EVERSOURCE ENERGY

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October 15, 2018

Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Wallingford to Branford Upgrade Project ("Project")

Dear Chairman Stein:

Attached are an original and fifteen (15) copies of a petition on behalf of The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to the 1655 transmission line in the towns of Wallington, North Haven, North Branford, East Haven, and Branford ("Petition").

Prior to submitting this Petition, representatives from Eversource briefed municipal officials in affected towns about the Project and Eversource provided written notice of the proposed work to all abutters and the Petition being filed with the Council. Maps and line lists identifying the abutting property owners who were notified of the Project are provided in Attachment A: East Wallingford to Branford Upgrade Aerial Maps.

A check in the amount of $625 for the required filing fee is also attached.

Sincerely,

Kathleen M. Shanley

Enclosure

cc:

The Honorable William Dickinson, Jr.
Mayor of Wallingford

Michael T. Paulhus
Town Manager of North Branford

The Honorable Michael Freda
First Selectman of North Haven

The Honorable Joseph Maturo
Mayor of East Haven

The Honorable James Cosgrove
First Selectman of Branford

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 EXISTING
1655 LINE IN THE TOWNS OF WALLINGFORD, NORTH HAVEN, NORTH BRANFORD,
EAST HAVEN, AND BRANFORD, CONNECTICUT

1. 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 1655 transmission line within an existing Eversource right-of-way ("ROW") in Wallingford, North Haven, North Branford, East Haven and Branford (the "Project") that are described herein. Eversource submits that no such Certificate is required because the proposed modifications would not have a substantial adverse environmental effect.

2. Purpose of the Project

The purpose of the Project is to replace 69 existing structures and install one new structure on an approximately 10-mile portion of the 115-kV 1655 Line between East Wallingford Junction, in Wallingford, and the Branford Substation, located at 272 East Main Street in Branford. The Project traverses the towns of Wallingford, North Haven, East Haven, North Branford, and Branford.

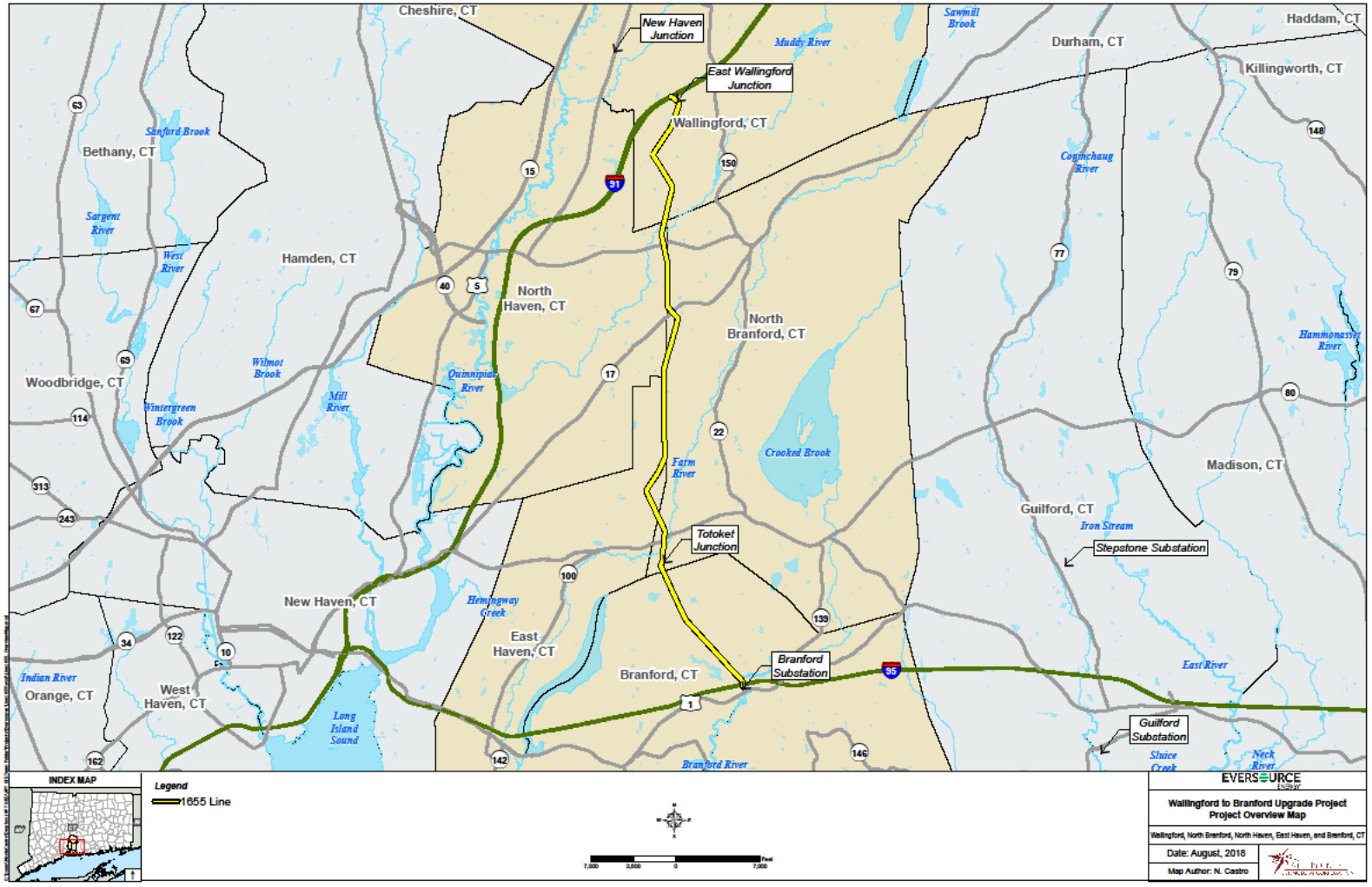
The 1655 Line, in its entirety, is located between New Haven Junction in Wallingford and the Branford Substation in Branford. The 1655 Line was originally constructed on 102 single-circuit wood H-frame structures in three segments: the first segment was constructed in 1958 on 70 structures from East Wallingford Junction to Totoket Junction; the second segment was constructed in 1964 on 20 structures from Totoket Junction to Branford Substation and; the third segment was constructed in 2007 on 12 structures from East Wallingford Junction to New Haven Junction. Within the Project area, the 1655 Line shares the ROW with the 345-

kV 387 Line from East Wallingford Junction to Totoket Junction and the 115-kV 1537 Line from Totoket Junction to the Branford Substation.

Recent assessment of the line found that 69 structures on the portion of the 1655 Line from the East Wallingford Junction to the Branford Substation are in immediate need of replacement, as they are being overstressed under the original design loading assumptions and exhibiting signs of one or more of the following deficiencies: rotting, cracks, split tops and/or woodpecker damage. In addition, a new H-frame structure is required to maintain the electrical distance between the 1655 Line and the existing 345-kV 387 Line.

Figure 1 illustrates the general location of the proposed Project.

Figure 1: Project Overview Map



3. Project Description

The proposed Project scope is to replace 69 wood structures and install one new structure on the 115-kV 1655 Line between East Wallingford Junction and Branford Substation, which is a distance of approximately 10 miles.

Detail of the Project scope would be as follows:

a) Replacement of 51 existing single-circuit wood H-frame structures with 51 single-circuit direct-embed, weathering steel H-frame structures.
b) Replacement of 15 existing single-circuit wood H-frame structures with 15 single-circuit direct-embed, weathering steel monopole structures.
c) Replacement of 3 existing wood H-frame structures with 3 single-circuit weathering steel monopole structures on drilled shaft foundation.
d) Installation of one direct-embed 115-kV structure H-Frame weathering steel structure (Structure 4763.5).
e) Replacement of the existing 7#9 AIumoweld ground wire with optical ground wire ("OPGW").
f) Installation of lightning arrestors on approximately every fifth structure.
g) The existing 115-kV 795 kcmil 45/7 Aluminum Conductor, Steel Reinforced conductors would be relocated to the new structures.

The heights of the existing 1655 Line structures range between 39 to 79 feet above ground level. Except for 20 of the replacement structures, which would not increase in height, the proposed structures would be from approximately 5 to 33 feet taller than the existing structures, with the tallest proposed structure being approximately 95 feet above ground level. The reason for the increase in structure heights is to comply with the most recent 2017 National Electrical Safety Code clearance requirements and Company standards[1].

[1] The Eversource ROW from Totoket Junction to Branford Substation is too narrow with the existing H-frame structure design to meet current NESC clearance requirements; therefore, the proposed structure design would be changed from H-frame to monopole with height increases.

New Structure 4763.5 is required to maintain the clearance of the 1655 Line under the existing 345-kV 387 Line due to the structure design change at Totoket Junction from H-frame to monopole.

Direct-embedded structures would be used at nearly all locations, except for three structures (structures 4764, 4767 and 4781) that would be installed on drilled shaft foundation. The proposed structures would be located in-line with the existing structures, to the extent possible, and approximately 10 to 15 feet from the location of the existing structure to be replaced.

4. Existing Environment, Effects and Mitigation

The proposed transmission line work described above would not have a substantial adverse environmental effect, for the reasons explained more fully below.

The upgrades would be constructed within Eversource's existing ROW. All work within environmentally sensitive areas, such as water resources or habitat areas identified through review of the National Diversity Data Base ("NDDB") for state-listed species, would be conducted in accordance with required environmental permits and with the implementation of the Company's September 2016 *Best Management Practices Manual for Massachusetts and Connecticut* ("BMPs"); the work in these areas would employ measures to avoid, minimize and/or mitigate potential adverse environmental effects.

Existing Right-of-Way

Within the Project area, a portion of the 1655 Line was originally constructed in 1958 on 70 structures from East Wallingford Junction to Totoket Junction and constructed in 1964 on 20 structures from Totoket Junction to Branford Substation. The existing structure type for both segments is a single-circuit wood H-frame. The 1655 Line shares the ROW with the 345-kV 387 Line from East Wallingford Junction to Totoket Junction and the 115-kV 1537 Line from Totoket Junction to the Branford Substation.

The width of the existing ROW from Branford Substation to Totoket Junction is typically 110 feet, with the full width of the ROW currently maintained. The width of the existing ROW from Totoket Junction to East Wallingford Junction is typically 320 feet, with approximately 300 feet currently maintained. See Attachment B: Typical ROW Cross Sections.

Land Use

Land uses adjacent to the Project area consist of a mix of rural, residential, recreational (public open space and golf course), agricultural areas and undeveloped lands such as forest areas. Though the Project would be traversing through some of these areas, it will not impact adjacent land uses. Eversource will work with any affected property owners on restoration upon completion of the Project.

Vegetation

Most of the ROW is currently maintained and no clearing is required. Some vegetation removal (including tree trimming) is required within the maintained ROW to accommodate access road installation and improvements, for work and pull pad installation, to remove incompatible species, and along the Project ROW where conductor clearance is inadequate.

During vegetation removal, construction mats would be used to provide a stable base for equipment across watercourses or within wetlands and may also be utilized in floodplain areas unless dry conditions allow for conventional access. Such temporary support would minimize rutting in wetlands, and the mats would be removed after the activities are complete.

Scenic, Recreational and Cultural Resources

No local or state designated scenic resources were identified within the Project area. The Project crosses The Tradition Golf Club in Wallingford, and Branford Land Trust properties (Branford Supply Pond & Queach Preserves) between Red Rock Road and Hickory Hill Road in Branford. The land trust properties have trail systems, including portions of the Project ROW that are open to the public for passive recreation. Eversource would coordinate with the owners or managers of these public recreational areas to develop and implement measures to maintain public safety during Project construction, while also avoiding or minimizing short-term impacts to recreational users.

Cultural resources assessments of the Project were conducted by Heritage Consultants, LLC (“Heritage”). A Phase 1A (preliminary archaeological and historical resources assessment) was completed. Based on the results of the Phase 1A assessment, a Phase 1B cultural resources reconnaissance survey (shovel testing) was recommended where

Project activities are proposed in areas that were determined by the Phase A1 to have a moderate/high potential for yielding intact archaeological (below ground) deposits. Tribal Historic Preservation Office(s) ("THPO") of the Mashantucket Pequot Tribal Nation, the Mohegan Tribe of Connecticut Indians, and the Wampanoag Tribe of Gay Head (Aquinnah) were notified of the intent to perform the Phase 1B survey.

Heritage has completed shovel testing at all structures proposed for testing. No state or National Register of Historic Places ("NRHP") archaeological sites were identified during the shovel testing. The results of the Phase 1 assessment and Phase 1B surveys are provided in Attachment C. The results of the Phase 1B surveys were provided to the Connecticut State Historic Preservation Office ("SHPO") and THPOs (see Attachment C: Cultural Resources Report.)

No previously identified NRHP properties or districts (built or above-ground resources) are located within 152 meters (approximately 500 feet) of the Project. One State Register of Historic Places property, at 74 Mill Plain Road in Branford, is located approximately 500 feet from structure 4780. This historic standing structure consist of a Colonial Style residence that was built ca., 1820. This building will not be impacted either directly or indirectly by the proposed replacement of structure 4780 or any of the other proposed structures.

Water Resources

Eversource identified and delineated water resources in the vicinity of the Project area in spring and summer 2017 (see Attachment D: Wetlands and Watercourses Report and Attachment E: Vernal Pool Survey). Water resources within the Project area include inland wetlands, watercourses (perennial and intermittent streams), ponds, 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 with the requirements of applicable regulatory permit conditions and approvals. Detail on each of these resource areas is provided below.

Wetlands

Wetlands in the Project area were identified and delineated in accordance with industry standard methodology. A total of 28 wetlands were identified in or proximate to the Project area.

Permanent wetland effects would result from the replacement of six existing wood H-frame structures (4715, 4723, 4731, 4732, 4733, and 4760) which are located in wetlands. The replacement of these structures would result in approximately 300 square feet of permanent wetland effects. In order to minimize disturbance to the wetland, the existing wood poles will be cut approximately 6 inches above grade and removed, and the pole butts will be left in place.

The Project will also result in approximately 4 acres of temporary effects to wetlands, associated with the temporary use of construction mats for access roads and work pads. All construction mats will be promptly removed upon Project completion and wetland areas will be restored in accordance with Eversource's BMPs.

Watercourses and Waterbodies

A total of 21 watercourses and waterbodies were delineated within the Project area. These include four rivers, nine perennial watercourses (two named and eight unnamed), seven intermittent watercourses, and two named ponds. Named watercourses include the Pine River, Muddy River, Farm River, Branford River (includes Wards Millpond, an impounded portion of the river between structures 4780 and 4781), Eightmile Brook, Burrs Brook, Pisgah Brook and the Borrelli Farm Pond.

No new permanent access road through a watercourse or waterbody crossings would be required. Existing culverted access road crossings would be used, in some cases with improvements to the access road (I.e., top dressing and widening). In addition, a total of 13 temporary watercourse crossings would be required during construction, including seven for work pads and six for access roads. Each of these crossings would be temporarily spanned using construction mats. All construction mats would be promptly removed upon Project completion and wetland areas will be restored in accordance with Eversource's BMPs. The following Table W-1 provides a summary of Project effects to wetlands:

Table W-1: Summary of Project Effects to Wetlands

Wetland ID	200 Scale Map Sheet	Wetland/Watercourse Effects (± square feet /acre)	
		Temporary (Matting)	Permanent (Structures)
W1	1	136 / 0.003	0
W2	1	2,242 / 0.05	0
W6	3	28,261 / 0.65	0
W7	5	27,397 / 0.63	50 / 0.001
W8	4	7,242 / 0.17	0
W9	6	15,611 / 0.36	50 / 0.001
W11	7,8	83,749 / 1.92	150 / 0.003
W15	11	1,291 / 0.03	0
W17	13	16,154 / 0.37	50 / 0.001
W24	15	3,881 / 0.09	0
	TOTAL	185,964 / 4.27	300 / 0.007

Vernal Pools

The Project area was surveyed for vernal pools in spring 2017 (see Attachment E: Vernal Pool Survey). Survey methods used included visual surveys to identify adults, larvae and egg masses, audial surveys to record breeding choruses and dip-net surveys to identify amphibian larvae. One vernal pool (VP1) was identified in Wetland W7 on Attachment A. No direct impacts to this vernal pool are proposed. Temporary matting would be utilized for work pad construction within the associated vernal pool envelope (within 100 feet). All proposed work within this vernal pool envelope would occur within the existing maintained ROW, no permanent habitat alteration is proposed.

FEMA Flood Zones

The Project ROW extends across 100- and 500-year FEMA flood zones associated with the Muddy River, Farm River, Branford River, Eightmile Brook, Pisgah Brook, and three additional unnamed watercourses. Three replacement structures (4715, 4717, and 4723) are proposed to be located within a 100-year flood zone. No replacement structures are proposed to be located within 500-year flood zones. In addition, work activities and materials would be located within 100-year flood zones at proposed structures 4715, 4717, 4718, 4723, 4759, and access to 4781.

Eversource would utilize its BMPs to minimize any impacts in these areas including the use of construction mats for work pads to ensure that hydrology is not adversely affected. All construction mats would be removed after the Project is complete. Areas of disturbance would be promptly stabilized in order to minimize the potential for soil erosion and the discharge of sediment into nearby resource areas. Prior to significant storm events, Eversource will secure the construction mats to impede lateral movement during temporary flooding. In areas where gravel is used for access, grading and soil removal would occur prior to installation, to ensure that no net increases in fill results. Accordingly, the Project would have a de minimus effect on the flood storage capacity of the affected flood zones.

Water Supply

A review of the most recently (September 2017) updated mapping maintained by the Connecticut Department of Energy and Environmental Protection (“CT DEEP”), indicates that there are no Aquifer Protection Areas within the Project area.

The Project crosses a Public Water Supply Watershed (Saltonstall System) between structures 4744 and 4765 and crosses South Central Connecticut Regional Water Authority ("SCCRWA") property between structures 4745 and 4748, and at 4760. As a result, SCCRWA will file a Water Company Land Permit Application with the Connecticut Department of Public Health ("DPH") in order for Eversource to conduct this work. Eversource will require its contractors to adhere to best management practices for the proper storage, secondary containment, handling of diesel fuel, motor oil, grease and other lubricants, and any other conditions required by the DPH and/or SCCRWA to protect water quality within these areas. No public wells were identified

within the Project area, residences within the Project area are generally served by private water supply wells.

Wildlife and Habitat

Eversource has corresponded with the CT DEEP Bureau of Natural Resources Wildlife Division NDDB regarding protection of state-listed species within the Project area. Eversource received a determination letter from CT DEEP on July 11, 2018 and will adhere to the recommendations and protection strategies identified.

The U.S. Fish & Wildlife Service's Information, Planning, and Consultation Service data base indicated that one federal-endangered species (Indiana bat) and two federal-threatened species (northern long-eared bat and red knot), may be present in proximity to the Project area. Red knot typically utilizes shoreline habitat, which is not present within the Project area. Indiana bat and northern long-eared bat are also state-listed species. The Project's NDDB determination did not indicate the potential presence of these species in proximity to Project activities. Therefore, no protection measures are warranted.

Visual Effects

All replacement structures will utilize weathering steel and would be located near existing structure locations, to the extent possible. The new weathering steel H-frame structure (structure 4763.5) would be installed on Eversource property near existing structures of similar height and design.

The Project will result in some change to the visual character of the line, though Eversource does not believe that the change will result in a significant impact. As noted above, some of the replacement structures would change design from the existing H-frame structures to monopoles. These visual effects would be somewhat mitigated by utilizing weathering steel for the new structures to replace the existing wood structures and by a more streamlined appearance, for those areas where the H-frame structures are proposed to be replaced with monopole structures.

The height of the 31 replacement structures from East Wallingford Junction to Totoket Junction would increase by approximately 5 to 14 feet compared to the existing structures; 20 structures will remain the same height. The height of the 18 replacement structures from Totoket Junction to Branford Substation would increase by approximately 14 to 33

feet (the height of 10 of these structures would increase by 25 feet). The existing 110-foot ROW is too narrow to meet current NESC clearance requirements with an H-frame structure design; therefore, the structure design is to change from H-frame to monopole structures in addition to the required height increases. The height of the new structure 4763.5 would be approximately 57 feet above ground level.

The 1537 Line structures (collocated within this portion of the 1655 ROW) are approximately the same height of the new proposed structures. The tallest structure on the 1537 Line is approximately 89 feet above ground level and the tallest replacement structure on the 1655 Line would be approximately 95 feet above ground level. The height differences are not anticipated to result in a significant change to the visual effect of the structures and line.

Air Quality

The potential for short-term, localized effects on air quality may result from the 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 will 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. Temporary gravel tracking pads would be installed at points of construction vehicle ingress/egress 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.

