

**LEGEND:**

- I158 LINE: - - - -
- I158 STR: 17



**I158, 115kV LINE  
STATE OWNED LAND & PUBLIC WATER CROSSING  
LONDONDERRY, MANCHESTER NEW HAMPSHIRE  
EXHIBIT 1**

T	2
DRAWN NEB	
ENGINEER CRP	
CHECKED JJD	
APPROVED CRP	
DATE 2/7/2023	

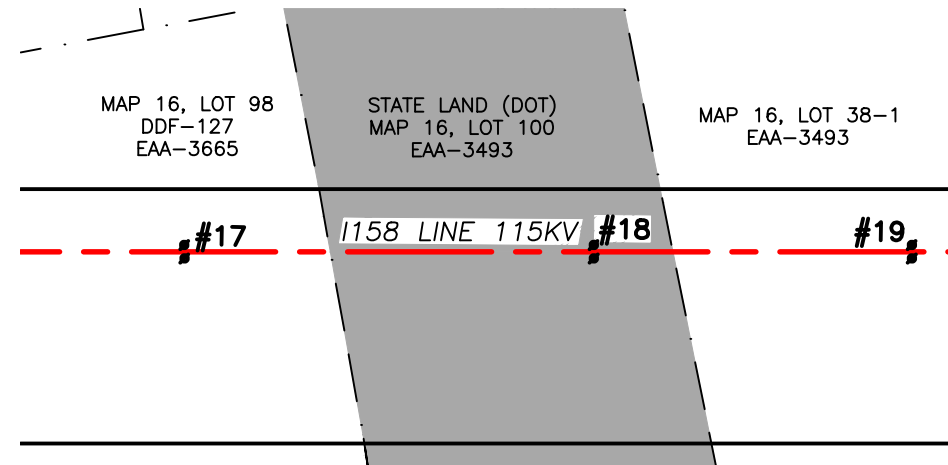
DWG REV	EPN/DESCRIPTION	CONT/PE#	DATE	DRN	CHKD	APPR
2	ISSUED FOR DOE		11/22/24	NEB	JJD	CRP
1	ISSUED FOR DOE		10/3/23	NEB	JJD	CRP

SCALE 1" = 5500'	FILE: I15843500.DWG IMAGE:	DRAWING NO. <b>I15843500</b>
---------------------	-------------------------------	---------------------------------

LONDONDERRY, NH

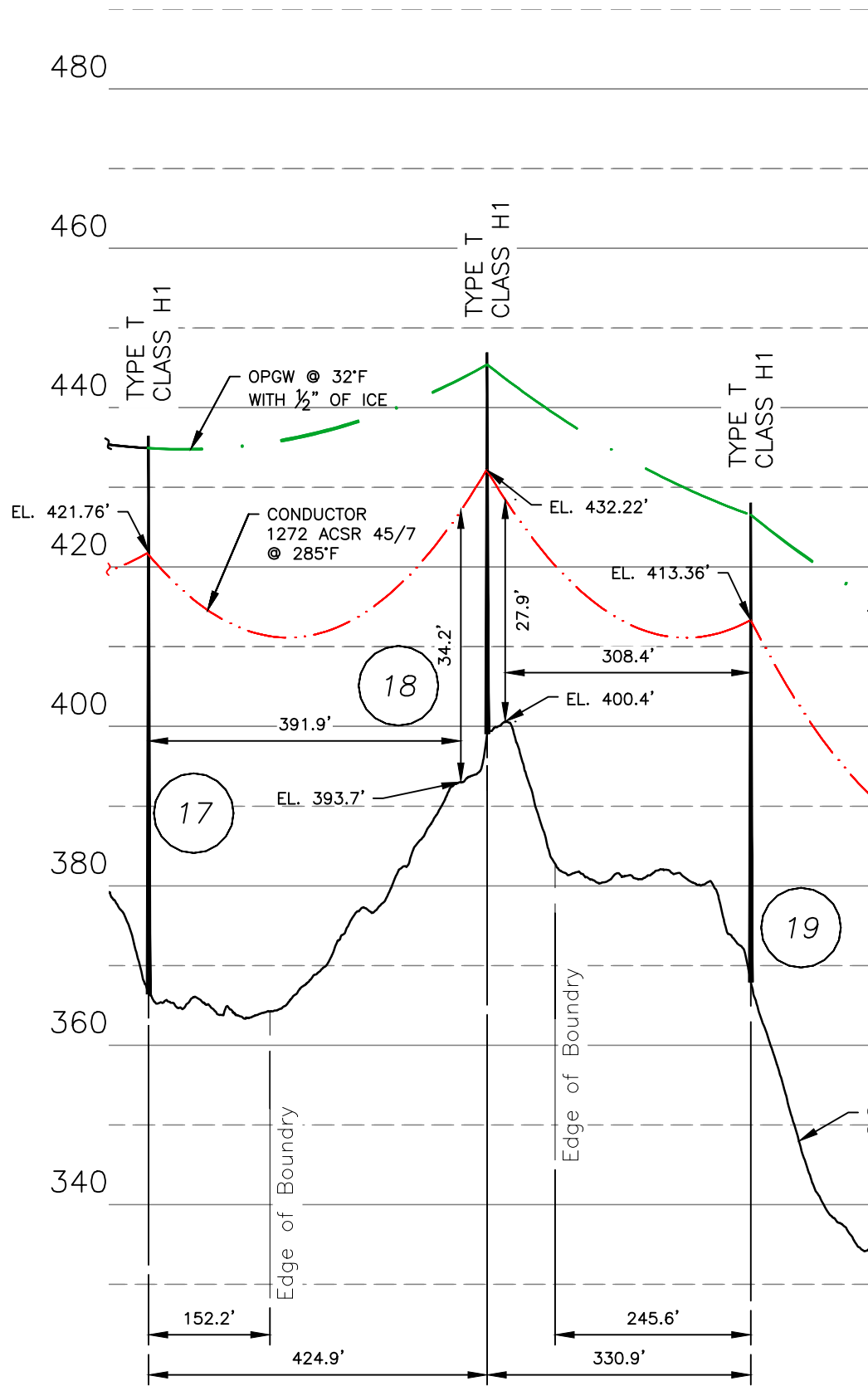
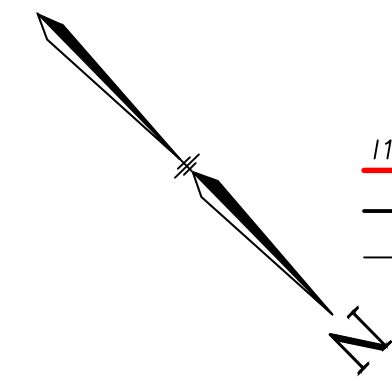
**PLAN VIEW**

