

THE FROST BRIDGE TO CAMPVILLE 115-kV PROJECT BY THE CONNECTICUT LIGHT AND POWER COMPANY DOING BUSINESS AS EVERSOURCE ENERGY

VOLUME 5: PROJECT MAPPING & DRAWINGS

SEPTEMBER 2015



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EXHIBIT 1: 400 SCALE MAPS: PROPOSED ROUTE

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INTRODUCTION

This volume provides maps that identify both the regional setting and the land use / environmental characteristics of the 10.4-mile Proposed Route that Eversource Energy has identified for the new 115-kV transmission line and related facilities comprising the Frost Bridge to Campville Project (Project).

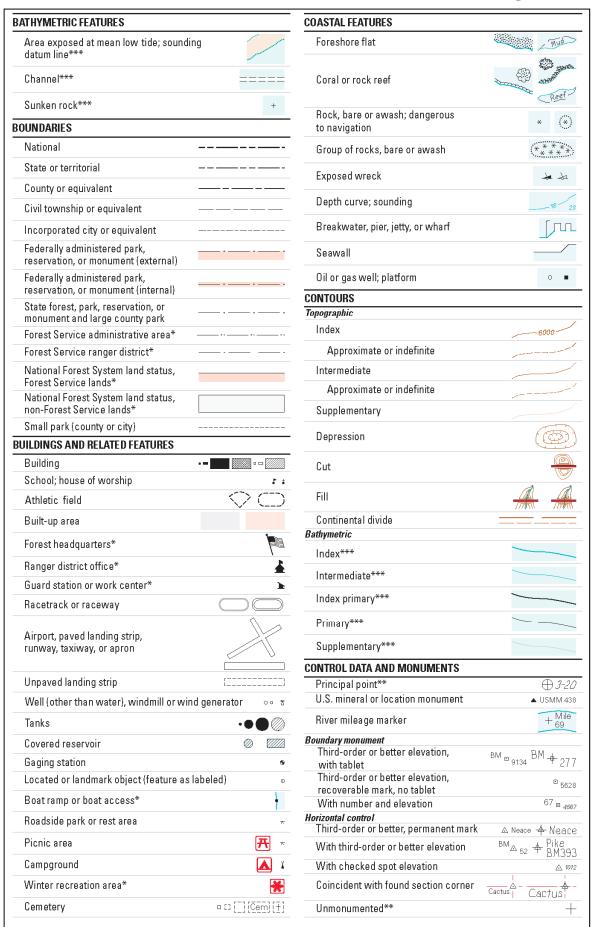
Eversource's Proposed Route, along which the new 115-kV transmission line would be constructed and operated in overhead configurations, would follow an existing Eversource right-of-way (ROW) extending between Eversource's existing Frost Bridge Substation in the Town of Watertown and Campville Substation in the Town of Harwinton. In conjunction with the development of the new 115-kV transmission line, Eversource would modify the existing Frost Bridge Substation and Campville Substation. (Refer to Volume 1 for details regarding the Proposed Route and transmission line facilities.)

The following maps are included in this volume:

- Exhibit 1: U.S. Geological Survey Maps. These topographic maps (at a scale of 1" = 2,000') illustrate the general locations of the proposed Project facilities and variations.
- Exhibit 2: Proposed Route Maps. These aerial photography-based maps (at a scale of 1" = 400' 1) identify the location of the Proposed Route along Eversource's existing ROW; depict existing and proposed transmission line structures; and illustrate environmental, social, and land use features (e.g., town boundaries, zoning, water resources, vegetative cover types, forests, parks, other recreational areas, historic areas, and settled areas). Each aerial map is accompanied by explanatory data (on the page facing the map) that summarizes the primary environmental and land use characteristics of the ROW and surrounding region within the map viewing area. The page facing the map also includes a cross-section illustrating the configuration of the existing and proposed transmission lines within the ROW, as applicable to the map segment. (Note: Cross-section drawings also are included in Volume 1, Section 3, Appendix 3A and Volume 10.)

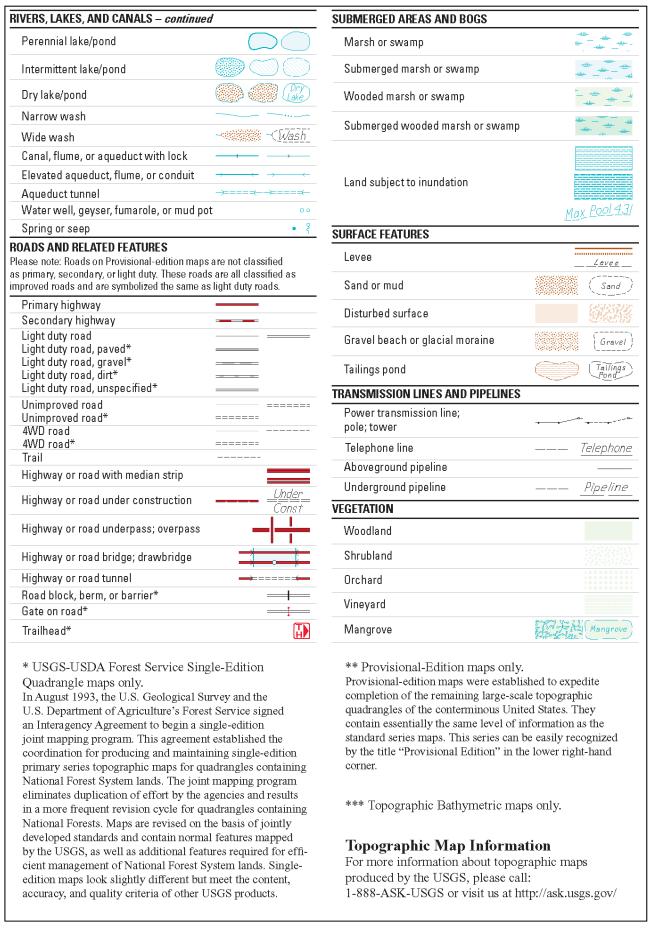
	APPENDIX 1A: OVERVIEW OF ROUTE ON USGS MAPS
Connecticut Siting Council – Municipal Consultation Filing Frost Bridge to Campville 115-kV Project	

