

Air Quality

Short-term, localized effects on air quality may result from the Project construction 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 would 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.⁹ Temporary gravel tracking pads would be installed at points of construction vehicle ingress/egress from the ROW 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.

⁸ Construction noise is exempted under the Connecticut regulations for the control of noise, Regulations of Connecticut State Agencies ("RCSA") Section 22a-69-1.8(g).

⁹ Regulations of Connecticut State Agencies (RCSA) Section 22a-174-18(b)(3)(C) prohibits the idling of motor vehicles for more than three consecutive minutes when not in motion with limited exceptions.

Radio and Television Interference

There would be no increase in radio interference or audible noise from the operation of the new transmission facilities.

6. Electric and Magnetic Fields

Eversource prepared calculations of the existing and post-Project Electric and Magnetic fields (“EMF”). The calculations were based on peak day average loading conditions because these are most representative of typical conditions. The calculations are made relative to the centerline of the proposed, modified transmission lines. The calculations apply at one meter (3.28 feet) above grade and assume that the lowest point of the lowest conductor for each 115-kV circuit is 30 feet above grade.

Eversource’s proposed design for the Project primarily employs a double-circuit vertical configuration of two sets of three phase conductors supported on tubular steel poles. The design also includes a section of single- and double-circuit structures in horizontal configuration. The maximum magnetic and electric fields in the ROW and at the south edge of the ROW are expected to increase slightly. The fields at the north edge of the ROW would be essentially unchanged. Table 1 summarizes the calculated electric and magnetic fields at the ROW edges before and after the modifications.

Table 1 - Summary of Calculated Electric and Magnetic Fields

Str. 4654 - Stony Hill Substation (Peak Day Average)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Field (mG)	Existing	2.4	26.9	15.1
	Proposed	2.5	32.0	17.1
Electric Fields (kV/m)	Existing	0.04	0.54	0.17
	Proposed	0.05	0.84	0.28

Stony Hill Substation - Str. 4619 (Peak Day Average)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Field (mG)	Existing	0.9	12.5	5.6
	Proposed	2.6	15.4	8.8
Electric Fields (kV/m)	Existing	0.05	0.91	0.24
	Proposed	0.13	1.85	0.28

Str. 4619 - Str. 4603 (Peak Day Average)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Field (mG)	Existing	2.1	23.0	10.4
	Proposed	3.8	19.4	12.2
Electric Fields (kV/m)	Existing	0.27	1.33	0.86
	Proposed	0.34	1.29	1.15

Str. 4603 - Shepaug Substation (Peak Day Average)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Field (mG)	Existing	3.7	11.8	7.7
	Proposed	2.8	11.4	6.6
Electric Fields (kV/m)	Existing	0.03	0.54	0.17
	Proposed	0.05	0.84	0.28

The results of the calculations show that the proposed modifications would not substantially increase electric or magnetic fields at the edges of the ROW. See Attachment FG: EMF Graphs.

Comparison of Calculated Fields to International Guidelines

The anticipated fields resulting from the proposed Project are well below the internationally established 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 2.

Table 2 - International Guidelines for EMF Exposure

	Magnetic Field (mG)	Electric Field (kV/m)
ICNIRP	2000	4.2
ICES	9040	5 (in General)
		10 (on ROW)

7. Construction Traffic Management

Construction vehicles and equipment associated with the work would include, but are not limited to, pickup trucks, bucket trucks, flat-bed trucks, excavators, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, woodchippers, brush hogs/mowers, forklifts, side booms, matting/log trucks, dump trucks and cranes. Pullers and tensioners would be used for the line work. Guard trucks and/or temporary guard structures would be used for protection of roads during the line work.

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 areas. Due to phasing of construction work, these Project-related traffic movements are not expected to significantly affect transportation patterns or levels of service on public roads.

To safely move construction vehicles and equipment on and off of the ROW while minimizing disruptions to vehicular traffic along public roads, Eversource would, as appropriate, work with the Towns and the Connecticut Department of Transportation to develop and implement traffic management procedures, as needed. The construction contractor is typically responsible for posting and maintaining construction warning signs along public roads near work sites and for coordinating the use of flaggers or police personnel to direct traffic, as necessary.

8. Construction Sequence

Project construction would include the following activities:

Establishing Staging Areas

The staging areas would be used for surface storage of construction materials, equipment, tools, and supplies (including conductors, cable reels, insulators, hardware, poles, and mats) for the Project. Office trailers and Conex storage containers may be located at the staging areas. Components removed during the work (structures, conductor, hardware, and insulators) may be temporarily accumulated and stored at the staging areas prior to removal off-site for salvage or disposal. The staging areas may also be used by construction crews for parking personal vehicles as well as for construction vehicles and equipment storage, and for performing minor maintenance, when needed, on construction equipment. Appropriate erosion and sedimentation (“E&S”) controls would be installed and maintained until

completion of the work in accordance with Project permits and Eversource's BMPs. An environmental review of each potential staging area location would be completed, and Eversource would consult with the local municipal officials and provide notice to the Council when the staging areas are identified.

Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for E&S control, including those provided in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* ("*Connecticut Guidelines*") and Eversource's BMPs. This would include the development of a project specific Stormwater Pollution Control Plan ("SWPCP") and registration under CT DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities*, DEEP-WPED-GP-015, effective December 31, 2020 ("General Permit").

Typical E&S control measures include, but are not limited to, straw blankets, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. Silt fence would be installed prior to construction to intercept and retain sediment and/or construction materials from disturbed areas and prevent such materials from discharging to water resources or off ROW. Temporary E&S control measures would be maintained and inspected throughout the Project to ensure their integrity and effectiveness and for compliance with the General Permit. The SWPCP inspections would be in accordance with the General Permit requirements. Following completion of the Project, seeding and mulching would be completed to permanently stabilize the areas disturbed by the work. The temporary E&S control measures would remain in place until the Project work is complete and all disturbed areas have been deemed stabilized.

Access Roads and Work Pads

Access to each transmission structure proposed for removal or installation would be required during Project construction. As a result of the operation and maintenance of the existing lines within this ROW, some access roads are already established and Eversource would utilize these existing access roads to the extent possible. However, some new access roads would be required. Construction matting would be utilized to install temporary access roads through wetland areas to reach certain structure locations. The access roads expected to be used for the proposed Project are illustrated on the maps in Attachment B.

Existing access roads may need to be improved (graded, widened, and/or reinforced) with additional stone material to accommodate the safe passage of construction vehicles and equipment. Access road improvements typically include trimming adjacent vegetation and widening roads, as needed, to provide a maximum travel surface that is approximately 16 feet wide (additional width may be needed at turning or passing locations). Access roads would typically be graveled; however, where access roads traverse streams or wetlands, temporary construction mats and a bridge would be used.¹⁰ 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 of structures, to pull conductors or wire and to provide a safe, level work base for the construction equipment. At some existing structure locations, gravel work pads are already established and Eversource would utilize these existing work

¹⁰ The Project will use a permanent bridge that is being installed by the railroad to cross an unnamed perennial watercourse.

pads to the extent possible. Work pads are typically 100 feet by 100 feet but, due to terrain and spacing between the existing and proposed structures, the work pads may be up to approximately 150 feet by 200 feet. Since closely neighboring structures may utilize one larger work pad that serves more than a single structure. In areas where machinery is needed for pulling conductors through an angled structure, work pads of approximately 100 feet by 150 feet would be required. Structures between Stony Hill Substation and Shepaug Substation that are not being replaced will also require work pads up to 100 feet by 100 feet, so crews can execute conductor and OPGW pulls. Generally, work pads in upland areas would be graveled, though temporary matting would be used as necessary to protect sensitive resource areas (i.e., lawn, meadow and identified cultural resource areas) or where work pads are in wetlands. Structure 4650A's two-tiered work pad would require the installation of sheet piles and would be backfilled with gravel due to the steep slope for the area. This would also result in permanent impact to wetlands, as described previously in the Wetlands section.

To facilitate future transmission line maintenance, access roads and structure work pads in uplands would be left in place (refer to Attachment B). If an individual property owner requests their removal, the Project representatives would work with the property owner on mitigation options. No new permanent access roads or work pads are proposed in water resource areas.

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

Foundation Installation

The proposed structures would have either drilled (caisson) foundations or direct embed foundations. Foundation installation work would require the use of equipment such as augers, drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks and light duty trucks. If groundwater were encountered, and when working within wetlands, pumping

(vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas as the shaft is being drilled or as the structure is being set. Dewatering wastewater would then be managed in accordance with the General Permit and applicable local, state, and federal requirements.

Excavated soils that are generated during construction activities would be temporarily stored in stockpiles and then during restoration will be spread in an upland area within the ROW, to the extent practicable; however, no excavated soils will be placed in FEMA flood zone areas. Materials that cannot be utilized as backfill would be managed off-site in accordance with applicable regulations.

As needed, counterpoise installation may also be completed at this time. Depending on site-specific soil conductivity, supplemental grounding would be installed. A quad “ditch-witch” plow-cable trencher would be used to install the counterpoise.

Structure Assembly/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 and bucket trucks. After assembly, the area around direct embed foundations would be backfilled with processed gravel.

Conductor and OPGW Installation and Transfer

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

Structure, Conductor and Static Wire Removal

The removal of the existing conductor and shield wire would take place during the active installation of the new conductor and OPGW because the existing conductor and shield wire would be used as pulling lines, if possible. Conductor dead-ending and splicing would be accomplished with pressed hardware.

The existing structures would be removed after the new conductor and OPGW is installed or transferred.

Restoration

Once the new structures have been erected, the line energized and the existing structures removed, ROW restoration activities would commence. Restoration activities would include the removal of construction debris, signage, flagging, and temporary fencing, as well as the removal of construction mats and work pads that are designated for removal. Areas affected by construction would be re-graded as practical and stabilized using revegetation 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. For gravel work pads within NDDB areas and key habitat areas of NEC, Eversource is proposing restoration utilizing a top-dress of stockpiled soil and/or processed stone with a native conservation seed mix. Gravel work pads located in NEC focus areas will be reduced in size where feasible, to minimize potential effects to NEC habitat in accordance with Eversource's 2020 NEC Best Management Practices.

Waste Management

Waste materials, such as structure components (i.e., materials 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 managed in accordance with Eversource's BMPs and applicable regulations.

9. Construction Schedule and Work Hours

Eversource proposes to begin Project construction work in Q3 2023 and anticipates that such work would be completed by the end of 2024, though restoration activities may not be completed until early 2025. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday work hours or evening work hours past 7:00 PM may be necessary due to delays caused by inclement weather or outage constraints. In the event this is necessary, the Council, Town(s) and abutters would be provided notice of the proposed Sunday and/or evening work hours.

10. Municipal and Property Owner Outreach

In April 2023, Eversource consulted with the municipal officials in the Towns of Brookfield, Newtown, and Southbury to brief them on the proposed Project. Additionally, in April 2023, Eversource provided representatives of the Towns with written notice of the Petition filing.

From September through December of 2022, Eversource conducted 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 information on how to obtain additional information on the Project, as well as how to submit comments to the Council (Attachment G: Brookfield Junction to Bates Rock Substation Upgrade Project - Letter to the Abutters and Affidavit). Eversource representatives will continue contact with adjacent property owners to provide advance notification as to the start of construction activities and would continue to update property owners throughout construction and restoration.

11. 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
Team Lead – Transmission Siting
Eversource Energy
PO Box 270
Hartford, CT 06141-0270
Telephone: (860) 728-4654



By: _____
Deborah Denfeld

List of Attachments

- Attachment A: Brookfield Junction to Bates Rock Substation Upgrade Project - Photographs
- Attachment B: Brookfield Junction to Bates Rock Substation Upgrade Project - Petition Map Set
- Attachment C: Brookfield Junction to Bates Rock Substation Upgrade Project - Cross Sections
- Attachment D: Brookfield Junction to Bates Rock Substation Upgrade Project - List of Structure Replacements
- Attachment E: Brookfield Junction to Bates Rock Substation Upgrade Project - Wetlands Delineation Report and Vernal Pool Survey
- Attachment F: Brookfield Junction to Bates Rock Substation Upgrade Project - EMF Graphs
- Attachment G: Brookfield Junction to Bates Rock Substation Upgrade Project - Letter to the Abutters and Affidavit

Attachment A
Brookfield Junction to Bates Rock Substation Upgrade
Project
Photographs

Structure 4644: rusting davit arm members



Structure 4642: rusting davit arm members



Structure 10140: damaged davit arm vang



Structure 4602: rusting hardware



Structure 4636: rusting hardware and lattice tower members



Structure 4647: rusting lattice tower members



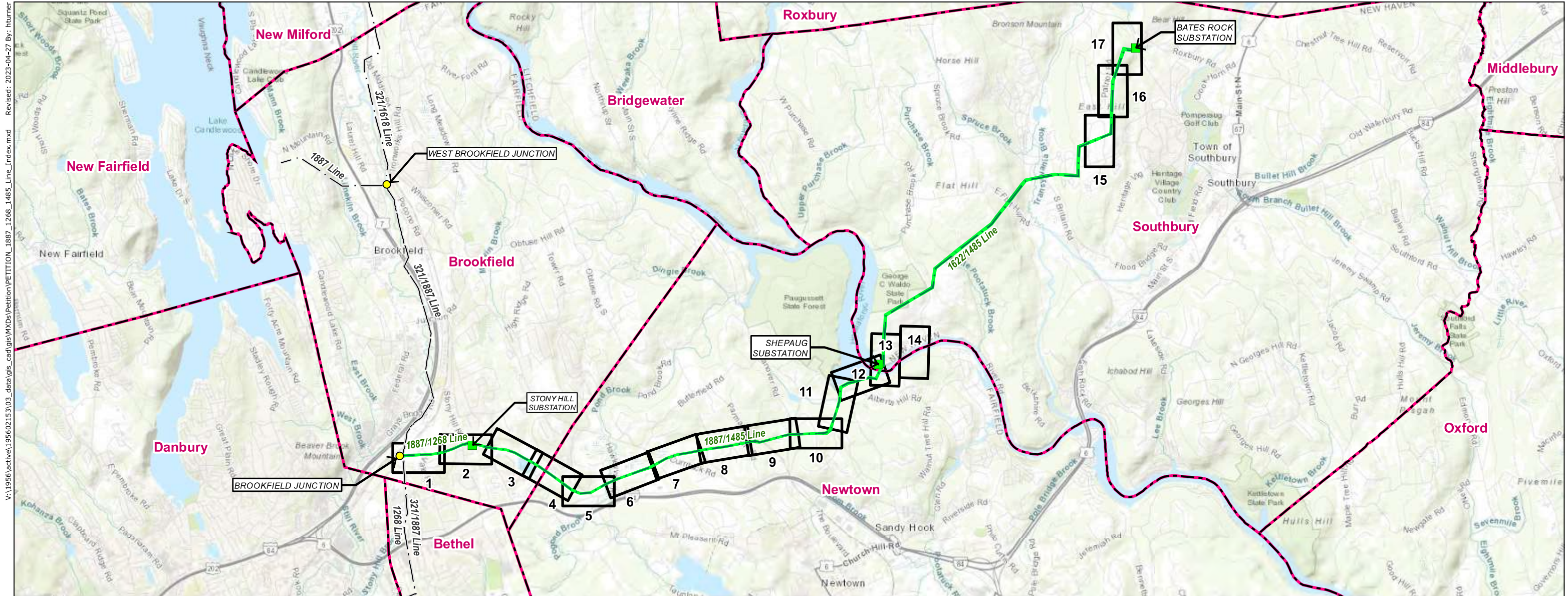
Attachment B
Brookfield Junction to Bates Rock Substation Upgrade
Project
Petition Map Set

Brookfield Junction to Bates Rock Substation Upgrade Project

Brookfield, Newtown, Southbury, CT

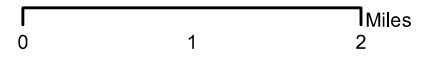
Petition Map Set

Date: April 27, 2023



Legend

- Substation
- Junction
- Project Corridor
- - Overhead Transmission Line
- Map Sheet
- - - Municipal Boundary



INDEX OF FIGURES

Title Sheet / Index Map
Abutter Tables & Map Sheets 1-17

PREPARED FOR:



107 Selden Street
Berlin, CT 06037

PREPARED BY:



30 Park Drive
Topsham, ME 04086

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MAP SHEET 1 OF 17

Brookfield Junction to Bates Rock Substation Upgrade Project

Structures 4659/10247 - 4652

Town of Brookfield

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Commercial
- Residential
- Railroad (Housatonic Railroad)
- Eversource Owned Property
- NEC Key Habitat and Focus Area
- 100-year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property at Structure(s): 4652
- Railroad (Housatonic Railroad)
- NEC Key Habitat and Focus Area

Water Resources

- Wetlands: W01, W02, W03
- Wetland Cover Types: PSS, PEM, PFO
- Watercourses: S01 (intermittent)
- Waterbody: WB01, WB02

Wetland and Watercourse Crossings

- Wetland W02- Construction mats for access
- Wetland W03- Construction mats for access and work pads

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4654/A: From existing access road originating off of Park Ridge Road
- Structure 4653: From existing access road originating off of Vail Road
- Structure 4652: From proposed/matted access road originating off of Vail Road

Road Crossings

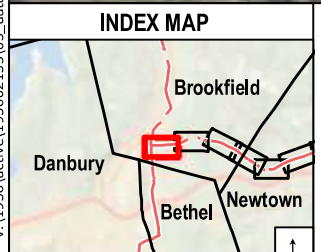
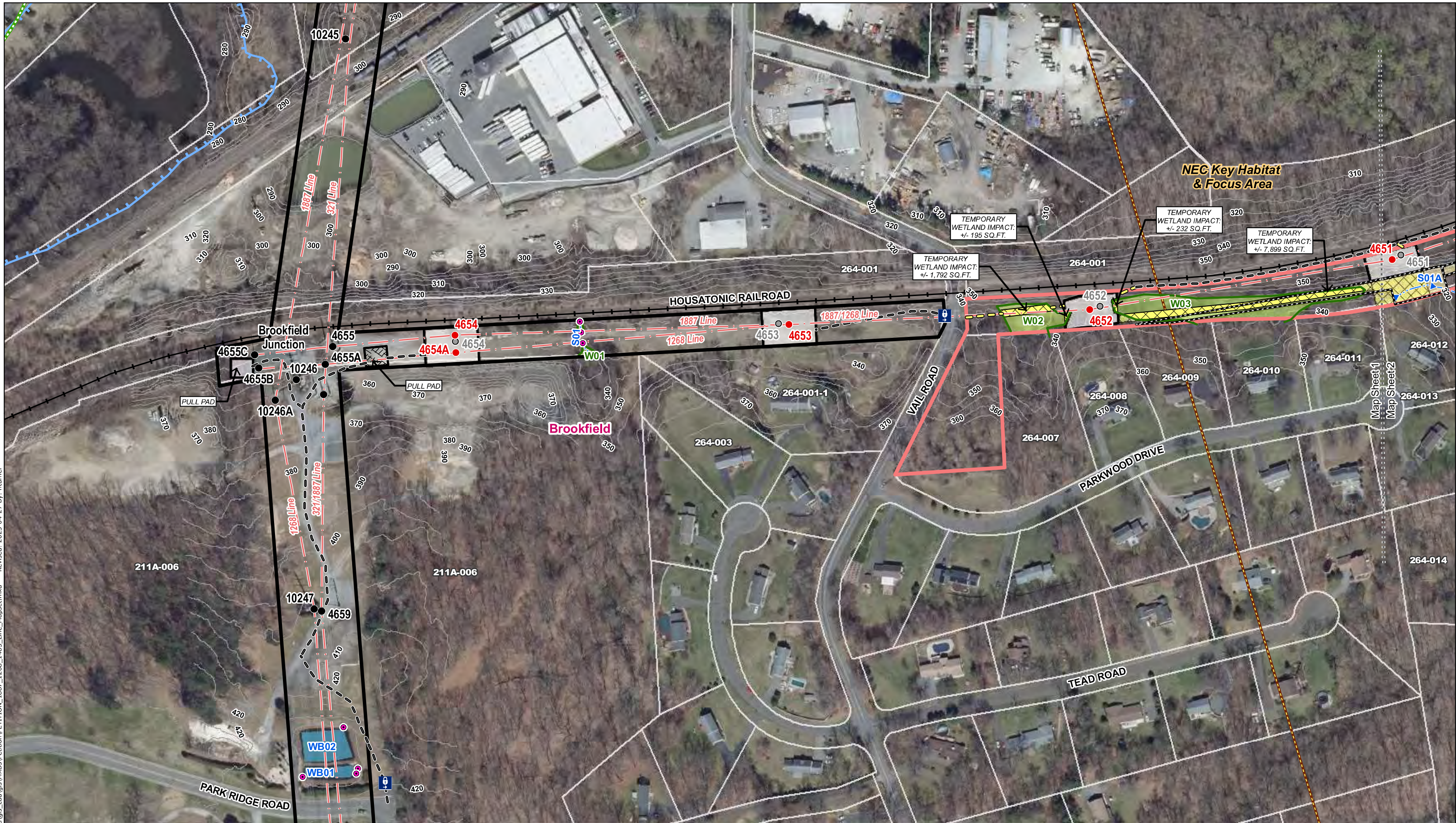
- Park Ridge Road
- Vail Road

