STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
PUBLIC UTILITIES REGULATORY AUTHORITY

PETITION FOR APPROVAL OF METHOD AND MANNER OF CONSTRUCTION AND PERMISSION TO ENERGIZE THE HADDAM SUBSTATION TO EAST HADDAM JUNCTION REBUILD PROJECT (1772 AND 348 LINES)	:	DOCKET NO. ____
	:	June 26, 2026

PETITION OF
THE CONNECTICUT LIGHT AND POWER COMPANY DOING BUSINESS AS EVERSOURCE ENERGY

Pursuant to the Connecticut General Statutes ("CGS") §16-243 and the Regulations of Connecticut State Agencies ("RCSA") §16-11-137 and §16-11-139, The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") respectfully requests that the Public Utilities Regulatory Authority ("PURA") approve the method and manner of construction and provide permission to energize the 1772 and 348 transmission lines for the Haddam Substation to East Haddam Junction Rebuild Project ("Project"), which includes spans of the Connecticut River, as specifically described below:

1. The purpose of the Project is to maintain system reliability by upgrading approximately 1.5 miles of the 115-kilovolt ("kV") 1772 Line and the 345-kV 348 Line. The Project will involve replacing existing aging, at-risk infrastructure, including the aluminum conductor steel reinforced ("ACSR") conductors, as well as shield wire, optical ground wire ("OPGW"), and overstressed structures. The transmission line spans across and adjacent to the Connecticut River will be replaced with specialty aluminum encapsulated carbon core ("AECC") conductor, which can be pulled at higher tensions over long spans, thereby adhering to regulatory requirements for conductor clearance above the river while reducing

the structure heights at the river crossing as much as possible. On these same spans, the existing OPGW and shield wire will be replaced with custom high-strength OPGW, which also is designed to be pulled at higher tensions, consistent with the AECC conductor's tensions. On the remaining spans, the existing conductor and OPGW/shield wire will be replaced with Eversource standard aluminum conductor steel supported ("ACSS") conductor and standard OPGW.

As a result of the reconductoring and new OPGW, a total of six structures will be overstressed, including five double-circuit lattice steel towers and one single-circuit three-pole wood H-frame. These overstressed structures will be removed: the five double-circuit lattice steel towers will be replaced with eight single-circuit steel structures (one of the existing double-circuit lattice steel towers will not be replaced due to reconfiguration of span lengths between the replacement structures) and the single-circuit three-pole wood H-frame will be replaced with a single-circuit steel three-pole H-frame structure. The Project, which will be constructed within Eversource's existing right-of-way ("ROW") or on Eversource-owned property, extends east for approximately 1.5 miles from Haddam Substation, located at 1384 Saybrook Road in the Town of Haddam, across the Connecticut River, to East Haddam Junction, which is located west of State Route 151 in the Town of East Haddam.

The Project will maintain reliability by addressing age-related deterioration of the existing custom conductor (fraying) at the Connecticut River crossing. The existing double-circuit lattice steel towers at and near the river crossing will need to be replaced due to stressed conditions from increased loading of the proposed replacement conductor and OPGW. The design of the Project will improve system reliability by separating the two lines at and near the Connecticut River crossing onto single-circuit structures, thereby eliminating the potential risk to reliability from a double-circuit tower contingency failure. After the replacement of the double-circuit lattice towers with single-circuit structures, both the 1772 and 348 lines will be installed on independent structures throughout their length. The existing single-circuit wood pool structure on the 1772 Line also will be overstressed by

the new conductor and OPGW but would need to be replaced due to age-related deterioration. *Reference RCSA §16-11-137(1).*

2. The Project will take place in the Towns of Haddam and East Haddam, within Eversource's ROW or on Eversource owned property. Exhibit A includes maps illustrating the Project route and location of the circuits, including the points at which the Project will span the Connecticut River, the inactive railroad tracks within the Connecticut Valley Railroad State Park on the west side of the river, the facilities owned by other public utilities, and one state road and five local public roads (Haddam View Heights in Haddam; Main Street [State Route 149], Old East Haddam Road, Porges Road, Creek Row, and Boardman Road in East Haddam). *Reference RCSA §16-11-137 (2) and §16-11-139(1).*