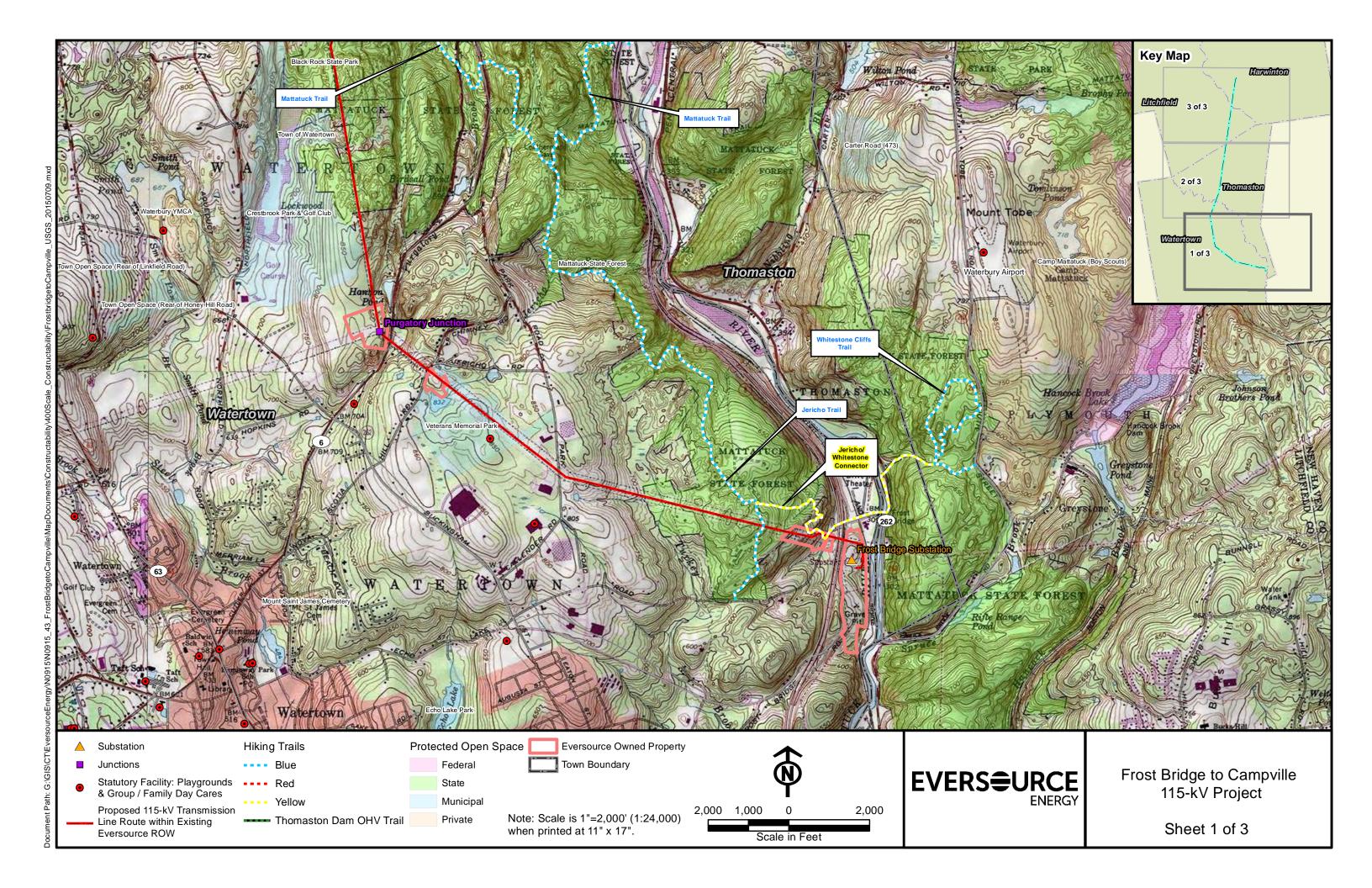
United States Geological Survey Topographic Map Symbols