SCALE: 1" = 200'



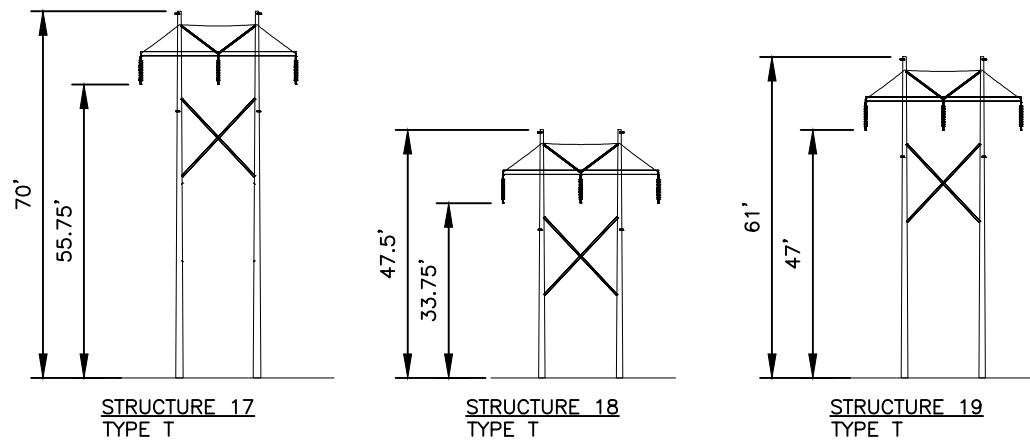
**LEGEND:**

- #17 STRUCTURE
- STATE OF NEW HAMPSHIRE PROPERTY
- 1158 LINE 115KV LINE,  $\phi$  OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY
- PROPERTY LINE



**PROFILE VIEW**

SCALE: HORZ 1" = 200'  
VERT 1" = 20'



STR 17: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

STR 18: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

STR 19: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

**STRUCTURE DETAIL**

SCALE: NTS

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
17	-71.35302036	42.91068430
18	-71.35415198	42.91150613
19	-71.35503097	42.91214447

NESC VERTICAL CLEARANCE (FT)	
FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
OTHER AREAS TRAVERSED BY VEHICLES SUCH AS CULTIVED, GRAZING, FOREST AND ORCHARD LANDS, INDUSTRIAL SITES, COMMERCIAL SITES, ECT.	20.1

CABLE SCHEDULE						
WIRE	QTY OF CABLES	DESCRIPTION	DESIGN CONDITIONS			
			MAX DESIGN TENSION (lb)	TEMP (°F)	ICE (in)	WIND (psf)
CONDUCTOR	3	ACSR, 1272 kcmil 45/7, BITTERN	10000	0	0.5	4
OPGW	1	BRUGG 79AY46ACS	4000	0	0.5	4
OPGW	1	OPGW-S-48G.652D-16	5000	0	0.5	4