Width of Right-of-Way

- 80-150 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
211A-006	111 PARK RIDGE ROAD	BROOKFIELD	CT	BERKSHIRE NORTH LLC
264-001	1 FEDERAL ROAD (REAR)	BROOKFIELD	CT	MAYBROOK RAILROAD COMPANY
264-001-1	7 PARK LANE	BROOKFIELD	CT	ERIC M. AND SANDRA M. VISSER- SAMPSON
264-003	12 PARK LANE	BROOKFIELD	CT	MURTHY MAMIDANNA
264-007	25 VALE ROAD	BROOKFIELD	CT	PARKWOOD ESTATES HOMEOWNERS ASSOCIATION INC
264-008	2 PARKWOOD DRIVE	BROOKFIELD	CT	JOHN G. AND BARBARA A. BYRNES
264-009	4 PARKWOOD DRIVE	BROOKFIELD	CT	JAMES ELIAS
264-010	6 PARKWOOD DRIVE	BROOKFIELD	CT	STEVEN A. AND KATHLEEN CACACE
264-011	8 PARKWOOD DRIVE	BROOKFIELD	CT	CARLOS P. DAEIRA AND CYNTHIA C. MCCARTHY
264-012	10 PARKWOOD DRME	BROOKFIELD	CT	WARREN S. AND DARLEEN A. SHERR
264-013	17 PARKWOOD DRME	BROOKFIELD	CT	PARKWOOD ESTATES HOMEOWNERS ASSOCIATION INC
264-014	STONEY FARM LANE	BROOKFIELD	CT	TREFOIL DEVELOPMENT AND MANAGEMENT ASSOCIATION INC

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project

Petition Map Set

Brookfield, CT MAP SHEET: 1 of 17

Date: April 27, 2023

Stantec

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- Stony Hill Substation
- Eversource Owned Property
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Residential adjacent to Structure(s): 4651, 4650, 4650A, and 4649
- Eversource Owned Property at Structure(s): 4651, 4650, 4650A, and 4649
- Railroad (Housatonic Railroad)
- Stony Hill Substation
- NEC Key Habitat and Focus Area, Structure(s): 4651 - 4646

Water Resources

- Wetlands: W03A, W04, W05
- Wetland Cover Types: PEM, PFO, PSS
- Watercourses: S01A (intermittent), S01B (perennial), S02 (intermittent)

Wetland and Watercourse Crossings

- Watercourse S01A - Construction mats for work pad
- Wetland W04 - Construction mats for work pads, stone work pad at Structures 4650A and 4649
- Wetland W05 - Construction mats for work pads

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4651 to 4650: From existing access along railroad ROW originating off of Vail Road (see Map Sheet 1)
- Structures 4649 to 4650A: From existing access originating off of Stony Hill Road
- Structures 4648/A to 4646: From existing access along railroad ROW and existing access through substation originating off of Stony Hill Road

Road Crossings

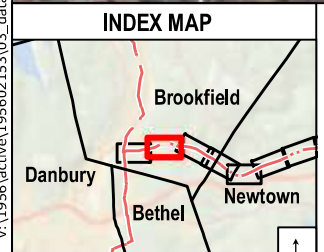
- Stony Hill Road

Width of Right-of-Way

- 95-170 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-001	1 FEDERAL ROAD (REAR)	BROOKFIELD	CT	MAYBROOK RAILROAD COMPANY
264-011	8 PARKWOOD DRIVE	BROOKFIELD	CT	CARLOS P. DAEIRA AND CYNTHIA C. MCCARTHY
264-012	10 PARKWOOD DRIVE	BROOKFIELD	CT	WARREN S. AND DARLEEN A. SHERR
264-013	17 PARKWOOD DRIVE	BROOKFIELD	CT	PARKWOOD ESTATES HOMEOWNERS ASSOCIATION INC
264-014	STONEY FARM LANE	BROOKFIELD	CT	TREFOIL DEVELOPMENT AND MANAGEMENT ASSOCIATION INC
264-015	10 STONEY FARM LANE	BROOKFIELD	CT	VIGEN & TRACY L. CHARBATION
264-016	8 STONEY FARM LANE	BROOKFIELD	CT	CARL E. AND MICHELLE R. BERG
264-017	6 STONEY FARM LANE	BROOKFIELD	CT	GLEN S (TRUSTEE) MOSS
264-018	2 STONEY FARM LANE	BROOKFIELD	CT	GREGORY MICHAEL SAAM
264-037	9A DEER TRAIL ROAD	BROOKFIELD	CT	RAYMOND ESTATES ASSOCIATION C/O MCCARTHY
264-038	13A DAIRY FARM DRIVE	BROOKFIELD	CT	TOWN OF BROOKFIELD

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy, Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.
 This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

NO.	DATE	REVISIONS

EVERSOURCE ENERGY
Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set
 Brookfield, CT MAP SHEET: 2 of 17
 Date: April 27, 2023

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-001	1 FEDERAL ROAD (REAR)	BROOKFIELD	CT	MAYBROOK RAILROAD COMPANY
264-037	9A DEER TRAIL ROAD	BROOKFIELD	CT	RAYMOND ESTATES ASSOCIATION C/O MCCARTHY
264-038	13A DAIRY FARM DRIVE	BROOKFIELD	CT	TOWN OF BROOKFIELD
264-039	BLACK SWAN CT	BROOKFIELD	CT	CARRIAGE HOMES ON THE POND C/O REI PROPERTY MANAGEMENT

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- Eversource Owned Property
- Existing Gas Pipeline ROW
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property, Structure(s): 4645-4642
- Railroad (Housatonic Railroad)
- Gas Pipeline ROW (Algonquin Gas Transmission)
- NEC Key Habitat and Focus Area, Structure(s): 4645 - 4641

Water Resources

- Wetlands: W05, W06
- Wetland Cover Types: PEM, PSS
- Watercourses - none
- Waterbody: WB03

Wetland and Watercourse Crossings

- Wetland W06 and Waterbody WB03 - Construction mats for work pads

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges
- Emergent Marsh

Access

- Structures 4645 to 4641: From existing access along railroad ROW originating off of Vail Road (See Map Sheet 1)

Road Crossings

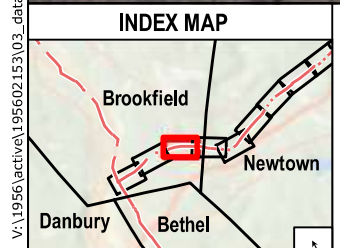
- None

Width of Right-of-Way

- 65-75 Feet



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 Revised: 2023-04-27 By: hturner



Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY
Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Brookfield, CT MAP SHEET: 3 of 17

Date: April 27, 2023

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-001	1 FEDERAL ROAD (REAR)	BROOKFIELD	CT	MAYBROOK RAILROAD COMPANY
264-039	BLACK SWAN CT	BROOKFIELD	CT	CARRIAGE HOMES ON THE POND C/O REI PROPERTY MANAGEMENT
264-043	2 MERIDIAN RIDGE DRIVE	NEWTOWN	CT	TOWN OF NEWTOWN
264-046	10 MERIDIAN RIDGE DRIVE	NEWTOWN	CT	JAMES M. AND LINDSAY A. GLYNN
264-056	FARRELL ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- Existing Gas Pipeline ROW
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Railroad (Housatonic Railroad)
- Gas Pipeline ROW (Algonquin Gas Transmission)
- Natural Diversity Database Area, Structure(s): 4640 to 4638
- NEC Key Habitat and Focus Area, Structure(s): 4640 to 4638

Water Resources

- Wetlands: W07, W08
- Wetland Cover Types: PEM, PSS
- Watercourses: S03 (perennial), S04 (perennial), S05 (intermittent), S06 (perennial), S07 (intermittent)

Wetland and Watercourse Crossings

- Wetland W07 and Watercourse S03 - Construction mats for work pads
- Watercourse S04 - Proposed Bridge

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4640 to 4638: From existing access along railroad ROW originating off of Vail Road (See Map Sheet 1)

Road Crossings

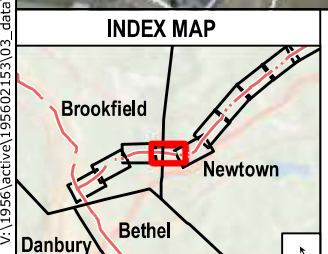
- None

Width of Right-of-Way

- 65-75 Feet



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 Revised: 2023-04-27 By: hturner



Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	Existing Gravel
— Delineated Perennial Watercourse	Stone Work Pad
— Delineated Wetland Boundary	Temporary Construction Matting
— 100' Vernal Pool Envelope	Eversource Owned Property
— Field Delineated Wetland	State Owned Property
— Field Delineated State Wetland	Parcel Boundary
— Approximate Wetland (not delineated)	Abutter Number
— Confirmed Vernal Pool	Municipal Boundary
— Open Water	5ft Contour Line
— FEMA 100-Year Flood Zone	Match Line
— NEC Key Habitat and Focus Area (March 2020)	
— Natural Diversity Database (Dec 2022)	
— Aquifer Protection Area (APA)	
— Area of Limited Tree Removal	
— GAS - Approximate Existing Gas Pipeline	
— Railroad	
— Hiking Trail	
— Stone Wall	
— Fence	
— Gate	
— Culvert	

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY
Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set
 Brookfield/Newtown, CT MAP SHEET: 4 of 17
 Date: April 27, 2023

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- Transportation (I84)
- 100-year Flood Zone
- Natural Diversity Database Area
- New England Cottontail Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Residential
- Railroad (Housatonic Railroad)
- 100-year Flood Zone, Structure(s): 4634
- Natural Diversity Database Area, Structure(s): 4637/A, 4636, 4634
- NEC Key Habitat and Focus Area, Structure(s): 4637/A - 4634
- Pond Brook, Structure(s): 4634

Water Resources

- Wetlands: W07, W08, W09, W10, W11, W12
- Wetland Cover Types: PSS, PEM, PUB
- Watercourses: S08 (perennial), S09 (Pond Brook, perennial)

Wetland and Watercourse Crossings

- Wetland W08 - Construction mats for work pad
- Wetland W10 and Watercourse S08 - Construction mats for work pads
- Wetland W11 and Watercourse S09 - Construction mats for access and work pads

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4637/A to 4634: From existing access along railroad ROW originating off of Vail Road (see Map Sheet 1) and Hawleyville Road (CT25)
- Structures 4635: From proposed access originating off of Farrell Road

Road Crossings

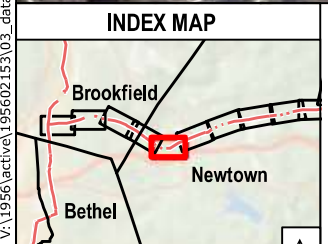
- Ferrell Road

Width of Right-of-Way

- 50-100 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-043	2 MERIDIAN RIDGE DRIVE	NEWTOWN	CT	TOWN OF NEWTOWN
264-051	18 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	TODD PIEPHO & GIOVANNA LAMORTE
264-052	16 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	FEDERAL NATIONAL MORTGAGE ASSOCIATION
264-053	14 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	LILA PARSON DEAN
264-056	FARRELL ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-057	RICHMOND ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-058	12 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	VALERIE DUDECK HART
264-059	10 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	FRAUKE AND MICHAEL J. ZILINEK
264-060	6 OLD HAWLEYVILLE ROAD	NEWTOWN	CT	CHRISTOPHER AND ESIN ZILINEK
264-061	4 RICHMOND ROAD	NEWTOWN	CT	ZACHARY L. AND KYLA M. STETSON
264-062	6 RICHMOND ROAD	NEWTOWN	CT	CARLTON A. AND CASSANDRA L. FOWLER

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Area (APA)
— 100' Vernal Pool Envelope	Area of Limited Tree Removal
— Field Delineated Wetland	Approximate Existing Gas Pipeline
— Field Delineated State Wetland	Gate
— Approximate Wetland (not delineated)	Culvert
— Confirmed Vernal Pool	
— Open Water	
— Railroad	
— Hiking Trail	
— Stone Wall	
— Fence	

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.
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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 5 of 17

Date: April 27, 2023

Stantec

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Commercial
- Railroad (Housatonic Railroad)
- 100-year Flood Zone
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Vernal Pool(s)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Railroad (Housatonic Railroad)
- 100-year Flood Zone
- Natural Diversity Database Area, Structure(s): 4633
- NEC Key Habitat and Focus Area, Structure(s): 4633 - 4630/A, Pull Pad(1)
- Vernal Pool between Structures: 4632 and 4631

Water Resources

- Wetlands: W12, W13, W14, W15, W16, W17
- Watercourses: PSS, PEM, PFO
- Watercourses: S10 (intermittent), S11 (intermittent), S12 (intermittent)
- Vernal Pool: CVP1 in Wetland W14

Wetland and Watercourse Crossings

- Wetland W15 and Watercourses S11, S12 - Construction mats for work pad
- Wetland W16 - Construction mats for pull pad
- Wetland W17 - Construction mats for tree removal access

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4633 to 4630/A: From existing access along railroad ROW originating off of Hawleyville Road (CT25)

Road Crossings

- Hawleyville Road (CT 25)

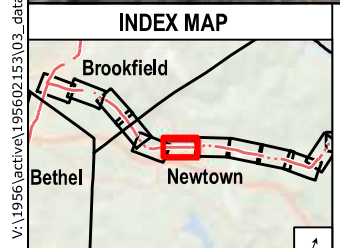
Width of Right-of-Way

- 65-115 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-057	RICHMOND ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-061	4 RICHMOND ROAD	NEWTOWN	CT	ZACHARY L. AND KYLA M. STETSON
264-062	6 RICHMOND ROAD	NEWTOWN	CT	CARLTON A. AND CASSANDRA L. FOWLER
264-063	HAWLEYVILLE ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-064	20B HAWLEYVILLE ROAD	NEWTOWN	CT	NU LAND TRUST INC
264-065	66 BARNABAS ROAD	NEWTOWN	CT	VIVENNE SANAIOT
264-066	24 HAWLEYVILLE ROAD	NEWTOWN	CT	GLENN HOPPER
264-067	54 BARNABAS ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-069	32 BARNABAS ROAD	NEWTOWN	CT	FAIRFIELD EQUINE REALTY LLC
264-070	4 BARNABAS ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.



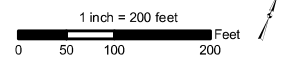
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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 6 of 17

Date: April 27, 2023

Stantec

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Agricultural
- Residential
- Railroad (Housatonic Railroad)
- 100-year Flood Zone
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Railroad (Housatonic Railroad)
- NEC Key Habitat and Focus Area, Structure(s): 4629 - 4626, Pull Pad(1)

Water Resources

- Wetlands: W17, W18
- Wetland Cover Types: PSS, PEM
- Watercourses: S13 (perennial), S14 (intermittent), S15 (intermittent), S16 (intermittent)

Wetland and Watercourse Crossings

- Watercourse S14 - Construction mats to span for tree removal access

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4629/pull pad to 4628: From existing access along railroad ROW originating off of Hawleyville Road (CT25) (see Map Sheet 6)
- Structures 4628A-4626: From proposed access down to existing access along railroad ROW originating off of Currituck Road

Road Crossings

- Currituck Road

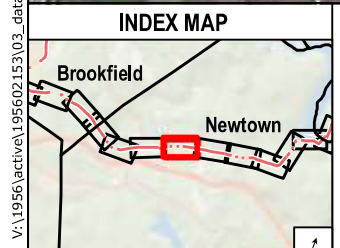
Width of Right-of-Way

- 50-140 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-063	HAWLEYVILLE ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-069	32 BARNABAS ROAD	NEWTOWN	CT	FAIRFIELD EQUINE REALTY LLC
264-070	4 BARNABAS ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-071	41 TUNNEL ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-072	43 TUNNEL ROAD	NEWTOWN	CT	SEDOR FARM LLC
264-073	CURRITUCK ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-074	120 CURRITUCK ROAD	NEWTOWN	CT	DANIEL J. HAYES JR.
264-075	118 CURRITUCK ROAD	NEWTOWN	CT	ANTONIO G & ASHLEY C FERNANDES
264-078	6 STONY BROOK ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.



