

# DRAFT

**Petition No. 1475**  
**The Connecticut Light and Power Company d/b/a Eversource Energy**  
**100, 400, 1410 and 1280 Lines Upgrade Project**  
**Montville and Ledyard**

**Staff Report**  
**February 18, 2021**

## **Introduction**

On December 28, 2021, the Connecticut Siting Council (Council) received a petition (Petition) from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed 100, 400, 1410 and 1280 Lines Upgrade Project within existing Eversource electric transmission line right-of-way (ROW) and on Eversource-owned property in the Towns of Montville and Ledyard (Towns). The Project consists of replacement and reconductoring of electric transmission line structures along the ROW between Montville Junction and Ledyard Junction, and other improvements.

On December 30, 2021, the Council sent correspondence to the Towns stating that the Council has received the Petition and invited the Towns to contact the Council with any questions or comments by January 27, 2022. No comments were received.

The Council submitted interrogatories to Eversource on January 20, 2022. Eversource submitted responses to the interrogatories on February 3, 2022.

The purpose of the proposed project is to improve system reliability on the 100, 400, 1410 and 1280 Lines by replacing and/or reconductoring electric transmission line structures, converting the 100 and 400 Lines from 69-kV operation to 115-kV operation and replacing shield wire with fiber optical ground wire (OPGW).

## **Municipal and Abutter Notice**

During September and October 2021, Eversource consulted with representatives of the Towns to brief them on the proposed Project. Representatives from the Towns did not express concerns to Eversource regarding the proposed Project.

Also during September and October 2021, Eversource initiated outreach to property owners along the project route. All abutting property owners were notified of the project and provided information on how to obtain additional information, as well as how to submit comments to the Council. During the construction phase of the project, Eversource would maintain contact with property owners to inform them of construction activities and site restoration.

## **Existing Project Area**

The existing project area includes approximately 3.2 miles of existing Eversource ROW between Montville Junction, located 1,000 feet west of the Thames River in Montville, and Ledyard Junction located adjacent to Whalehead Road in Ledyard. The existing ROW varies in width from 130 feet to 200 feet and extends through residential, recreational, and undeveloped areas.

## **Proposed Project**

The project is being proposed to implement part of a solution determined by ISO New England, Inc. (ISO-NE) to address low and high voltage criteria violations in the Mystic to Kent County, Rhode Island transmission line corridor identified by the 2029 Eastern Connecticut Reliability Needs Assessment (ECTNA). Eversource would convert the 69-kV 100 Line and 400 Line to 115-kV to mitigate the identified contingencies. Once construction is completed, both the 100 Line and the 400 Line would operate at 69-kV until other transmission improvements specified in the ECTNA are completed. In addition to the work related to the ECTNA, Eversource would reductor and reconfigure the 1410 Line and upgrade the 1280 Line as these two lines are within the same ROW.

The Project would require taller transmission line structures to meet National Electrical Safety Code (NESC) standards, including, but not limited to, conductor clearance requirements. The NESC is the authoritative code for ensuring the continued practical safeguarding of persons and utility facilities during the installation, operation and maintenance of electric power and communications utility systems, including substations, overhead lines and underground lines.

The project is identified in the March 1, 2021 Eversource Ten-Year Forecast of Electric Loads and Resources and in the October 2021 ISO-NE Regional System Plan Project List.

### *Convert 100 Line to 115-kV*

The 100 Line is a 69-kV Line that was constructed in 1945 on single pole wood structures. Project work consists of reconductoring a 0.45-mile section of the line between Montville Junction and Gales Ferry Substation. Work also includes replacement of shield wire and four structures. Specifically, the work includes the following:

- a) Replace 556-kcmil aluminum conductor steel reinforced (ACSR) with 1272 kcmil aluminum conductor steel supported (ACSS);
- b) Replace existing Copperweld shield wire with OPGW; and
- c) Replace four single-circuit H-frame wood structures (7016B, 7017B, 7018B and 7019B) with three direct embed weathering steel monopole structures and one engineered steel monopole on a concrete foundation.

### *Convert 400 Line to 115-kV*

The 400 Line is a 69-kV Line that was constructed in 1945 on wood H-frame structures. Project work consists of reconductoring a 1.65-mile section of the line between Gales Ferry Substation and Ledyard Junction. Work also includes replacement of shield wire and 16 structures, the installation of two new structures, and the relocation of one structure. Specifically, the work includes the following:

- a) Replace 556-kcmil ACSR with 1272 kcmil aluminum conductor steel supported ACSS;
- b) Replace existing Copperweld shield wire with OPGW;
- c) Replace 16 single-circuit H-frame wood structures with 12 direct embed weathering steel monopole structures and four engineered weathering steel monopole structures on concrete foundations (Structures 7021B through 7035B and 7037);
- d) Install two new engineered weathering steel monopole structures on concrete foundations (Structures 7036B and 7036B-2); and
- e) Relocate and re-install one engineered weathering steel three-pole structure (Structure 7020-2) on new concrete foundations

### *Reconductor and Reconfigure the 1410 Line*

The 1410 Line is a 115-kV line originally constructed in 1954 and is supported primarily by wood H-frame structures. Project work consists of replacing existing conductors and 20 wood structures on a 2.1-mile segment of the line from Montville Junction to Ledyard Junction. In addition, a lattice tower would be replaced and a new structure installed at Ledyard Junction to support an underground line necessary to avoid clearance issues with existing adjacent structures on the 1280 Line and 400 Line. Specifically, the work includes the following;

- a) Replace 556-kcmil ACSR with 1272 kcmil ACSS;
- b) Replace existing Copperweld shield wire with OPGW;
- c) Replace 20 single-circuit H-frame wood structures with 17 direct embed weathering steel monopole structures;
- d) Replace three engineered weathering steel monopoles on concrete foundations with two single-circuit galvanized steel monopoles and four engineered weathering steel monopole structures on concrete foundations;
- e) Replace one lattice structure (Structure 8367) with a weathering steel transition structure and install one new weathering steel riser structure (designated as Structure 7036A) at Ledyard Junction;
- f) Install approximately 220 feet of underground 5000-kcmil cross-linked polyethylene cable at Ledyard Junction; and
- g) Install one temporary wood pole adjacent to Structure 7020A to facilitate the future installation of a tap from the 1410 Line to a temporary mobile transformer related to proposed modifications to Gales Ferry Substation (Petition No. 1484).