Noise

During construction, any impacts to existing noise levels would be short-term and localized in the vicinity of the work sites. There would be no permanent changes to the noise levels along the transmission ROW from the Project.

Radio and Television Interference

No radio or television interference would result from the Project.

5. Traffic, Construction Sequence and Methods

Traffic/Traffic Management

Construction vehicles and equipment associated with the work would include pickup trucks, bucket trucks, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, wood chippers, cranes, forklifts, side booms, dump trucks and cranes. Pullers, tensioners and helicopters will be used for the OPGW installation.

Construction-related vehicular and equipment movements would occur on public roads in the Project area. However, the Project-related traffic is expected to be temporary and highly localized in the vicinity of the ROW and 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 onto and off of the ROW while minimizing disruptions to vehicular traffic along public roads, Eversource or its Project contractor would, as appropriate, work with representatives of town and local representatives and/or 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.

Construction Sequence and Methods

Preparation of the ROW would include the following activities:

Establishing Staging Areas

Eversource would select temporary staging areas from available parcels in the vicinity of the Project area and these areas would also be used to store construction equipment and materials, (including tools, and supplies) insulators, hardware, poles and construction mats, for the Project. Office trailers may also be located at a staging area, and components removed during the work (structures, hardware and insulators) may be temporarily accumulated and stored at a staging area prior to removal off-site for salvage and/or disposal. The staging areas may also be used by construction crew members for parking personal vehicles as well as for construction vehicles, and for performing minor maintenance, when needed, on

construction equipment. An environmental review of each potential staging area location would be completed and erosion and sedimentation ("E&S") controls would be installed and maintained, as needed, until Project completion in accordance with Eversource's BMPs.

Eversource would provide notice to the Council when the staging areas are identified.

Vegetation Removal

Some vegetation removal would be required to facilitate the work and would be required within all construction areas, primarily at work pads and access roads. Eversource would conduct vegetation removal activities in accordance with its BMPs.

During vegetation removal, construction mats will be used to provide a stable base for equipment across watercourses or within wetlands. Such temporary support would minimize rutting in wetlands and would be removed after the vegetation removal activities are completed.

Eversource would require the contractor to use low-impact mowing/vegetation removal methods, where possible, to maintain vegetation and to protect wetlands, watercourses, threatened and endangered species and their habitats, and cultural resources. Low-impact mowing/vegetation removal incorporates a variety of approaches, techniques, and equipment to minimize site disturbance. Eversource would require the contractor to use such low-impact methods, depending on site-specific considerations, as:

- Take into consideration soil and weather conditions when scheduling vegetation removal activities such as heavy rainfall.
- Maximize the use of uplands for access routes.
- Use appropriate equipment for the site conditions to minimize impacts to the extent practicable.
- Cut trees and shrubs close to the ground, leaving root systems and stumps, where practical, to provide additional soil stability.

Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for erosion and sedimentation ("E&S") control, including those provided in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* ("*Connecticut Guidelines*") and the Eversource's BMPs. This will 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 from Construction Activities, effective 10/1/13 ("General Permit")*.

Typical E&S control measures include, but are not limited to, straw blankets, straw bales, silt fencing, rock construction entrances, soil and slope protection, water bars, check dams, berms, swales, and sediment basins. Silt fence would be installed where necessary 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 inspected and maintained throughout the Project to ensure their integrity and effectiveness and for compliance with the General Permit. The SWPCP inspections will be in accordance with the General Permit requirements. Following completion of construction, seeding and mulching would be undertaken 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 and remain stabilized.

Access Roads and Work Pads

Access to each proposed transmission structure location is required for Project construction. As a result of the operation and maintenance of the existing transmission lines within this ROW, the access roads are already established and would be used for Project construction. Additionally, off-ROW access roads, some requiring improvement, would also be utilized to access the Project ROW in some locations. Access roads to be used for the proposed Project are illustrated on the maps in Attachment A.

The existing access roads may need to be graded, widened, and/or reinforced with additional material in order 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 minimum travel surface that is approximately 12 to 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, or in improved areas, timber construction mats or gravel would be used. E&S controls would be installed as necessary before the commencement of any improvements to or development of access roads.

At each transmission structure site, a work pad would be required to stage material for final on-site structure assembly and/or removal, and to provide a safe, level work base for the construction equipment. Typical work pads would be approximately 125 feet by 125 feet and the pulling areas would be approximately 125 feet by 80 feet, as limited by the size of the ROW contours.

The preliminary location and configuration of the work pads, as determined based on the environmental field studies and constructability reviews, are shown on Attachment A.

A typical upland installation of a work pad at a structure location involves several steps: (1) removal of vegetation, if necessary; (2) the work pad site would be graded to create a level work area, and; (3) the upper three to six inches of topsoil (which is typically unsuitable to support the necessary construction activities) would be removed. The topsoil would be temporarily stockpiled within the ROW, typically near the work pad. A rock base, which allows drainage, would be layered on top of filter fabric, if necessary. Additional layers of rock with dirt/rock fines are typically placed over this rock base.

To facilitate transmission line maintenance, access roads and work pads located in uplands would be left in place, unless the property owner requests their removal. Access roads and work pads located within improved areas would typically be removed and the area restored, unless the property owner requests that they remain in place. No new permanent access roads or work pads are proposed in wetlands or streams.

Excavated soils that are generated during construction activities would not be stored or stockpiled inside of a wetland, or adjacent to a watercourse. Materials that could not be utilized as backfill would be disposed in accordance with applicable regulations.

Foundation Installation

The proposed structures would have direct-embedded or drilled shaft foundations. The structure foundation construction would require equipment such as: augers, trucks for hauling

reinforcing rebar/rebar cages, drill rigs, cranes, concrete trucks for structures that require drilled shaft foundations and dump trucks for structures that require crushed rock backfill. If groundwater is encountered, pumping (vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas before structure erection. The water would then be discharged in accordance with applicable local, state, and federal requirements.

As needed, counterpoise installation would also take place at this time. Depending on site-specific soil conductivity, supplemental grounding will be installed. A Quad-ditch witch plow-cable trencher, backhoe, or mini-excavator would be used to install the counterpoise, if needed.

Structure Assembly

Structure sections, structure components and hardware would be delivered to the individual structure locations using flat-bed trucks and then assembled using cranes and bucket trucks., structure components and hardware would be delivered to the individual structure locations using flat-bed trucks and then assembled using cranes and bucket trucks.

Restoration

Once the new structures have been erected and the relocated line is energized, the existing 115-kV structures would be demolished and removed. The equipment required for these activities would be generally the same as required for installing the new structures and OPGW; described above.

Additional restoration activities within the ROW would include the removal of construction debris, signs, flagging, and temporary fencing, as well as the removal of temporary access roads (construction mats) and work/pull pads within improved areas. Areas affected by construction would be re-graded as practical and stabilized using revegetation or other measures before removing temporary E&S controls.

Waste Management

Waste materials, such as structure components (i.e., structural steel, shield wire, associated hardware, etc.) and any other construction debris would be disposed of in accordance with Eversource's BMPs and applicable regulations or recycled consistent with regulations and Eversource policies.

Excess soils would be managed in accordance with the *Connecticut Guidelines,* the Company's BMPs, applicable regulations and disposal facility policies.

Construction Schedule and Work Hours

Eversource proposes to begin construction during February 2019 and expects that the construction, including restoration, would be completed by spring 2020. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday work hours may be necessary due to delays caused by inclement weather and/or outage constraints. Multiple crews may work concurrently on different sections of the line.

6. Electric and Magnetic Fields

Electric and magnetic fields ("EMF") are forms of energy that surround an electrical device when it is operable and/or operating. Electric fields ("EF") are produced within the area surrounding a conducting object (e.g., a wire) when a voltage is applied to it and are measured in units of kilovolts per meter ("kV/m"). The level of an EF near an energized power line depends on the applied voltage, the distance between the conductors, and the distance to the measurement location.

Magnetic fields are produced within the area surrounding a conductor or device that is carrying an electric current and are measured in units of milliGauss ("mG"). The level of the magnetic field near line conductors carrying current depends on the magnitude of the current, the distance between conductors, and the distance from the conductors to the measurement location.

Electric and magnetic field levels along the Project transmission corridor are expected to remain similar to those produced by the existing transmission lines.

Calculated fields under Average Annual Loading Conditions are summarized in Table E-1 below. See Figure 1 for the calculated magnetic fields and Figure 2 for the calculated electric fields below.

While there are no state or federal guidelines that govern electric and magnetic fields, the scientific community has identified limits for safe exposure. These limits are identified by the

International Council on Non-Ionizing Radiation Protection ("ICNIRP") and the International Council on Electromagnetic Safety ("ICES") and are tabulated in Table E-2.

Table E-1 - Summary of Calculated Electric and Magnetic Fields

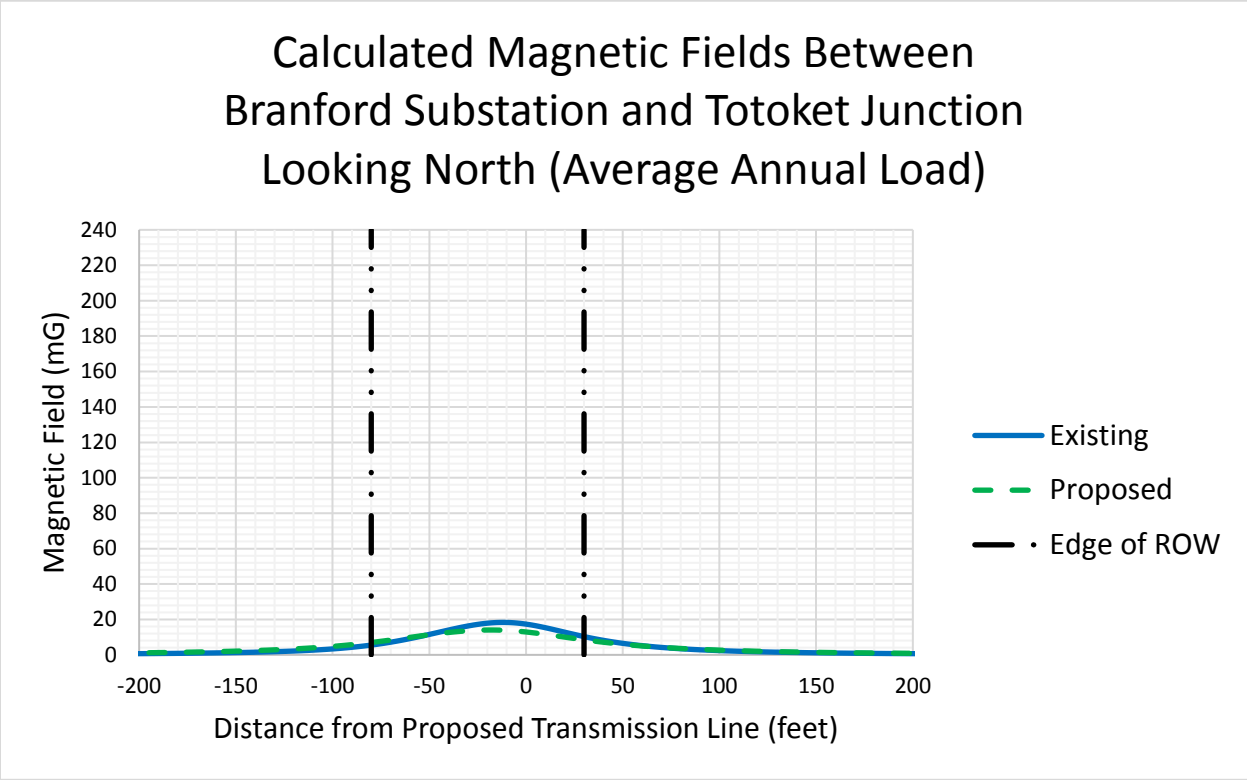
Branford Substation to Totoket Junction		West ROW Edge	Max in ROW	East ROW Edge
Magnetic Fields (mG)	Existing	5.5	18.3	10.3
	Proposed	7.0	14.0	8.5
Electric Fields (kV/m)	Existing	0.29	0.43	0.38
	Proposed	0.33	0.45	0.19

Totoket Junction to East Wallingford Junction		West ROW Edge	Max in ROW	East ROW Edge
Magnetic Fields (mG)	Existing	8.7	83.4	7.5
	Proposed	9.2	83.9	7.5
Electric Fields (kV/m)	Existing	0.29	2.06	0.20
	Proposed	0.33	2.09	0.20

Table E-2 - Reference levels for whole body exposure to 60-Hz fields: general public

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

Figure E-1 - Calculated Magnetic Fields



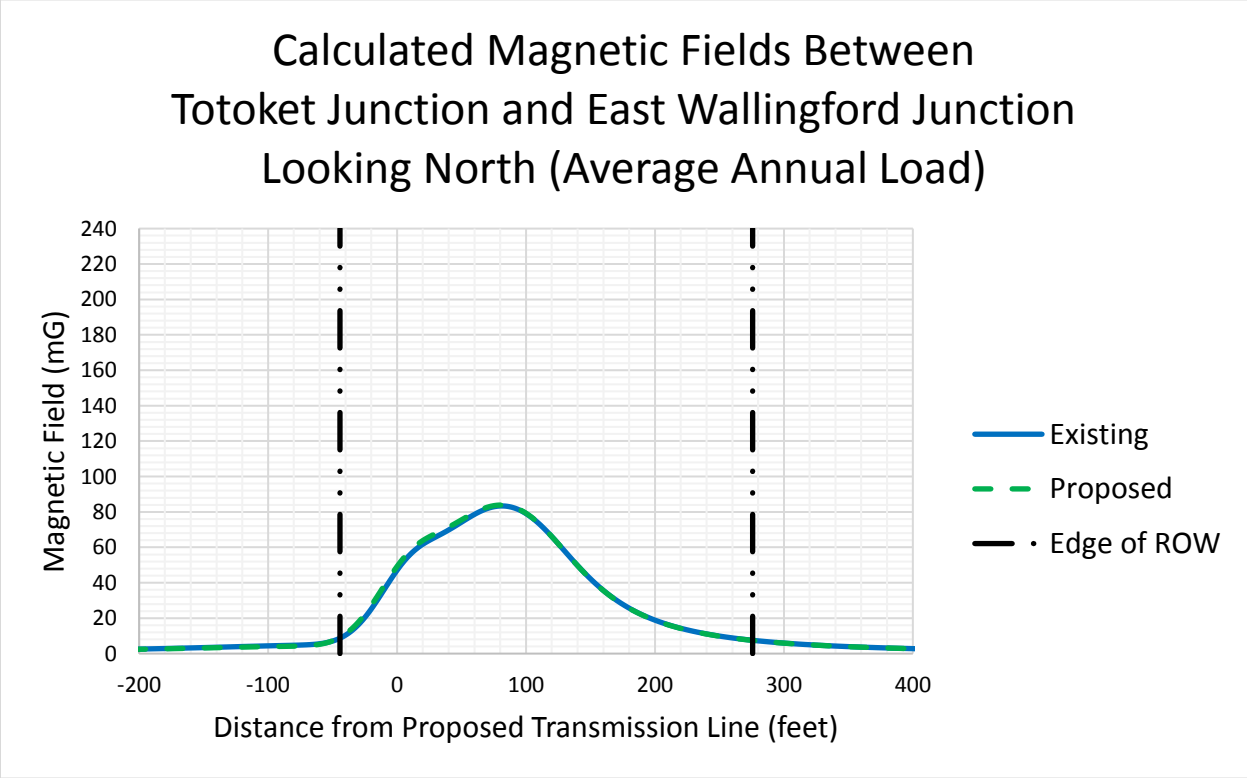
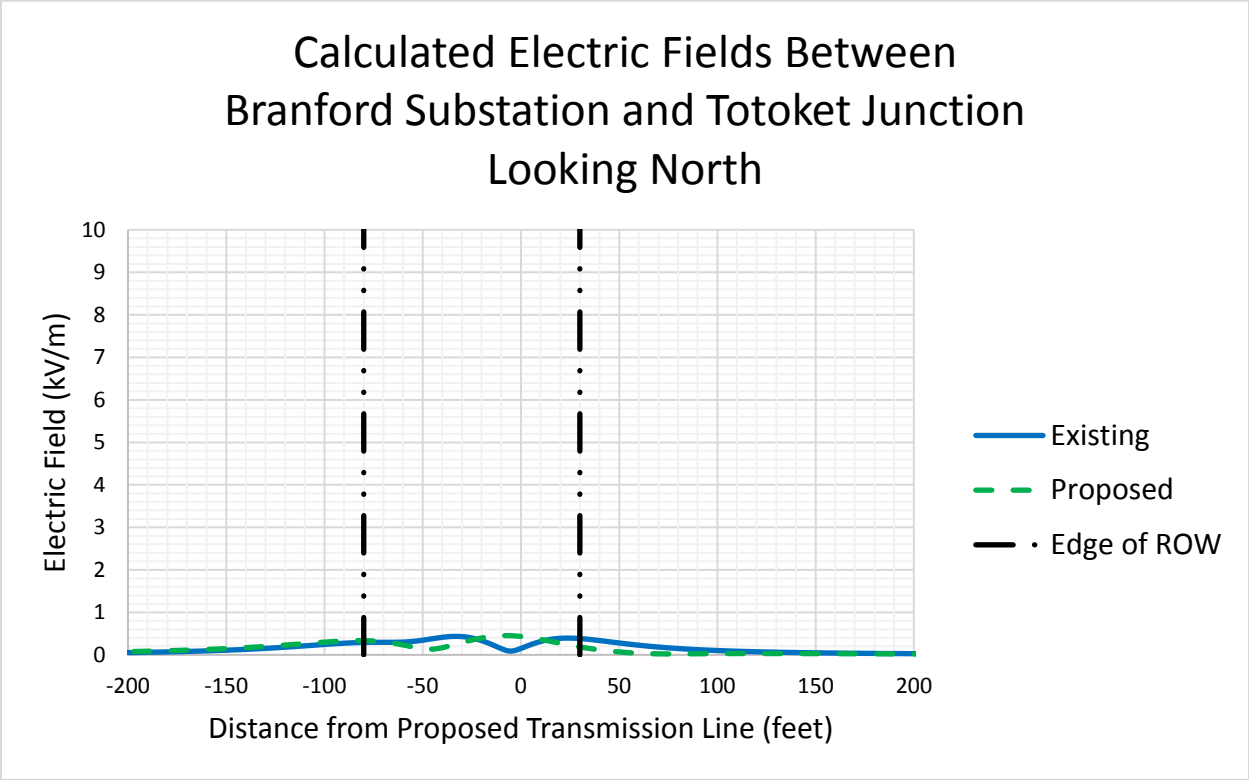
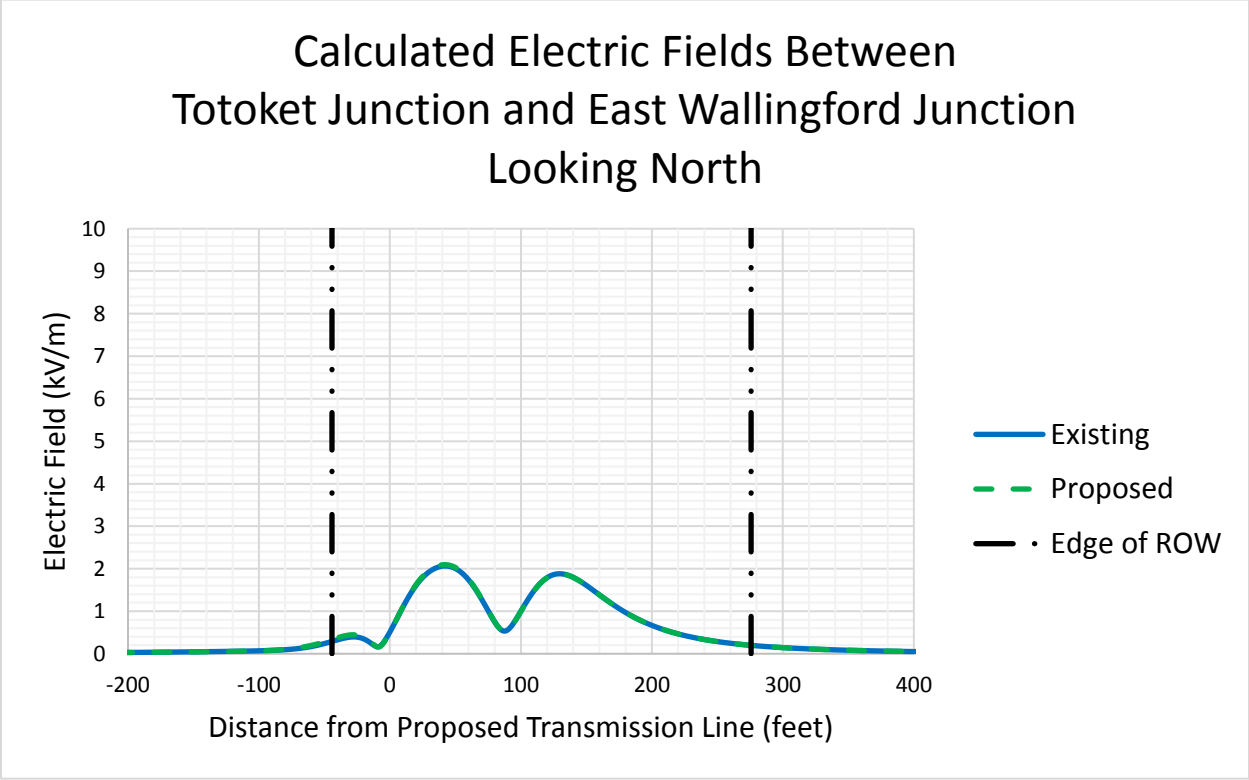


Figure E-2 - Calculated Electric Fields





7. Municipal and Property Owner Outreach

In May 2018, Eversource notified the municipal officials in the towns of Wallingford, North Haven, East Haven, North Branford, and Branford of the proposed Project. In June 2018, Eversource provided follow-up notice of the Project to municipal officials offering briefings prior to the Petition filing. Eversource also provided representatives of the towns with written notice of the Petition filing.