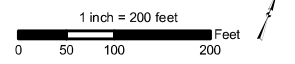
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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 7 of 17

Date: April 27, 2023

Stantec

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- 100-year Flood Zone
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Railroad (Housatonic Railroad)
- 100-year Flood Zone Structure(s): 4625
- NEC Key Habitat and Focus Area, Structure(s): 4625 - 4622

Water Resources

- Wetlands: W19, W20, W21, W22
- Wetland Cover Types: PEM, PSS, PUB
- Watercourses: S17 (perennial), S18 (perennial)
- Waterbody: WB04

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structures 4625 to 4623: From proposed access down to existing access along railroad ROW originating off of Currituck Road (see Map Sheet 7)
- Structure 4622: From proposed access originating off of Parmalee Hill Road

Road Crossings

- Georges Hill Road
- Parmalee Hill Road

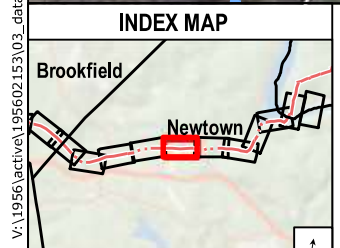
Width of Right-of-Way

- 65-210 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-073	CURRITUCK ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-078	6 STONY BROOK ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-079	6 GEORGES HILL ROAD	NEWTOWN	CT	EDWARD AND SHELLEY HOGENAUER
264-080	GEORGES HILL ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-081	13 GOPHER ROAD	NEWTOWN	CT	JENNIFER B. WHEELER & OVIDIU M. STOICA
264-082	17 GOPHER ROAD	NEWTOWN	CT	BRIAN T. AND MELISSA D. KASCAK
264-083	1 SHADOW RIDGE CIRCLE	NEWTOWN	CT	NICOLE M. IRWIN
264-084	31 PARMALEE HILL ROAD	NEWTOWN	CT	CHRISTOPHER R S AND KIMBERLY W. CHABOT DUMOULIN
264-085	29 PARMALEE HILL ROAD	NEWTOWN	CT	JUSTIN SHADRICK
264-086	PARMALEE HILL ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-087	34 PARMALEE HILL ROAD	NEWTOWN	CT	JOHN J. MONTOYA
264-088	32 PARMALEE HILL ROAD	NEWTOWN	CT	JULIANE GIVONI



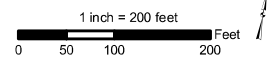
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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	Existing Gravel
— Delineated Perennial Watercourse	Stone Work Pad
— Delineated Wetland Boundary	Temporary Construction Matting
— 100' Vernal Pool Envelope	Eversource Owned Property
— Field Delineated Wetland	State Owned Property
— Field Delineated State Wetland	Parcel Boundary
— Approximate Wetland (not delineated)	Abutter Number
— Confirmed Vernal Pool	Municipal Boundary
— Open Water	5ft Contour Line
— FEMA 100-Year Flood Zone	Match Line
— NEC Key Habitat and Focus Area (March 2020)	
— Natural Diversity Database (Dec 2022)	
— Aquifer Protection Area (APA)	
— Area of Limited Tree Removal	
— GAS - Approximate Existing Gas Pipeline	
— Gate	
— Culvert	
— Railroad	
— Hiking Trail	
— Stone Wall	
— Fence	

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 8 of 17

Date: April 27, 2023

Stantec

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-086	PARMALEE HILL ROAD	NEWTOWN	CT	NEW YORK NEW HAVEN RAILROAD
264-088	32 PARMALEE HILL ROAD	NEWTOWN	CT	JULIANE GIVONI
264-089	30 PARMALEE HILL ROAD	NEWTOWN	CT	VIRGINIA J. KOPESKY
264-090	28 PARMALEE HILL ROAD	NEWTOWN	CT	DEREK D. AND DOMENICA E. PISANI
264-091	13 PAPOOSE HILL ROAD	NEWTOWN	CT	ROBERT LEROY STILSON
264-092	40 PARMALEE HILL ROAD	NEWTOWN	CT	AMBER STEVENS EDWARDS
264-094	77 HANOVER ROAD	NEWTOWN	CT	HANNAH ROSENBERGER
264-095	82 HANOVER ROAD	NEWTOWN	CT	PAT J. KOHLER
264-096	12 OLD FARM HILL ROAD	NEWTOWN	CT	SCOTT LEE AND LAURA CASSIDY HEBNER
264-143	85 HANOVER ROAD	NEWTOWN	CT	CHARLES W. BORGERDING III
264-144	95 HANOVER ROAD	NEWTOWN	CT	WILLIAM J. SEAMAN JR

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Railroad (Housatonic Railroad)
- Eversource Owned Property
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Vernal Pool(s)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property at Structure(s): 4619 and 4618/A
- Railroad (Housatonic Railroad)
- Gas Pipeline ROW Adjacent to Structure 4618/A (Iroquois Gas Transmission System)
- NEC Key Habitat and Focus Area, Structure(s): 4322A to 4618/A, Pull Pad(2)
- Vernal Pool between Structures: 4620 and 4619

Water Resources

- Wetlands: W23, W24, W25
- Wetland Cover Types: PUB, PEM, PSS
- Watercourses: S19 (perennial), S20 (perennial), S21 (perennial)
- Vernal Pool: CVP2 in Wetland W23

Wetland and Watercourse Crossings

- Wetland W24 - Construction mats to span for access
- Wetland W25 - Construction mats for access and work pad

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

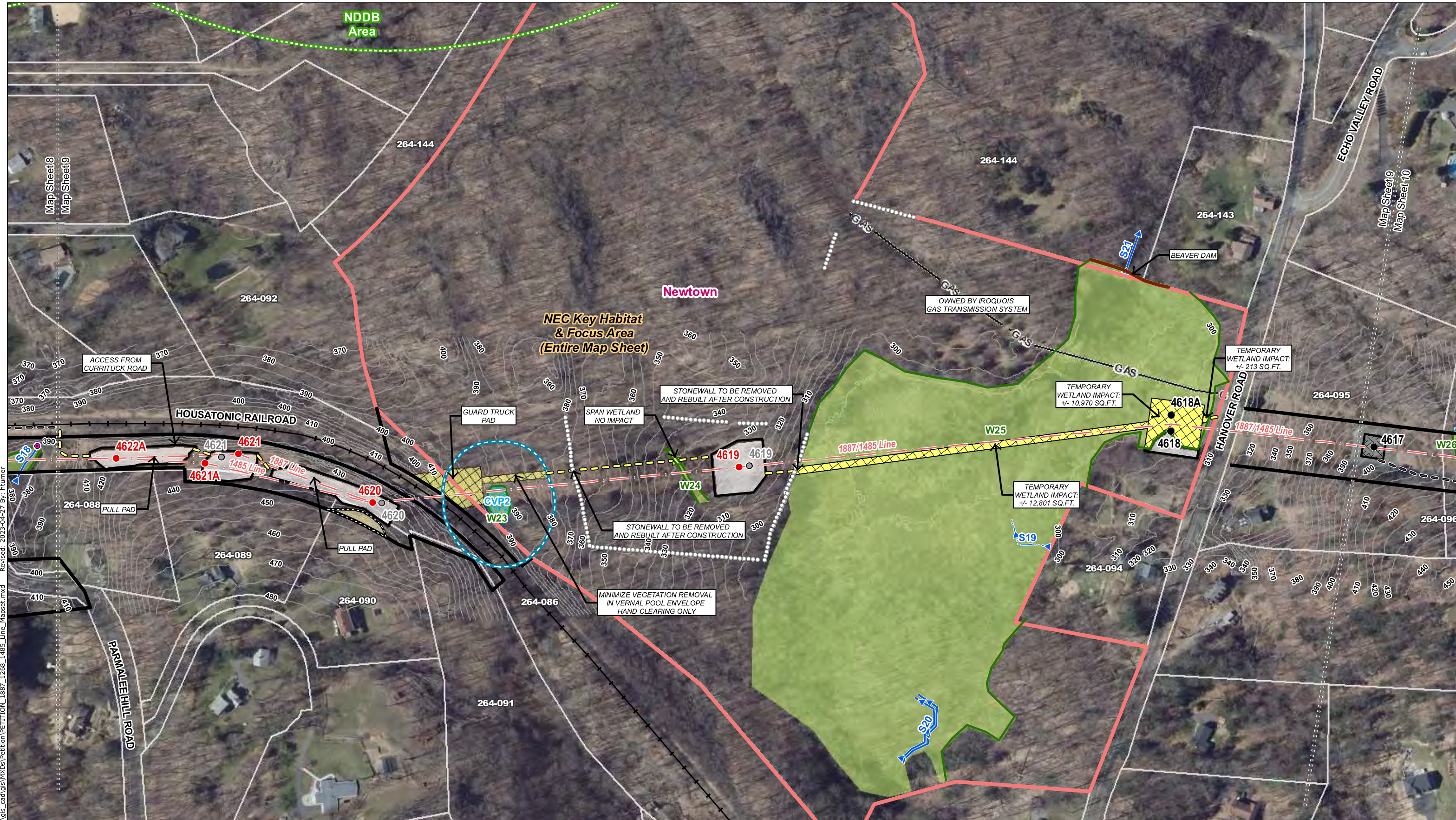
- Structures 4622A to 4620: From proposed access down to existing access along railroad ROW originating off of Currituck Road (see Map Sheet 7)
- Structures 4618/A to 4619 to Guard Truck Pad: From proposed access originating off of Hanover Road

Road Crossings

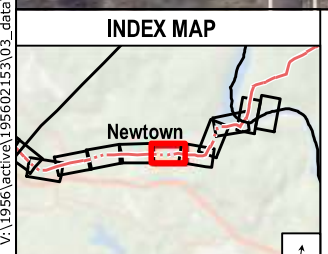
- Railroad (Housatonic Railroad)

Width of Right-of-Way

- 35-130 Feet



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 Revised: 2023-04-27 By: Hunter



Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY
Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set
 Newtown, CT MAP SHEET: 9 of 17
 Date: April 27, 2023

Brookfield Junction to Bates Rock Substation Upgrade Project
 Structures 4617 - 4612/A Pull Pad
 Town of Newtown

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area, Structure(s): 4617 to 4612/A Pull Pad

Water Resources

- Wetlands: W26, W27, W28
- Wetland Cover Types: PSS, PEM
- Watercourses: S22 (intermittent)

Wetland and Watercourse Crossings

- Wetland W26 and Watercourse S22 - Construction mats for access

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges
- Maintained lawn

Access

- Structures 4615 to 4617: From existing access originating off of Old Farm Hill Road
- Structure 4614: From existing access originating off of Old Farm Hill Road
- Structures 4612/A to 4613/A: From matted access originating off of Winter Ridge Road

Road Crossings

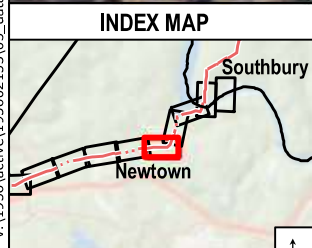
- Old Farm Hill Road
- Winter Ridge Road

Width of Right-of-Way

- 150 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-095	82 HANOVER ROAD	NEWTOWN	CT	PAT J. KOHLER
264-096	12 OLD FARM HILL ROAD	NEWTOWN	CT	SCOTT LEE AND LAURA CASSIDY HEBNER
264-097	14 OLD FARM HILL ROAD	NEWTOWN	CT	JEFFREY F. CORSELLO AND DAWN HATFIELD
264-098	18 OLD FARM HILL ROAD	NEWTOWN	CT	JOHN H. AND CAMILLE G. COONAN
264-099	20 OLD FARM HILL ROAD	NEWTOWN	CT	NOEL B. AND DEBORAH A. WALLS
264-100	22 OLD FARM HILL ROAD	NEWTOWN	CT	ADAM T. AND JACLYN P. ANTOINETTE
264-101	OLD FARM HILL ROAD	NEWTOWN	CT	TOWN OF NEWTOWN
264-102	5 WINTER RIDGE ROAD	NEWTOWN	CT	WILLIAM A. BURBANK
264-103	3 WINTER RIDGE ROAD	NEWTOWN	CT	WILLIAM EUGENE AND SARAH GRACE VAUGHAN, JR. VAUGHAN
264-105	18 HORSESHOE RIDGE ROAD	NEWTOWN	CT	THOMAS A. AND MELISSA C. DAMON
264-106	16 HORSESHOE RIDGE ROAD	NEWTOWN	CT	MARYBETH LYONS AND CHERYL M. HOLLY
264-107	14 HORSESHOE RIDGE ROAD	NEWTOWN	CT	JACK R. AND LAURI A. BELMUTH
264-108	12 HORSESHOE RIDGE ROAD	NEWTOWN	CT	EDWARD M. AND JUDITH F. DESTEFANO
264-109	4 WINTER RIDGE ROAD	NEWTOWN	CT	CHARLES T. HEPP AND DOROTHY JANE PORTER
264-110	ECHO VALLEY ROAD	NEWTOWN	CT	TOWN OF NEWTOWN

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.
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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 10 of 17

Date: April 27, 2023

Stantec

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-101	OLD FARM HILL ROAD	NEWTOWN	CT	TOWN OF NEWTOWN
264-102	5 WINTER RIDGE ROAD	NEWTOWN	CT	WILLIAM A. BURBANK
264-103	3 WINTER RIDGE ROAD	NEWTOWN	CT	WILLIAM EUGENE AND SARAH GRACE VAUGHAN, JR. VAUGHAN
264-106	16 HORSESHOE RIDGE ROAD	NEWTOWN	CT	MARYBETH LYONS AND CHERYL M. HOLLY
264-107	14 HORSESHOE RIDGE ROAD	NEWTOWN	CT	JACK R. AND LAURI A. BELMUTH
264-108	12 HORSESHOE RIDGE ROAD	NEWTOWN	CT	EDWARD M. AND JUDITH F. DESTEFANO
264-109	4 WINTER RIDGE ROAD	NEWTOWN	CT	CHARLES T. HEPP AND DOROTHY JANE PORTER
264-110	ECHO VALLEY ROAD	NEWTOWN	CT	TOWN OF NEWTOWN
264-112	ECHO VALLEY ROAD	NEWTOWN	CT	TOWN OF NEWTOWN
264-113	12 CONCORD RIDGE DRIVE	NEWTOWN	CT	TOWN OF NEWTOWN
264-114	2 VALLEY FIELD ROAD NORTH	NEWTOWN	CT	JOHN AND CINDY GLABESON
264-115	103 ALBERTS HILL ROAD	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-116	72 ALBERTS HILL ROAD	NEWTOWN	CT	FIRSTLIGHT HYDRO GENERATING COMPANY

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Existing Gas Pipeline
- Lake Lillinonah
- Paugussett State Forest
- 100-year Flood Zone
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- 100-year Flood Zone, adjacent to Structure(s): 4609B/C
- Natural Diversity Database Area, Structure(s): 4610A
- Gas Pipeline ROW (Algonquin Gas Transmission)
- NEC Key Habitat and Focus Area, Structure(s): 4611 to 4609B/C

Water Resources

- Wetlands: W29, W30, W31, W32
- Wetland Cover Types: PSS, PEM
- Watercourses: S23 (perennial)

Wetland and Watercourse Crossings

- Wetland W30 - Construction mats for work pad
- Wetland W31 and Watercourse S23 - Construction mats for work pad and to span for access

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

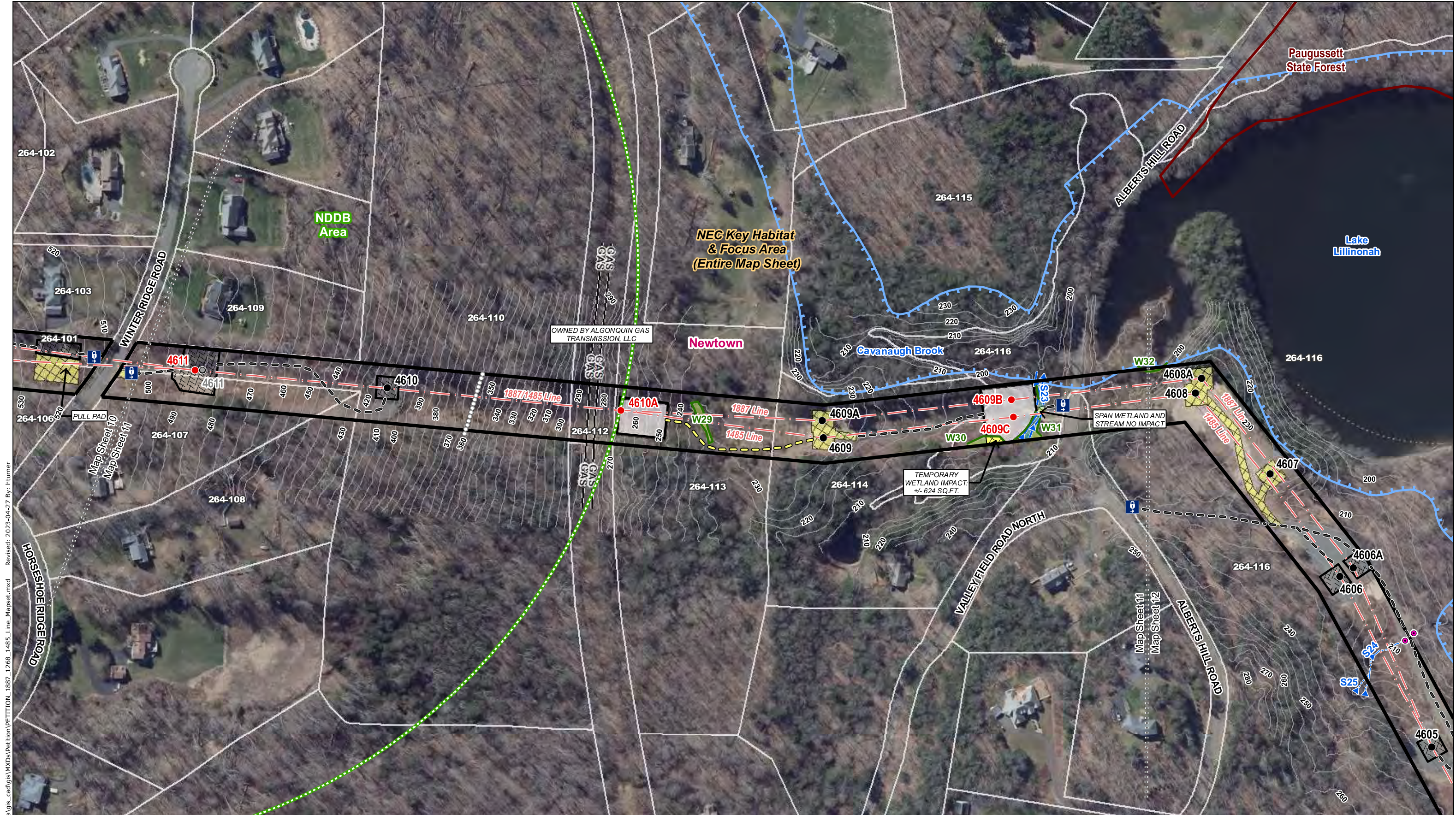
- Structure 4611 to 4610: From matted access originating off of Winter Ridge Road
- Structure 4609B/C to 4610A: From existing access originating off of Alberts Hill Road

Road Crossings

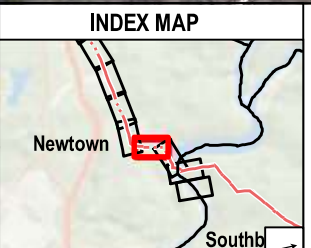
- Winter Ridge Road
- Alberts Hill Road

Width of Right-of-Way

- 150 Feet



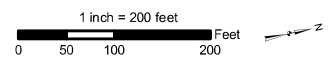
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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
— Railroad	
— Hiking Trail	
— Stone Wall	
— Fence	

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown, CT MAP SHEET: 11 of 17

Date: April 27, 2023

Stantec

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-114	2 VALLEY FIELD ROAD NORTH	NEWTOWN	CT	JOHN AND CINDY GLABESON
264-116	72 ALBERTS HILL ROAD	NEWTOWN	CT	FIRSTLIGHT HYDRO GENERATING COMPANY
264-117	5 HEARTHSTONE LANE	NEWTOWN	CT	NEWTOWN FOREST ASSOCIATION, INC.
264-118	ALBERTS HILL ROAD	NEWTOWN	CT	FIRSTLIGHT HYDRO GENERATING COMPANY
291-001	2225 RIVER ROAD	NEWTOWN	CT	FIRSTLIGHT HYDRO GENERATING COMPANY

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Shepaug Substation (see Map Sheet 13)
- Lake Lillinonah
- Housatonic River
- 100-year Flood Zone
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Hydro Dam

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area, Structure(s): Tree Clearing
- Housatonic River

Water Resources

- Wetlands: W32, W33, W34
- Wetland Cover Types: PSS, PEM
- Watercourses: S24 (intermittent), S25 (intermittent)

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- Structure 4608/A to 4601/A: From existing access originating off of Alberts Hill Road