### *Modifications to 1280 Line*

The 1280 Line is a 115-kV line supported primarily by wood H-frame structures and three-pole structures. Project work consists of adding OPGW on an approximate three-mile section of the line from Structure 8343 in Montville to Structure 8370 in Ledyard. To support the new OPGW, seven structures would need to be replaced and one new structure would be constructed. Specifically, the work includes the following;

- a) Install OPGW;
- b) Replace five existing single circuit wood H-Frame structures with single circuit weathering steel H-Frame structures. (Structures 8350 through 8353, Structure 8366);
- c) Replace one existing single circuit wood three-pole structure with a single circuit weathering steel three-pole structure. (Structure 8357);
- d) Replace one existing single circuit wood three-pole structure with a single circuit weathering steel engineered three-pole structure on foundations. (Structure 8354); and
- e) Install one new single circuit weathering steel H-Frame structure to alleviate clearance concerns (Structure 8353-1).

### *Cost*

The total estimated cost of the project is approximately \$22.0 million. Pending a final determination from ISO-NE, the entire project cost is expected to be eligible for regionalization<sup>1</sup>. Costs are expected to be allocated as follows:

Eversource Connecticut ratepayers <sup>2</sup>	18.9% (\$4.2 million)
Other Connecticut ratepayers <sup>3</sup>	5.8% (\$1.3 million)
<u>Other New England ratepayers<sup>4</sup></u>	<u>75.3% (\$16.5 million)</u>
	100% (\$22.0 million)

<sup>1</sup> These allocations are estimates based on 2020 actual loads.

<sup>2</sup> Electrical service customers of Eversource and located within Connecticut.

<sup>3</sup> Electrical service customers located within Connecticut but outside of Eversource's service territory.

<sup>4</sup> Electrical service customers located within New England but outside of Connecticut.

## **Project Construction and Work Procedures**

Eversource would utilize an existing leased area at 82 Depot Road in Montville for a staging/laydown area. This area is also utilized as a staging/laydown area for the Montville to Horton Cove Rebuild Project that was approved by the Council in Petition No. 1468 on January 31, 2022. It is approximately two acres in size and would be used for storage of construction materials, equipment, tools and supplies. Office trailers and storage containers may also be located at the staging area. Appropriate erosion and sedimentation (E&S) controls would be installed and maintained until completion of construction in accordance with Project permitting and Eversource Best Management Practices (BMPs).

Eversource would utilize existing ROW access roads to the extent possible during construction. Where existing access roads are not present, new permanent gravel roads would be established. Construction matting would be utilized to install temporary access roads to protect sensitive areas (e.g. wetlands, lawn, meadow) to reach certain structure locations. Eversource would obtain a Department of Transportation Encroachment Permit to cross Route 12 in Ledyard and a Railroad Right of Entry Permit from the Providence and Worcester Railroad for wire pulling over a railroad right-of-way in Ledyard.

Construction areas would be isolated by establishing E&S controls in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource BMPs. Typical E&S control measures include, but are not limited to, straw blankets, hay bales, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. A project-specific Stormwater Pollution Control Plan (SWPCP) would be developed for registration under a DEEP Stormwater Permit.

At each transmission line structure location, a work pad would be constructed to stage material for final on-site assembly and/or removal of structures, to pull conductors and to provide a safe, level work base for construction equipment. Work pads for the project would typically be 100 feet by 100 feet but could be slightly larger depending on specific site conditions. For areas where machinery is needed for pulling conductors through an angled structure, work pads of approximately 130 feet by 80 feet would be required. Most work pads would be composed of gravel, though some would consist of temporary matting to protect sensitive areas such as wetlands and agricultural areas.

The proposed structures would have either drilled (caisson) foundations or direct embed foundations. Foundation installation work would require the use of equipment such as drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks, and light duty trucks. If groundwater is encountered, pumping trucks or other equipment would be utilized. The water would then be discharged in accordance with local, state and federal requirements.

New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly by crane and bucket trucks. After assembly, the area around the direct embed foundations would be backfilled with processed gravel.

New conductors and OPGW would be installed after the structures are installed. The required equipment would include cable reels, pulling and tensioning rigs, and bucket trucks. The removal of the existing conductor and static 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 are installed.

After the new structures/conductors/OPGW are installed, the lines are re-energized and the existing structures are removed, ROW restoration activities would commence. Restoration work would include the removal of construction debris, signage, flagging, temporary fencing, and construction mats and work pads that are designated for removal. Affected areas would be re-graded as practical and stabilized via revegetation or other measures before removing temporary E&S controls. ROW restoration would be performed in accordance with Eversource BMPs and in consultation with affected property owners.

Upon completion of the project, access roads and work pads located in uplands would be left in place to facilitate future transmission line maintenance. If a property owner requests their removal, Eversource would work with such property owner regarding mitigation options which could include adding topsoil and seeding or removing all or part of the gravel work pad depending on specific site conditions.

Except for concrete trucks, no construction equipment or vehicle washing would be allowed in the ROW. Concrete truck wash-out would occur only in upland areas of the ROW to avoid or minimize the potential for impacts to water resources. All wash-out areas would include measures to control and contain wash-water and collect the cement wash-off for off-site disposal.

Project-related traffic would be expected to be temporary and highly localized in the vicinity of ROW access points along public roads and at the staging area. Due to the phasing of construction work, project-related traffic is not expected to significantly affect transportation patterns or levels of service on public roads. Traffic management procedures would be developed, if necessary.

Construction is expected begin in Spring 2022. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or evening work (i.e. after 7:00 p.m.) may be necessary due to delays caused by unforeseen circumstances, inclement weather and/or outage constraints; in the event that this is necessary, Eversource would provide notice to the Council and the Towns.

The outages necessary to conduct the work, as currently scheduled, are as follows:

- **1280 Line** - June 2022 to July 2022;
- **1410 Line** - July 2022 to September 2023
- **400 Line** - September 2022 to February 2023; and
- **100 Line** - February 2023 to June 2023.

The scheduled outages would not impact the power supply to the area due to redundancy in the transmission system that would be able to supply power to the distribution system during the outages.

### **Environmental Considerations**

Work would occur within a maintained ROW and thus tree clearing is not expected for the proposed structure replacements. However, tree trimming, minor vegetation removal within the managed transmission line ROW corridor may be required to improve work site access and in areas where conductor clearances need to be improved to meet NESC and Eversource clearance standards.