**NOTES:**

1. PARCEL INFORMATION PROVIDED BY NH GRANIT.
2. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.



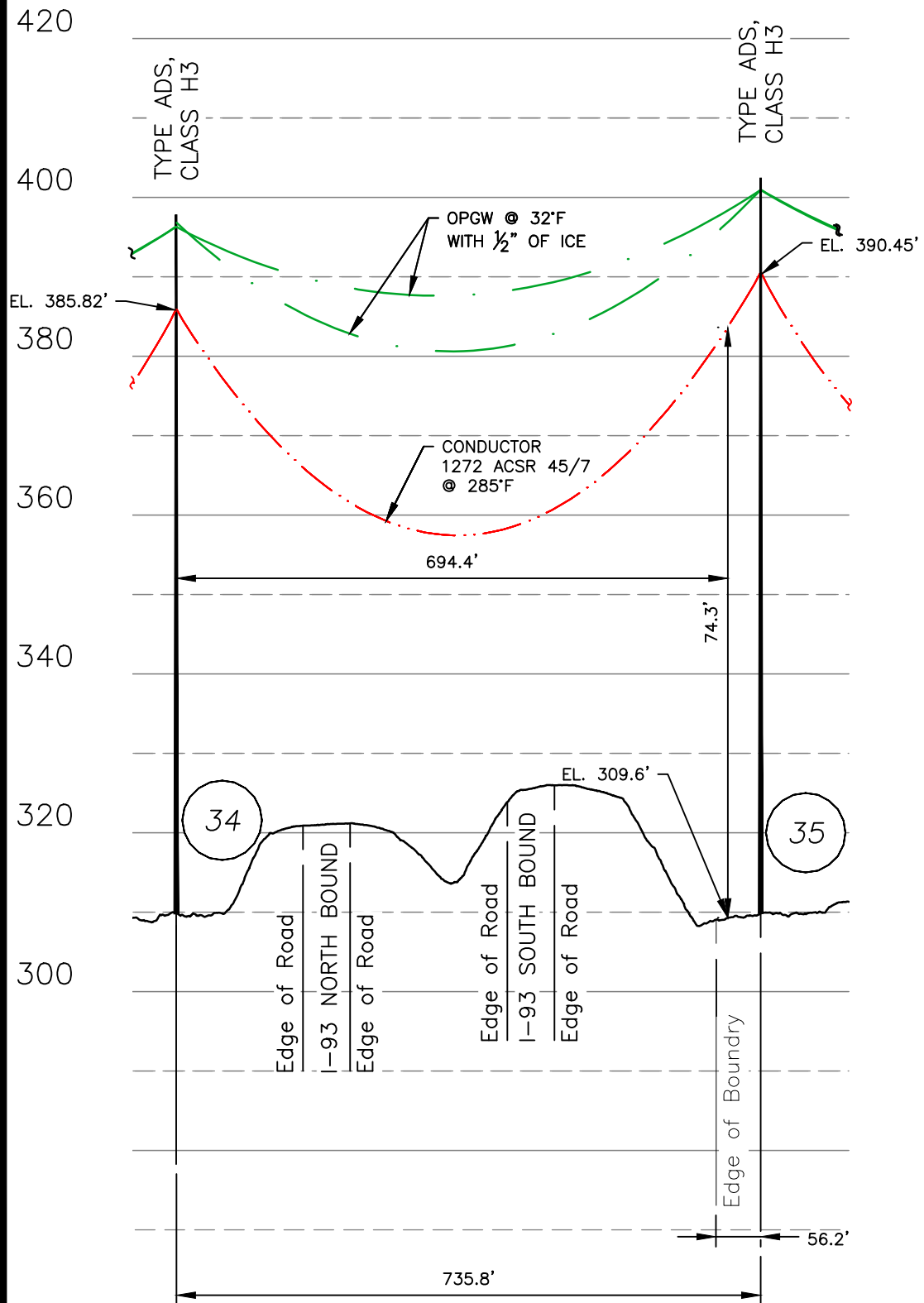
I158, 115kV LINE  
STATE OWNED LAND CROSSING  
LONDONDERRY, NEW HAMPSHIRE  
EXHIBIT 2

T	2
DRAWN	NEB
ENGINEER	CRP
CHECKED	JJD
APPROVED	CRP
DATE	2/7/2023

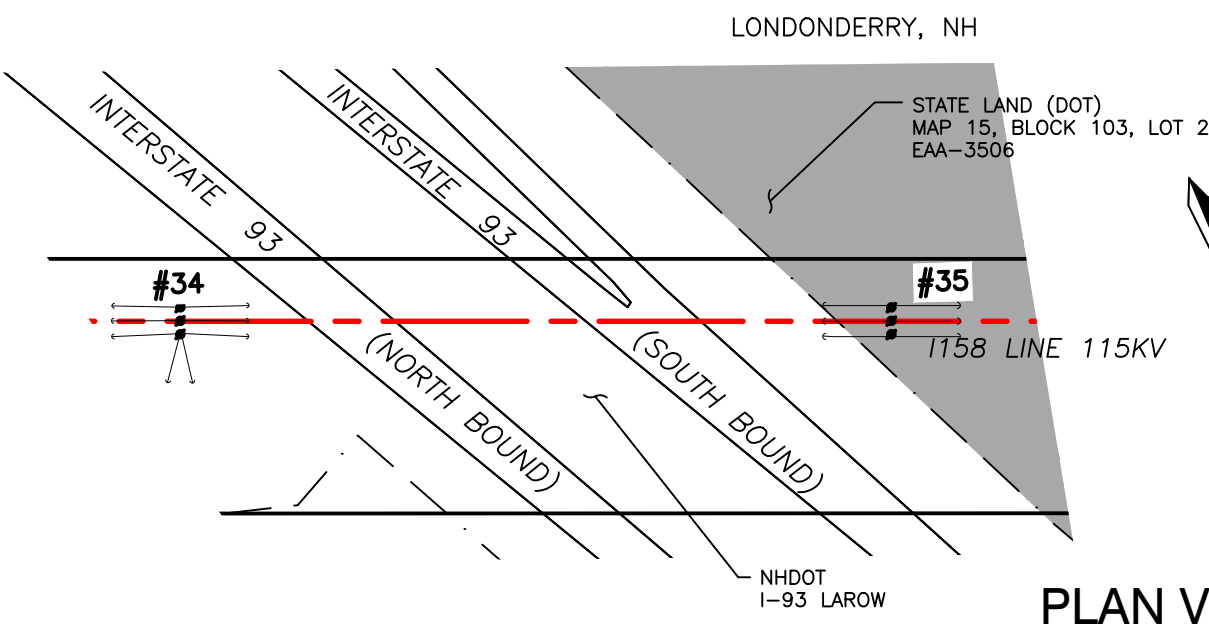
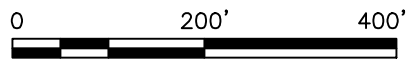
DWG REV	EPN/DESCRIPTION	CONT/PE#	DATE	DRN	CHKD	APPR
2	ISSUED FOR DOE		11/22/24	NEB	JJD	CRP
1	ISSUED FOR DOE		10/3/23	NEB	JJD	CRP