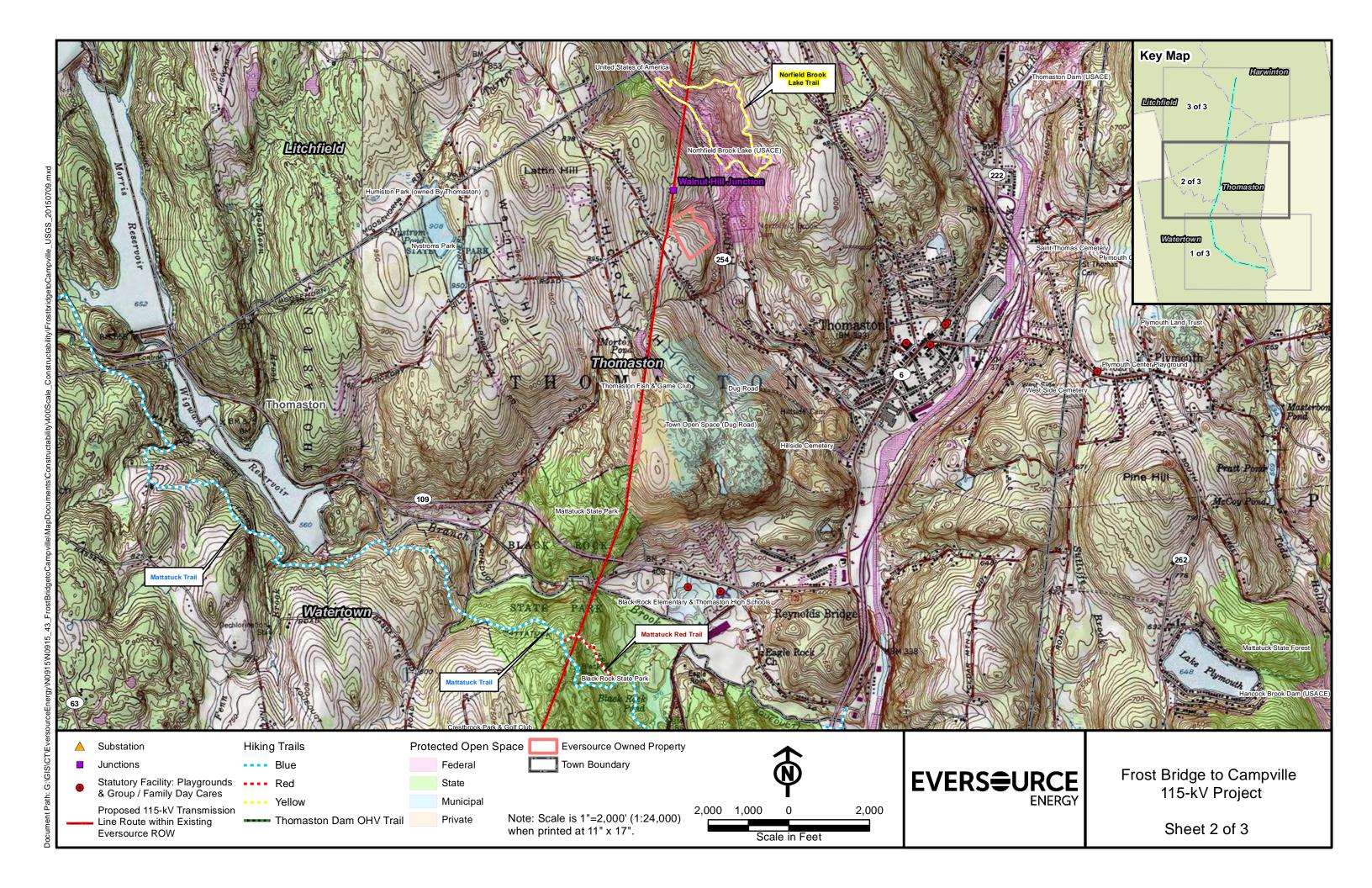


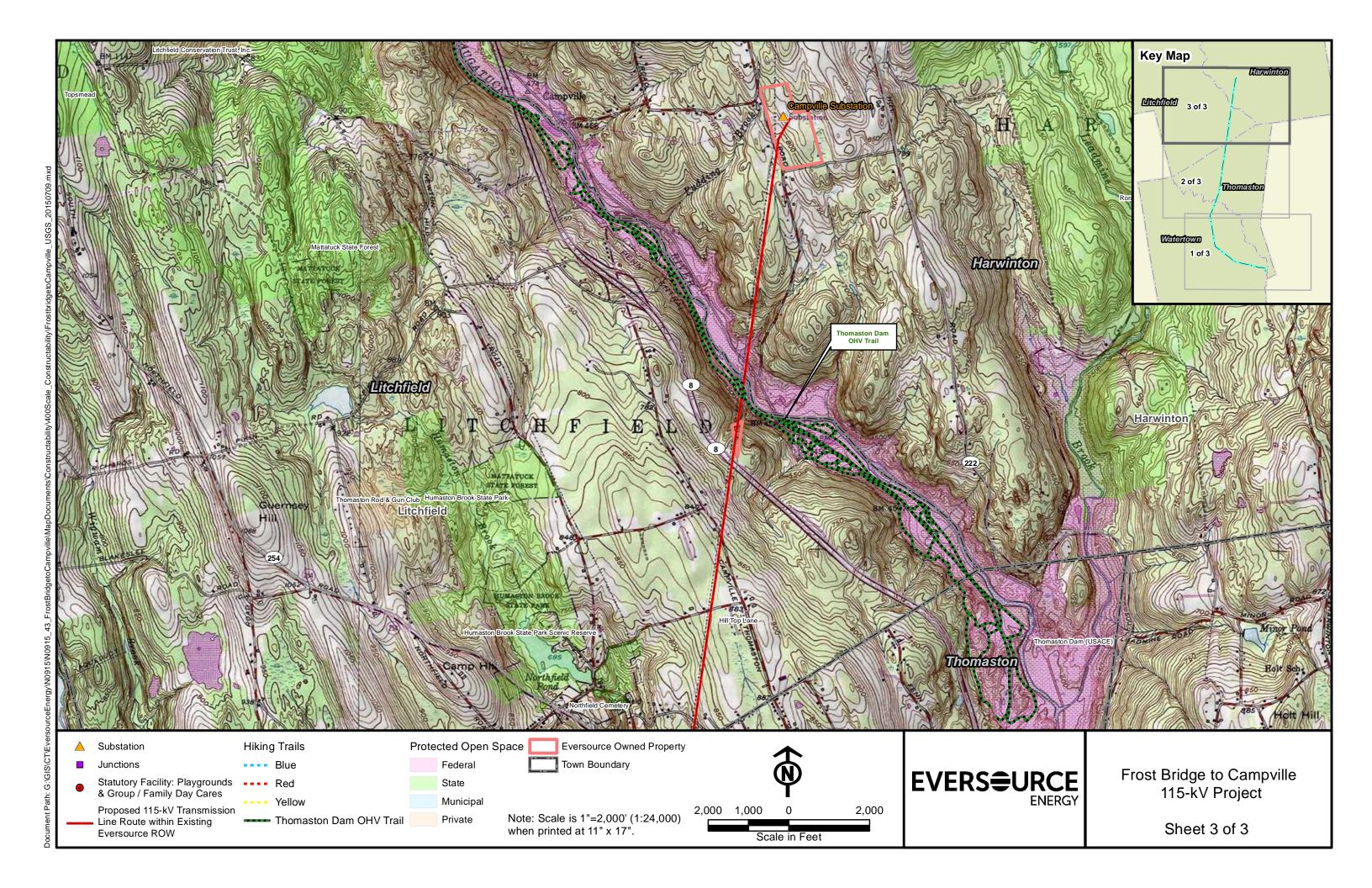
CONTROL DATA AND MONUMENTS – con	tinued	PROJECTION AND GRIDS	
Vertical control Third-order or better elevation, with tab	let $^{\rm BM} imes_{\rm 5280}$	Neatline	39°15′ 90°37′30″
Third-order or better elevation, recoverable mark, no tablet	× 528	Graticule tick	<u> </u>
Bench mark coincident with found	BM	Graticule intersection	
section corner	5280	Datum shift tick	-+-
Spot elevation	× 7523	State plane coordinate systems	-
GLACIERS AND PERMANENT SNOWFIELD	<u>s</u>	Primary zone tick	640 000 FEET
Contours and limits		Secondary zone tick	247 500 METERS
Formlines		Tertiary zone tick	260 000 FEET
Glacial advance		Quaternary zone tick Quintary zone tick	98 500 METERS
Glacial retreat		Universal transverse metcator grid	1320 000 FEET
LAND SURVEYS	VE28	UTM grid (full grid)	
Public land survey system			273
Range or Township line		UTM grid ticks*	269
Location approximate		RAILROADS AND RELATED FEATURES	
Location doubtful		Standard guage railroad, single track	
Protracted		Standard guage railroad, multiple track	+
Protracted (AK 1:63,360-scale)	DATE TONI DOWN TAC	Narrow guage railroad, single track	
Range or Township labels Section line	R1E T2N R3W T4S	Narrow guage railroad, multiple track	п
Location approximate		Railroad siding	
Location doubtful		Railroad in highway	
Protracted		Railroad in road	
Protracted (AK 1:63,360-scale)		Railroad in light duty road*	
Section numbers	1 - 36 1 - 36	Railroad underpass; overpass	+ + +
Found section corner		Railroad bridge; drawbridge	+
Found closing corner		Railroad tunnel	+>====
Witness corner	 + wc	Railroad yard	+ + + + + + + + + + + + + + + + + + + +
Meander corner	— - MC		+
Weak corner*		Railroad turntable; roundhouse	
Other land surveys	I	RIVERS, LAKES, AND CANALS	
Range or Township line		Perennial stream	\sim
Section line		Perennial river	\sim
Land grant, mining claim, donation land claim, or tract		Intermittent stream	
Land grant, homestead, mineral, or other special survey monument		Intermittent river	
Fence or field lines		Disappearing stream	~ ~
MARINE SHORELINES		Falls, small	
Shoreline	\sim	Falls, large	
Apparent (edge of vegetation)***		Rapids, small	
Indefinite or unsurveyed		napius, siliali	
VINES AND CAVES		Rapids, large	
Quarry or open pit mine	*		
Gravel, sand, clay, or borrow pit	X		
Mine tunnel or cave entrance		Masonry dam	
Mine shaft		,	
Prospect	X		
Tailings	(O) Tailings	Dam with lock	
Mine dump			
Former disposal site or mine		Dam carrying road	7

United States Geological Survey Topographic Map Symbols (continued)