Vegetation removal/tree trimming would be accomplished using mechanical methods. This would typically involve the use of flat-bed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers. Vegetation removal activities would be performed in accordance with Eversource BMPs.

A total of 13 wetland areas and 7 watercourses/waterbodies occur along the ROW. The project would result in the 613 square feet of permanent wetland impacts associated with the replacement of one structure, the installation of a ROW access bridge and the installation of fiber optic cable in conduit to connect Structure 7020A to Gales Ferry Substation. Additionally, two replacement structures (7020-2 and 8353) would be installed within a wetland but there would be no increase in permanent impact as the old structures located in the same wetland would be removed.

The ROW access bridge would consist of a prefabricated concrete span bridge, approximately 25-feet long and 16-feet wide, that would replace a washed-out section of access within a larger wetland/open waterbody on Avalonia Land Conservancy (ALC) property in Ledyard. The bridge would allow for the natural flow of water through the area and would provide permanent ROW access through an area subject to flooding. The ALC supports the bridge installation as it would provide reliable trail access through its Pine Swamp Preserve.

Temporary wetland impacts related to project construction matting would total approximately 84,226 square feet. Four temporary watercourse crossings (temporary wood matting) would be required during construction. Construction activities within wetlands and over watercourses would be conducted in accordance with Eversource's BMPs.

Project work would occur within one vernal pool envelope (100 feet from the edge of the vernal pool) adjacent to Whalehead Road in Ledyard. Eversource would conduct work in this area in accordance with Eversource's BMPs as well as a Project specific Vernal Pool Protective Measures, which include but are not limited to, avoidance and minimization of construction activities, restricting tree clearing, avoid removing shrub vegetation within 25 feet of a vernal pool, use of temporary matting, and the installation of erosion and sedimentation control measures to prevent migration of vernal pool species into the work area. Shrub vegetation that is cut would be left in place to provide for leaf litter and coarse woody debris.

The Project ROW extends across a 100-year Federal Emergency Management Agency-designated flood zone associated with the Thames River. Temporary work pads would be utilized within the flood zone.

There are no DEEP-designated Aquifer Protection Areas within the Project ROW. The Project ROW is partially located within the Groton Reservoir System Public Water Supply Watershed. Eversource would conduct work in accordance with its BMPs as well as employ best practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants, to protect water quality.

A portion of the Project is within a DEEP Natural Diversity Database (NDDB) area. Eversource would implement DEEP recommended species-specific protection measures during construction.

Eversource also consulted with the U.S. Fish & Wildlife Service's Information, Planning and Consultation (IPaC) service regarding federally-listed species that may be present within the project area. The IPaC report identified the northern long-eared bat (NLEB), a federally-listed Threatened Species, and state-listed Endangered Species occurring in Connecticut. There are no known NLEB maternity roost trees within 150 feet of the Project area, and the nearest NLEB hibernaculum is located approximately 34 miles to southwest in the Town of North Branford. Thus, no impacts to the NLEB are expected to result from the Project.

A previous Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area on file with the State Historic Preservation Office (SHPO) identified one property on the National Register of Historic Places (NRHP) and one property on the State Register of Historic Places within 500 feet of the work areas. Additionally, a historic burial ground, known as the Newton Cemetery, is located within 250 feet of the project area. A review of the Phase 1A survey determined these resources would not be impacted by the Project.

The Phase 1A identified 20 work locations as possessing a potential for moderate to high archaeological sensitivity. A subsequent Phase 1B Cultural Resources Reconnaissance Survey (Phase 1B Survey) determined these areas have no archaeological significance and no further action is recommended.

The Phase 1A and Phase 1B Survey have been provided to SHPO and the Tribal Historic Preservation Offices of the Mohegan Tribe of Native Americans of Connecticut and the Mashantucket Pequot Tribal Nation for review and comment. Eversource would implement any recommended mitigation measures.

A portion of the Project ROW is within a preserve owned by the ALC. Eversource would coordinate work activities with the ALC regarding temporary trail closures and other safety measures. Access to a parking area associated with Glacier Park in Ledyard would not be affected by the Project.

There would be no permanent changes to existing ROW sounds levels after completion of the Project. Noise associated with construction activities is exempt from DEEP Noise Control Regulations. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of work sites.

The Project ROW does not cross any designated scenic roads.

The reconstruction of the 100 Line, 400 Line and 1410 Line and the replacement of certain structures on the 1280 Line would require an increase in structure height due to the change in structure design from a horizontal to a vertical conductor configuration to meet NESC clearance requirements within the existing ROW and clearance requirements from adjacent transmission lines within the ROW. The overall structure height average for the Project would increase by 37.5 feet, from 58.7 feet to 96.3 feet above ground level. The use of weathering steel replacement structures would resemble the appearance of existing wood structures within the ROW and would match the surrounding wooded landscape.

Due to the increase in structure heights to comply with NESC clearance criteria, there may be limited indirect visual impacts to the surrounding area.

### **Electric and Magnetic Fields**

Electric fields (EF) are produced whenever voltage is applied to electrical conductors and equipment. Electric fields are typically measured in units of kilovolts/meter (kV/m). As the weight of scientific evidence indicates that exposure to electric fields, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for electric fields are sufficiently addressed by adherence to the NESC, as amended, health concerns regarding Electric and Magnetic Fields (EMF) focus on MF rather than EF. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has established a guideline of 4.2 kV/m.

The Project route contains an existing transmission line that emits magnetic fields (MF). In the United States, no state or federal exposure standards for 60-Hertz MF based on demonstrated health effects have been established, nor are there any such standards established worldwide. However, the ICNIRP has established a level of 2,000 milliGauss (mG), based on extrapolation from scientific experimentation, and the International Committee on Electromagnetic Safety (ICES) has calculated a guideline of 9,040 mG for exposure to workers and the general public, and recognized in the Council's *Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut*.