In May 2018, Eversource initiated outreach to property owners located along the ROW. In addition to conducting outreach to those directly abutting the ROW, Project Outreach representatives conducted door-to-door outreach to an expanded area of abutters in locations where it is anticipated other nearby property owners may see or hear construction due to proximity to an access road, the substation or who may be in proximity to some other proposed Project impact. In conjunction with the submission of this Petition, all abutting property owners were notified of the filing, provided information on how to obtain additional information on the Project, and how to submit comments to the Council. Further, Eversource representatives will contact abutting and nearby property owners to provide advance notification to them as to the start of construction activities and will continue to update property owners throughout construction and restoration.

8. Section 16-50k(a) of the Connecticut General Statutes provides that a Certificate of Environmental Compatibility and Public Need is needed for proposed modifications of a facility that the Council determines may have a "substantial adverse environmental effect." Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment or ecology, 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 and, therefore, no Certificate is required.

9. Communications regarding this Petition for a Declaratory Ruling should be directed to:

Kathleen M. Shanley
Manager – Transmission Siting
Eversource Energy
PO Box 270
Hartford, CT 06141-0270
Telephone: (860) 728-4527

By: _____
Kathleen M. Shanley
Manager – Transmission Siting

List of Attachments

Attachment A: Wallingford to Branford Upgrade Project – Aerial Map
Attachment B: Typical ROW Cross Sections
Attachment C: Cultural Heritage Report
Attachment D: Wetlands and Watercourses Report
Attachment E: Vernal Pool Survey
Attachment F: Letter to the Abutters and Affidavit

ATTACHMENT A

Wallingford to Branford Upgrade Project

Aerial Maps

Towns of Wallingford, North Haven, East Haven, North Branford, and Branford, Connecticut

October 2018

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East Wallingford Junction
01
02
03
04
05
06
07
08
09
10
11
12
13
Totoket Junction
14
15
16
17
Branford Substation
18
Wallingford
North Branford
Guilford
North Haven
East Haven
Branford
Hamden
LAKE GAILLARD
LAKE BRANFORD

INDEX MAP

Legend

Junction
1655 Line
Municipal Boundary
SUB Substation
Map Sheet

Base Map Source: ESRI USA Topographic Maps

1:36,000
0 1,500 3,000 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Index Map
Wallingford to Branford Upgrade Project

Wallingford, North Haven, East Haven, North Branford, & Branford, CT

Date: October, 2018

Map Author: N. Castro

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 1 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4695 to 4699
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- Golf Course
- Railroad
- Interstate 91
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Golf Course
- Natural Diversity Database Area south of structure 4699

Water Resources
- Wetlands – W1, W2
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – None

Wetland and Watercourse Crossings
- Wetland W2 – construction mats for work pad

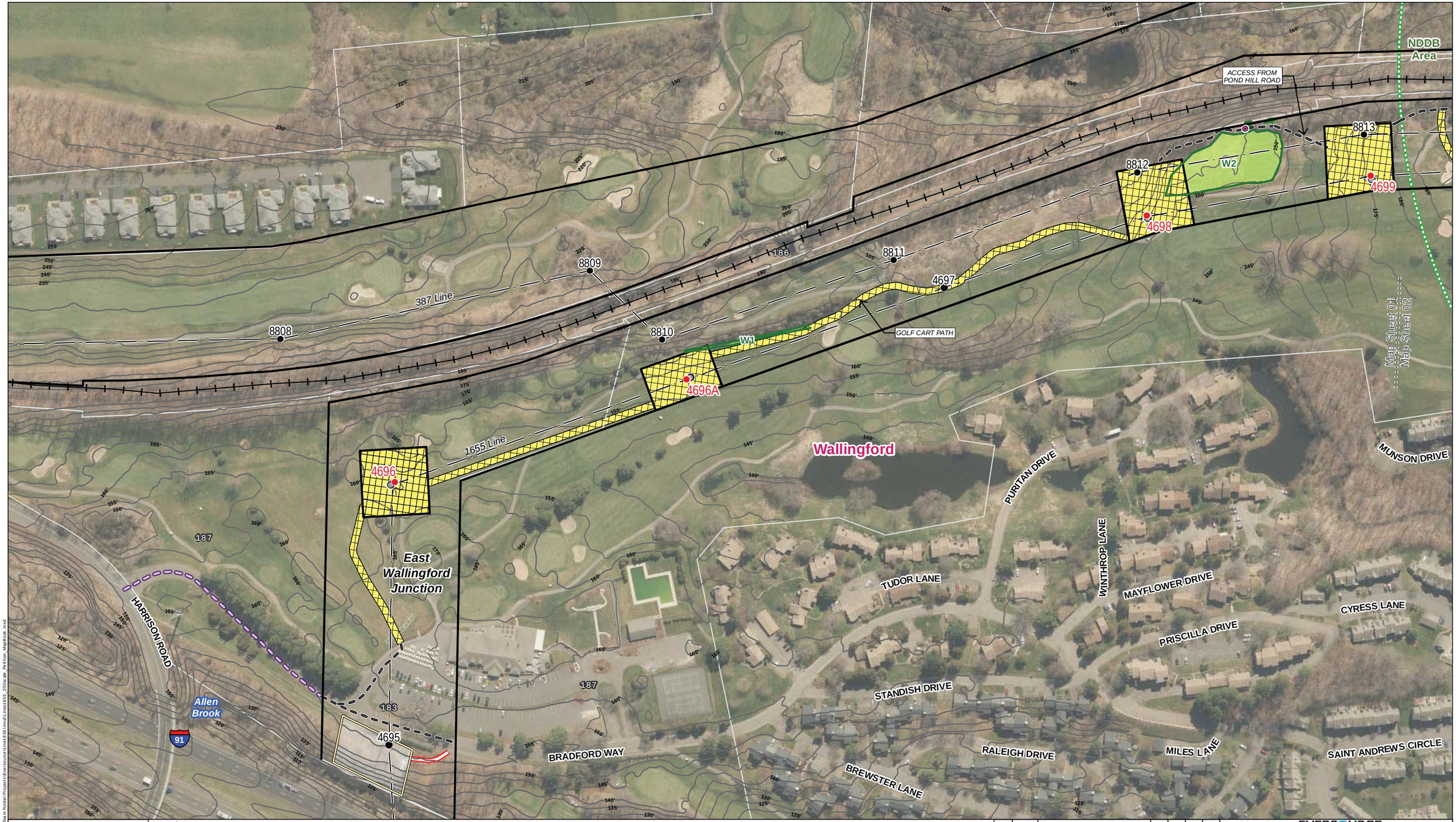
Right-of-Way Vegetation
- Scrub-shrub
- Landscaping/trees
- Turfgrass

Access
- Structure 4695: existing and proposed access from Harrison Road and existing (private) access from Bradford Way
- Structure 4696 to 4696A: existing and proposed access from Harrison Road
- Structure 4698 and 4699: existing access from Pond Hill Road

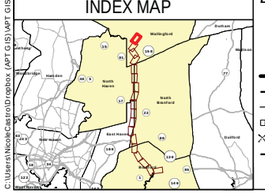
Road Crossings
- Bradford Way (private access)

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
182	37 HARRISON ROAD	WALLINGFORD	CT	TRADITION GOLF CLUB AT WALLINGFORD
183	37 HARRISON ROAD	WALLINGFORD	CT	TRADITION GOLF CLUB AT WALLINGFORD
186	DURHAM ROAD	WALLINGFORD	CT	TILCON CONNECTICUT INC (RAILROAD)
187	37 HARRISON ROAD	WALLINGFORD	CT	TRADITION GOLF CLUB AT WALLINGFORD



INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Wallingford, CT

Map Sheet 01 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 2 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4699 to 4704
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- School (Pond Hill Elementary School)
- Undeveloped, forest
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Railroad
- School (Pond Hill Elementary School)
- Natural Diversity Database Area

Water Resources
- Wetlands – W3, W4
- Wetland Cover Types – PSS, PEM
- Watercourses – None

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structure 4700 to 4701: existing access from Pond Hill Road
- Structure 4704: existing and proposed access from Pond Hill Road or Edgerton Road

Road Crossings
- Pond Hill Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
186	DURHAM ROAD	WALLINGFORD	CT	TILCON CONNECTICUT INC (RAILROAD)
187	37 HARRISON ROAD	WALLINGFORD	CT	TRADITION GOLF CLUB AT WALLINGFORD
195	299 POND HILL ROAD	WALLINGFORD	CT	TOWN OF WALLINGFORD POND HILL SCHOOL
198	44 EDGERTON ROAD	WALLINGFORD	CT	TIMOTHY & SUSAN C MCCOMB
200	40 EDGERTON ROAD	WALLINGFORD	CT	GRACE PUCCIO
203	36 EDGERTON ROAD	WALLINGFORD	CT	MICHAEL & DONNA STELLATO
207	32 EDGERTON ROAD	WALLINGFORD	CT	JAMES & BARBARA M MIRANDA
209	28 EDGERTON ROAD	WALLINGFORD	CT	JASON MANSFIELD & SARA WINCHELL
210	24 EDGERTON ROAD	WALLINGFORD	CT	ANN D YEOMANS
212	166 CLINTONVILLE ROAD	WALLINGFORD	CT	SUNDAY JOY PELLONI (ESTATE)
213	20 EDGERTON ROAD	WALLINGFORD	CT	ABDESSAMAD MELOUANE
214	16 EDGERTON ROAD	WALLINGFORD	CT	DIANA LOMBARDI
215	10 EDGERTON ROAD	WALLINGFORD	CT	LUIGI & CONCETTA L/U & ANTHONY RAPUANO
216	14 EDGERTON ROAD	WALLINGFORD	CT	GRAZIA PEDALINO
217	870 CLINTONVILLE ROAD	WALLINGFORD	CT	BARBARA MIGLIARO
218	872 CLINTONVILLE ROAD	WALLINGFORD	CT	MICHELLE BARKER
219	1-39 MALLARD COURT	WALLINGFORD	CT	WILDLIFE VILLAGE (39 UNITS)
220	RAILROAD ROW	WALLINGFORD	CT	RAILROAD - PROVIDENCE & WORCHESTER

BLOSSOM LANE

ROXBURY DRIVE

POND HILL ROAD

EDGERTON ROAD

CLINTONVILLE ROAD

1655 Line

387 Line

Map Sheet 03
Map Sheet 02

Map Sheet 01
Map Sheet 02

NDDB Area

NDDB Area

W4

W3

Wallingford

4706
4705
8819
219
8818
4704
8817
4703
8816
387 Line
212
8815
4702
8814
4700
4701
8813
4699
186
220
218
216
217
215
214
213
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209
207
203
200
198
195
187

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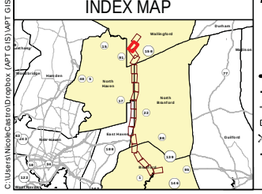
INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
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Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Wallingford, CT

Map Sheet 02 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

MAPSHEET 3 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4705 to 4710
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- Undeveloped, forest
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Natural Diversity Database Area

Water Resources
- Wetlands – W3, W4, W5, W6
- Wetland Cover Types – PSS, PEM
- Watercourses – S1, S2 (unnamed perennials)

Wetland and Watercourse Crossings
- Wetland W6 – construction mats for access road, work pad and pull pad
- Watercourse S2 – construction mats for access road

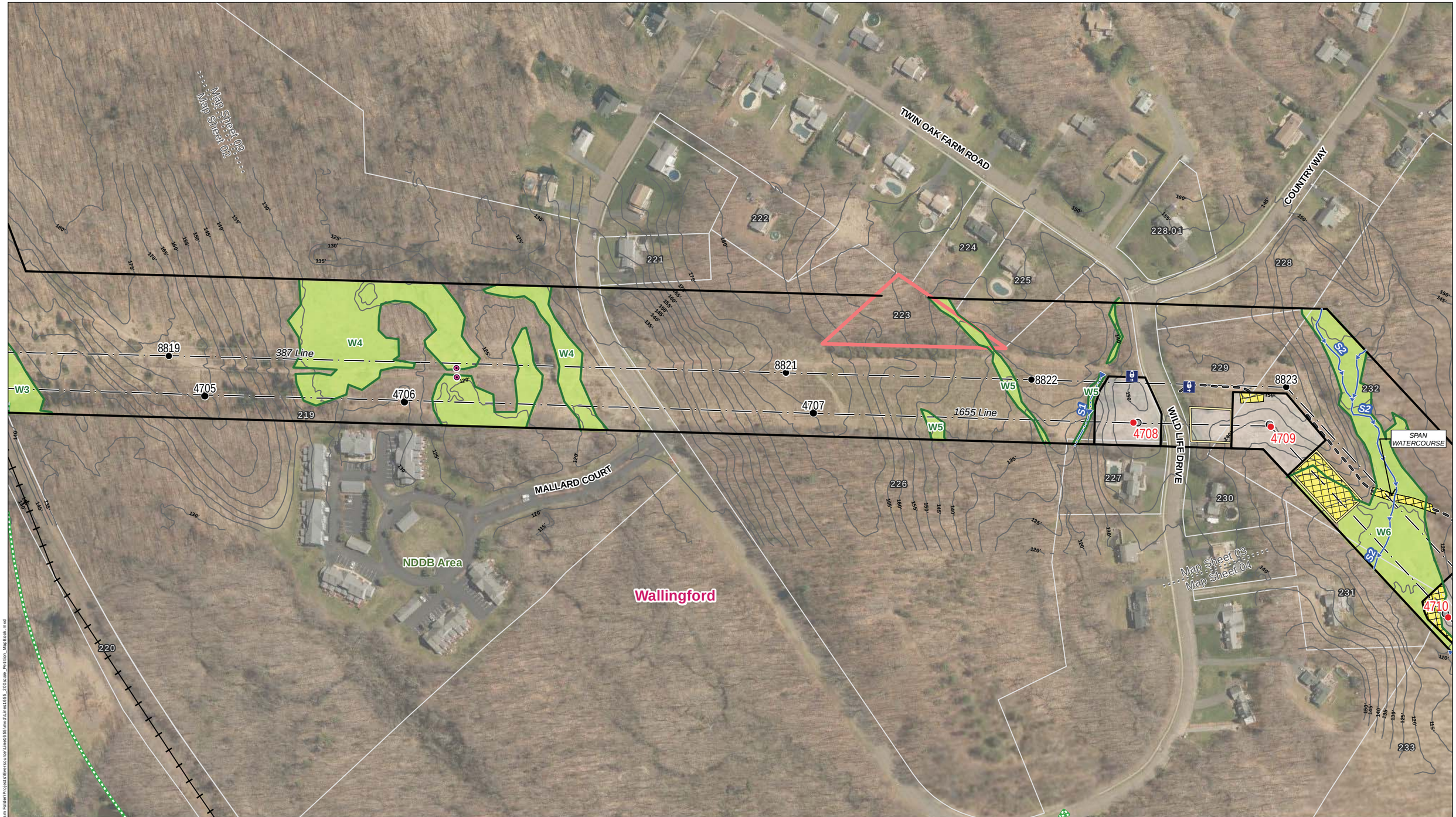
Right-of-Way Vegetation
- Scrub-shrub

Access
- Structure 4708 to 4710: existing access from Wildlife Drive

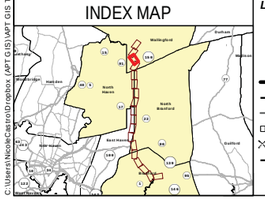
Road Crossings
- Wildlife Drive (2 locations)

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
219	1-39 MALLARD COURT	WALLINGFORD	CT	WILDLIFE VILLAGE (39 UNITS - SEE INDIVIDUAL UNITS)
220	RAILROAD ROW	WALLINGFORD	CT	RAILROAD - PROVIDENCE & WORCHESTER
221	47 WILDLIFE DRIVE	WALLINGFORD	CT	MICHAEL & JAMIE A GRACE
222	48 COUNTRY WAY	WALLINGFORD	CT	JOHN & CANDACE A KOZAK
223	TWIN OAK FARM ROAD	WALLINGFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
224	59 TWIN OAK FARM ROAD	WALLINGFORD	CT	SCOTT & KATIE TRAUNER
225	61 TWIN OAK FARM ROAD	WALLINGFORD	CT	JOHN & GINA B NASZNIC
226	11 WILDLIFE DRIVE	WALLINGFORD	CT	POND HOLLOW OWNERS ASSOCIATION INC THE C/O A & S
227	3 WILDLIFE DRIVE	WALLINGFORD	CT	DAVID & LISA DORLANDO
228	56 COUNTRY WAY	WALLINGFORD	CT	MARK & KAREN C DRISCOLL
228.01	52 TWIN OAK FARM ROAD	WALLINGFORD	CT	JOHN M & DEANNA M ZITO
229	WILDLIFE DRIVE	WALLINGFORD	CT	TOWN OF WALLINGFORD PUMPING STATION
230	4 WILDLIFE DRIVE	WALLINGFORD	CT	KEVIN F & JOAN C MOONEY
231	8 WILDLIFE DRIVE	WALLINGFORD	CT	SCOTT A & SALLY G COMRIE
232	406 WOODHOUSE AVENUE	WALLINGFORD	CT	MARGERY & NANCY N CLARK NEWTON
233	1022 CLINTONVILLE ROAD	WALLINGFORD	CT	ANNA M KRUSE



INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
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ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Wallingford, CT

Map Sheet 03 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 4 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4708 to 4714
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- Undeveloped, forest
- Natural Diversity Database Area
- Pine River
- 100-year and 500-year Flood Zones

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Natural Diversity Database Area
- Pine River
- 100-year and 500-year Flood Zones

Water Resources
- Wetlands – W5, W6, W7
- Wetland Cover Types – PSS, PEM
- Watercourses – S1, S2 (unnamed perennial), S3 (unnamed perennial), S4 (Pine River)
- 100-year and 500-year Flood Zones – S4

Wetland and Watercourse Crossings
- Wetland W6 – construction mats and access road for work pads and pull pad
- Wetland W7 – construction mats for access road
- Watercourse S2 – construction mats for access road and work pad
- Watercourse S3 – construction mats for access road
- Watercourse S4 – construction mats for access road

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structure 4708 to 4714: existing access from Wildlife Drive

Road Crossings
- Wildlife Drive

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
226	11 WILDLIFE DRIVE	WALLINGFORD	CT	POND HOLLOW OWNERS ASSOCIATION INC THE C/O A & S PROPERTY MANAGEMENT
227	3 WILDLIFE DRIVE	WALLINGFORD	CT	DAVID & LISA DORLANDO
228	56 COUNTRY WAY	WALLINGFORD	CT	MARK & KAREN C DRISCOLL
229	WILDLIFE DRIVE	WALLINGFORD	CT	TOWN OF WALLINGFORD PUMPING STATION
230	4 WILDLIFE DRIVE	WALLINGFORD	CT	KEVIN F & JOAN C MOONEY
231	8 WILDLIFE DRIVE	WALLINGFORD	CT	SCOTT A & SALLY G COMRIE
232	406 WOODHOUSE AVENUE	WALLINGFORD	CT	MARGERY & NANCY N CLARK NEWTON
233	1022 CLINTONVILLE ROAD	WALLINGFORD	CT	ANNA M KRUSE
234	1034 CLINTONVILLE ROAD	WALLINGFORD	CT	DONNA E ASHWORTH
235	132 CLINTONVILLE ROAD	WALLINGFORD	CT	132 CLINTONVILLE LLC
236	1054 CLINTONVILLE ROAD	WALLINGFORD	CT	PLEASANT VIEW FARMS DEVELOPMENT INC
237	132 CLINTONVILLE ROAD	WALLINGFORD	CT	132 CLINTONVILLE LLC
238	30 FIRE-LITE PLACE	NORTH BRANFORD	CT	24-30 CLINTONVILLE ROAD ASSOCIATES
239	603 CLINTONVILLE ROAD	NORTH HAVEN	CT	TOWN OF NORTH HAVEN
240	590 CLINTONVILLE ROAD	NORTH HAVEN	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)