3. The entire length of the Project is approximately 1.5 circuit miles of overhead line for each of the two circuits. *Reference RCSA §16-11-137(3).*

4. The Project involves reconductoring the 115-kV and 345-kV, 60-hertz, three-phase circuits, and replacing five existing double-circuit structures with eight single-circuit steel structures as well as replacing one existing single-circuit wood H-frame structure with a single-circuit steel H-frame structure. These lines were initially approved by Department of Public Utility Control;[1] as identified in the table, below with file number and date of issuance. *Reference RCSA §16-11-137(4) and RCSA §16-11-137(5).*

Initial Line Approvals Haddam Substation to East Haddam Junction Rebuild Project				
Section		**Line #**	**File #**	**Date**
From	**To**			
Pratt & Whitney Substation in Middletown	Yankee Atomic Generating Facility in Haddam	1772 Line	25-T-(4-24-34)-146	February 11, 1965
Haddam Substation in Haddam	Millstone Nuclear Generating Station	348 Line	4-T-32-24-760; 4-T-34-24-739; 4-T-32 *[2]	June 23, 1966

[1] The predecessor of PURA.

*[2] 4-T-32 is the original PURA filing approving the original 66-kV line in 1928. This filing covered the 66-kV line from Hanover Street Substation in the City of Meriden to the Montville Power Station. This line would eventually become a 345-kV line, first approved in 1966, a portion of which is now the current 348 Line that extends from Haddam 11C Substation to Millstone Power Station.

5. The materials to be used for the Project include:

1772 Line:

Structures:

Three single-circuit galvanized steel monopoles, one single-circuit steel 2-pole structure in a delta configuration, and one single-circuit galvanized 3-pole steel H-frame structure. All structures are designed for 115-kV operation. The structures range in height from 86.5 feet to 207.5 feet.

Overhead Conductor:

Approximately 0.59 circuit miles of 1590-kcmil 54/19 strand ACSS conductor per circuit and 0.83 circuit mile of specialty 2048-kcmil Evans AECC conductor.

Overhead Shield Wire:

Approximately 0.59 circuit miles of 0.646-inch-diameter fiber OPGW and 0.83 mile of custom high-strength 0.719-inch-diameter fiber OPGW.

Insulators:

Ceramic insulators, 30,000-pound and 40,000-pound and 50,000-pound Mechanical and Electrical strength, Class 52-5,52-8, and 52-11 in accordance with the American National Standards Institute C29.1 Test Methods for Electrical Power Insulators. In addition, line post polymer insulators will be utilized on the Project. The electrical ratings of the insulators are as follows:

Configuration	Number of Units Per String	Minimum 60 Hertz Flashover, kV	
		Wet	Dry
115-kV Steel/Suspension	9	375	540
115-kV Steel/Strain	10	415	590
115-kV Steel/Suspension over the river	17	660	920
115-kV Steel/Strain over the river	18	690	965

348 Line:

Structures:

Three single-circuit galvanized steel monopoles and one single-circuit steel 2-pole structure in a delta configuration. All structures are designed for 345-kV operation. The structures range in height from 86.5 feet to 207.5 feet. For each 345-kV line:

Overhead Conductor:

Approximately 0.59 circuit miles of 1590-kcmil ACSS conductor, two conductors per phase per circuit and 0.83 circuit mile of specialty 2048-kcmil Evans AECC conductor.

Overhead Shield Wire:

Approximately 0.59 circuit miles of (2) 0.646-inch diameter fiber OPGW on each circuit and 0.83 circuit mile of custom high strength 0.719-inch diameter fiber OPGW.

Insulators:

Ceramic insulators, 30,000-pound and 40,000-pound and 50,000-pound Mechanical and Electrical strength, Class 52-5, 52-8, and 52-11 in accordance with the American National Standards Institute C29.1 Test Methods for Electrical Power Insulators. In addition, line post polymer insulators will be utilized on the Project. The electrical ratings of the insulators are as follows:

Configuration	Number of Units Per String	Minimum 60 Hertz Flashover, kV	
		Wet	Dry
345-kV Steel/Suspension	17	660	920
345-kV Steel/Strain	18	690	965

Reference RCSA §16-11-137(5), §16-11-137(6), and §16-11-137(7).