Eversource reviewed EMF levels associated with the Project. Pre- and post-construction EMF levels (based on average annual loads for MF) are presented in the table below:

Structure 7015 - Gales Ferry Substation (Annual Average Loads)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Fields (mG)	Existing	20.1	47.9	28.4
	Proposed	34.7	117.1	38.2
Electric Fields (kV/m)	Existing	0.47	0.60	0.44
	Proposed	0.25	1.42	0.60

Gales Ferry Substation - Ledyard Junction (Annual Average Loads)		North ROW Edge	Max in ROW	South ROW Edge
Magnetic Fields (mG)	Existing	14.4	45.6	23.8
	Proposed	33.5	97.5	34.8
Electric Fields (kV/m)	Existing	0.41	0.50	0.40
	Proposed	0.27	1.55	0.53

All EF and MF values would be below the ICNIRP exposure guidelines of 4.2 kV/m and 2,000 mG, respectively.

### Aviation Safety

Notice to the Federal Aviation Administration (FAA) would not be required for any of the proposed structures.

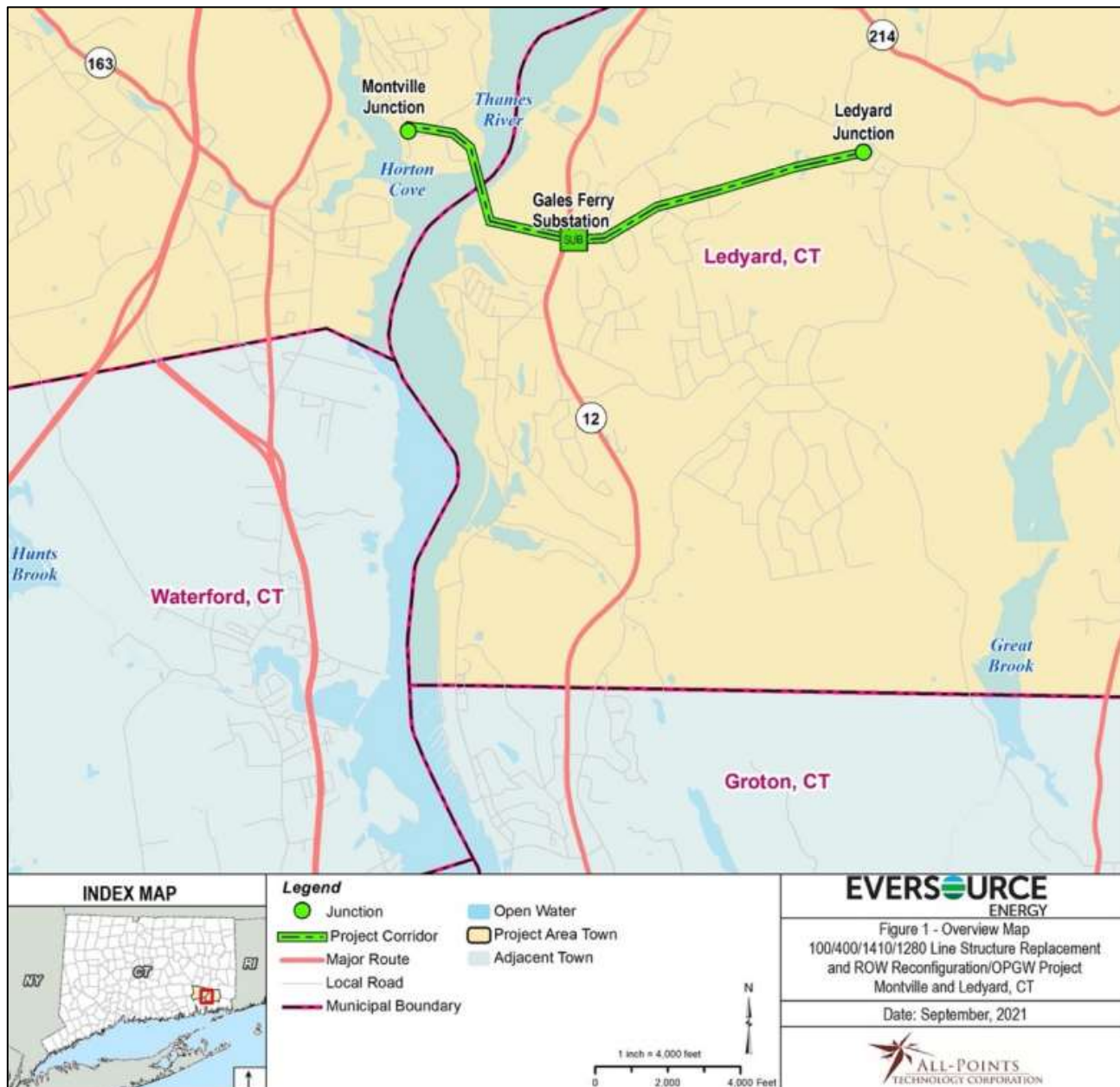
### Conclusion

If approved, staff recommends the following condition:

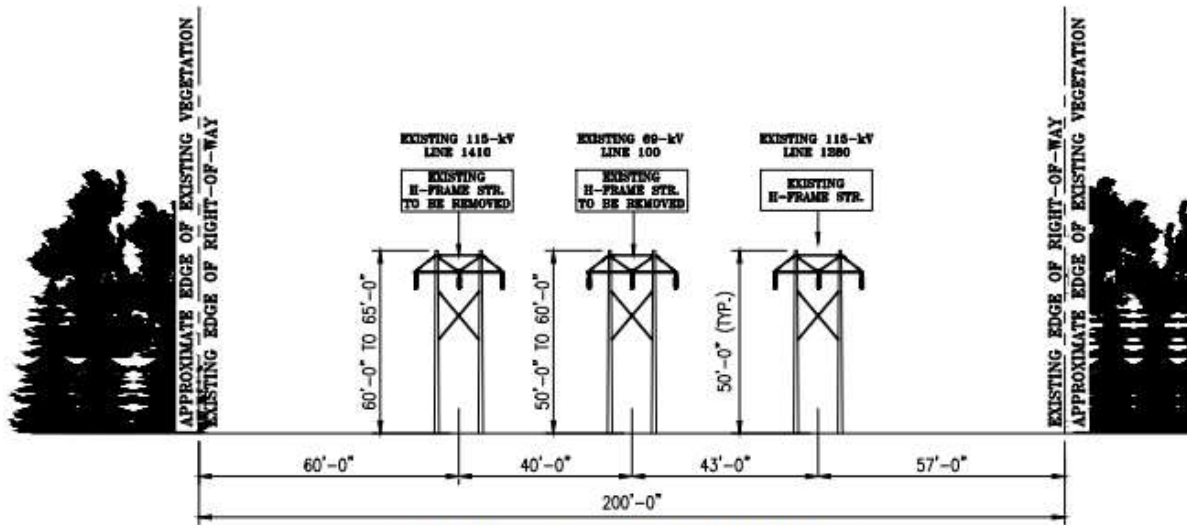
- 1) Approval of any project changes be delegated to Council staff.