North Branford

Wallingford

Pine River

100 Year Flood Zone

500 Year Flood Zone

NDDB Area

ACCESS TO STRUCTURE 4715

SPAN WATERCOURSE

SPAN WATERCOURSE

SPAN WATERCOURSE

WILD LIFE DRIVE

387 Line

1655 Line

Map Sheet 03

Map Sheet 04

Map Sheet 04

Map Sheet 05

8823 8824 8825 8826 8827 8828

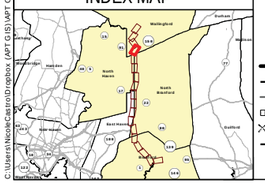
4708 4709 4710 4711 4712 4713 4714

S1 S2 S3 S4

W5 W6 W7

226 227 228 229 230 231 232 233 234 235 236 237 238 239 240

INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
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- Critical Habitat (2009)
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- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
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- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

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1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Wallingford, CT

Map Sheet 04 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

MAPSHEET 5 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4715 to 4721
Town of North Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Undeveloped, forest
- Natural Diversity Database Area
- Muddy River
- Pine River
- 100-year and 500-year Flood Zones and Floodway

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area at structure 4715 and 4716
- Muddy River south of structure 4715
- 100-year and 500-year Flood Zones at structures 4715, 4716, 4718
- Floodway south of structure 4715

Water Resources

- Wetlands – W7, W8
- Wetland Cover Types – PSS, PEM
- Watercourses – S4 (Pine River), S5 (Muddy River), S6 (unnamed perennial)
- Vernal Pools – VP1
- 100-year and 500-year Flood Zones – S5, S6

Wetland and Watercourse Crossings

- Wetland W7 – construction mats for access road and work pad
- Wetland W8 – construction mats for access road and work pad
- Watercourse S6 – construction mats for work pad and access road

Right-of-Way Vegetation

- Scrub-shrub

Access

- Structure 4715: existing access from Wildlife Drive
- Structures 4717 and 4718: existing access from Clintonville Road (Route 22)

Road Crossings

- Clintonville Road (Route 22)

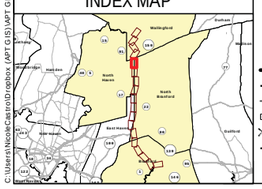
Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
236	1054 CLINTONVILLE ROAD	WALLINGFORD	CT	PLEASANT VIEW FARMS DEVELOPMENT INC
237	132 CLINTONVILLE ROAD	WALLINGFORD	CT	132 CLINTONVILLE LLC
238	30 FIRE-LITE PLACE	NORTH BRANFORD	CT	24-30 CLINTONVILLE ROAD ASSOCIATES
239	603 CLINTONVILLE ROAD	NORTH HAVEN	CT	TOWN OF NORTH HAVEN
240	590 CLINTONVILLE ROAD	NORTH HAVEN	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
240.01	44 POND HILL ROAD	NORTH HAVEN	CT	JOHN A TAYLOR
241	575 CLINTONVILLE ROAD	NORTH HAVEN	CT	ANTHONY J & JUNE M PINTO
242	593 CLINTONVILLE ROAD	NORTH HAVEN	CT	FIRE-LITE ALARMS INC C/O ALTUS GROUP US
242.01	1 FIRE-LITE PLACE	NORTH BRANFORD	CT	FIRE-LITE ALARMS INC, HONEYWELL INTERNATIONAL INC C/O ALTUS GROUP US
243	577 CLINTONVILLE ROAD	NORTH HAVEN	CT	JAN WIEKKUC
244	3 CLINTONVILLE ROAD	NORTH BRANFORD	CT	BRUCE LOUIS FARAONE
245	9 CLINTONVILLE ROAD	NORTH BRANFORD	CT	DAVID M & PATRICIA LEE ARDITO
246	82 HANSEN FARM ROAD	NORTH HAVEN	CT	PHILIP & SANDRA LION
247	HANSEN FARM ROAD OPEN SPACE	NORTH HAVEN	CT	REBESCHI PAUL CONSTRUCTION INC
248	76 HANSEN FARM ROAD	NORTH HAVEN	CT	MARY LOU SULLIVAN
249	70 HANSEN FARM ROAD	NORTH HAVEN	CT	DOMINIC R & WILLIAM B PERRY TRUSTEES
250	64 HANSEN FARM ROAD	NORTH HAVEN	CT	MICHAEL F & DENISE L BERTHIAUME
251	60 HANSEN FARM ROAD	NORTH HAVEN	CT	CURTIS L & CAROLYN THALKEN
252	56 HANSEN FARM ROAD	NORTH HAVEN	CT	CARL & JOAN I MUNGIGUERRA JR
253	52 HANSEN FARM ROAD	NORTH HAVEN	CT	KAREN C FITZGERALD
254	45 VENTA DRIVE	NORTH BRANFORD	CT	DARCY V & TINA K PHABMIXAY
256	MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH & GIUSEPPE & AMELA DIGLIO

FIRE LITE PLACE
CIRCLE DRIVE
VENTA DRIVE
Map Sheet 05
Map Sheet 06
Map Sheet 04
Map Sheet 05
238
242.01
100 Year Flood Zone
Muddy River
North Branford
North Haven
245
256
254
ACCESS TO STRUCTURE 4721.5
244
22
CLINTONVILLE ROAD
387 Line
1655 Line
4721
4720
8832
247
253
252
251
250
249
248
246
4719
239
Floodway
ACCESS FROM WILD LIFE DRIVE
VP1
242
SPAN WATERCOURSE
8831
W7
8829
4715
S5
500 Year Flood Zone
4716
8830
4717
4718
S6
W8
S4
NDDB Area
240
Pine River
243
241
240.01
237
236
HANSEN FARM ROAD
RIMMON ROAD

INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
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- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Comerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Haven, CT

Map Sheet 05 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 6 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4721.5 to 4725
Towns of North Haven and North Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- Agricultural
- Eightmile Brook
- 100-year Flood Zone
- 500-year Flood Zone (outside of ROW)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Agricultural
- Eightmile Brook south of structure 4723
- 100-year Flood Zone at structure 4723

Water Resources
- Wetlands – W9, W10
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – S7, S8, S9 (Eightmile Brook), S10 (unnamed perennial)
- 100-year Flood Zones – S9

Wetland and Watercourse Crossings
- Wetland W9 – construction mats for work pad
- Watercourse S7 – construction mats work pad

Right-of-Way Vegetation
- Scrub-shrub
- Agricultural

Access
- Structure 4721.5 to 4725: existing access from Sara Circle

Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
247	HANSEN FARM ROAD OPEN SPACE	NORTH HAVEN	CT	REBESCHI PAUL CONSTRUCTION INC
252	56 HANSEN FARM ROAD	NORTH HAVEN	CT	CARL & JOAN I MUNGIGUERRA JR
253	52 HANSEN FARM ROAD	NORTH HAVEN	CT	KAREN C FITZGERALD
254	45 VENTA DRIVE	NORTH BRANFORD	CT	DARCY V & TINA K PHABMIXAY
255	48 HANSEN FARM ROAD	NORTH HAVEN	CT	PAUL A & CHERYL A SANGIOVANNI
256	MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH & GIUSEPPE & AMELA DIGLIO
257	51 VENTA DRIVE	NORTH BRANFORD	CT	JOHN J & NANCY S MCHUGH III
258	44 HANSEN FARM ROAD	NORTH HAVEN	CT	ROBERT C & THERESA J DEPALMA
259	3 NIDA DRIVE	NORTH BRANFORD	CT	SEAN S & ALAINE M BRITTELL
260	40 HANSEN FARM ROAD	NORTH HAVEN	CT	PAUL R & ELLEN R DUFOR JR
261	9 NIDA DRIVE	NORTH BRANFORD	CT	MASSIMO PALMA
262	36 HANSEN FARM ROAD	NORTH HAVEN	CT	KEVIN R & DEBORAH M RICHTER
263	17 NIDA DRIVE	NORTH BRANFORD	CT	MARIA IZZO & NOBILE RITA IZZO
264	32 HANSEN FARM ROAD	NORTH HAVEN	CT	MARK J & MARY LOU PAYETTE
265	23 NIDA DRIVE	NORTH BRANFORD	CT	DAVID F & SUSAN F STANNARD
266	28 HANSEN FARM ROAD	NORTH HAVEN	CT	STANLEY W & YVONNE E ZILINSKI JR
267	29 NIDA DRIVE	NORTH BRANFORD	CT	CHARLES P & ELEANOR H KUBALA
268	35 NIDA DRIVE	NORTH BRANFORD	CT	FRANK A & DEBORA LUCIBELLA III
269	24 HANSEN FARM ROAD	NORTH HAVEN	CT	ANTHONY R CARBONE
270	41 NIDA DRIVE	NORTH BRANFORD	CT	LOUIS R DEFELICE JR
271	47 NIDA DRIVE	NORTH BRANFORD	CT	DONALD J & JUDITH MORRISSEY JR
272	53 NIDA DRIVE	NORTH BRANFORD	CT	TOWN OF NORTH BRANFORD
273	9 SARA CIRCLE	NORTH HAVEN	CT	NORTH HAVEN LAND TRUST INC
274	1030 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH DIGLIO & GIUSEPPE & AMELIA DIGLIO
275	14 SARA CIRCLE	NORTH HAVEN	CT	RACHAEL ANDREWS
276	20 SARA CIRCLE	NORTH HAVEN	CT	CESARE & ANNA SIMEONE
277	53 RIMMON ROAD	NORTH HAVEN	CT	NORTH HAVEN LAND TRUST INC
278	1068 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOHN M & NANCY MARINUZZI
279	1066 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	DINO J & MARY R DELLORO
280	23 SARA CIRLE	NORTH HAVEN	CT	JOSEPH P & MARY E SIMONE SR
282	1060 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH DIGLIO & GIUSEPPE & AMELIA DIGLIO

RUTA DRIVE
VENTA DRIVE
NIDA DRIVE
HANSEN FARM ROAD
SILO VIEW ROAD
SARA CIRCLE
RIMMON ROAD
Map Sheet 05
Map Sheet 06
Map Sheet 06
Map Sheet 07
ACCESS FROM CLINTONVILLE ROAD
North Branford
North Haven
Floodway
100 Year Flood Zone
500 Year Flood Zone
Eightmile Brook
387 Line
1655 Line
W9
W10
S7
S8
S9
S10
4721.5
4722
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8834
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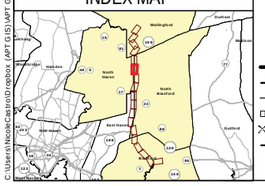
INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Branford/North Haven, CT

Map Sheet 06 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 7 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4726 to 4731
Town of North Branford and North Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Commercial
- Eversource-owned property
- Eightmile Brook

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Commercial
- Eversource-owned property north of Middletown Avenue
- Eightmile Brook at structures 4729 to 4730

Water Resources
- Wetlands – W11
- Wetland Cover Types – PSS, PEM
- Watercourses – S11 (Eightmile Brook)

Wetland and Watercourse Crossings
- Wetland W11 – construction mats for access roads, work pad, and pull pad
- Watercourse S11 – construction mats for access road and work pad

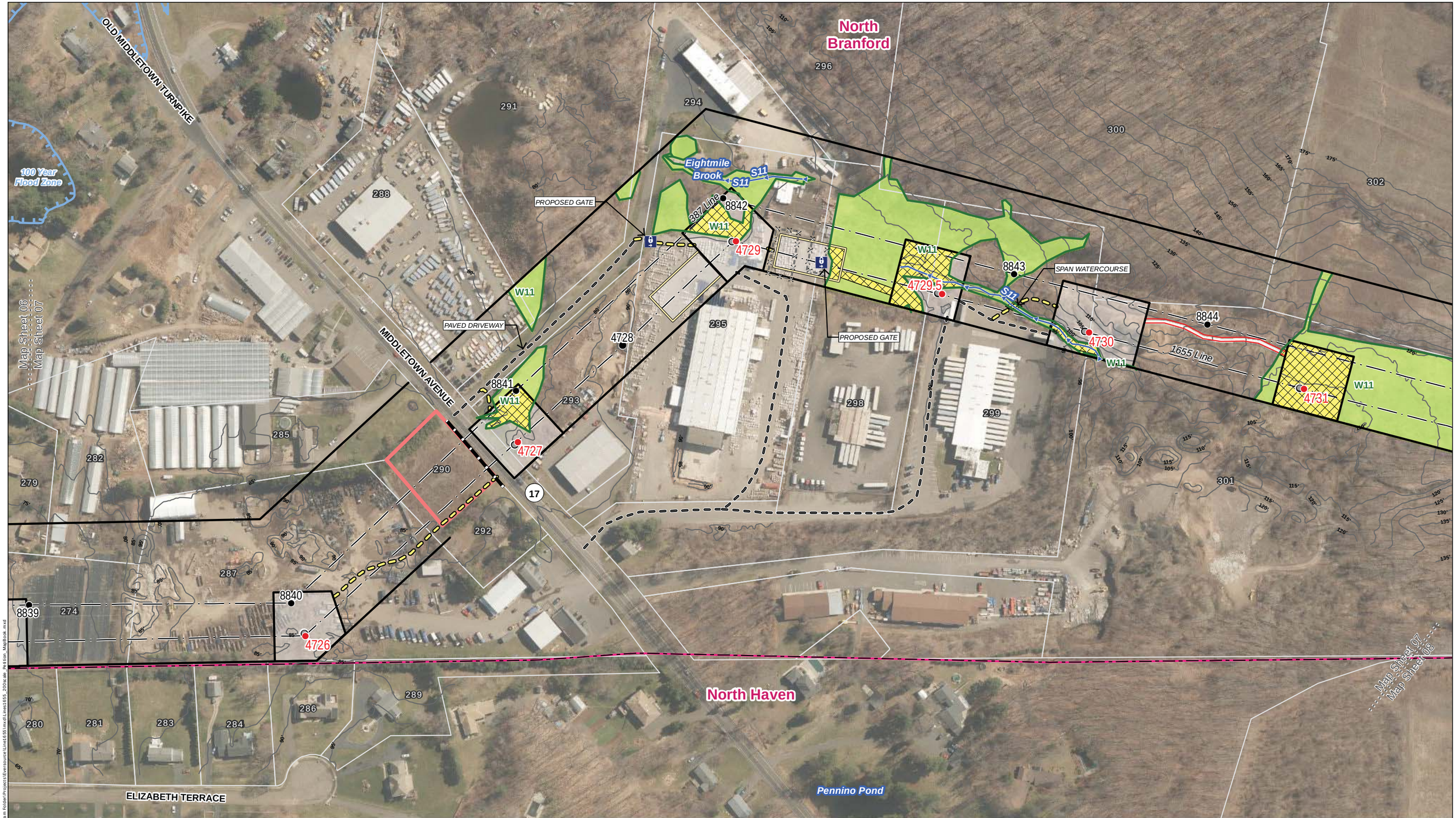
Right-of-Way Vegetation
- Scrub-shrub

Access
- Structures 4726 to 4731: existing and proposed access from Middletown Avenue (Route 17)

Road Crossings
- Middletown Avenue (Route 17)

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
274	1030 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH DIGLIO & GIUSEPPE & AMELIA DIGLIO
279	1066 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	DINO J & MARY R DELLORO
280	23 SARA CIRLE	NORTH HAVEN	CT	JOSEPH P & MARY E SIMONE SR
281	7 ELIZABETH TERRACE	NORTH HAVEN	CT	ANTHONY R & CELESTE L STELLATO
282	1060 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JOSEPH DIGLIO & GIUSEPPE & AMELIA DIGLIO
283	11 ELIZABETH TERRACE	NORTH HAVEN	CT	BRUCE & JANET DEVLIN
284	15 ELIZABETH TERRACE	NORTH HAVEN	CT	JEAN B & RICHARD BRUCE BENNETT
285	1036 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	GUISEPPE & JOSEPH DIGLIO
286	19 ELIZABETH TERRACE	NORTH HAVEN	CT	STEPHEN D WHEELER JR
287	1002 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	ASD PROPERTIES LLC
288	1037 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	MICHAEL DUHAMEL & SUSAN M DOODY-DUHAMEL
289	23 ELIZABETH TERRACE	NORTH HAVEN	CT	ANTHONY LAUDANO & BRITTANY JENNINGS
290	1028 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
291	254 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	MICHAEL DUHAMEL & SUSAN M DOODY-DUHAMEL
292	1022 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	IDA R MARTINELLI
293	1013 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JRS STORAGE FAILITY LLC
294	1015 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	GEORGE R DEPOTO JR
295	1011 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	1010 MIDDLETOWN AVE LLC
296	238 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	JASON LICHTENBERGER
298	1009 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	AMA NORTHFORD LLC C/O ANTHONY BRUZZESE
299	1007 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	JP FACILITIES LLC
300	214 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	ALTON LESLIE ELIASON JR & LINDA MAY KOS
301	1005 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	TOWN OF NORTH BRANFORD
302	118 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	LUANCI CONSTRUCTION LLC



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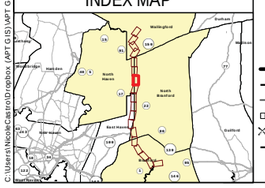

Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
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- Existing Access Road to be improved
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- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

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NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Branford/ North Haven, CT

Map Sheet 07 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 8 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4732 to 4737
Towns of North Branford and North Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Agricultural
- Undeveloped, forest
- Residential
- Eightmile Brook
- Borrelli Farm Pond

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Agricultural from structure 4735 to 4737
- Residential adjacent to structure 4737
- Eightmile Brook and Borrelli Farm Pond adjacent to structure 4734

Water Resources
- Wetlands – W11
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – S11 (Eightmile Brook/Borrelli Farm Pond), S12

Wetland and Watercourse Crossings
- Wetland W11 – construction mats for work pad and access road
- Watercourse S11 – construction mats for work pad
- Watercourse S12 – construction mats for access road

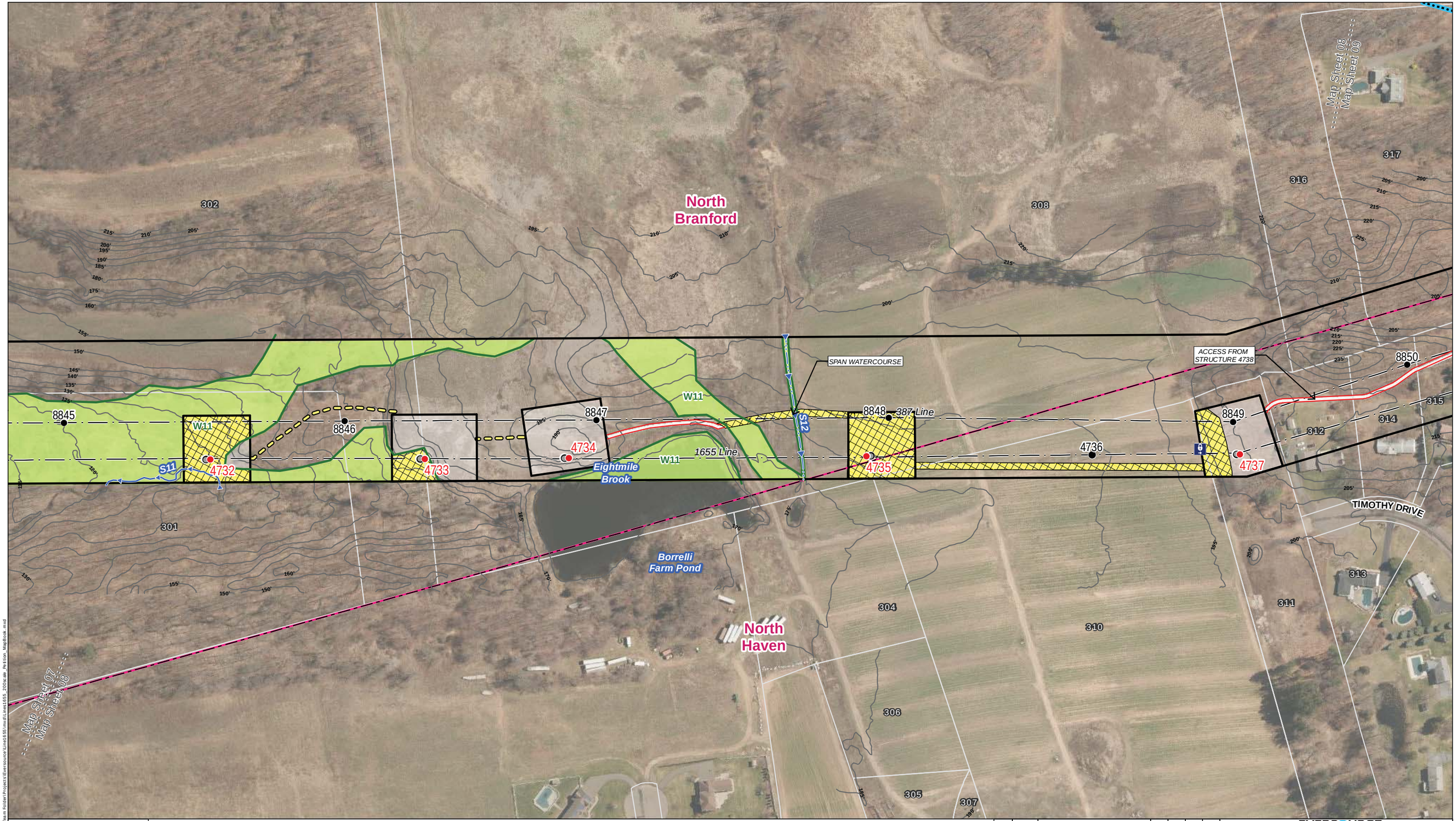
Right-of-Way Vegetation
- Scrub-shrub
- Agricultural