6. Lightning protection will consist of OPGW installed over each circuit with associated grounding. In addition, transmission line lightning arrestors will be installed on selected structures. *Reference RCSA §16-11-137(7).*

7. The Project will not cross over or under, or affect in any different manner, circuits and facilities of other utilities, railways, or municipalities not already crossed by the existing transmission lines. *Reference RCSA §16-11-137(8).*

8. Construction shall be in accordance with Part 2 of the 2023 Edition of the National Electrical Safety Code as recommended in RCSA § 16-11-134. Also reference *RCSA §16-11-137(9).*

9. The Project will not impact the facilities of other utilities, railways, or municipalities, as it will not create any additional crossings over, under, parallel or conflict with such facilities.

Letters of no objection (LONO) are attached as Exhibit B. *Reference RCSA §16-11-137(10) and RCSA §16-11-139(2).*

10. Project construction began with civil work in April 2026. Construction is expected to be completed (exclusive of final restoration) by the end of December 2026. The 1772 and 348 lines will be re-energized during and after construction. *Reference RCSA §16-11-137(11).*

11. Drawings showing the typical arrangement and spacing of conductors on the single-circuit poles, in a typical span for both the 115-kV 1772 Line and the 345-kV 348 Line, are attached in Exhibit C, as follows:

- Sketch 1: Single-Circuit Steel Vertical Monopole Structure (1772 and 348 Lines)
- Sketch 2: Single-Circuit Steel 2-Pole Delta Structure (1772 and 348 lines)
- Sketch 3: Single-Circuit 3-Pole Steel H-Frame Structure (1772 Line)

The sag of the 1590 kcmil ACSS conductors for a typical span of 650 feet will be approximately 16.5 feet at 60°F and approximately 23.5 feet at 392°F. The clearance to ground will be typically greater than 24 feet at 392°F for 115-kV lines, and 29 feet for 345-kV lines.

The sag of the specialty 2048-kcmil Evans AECC conductors for the span of 2,535 feet over the Connecticut River will be approximately 52 feet at 60°F and approximately 52.5 feet at 392°F. The specialty 2048-kcmil Evans AECC conductor is primarily over the Connecticut River, and the clearances to Mean High Water will always be above the U.S. Army Corps of Engineers permitted 101-foot clearance. In the locations adjacent to the river crossing where the specialty 2048-kcmil Evans AECC conductor is overland, the clearance to ground will be typically greater than 24 feet at 392°F for the 115-kV 1772 Line and 29 feet for 345-kV 376 and 362 lines. *Reference RCSA §16-11-137(12).*

12. The Project does not include underground transmission line construction. *Reference RCSA §16-11-137(13).*

13. The Project construction will involve multiples outages and re-energizing of the 1772, and 348 lines as the proposed work is being performed. For this reason, Eversource seeks permission to energize the circuits during and at the completion of construction. *Reference § RCSA §16-11-137(14).*

On March 5, 2026, the Connecticut Siting Council ruled on the Project (Petition No. 1690), determining that the Project would not have a substantial adverse effect and that a Certificate of Environmental Compatibility and Public Need is not needed for the Project, pursuant to CGS §16-50k(a).

Pursuant to CGS §16-243 and having met the requirements of *RCSA §16-11-137 and §16-11-139*, Eversource hereby requests PURA's approval of the method and manner of construction and permission to energize the lines, as specifically described above.

RESPECTFULLY SUBMITTED THIS 26th day of June 2026.

THE CONNECTICUT LIGHT AND POWER COMPANY
DOING BUSINESS AS
EVERSOURCE ENERGY

By: Stephen Marien Digitally signed by Stephen Marien Date: 2026.06.26 09:58:43-04'00'

Stephen A. Marien, P.E.
Manager
Transmission Line and Civil Engineering
Eversource Energy
PO Box 270
Hartford, CT 06141-0270