SCALE	AS SHOWN	FILE: I15843500.DWG	DRAWING NO.	I15843500
IMAGE:				

11/18/2024 5:15 PM - NickB - C:\Users\NickB\appdata\local\temp\AcPublish\_29780\115843500.dwg - EXHIBIT 3 (LAND CROSSING) ES VER: 12/2016



**PROFILE VIEW**  
SCALE: HORZ 1" = 200'  
VERT 1" = 20'



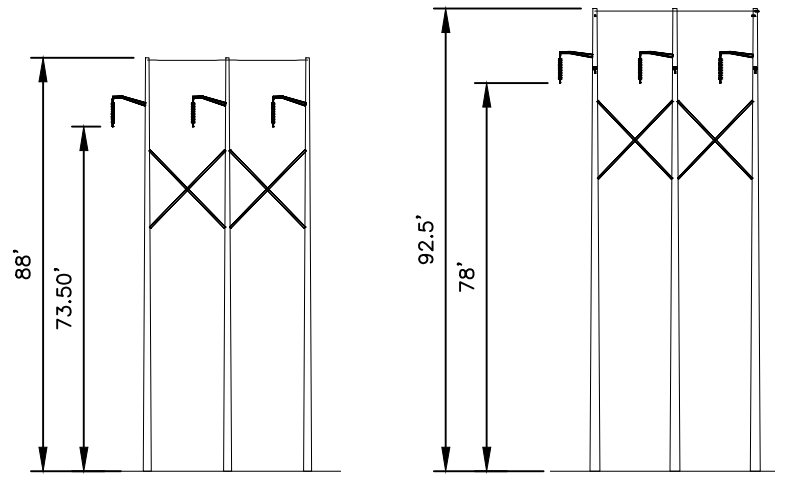
**PLAN VIEW**  
SCALE: 1" = 200'

**LEGEND:**

- #34 STRUCTURE
- STATE OF NEW HAMPSHIRE PROPERTY
- 1158 LINE 115KV LINE, C OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY
- PROPERTY LINE

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
34	-71.37438626	42.92192445
35	-71.37691697	42.92270965

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
OTHER AREAS TRAVERSED BY VEHICLES SUCH AS CULTIVED, GRAZING, FOREST AND ORCHARD LANDS, INDUSTRIAL SITES, COMMERCIAL SITES, ECT.	20.1



**STRUCTURE 34**  
TYPE ADS  
STR 34: IS AN EVERSOURCE TYPE ADS, SINGLE CIRCUIT STEEL DEADEND, HORIZONTAL CONFIG.

**STRUCTURE 35**  
TYPE ADS  
STR 35: IS AN EVERSOURCE TYPE ADS, SINGLE CIRCUIT STEEL DEADEND, HORIZONTAL CONFIG.

**STRUCTURE DETAIL**  
SCALE: NTS

- NOTES:**
- PARCEL INFORMATION PROVIDED BY NH GRANIT.
  - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	DESCRIPTION	DESIGN CONDITIONS			
			MAX DESIGN TENSION (lb)	TEMP (°F)	ICE (in)	WIND (psf)
CONDUCTOR	3	ACSR, 1272 kcmil 45/7, BITTERN	10000	0	0.5	4
OPGW	1	BRUGG 79AY46ACS	4000	0	0.5	4
OPGW	1	OPGW-S-48G.652D-16	5000	0	0.5	4

DWG REV	EPN/DESCRIPTION	CONT/PE#	DATE	DRN	CHKD	APPR
2	ISSUED FOR DOE		11/22/24	NEB	JJD	CRP
1	ISSUED FOR DOE		10/3/23	NEB	JJD	CRP