Access
- Structures 4732 to 4737: existing and proposed access from Salvatore Court

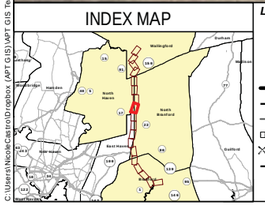
Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
301	1005 MIDDLETOWN AVENUE	NORTH BRANFORD	CT	TOWN OF NORTH BRANFORD
302	118 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	LUANCI CONSTRUCTION LLC
304	79 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
305	91 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
306	87 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
307	87 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
308	70 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	FPJ INVESTMENTS LLC
309	95 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
310	95 WARNER ROAD	NORTH HAVEN	CT	FPJ INVESTMENTS LLC
311	19 TIMOTHY DRIVE	NORTH HAVEN	CT	CLEMENTE MARTONE
312	22 TIMOTHY DRIVE	NORTH HAVEN	CT	MARK & TRACY A FUSCO
313	15 TIMOTHY DRIVE	NORTH HAVEN	CT	RAFFAELE L & GENA M LIUZZI
314	18 TIMOTHY DRIVE	NORTH HAVEN	CT	JOY GRABOW
315	16 TIMOTHY DRIVE	NORTH HAVEN	CT	CURTIS GIBSON
316	34 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	JAMES & DAWN M ANDERSON
317	14 AUTUMN COURT	NORTH BRANFORD	CT	NANCY ROSEMAN MONDE



INDEX MAP



Legend

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- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
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- Existing Access Road to be improved
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- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
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- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

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ROW Boundary provided by Eversource (not from survey).
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Base Map Source: 2016 Google Imagery

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0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Branford/ North Haven, CT

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October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 9 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4738 to 4741
Towns of North Haven and East Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Agricultural
- Undeveloped, forest
- Residential
- Public Water Supply Watershed

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Residential adjacent to structures 4738 and 4741

Water Resources
- Wetlands – W12
- Wetland Cover Types – PSS, PEM
- Watercourses – None

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structures 4738 to 4739: existing access from Salvatore Court
- Structures 4740 to 4741: existing and proposed access from Half Mile Road

Road Crossings
- Augur Road Extension

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
313	15 TIMOTHY DRIVE	NORTH HAVEN	CT	RAFFAELE L & GENA M LIUZZI
314	18 TIMOTHY DRIVE	NORTH HAVEN	CT	JOY GRABOW
315	16 TIMOTHY DRIVE	NORTH HAVEN	CT	CURTIS GIBSON
316	34 PARSONAGE HILL ROAD	NORTH BRANFORD	CT	JAMES & DAWN M ANDERSON
317	14 AUTUMN COURT	NORTH BRANFORD	CT	NANCY ROSEMAN MONDE
318	16 TIMOTHY DRIVE	EAST HAVEN	CT	CURTIS GIBSON
319	3 SALVATORE COURT	EAST HAVEN	CT	LINDA J & RUSSELL P MONAHAN JR
320	12 AUTUMN COURT	NORTH BRANFORD	CT	GORDON A SHANKS & ALICE M GUIDONE
321	4 SALVATORE COURT	EAST HAVEN	CT	EDWARD & ANN MARIE BRACALE
322	53 SALVATORE DRIVE	EAST HAVEN	CT	CLEMENTINA ONOFRIO
324	38 AUGUR ROAD EXT	NORTH BRANFORD	CT	ANNA DIBENEDETTO
325	11 HALF MILE ROAD	EAST HAVEN	CT	ANNA DIBENEDETTO
326	30 AUGUR ROAD EXT	NORTH BRANFORD	CT	JOHN & BARBARA DIBENEDETTO
327	29 HALF MILE ROAD	EAST HAVEN	CT	JOSEPH & CHERYL A FLORENTINO
330	45 AUGUR ROAD EXT	NORTH BRANFORD	CT	GERALD S & RUTH A ADINOLFI
331	18 HALF MILE ROAD	EAST HAVEN	CT	TOWN OF EAST HAVEN OPEN SPACE NORTH
333	43 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	BENJAMIN & LYNN CORSO
334	35 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	ANTHONY CRISCUOLO & LINDA LAPERY
335	31 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	TARA A PAINE
336	27 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	TRIFEMENA DINUZZO
337	626 TOTOKET ROAD	NORTH BRANFORD	CT	THERESA M GUIDONE & ELIZABETH A LARSON
339	4 HALF MILE ROAD	EAST HAVEN	CT	MARK DILUNGO

Public Water Supply Watershed Saltonstall System

Map Sheet 08
Map Sheet 09

North Branford

AUGUR ROAD EXTENSION

Public Water Supply Watershed Saltonstall System

Map Sheet 09
Map Sheet 10

316 317 320 324 326 330 337

W12

387 Line

1655 Line

8850 8851 8852 8853 8854

4738 4739 4740 4741

314 315 318 319 321 325 331 339

SALVATORE COURT

322 327 333 334 335

COLONIAL HEIGHTS ROAD

TIMOTHY DRIVE

SALVATORE DRIVE

HALF MILE ROAD

East Haven

North Haven

Fivemile Brook

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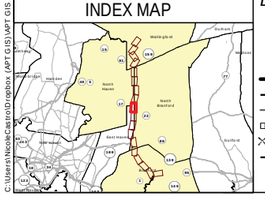
INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
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- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
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ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Haven/East Haven, CT

Map Sheet 09 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

MAPSHEET 10 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4742 to 4746
Town East Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Residential
- Agricultural
- Undeveloped, forest
- Public Water Supply Watershed
- South Central CT Regional Water Authority property

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Public Water Supply Watershed from structure 4742 to 4746
- South Central CT Regional Water Authority property structure 4745 to 4746

Water Resources
- Wetlands – W13
- Wetland Cover Types – PSS, PEM
- Watercourses – None

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structures 4744 to 4745: existing access from Barberry Road or existing and proposed access from Half Mile Road

Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
335	31 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	TARA A PAINE
336	27 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	TRIFEMENA DINUZZO
337	626 TOTOKET ROAD	NORTH BRANFORD	CT	THERESA M GUIDONE & ELIZABETH A LARSON
338	21 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	MATTHEW J ROSE & MICHELLE M BALLETTO
339	4 HALF MILE ROAD	EAST HAVEN	CT	MARK DILUNGO
340	17 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	BRUCE & LUCIA PALMER
341	13 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	BRUCE & LUCIA PALMER
342	12 COLONIAL HEIGHTS ROAD	EAST HAVEN	CT	PAMELA BUONOCORE
343	321 BARBERRY ROAD	EAST HAVEN	CT	THERESA LONGLEY
344	315 BARBERRY ROAD	EAST HAVEN	CT	TOWN OF EAST HAVEN OPEN SPACE SOUTH
345	299 BARBERRY ROAD	EAST HAVEN	CT	JENNIFER & PASQUALE L DILUNGO
346	516 TOTOKET ROAD	NORTH BRANFORD	CT	LORIANN DILUNGO
347	279 BARBERRY ROAD	EAST HAVEN	CT	THE NORTHERN TRUST COMPANY TRUSTEE JOHNSON ANDREW
348	512 TOTOKET ROAD	NORTH BRANFORD	CT	KURT R & BONNIE MULLER
349	508 TOTOKET ROAD	NORTH BRANFORD	CT	BENJAMIN & KIMBERLY POWELL
350	504 TOTOKET ROAD	NORTH BRANFORD	CT	ANDREW & SALLY ANN NOTARINO
351	500 TOTOKET ROAD	NORTH BRANFORD	CT	DAVID A & CARRA M LUCIBELLO
352	464 TOTOKET ROAD	NORTH BRANFORD	CT	SALVATORE & PATRICIA DAURIO
353	181 BARBERRY ROAD	EAST HAVEN	CT	SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
354	460 TOTOKET ROAD	NORTH BRANFORD	CT	CHERYL M GALKO

Map Sheet 09
Map Sheet 10

ACCESS FROM HALF MILE ROAD

North Branford

337 346 348 349 350 351 352 354

8855 8856 339 8857 8858 8859 8860

4742 4743 344 4744 4745 4746

387 Line

1655 Line

W13

335 336 338 340 341 342 343 345 347 353

COLONIAL HEIGHTS ROAD

Public Water Supply
Watershed Saltonstall System

East Haven

South Central CT
Regional Water Authority

BARBERRY ROAD

100 Year
Flood Zone

Map Sheet 10
Map Sheet 11

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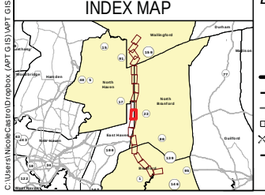
INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

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ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

N E S W

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

East Haven, CT

Map Sheet 10 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

MAPSHEET 11 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4747 to 4751
Town East Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Gravel Pit
- Agricultural
- Undeveloped, forest
- Public Water Supply Watershed
- South Central CT Regional Water Authority property

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Public Water Supply Watershed
- South Central CT Regional Water Authority property structure 4747 to 4748
- Gravel Pit adjacent to structures 4748 to 4750
- Agricultural adjacent to structure 4751

Water Resources
- Wetlands – W14, W15
- Wetland Cover Types – PSS, PEM
- Watercourses – S13 (unnamed perennial)
- 100-year Flood Zones – S13

Wetland and Watercourse Crossings
- W15 and S13 – construction mats for access road

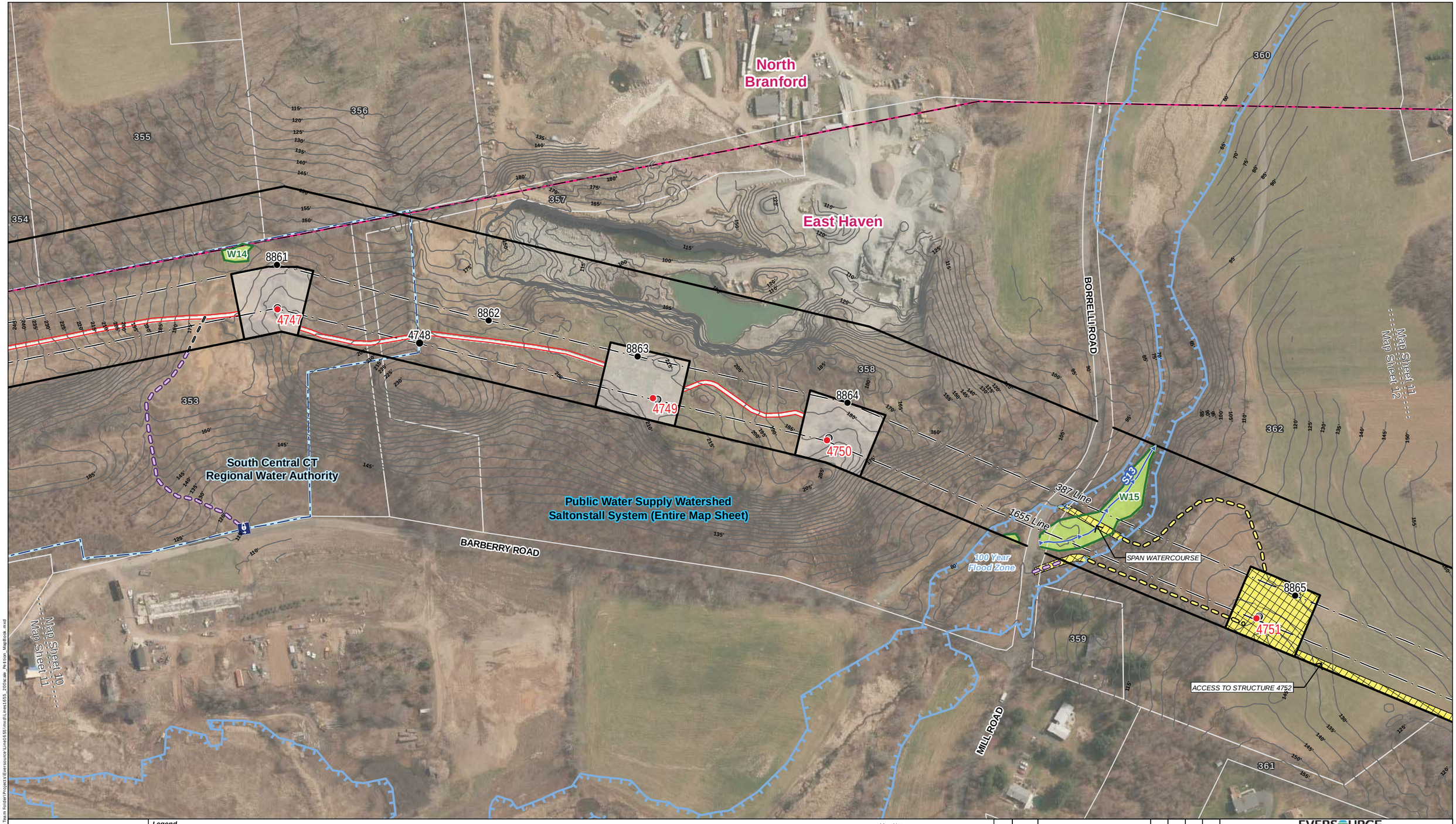
Right-of-Way Vegetation
- Scrub-shrub
- Agricultural

Access
- Structures 4747 to 4750: existing access from Barberry Road or existing and proposed access from Half Mile Road
- Structure 4751: proposed access from Borrelli Road

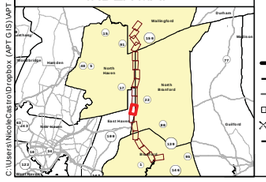
Road Crossings
- Borrelli Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
353	181 BARBERRY ROAD	EAST HAVEN	CT	SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
354	460 TOTOKET ROAD	NORTH BRANFORD	CT	CHERYL M GALKO
355	440 TOTOKET ROAD	NORTH BRANFORD	CT	SEAN CAHILL & CHRISTOPHER DILUNGO
356	420 TOTOKET ROAD	NORTH BRANFORD	CT	WHAT TF LLC
357	99 BARBERRY ROAD	EAST HAVEN	CT	WHAT TF LLC
358	1 BARBERRY ROAD	EAST HAVEN	CT	ONE BARBERRY REAL ESTATE HOLDING LLC
359	98 BORRELLI ROAD	EAST HAVEN	CT	JUDSON W & PAMELA A PAGE
360	330 TOTOKET ROAD	NORTH BRANFORD	CT	ROBERT & STEPHANIE J PAGE
361	14 MILL POND HEIGHTS ROAD	EAST HAVEN	CT	EAST HAVEN LAND TRUST INC
362	48 BORRELLI ROAD	EAST HAVEN	CT	ROBERT A & STEPHANIE PAGE



INDEX MAP



Legend

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- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
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ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

East Haven, CT

Map Sheet 11 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 12 of 18
Wallingford to Branford Upgrade Project
Existing Structure 4752 to 4756
Town East Haven, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Agricultural
- Undeveloped, forest
- Public Water Supply Watershed
- Private Recreation Area (Sportsplex)
- 100-year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Public Water Supply Watershed
- Agricultural adjacent to structure 4752

Water Resources
- Wetlands – W16
- Wetland Cover Types – PSS, PEM
- Watercourses – S14 (unnamed perennial)
- 100-year Flood Zones – S14

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub
- Agricultural

Access
- Structure 4752 to 4753: proposed access from Borrelli Road

Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
361	14 MILL POND HEIGHTS ROAD	EAST HAVEN	CT	EAST HAVEN LAND TRUST INC
362	48 BORRELLI ROAD	EAST HAVEN	CT	ROBERT A & STEPHANIE PAGE
363	48 BRANHAVEN DRIVE	EAST HAVEN	CT	BRANHAVEN RIDGE LLC
364	44 BRANHAVEN DRIVE	EAST HAVEN	CT	CANDELORA SALVATORE A ANNUITY TRUST
365	216 FOXON ROAD	NORTH BRANFORD	CT	NORMAN A ALDRICH/SALVATORE A CANDELORA CHILDRENS TRUST
366	150 FOXON ROAD	NORTH BRANFORD	CT	108 FOXON ROAD LLC

Map Sheet 11
Map Sheet 12

Map Sheet 12
Map Sheet 13

Border Pond

North Branford

East Haven

Public Water Supply Watershed
Saltonstall System (Entire Map Sheet)

387 Line

1655 Line

S14

W16

100 Year Flood Zone

8870
4755
8869
4754
8868
4753
4753
8867
4752

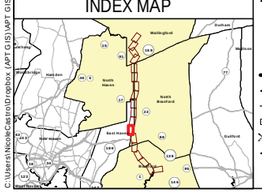
362
363
364
365
366
361

BRANHAVEN DRIVE

SPERRY LANE

ACCESS FROM TOTOKET ROAD

INDEX MAP



Legend

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- Existing Structure
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- Existing Right-of-Way ROW)
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- Fence
- Railroad
- Gate
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- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

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0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

East Haven, CT

Map Sheet 12 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 13 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4757 to 4762
Town North Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, forest
- Residential
- Natural Diversity Database Area
- Public Water Supply Watershed
- South Central CT Regional Water Authority property
- Eversource-owned property
- Private Recreation Area (Sportsplex)
- Farm River
- Burrs Brook
- 100-year and 500-year Flood Zones and Floodway

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Natural Diversity Database Area
- Public Water Supply Watershed
- Residential adjacent to structure 4761 and 4762
- Eversource-owned property at structures 4759 and 4761 to 4762
- Private Recreation Area (Sportsplex) adjacent to structure 4757
- Farm River between structures 4759 and 4760
- Burrs Brook adjacent to structure 4760
- 100-year Flood Zones at structures 4759 and 4760
- Floodway and 500-year Flood Zone at structure 4760

Water Resources

- Wetlands – W17, W18
- Wetland Cover Types – PSS, PEM
- Watercourses – S15 (Farm River), S16 (Burrs Brook)
- 100-year Flood Zones – S15, S16
- 500-year Flood Zone – S16
- Floodway – S15, S16

Wetland and Watercourse Crossings

- Wetland W17 – construction mats for work pads
- Watercourse S16 – construction mats for work pad

Right-of-Way Vegetation

- Scrub-shrub

Access

- Structures 4757 and 4759: existing access from Foxon Road (Route 80)
- Structures 4760 to 4762: existing access from Williams Road