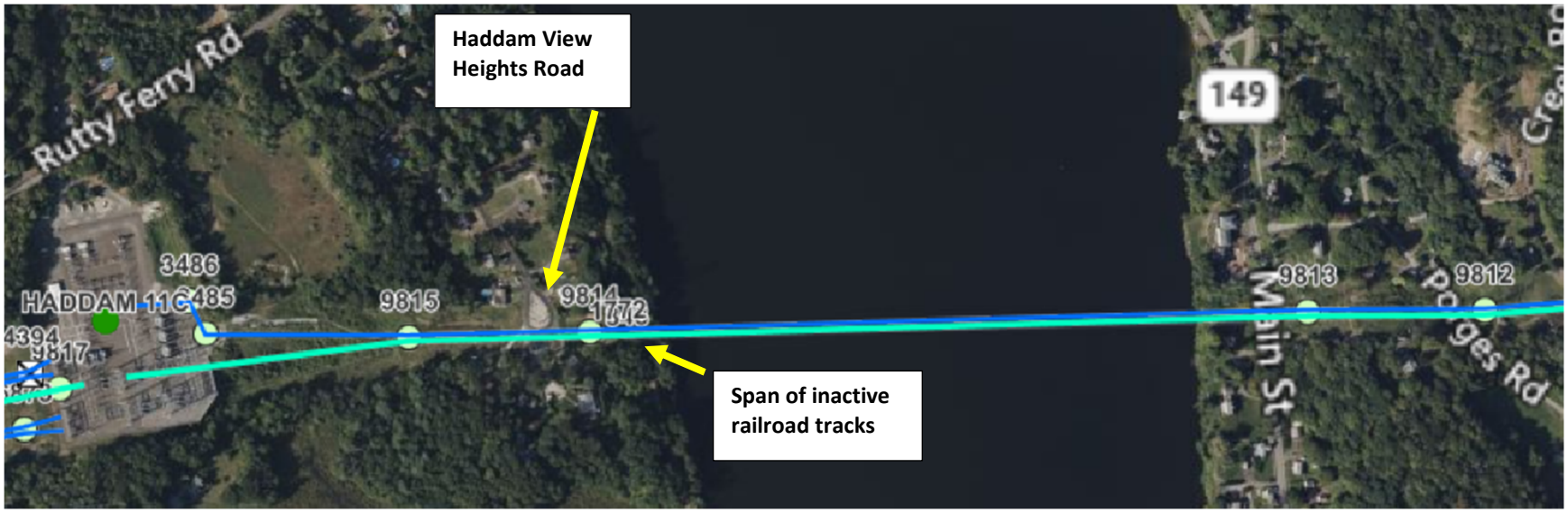
Attachments:
Exhibit A: Project Area Map
Exhibit B: Letters of No Objection (Frontier, Comcast)
Exhibit C: Drawings

EXHIBIT A

PROJECT AREA MAP
Required by RCSA §16-11-139(1)

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Map Sheet 1 of 2: Haddam Substation 11C East across the Connecticut River into East Haddam