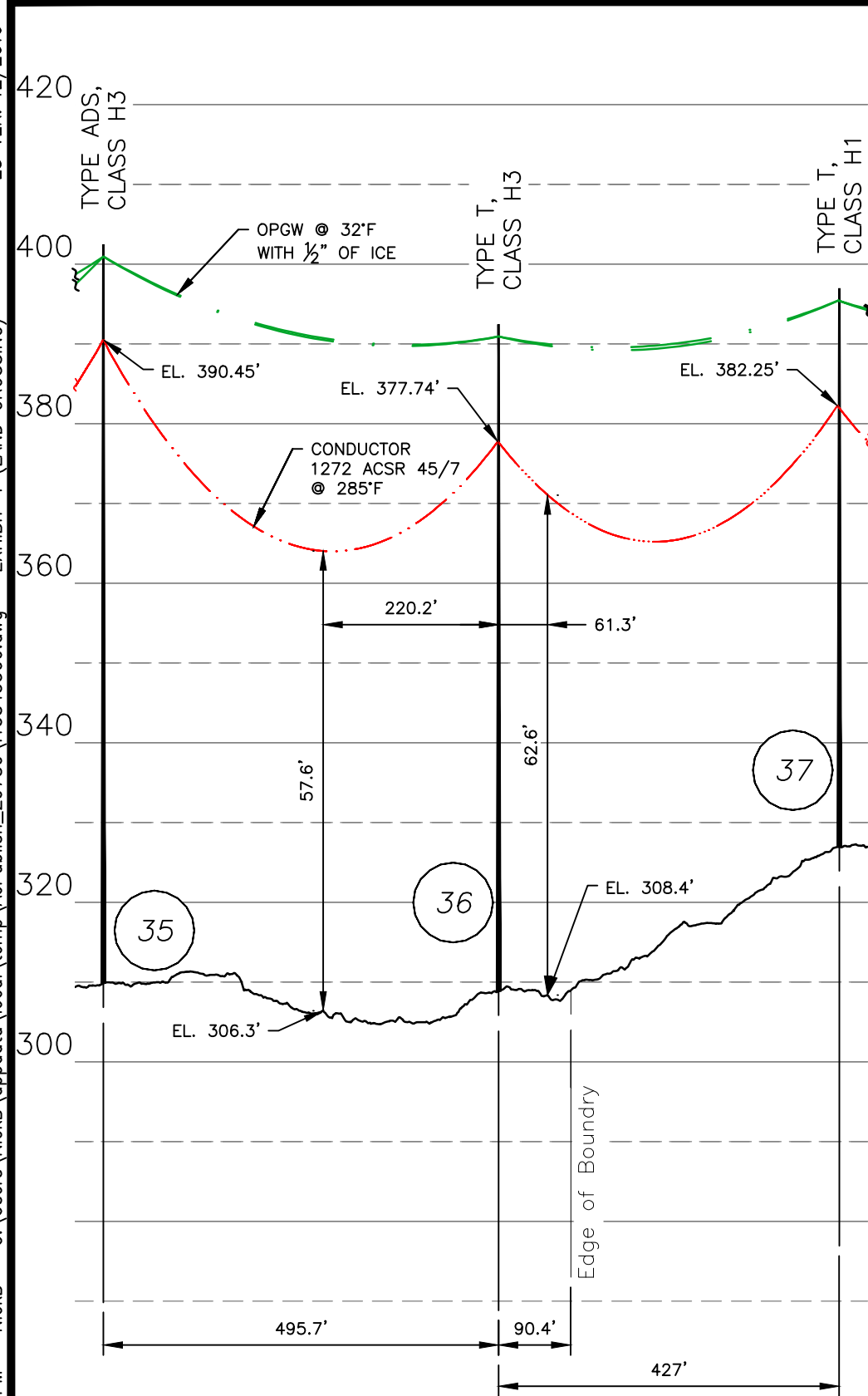
**EVERSOURCE ENERGY**

I158, 115kV LINE  
STATE OWNED LAND CROSSING  
LONDONDERRY, NEW HAMPSHIRE  
EXHIBIT 3

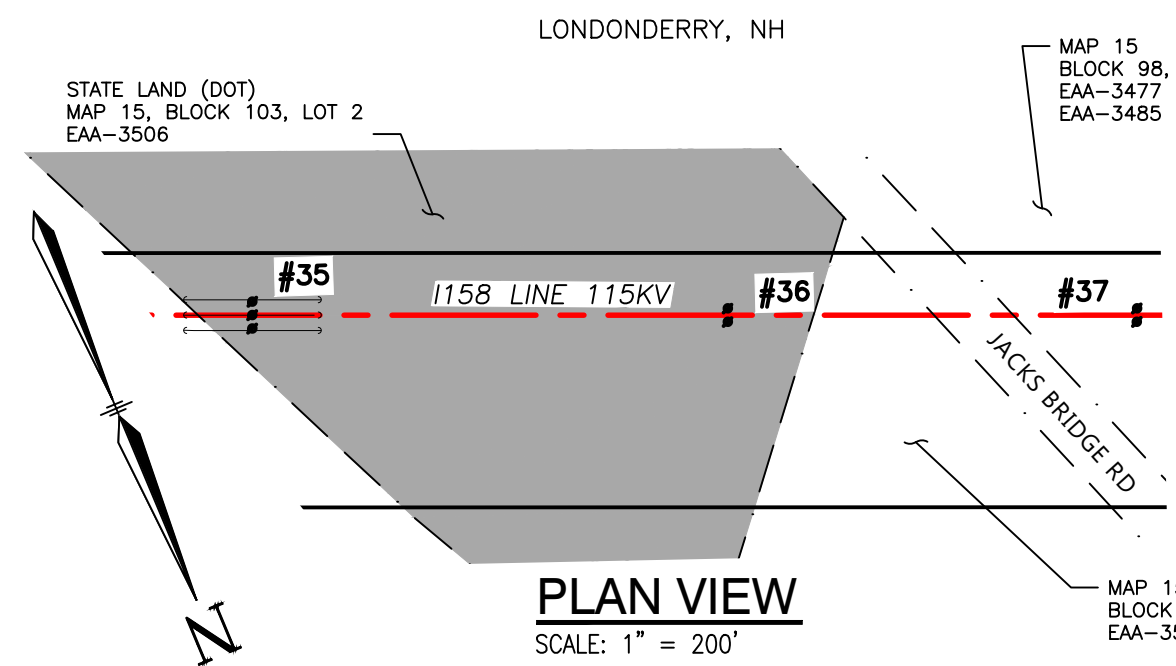
T	2
DRAWN	NEB
ENGINEER	CRP
CHECKED	JJD
APPROVED	CRP
DATE	2/7/2023

SCALE: AS SHOWN  
FILE: I15843500.DWG  
DRAWING NO.: I15843500

11/18/2024 5:15 PM - NickB - C:\Users\NickB\appdata\local\temp\AcPublish\_29780\115843500.dwg - EXHIBIT 4 (LAND CROSSING) ES VER: 12/2016