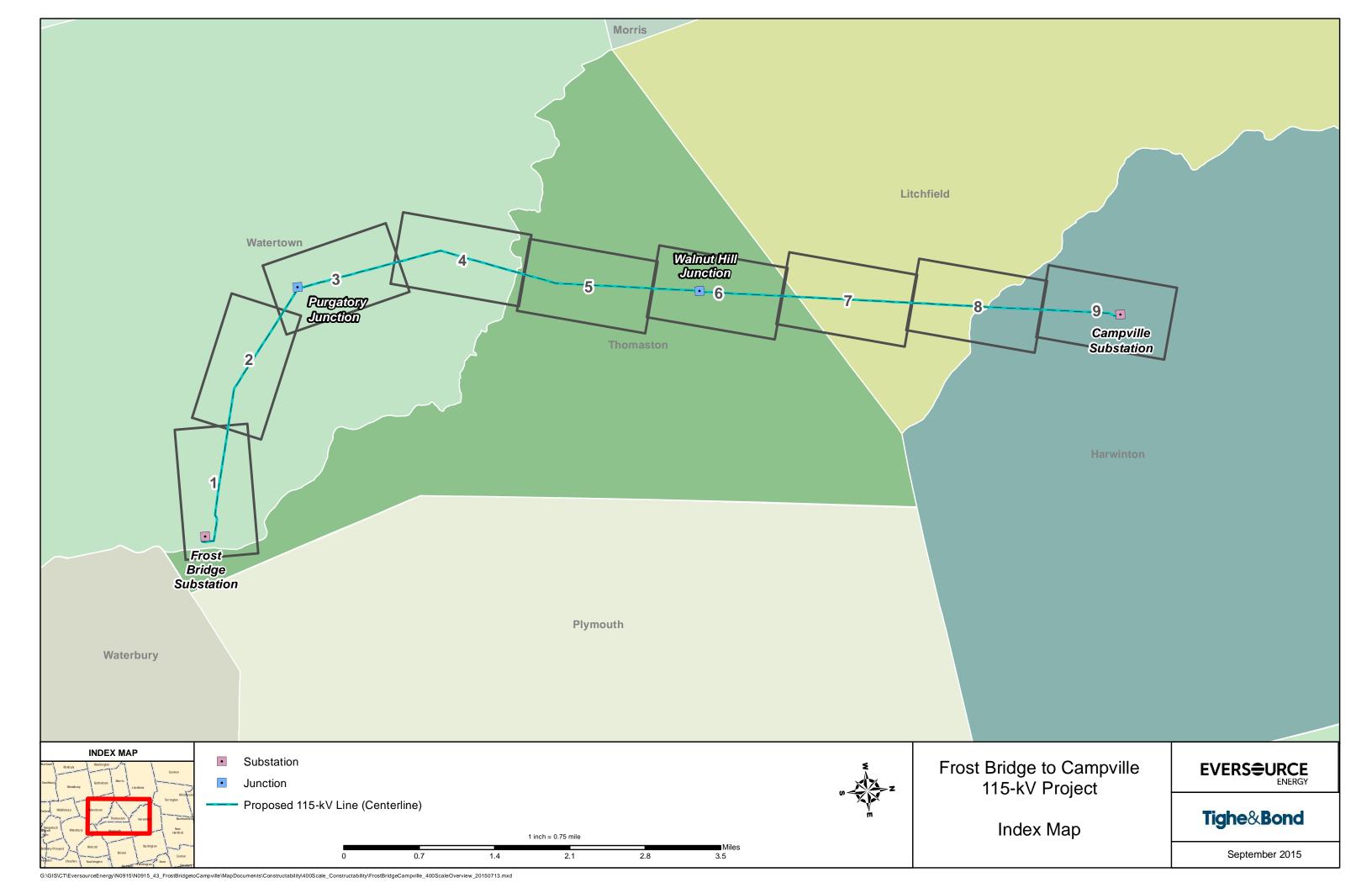




	APPENDIX 1B: PROPOSED ROUTE AERIAL MAPS – 400 SCALE
necticut Siting Council – Municipal Consultation Filing t Bridge to Campville 115-kV Project	

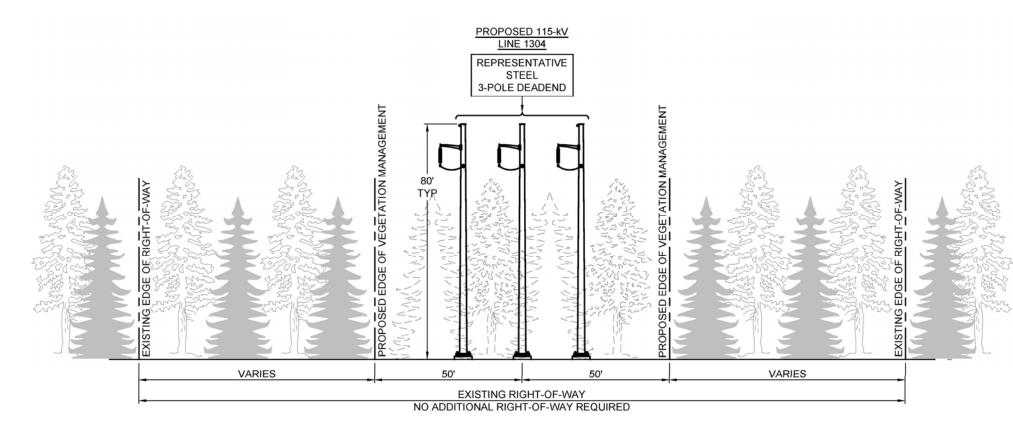
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FROST BRIDGE TO CAMPVILLE 115-kV PROJECT PROPOSED ROUTE

Mapsheet	Town(s)	Proposed Structure Numbers (1304 Line)
1 of 9	Watertown	Frost Bridge Substation to 9
2 of 9	Watertown	10 to 21
3 of 9	Watertown	22 to 35
4 of 9	Watertown, Thomaston	36 to 46
5 of 9	Thomaston	47 to 59
6 of 9	Thomaston	59 to 70
7 of 9	Thomaston, Litchfield	71 to 81
8 of 9	Litchfield, Harwinton	82 to 88
9 of 9	Harwinton	90 to Campville Substation



MAPSHEET 1 of 9

Frost Bridge to Campville 115-kV Project Proposed Route Frost Bridge Substation to Proposed Structure 9 Frost Bridge Road to West of Echo Lake Road Town of Watertown, CT



CROSS-SECTION 1 (XS-1) VIEW LOOKING WEST FROM FROST BRIDGE TOWARDS CAMPVILLE SUBSTATION

Note: XS-1 applies to Proposed Structures 1 to 3, Refer to XS-2 on Mapsheet 2 for depiction of Proposed Route from Proposed Structures 4 to 9.

AREA DESCRIPTION

Existing Land Use

- Forested
- Connecticut Department of Energy and Environmental Protection (CT DEEP) Property/Open Space (Mattatuck State Forest)
- CT DEEP Hunting Areas (Mattatuck State Forest)
- Commercial/Industrial (Frost Bridge Substation)
- Recreational (Connecticut Forest and Park Association (CFPA) Hiking Trails Jericho Trail, Jericho-Whitestone Connector)

Zoning

- Town of Watertown
 - o Residential (R-90)
 - o Restricted Industrial (I-R 80, I-R 200)
 - o General Industrial (I-G 80)

Natural Systems

- Mixed hardwood forests of varying size and age
- State/Federal jurisdictional wetlands and watercourses
- Turkey Brook and its associated tributaries
- Naugatuck River and its associated tributaries
- 100-Year Flood Zone (Naugatuck River)

Visual Character

 Prominent ridges with exposed rock outcrops along the Naugatuck River Valley

RIGHT-OF-WAY DESCRIPTION

Land Use

- Commercial/Industrial (Frost Bridge Substation) east of proposed structure 1E
- Eversource property at Frost Bridge Substation and adjacent to proposed structures 1E to 4
- Recreation (CPFA Jericho-Whitestone Connector Trail) between proposed structures 1E and 1F and between proposed structures 4 and 5 (Jericho Trail)
- CT DEEP Property/Open Space (Mattatuck State Forest) between proposed structures 4 and 9

Wetlands, Watercourses and Waterbodies

- Wetland Nos.: W-FB1, W-FB2, W-FB3, W-FB4, W-FB5, W-FB6, W-A1, W-A2, W-A3, W-A4, W-A5, W-A6, W-A7, W-A8, W-A10
- Wetland Cover Types: Palustrine Emergent (PEM), Palustrine Scrub/Shrub (PSS), Palustrine Forested (PFO)
- Stream Nos.: S-FB1, S-FB2, S-FB3, S-A1, S-A3, S-A4, S-A5 (Turkey Brook), S-A6, S-A7

Potential Access

- Frost Bridge Substation can be accessed from Frost Bridge Road
- Proposed structures 1E to 2 can be accessed from Echo Lake Road
- Proposed structures 3 to 9 can be accessed from existing Mattatuck
 State Forest access roads originating at Echo Lake Road and entering the ROW between proposed structures 4 and 5