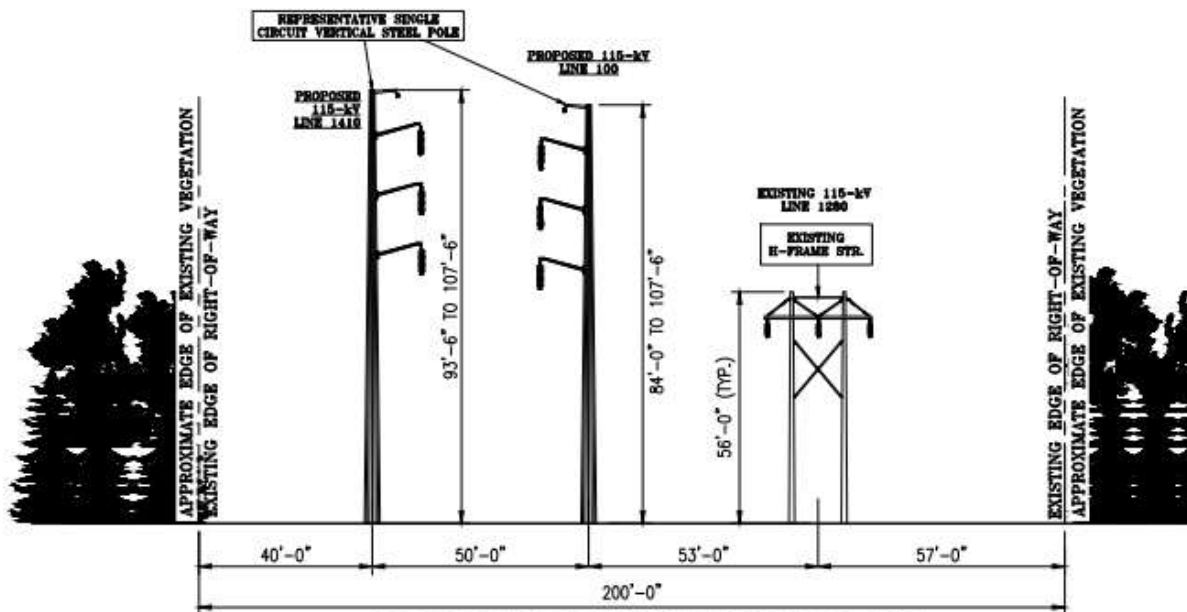
## Project Location



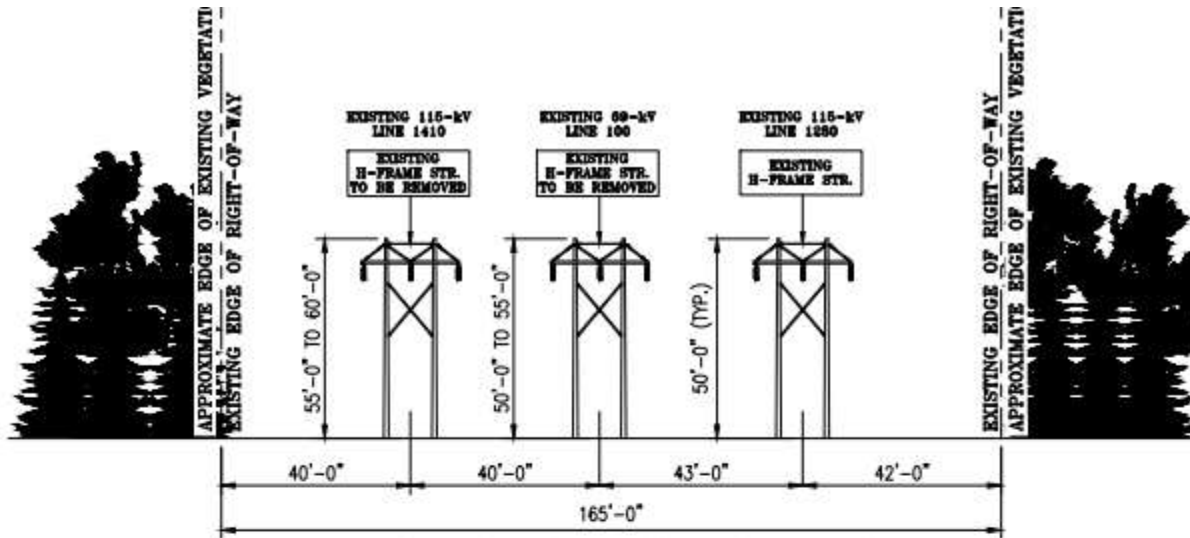
## Project ROW Profiles



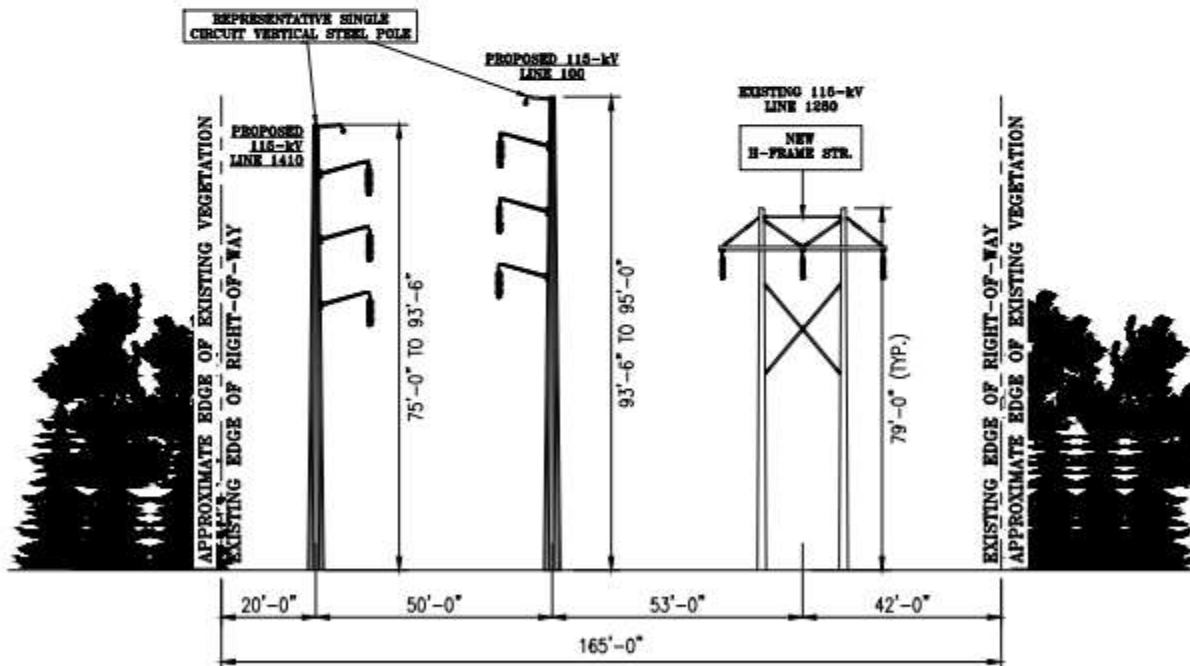
**EXISTING R.O.W. CONFIGURATION  
SINGLE CIRCUIT HORIZONTAL DESIGN  
LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION  
IN THE TOWN OF LEDYARD, CT  
0.18 MILES, STR. #7016 - STR. #7017**



**PROPOSED R.O.W. CONFIGURATION  
NO ADDITIONAL RIGHT-OF-WAY REQUIRED  