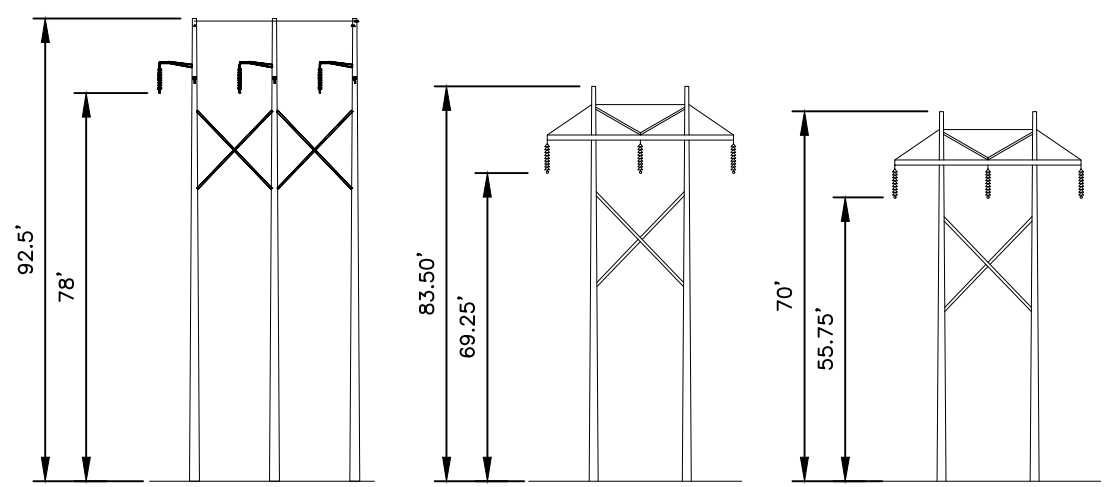
**PROFILE VIEW**  
SCALE: HORZ 1" = 200'  
VERT 1" = 20'



**PLAN VIEW**  
SCALE: 1" = 200'

**LEGEND:**

- #37 STRUCTURE
- STATE OF NEW HAMPSHIRE PROPERTY
- 1158 LINE 115KV LINE, C OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY
- PROPERTY LINE



**STRUCTURE 35**  
TYPE ADS  
STR 35: IS AN EVERSOURCE TYPE ADS, SINGLE CIRCUIT STEEL DEADEND, HORIZONTAL CONFIG.

**STRUCTURE 36**  
TYPE T  
STR 36: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

**STRUCTURE 37**  
TYPE T  
STR 37: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

**STRUCTURE DETAIL**  
SCALE: NTS

- NOTES:**
1. PARCEL INFORMATION PROVIDED BY NH GRANIT.
  2. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
35	-71.37691697	42.92270965
36	-71.37862181	42.92323857
37	-71.38008578	42.92369273

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
OTHER AREAS TRAVERSED BY VEHICLES SUCH AS CULTIVED, GRAZING, FOREST AND ORCHARD LANDS, INDUSTRIAL SITES, COMMERCIAL SITES, ECT.	20.1

CABLE SCHEDULE						
WIRE	QTY OF CABLES	DESCRIPTION	DESIGN CONDITIONS			
			MAX DESIGN TENSION (lb)	TEMP (°F)	ICE (in)	WIND (psf)
CONDUCTOR	3	ACSR, 1272 kcmil 45/7, BITTERN	10000	0	0.5	4
OPGW	1	BRUGG 79AY46ACS	4000	0	0.5	4
OPGW	1	OPGW-S-48G.652D-16	5000	0	0.5	4

DWG REV	EPN/DESCRIPTION	CONT/PE#	DATE	DRN	CHKD	APPR
2	ISSUED FOR DOE		11/22/24	NEB	JJD	CRP
1	ISSUED FOR DOE		10/3/23	NEB	JJD	CRP