Road Crossings

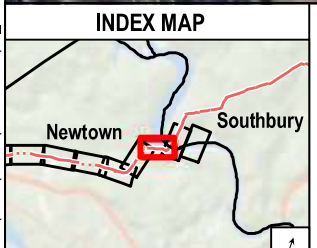
- Alberts Hill Road

Width of Right-of-Way

- 130-330 Feet



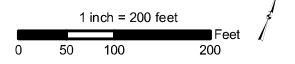
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 Revised: 2023-04-27 By: Hunter



Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	Existing Gravel
— Delineated Perennial Watercourse	Stone Work Pad
— Delineated Wetland Boundary	Temporary Construction Matting
— 100' Vernal Pool Envelope	Eversource Owned Property
— Field Delineated Wetland	State Owned Property
— Field Delineated State Wetland	Parcel Boundary
— Approximate Wetland (not delineated)	Abutter Number
— Confirmed Vernal Pool	Municipal Boundary
— Open Water	5ft Contour Line
— FEMA 100-Year Flood Zone	Match Line
— NEC Key Habitat and Focus Area (March 2020)	Existing Gravel
— Natural Diversity Database (Dec 2022)	Stone Work Pad
— Aquifer Protection Area (APA)	Temporary Construction Matting
— Area of Limited Tree Removal	Eversource Owned Property
— GAS - Approximate Existing Gas Pipeline	State Owned Property
— Gate	Parcel Boundary
— Culvert	Abutter Number
— Railroad	Municipal Boundary
— Hiking Trail	5ft Contour Line
— Stone Wall	Match Line
— Fence	

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy, Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY
Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown/Southbury, CT MAP SHEET: 12 of 17

Date: April 27, 2023

Brookfield Junction to Bates Rock Substation Upgrade Project
 Structure 5275A
 Towns of Newtown and Southbury

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
264-118	ALBERTS HILL ROAD	NEWTOWN	CT	FIRSTLIGHT HYDRO GENERATING COMPANY
291-001	2225 RIVER ROAD	SOUTHBURY	CT	FIRSTLIGHT HYDRO GENERATING COMPANY

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Shepaug Substation
- Lake Lillinonah
- Housatonic River
- 100-year Flood Zone
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Hydro Dam

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Shepaug Substation
- 100-year Flood Zone Structure(s): 5275A
- Natural Diversity Database Area, Structure(s): 5275A
- NEC Key Habitat and Focus Area, Structure(s): 5275A

Water Resources

- Wetlands - none
- Watercourses - none
- Housatonic River

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Maintained lawn

Access

- Structure 5275A: From matted access originating off of River Road

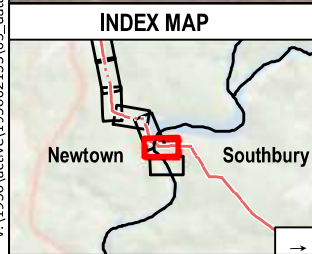
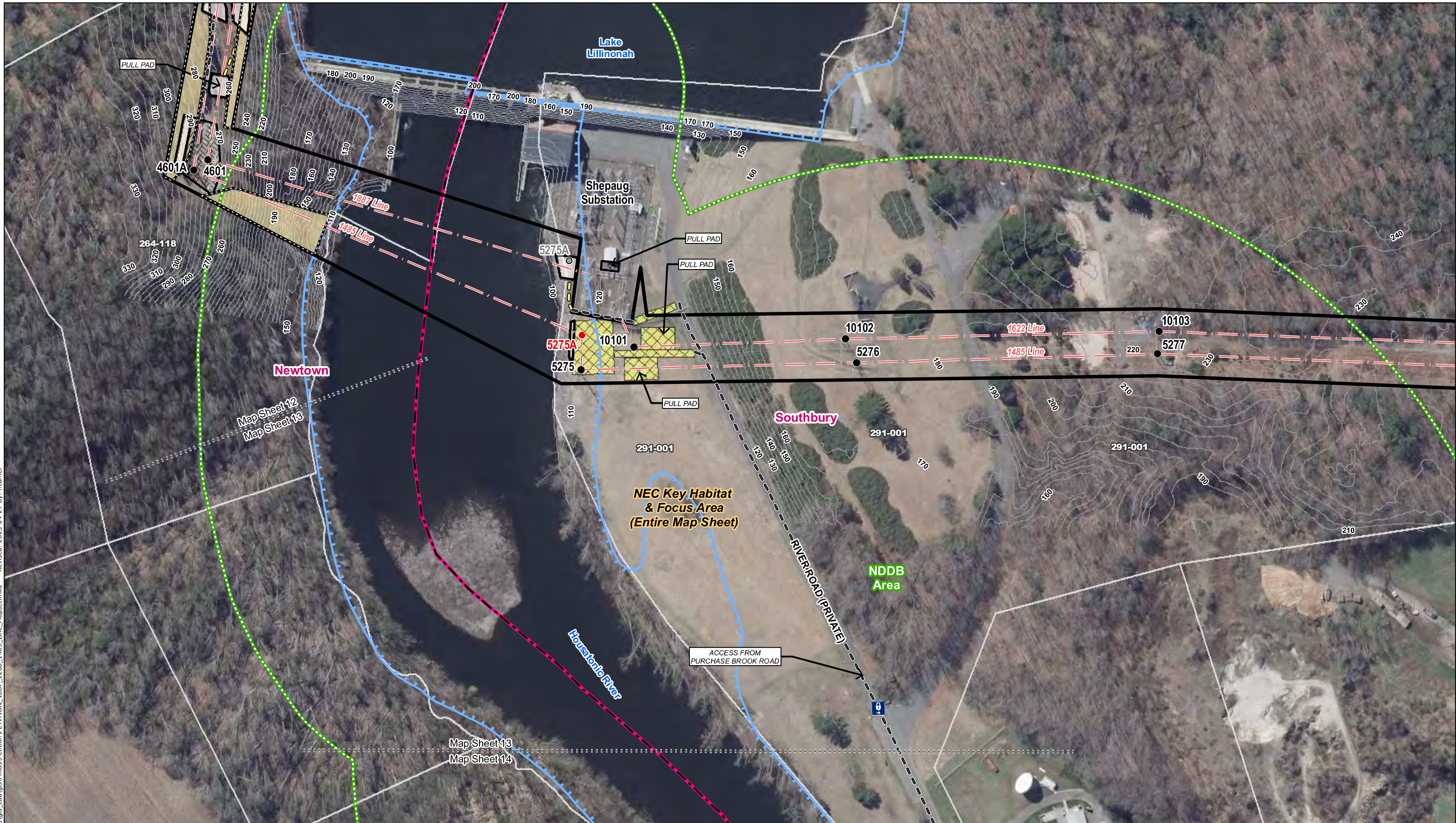
Road Crossings

- None

Width of Right-of-Way

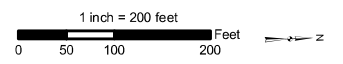
- 150-330 Feet

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
— 100' Vernal Pool Envelope	Aquifer Protection Area (APA)
— Field Delineated Wetland	Area of Limited Tree Removal
— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.
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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Newtown/Southbury, CT MAP SHEET: 13 of 17

Date: April 27, 2023

Stantec

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
291-001	2225 RIVER ROAD	SOUTHBURY	CT	FIRSTLIGHT HYDRO GENERATING COMPANY

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Commercial
- Agricultural
- Housatonic River
- 100-year Flood Zone
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- None

Water Resources

- Wetlands - none
- Watercourses - none

Wetland and Watercourse Crossings

- None

Off Right-of-Way Vegetation

- None

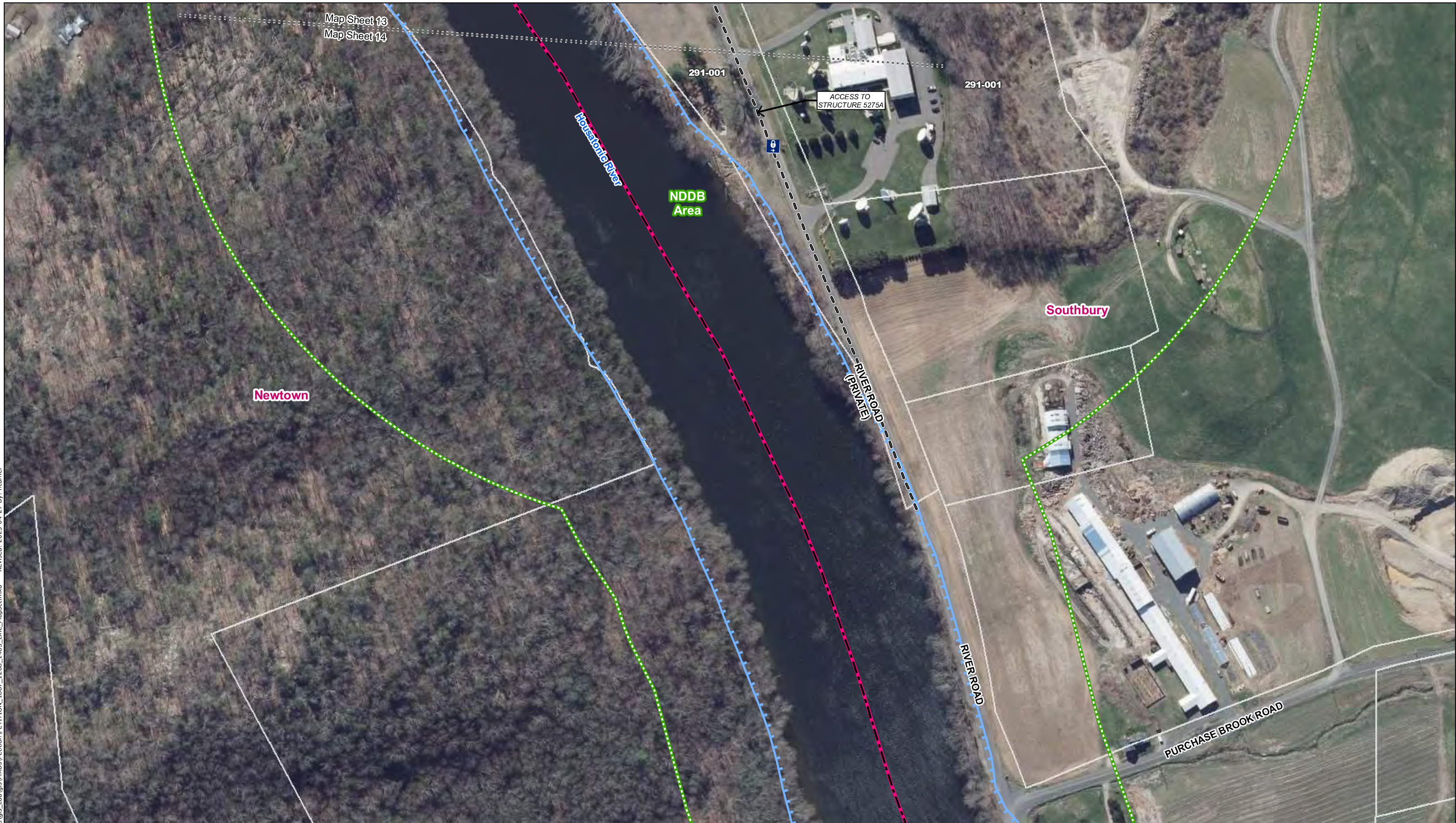
Access

- To Structure 5275A originating from Purchase Brook Road

Road Crossings

- None

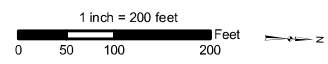
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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	— Delineated Perennial Watercourse
— Delineated Wetland Boundary	— 100' Vernal Pool Envelope
— Field Delineated Wetland	— Field Delineated State Wetland
— Approximate Wetland (not delineated)	— Confirmed Vernal Pool
— Open Water	— FEMA 100-Year Flood Zone
— NEC Key Habitat and Focus Area (March 2020)	— Natural Diversity Database (Dec 2022)
— Aquifer Protection Area (APA)	— Area of Limited Tree Removal
— GAS - Approximate Existing Gas Pipeline	— Railroad
— Gate	— Hiking Trail
— Culvert	— Stone Wall
	— Fence

Map Notes:
 Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project

Petition Map Set

Newtown/Southbury, CT MAP SHEET: 14 of 17

Date: April 27, 2023

Stantec

Brookfield Junction to Bates Rock Substation Upgrade Project
 Structures 10136 - 10138, 5312, 10140, 10141/5313
 Town of Southbury

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
291-027.001	EAST HILL ROAD	SOUTHBURY	CT	HERITAGE VILLAGE MASTERS ASSOCIATION
291-028	EAST HILL ROAD	SOUTHBURY	CT	HERITAGE VILLAGE FOUNDATION INC

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Undeveloped, Forest
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area, Structure(s): 5312 to 10141/5313
- NEC Key Habitat and Focus Area, Structure(s): 10136 to 10141/5313

Water Resources

- Wetlands - none
- Watercourses - none

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Scrub-shrub
- Maintained lawn
- Forest edges

Access

- Structures 10136 and 10137: From matted access originating off of Hill Top West
- Structures 10138 to 10141/5313: From existing access originating off of Roxbury Road (see Map Sheet 17)

Road Crossings

- Hilltop Road West
- Hilltop Road East

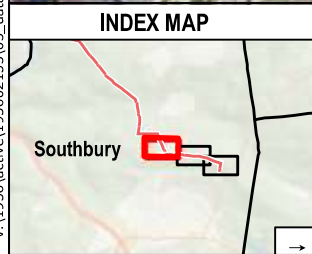
Width of Right-of-Way

- 100-130 Feet

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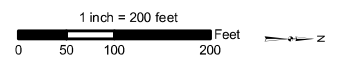


Map Sheet 15
Map Sheet 16



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- - - Underground Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Proposed Bridge
- ▨ Existing Gravel
- ▨ Stone Work Pad
- ▨ Temporary Construction Matting
- ▨ Eversource Owned Property
- ▨ State Owned Property
- ▨ Parcel Boundary
- ▨ Abutter Number
- ▨ Municipal Boundary
- ▨ 5ft Contour Line
- ▨ Match Line
- Delineated Intermittent Watercourse
- Delineated Perennial Watercourse
- Delineated Wetland Boundary
- 100' Vernal Pool Envelope
- Field Delineated Wetland
- Field Delineated State Wetland
- Approximate Wetland (not delineated)
- Confirmed Vernal Pool
- Open Water
- ▨ FEMA 100-Year Flood Zone
- ▨ NEC Key Habitat and Focus Area (March 2020)
- ▨ Natural Diversity Database (Dec 2022)
- ▨ Aquifer Protection Area (APA)
- ▨ Area of Limited Tree Removal
- GAS Approximate Existing Gas Pipeline
- Gate
- Culvert
- Railroad
- Hiking Trail
- Stone Wall
- X—X— Fence



Map Notes:
Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
Data source: Eversource easement lines, structures, and transmission lines provided by Eversource Energy. Wetlands and streams by Stantec/FHI in May and June 2021. Vernal pool confirmations completed by Stantec in May 2022. Additional sources include: CT DEEP.

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

**Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set**

Southbury, CT MAP SHEET: 15 of 17

Date: April 27, 2023

Stantec

MAP SHEET 16 OF 17

Brookfield Junction to Bates Rock Substation Upgrade Project
 Access to Structures 10136 - 10138, 5312, 10140, 10141/5313
 Town of Southbury

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Aquifer Protection Area (APA)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area

Water Resources

- Wetlands: W61
- Wetland Cover Types: PSS
- Watercourses - none

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- To Structures 10138 - 10141/5313 from existing access originating off of Roxbury Road (see Map Sheet 17)

Road Crossings

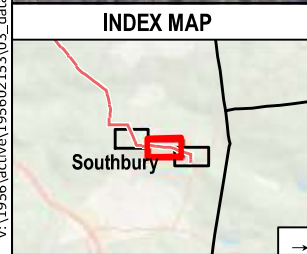
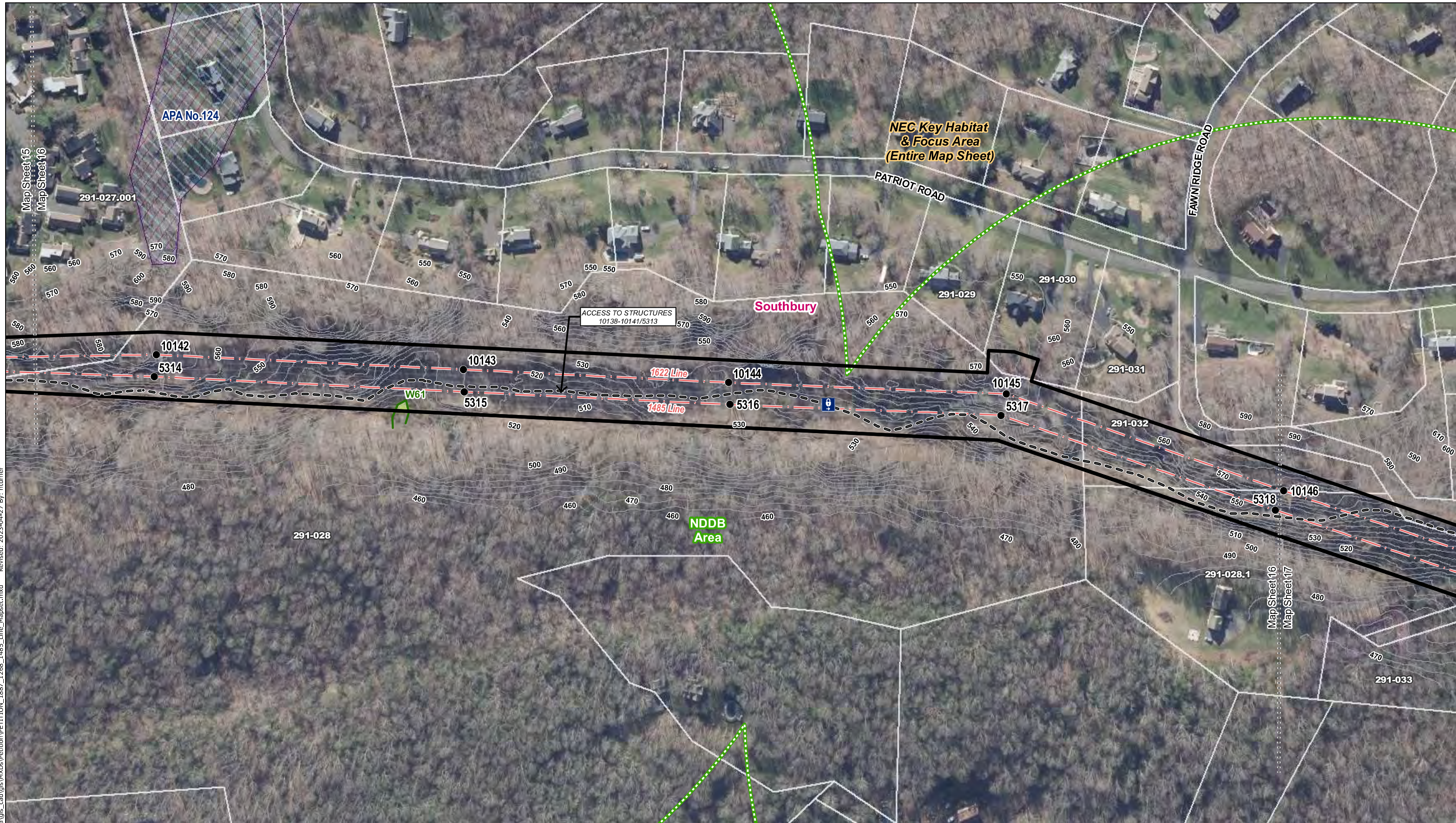
- None