SINGLE CIRCUIT VERTICAL DESIGN  
LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION  
IN THE TOWN OF LEDYARD, CT  
0.18 MILES, STR. #7016 - STR. #7017**

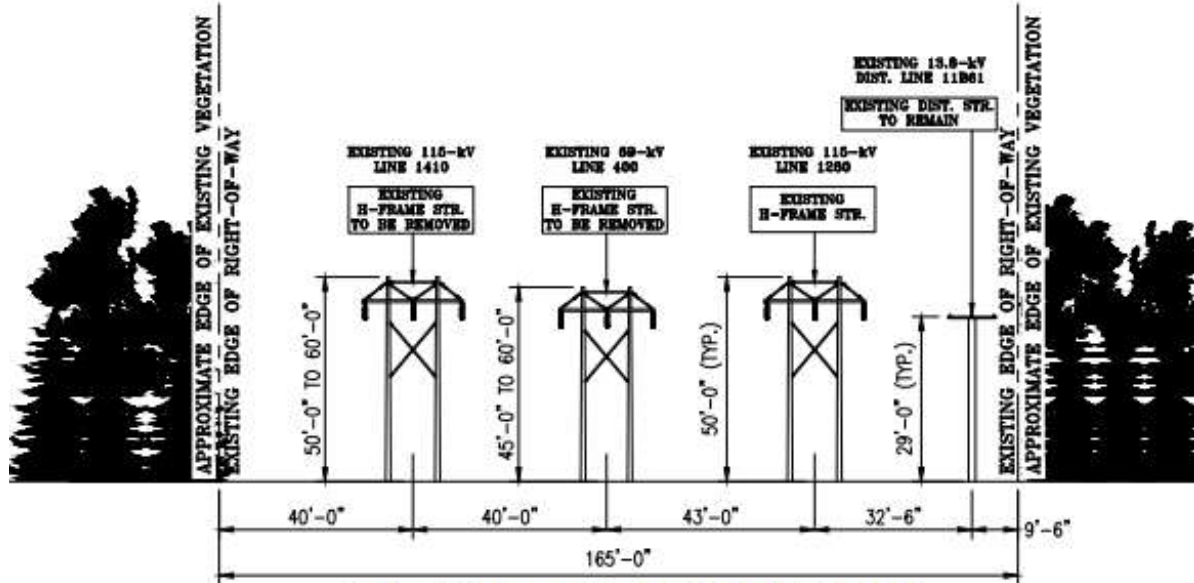


**EXISTING R.O.W. CONFIGURATION**  
**SINGLE CIRCUIT HORIZONTAL DESIGN**  
**LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION**  
**IN THE TOWN OF LEDYARD, CT**  
**0.19 MILES, STR. #7018 - STR. #7019**