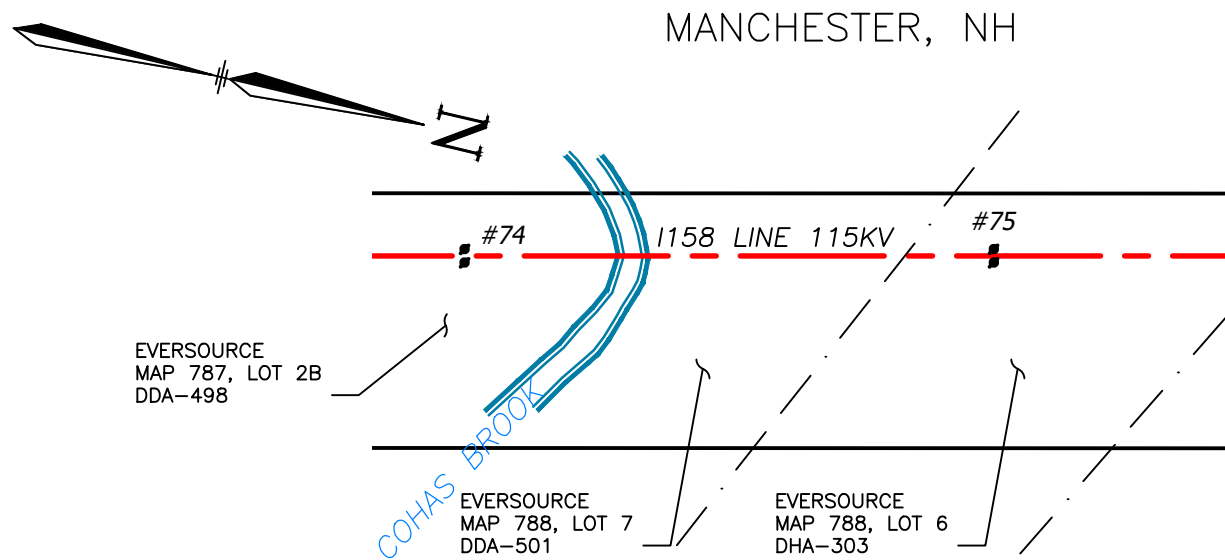
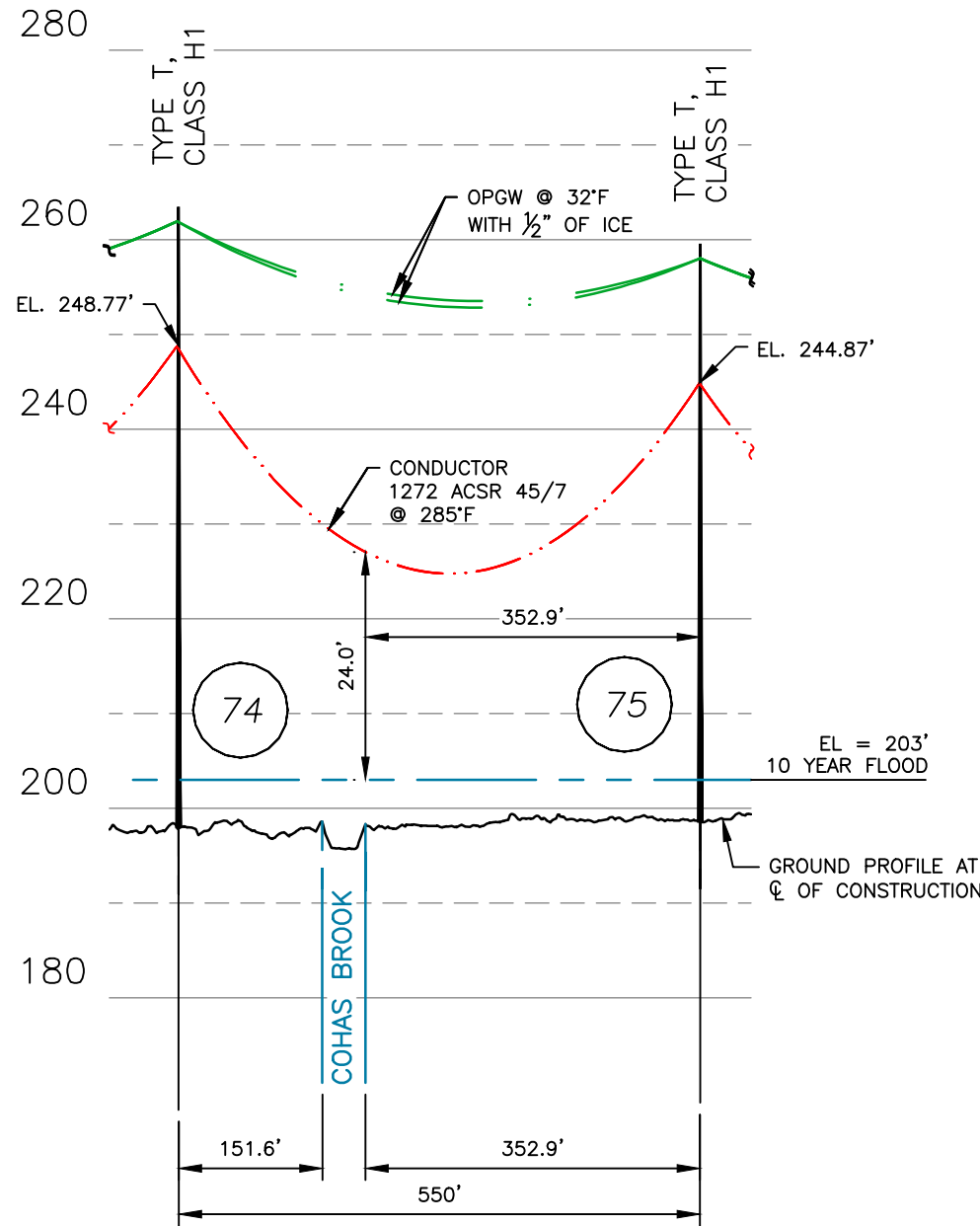
**EVERSOURCE ENERGY**