Right-of-Way Vegetation

- Upland and Wetland Forest
- Old Field/Shrub Land

Terrain

Rocky upland with precipitous outcrops

Existing Right-of-Way Width / Proposed Expansion of Right-of-Way Width

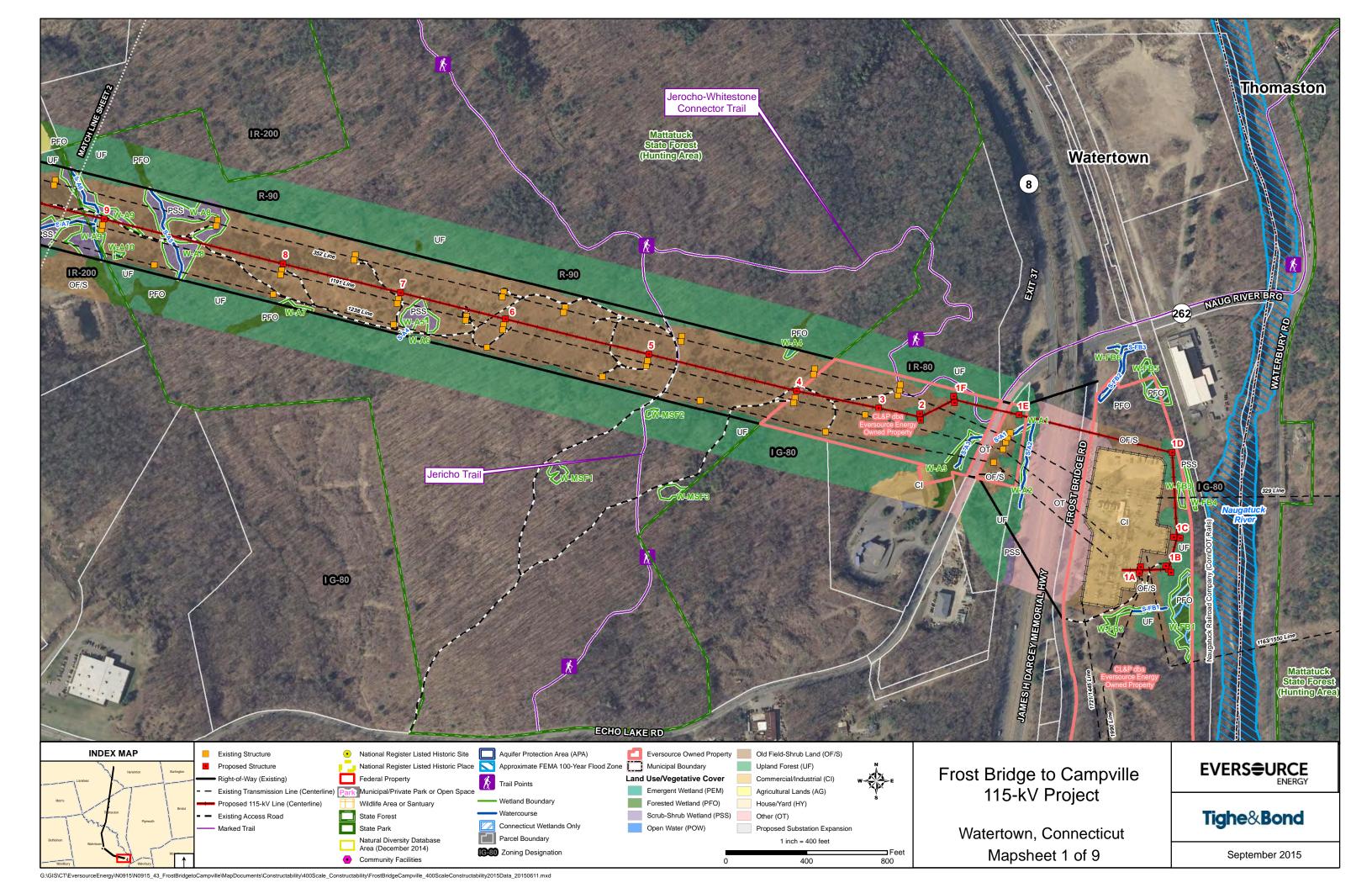
• 400 feet/ 0 feet

Existing Cleared /Maintained Right-of-Way Width / Proposed Additional Cleared Right-of-Way Width

• 400 feet / varies

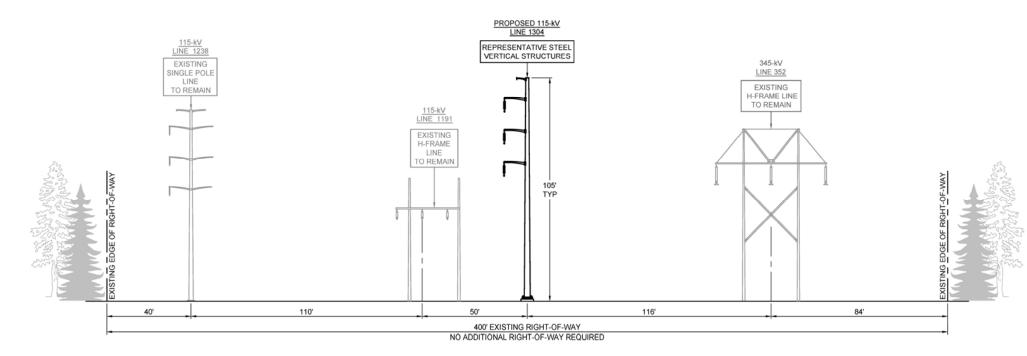
Road Crossings / Major Utility Crossings

- James H. Darcey Memorial Highway (Route 8) between Frost Bridge Substation and proposed structure 1E
- Frost Bridge Road (Route 262) between Frost Bridge Substation and proposed structure 1E
- Echo Lake Road between proposed structures 1E and 1F



MAPSHEET 2 of 9

Frost Bridge to Campville 115-kV Project Proposed Route Proposed Structure Locations 10 to 21 East of Park Road to Nova Scotia Hill Road Town of Watertown, CT



CROSS-SECTION 2 (XS-2) VIEW LOOKING WEST FROM FROST BRIDGE TOWARDS CAMPVILLE SUBSTATION

AREA DESCRIPTION

Existing Land Use

- Forest
- Agricultural
- Commercial/Industrial
- Residential
- Town and Private Open Space (Veteran's Memorial Park)
- Recreational (Veteran's Memorial Park)
- CT DEEP Property/Open Space (Mattatuck State Forest)
- CT DEEP Hunting Area (Mattatuck State Forest)

Zoning

- Town of Watertown
 - o Restricted Industrial (I-R 200)
 - o Residential (R-30, R-90)

Natural Systems

- Mixed hardwood forests of varying size and age
- State/Federal jurisdictional wetlands and watercourses
- Jericho Brook Pond and its associated tributaries
- Jericho Brook and its associated tributaries

Visual Character

• Rural with rolling agricultural fields and forest land

RIGHT-OF-WAY DESCRIPTION

Land Use

- Residential adjacent to proposed structures 14 and 21
- Commercial/Industrial adjacent to proposed structures 15 and 16
- Town and Private Open Space (Veteran's Memorial Park) between and adjacent to proposed structures 3097 to 3100
- Eversource property adjacent to Structure 3100

Wetlands, Watercourses and Waterbodies

- Wetland Nos.: W-A9, W-A11, W-A12, W-B1, W-B2, W-B3, W-B4, W-B5, W-B6, W-B7, W-B8, W-B9
- Wetland Cover Types: Palustrine Open Water (POW), PEM, PSS, PFO
- Stream Nos.: S-A6, S-A7

Potential Access

- Proposed structures 10 to 20 can be accessed from Park Road
- Proposed structure 21 can be accessed from Nova Scotia Hill Road