1772 Line (north side of ROW); 348 Line (south side of ROW).

Map Sheet 2 of 2: Connecticut River East to East Haddam Junction

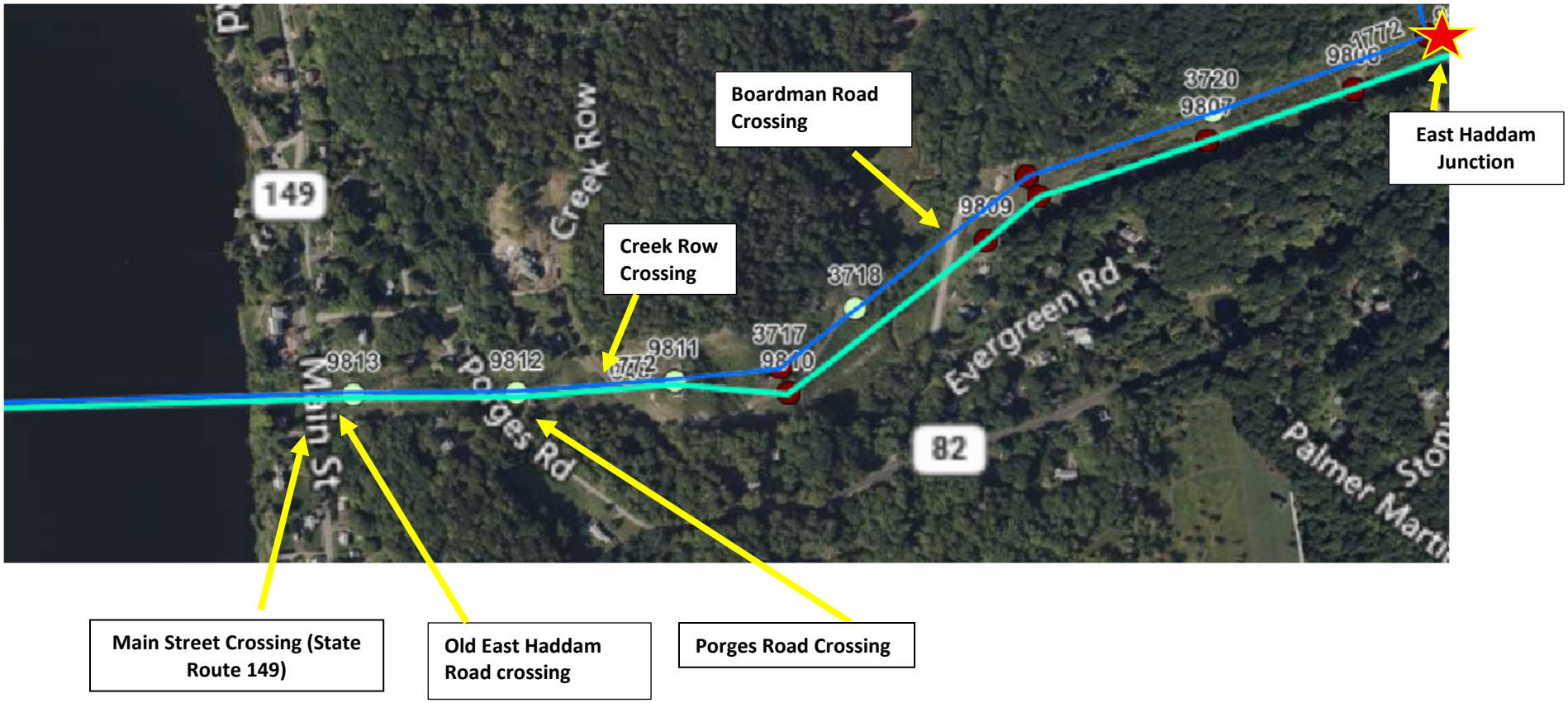


EXHIBIT B

LETTERS OF NO OBJECTION
Required by RCSA §16-11-139(2)



April 12th, 2024

Eversource Energy
Austin Sullivan
Engineer
Transmission Line Engineering
56 Prospect St, Hartford, CT 06103
(860)-997-1012

Re: 348 and 1772 Lines Rebuild Project Approval for Crossing Other Utility Facilities

Dear Austin Sullivan:

Based on our review of the materials provided by Eversource, Comcast offers no objection to the proposed method or manner of construction. Comcast's understanding is that Eversource's construction will not require any handling, shifting or removal of Comcast's attachments or facilities on distribution poles running below the separate 115/345kv line.

Any damage to Comcast's facilities could result in the disruption of service including emergency communications. Accordingly, Comcast respectfully requests immediate notification from Eversource in the event of any damage to our facilities.

Regards,

Ryan Menard

Ryan Menard
Construction Supervisor
Western New England South
222 New Park Drive
Berlin, CT
(860) 338-9778

<1175 Woodend Rd>
<S Swap>
<Frontier>
<Stratford, CT>

April 30, 2024

Austin Sullivan, EIT
Transmission Line Engineering
56 Prospect St
Hartford, CT 06103

or if Courier Delivery, to:

56 Prospect St.
Hartford, CT 06103

Dear Austin Sullivan

Subject: 1772/348 115kV and 345 kV Rebuild project & crossing other utilities approved

We have reviewed your drawings detailing the proposed construction of the Eversource electric transmission line rebuilding project crossing over, under or near our facilities in East Haddam, CT.

Frontier Communications acknowledges and has no objection to the method and manner of construction of the transmission line near our facilities (***Conditions may exist related to the Eversource placements-attachment),*** designed in accordance with the Department of Public Utility Control requirement to conform to all applicable provisions of the latest Edition of the National Electrical Safety Code.