1158, 115kV LINE  
STATE OWNED LAND CROSSING  
LONDONDERRY, NEW HAMPSHIRE  
EXHIBIT 4

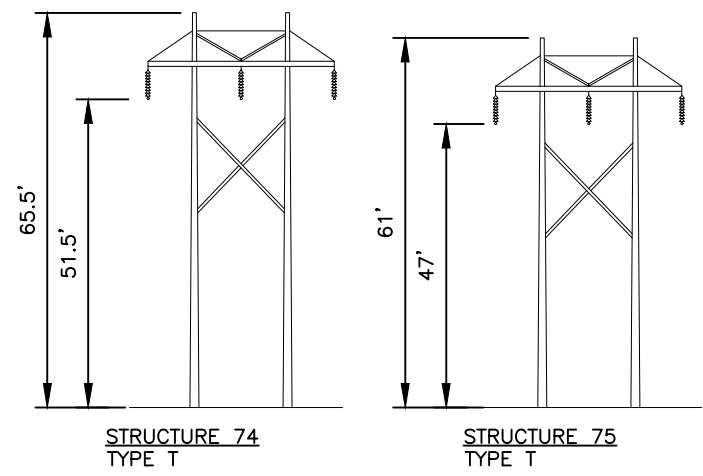
SCALE AS SHOWN	FILE: 115843500.DWG IMAGE:	DRAWING NO. <b>115843500</b>
-------------------	-------------------------------	---------------------------------

T	2
DRAWN NEB	ENGINEER CRP
CHECKED JJD	APPROVED CRP
DATE 2/7/2023	

10/3/2023 1:54 PM - NickB - \\rlc-fs1\RLC-PD\Active Projects\02497\_ES\_TL\_Engineering\_and...115843900.dwg - EXHIBIT 5 (WATER CROSSING) ES VER: 12/2016



**PLAN VIEW**  
SCALE: 1" = 200'



STR 74: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.  
STR 75: IS AN EVERSOURCE TYPE T, SINGLE CIRCUIT STEEL TANGENT, HORIZONTAL CONFIG.

**STRUCTURE DETAIL**  
SCALE: NTS

**LEGEND:**

- #70 STRUCTURE
- 1158 LINE 115KV LINE, C OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY
- WATERBODY
- PROPERTY BOUNDARY

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
74	-71.42319256	42.94737702
75	-71.42365868	42.94885054

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
WATER AREAS NOT SUITABLE FOR SAIL BOATING OR WHERE SAIL BOATING IS PROHIBITED	18.6

CABLE SCHEDULE						
WIRE	QTY OF CABLES	DESCRIPTION	DESIGN CONDITIONS			
			MAX DESIGN TENSION (lb)	TEMP (°F)	ICE (in)	WIND (psf)
CONDUCTOR	3	ACSR, 1272 kcmil 45/7, BITTERN	10000	0	0.5	4
OPGW	1	BRUGG 79AY46ACS	4000	0	0.5	4
OPGW	1	OPGW-S-48G.652D-16	5000	0	0.5	4

- NOTES:**
- PARCEL INFORMATION PROVIDED BY NH GRANIT.
  - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  - 10 YEAR FLOOD ELEVATION FROM THE FEMA FLOOD INSURANCE STUDY NO. 33011CV003A.

DWG REV	EPN/DESCRIPTION	CONT/PE#	DATE	DRN	CHKD	APPR
2	ISSUED FOR DOE		11/22/24	NEB	JJD	CRP
1	ISSUED FOR DOE		10/3/23	NEB	JJD	CRP

**EVERSOURCE ENERGY**

I158, 115kV LINE  
COHAS BROOK WATER CROSSING  
MANCHESTER, NEW HAMPSHIRE  
EXHIBIT 5

T	2
DRAWN	NEB
ENGINEER	CRP
CHECKED	JJD
APPROVED	CRP
DATE	2/7/2023

SCALE AS SHOWN FILE: I15843900.DWG DRAWING NO. I15843900

**Exhibit 6 - Eversource I158 Line Structure Replacements - DOE Public Waterbody and State-Owned Land Crossing Details**

<b>New Structure #</b>	<b>Structure Type</b>	<b>Height Change (feet)</b>	<b>Span (Pole to Pole)</b>	<b>Span Distance (feet)</b>	<b>Minimum NESC Table 232-1 Clearance (ft.)</b>	<b>ES Vertical Design Clearance (ft.)</b>	<b>Complies with NESC Table 232-1 (Y/N)</b>
17	70' steel, 2 pole, T, CLH1	13.5	17-18	424.9	20.1	34.2	Y
18	47.5' steel, 2 pole, T, CLH1	4.5					
19	61' steel, 2 pole, T, CLH1	4.5	18-19	330.9	20.1	27.9	Y
34	88.0' steel, 3 pole, ADS, CLH3	31.5	34-35	735.8	20.1	74.3	Y
35	92.5' steel, 3 pole, ADS, CLH3	22.5					
36	83.5' steel, 2 pole, T, CLH3	27	35-36	495.7	20.1	57.6	Y
37	70.0' steel, 2 pole, T, CLH1	22.5	36-37	427	20.1	62.6	Y
74	65.5' steel, 2 pole, T, CLH1	9	74-75	550	18.6	24	Y
75	61.0' steel, 2 pole, T, CLH1	4.5					