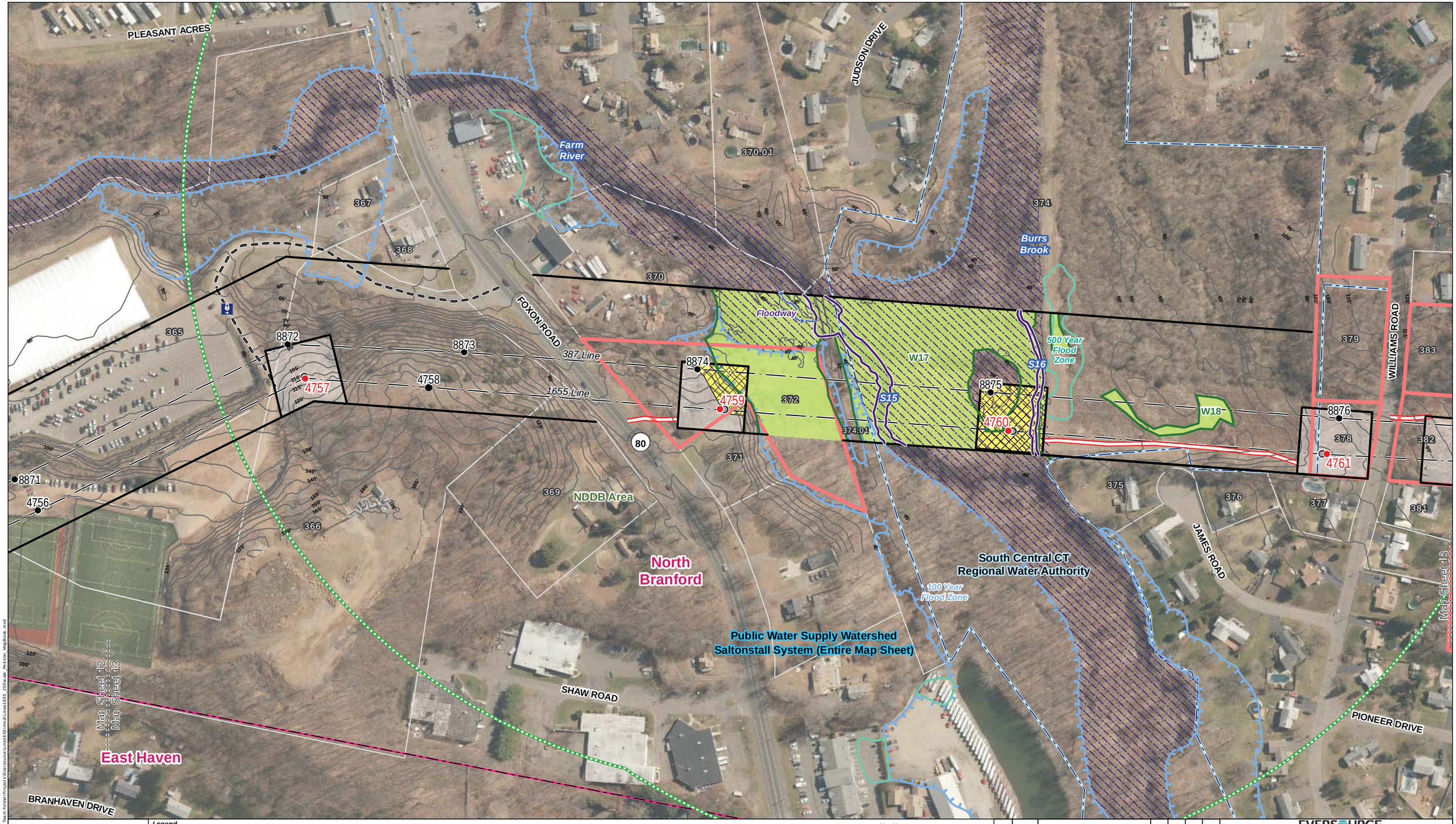
Road Crossings

- Foxon Road (Route 80)
- Williams Road

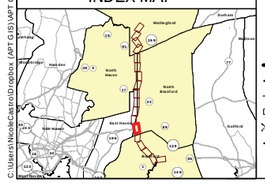
Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 300 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
365	216 FOXON ROAD	NORTH BRANFORD	CT	NORMAN A ALDRICH/SALVATORE A CANDELORA CHILDRENS TRUST
366	150 FOXON ROAD	NORTH BRANFORD	CT	108 FOXON ROAD LLC
367	212 FOXON ROAD	NORTH BRANFORD	CT	ANTHONY L BATTISTA
368	208 FOXON ROAD	NORTH BRANFORD	CT	LEEMILTS PETROLEUM INC C/O GETTY REALTY COMPANY
369	102 FOXON ROAD	NORTH BRANFORD	CT	HANS N STRILBYCKIJ & DOMINIC J SCARPA
370	155 FOXON ROAD	NORTH BRANFORD	CT	EDWARD L ADAMS ESTATE C/O DAWN JACOBSON
370.01	130 TOTOKET ROAD	NORTH BRANFORD	CT	JOHN D & JULIE A WHITE
371	97 FOXON ROAD	NORTH BRANFORD	CT	THE UNITED ILLUMINATING COMPANY
372	115 FOXON ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
374	98 TOTOKET ROAD	NORTH BRANFORD	CT	SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY
374.01	0 FOXON ROAD OFF	NORTH BRANFORD	CT	UNITED ILLUMINATING COMPANY
375	20 JAMES ROAD	NORTH BRANFORD	CT	TERRELL & ELLIEBEN HARRIS
376	7 JAMES ROAD	NORTH BRANFORD	CT	HUGH R MORRIS & PATRICIA A FICOCELLI
377	17 WILLIAMS ROAD	NORTH BRANFORD	CT	JEAN PIERRE CARON
378	15-2 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
379	15-1 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
381	16 WILLIAMS ROAD	NORTH BRANFORD	CT	BRIAN D & KRISTIN M VANACORE
382	14 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
383	12 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
384	16 TOTOKET ROAD	NORTH BRANFORD	CT	CHARLA J FITZPATRICK
384.01	20 TOTOKET ROAD	NORTH BRANFORD	CT	ANIELLO LONGOBARDI/LONGOBARDI FAMILY TRUST
385	12 TOTOKET ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)



INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
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- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

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1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Branford, CT

Map Sheet 13 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 14 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4762 to 4767
Towns North Branford and Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Undeveloped, forest
- Natural Diversity Database Area
- Public Water Supply Watershed
- Eversource-owned property (Totoket Junction)
- Lidyhites Pond
- 500-year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Natural Diversity Database Area structures 4762, and 4765 to 4766
- Public Water Supply Watershed structures 4762 to 4765
- Eversource-owned property structures 4762 to 4764 (Totoket Junction)
- 500-year Flood Zone structures 4766 to 4767

Water Resources
- Wetlands – W19
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – None

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structures 4762 to 4764: existing access from Williams Road
- Structures 4765 to 4766: existing off-ROW access from Hilltop Drive
- Structure 4767: access from Mountaintop Drive

Road Crossings
- Totoket Road
- Mountaintop Drive
- Hilltop Drive

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 300 feet / 0 feet
- 110 feet / 0 feet (south of Totoket Junction)

LLN	Parcel Address	City	State	Owner Name
381	16 WILLIAMS ROAD	NORTH BRANFORD	CT	BRIAN D & KRISTIN M VANACORE
382	14 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
383	12 WILLIAMS ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
384	16 TOTOKET ROAD	NORTH BRANFORD	CT	CHARLA J FITZPATRICK
384.01	20 TOTOKET ROAD	NORTH BRANFORD	CT	ANIELLO LONGOBARDI/LONGOBARDI FAMILY TRUST
385	12 TOTOKET ROAD	NORTH BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
386	10 TOTOKET ROAD	NORTH BRANFORD	CT	WILSON E CARRENO
388	0TOTOKET ROAD	NORTH BRANFORD	CT	CHRISTOPHER M BLAKEY
390	11 FARVIEW DRIVE	BRANFORD	CT	CHRISTOPHER M BLAKEY
391	449 BRUSHY PLAIN ROAD	BRANFORD	CT	WILLIAM J NOONAN
392	3-9 ROCK ROAD	BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
393	17 FARVIEW DRIVE	BRANFORD	CT	JOHN J HAMILTON
394	447 BRUSHY PLAIN ROAD	BRANFORD	CT	MARTHA M KRAAK & ANDREW BARTH
395	38-42 HILLTOP DRIVE	BRANFORD	CT	MARK E FULLER & SUZANNE KILBRIDE
396	415 BRUSHY PLAIN ROAD	BRANFORD	CT	ROBERT G & AGNES R BARBASH
398	33 HILLTOP DRIVE	BRANFORD	CT	GEORGE & JOAN BARTLETT
399	39 HILLTOP DRIVE	BRANFORD	CT	BRUNO CENICCOLA
402	35 HILLTOP DRIVE	BRANFORD	CT	DONALD B & SUZANNE K GRANT JR
403	397 BRUSHY PLAIN ROAD	BRANFORD	CT	TOWN OF BRANFORD
404	383 BRUSHY PLAIN ROAD	BRANFORD	CT	RANDALL S BOVA SR
405	371-95 BRUSHY PLAIN ROAD	BRANFORD	CT	TOWN OF BRANFORD OPEN SPACE
406	24 VICTOR HILL DRIVE	BRANFORD	CT	STANLEY C CWIERTNIEWICZ TRUSTEE
407	8 MOUNTAIN TOP DRIVE	BRANFORD	CT	HAROLD G RODING & S EDELTRAUD
408	28 VICTOR HILL DRIVE	BRANFORD	CT	LOUIS T DONOFRIO
409	9 MOUNTAIN TOP DRIVE	BRANFORD	CT	PAUL J & BARBARA P RACETTE
410	7 MOUNTAIN TOP DRIVE	BRANFORD	CT	RICHARD M & MARY ELLEN LYNCH
430	100 HOSLEY AVENUE	BRANFORD	CT	NEW HAVEN WATER COMPANY

Branford

North Branford

NDDB Area

Public Water Supply Watershed Saltonstall System

NDDB Area

Totoket Junction

WILLIAMS ROAD

TOTOKET ROAD

FAIRVIEW DRIVE

ROCK STREET

HILLTOP DRIVE

BRUSHY PLAIN ROAD

VICTOR HILL DRIVE

BROOKWOOD DRIVE

MOUNTAIN TOP DRIVE

SEPTIC SYSTEM

DRIVEWAY

500 Year Flood Zone

W19

1655 Line

1537 Line

387 Line

Lidyhites Pond

Map Sheet 13
Map Sheet 14

Map Sheet 15
Map Sheet 14

4762
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4783 A
4783 B
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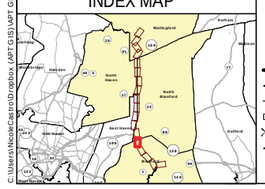

Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

North Branford/Branford, CT

Map Sheet 14 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 15 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4767 to 4771
Town Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Undeveloped, forest
- Residential
- Town of Branford Open Space (Supply Ponds)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Residential
- Town of Branford Open Space structures 4770 and 4771

Water Resources
- Wetlands – W19, W20, W21, W22
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – S17

Wetland and Watercourse Crossings
- Wetland W21 – construction mats for work pad

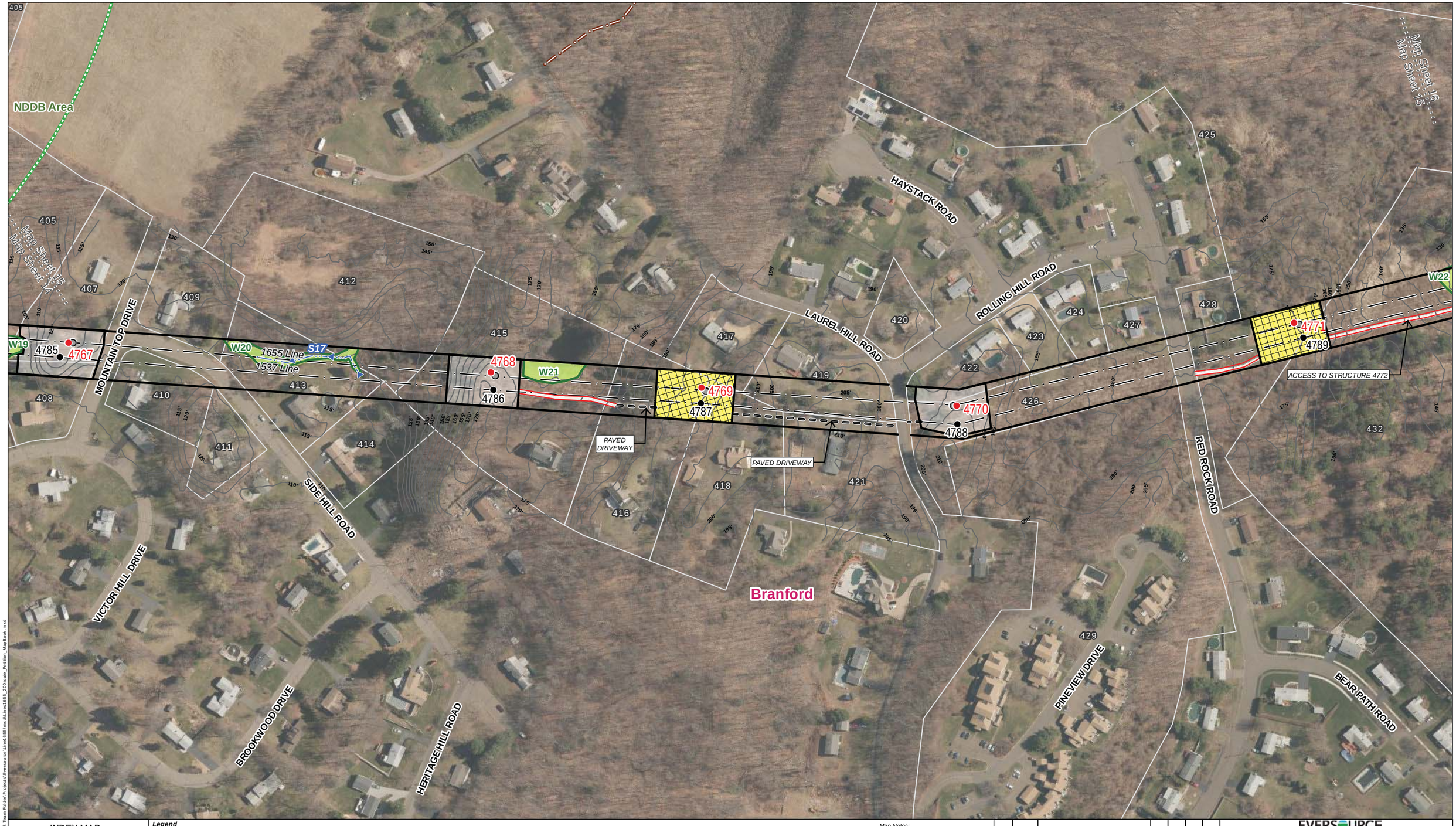
Right-of-Way Vegetation
- Scrub-shrub

Access
- Structures 4767: existing access from Mountain Top Drive
- Structures 4768 to 4770: existing access from Laurel Hill Road
- Structure 4771: existing access from Red Rock Road

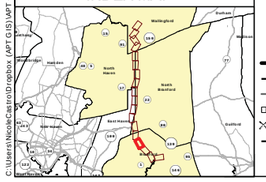
Road Crossings
- Mountaintop Drive
- Side Hill Road
- Laurel Hill Road
- Red Rock Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 110 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
405	371-95 BRUSHY PLAIN ROAD	BRANFORD	CT	TOWN OF BRANFORD OPEN SPACE
406	24 VICTOR HILL DRIVE	BRANFORD	CT	STANLEY C CWIERTNIEWICZ TRUSTEE
407	8 MOUNTAIN TOP DRIVE	BRANFORD	CT	HAROLD G RODING & S EDELTRAUD
408	28 VICTOR HILL DRIVE	BRANFORD	CT	LOUIS T DONOFRIO
409	9 MOUNTAIN TOP DRIVE	BRANFORD	CT	PAUL J & BARBARA P RACETTE
410	7 MOUNTAIN TOP DRIVE	BRANFORD	CT	RICHARD M & MARY ELLEN LYNCH
411	9 SIDE HILL ROAD	BRANFORD	CT	PAUL R & MARIE G SANTACROCE
412	SIDE HILL ROAD	BRANFORD	CT	TOWN OF BRANFORD
413	8 SIDE HILL ROAD	BRANFORD	CT	JACOB & STEPHANIE JARVIS
414	12 SIDE HILL ROAD	BRANFORD	CT	STEVEN P & ANNA MARIE CUDGMA
415	76 LAUREL HILL ROAD	BRANFORD	CT	LOUIS P & JOAN M CRETELLA TRUSTEE
416	74 LAUREL HILL ROAD	BRANFORD	CT	JOSE M & LISA A BRANCO
417	82 LAUREL HILL ROAD	BRANFORD	CT	PAUL G CAVALLARO TRUSTEE
418	72 LAUREL HILL ROAD	BRANFORD	CT	SEAN & DENISE VANDALE
419	78 LAUREL HILL ROAD	BRANFORD	CT	RADI B & MARIAN B QUITAIN
420	1 ROLLING HILL ROAD	BRANFORD	CT	TRACY A VENTRESCA
421	70 LAUREL HILL ROAD	BRANFORD	CT	DEVLIN CONTRACTING LLC
422	2 ROLLING HILL ROAD	BRANFORD	CT	LUIGI ANTHONY CENICCOLA
423	4 ROLLING HILL ROAD	BRANFORD	CT	LUIS E & ELIZABETH H SALINAS
424	6 ROLLING HILL ROAD	BRANFORD	CT	MARC & MICHELLE LANDINO
425	83 LAUREL HILL ROAD	BRANFORD	CT	TOWN OF BRANFORD
426	83 LAUREL HILL ROAD	BRANFORD	CT	TOWN OF BRANFORD
427	31 RED ROCK ROAD	BRANFORD	CT	YAN FEN & QI BO YE
428	24 RED ROCK ROAD	BRANFORD	CT	ROBERT W & MEGAN A ST PIERRE JR
429	PINEVIEW	BRANFORD	CT	PINEVIEW CONDO (72 UNITS - SEE INDIVIDUAL UNIT LISTING)
432	45-81 SHORT ROCKS ROAD	BRANFORD	CT	TOWN OF BRANFORD SUPPLY POND



INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Branford, CT

Map Sheet 15 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 16 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4772 to 4777
Town Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Undeveloped, forest
- Town of Branford Open Space (Supply Ponds)
- Pisgah Brook
- 100-year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Town of Branford Open Space (Supply Ponds)
- Pisgah Brook between structures 4773 and 4774
- 100-year Flood Zone between structures 4773 and 4774

Water Resources
- Wetlands – W22, W23, W24
- Wetland Cover Types – PSS, PEM
- Watercourses – S18 (Pisgah Brook)
- 100-year Flood Zones – S18

Wetland and Watercourse Crossings
- Wetland W24 – construction mats for work pad

Right-of-Way Vegetation
- Scrub-shrub

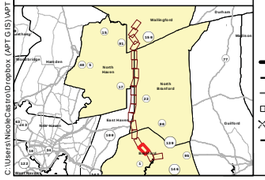
Access
- Structures 4772 to 4773: existing access from Red Rock Road
- Structure 4774 to 4777: existing access from Hickory Hill Lane

Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 110 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
425	83 LAUREL HILL ROAD	BRANFORD	CT	TOWN OF BRANFORD
432	45-81 SHORT ROCKS ROAD	BRANFORD	CT	TOWN OF BRANFORD SUPPLY POND

INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
- Pull Pad
- Temporary Construction Matting
- Hiking Trail
- Existing Access
- Existing Access Road to be improved
- Proposed Alternate Access
- Proposed Access
- Delineated Perennial Watercourse
- Delineated Intermittent Watercourse
- Ordinary High Water Mark
- Existing Culvert
- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Branford, CT

Map Sheet 16 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 17 of 18
Wallingford to Branford Upgrade Project
Existing Structures 4778 to Branford Substation
Town Branford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Undeveloped, forest
- Residential
- Commercial
- Interstate 95
- State Land (Branford Wildlife Area)
- Town of Branford Open Space (Supply Ponds)
- Branford Supply Ponds
- Branford River / Wards Millpond
- 100-year and 500-year Flood Zone
- Floodway

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Residential from structures 4778 to 4780
- Interstate 95 between structure 4781 and Branford Substation
- Town of Branford Open Space northwest of structure 4778
- Branford River / Wards Millpond between structures 4780 and 4781
- Branford River between structure 4781 and Branford Substation
- 100-year and 500-year Flood Zone and Floodway between structures 4780 and 4781 and 4781 and Branford Substation

Water Resources
- Wetlands – W25, W26
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – S19, S20 (Branford River / Wards Millpond)
- 100-year and 500-year Flood Zone and Floodway – S20

Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub
- House/yard

Access
- Structures 4778 to 4779: from Hickory Hill Lane
- Structure 4780: existing off-ROW access from Mill Plain Road
- Structure 4781: existing off-ROW access from Main Street (Route 1)
- Pull Pad at Structure 4782: from Interstate 95
- Branford Substation: from Main Street (Route 1)