Width of Right-of-Way

- 130-200 Feet

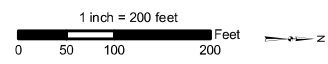
<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
291-027.001	EAST HILL ROAD	SOUTHBURY	CT	HERITAGE VILLAGE MASTERS ASSOCIATION
291-028	EAST HILL ROAD	SOUTHBURY	CT	HERITAGE VILLAGE FOUNDATION INC
291-028.1	372 PATRIOT RD	SOUTHBURY	CT	CHARLES M & LAUREN M LEGATO
291-029	330 PATRIOT ROAD	SOUTHBURY	CT	MARILYN A. ROGERS
291-030	348 PATRIOT ROAD	SOUTHBURY	CT	ANTHONY S. AND RACHEL A DRAGO
291-031	352 PATRIOT ROAD	SOUTHBURY	CT	MAGALI FLOOD
291-032	PATRIOT ROAD	SOUTHBURY	CT	TOWN OF SOUTHBURY
291-033	374 PATRIOT ROAD	SOUTHBURY	CT	LAUREN M. LEGATO

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
— Existing Right-of-Way (ROW)	Parcel Boundary
— Existing Access	Abutter Number
— Off-ROW Access Pending Rights	Municipal Boundary
— Proposed Access	5ft Contour Line
— Proposed Bridge	Match Line
— Delineated Intermittent Watercourse	FEMA 100-Year Flood Zone
— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
— Delineated Wetland Boundary	Natural Diversity Database (Dec 2022)
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— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
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NO.	DATE	REVISIONS

EVSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

Southbury, CT MAP SHEET: 16 of 17

Date: April 27, 2023

Stantec

Brookfield Junction to Bates Rock Substation Upgrade Project
 Access to Structures 10136 - 10138, 5312, 10140, 10141/5313
 Town of Southbury

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Bates Rock Substation
- Eversource Owned Property
- Natural Diversity Database Area
- New England Cottontail Key Habitat and Focus Area
- Aquifer Protection Area (APA)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Bates Rock Substation
- Eversource Owned Property
- Natural Diversity Database Area
- NEC Key Habitat and Focus Area
- Aquifer Protection Area (APA)

Water Resources

- Wetlands - none
- Watercourses - none

Wetland and Watercourse Crossings

- None

Right-of-Way Vegetation

- Scrub-shrub
- Forest edges

Access

- To Structures 10138 - 10141/5313 from existing access originating off of Roxbury Road

Road Crossings

- None

Width of Right-of-Way

- 100-180 Feet

<u>Line List Number</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
291-028.1	372 PATRIOT RD	SOUTHBURY	CT	CHARLES M & LAUREN M LEGATO
291-032	PATRIOT ROAD	SOUTHBURY	CT	TOWN OF SOUTHBURY
291-033	374 PATRIOT ROAD	SOUTHBURY	CT	LAUREN M. LEGATO
291-034	ROXBURY ROAD	SOUTHBURY	CT	TOWN OF SOUTHBURY
291-035	693 ROXBURY ROAD	SOUTHBURY	CT	TIMOTHY I. MORSE AND KIMBERLY A. HANABURGH
291-036	691 ROXBURY ROAD	SOUTHBURY	CT	MONICA JANUTH & KEVIN BATES
291-037	695 ROXBURY ROAD	SOUTHBURY	CT	MICHAEL C. & MARIA LANG
291-039	311 BATES ROCK ROAD	SOUTHBURY	CT	PATRICIA J. MEGAI

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Legend	
● Existing Structure	Existing Gravel
○ Existing Structure to be Removed	Stone Work Pad
● Proposed Structure	Temporary Construction Matting
— Overhead Eversource Line	Eversource Owned Property
— Underground Eversource Line	State Owned Property
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— Off-ROW Access Pending Rights	Municipal Boundary
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— Delineated Perennial Watercourse	NEC Key Habitat and Focus Area (March 2020)
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— Field Delineated State Wetland	Approximate Existing Gas Pipeline
— Approximate Wetland (not delineated)	Gate
— Confirmed Vernal Pool	Culvert
— Open Water	
	Railroad
	Hiking Trail
	Stone Wall
	Fence

Map Notes:
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NO.	DATE	REVISIONS

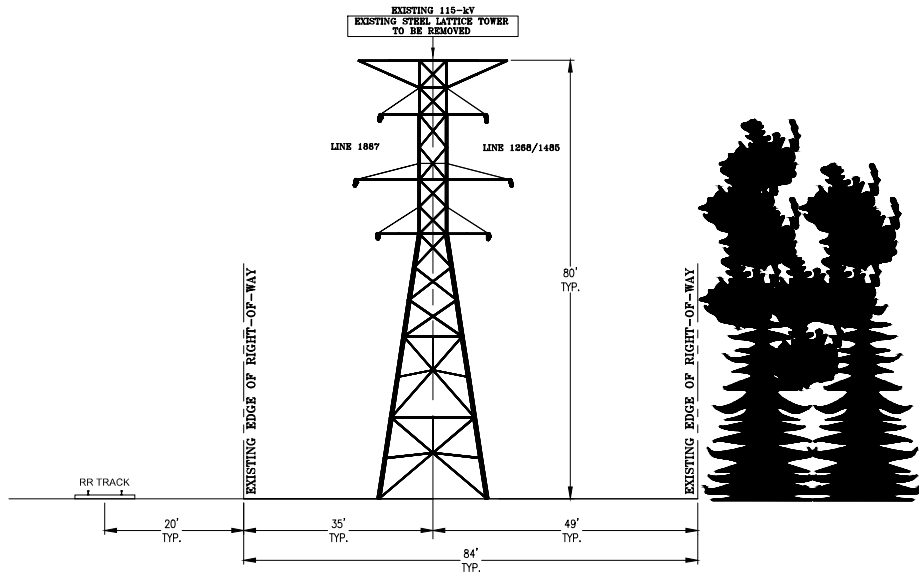
EVERSOURCE ENERGY

Brookfield Junction to Bates Rock Substation Upgrade Project
Petition Map Set

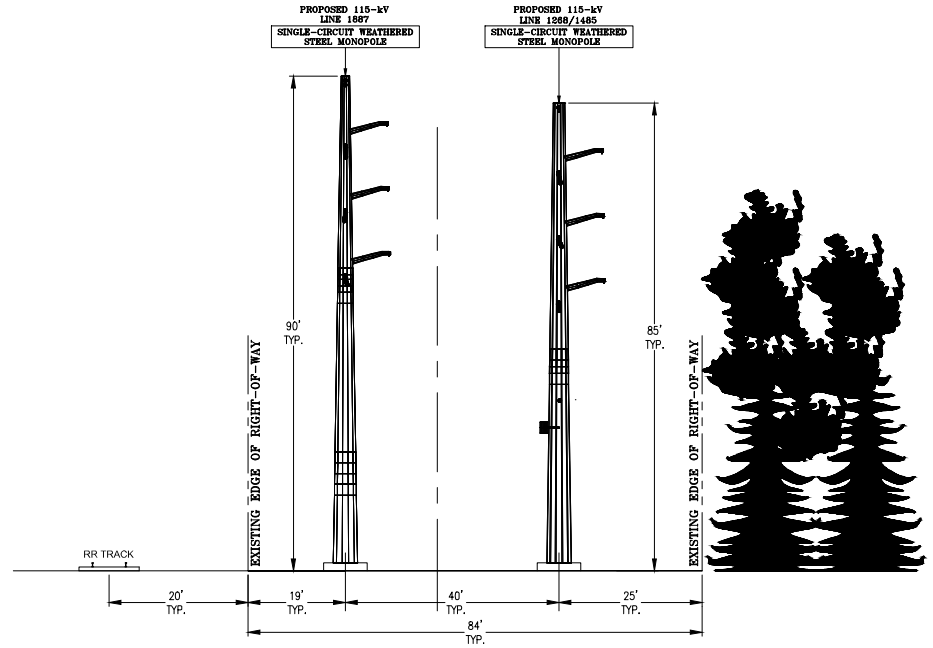
Southbury, CT MAP SHEET: 17 of 17

Date: April 27, 2023

Attachment C
Brookfield Junction to Bates Rock Substation Upgrade
Project
Right-of-Way Cross Sections

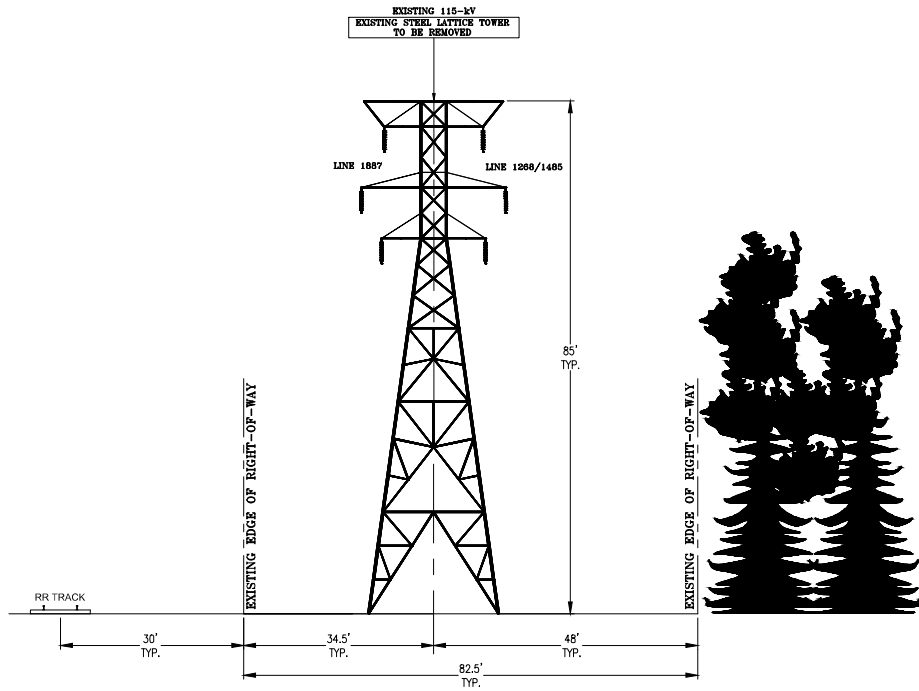


**EXISTING R.O.W. CONFIGURATION
DOUBLE-CIRCUIT LATTICE TOWER
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

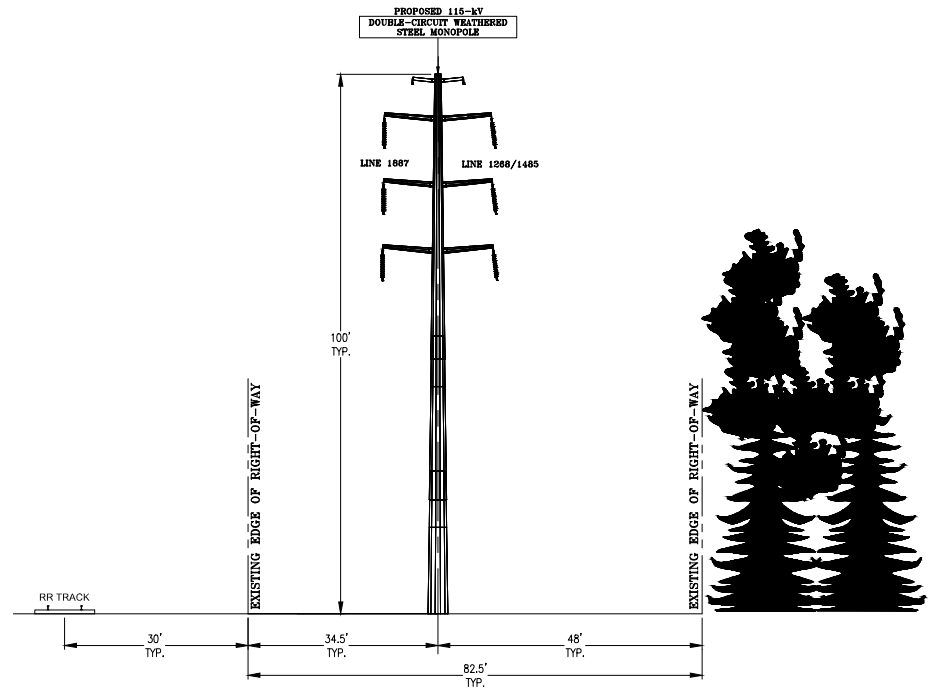


**PROPOSED R.O.W. CONFIGURATION
TWO SINGLE-CIRCUIT STEEL MONOPOLES
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

EVERSOURCE ENERGY			
THE BROOKFIELD JCT TO BATES ROCK S/S UPGRADE PROJECT 115-kV TRANSMISSION LINE RIGHT OF WAY CROSS SECTION BROOKFIELD AND NEWTOWN, CONNECTICUT			
BY: J.B./TRC	CHKD: GSO/TRC	APP: GSO/TRC	APP:
DATE: 04/20/2023	DATE: 04/20/2023	DATE: 04/20/2023	DATE:
BY-SCALE: N.T.S.	BY-SCALE: D	BY-SCALE: FLD BOOK & PAGES	
BY-SCALE: N.T.S.	BY-SCALE: CL	BY-SCALE: PLZ DWG	
PLZ PROJ. NUMBER: 80111818	PLZ NO.:	PLZ NO.:	01178-85002p001

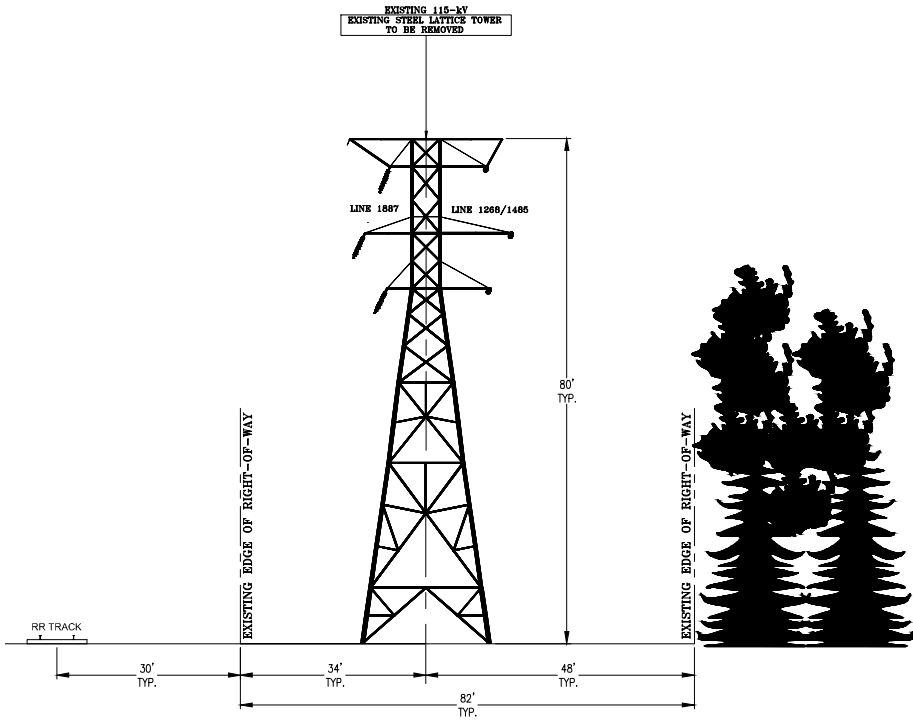


**EXISTING R.O.W. CONFIGURATION
DOUBLE-CIRCUIT LATTICE TOWER
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

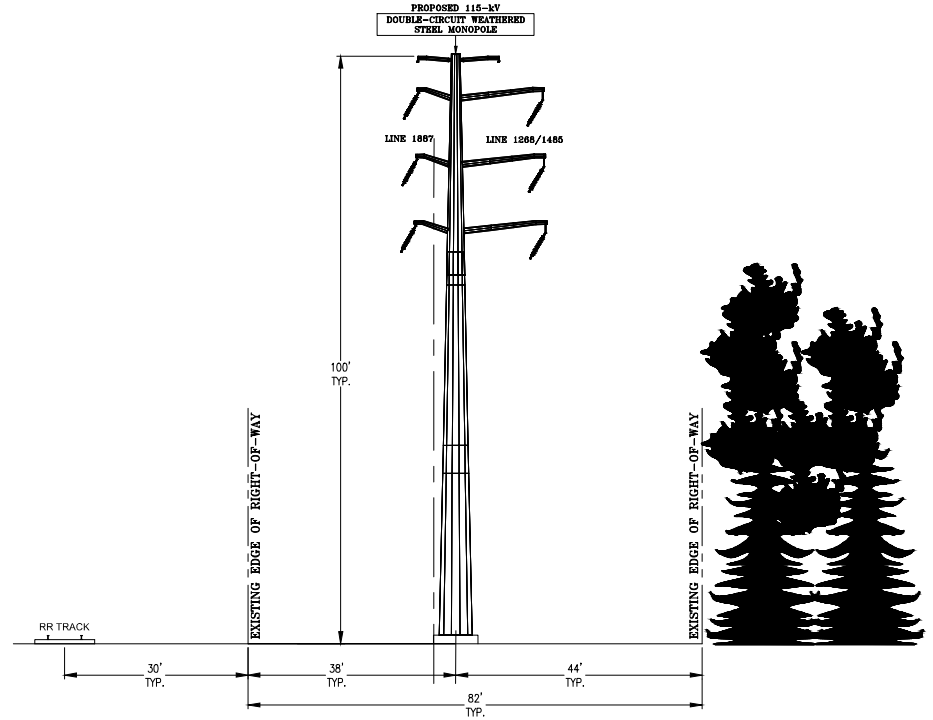


**PROPOSED R.O.W. CONFIGURATION
DOUBLE-CIRCUIT STEEL MONOPOLE
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

EVERSOURCE ENERGY			
THE BROOKFIELD JCT TO BATES ROCK S/S UPGRADE PROJECT 115-kV TRANSMISSION LINE RIGHT OF WAY CROSS SECTION BROOKFIELD AND NEWTOWN, CONNECTICUT			
BY	DESIGNED	CHECKED	DATE
48/TRC	GE0/TRC	SP	GE0/TRC
DATE	DATE	DATE	DATE
04/20/2023	04/20/2023	04/20/2023	
H-SCALE	V-SCALE	CL.	REV. DATE
N.T.S.	N.T.S.		
REV. NO.	REV. DATE	REV. NO.	REV. DATE