Right-of-Way Vegetation

- Old Field/Shrub Land
- Upland and Wetland Forest
- Agricultural

Terrain

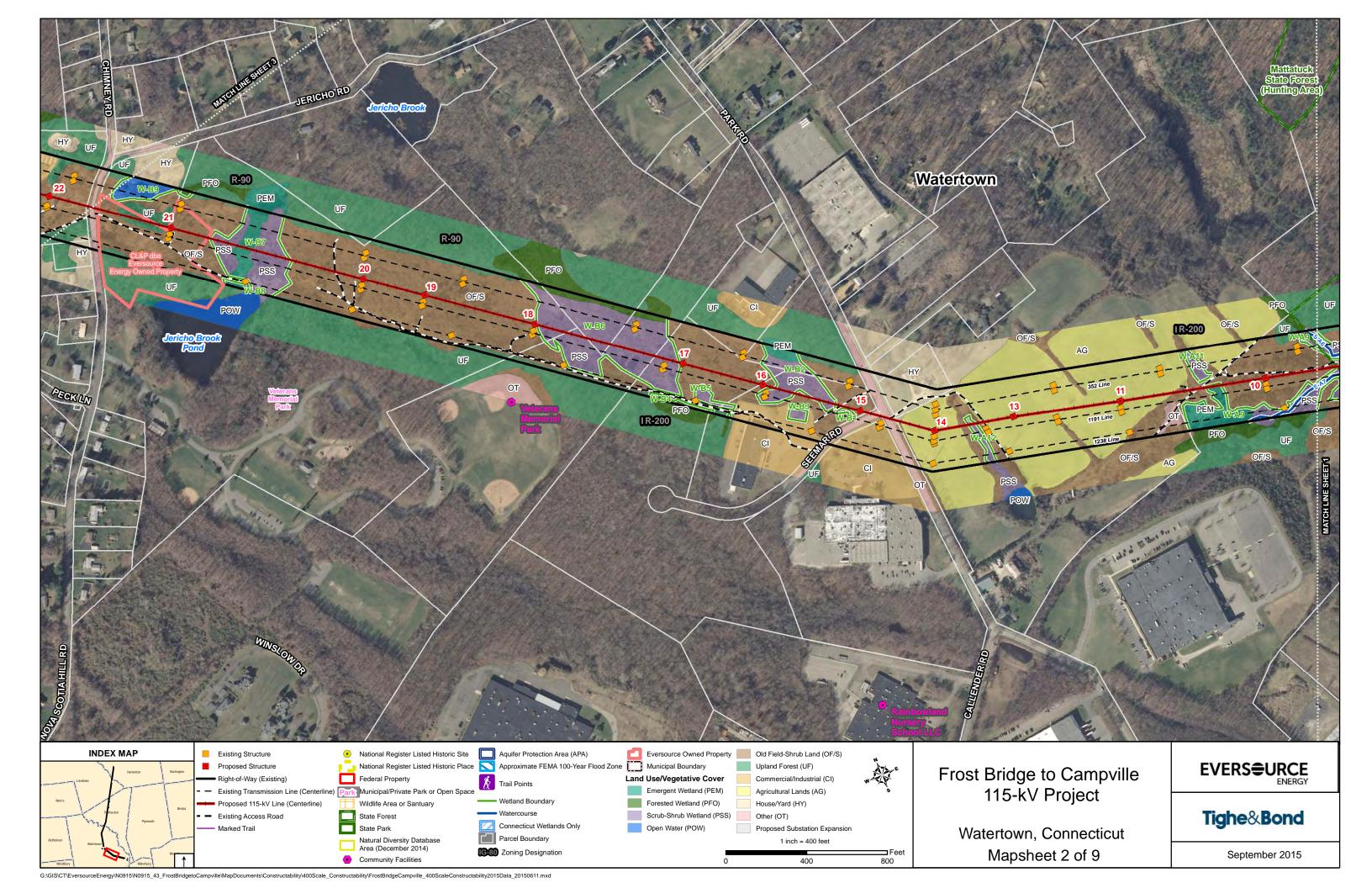
• Level with sloped areas at wetland/upland transitions

Existing Right-of-Way Width/ Proposed Expansion of Right-of-Way Width

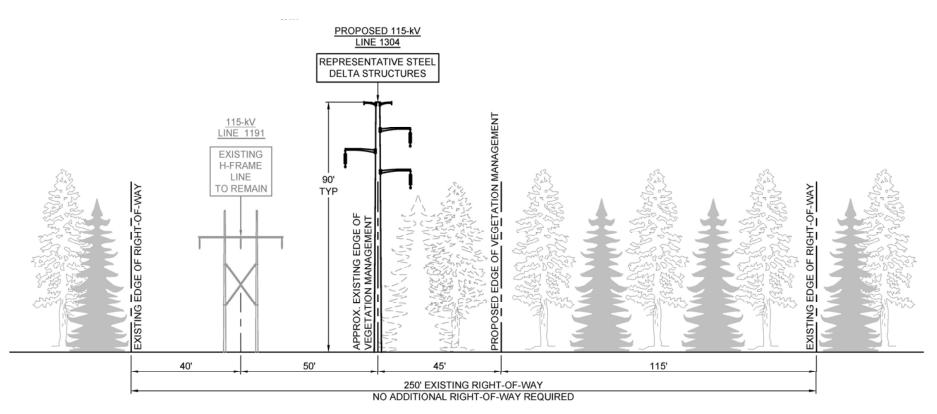
• 400 feet / 0 feet

Road Crossings / Major Utility Crossings

- Park Road between proposed structures 14 and 15
- Seemar Road adjacent to proposed structure 15
- Nova Scotia Hill Road between proposed structures 21 and 22 (Mapsheet 3)



Frost Bridge to Campville 115-kV Project
Proposed Route
Proposed Structure Locations 22 to 35
Nova Scotia Hill Road to North of Thomaston Road (Route 6)
Town of Watertown, CT



CROSS-SECTION 3 (XS-3) VIEW LOOKING NORTH FROM FROST BRIDGE TOWARDS CAMPVILLE SUBSTATION

Note: XS-3 (depicted) applies to Proposed Route from Proposed Structures 26 to 35. Refer to XS-2 on Mapsheet 2 for depiction of Proposed Route from Proposed Structures 22 to 25.

AREA DESCRIPTION

Existing Land Use

- CT DEEP Property/Open Space (Black Rock State Park)
- Forested
- Town and Private Open Space (Crestbrook Park and Golf Club)
- Recreational (Crestbrook Park and Golf Club)
- Residential
- Commercial/Industrial

Zoning

- Town of Watertown
 - o Residential (R-30, R-70, R-90)
 - o Business (B-L)

Natural Systems

- Mixed hardwood forests of varying size and age
- State/Federal jurisdictional wetlands and watercourses
- Lockwood Pond and its associate tributaries
- Hannon Pond and its associated tributaries
- Natural Diversity Database Area

Visual Character

- Forest land, residential
- Irregular bedrock-controlled topography within Black Rock State Park

RIGHT-OF-WAYDESCRIPTION

Land Use

- Commercial/Industrial adjacent to proposed structures 22 and 23 (greenhouses)
- Upland and/or wetland forest adjacent to proposed structures 26 to 35
- CT DEEP Property/Open Space (Black Rock State Park) between and adjacent to structures 32 and 35
- Residential adjacent to proposed structure 27

Wetlands, Watercourses and Waterbodies

- Wetland Nos.: W-B-11, W-C1, W-C2, W-C3, W-C4, W-C5, W-C6, W-C7, W-C8, W-C10, W-C12, W-C14, W-C15, W-C16
- Wetland Cover Types: POW, PSS, PFO
- Stream Nos.: S-B1, S-B2, S-B3, S-C1, S-C3, S-C4, S-C5

Potential Access

- Proposed structures 22 and 23 can be accessed from Nova Scotia Hill Road
- Proposed structures 24 to 35 can be accessed from High Meadow Road (west of Purgatory Junction)