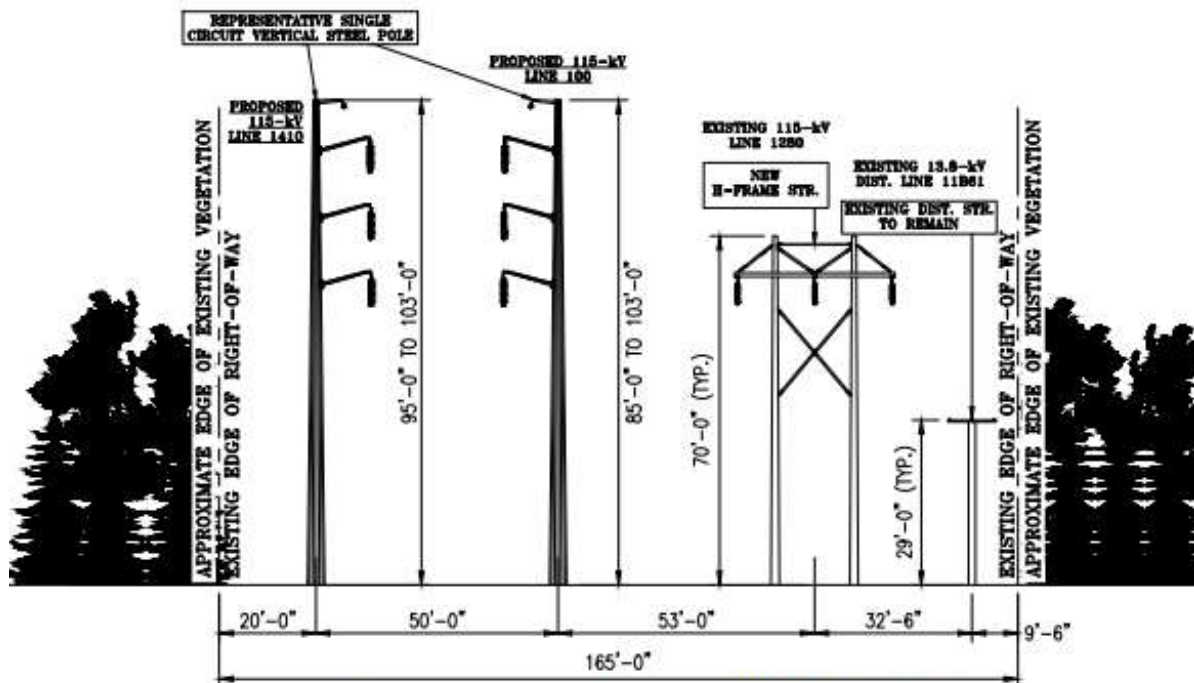


**PROPOSED R.O.W. CONFIGURATION**  
**NO ADDITIONAL RIGHT-OF-WAY REQUIRED**  
**SINGLE CIRCUIT VERTICAL DESIGN**  
**LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION**  
**IN THE TOWN OF LEDYARD, CT**  
**0.19 MILES, STR. #7018 - STR. #7019**

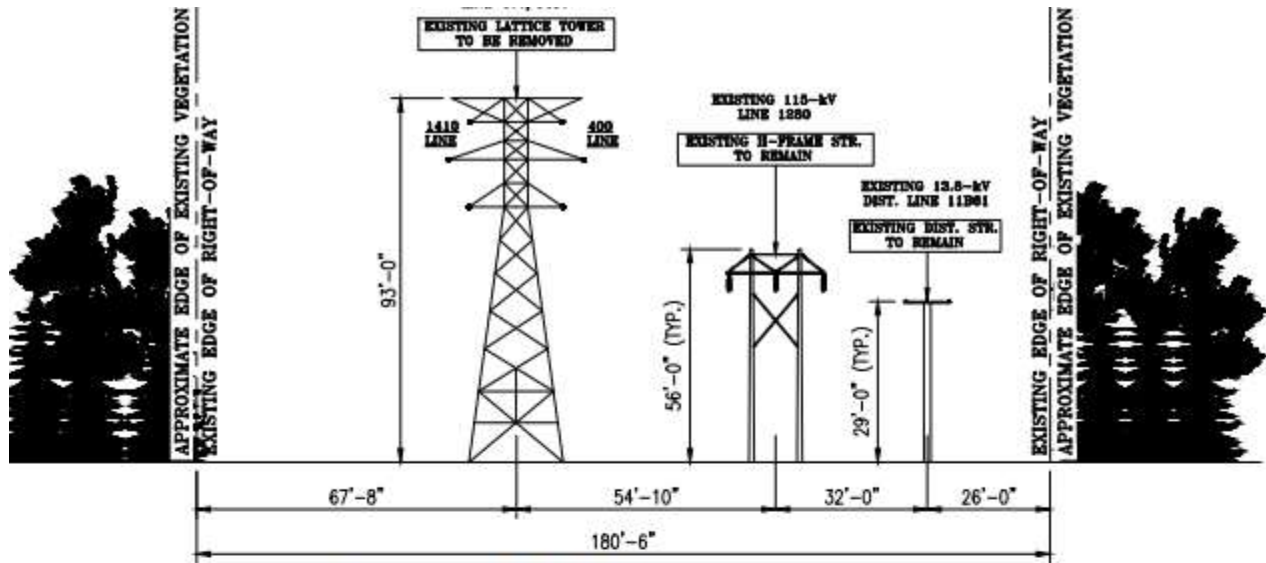




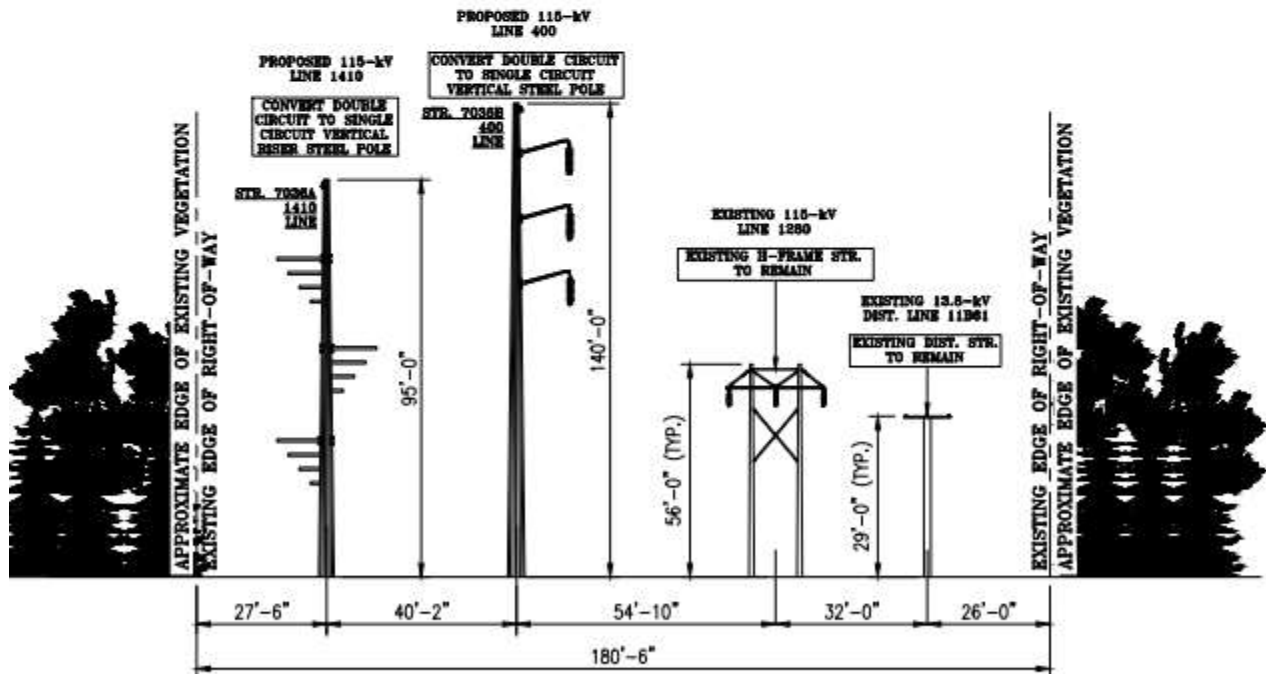
**EXISTING R.O.W. CONFIGURATION  
SINGLE CIRCUIT HORIZONTAL DESIGN  
LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION  
IN THE TOWN OF LEDYARD, CT  
1.51 MILES, STR. #7021 - LEDYARD JUNCTION STR. #7035**