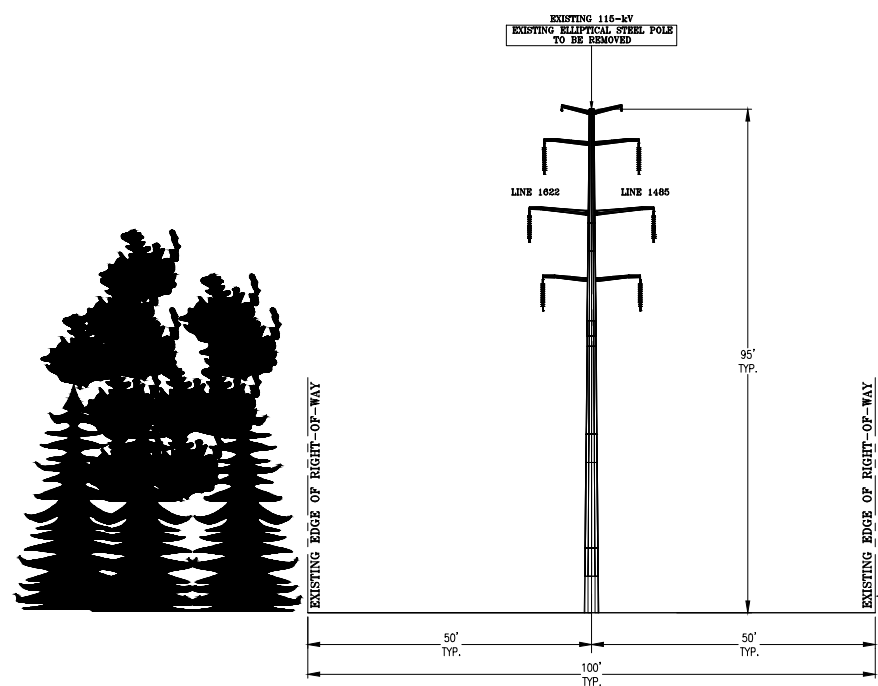


**EXISTING R.O.W. CONFIGURATION
DOUBLE-CIRCUIT LATTICE TOWER
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

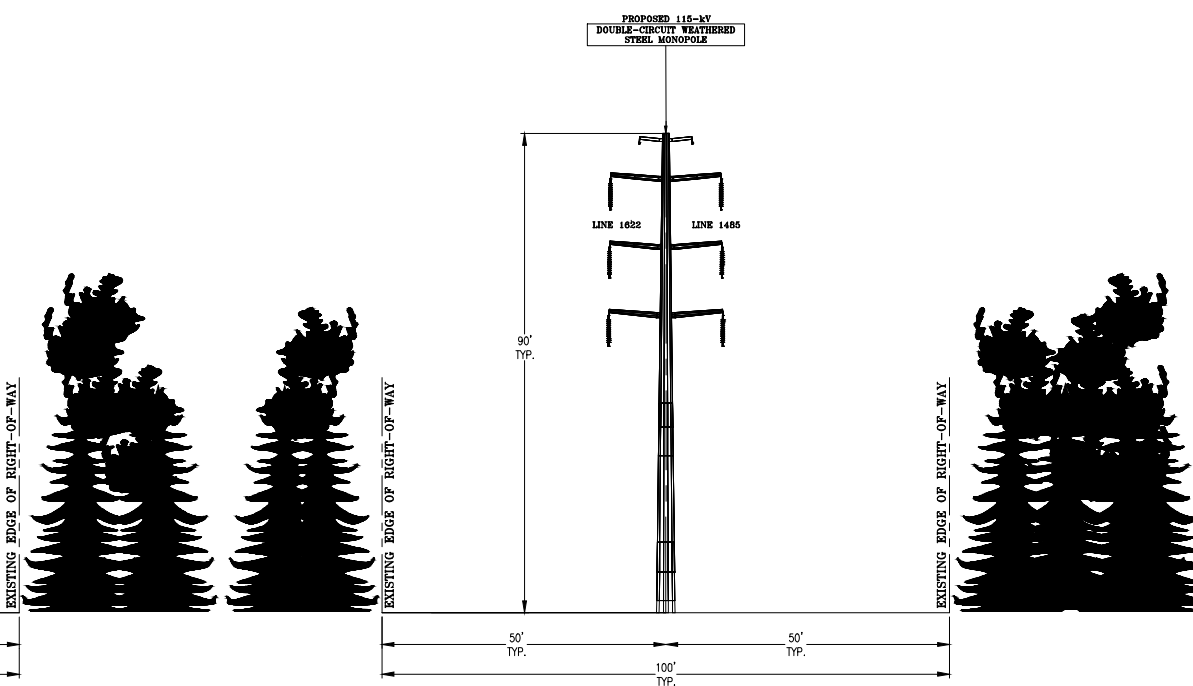


**PROPOSED R.O.W. CONFIGURATION
DOUBLE-CIRCUIT STEEL MONOPOLE
LOOKING EAST
IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**

EVERSOURCE ENERGY			
THE BROOKFIELD JCT TO BATES ROCK S/S UPGRADE PROJECT 115-kV TRANSMISSION LINE RIGHT OF WAY CROSS SECTION BROOKFIELD AND NEWTOWN, CONNECTICUT			
BY	JEB/RLC	APP	JEB/RLC
DATE	04/20/2023	DATE	04/20/2023
BY-SCALE	N.T.S.	BY-SCALE	FIELD BOOK & PAGES
BY-SCALE	N.T.S.	BY-SCALE	RZ, DWG
REV	NO. 00111818	DATE	01178-85002p003



**EXISTING R.O.W. CONFIGURATION
DOUBLE-CIRCUIT STEEL POLE
LOOKING EAST
IN THE TOWN OF SOUTHURY, CT.**

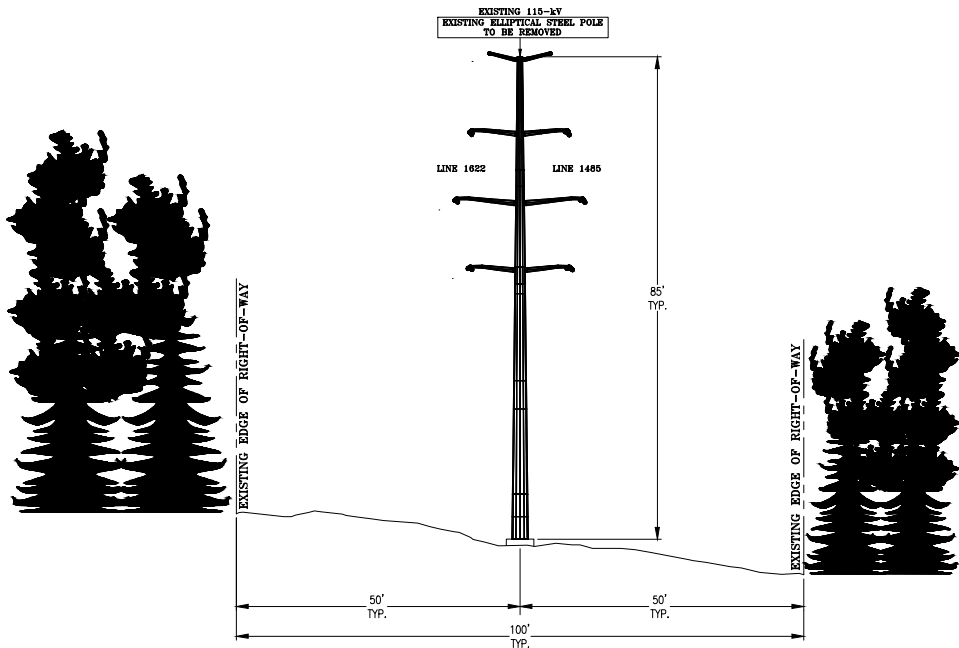


**PROPOSED R.O.W. CONFIGURATION
DOUBLE-CIRCUIT STEEL MONOPOLE
LOOKING EAST
IN THE TOWN OF SOUTHURY, CT.**

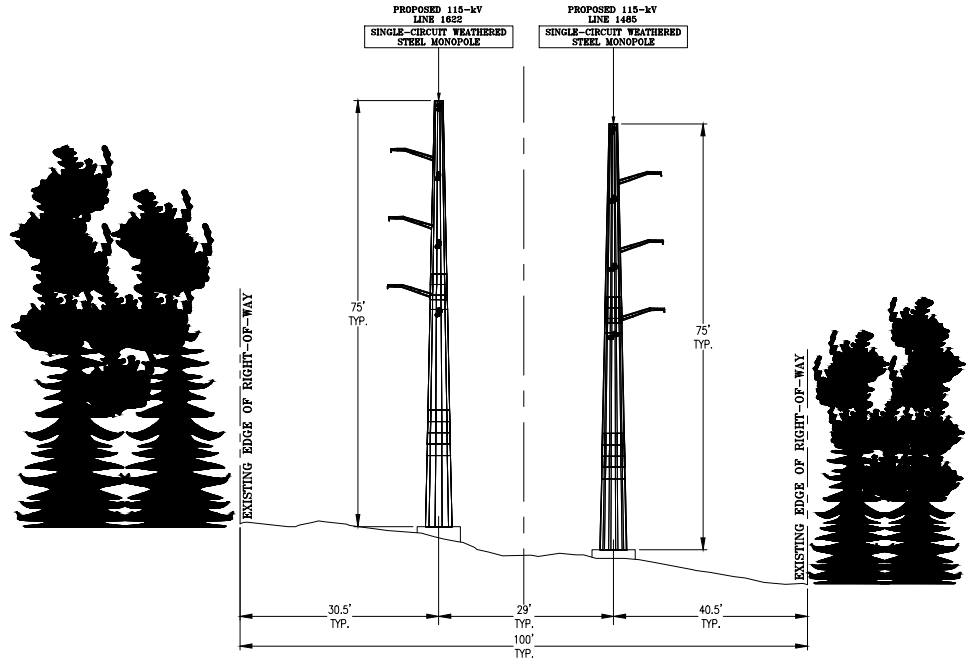
EVERSOURCE ENERGY

THE BROOKFIELD JCT TO BATES ROCK S/S UPGRADE PROJECT
115-kV TRANSMISSION LINE
RIGHT OF WAY CROSS SECTION
SOUTHURY, CONNECTICUT

BY: J.B./TRC	DATE: 04/20/2023	CHKD: GEO/TRC	DATE: 04/20/2023	APP: GEO/TRC	DATE: 04/20/2023
IN-SCALE: N.T.S.	REV: D	FILED: N.T.S.	REV: D	FILED: N.T.S.	REV: D
BY-SCALE: N.T.S.	CHKD: N.T.S.	APP: N.T.S.	DATE: N.T.S.	FILED: N.T.S.	DATE: N.T.S.
PL. PROJ. NUMBER: 8011818	DRG. NO.: 01163-85000p001				



**EXISTING R.O.W. CONFIGURATION
DOUBLE-CIRCUIT STEEL POLE
LOOKING NORTH
IN THE TOWN OF SOUTHURY, CT.**



**PROPOSED R.O.W. CONFIGURATION
TWO SINGLE-CIRCUIT STEEL MONOPOLES
LOOKING NORTH
IN THE TOWN OF SOUTHURY, CT.**

EVERSOURCE ENERGY

THE BROOKFIELD JCT TO BATES ROCK S/S UPGRADE PROJECT
115-kV TRANSMISSION LINE
RIGHT OF WAY CROSS SECTION
SOUTHURY, CONNECTICUT

BY	J.B./TRC	DATE	04/20/2023	APP	GE0/TRC	DATE	04/20/2023
IN-SCALE	N.T.S.	REV	D	FIELD BOOK & PAGES			
BY-SCALE	N.T.S.	CL		PL. DWG			
PL. PROJ. NUMBER	8011818		DWG NO.	01163-85000p002			

Attachment D
Brookfield Junction to Bates Rock Substation Upgrade
Project
List of Structure Replacements

Line(s)	Existing Structure #	New Structure #	Existing		Proposed		
			Structure Type*	Existing Height (feet)	Structure Type*	Proposed Height (feet)	Height Increase/decrease (feet)
Brookfield Junction to Stony Hill Substation							
1887	4654	4654	DCLT	79.6	SCSP	91.4	11.8
1268		4654A			SCSP	86.6	7.0
1887/1268	4653	4653	DCLT	101.6	DCSP	97.9	-3.7
1887/1268	4652	4652	DCLT	91.9	DCSP	107.4	15.5
1887/1268	4651	4651	DCLT	81.7	DCSP	103.2	21.5
1887/1268	4650	4650	DCLT	92.1	DCSP	106.0	13.9
1887/1268	New Mid-span	4650A	---	---	DCSP	100.1	---
1887/1268	4649	4649	DCLT	82.4	DCSP	120.0	37.6
1887	4648	4648	DCLT **	81.6	SCSP	102.5	20.9
1268	4648A	4648A	SCSP	73.6	SCSP	88.4	14.8
Stony Hill Substation to Shepaug Substation							
1887	4647	4647	DCLT**	87.1	SCSP	76.9	-10.2
1485	4647B	4647B	SCWH	47.5	SCSP	71.0	23.5
1887/1485	4646	4646	DCLT	82.5	DCSP	91.8	9.3
1887/1485	4645	4645	DCLT	82.2	DCSP	93.2	11.0
1887/1485	4644	4644	DCLT	82.2	DCSP	86.2	4.0
1887/1485	4643	4643	DCLT	81.7	DCSP	85.9	4.2
1887/1485	4642	4642	DCLT	83.5	DCSP	101.6	18.1
1887/1485	4641	4641	DCLT	81.0	DCSP	101.5	20.5
1887/1485	4640	4640	DCLT	82.3	DCSP	91.1	8.8
1887/1485	4639	4639	DCLT	87.7	DCSP	108.3	20.6
1887/1485	4638	4638	DCLT	87.0	DCSP	106.8	19.8
1887	4637	4637	DCLT	82.8	SCSP	86.1	3.3
1485		4637A			SCSP	84.9	2.1
1887/1485	4636	4636	DCLT	83.0	DCSP	113.0	30.0
1887/1485	4635	4635	DCLT	92.4	DCSP	106.9	14.5
1887/1485	4634	4634	DCLT	92.4	DCSP	124.4	32.0
1887/1485	4633	4633	DCLT	101.6	DCSP	111.4	9.8
1887/1485	4632	4632	DCLT	81.8	DCSP	97.0	15.2
1887/1485	4631	4631	DCLT	91.0	DCSP	107.0	16.0
1887	4630	4630	DCLT	91.5	SCSP	95.7	4.2
1485		4630A			SCSP	96.3	4.8
1887/1485	4629	4629	DCLT	82.0	DCSP	78.9	-3.1
1887/1485	4628	4628	DCLT	81.0	DCSP	97.0	16.0
1887/1485	New Mid-span	4628A	---	---	DCSP	96.0	---
1887/1485	4627	4627	DCLT	86.7	DCSP	101.6	14.9
1887/1485	4626	4626	DCLT	92.3	DCSP	102.2	9.9
1887/1485	4625	4625	DCLT	87.5	DCSP	107.6	20.1
1887/1485	4624	4624	DCLT	87.2	DCSP	109.9	22.7
1887/1485	4623	4623	DCLT	82.1	DCSP	76.3	-5.8
1887/1485	4622	4622	DCLT	79.4	DCSP	81.2	1.8
1887/1485	New Mid-span	4622A	---	---	DCSP	98.6	---
1887	4621	4621	DCLT	81.5	SCSP	70.0	-11.5
1485		4621A			SCSP	73.2	-8.3

Line(s)	Existing Structure #	New Structure #	Existing		Proposed		
			Structure Type*	Existing Height (feet)	Structure Type*	Proposed Height (feet)	Height Increase/decrease (feet)
1887/1485	4620	4620	DCLT	83.7	DCSP	93.1	9.4
1887/1485	4619	4619	DCLT	93.3	DCSP	107.4	14.1
1887	4612	4612	SCSH	52.0	SCSH	62.0	10.0
1485	4612A	4612A	SCSH	52.0	SCSH	68.3	16.3
1887/1485	4611	4611	DCSH	61.0	DCSH	78.7	17.7
1887/1485	New Mid-span	4610A	---	---	DCSH	91.2	---
1887	New Mid-span	4609B	---	---	SCSH	74.4	---
1485	New Mid-span	4609C			SCSH	77.7	---
1887	4602	4602	DCLT	81.6	SCSP	73.3	-8.3
1485		4602A			SCSP	87.4	5.8
Shepaug Substation to Bates Rock Substation							
1485	5275A	5275A	SCWH	45.0	SCSP	81.5	36.5
1485/1622	10136	10136	DCSP	105.0	DCSP	98.0	-7.0
1485/1622	10137	10137	DCSP	100.0	DCSP	93.5	-6.5
1485/1622	10138	10138	DCSP	95.0	DCSP	88.5	-6.5
1485	5312	5312	SCWP	100.0	SCSP	93.8	-6.2
1485/1622	10140	10140	DCSP	85.0	DCSP	75.0	-10.0
1622	10141	10141	DCSP	85.0	SCSP	80.1	-4.9
1485		5313			SCSP	76.0	-9.0
Project Section Averages:				84.1		92.3	8.7

*Table for typical structure type naming conventions:

Structure Type	Definition
DCLT	Double Circuit Lattice Tower
DCSP	Double Circuit Steel Pole
SCSP	Single Circuit Steel Pole
SCWP	Single Circuit Wood Pole
SCWH	Single Circuit Wood H-frame
SCSH	Single Circuit Steel H-frame

** Existing structures 4647 and 4648 are DCLT structures but both only have one circuit, the 1887 Line, located on them.

Attachment E
Brookfield Junction to Bates Rock Substation Upgrade
Project
Wetlands, Watercourses and Vernal Pool Report



**1887/1268/1485 Line – Structure
Replacement and OPGW Project**

Wetlands Delineation Report and Vernal
Pool Survey

August 25, 2022

Prepared for:

The Connecticut Light and Power
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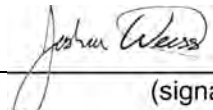
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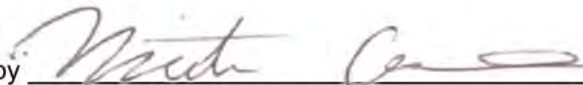
1887/1268/1485 LINE – STRUCTURE REPLACEMENT AND OPGW PROJECT

August 25, 2022

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1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) and its subconsultant, FHI Studio, Inc. (FHI), conducted a wetland and watercourse delineation, and a vernal pool survey for Eversource Energy's (Eversource) proposed 1887/1268/1485 Line structure replacement project (project). The project extends from Brookfield Junction in Brookfield, Connecticut, north through the town of Newtown to the Bates Rock substation in Southbury, Connecticut (Appendix A: Figures). The project area extends from Brookfield Junction in Brookfield, Connecticut, to the Housatonic River and between Hilltop Road West to Bates Rock Road in Southbury, Connecticut. FHI delineated wetlands and watercourses and identified potential vernal pools in May and June 2021. Stantec conducted a follow-up vernal pool survey in April 2022.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

Wetland boundaries under federal jurisdiction were determined using the technical criteria described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement (Version 2.0)* (USACE 2012). Wetland boundaries were flagged with pink flagging and given a unique identifier. The boundaries were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. Data were collected on dominant vegetation, evidence of wetland hydrology, and hydric soil criteria. Wetland classification was assigned based on the *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee 2013). Representative photographs were taken as appropriate.

Inland wetlands were determined using the criteria contained in Connecticut's Inland Wetlands and Watercourses Act (IWWA; Connecticut General Statutes [CGS] Chapter 440 Section (§) 22a-36–22a-45). Inland wetlands are determined by the extent of soil types designated as poorly drained, very poorly drained, alluvial, or floodplain by the National Cooperative Soils Survey, of the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) (CGS §22a-38–15). To support the inland wetland boundary determinations, NRCS soils mapping (USDA NRCS 2021), the *Field Indicators for Identifying Hydric Soils in New England* Version 4 (NEHSTC 2017), and *Field Indicators of Hydric Soils in the United States*, Version 8.2 (USDA NRCS 2018) were used to identify hydric soils, which include both poorly and very poorly drained soils.