Right-of-Way Vegetation

- Old Field/Shrub Land
- Upland and Wetland Forest

Terrain

Irregular bedrock-controlled topography with common rock outcroppings

Existing Right-of-Way Width / Proposed Expansion of Right-of-Way Width

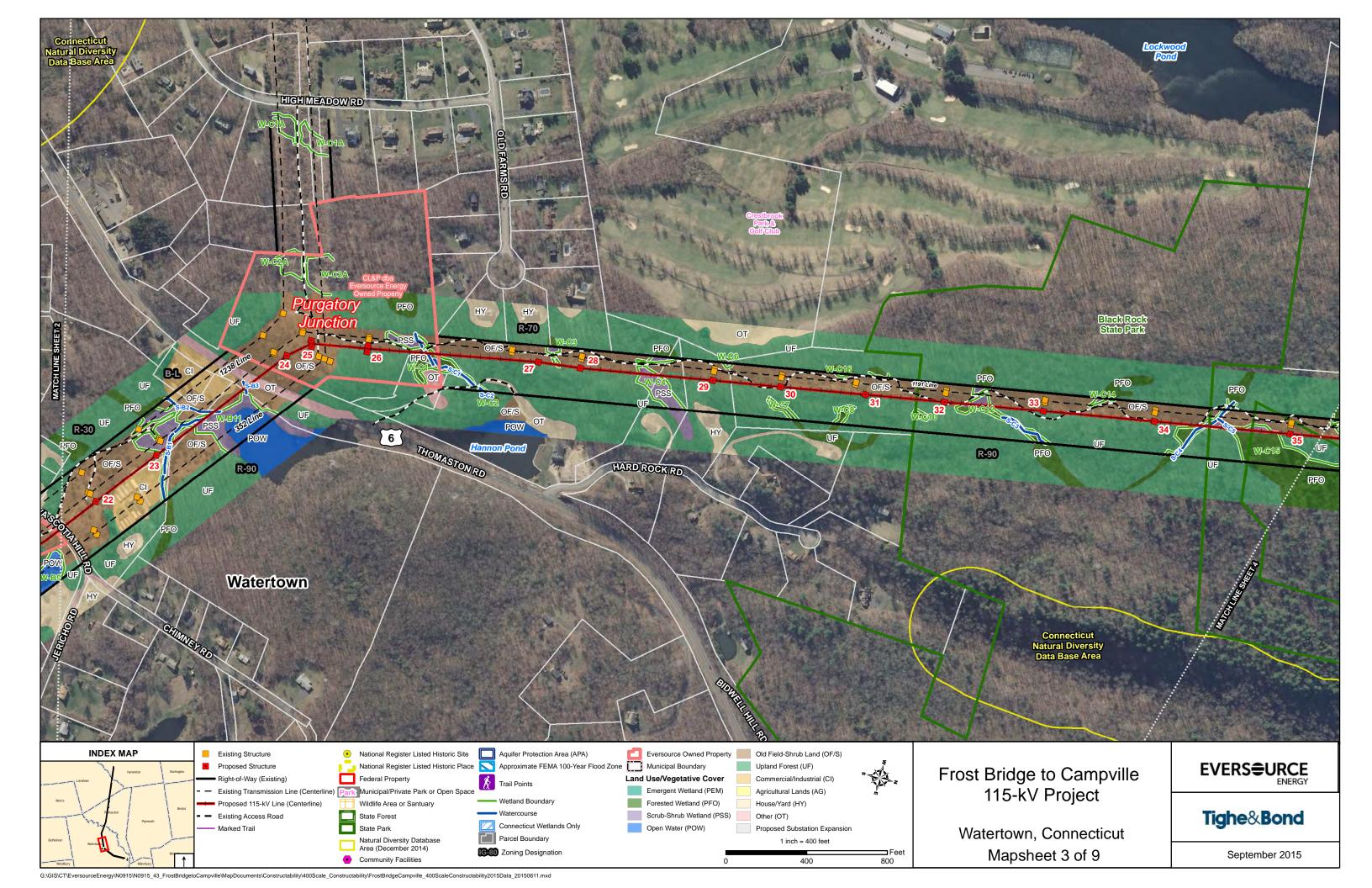
- 400 feet / 0 feet (south of Purgatory Junction)
- 250 feet / 0 feet (north of Purgatory Junction)

Existing Cleared/Maintained Right-of-Way Width / Proposed Additional Cleared Right-of-Way Width

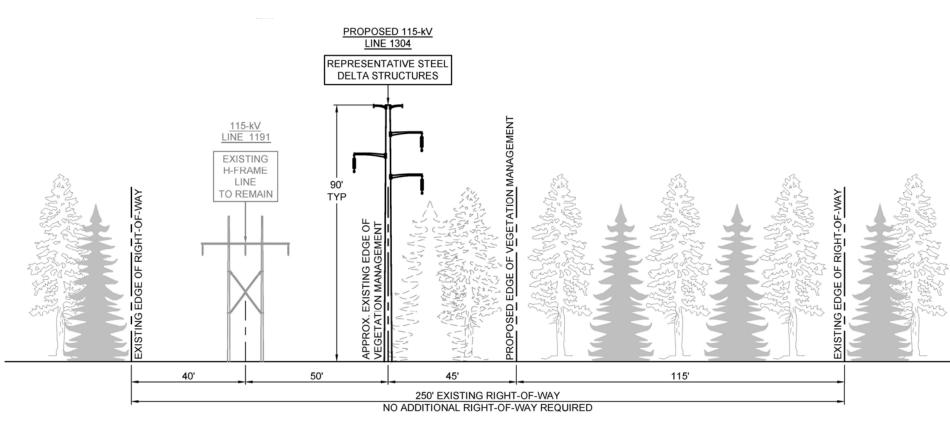
- 400 feet / 0 feet (south of Purgatory Junction)
- 90 feet / 45 feet (north of Purgatory Junction)

Road Crossings / Major Utility Crossings

- Thomaston Road (Route 6) between proposed structures 23 and 24
- Eversource 1238 & 352 Transmission Lines (Purgatory Junction) adjacent to proposed structure 25



Frost Bridge to Campville 115-kV Project
Proposed Route
Proposed Structure Locations 36 to 46
North of Thomaston Road (Route 6) to Old Branch Road
Towns of Watertown and Thomaston, CT



CROSS-SECTION 3 (XS-3) VIEW LOOKING NORTH FROM FROST BRIDGE TOWARDS CAMPVILLE SUBSTATION

AREA DESCRIPTION

Existing Land Use

- CT DEEP Property/Open Space (Black Rock State Park)
- Forested
- Town and Private Open Space (Crestbrook Park and Golf Club)
- Recreational (CFPA Hiking Trail Mattatuck Trail, Black Rock State Park Trail – Red Loop, and unblazed Black Rock State Park recreational trails
- Branch Brook Reservoir (Black Rock) Dam
- Residential
- Commercial/Industrial

Zoning

- Town of Watertown
 - o Residential (R-90)
- Town of Thomaston
 - o Residential (RA-15, RA-40)

Natural Systems

- Mixed hardwood forests of varying size and age
- State/Federal jurisdictional wetlands and watercourses
- Lockwood Pond and its associated tributaries
- Black Rock Pond and its associate tributaries
- Branch Brook and its associated tributaries
- 100-Year Flood Zone (Branch Brook)
- Natural Diversity Data Base Area

Visual Character

• Forest land with irregular bedrock-controlled topography and common rock outcroppings

RIGHT-OF-WAYDESCRIPTION

Land Use

- Upland and/or wetland forest adjacent to proposed structures 36 to 46
- CT DEEP Property/Open Space (Black Rock State Park) between and adjacent to proposed structures 36 to 46
- Recreational (CFPA Mattatuck Trail and Black Rock State Park Red Loop) between proposed structures 43 and 45
- Branch Brook Reservoir Dam north of proposed structure 46

Wetlands, Watercourses and Waterbodies

- Wetland Nos.: W-C15, W-C18, W-C20, W-C21, W-C23
- Wetland Cover Types: POW, PSS, PFO
- Stream Nos.: S-C6, S-C7, S-C8 (Branch Brook), S-C9

Potential Access

 Proposed structures 36 and 46 can be accessed from High Meadow Road (west of Purgatory Junction)