Road Crossings
- Hickory Hill Lane
- Mill Plain Road
- Interstate 95

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 110 feet / 0 feet

LLN	Parcel Address	City	State	Owner Name
432	45-81 SHORT ROCKS ROAD	BRANFORD	CT	TOWN OF BRANFORD SUPPLY POND
433	27 HICKORY HILL LANE	BRANFORD	CT	THOMAS P & SUZANNE E SMITH JR
434	22 HICKORY HILL LANE	BRANFORD	CT	JOSEPH TRACA
435	23 HICKORY HILL LANE	BRANFORD	CT	LISA A & ROBERT L CROATTI JTRS
436	20 HICKORY HILL LANE	BRANFORD	CT	SARAH SENECA RES SERV INC
438	16 HICKORY HILL LANE	BRANFORD	CT	MASSIMO & BARBARA JEAN LIGUORI
440	12 HICKORY HILL LANE	BRANFORD	CT	CAROL J BONYAI
443	8 HICKORY HILL LANE	BRANFORD	CT	SCOTT E WESTBERG
446	4 HICKORY HILL LANE	BRANFORD	CT	MICHAEL DADDIO
450	90 MILL PLAIN ROAD	BRANFORD	CT	ROBERT VINCENT WALSH IV
455	82 MILL PLAIN ROAD	BRANFORD	CT	JOHN & ROSEMARIE FERRUCCI
459	89 MILL PLAIN ROAD	BRANFORD	CT	STEVEN & SUZANNE JT SALISBURY
461	85 MILL PLAIN ROAD	BRANFORD	CT	KURT M SCHWANFELDER
463	49 MILL PLAIN ROAD	BRANFORD	CT	HAZEL WARD & MELINDA EDWARDS TIC
464	EAST MAIN ST REAR	BRANFORD	CT	STATE OF CONNECTICUT BD OF FISHERIES & GAME
466	65 MILL PLAIN ROAD	BRANFORD	CT	KURT M SCHWANFELDER
473	49 MILL PLAIN ROAD	BRANFORD	CT	HAZEL H WARD
478	272-276 EAST MAIN STREET	BRANFORD	CT	THE CONNECTICUT LIGHT AND POWER COMPANY (EVERSOURCE)
479	7-11 MILL PLAIN ROAD	BRANFORD	CT	ANTHONY A PAPA EST

HIGH PLAINS ROAD
HUNTINGTON DRIVE
MARKS COURT
HICKORY HILL LANE
MILL PLAIN ROAD
STONEGATE DRIVE
SHORT ROCKS ROAD
GOVERNOR JOHN DAVIS LODGE TURNPIKE
Branford Wildlife Area
NDDB Area
Wards Millpond
Branford River
Branford Substation
Branford Supply Ponds
Branford
Floodway
500 Year Flood Zone
100 Year Flood Zone
ACCESS FROM MAIN STREET
MATTING IN LANDSCAPED AREAS
PAVED DRIVEWAY
1655 Line
1537 Line
1738 Line
S19
S20
W25
W26
Map Sheet 16
Map Sheet 17
Map Sheet 18
Map Sheet 17
4778
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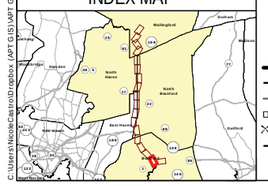
INDEX MAP



Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
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- Pull Pad
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- Delineated Wetland Boundary Outline
- Field Delineated Wetland Area
- Confirmed Vernal Pool Extent
- 100' Vernal Pool Envelope
- Natural Diversity Database Area (Dec. 2017)
- Critical Habitat (2009)
- South Central CT Regional Water Authority Property
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA Floodway
- FEMA 500-Year Flood Zone
- Parcel Boundary
- State-Owned Land
- Eversource-Owned Property
- Municipal Boundary

Map Notes:
Not for Construction
Parcel Boundaries provided by Cornerstone Energy Inc. (not from survey).
ROW Boundary provided by Eversource (not from survey).
Field Investigation/Data by APT/Davison Field.
Base Map Source: 2016 Google Imagery

1 inch = 200 feet
0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Branford, CT

Map Sheet 17 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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MAPSHEET 18 of 18
Wallingford to Branford Upgrade Project
Access to Existing Structure 4781
Town Branford, Connecticut

LLN	Parcel Address	City	State	Owner Name
464	EAST MAIN ST REAR	BRANFORD	CT	STATE OF CONNECTICUT BD OF FISHERIES & GAME

AREA DESCRIPTION

Existing Land Use & Resource Areas
- Undeveloped, forest
- Residential
- Commercial
- Interstate 95
- State Land (Branford Wildlife Area)
- Branford River / Wards Millpond
- 100-year Flood Zone
- Floodway

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas
- Maintained ROW
- Interstate 95 between structure 4781 and Branford Substation
- Branford River / Wards Millpond
- 100-year Flood Zone and Floodway

Water Resources
- Wetlands – W27, W28
- Wetland Cover Types – PSS, PEM, POW
- Watercourses – S20 (Branford River / Wards Millpond)
- 100-year Flood Zone and Floodway – S20

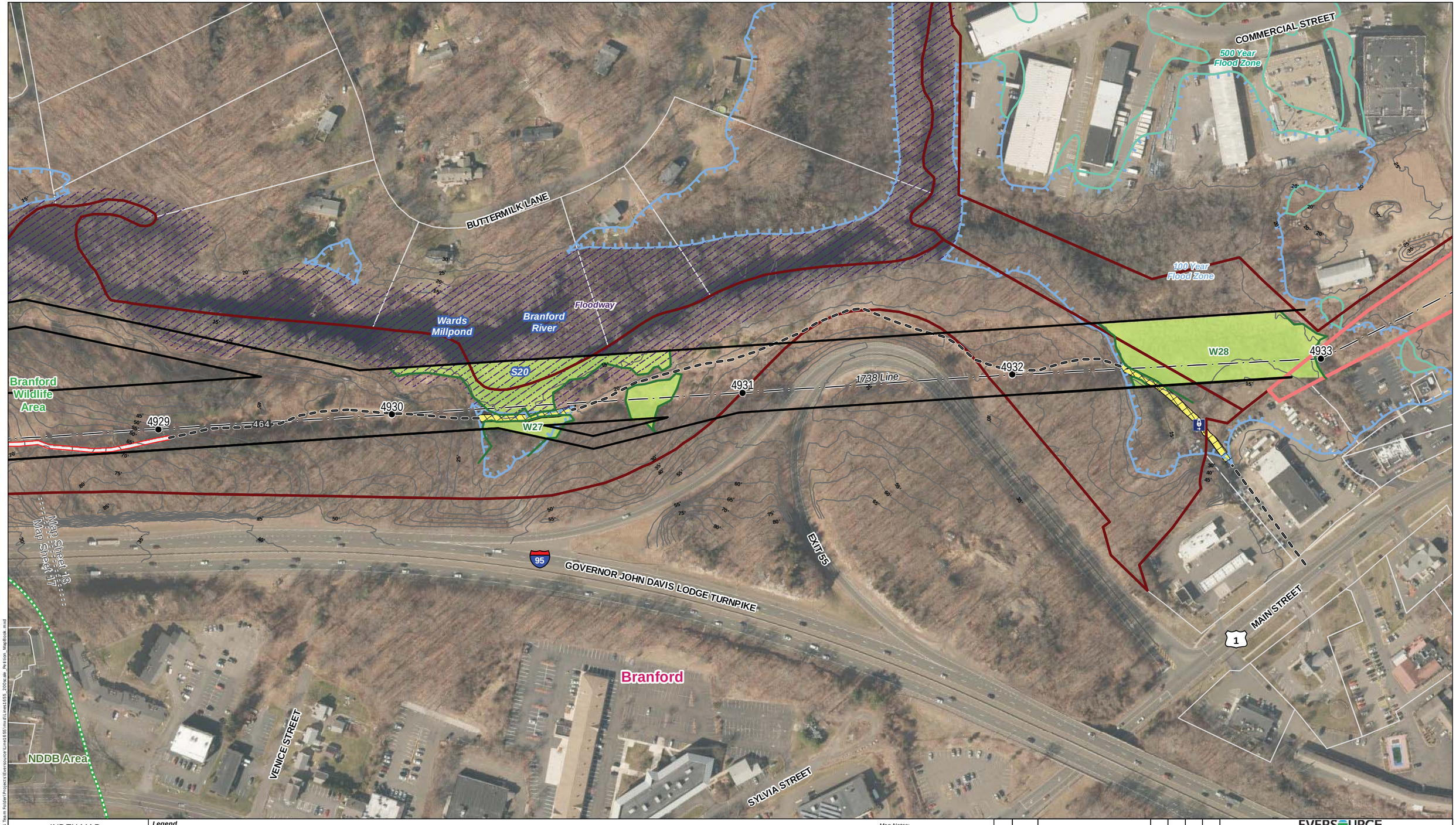
Wetland and Watercourse Crossings
- None

Right-of-Way Vegetation
- Scrub-shrub

Access
- Structure 4781: existing off-ROW access from Main Street (Route 1)

Road Crossings
- None

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
- 110 feet / 0 feet



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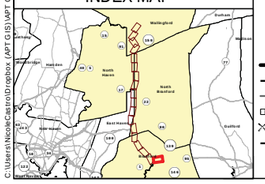

Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Existing Right-of-Way ROW)
- Overhead Eversource Line
- 5' Contour Line
- Guard Rail
- Fence
- Railroad
- Gate
- Stone Work Pad
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N W E S

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0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

Wallingford to Branford Upgrade Project

Branford, CT

Map Sheet 18 of 18

October, 2018

ALL-POINTS TECHNOLOGY CORPORATION

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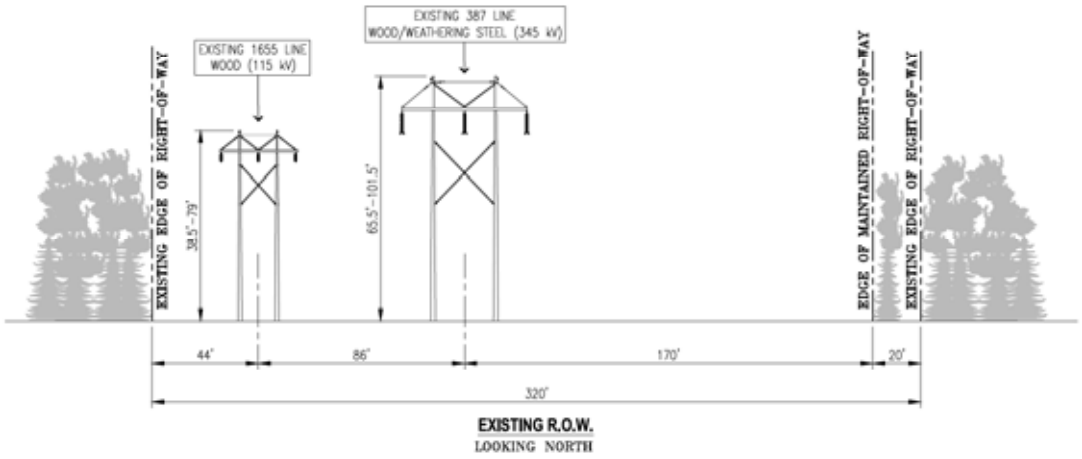
ATTACHMENT B



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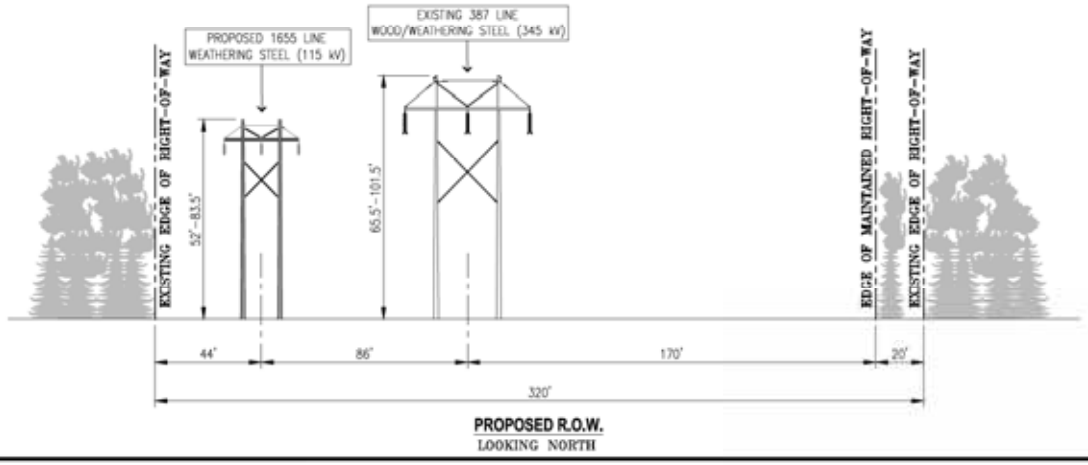

PROPOSED R.O.W.
LOOKING NORTH

EVERSOURCE ENERGY

WALLINGFORD TO BRANFORD UPGRADE PROJECT
1655 LINE
TOTOKET JCT. TO EAST WALLINGFORD JCT.
TYPICAL ROW CROSS SECTION

1655-2018-SH01

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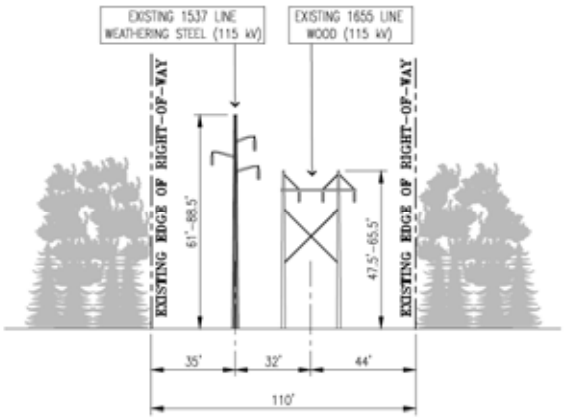

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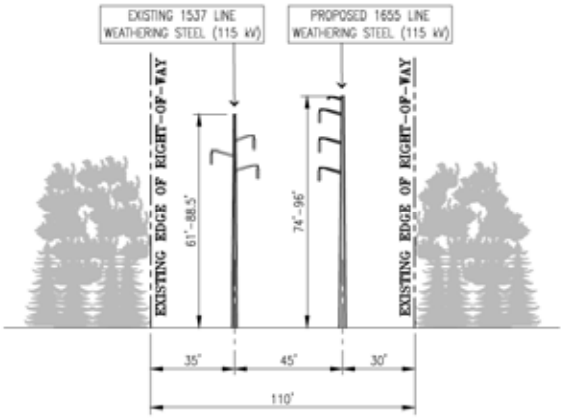

PROPOSED R.O.W.
LOOKING NORTH

EVERSOURCE ENERGY

WALLINGFORD TO BRANFORD UPGRADE PROJECT
1655 LINE
BRANFORD S/S – TOTOKET JCT.
TYPICAL ROW CROSS SECTION

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ATTACHMENT C

JULY 2018

PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY OF PROPOSED STRUCTURE REPLACEMENTS ALONG LINE 1655 IN BRANFORD, NORTH BRANFORD, EAST HAVEN, NORTH HAVEN, AND WALLINGFORD, CONNECTICUT

PREPARED FOR:

EVERSOURCE ENERGY

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ABSTRACT

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during July of 2018. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, North Haven, and Wallingford, Connecticut. Fieldwork completed during this investigation consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad area. Despite the field effort, no archaeological materials or cultural features were identified within any of the proposed project items. Thus, no additional archaeological examination of the 14 work areas along Line 1655 is recommended.

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1.0 Introduction

This report summarizes the results of a Phase IB cultural resources reconnaissance survey of 13 Eversource Energy (Eversource) replacement structures and a single proposed pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut. These included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709. Heritage Consultants, LLC (Heritage) completed the field investigation portion of this project in July of 2018 on behalf of Eversource. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the proposed project items associated with this undertaking, information used as project context, the methods by which the current Phase IB cultural resources reconnaissance survey was completed, results of the investigation, and management recommendations for the project.

2.0 Project Description and Methods

As mentioned above, the proposed structure replacements are situated in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut (Figure 1). The work areas associated with the proposed replacement structures and the pull pad were positioned at approximate elevations ranging from 50 to 150 m (164 to 492.1 ft) NGVD. The proposed work pads associated with the structure replacement locations measured 45.7 x 45.7 m (150 x 150 ft) in size while the pull pad area encompassed an area measuring approximately 30 x 30 m (100 x 100 ft) in size. These areas will be accessed using existing dirt and gravel thoroughfares. At the time of survey, the structure replacement areas and the pull pad location were characterized by low lying shrubs, bushes, and open fields. Field methodologies employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing within the portions of the proposed work areas contained low slopes and undisturbed soil deposits. The details of the field methods used, as well as the results of this field effort, are reviewed below.

3.0 Background Research

The current Phase IB cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the portions Branford, North Branford, North Haven, and Wallingford encompassing the work areas. This was followed by a review of all previously recorded archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties in the vicinity of the proposed replacement structures in an effort to determine the archaeological and historical context of the area. Finally, this approach entailed the completion of fieldwork associated with the current Phase IB cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the area encompassing the structure replacement areas and the pull pad; an examination of the pertinent 1996 USGS 7.5' series topographic quadrangle; and a review of all cultural resources data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within and/or immediately adjacent to the work areas. This information was used to develop the archaeological context for assessing cultural resources that may be identified during survey.

4.0 Project Context: Natural & Prehistoric Settings, Historic Overview and Previous Investigations

The following sections provide an overview of the region's natural setting, prehistoric context, and historic backdrop, as well as previous cultural resources investigations completed within the vicinity of the work areas. These brief discussions are included to provide contextual information relative to the locations of the proposed structure replacements, their natural characteristics, and their prehistoric and

historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

4.1 Natural Setting

The proposed structure replacement areas and the pull pad are situated within the Southwest Hills ecoregion, which consists of "coastal uplands, lying within 25 miles of Long Island Sound, characterized by low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography" (Dowhan and Craig 1976). Elevations in the Southwest Hills ecoregion generally range from 75.7 to 227.2 m (250 to 750 ft) NGVD (Dowhan and Craig 1976). The bedrock of the region is composed of schists, and gneisses deposited during the Paleozoic. Soils in the region have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys and upland areas (Dowhan and Craig 1976). Freshwater sources in this region include Eightmile Brook, Muddy River, Farm River, and the Quinnipiac River. Soils types in vicinity of the proposed structure replacement locations and the pull pad include Yalesville, Cheshire-Holyoke, and Branford, all of which are well drained, and when situated on low slopes and are not disturbed, retain the potential to yield archaeological deposits.

4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190±300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced gravers, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, gravers, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into four subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), Late Archaic (6,000 to 3,700 B.P.), and Terminal Archaic (3,700 to 2,700 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from high quality lithics, though some quartz and quartzite specimens have been recovered. Current archaeological evidence suggests that Early Archaic groups became more focused on locally available and smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a "diversity of site types, with both large-scale occupations and small special purpose present" (McBride 1984:96). Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archaeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified, they generally encompass less than 500 m^2 in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to "settle into" well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually "killed" (intentionally broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as "characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations" (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting "population aggregations along major rivers, interior lakes, and wetlands" (McBride and Soulsby 1989:50). In sum, archaeological evidence indicates that Early Woodland populations consisted of mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archaeologically by the use of narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. The ceramic types dating from the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine ecozones. Both river confluences and coastal zones were favored areas for the establishment of large village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary

and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by "1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks" (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

4.3 History of the Proposed Project Region

The proposed project items consist of 13 structure replacement and a single pull pad situated along Line 1665. The relevant segment of the electrical transmission line begins in Wallingford and passes along the borders between North Haven, North Branford, and East Haven before terminating in Branford, Connecticut. The structure locations and the pull pad are relatively close to the major modern transportation arteries of Interstates 91 and 95, and, as a result, the areas containing them have been heavily developed during the latter part of the twentieth century.