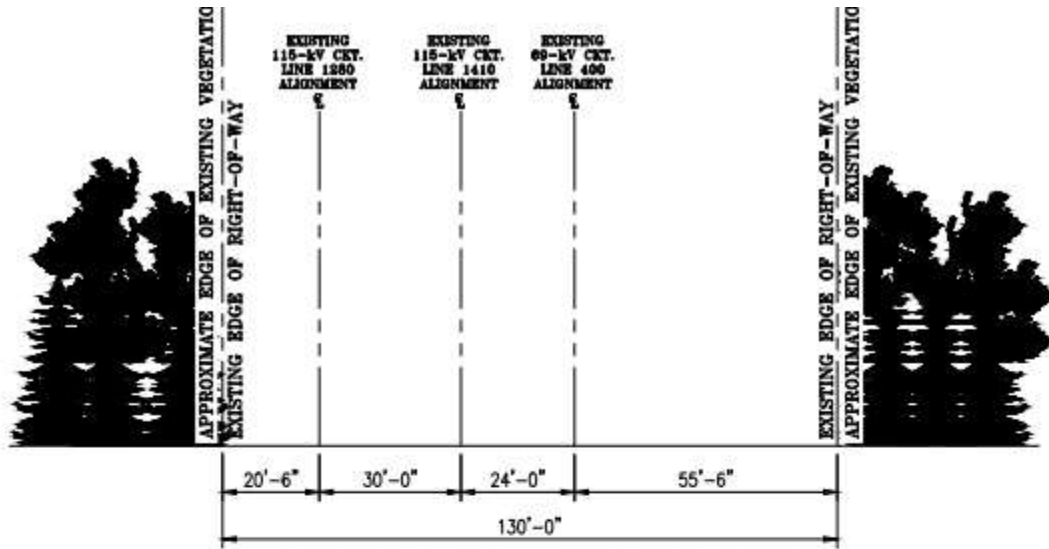
**PROPOSED R.O.W. CONFIGURATION  
NO ADDITIONAL RIGHT-OF-WAY REQUIRED  
SINGLE CIRCUIT VERTICAL DESIGN  
LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION  
IN THE TOWN OF LEDYARD, CT  
1.51 MILES, STR. #7021 - LEDYARD JUNCTION STR. #7035**



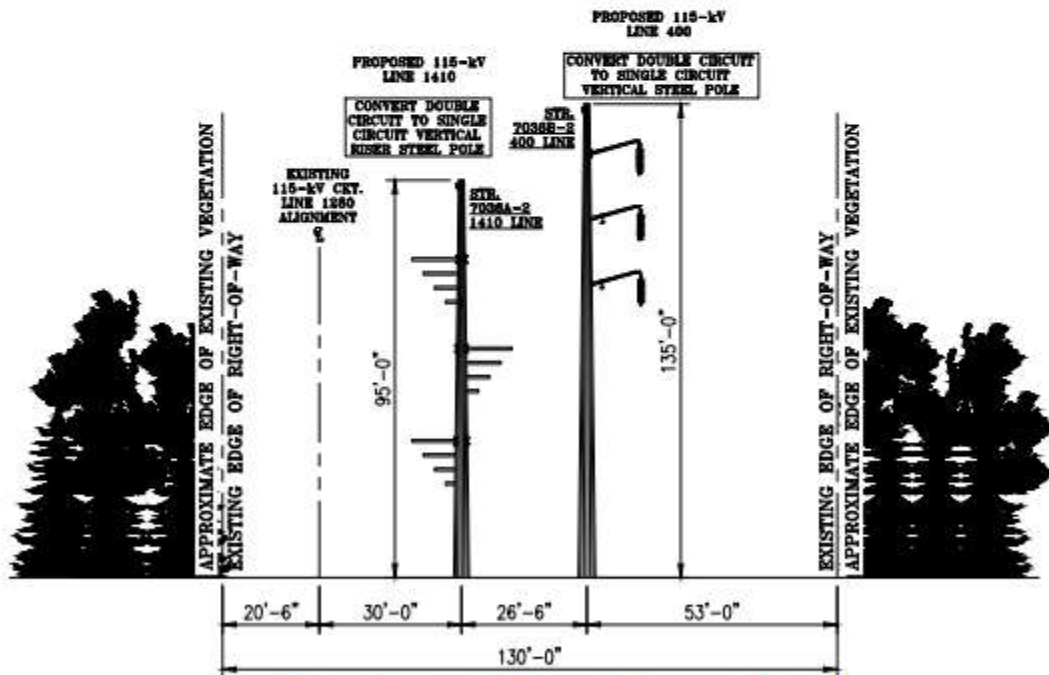
**EXISTING R.O.W. CONFIGURATION**  
**DOUBLE CIRCUIT LATTICE TOWER VERTICAL DESIGN**  
**LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION**  
**IN THE TOWN OF LEDYARD, CT**  
**STR. #7036**



**PROPOSED R.O.W. CONFIGURATION**  
**NO ADDITIONAL RIGHT-OF-WAY REQUIRED**  
**SINGLE CIRCUIT RISER TERMINAL AND SINGLE POLE VERTICAL DESIGN**  
**LOOKING FROM MONTVILLE SUBSTATION TO LEDYARD JUNCTION**  
**IN THE TOWN OF LEDYARD, CT**  
**STR. #7036A AND STR. #7036B**



**EXISTING R.O.W. CONFIGURATION**  
**DOUBLE CIRCUIT LATTICE TOWER VERTICAL DESIGN**  
**LOOKING FROM LEDYARD JUNCTION TO BUDDINGTON SUBSTATION**  
**IN THE TOWN OF LEDYARD, CT**



**PROPOSED R.O.W. CONFIGURATION**  
**NO ADDITIONAL RIGHT-OF-WAY REQUIRED**  
**SINGLE CIRCUIT RISER TERMINAL AND SINGLE POLE VERTICAL DESIGN**  
**LOOKING FROM LEDYARD JUNCTION TO BUDDINGTON SUBSTATION**  
**IN THE TOWN OF LEDYARD, CT**  
**STR. #7036A-2 AND STR. #7036B-2**