Right-of-Way Vegetation

- Old Field/Shrub Land
- Upland and Wetland Forest

Terrain

Steep irregular bedrock-controlled topography and common rock outcroppings

Existing Right-of-Way Width / Proposed Expansion of Right-of-Way Width

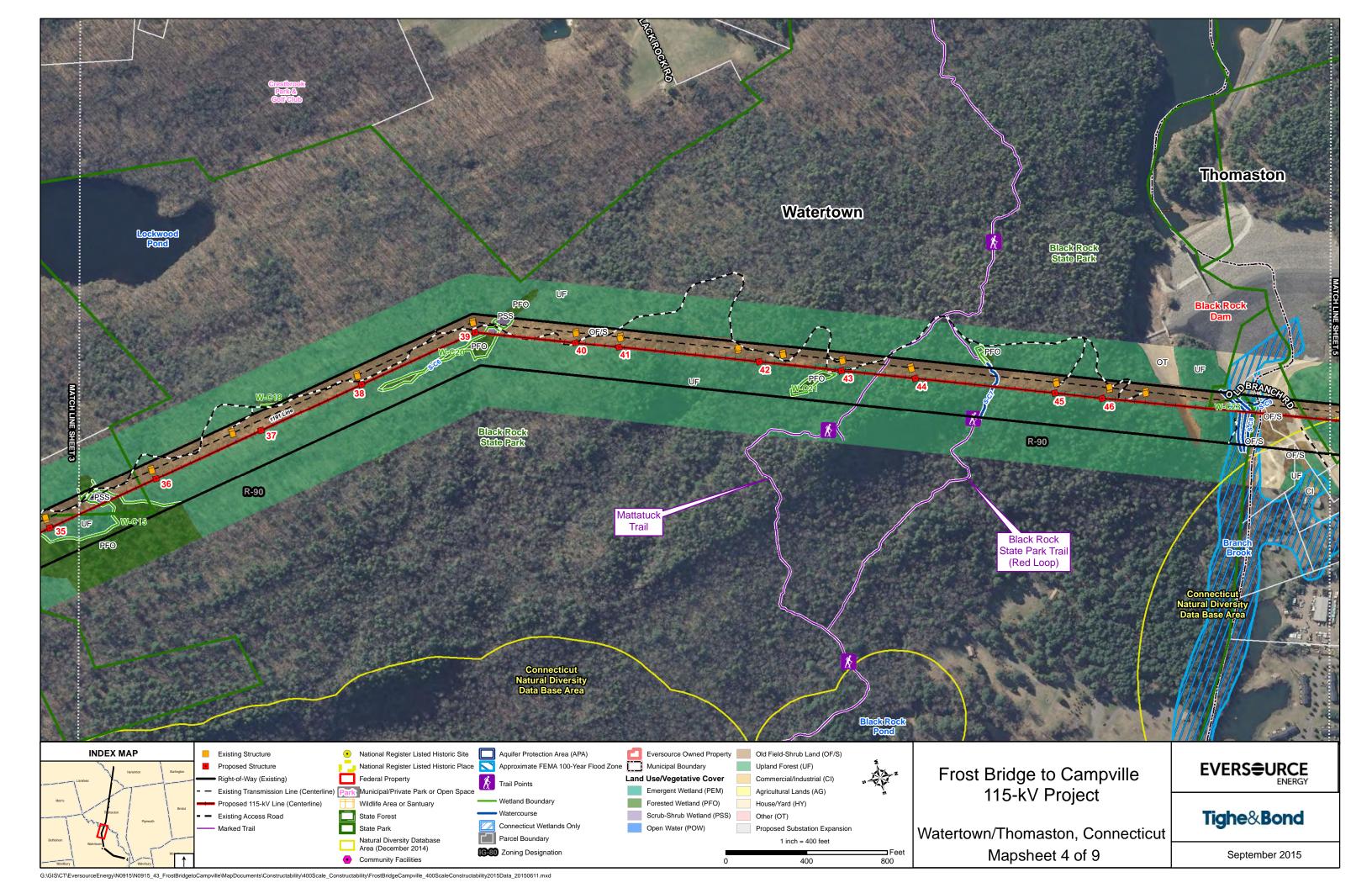
• 250 feet / 0 feet

Existing Cleared/ Maintained Right-of-Way Width / Proposed Additional Cleared Right-of-Way Width

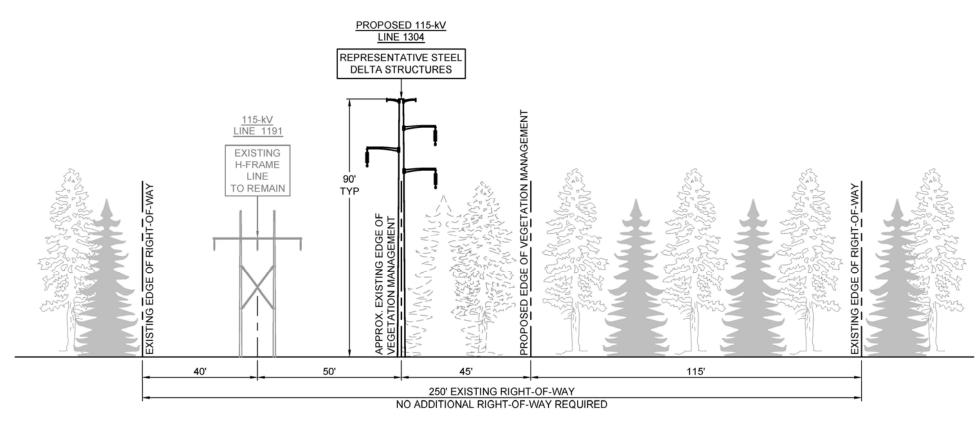
• 90 feet / 45 feet

Road Crossings / Major Utility Crossings

• Old Branch Road north of proposed structure 46



Frost Bridge to Campville 115-kV Project
Proposed Route
Proposed Structure Locations 47 to 59
Branch Road (Route 109) to North of Branch Road (Route 109)
Town of Thomaston, CT



CROSS-SECTION 3 (XS-3) VIEW LOOKING NORTH FROM FROST BRIDGE TOWARDS CAMPVILLE SUBSTATION

AREA DESCRIPTION

Existing Land Use

- CT DEEP Property/Open Space (Mattatuck State Forest, Black Rock State Park)
- CT DEEP Hunting Area (Mattatuck State Forest)
- Forested
- Town and Private Open Space (Dug Road, Thomaston Fish and Game Club)
- Agricultural

Zoning

- Town of Thomaston
 - o Residential (RA-15, RA-40)

Natural Systems

- Mixed hardwood forests of varying size and age
- State/Federal jurisdictional wetlands and watercourses
- Morton Pond and its associated tributaries
- Natural Diversity Data Base Area

Visual Character

• Forest land and rocky with prominent outcrops

RIGHT-OF-WAY DESCRIPTION

Land Use

- Upland and/or wetland forest adjacent to proposed structures 47 to 59
- CT DEEP Property/Open Space (Mattatuck State Forest, Black Rock State Park) between and adjacent to proposed structures 47 to 50
- CT DEEP Hunting Area (Mattatuck State Forest) between and adjacent to proposed structures 48 to 50
- Eversource Property between proposed structures 52 to 54
- Maintained fields adjacent to proposed structure 56 (shooting range)
- Town and Private Open Space (Thomaston Fish and Game Club) between and adjacent to structures 55 to 57
- Agricultural between and adjacent to proposed structures 58 to 59

Wetlands, Watercourses and Waterbodies

- Wetland Nos.: W-D1, W-D2, W-D3, W-D4, W-D5, W-D6, W-D15
- Wetland Cover Types: POW, PEM, PSS, PFO
- Stream Nos.: S-D1, S-D2, S-D3

Potential Access

- Proposed structures 3128 can be accessed by Branch Road (Route 109)
- Proposed structures 3129 to 3141 can be accessed from Old Northfield Road

Right-of-Way Vegetation

- Old Field/Shrub Land
- Upland and Wetland Forest
- Agricultural

Terrain

• Irregular with rock outcrops

Existing Right-of-Way Width / Proposed Expansion of Right-of-Way Width

• 250 feet / 0 feet

Existing Cleared/ Maintained Right-of-Way Width / Proposed Additional Cleared Right-of-Way Width

• 90 feet / 45 feet

Road Crossings / Major Utility Crossings

• Branch Road (Route 9) between proposed structures 47 and 48