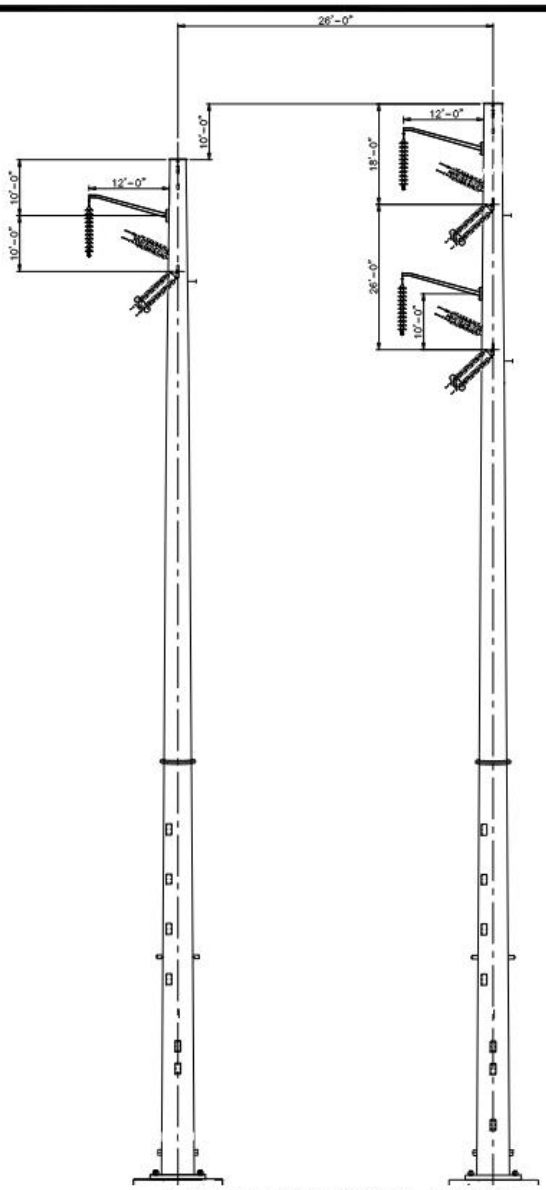
Please contact me should you have further questions.

Best regards,

Steve Swap, Mgr Network Engineering Faifield County
Lynne DeLucia, Mgr Network Engineering (Conduit Group)

EXHIBIT C

DRAWINGS
Required by RCSA §16-11-137(12)
(Spacing of conductors, sag and clearances)



ELEVATION VIEW

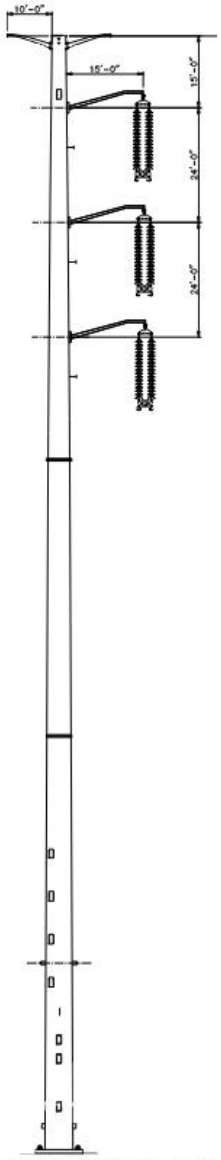
NO.	DATE	AS BUILT REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

TITLE

EAST HADDAM JCT TO HADDAM S/S
345-kV Line 348 and 115-kV Line 1772
SINGLE CIRCUIT TWO POLE DEAD-END
EAST HADDAM

BY	ATS	CHKD		APP	APP
DATE		DATE		DATE	DATE
H-SCALE	N.T.S.	SIZE	A	FIELD BOOK & PAGES	
V-SCALE	N.T.S.	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				DWG NO.	



ELEVATION VIEW

NO.	DATE	AS BUILT REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

TITLE

EAST HADDAM JCT TO HADDAM S/S
345-kV Line 348 and 115-kV Line 1772
SINGLE CIRCUIT MONOPOLE
EAST HADDAM AND HADDAM

BY	ATS	CHKD		APP	APP
DATE		DATE		DATE	DATE
H-SCALE	N.T.S.	SIZE	A	FIELD BOOK & PAGES	
V-SCALE	N.T.S.	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				DWG NO.	