Watercourses and other potential Waters of the United States were identified using the regulatory criteria established by the U.S. Army Corps of Engineers (USACE; USACE 2005) and the IWWA. Watercourses and potential Waters of the United States were flagged with blue flagging with a unique identifier and located with the GPS receiver. Watercourses with bankfull widths less than 5 feet were flagged in the field with a centerline, while watercourses with a bankfull width greater than 5 feet each bank were flagged at the Ordinary High Water Mark. Data were recorded on apparent flow regime, substrate, bankfull widths,



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Ordinary High Water Mark widths, water depths, and presence of aquatic organisms and vegetation. Representative photographs were taken as appropriate.

The delineated wetlands were assessed for their respective functions and values in accordance with the USACE New England District *Highway Methodology Workbook Supplement: Wetland Functions and Values – A Descriptive Approach* (USACE 1999). This is a descriptive approach, documenting 13 potential functions and values, listed below, which may or may not be present within the wetland area being studied. Wetland functions are self-sustaining properties of a wetland ecosystem which exist in the absence of society. Wetland values are societal benefits derived from one or more wetland functions and the physical characteristics associated with the wetland. The criteria are assessed through direct field observations and a review of existing public data sources. As part of the evaluation, the “principal” (i.e., most important) functions and values associated with the subject wetland are identified and described. This descriptive and qualitative approach integrates wetland science with subjective value judgments made by wetland professionals.

The following are the 13 wetland functions and values considered in the assessment:

1. Groundwater Recharge/Discharge
2. Floodflow Alteration
3. Fish and Shellfish
4. Sediment/Toxicant/Pathogen Retention
5. Nutrient Removal, Retention and Transformation
6. Production Export
7. Sediment/Shoreline Stabilization
8. Wildlife Habitat
9. Recreation Value (Consumptive and Non-consumptive)
10. Educational and/or Scientific Value
11. Uniqueness/Heritage Value
12. Visual Quality/Aesthetic Value
13. Threatened or Endangered Species Habitat Value

To understand the context of the wetlands, the function and value assessment referred to the overall complex of surrounding natural resources.

2.2 VERNAL POOL SURVEY

Concurrent with the wetland delineations, FHI conducted a potential vernal pool survey of the project in May and June 2021. Potential vernal pools were identified based on physical characteristics of the pools such as the presence of standing water or water marks within a confined basin. A follow-up seasonally appropriate vernal pool survey was conducted in April 2022 by Stantec to confirm use of the identified potential vernal pools by obligate vernal pool associated species. The surveys involved searching for amphibian breeding activity, primarily the presence of egg masses and use by other vernal pool-dependent species. Information was collected on the physical characteristics of the pool such as the likely hydro-period (i.e., how long surface water will remain in the pool) and the presence and type of inlet and/or outlet as well as the surrounding terrestrial landscape.



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Vernal pools are dynamic habitats that vary in water level, vegetative cover, and other physical characteristics during the course of a year, as well as from year to year. In addition, the breeding activity of amphibians, particularly the initiation of breeding, depends upon seasonal environmental parameters, such as temperature and precipitation. Due to this variability, the presence and number of egg masses may differ between breeding seasons and during a given breeding season. The presence, absence, and number of egg masses presented in this report reflect the results of these surveys. Based on observed field conditions, Stantec determined that the confirmation field surveys in 2022 were conducted at an appropriate time of year and coincided with the obligate vernal pool species respective breeding periods. The perimeter of the vernal pool basin was located with a GPS receiver capable of submeter accuracy, and the edge of the basin was flagged with blue-and-white striped flagging. Photographs were taken of each vernal pool identified and are included in Appendix B.

Vernal pools are considered inland wetlands and regulated in Connecticut under the IWWA (CGS § 22a-38). Vernal pools may also be regulated by the USACE under Section 404 of the Clean Water Act. The USACE defines Vernal Pools in the Department of the Army Regional General Permits for the State of Connecticut (effective date: December 15, 2021) as follows:

... depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools (VPs) range in both size and depth depending upon landscape position and parent material(s). In most years, vernal pools 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. VP areas are:

- *Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),*
- *Envelope (area within 0–100 feet of the VP depression's edge), and*
- *Critical terrestrial habitat (area within 100–750 feet of the VP depression's edge).*

3.0 RESULTS

The wetland and watercourse delineation and potential vernal pool survey was conducted concurrently with wetlands delineations in May and June 2021. A follow-up vernal pool survey was conducted on May 2, 2022.

3.1 GENERAL SITE DESCRIPTION

The project area is confined to the Eversource 1887, 1285, and 1485 transmission line rights of way (ROW) beginning at Brookfield Junction in Brookfield, Connecticut, to the Housatonic River and between Hilltop Road West ending at Bates Rock substation in Southbury, Connecticut, approximately 8.5 miles in length. The width of the delineation area was typically 300 feet; however, in some cases, there are locations where Eversource owns the parcel expanding the limits of investigation. The ROW varies in character as it traverses many different landforms including major rivers and ridges. The ROW is



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maintained, limiting the type of vegetation to mostly shrubs, herbaceous, and vine classes. Past structure and line maintenance work has occurred in various areas throughout the project site resulting in an intermittent network of gravel access roads and gates within an otherwise mostly vegetated ROW.

Within the Phase 1 segment from Brookfield Junction east to Hanover Road, the transmission ROW parallels the Housatonic Railroad tracks within a shared ROW corridor. This segment is mostly low lying with several perennial watercourse interconnecting ponds and wetland systems. Urban activity has occurred in the area as evidenced by railroad tunnels, brownstone box culverts, and old paper roads intersecting the ROW. Land use is a mix of residential and commercial.

Hanover Road east to Alberts Hill Road is a hilly section of ROW through a mostly residential setting. Alberts Hill Road to the Housatonic River is mostly forested and protected water company lands owned by Firstlight Hydro Generating Company associated with the Stevenson Dam at the Housatonic River. Hilltop Road West to the Bates Rock Substation (Phase 1) the ROW follows the crest of the ridge and is generally sandy with occasional rock outcroppings.

3.2 WETLAND AND WATERCOURSE DELINEATION

As a result of the field delineations, portions of 36 wetlands and 33 watercourses (including 4 ponded areas) were delineated. W21 was estimated and not delineated in the field due to inaccessibility. The locations of the resources delineated within the project area are depicted on project mapping in Appendix A. Tables 1 and 2 provide further details on the delineated wetlands and watercourses, respectively. Photographs were taken at representative locations in the wetland or watercourse and adjacent uplands (Appendix B). Observed wetland functions and values are provided in Table 1.

Descriptions of the mapped USDA NRCS soil units within and in the vicinity of the project area are provided in Appendix C.



Table 1. Delineated Wetland Resources

Wetland Resource Identifier	Wetland Type ^(a)	Dominant and Characteristic Vegetation ^(b)	Mapped Soil Series / Hydric Soil Indicator ^(c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W01	PSS	Tree Stratum: None Shrub Stratum: northern spicebush (<i>Lindera benzoin</i>), Tartarian honeysuckle (<i>Lonicera tatarica</i>) Herb Stratum: skunk-cabbage (<i>Symplocarpus foetidus</i>), spotted touch-me-not (<i>Impatiens capensis</i>), rough bedstraw (<i>Galium asprellum</i>) Woody Vine Stratum: river grape (<i>Vitis riparia</i>), Asian bittersweet (<i>Celastrus orbiculatus</i>)	Mapped Soil: Udothenis-Pits Hydric Indicator: S5 Sandy Redox	A3 - Saturation B2 – Sediment Deposits	1 – Groundwater recharge/discharge	
W02	PEMPSS	Tree Stratum: None Shrub Stratum: northern spicebush, rambler rose (<i>Rosa multiflora</i>) Herb Stratum: common reed (<i>Phragmites australis</i>), skunk-cabbage, small-spike false nettle (<i>Boehmeria cylindrica</i>), sensitive fern (<i>Orioclea sensibilis</i>) Woody Vine Stratum: river grape	Mapped Soil: Hinckley gravelly sandy loam Hydric Indicator: S5 Sandy Redox	A2 – High water table A3 - Saturation	1 – Groundwater recharge/discharge 4 – Sedimentation/toxicant retention	Possible culvert beneath the railroad tracks
W03	PEMPFO	Tree Stratum: red maple (<i>Acer rubrum</i>) Shrub Stratum: northern spicebush, Tartarian honeysuckle, burning-bush (<i>Euonymus alatus</i>) Herb Stratum: skunk-cabbage, spotted touch-me-not, garlic-mustard (<i>Alliaria petiolata</i>) Woody Vine Stratum: Asian bittersweet	Mapped Soil: Hinckley gravelly sandy loam Hydric Indicator: S1 Sandy mucky mineral	A3 - Saturation	1 – Groundwater recharge/discharge 8 – Wildlife habitat	
W03A	PFO	Tree Stratum: red maple, sweet birch (<i>Betula laricina</i>) Shrub Stratum: northern spicebush, Tartarian honeysuckle, burning-bush Herb Stratum: skunk-cabbage, spotted touch-me-not, garlic-mustard Woody Vine Stratum: Asian bittersweet	Mapped Soil: Hinckley gravelly sandy loam Hydric Indicator: S1 Sandy mucky mineral	A3 – Saturation B7 – Inundation visible on aerial photography	2 – Floodflow alteration 4 - Sedimentation/toxicant retention	Perennial and intermittent watercourses S01A and S01B located within wetland
W04	PEMPSS/PFO	Tree Stratum: red maple Shrub Stratum: American hornbeam (<i>Carpinus caroliniana</i>), silky dogwood (<i>Cornus amomum</i>), highbush-cranberry (<i>Vaccinium opulus</i>) Herb Stratum: spotted touch-me-not, common reed, sensitive fern, tall scouring-rush (<i>Equisetum hyemale</i>), common wormwood (<i>Artemisia vulgaris</i>) Woody Vine Stratum: eastern poison-ivy (<i>Toxicodendron radicans</i>), Virginia-creeper (<i>Parthenocissus quinquefolius</i>), Asian bittersweet	Mapped Soil: Ridgebury, Leicester, and Whitman soils, Udothenis-Urban Land Complex Hydric Indicator: S1 – Sandy Mucky Mineral S5 – Sandy redox	A3 – Saturation	1 – Groundwater recharge/discharge	Consists of a large hill side seep area; Reduced iron observed in soils



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Wetland Resource Identifier	Wetland Type (a)	Dominant and Characteristic Vegetation (b)	Mapped Soil Series / Hydric Soil Indicator (c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W05	PEM/PSS	<p>Tree Stratum: None</p> <p>Shrub Stratum: autumn olive (<i>Elaeagnus umbellata</i>), gray dogwood (<i>Cornus racemosa</i>)</p> <p>Herb Stratum: common reed, goldenrod (<i>Solidago</i> sp.), steeplebush (<i>Spiraea tomentosa</i>), sensitive fern, spotted touch-me-not</p> <p>Woody Vine Stratum: Asian bittersweet, wild cucumber (<i>Echinocystis lobata</i>)</p>	<p>Mapped Soil: Catden and Freetown soils</p> <p>Hydric Indicator: S5 – Sandy redox</p>	<p>A2 – High water table A3 – Saturation B7 – Inundation visible on aerial photography</p>	<p>1 – Groundwater recharge/discharge 5 – Nutrient removal</p>	<p>Large wetland area dominated by common reed</p>
W06	PEM/PSS	<p>Tree Stratum: None</p> <p>Shrub Stratum: silky dogwood</p> <p>Herb Stratum: common reed, sensitive fern</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Raypol silt loam</p> <p>Hydric Indicator: S5 – Sandy redox</p>	<p>A1 – Surface water A3 – Saturation B7 – Inundation visible on aerial photography</p>	<p>5 – Nutrient removal 7 – Sediment/shoreline stabilization</p>	<p>Bordering wetland of a large pond (WB03)</p>
W07	PSS/PEM	<p>Tree Stratum: None</p> <p>Shrub Stratum: silky dogwood, smooth arrow-wood (<i>Viburnum recognitum</i>)</p> <p>Herb Stratum: common reed, spotted trumpetweed (<i>Eurochium maculatum</i>), upright sedge (<i>Carex stricta</i>), sensitive fern, spotted touch-me-not, king-of-the-meadow (<i>Thalictrum pubescens</i>), narrow-leaf bittercress (<i>Cardamine impatiens</i>)</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: A2 – Histic epipedon A3 – Black Histic</p>	<p>A2 – High water table A3 – Saturation</p>	<p>2 – Floodflow alteration 7 – Sediment/shoreline stabilization</p>	<p>W07, W08, W09, and W10 are part of the same riparian wetland corridor system; associated with watercourses S03, S04, S05, S06, and S07</p>
W08	PSS	<p>Tree Stratum: American elm (<i>Ulmus americana</i>)</p> <p>Shrub Stratum: black elder (<i>Sambucus nigra</i>), highbush blueberry (<i>Vaccinium corymbosum</i>), silky dogwood, smooth arrow-wood, American hornbeam</p> <p>Herb Stratum: skunk-cabbage, cinnamon fern (<i>Osmunda spectabilis</i>), broad-leaf cat-tail (<i>Typha angustifolia</i>), upright sedge</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: A2 – Histic epipedon A3 – Black Histic</p>	<p>A3 - Saturation</p>	<p>5 – Nutrient removal 6 – Production export 8 – Wildlife habitat</p>	<p>W07, W08, W09, and W10 are part of the same riparian wetland corridor system</p>
W09	PSS/PEM/PUB	<p>Tree Stratum: American elm</p> <p>Shrub Stratum: black elder, highbush blueberry, silky dogwood, smooth arrow-wood, American hornbeam</p> <p>Herb Stratum: skunk-cabbage, cinnamon fern, royal fern, broad-leaf cat-tail, upright sedge</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: A2 – Histic epipedon A3 – Black Histic</p>	<p>A3 - Saturation</p>	<p>1 – Groundwater recharge/discharge</p>	<p>W07, W08, W09, and W10 are part of the same riparian wetland corridor system</p>



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Wetland Resource Identifier	Wetland Type (a)	Dominant and Characteristic Vegetation (b)	Mapped Soil Series / Hydric Soil Indicator (c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W10	PSS/PEM/PUB	<p>Tree Stratum: American elm</p> <p>Shrub Stratum: black elder, highbush blueberry, silky dogwood, smooth arrow-wood, American hornbeam</p> <p>Herb Stratum: skunk-cabbage, cinnamon fern, royal fern, broad-leaf cat-tail, upright sedge</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: A2 – Histic epipedon A3 – Black Histic</p>	<p>A2 – High water table A3 – Saturation B7 – Inundation visible on aerial photography</p>	<p>2 – Floodflow alteration 7 – Sediment/shoreline stabilization</p>	<p>W07, W08, W09, and W10 are part of the same riparian wetland corridor system; associated with watercourse S08</p>
W11	PSS/PEM	<p>Tree Stratum: willow (<i>Salix</i> sp.)</p> <p>Shrub Stratum: None</p> <p>Herb Stratum: skunk-cabbage, goldenrod, jack-in-the-pulpit (<i>Arisaema triphyllum</i>), rough bedstraw, mother-of-the-evening (<i>Hesperis matronalis</i>), lamp rush (<i>Juncus effusus</i>), sensitive fern</p> <p>Woody Vine Stratum: river grape, Japanese hop (<i>Humulus japonicus</i>)</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p>	<p>2 – Floodflow alteration 7 – Sediment/shoreline stabilization</p>	<p>W11 and W12 are part of the same riparian wetland corridor system; associated with watercourse S09</p>
W12	PSS/PEM	<p>Tree Stratum: willow</p> <p>Shrub Stratum: None</p> <p>Herb Stratum: skunk-cabbage, goldenrod, jack-in-the-pulpit, rough bedstraw, mother-of-the-evening, lamp rush, sensitive fern</p> <p>Woody Vine Stratum: river grape, Japanese hop</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p>	<p>2 – Floodflow alteration 7 – Sediment/shoreline stabilization 13 – Endangered species habitat</p>	<p>W11 and W12 are part of the same riparian wetland corridor system; associated with watercourse S09</p>
W13	PSS	<p>Tree Stratum: willow</p> <p>Shrub Stratum: None</p> <p>Herb Stratum: skunk-cabbage, goldenrod, jack-in-the-pulpit, rough bedstraw, mother-of-the-evening, lamp rush, sensitive fern</p> <p>Woody Vine Stratum: River grape, Japanese hop</p>	<p>Mapped Soil: Scarboro Muck</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p>	<p>4 – Sediment/toxicant retention 7 – Sediment/shoreline stabilization</p>	<p>Section of W13 located between a roadside embankment and watercourse S10</p>
W14	PEM/PFO	<p>Tree Stratum: red maple, American elm</p> <p>Shrub Stratum: silky dogwood</p> <p>Herb Stratum: reed canary grass (<i>Phalaris arundinacea</i>), sensitive fern, Halberd-leaf tearthumb (<i>Persicaria arifolia</i>), small-spike false nettle, purple loosesrife (<i>Lythrum salicaria</i>), climbing nightshade (<i>Solanum dulcamara</i>)</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Woodbridge fine sandy loam</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation B7 – Inundation visible on aerial photography</p>	<p>1 – Groundwater recharge/discharge 8 – Wildlife habitat</p>	<p>Contains vernal pool CVP01 within wetland area</p>



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Wetland Resource Identifier	Wetland Type ^(a)	Dominant and Characteristic Vegetation ^(b)	Mapped Soil Series / Hydric Soil Indicator ^(c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W15	PSS/PFO	Tree Stratum: black willow (<i>Salix nigra</i>), quaking aspen (<i>Populus tremuloides</i>), American elm Shrub Stratum: black elder, silky dogwood, rambler rose Herb Stratum: common reed, common wormwood, spotted touch-me-not Woody Vine Stratum: Asian bittersweet	Mapped Soil: Woodbridge fine sandy loam Hydric Indicator: F6 – Redox dark surface	A3 – Saturation	4 – Sediment/toxicant retention	Associated with watercourses S11 and S12
W16	PEM/PSS	Tree Stratum: None Shrub Stratum: black elder, silky dogwood, speckled alder (<i>Alnus incana</i>), swamp rose (<i>Rosa palustris</i>) Herb Stratum: goldenrod, spotted touch-me-not, common yarrow (<i>Achillea millefolium</i>), common wormwood Woody Vine Stratum: Devil's-darning-needles (<i>Clematis virginiana</i>)	Mapped Soil: Udorthents-Urban Land complex Hydric Indicator: S5 – Sandy redox	B10 – Drainage patterns D2 – Geomorphic position	4 – Sediment/toxicant retention	
W17	PSS/EI	Tree Stratum: American elm, black willow Shrub Stratum: black elder, silky dogwood Herb Stratum: common wormwood, spotted touch-me-not, skunk-cabbage, blackberry (<i>Rubus</i> sp.) Woody Vine Stratum: Devil's-darning-needles	Mapped Soil: Woodbridge fine sandy loam Hydric Indicator: F6 – Redox dark surface	A3 – Saturation	4 – Sediment/toxicant retention 8 – Wildlife habitat	
W18	PSS	Tree Stratum: None Shrub Stratum: silky dogwood Herb Stratum: skunk-cabbage, spotted touch-me-not, sensitive fern, jack-in-the-pulpit Woody Vine Stratum: Devil's-darning-needles	Mapped Soil: Udorthents-Urban Land complex Hydric Indicator: S5 – Sandy redox	B10 – Drainage patterns D2 – Geomorphic position	4 – Sediment/toxicant retention	Isolated closed wetland
W19	PEM/PSS	Tree Stratum: sugar maple (<i>Acer saccharum</i>), American elm Shrub Stratum: Japanese barberry (<i>Berberis thunbergii</i>), rambler rose, silky dogwood Herb Stratum: skunk-cabbage, spotted touch-me-not Woody Vine Stratum: eastern poison-ivy	Mapped Soil: Timakwa and Natchaug soils Hydric Indicator: F6 – Redox dark surface	A2 – High water table A3 – Saturation B7 – Inundation visible on aerial photography	2 – Floodflow alteration 5 – Nutrient removal 8 – Wildlife habitat	Associated with watercourse S17
W20	PSS/PUB	Tree Stratum: None Shrub Stratum: Tartarian honeysuckle Herb Stratum: common reed, broad-leaf cat-tail, sensitive fern, upright sedge Woody Vine Stratum: None	Mapped Soil: Timakwa and Natchaug soils Hydric Indicator: S1 – Sandy mucky mineral	A1 – Surface water A2 – High water table A3 – Saturation B7 – Inundation visible on aerial photography	3 – Fish and shellfish habitat 5 – Nutrient removal 8 – Wildlife habitat	Associated with waterbody WB04



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Wetland Resource Identifier	Wetland Type (a)	Dominant and Characteristic Vegetation (b)	Mapped Soil Series / Hydric Soil Indicator (c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W22	PEM	<p>Tree Stratum: None</p> <p>Shrub Stratum: nanny-berry (<i>Viburnum lentago</i>), smooth arrow-wood, black elder</p> <p>Herb Stratum: upright sedge, broad-leaf cat-tail, skunk-cabbage</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Charlton-Chatfield complex</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p> <p>B2 – Sediment deposits</p> <p>B8 – Sparsely vegetated concave surface</p>	<p>2 – Floodflow alteration</p> <p>4 – Sediment/toxicant retention</p>	<p>Likely formed by block culvert backing up watercourse (S18) during storm events; Consists of deep sediment deposits</p>
W23	PSS/PUB	<p>Tree Stratum: red maple</p> <p>Shrub Stratum: northern spicebush</p> <p>Herb Stratum: skunk-cabbage, blackberry, sensitive fern</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Charlton-Chatfield complex</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p> <p>B7 – Inundation visible on aerial photography</p>	<p>8 – Wildlife habitat</p>	<p>Vernal pool CVP2 located within wetland</p>
W24	PSS	<p>Tree Stratum: None</p> <p>Shrub Stratum: northern spicebush, rambler rose, common winterberry (<i>Ilex verticillata</i>)</p> <p>Herb Stratum: cinnamon fern, sensitive fern, skunk-cabbage</p> <p>Woody Vine Stratum: summer grape (<i>Vitis aestivalis</i>), eastern poison-ivy, Asian bittersweet</p>	<p>Mapped Soil: Charlton-Chatfield complex</p> <p>Hydric Indicator: A11 – Depleted below dark surface F3 – Depleted matrix</p>	<p>A3 – Saturation</p> <p>B10 – Drainage patterns</p>	<p>1 – Groundwater recharge/discharge</p>	<p>Originating from hill side spring</p>
W25	PUB/PEM/PSS	<p>Tree Stratum: red maple</p> <p>Shrub Stratum: rambler rose</p> <p>Herb Stratum: broad-leaf cat-tail, skunk-cabbage, royal fern, upright sedge, sensitive fern</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Calden and Freetown soils, Scarborough Muck</p> <p>Hydric Indicator: F6 – Redox Dark Surface</p>	<p>A1 – Surface water</p> <p>A2 – High water table</p> <p>A3 – Saturation</p> <p>B7 – Inundation visible on aerial photography</p>	<p>2 – Floodflow alteration</p> <p>3 – Fish and shellfish habitat</p> <p>8 – Wildlife habitat</p>	<p>Transect conducted and representative of conditions within ROW; watercourses S19, S20, and S21 flow through wetland</p>
W26	PSS	<p>Tree Stratum: None</p> <p>Shrub Stratum: common winterberry, northern spicebush, rambler rose</p> <p>Herb Stratum: common reed, skunk-cabbage, sensitive fern, purple loosestrife, blackberry, interrupted fern (<i>Osmunda claytoniana</i>)</p> <p>Woody Vine Stratum: river grape</p>	<p>Mapped Soil: Ridgebury, Leicester, and Whitman soils</p> <p>Hydric Indicator: A11 – Depleted below dark surface F3 – Depleted matrix</p>	<p>A3 – Saturation</p> <p>B7 – Inundation visible on aerial photography</p>	<p>1 – Groundwater recharge/discharge</p>	<p>Watercourse S22 associated with wetland</p>
W27	PEM	<p>Tree Stratum: red maple</p> <p>Shrub Stratum: northern spicebush</p> <p>Herb Stratum: sensitive fern, arrow-leaf tearthumb (<i>Persicaria sagittata</i>), spotted touch-me-not</p> <p>Woody Vine Stratum: None</p>	<p>Mapped Soil: Paxton and Montauk fine sandy loam</p> <p>Hydric Indicator: S1 – Sandy mucky mineral</p>	<p>A3 – Saturation</p> <p>C7 – Thin muck surface</p>	<p>1 – Groundwater recharge/discharge</p> <p>13 – Endangered species habitat</p>	<p>Recent tree clearing in this location within the ROW, slippery mucky surface</p>



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Wetland Resource Identifier	Wetland Type (a)	Dominant and Characteristic Vegetation (b)	Mapped Soil Series / Hydric Soil Indicator (c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W28	PSS	Tree Stratum: black birch (<i>Betula lenta</i>) Shrub Stratum: None Herb Stratum: blackberry, sensitive fern, goldenrod, hay-scented fern (<i>Dennstaedtia punctilobula</i>), spotted touch-me-not Woody Vine Stratum: None	Mapped Soil: Ridgebury, Leicester, and Whitman Soils Hydric Indicator: A11 – Depleted below dark surface F3 – Depleted matrix	A3 – Saturation B7 – Inundation visible on aerial photography	1 – Groundwater recharge/discharge 6 – Production export	
W29	PSS	Tree Stratum: None Shrub Stratum: Japanese barberry Herb Stratum: skunk-cabbage, spotted touch-me-not, deer-tongue rosette grass (<i>Dichanthelium clandestinum</i>), sensitive fern, rough bedstraw, garlic-mustard Woody Vine Stratum: Asian bittersweet, river grape	Mapped Soil: Paxton and Montauk fine sandy loam Hydric Indicator: F6 – Depleted dark surface	A3 – Saturation	1 – Groundwater recharge/discharge	
W30	PSS/PEM	Tree Stratum: northern catalpa (<i>Catalpa speciosa</i>), red maple, sugar maple, eastern cottonwood (<i>Populus deltoides</i>) Shrub Stratum: rambler rose, burning-bush, speckled alder, Tartarian honeysuckle Herb Stratum: garlic-mustard, blackberry Woody Vine Stratum: Asian bittersweet, river grape	Mapped Soil: Scarboro Muck Hydric Indicator: F6 – Redox Dark Surface	A2 – High water table A3 – Saturation	2 – Floodflow alteration 7 – Sediment/shoreline stabilization	W30 and W31 are connected as part of a riparian system
W31	PSS/PEM	Tree Stratum: red maple Shrub Stratum: rambler rose, burning-bush, speckled alder, Tartarian honeysuckle Herb Stratum: garlic-mustard, blackberry Woody Vine Stratum: Asian bittersweet, river grape	Mapped Soil: Scarboro Muck Hydric Indicator: F6 – Redox Dark Surface	A1 – Surface water A2 – High water table A3 – Saturation	2 – Floodflow alteration 7 – Sediment/shoreline stabilization	W30 and W31 are connected as part of a riparian system; watercourse S23 associated with wetland
W32	PSS	Tree Stratum: black birch, eastern hemlock (<i>Tsuga canadensis</i>) Shrub Stratum: northern spicebush, American witch-hazel (<i>Hamamelis virginiana</i>) Herb Stratum: skunk-cabbage, sensitive fern, stinging nettle (<i>Urtica dioica</i>), blackberry Woody Vine Stratum: Asian bittersweet	Mapped Soil: Not available Hydric Indicator: S1 – Sandy mucky mineral	A1 – Surface water A3 – Saturation	3 – Fish and shellfish habitat 7 – Sediment /shore	Water body is part of Lake Lillinonah and the Housatonic River



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Wetland Resource Identifier	Wetland Type (a)	Dominant and Characteristic Vegetation (b)	Mapped Soil Series / Hydric Soil Indicator (c)	Evidence of Hydrology	Principal Function and Values	Additional Comments
W33	PSS/PEM	<p>Tree Stratum: None</p> <p>Shrub Stratum: smooth arrow-wood, silky dogwood, black elder, common winterberry</p> <p>Herb Stratum: skunk-cabbage, sensitive fern, spotted touch-me-not, blackberry, rough bedstraw, yellow avens (<i>Geum alepicum</i>)</p> <p>Woody Vine Stratum: eastern poison-ivy, Asian bittersweet</p>	<p>Mapped Soil: Not available</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A2 – High water table</p> <p>A3 – Saturation</p>	<p>1 – Groundwater recharge/discharge</p> <p>8 – Wildlife habitat</p>	
W34	PSS	<p>Tree Stratum: None</p> <p>Shrub Stratum: None</p> <p>Herb Stratum: skunk-cabbage, sensitive fern, spotted touch-me-not, narrow-leaf bittercress, blackberry, arrow-leaf tearthumb,</p> <p>Woody Vine Stratum: summer grape, Asian bittersweet</p>	<p>Mapped Soil: Not available</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p>	<p>7 – Sediment/shoreline stabilization</p>	
W61	PSS	<p>Tree Stratum: red maple, American elm</p> <p>Shrub Stratum: northern spicebush, Japanese barberry, Japanese honeysuckle</p> <p>Herb Stratum: common reed, skunk-cabbage</p> <p>Woody Vine Stratum: Asian bittersweet</p>	<p>Mapped Soil: Hollis-Chatfield-Rock outcrop complex</p> <p>Hydric Indicator: F6 – Redox dark surface</p>	<p>A3 – Saturation</p>	<p>1 – Groundwater recharge/discharge</p>	<p>Hill side seep</p>

Notes:

Site specific soil conditions may differ from the SSURGO Mapped soils series identified in the table.

(a) Wetland Type (Cowardin, et. al 1979; Federal Geographic Data Committee 2013)

PFO – Palustrine Forested

PEM – Palustrine Emergent

PSS – Palustrine scrub / shrub

PUB – Palustrine Unconsolidated Bottom

(b) Names follow U.S. Army Corps of Engineers (2020)

(c) USDA NRCS 2021



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Table 2. Delineated Watercourse Resources

Watercourse ID (flagging sequence)	Watercourse Type (a)	Watercourse Status (b)	General Description	Watercourse Name	Associated Wetland
WB01	NA	Ephemeral	Man-made stormwater retention basin (non-jurisdictional)		
WB02	NA	Ephemeral	Man-made stormwater retention basin (non-jurisdictional)		
S01	R4SB4	IWC	Sandy substrate, closed canopy, low-flow at time of survey		W01
S01A	R4SB5	IWC	Eroded channel at toe of slope providing a connection from W03 to W03A. Highly eroded sand and gravel area from STR4651 to W03A, with sediment deposition.		W03A
S01B	R5UB2H	PWC	PWC originating from culvert beneath the railroad tracks; Sandy substrate, defined banks, canopy PFO cover		W03A
S02	R4SB4	PWC	Narrow channelized watercourse flowing from culvert, steep grade within ROW		W04
WB03	PUB4H	Ponded Open Water	Large ponded open water body likely containing fish, turtles, and other vertebrate species; Defined bank at edge of ROW		W06
S03	R5UB3H	PWC	Linear connection between W07 and WB03 between the railroad ROW and rock outcroppings		W07
S04	R5UB1H	PWC	Tributary to Pond Brook, low gradient meandering stream with runs and pools. Mostly covered canopy, cobble substrate boulders on banks		W07
S05	R4SB3	IWC	Narrow intermittent watercourse between the railroad tracks and a tributary to Pond Brook		W07
S06	R5UB1H	PWC	Continuation of S04		W07
S07	R4SB3	PWC	Narrow intermittent watercourse between the railroad tracks and a tributary to Pond Brook		W07
S08	R5UB3	PWC	Continuation of S04/05 opening into a PEM pond with beaver activity		W09/W10
S09	R3UB1	PWC	Pond Brook crossing beneath the railroad tracks through a large arched concrete culvert; Sandy substrate with cobbles, steep defined vegetated banks	Pond Brook	W11/W12
S10	R5UB4	PWC	Concrete culvert beneath the railroad tracks, mucky substrate riprap banks		W13
S11	R4SB4	IWC	Narrow intermittent watercourse through shrub wetland; Sandy substrate; signs of high flow during storm events		W15
S12	R4SB4	IWC	Narrow intermittent watercourse through shrub wetland. Sandy substrate; signs of high flow during storm events		W15
S13	R5UB1	PWC	Very shallow wide stream channel with deciduous tree cover with sandy/gravel substrate		
S14	R4SB4	IWC	Narrow channel with evidence of high storm flows; Sandy substrate		
S15	R4SB2	IWC	Small segment of open stream between two stone box culverts		
S16	R4SB3	IWC	Small segment of open stream between two stone box culverts; Sandy bottom with embedded cobblestone		
S17	R5UB1	PWC	Meandering stream within PEM system with mucky mineral banks and mucky sand substrate		W19
WB04	PUB3H	PUB	Open water body of large enough volume to support turtle, beaver, and fish populations		W20
S18	R5UB3	PWC	Narrow stream with gravel substrate off ROW blocked at culvert by deposited sandy material forming a wide sand platform with rack deposits		W22
S19	R5UB4C	IWC	Intermittent watercourse originating from ground water seep, mucky substrate		W25
S20	R5UB1C	PWC	~10' wide channel highly scoured with steep banks; Gravel substrate, forested cover, clear understory		W25
S21	R5UB3D	PWC	Large beaver dam across watercourse resulting in many small flows into PFO wetland	Tunnel Brook	W25
S22	R4SB7	IWC	Steep grade, boulders and loamy sand through a PSS wetland		W26



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Watercourse ID (flagging sequence)	Watercourse Type (a)	Watercourse Status (b)	General Description	Watercourse Name	Associated Wetland
S23	R5UB1	PWC	Stream of adequate size to contain a fish population; PFO on either side of ROW; Existing timber mat bridge spanning stream	Tributary to Cavanaugh Brook	W30/W31
Lake Lillinonah	PUB3H	PUB	Large perennial lake associated with the Housatonic River	Lake Lillinonah	W32
S24	R4SB3	IWC	Intermittent watercourse cobble and gravel bottom with a deep channel to a culvert		
S25	R4SB3	IWC	Branch of S24		
Housatonic River	R2UB	PWC	Large perennial watercourse, flood controlled by Stevenson Dam at ROW	Housatonic River	

Notes:

Watersheds 6600-00, 6600-09, 6018-03, 6018-04, 6018-05, 6000-49, 6000-00, 6000-50, 6000-51, 68000-99, 6806-06, 6806-00, 6800-07

(a) Wetland Type (Cowardin, et. al 1979; Federal Geographic Data Committee 2013)

R2UB – Riverine lower perennial

R3UBH – Riverine upper perennial unconsolidated bottom permanently flooded

R4SB2 – Riverine intermittent streambed rubble substrate

R4SB3 – Riverine intermittent streambed cobble substrate

R4SB4 – Riverine intermittent streambed sandy substrate

R4SB5 – Riverine intermittent streambed mud substrate

R4SB6 – Riverine intermittent streambed organic substrate

R4SB7 – Riverine intermittent streambed vegetated substrate

R5UB1 – Riverine unknown perennial unconsolidated bottom cobble-gravel

R5UB2 – Riverine unknown perennial unconsolidated bottom sandy

R5UB3 – Riverine unknown perennial unconsolidated bottom muddy

R5UB3D – Riverine unknown perennial unconsolidated bottom muddy continuously saturated

R5UB3H – Riverine unknown perennial unconsolidated bottom muddy permanently saturated

R5UB4 – Riverine unknown perennial unconsolidated bottom organic

R5UB4C – Riverine unknown perennial unconsolidated bottom organic seasonally flooded

R5UB1H – Riverine unknown perennial unconsolidated bottom permanently flooded

PUB1 – Palustrine unconsolidated bottom cobble-gravel

PUB2 – Palustrine unconsolidated bottom sandy

PUB3H – Palustrine unconsolidated bottom muddy permanently flooded

PUB4H – Palustrine Unconsolidated bottom organic substrate permanently flooded

(b) PWC - Perennial Watercourse, IWC – Intermittent Watercourse



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3.3 VERNAL POOLS

The vernal pool survey was conducted on May 2, 2022, by Stantec and targeted two potential vernal pool areas identified during previous field investigations. Both areas were confirmed to be functioning vernal pools due to the presence of obligate vernal pool indicator species. Table 3 summarizes the results of the vernal pool survey and Corps Vernal Pool Characterization forms are provided in Appendix C.

Table 3. Confirmed Vernal Pools

Vernal Pool ID (flagging sequence)	Indicator Species	General Description	Associated Wetland
CVP01	Spotted salamander (<i>Ambystoma maculatum</i>): 3 egg masses	Bowl shaped depression with steep banks and forested canopy cover; water approximately 2.5' deep at time of survey with a silty substrate; hydrology likely semi-permanent; vernal pool basin continues offsite, only portion of basin within ROW included in survey area	W14
CVP02	Wood frog (<i>Lithobates sylvaticus</i>): tadpoles abundant Spotted salamander: 16 egg masses	Artificially created borrow pit depression adjacent to railroad tracks at top of hill; water approximately 2.5' deep at time of survey, hydrology likely semi-permanent; upland partially wooded.	W23

3.4 MAPPED SOIL UNITS

The USDA NRCS has mapped the soils within the project area based on distinct characteristics found in the profile. The official soils descriptions in Appendix C are used to help determine the composition and properties of each mapped soil unit. These soil units are representative of soils that can be expected in the area. However, exceptions occur due to disturbance, local topography, and other geomorphologic reasons that may in cases lead to pockets of soils that are better represented with a soil series that is not mapped for that particular location. The official soils descriptions can be reviewed in Appendix C.



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4.0 REFERENCES

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. Laroe, 1979, *Classifications of Wetlands and Deepwater Habitats of the United States*, U.S. Department of the Interior, Office of Biological Services, Fish and Wildlife Services: Washington, DC.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
- Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
- New England Hydric Soils Technical Committee. 2019 Version 4, *Field Indicators for Identifying Hydric Soils in New England*. New England Interstate Water Pollution Control Commission, Lowell, MA.
- U.S. Army Corps of Engineers (USACE). 1999. *Highway Methodology Workbook Supplement: Wetland Functions and Values – A Descriptive Approach*. New England Division. Publication no. NAEEP-360-1-30a. November 1995. 32 pp.
- USACE. 2005. *Regulatory Guidance Letter: Ordinary High Water Mark Identification*. No. 05-05.
- USACE. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region – Version 2.0*. ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1, Vicksburg, MS: U.S. Army Corps of Engineers Research and Development Center. January 2012.
- USACE. 2020. *National Wetland Plants List, Version 3.5*. U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH. <https://wetland-plants.sec.usace.army.mil/> (Accessed August 2022).
- U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2018. *Field Indicators of Hydric Soils in the United States, Version 8.2*. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.) USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.
- USDA NRCS. 2021. *Official Soils Series Descriptions (OSDs)*. <https://soilseries.sc.egov.usda.gov/osdname.aspx> (Accessed January 2022).