Native American History

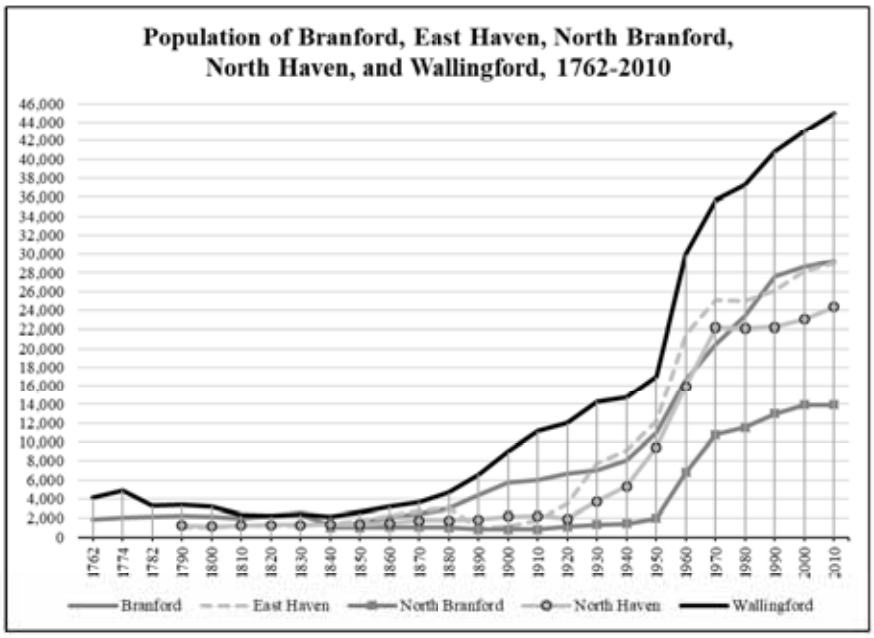
The area that became Wallingford was part of the New Haven Colony's 1638 treaties and 1645 agreement with the sachems Momauguin and Montowese, which included a large swath of the central coastal region of Connecticut between East Haven and Branford and extending northward to Wallingford and Meriden (Osterweis 1953). According to the Treaty of 1638 with Momauguin and the Quinnipiacs, this transfer was made out of gratitude for the English colonists' protection and support against the Pequots. As a result of the treaty, Indians reserved a small area for planting and the right to hunt and fish across the rest; it has been suggested by historians that they did not know that the colonists' lifeways were so incompatible with their own. The Quinnipiacs' reservation was in the present town of East Haven, where the last sachem recognized by the Euroamerican settlers died in either 1730 or 1740. Some years later, ca., 1768, a number of the Quinnipiac tribal members sold their land in East Haven and moved to north to join the Tunxis Indians at Farmington (De Forest 1852).

There was also a separate 1638 agreement with Montowese, which transferred an area called Totoket that consisted of 13 miles east to west, on both sides of the Quinnipiac River, and 10 miles north to south. This transfer was made in exchange for some goods, a small reservation of land, and hunting rights (De Forest 1852). This is the area that contained the future Towns of Wallingford and Branford (Crofut 1937). This deed was renewed in 1645, and in 1861 Montowese's sister and others received an unspecified sum of money to clear the town's title to this tract (Davis 1870). In 1685, a supplemental and confirmatory deed to Branford's area was obtained. Part of the area of Branford known as Indian Neck was retained by the Native Americans as a reservation, and for a time an individual Indian named Pawson owned 34 acres

of land nearby, which later became a public picnic ground called Pawson's Park (Crofut 1937). What became of Montowese and his people has not been recorded (De Forest 1852). Chances are that, like the Quinnipiacs, they stayed in the area for some time but eventually wearied of trying to compete with the colonists and moved on.

Colonial Era History (to 1790)

As mentioned above the proposed structure replacement areas are situated in portions of Branford, North Branford, East Haven, North Haven, and Wallingford. The New Haven Colony, which was the first English Colony established in this part of Connecticut, was founded in 1638 by two Englishmen, Pastor John Davenport and Master Theophilus Eaton, who preferred a new colony over the established Massachusetts Bay or Plymouth Colonies to satisfy their religious and commercial ambitions. They brought 300 colonists with them and quickly established the center of the present city of New Haven (Hill 1918). They also made the land purchases referenced above, which included an area much too large for convenient administration during the colonial era. As a result, the new Town of Wallingford was set off from New Haven in 1670. The colonists first settled a little to the west of the geographic center of the town, on the east side of the valley of the Quinnipiac River, and settled their boundaries with New Haven in 1674 (Crofut 1937). With its two elevated ridges of land, Wallingford was an early site of mining enterprises in Connecticut, beginning in 1712 and 1737; however most of this activity seems to have taken place in the areas that are now Cheshire and Meriden (Davis 1870). At the time of the first U.S. Census in 1790, the town had a substantial 3,375 residents (see the population chart below; Keegan 2012).



East Haven, first known as East Farms, was colonized by a large group in 1639 and acquired the status of a Congregational ecclesiastical society in 1680. Just over 100 years later, in 1785, the community secured town status (Hill 1918). Colonists probably began settling in the North Haven by the 1650s or 1660s, but settlement accelerated after New Haven distributed areas of land in the area in 1680, and 200 people lived in the area by 1715. In that year, the Northeast Parish of the Congregational Church was established; it became the separate town of North Haven in 1786 (Brusic 1986). At the 1790 census, East Haven had 1,025 residents and North Haven had 1,236; in contrast, New Haven had 4,484 people (see the population chart above; Keegan 2012). The original main village of North Haven was near the center of town, while

that of East Haven was in the south part of the town (Figure 2; Sheets 1 through 6). The locations of these villages, and that of Wallingford, are quite distant from the locations of the proposed structure replacements.

Branford was founded in 1644, after the colony of New Haven gave the right to settle there to a group from Wethersfield; it was formally recognized as being a separate settlement of that name in 1653. North Branford did not become a separate town until after the colonial era, but the village of North Branford in its southeast corner probably was established before 1700, and the smaller village in the north-central part of town (Northford) by ca., 1720 (Crofut 1937). Again, these locations of higher population density are well away from the proposed project items. Branford grew steadily through the colonial period, reaching a population of 2,267 as of 1790 (see the population chart above; Keegan 2012). Although the two coastal towns had river access to the Sound, like the inland towns (and, in fact, most other settlements of the era) their economies focused on agricultural, timber, fishing, and occasionally mining or quarrying production, most of it for local or regional consumption rather than export.

Early National and Nineteenth Century History (to 1900)

An 1819 gazetteer reported that Wallingford had good alluvial soil along the Quinnipiac River, and that grains, flax, potatoes, cider apples, and broom corn were grown there. The river also provided water power to support a woolen factory and two metal spoon factories, among other firms (Pease and Niles 1819). Railroads were an important key to Wallingford's economic growth in the nineteenth century. The Hartford & New Haven Railroad company was chartered in 1832 began building in 1837 despite a national financial crisis. The 18-mile segment between New Haven and Meriden opened in 1838 and eventually it connected to Hartford and Springfield. The rail corridor between Hartford and New Haven, now operated by Amtrak, is one of the few surviving passenger lines, and it also supports Conrail freight traffic. The Air Line, which passes through eastern Wallingford (and not far from the proposed project items) was constructed in 1846 but was not built from New Haven to Middletown until 1870, some of which is still actively used. In an 1856 county map, the proposed Air Line appears as a dotted line just east of Structure 4701; otherwise the nearest, but not very near, buildings were a school house ("S.H.") and an unlabeled building. Structures 4708, 4709, 4710, and 4711, as well as the pull pad, are in an area the map identified as a forested hill, with no buildings nearby (Figure 2; Sheet 2). The 1868 town map omitted the Air Line (which was a dormant project at the time) and shows School No. 7 and the home of Mrs. B. Doolittle north of Structure 4701; the other structures still had nothing nearby (Figure 3; Sheet 1). These maps show that the town's urban and industrial development – its silver ware, wire, rubber, fireworks, and other factories, municipal buildings, clubs, banks, etc. – were located elsewhere, leaving the project item in a rural and agricultural area (Hill 1918). These industrial activities, aided by the railroads, allowed Wallingford's total population to grow steadily throughout the century, from just over 2,000 in 1840 to 9,001 in 1900 (see the population chart above; Keegan 2012).

East Haven's population rose to 3,057 in 1880 before dropping abruptly to 955 in 1890 and recovering only a little by 1900 (see the population chart above; Keegan 2012). This reflects the transfer of East Haven's territory (and population) west of the Quinnipiac River back to the adjacent City of New Haven in 1881, provoked by the debt incurred by building a bridge across that river. Although various industries were attempted on East Haven's rivers, no large ones survived for very long and the town remained overwhelmingly agricultural (Hill 1918). The 1856 county map shows that the location of Structures 4749 and 4750 was between north-south roads and not close to any recorded farm buildings, and the 1868 town maps show exactly the same situation (Figures 2; Sheet 5 and Figure 3; Sheet 5).

North Haven, in partial contrast, did not see its population cross the 2,000 mark until 1900, when it had 2,164 residents (see the population chart above; Keegan 2012). The village of Clintonville, at the northeast corner of town, once hosted some industry, starting in 1830 with a factory making farm implements; others followed, but over the century mostly passed away (Hill 1918). The 1856 county map

is unfortunately so inaccurate that it appears that Structures 4737 and 4738 were in North Branford or East Haven instead of North Haven, although it could be that the towns' boundaries have changed since the map was made. Regardless, the location of the roads makes it clear that the structures' location is well away from any historic development (Figure 2; Sheet 4). The town boundary issues continued with the 1868 town maps, in which the two structures appear to be located outside the boundaries of both North Haven and North Branford; but the maps are consistent in depicting no buildings near the town line area (Figure 3; Sheet 3). One industry that did survive through the century was brick making, but the maps show no such activity nearby the proposed project items (Hill 1918).

According to the 1819 gazetteer, Branford's agriculture concentrated on corn, and it had a small harbor that would accommodate ships up to sixty tons and supported a thriving fishing industry as well as a modest amount of shipping along the coast. Most of the town's industrial activity was in processing agricultural products, though there was also a small furnace. The 30-house village had a post office and shops (Pease and Niles 1819). North Branford officially became a separate town in 1831, but as the population chart shows, the census counted its people separately in 1830. In the 1830s Branford's village had an academy and churches for Congregational and Episcopal congregations, but not many other buildings; it had an eight-ship fishing fleet that traveled to Maine for the salmon fishery. North Branford in the 1830s had its village of the same name in the southern part, and good soil for agriculture (Barber 1837). Although Branford's economy stayed focused on agriculture, it also developed an iron industry based on imported iron and the coastal railroad (built in the 1830s), which by the end of the century was represented by one large company. The town's other main industry, as the urban middle class increased in numbers, came to be coastal summer resorts (Hill 1918). As seen in Figure 2; Sheet 6, Structures 4774 and 4775 were a little way (but more than 500 feet) east of a road and three probable farm buildings strung along the west side of it, in an area with only scattered buildings. Both the road and the houses, and the low building density, were still present in the 1868 historic map (Figure 3; Sheet 6). North Branford changed only a little over the century, mainly by beginning to attract holiday residents with its rural charms. The Northford section developed some modest industry, based on water power from the Farm River and its position on a main road to Middletown (Hill 1918). The 1856 map shows North Branford's Structures 4721 and 4721½ as lying between (and well away from) two north-south roads, one in North Branford and one in North Haven (Figure 2; Sheet 3). Figure 3; Sheet 3 only shows the North Branford side of the picture, but there is no sign of any new east-west roads that might have complicated things; the two structures were not close to any recorded buildings. Overall, the differences between these two towns can be seen most starkly in the population chart above: while North Branford's population lingered around or under 1,000 residents and stood at only 814 in 1900, Branford grew steadily after 1840 to reach 5,706 in 1900 (Keegan 2012).

Modern History (to present)

A 1932 summary of information about Connecticut towns included agriculture at the end of a list of Wallingford's manufacturing that still ranged from silver goods to hardware to fireworks (Connecticut 1932). This is reflected in the 1934 aerial photography showing that Structure 4701's location was a cleared or reforesting field, while the other four structures stand where there was forest that may never have been fully cleared (though it could have been logged for fuel) (Figure 4; Sheets 1 through 6). Like other towns that had a solid industrial base, Wallingford continued to grow after 1900, reaching 16,976 residents by 1950; then suburbanization made the population more than double to 35,714 as of 1970, and though it has grown more slowly since then, in 2010 its population was 45,030 (see the population chart above; Keegan 2012). The 1951 aerial photography indicates that the population growth had not yet reached the project items, as the structures were still in a cleared field and a forest, respectively, although the forest showed signs of recent logging (Figure 5; Sheets 1 through 6). By 2016, however, the utility right-of-way had appeared and even the forested area was surrounded by housing subdivisions and other development (Figure 6; Sheets 1 through 6). In the twenty-first century, Wallingford still has substantial manufacturing employment but very little in agriculture, as the development near the proposed project

items suggests, and the still-rising population suggests that any surviving open space is under development pressure (CERC 2006).

In the early part of the twentieth century, trolleys made East Haven's shore accessible to New Haven visitors (Hill 1918). This caused a substantial burst of population growth over the first three decades, to 7,815 in 1930; then after the Depression and the development of automobile transport, very rapid growth from 1940 to 1970, when it reached 25,120. Since then population growth has slowed and as of 2010 it stood at 29,063 (see the population chart above; Keegan 2012). The 1932 statement that the town's only industry was agriculture indicates that early resort development and suburbanization are the best explanation for the early population growth (Connecticut 1932). The 1934 aerial photograph shows the location of Structures 4749 and 4750 as in or near either a farm field or a large woodlot (Figure 4; Sheet 5; the overall area had both large areas of farms and large areas of woods and swamp (Figure 4; Sheets 1 through 6). In 1951, the woodlot had apparently been partially cleared or logged, but the area was substantially the same (Figure 5; Sheets 1 through 6). In 2016, the area shows as have a wide mixture of uses, from a sand and gravel quarry to farms and woods, and also some housing development (Figure 6; Sheets 1 through 6). Whether this will change in the future is unclear.

North Haven's industries in 1932 included brick making, printing, and wood products for carriages as well as agriculture (Connecticut 1932). As these industries did not raise its population much during the previous century, during the twentieth century the population stayed small – dipping to 1,968 in 1920 – until trolley and then automobile technology began pushing it up, to 5,326 in 1940 and 22,194 in 1970 (an over 400 percent increase) before it mostly leveled off and stood at 24,374 in 2010 (see population chart above; Keegan 2012). Unsurprisingly, the 1934 aerial photography shows the locations of Structures 4737 and 4738 as being in or near the edge of cleared agricultural fields, with large areas of farms to the west and an area of forest to the east (Figure 4; Sheet 4). This had not changed in the 1951 aerial photography, and by 2016 there was still some working farm area nearby, in addition to housing developments on both the west and east sides (Figures 5; Sheet 4 and Figure 6; Sheet 4).

The 1932 town summaries stated that Branford's industries included agriculture, malleable iron goods, steel items, wire, and shirts (Connecticut 1932). The 1934 aerial photograph series shows the area of Structures 4774 and 4775 as forested and north of a new reservoir, which seems to have caused the removal, or at least abandonment, of the road and houses that once lay west of the project items (Figure 4; Sheet 6). Otherwise the only notable items here were a small cleared area just west of the structures, with an apparent structure of unknown purpose on it, and an apparent cleared utility right-of-way running southeastward from Structure 4775 (Figure 4; Sheets 1 through 6). The 1932 town information reported North Branford's sole industry as agriculture (Connecticut 1932). The 1934 aerial photography recorded the area of Structures 4721 and 4721½ as in the midst of cleared agricultural fields and an occasional woodlot, with the nearest farmstead well away to the west (Figure 4; Sheet 3). Branford's population increased slowly through 1940, then began increasingly very rapidly to 27,603 in 1990, and then slowed again to only reach 29,243 by 2010. Similarly, North Branford saw very slow growth through 1950 and then very rapid growth to 10,778 in 1970, followed by slower growth to 13,944 as of 2010 (see the population chart above; Keegan 2012). These trends are consistent with the suburbanization of areas near cities and in coastal areas in the United States from about 1940, abetted by transportation improvements, especially the construction of limited-access highways such as Interstates 95 and 91 in the vicinity of these towns. The location of Branford's two structures near reservoirs, however, seems to have protected the vicinity from development, aside from utility infrastructure; both the 1951 and 2016 aerial photographs show the structures surrounded by woods, except for the cleared utility right-of-way (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). The North Branford structures are located in an area that remained cleared fields in 1951, and also in 2016 – except that in the latter case, the utility right-of-way seems to be the only agricultural area, flanked on both sides by dense housing developments (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). Although both towns are still growing

slowly, the vicinity of the Area of Potential Effect in these cases appears to be protected from development (Branford) or almost fully developed (North Branford).

Conclusion

The documentary record indicates that it is unlikely that significant historic resources will be disturbed by the proposed structure replacement project. Certain structures, being located in or near places that were agricultural fields in 1934, may hold less-significant remains of farming activity such as stone walls or fencing (Structure 4701 in Wallingford, Structures 4721 and 4721½ in North Branford, Structure 4737 and possibly 4738 in North Haven, and Structure 4749 and possibly 4750 in East Haven). The wooded locations may show signs of past logging activities or undocumented farming work.

4.4 Previous Investigations

As mentioned above, the current effort also involved an examination of State Historic Preservation Office records as they pertain to archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties situated within 152 m (500 ft) of the proposed structure replacement areas (Figures 7; Sheets 1 through 6 and Figure 8; Sheets 1 through 6). In addition, the electronic site files maintained by Heritage also were examined during the investigation. This review failed to identify any previously recorded cultural resources within 152 m (500 ft) of Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 or the proposed pull pad in the vicinity of Structure 4709.

5.0 Field Methods

Following the completion of all background research, the work areas were subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide thorough coverage of all portions of the proposed structure relocation areas, work pads, and the single pull pad. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the work areas. Those structure replacement locations or any portions of them that were found to contain steep slopes, wet areas, or have been previously disturbed were subjected to pedestrian survey and photo-documentation only; no shovel testing was completed in these areas.

For those work areas that contained low to moderate slopes and well drained soils, the subsurface testing portion of this investigation involved the excavation of shovel tests in the testable portions of the work areas scheduled for construction related impacts. This included the placement of shovel tests situated 3 m (10 ft) on either side of the vertical poles constituting the structures along Line 1655, as well as the placement of shovel tests in each of the corners of the proposed work pads and the pull pad. During survey, each shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size and each was excavated to a depth of 50 cmbs (19.7 inbs) or until glacially derived C-Horizon or wet soils were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archaeological recordation process.

6.0 Curation

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with:

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7.0 Results of the Investigation

As mentioned above, the current project entailed a Phase IB cultural resources reconnaissance of 13 proposed structure replacements and a single pull pad located along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut, Connecticut (Figure 1; Sheets 1 through 6; Table 1). Fieldwork for this project was initiated through a pedestrian survey of all 14 proposed project items. The purpose of the visual reconnaissance was to determine which of the work areas were situated on level to moderate slopes, characterized by well drained soils, and were located near a freshwater source, thus indicating that they retained a moderate/high archaeological sensitivity. The results of the pedestrian survey revealed that all of the proposed structure replacement locations and the pull pad fell within moderate/high sensitive areas for archaeological deposits and should be subjected to Phase IB shovel testing.

Table 1. List of structure replacements and Phase IB testing results.

Structure Number	No. of Shovel Tests Excavated	No. of Shovel Test Planned	Reason for Unexcavated Shovel Tests	Results
4701	5	8	Slopes	No Cultural Materials or Features
4708	5	8	Slopes	No Cultural Materials or Features
4709	4	8	Slopes	No Cultural Materials or Features
4710	4	8	Wet/Rocky	No Cultural Materials or Features
4711	5	8	Wet	No Cultural Materials or Features
4721	6	8	Disturbance	No Cultural Materials or Features
4721 ½	6	8	Crops	No Cultural Materials or Features
4737	2	8	Push Piles	No Cultural Materials or Features
4738	7	8	Slopes	No Cultural Materials or Features
4749	2	8	Disturbance	No Cultural Materials or Features
4750	4	8	Disturbance	No Cultural Materials or Features
4774	0	8	Gravel pad in place	No Cultural Materials or Features
4775	0	8	Exposed Bedrock; Disturbance	No Cultural Materials or Features
Pull Pad 1	15	16	Disturbance	No Cultural Materials or Features

A total of 65 of 120 (54 percent) planned shovel tests were excavated throughout the Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 areas, as well as within the area encompassing pull pad in the vicinity of Structure 4709 (Table 1). The 55 planned but unexcavated shovel tests fell within previously disturbed areas, on steep slopes, and/or within very rocky or wet areas. A typical shovel test profile exhibited three strata in profile and it extended to a depth of 70 cmbs (28 inbs). Stratum I, the A-Horizon, extended from 0 to 20 cmbs (0 to 8 inbs) and consisted of a layer of brown (7.5YR 5/4) silty loam. Stratum II, the B-Horizon, reached from 20 to 60 cmbs (7.2 to 24 inbs) and it was characterized as a deposit of strong brown (7.5YR 5/8) silty sand. Finally, Stratum III, the glacially derived C-Horizon, was classified as a deposit of olive brown (2.5Y 4/4) coarse sand and pebbles; it was excavated to a terminal depth of 70 cmbs (28 inbs). Despite the fieldwork effort, no evidence of cultural features was identified

within any of the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered from the proposed replacement areas associated with proposed work areas along Line 1655.

8.0 Summary and Management Recommendations

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during August of 2017. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad area along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut (Figure 1). Fieldwork for this project consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad. Despite completion of the fieldwork, no cultural materials or cultural features were identified. Thus, no additional Phase IB cultural resources survey of any of the project items along Line 1655 is recommended.

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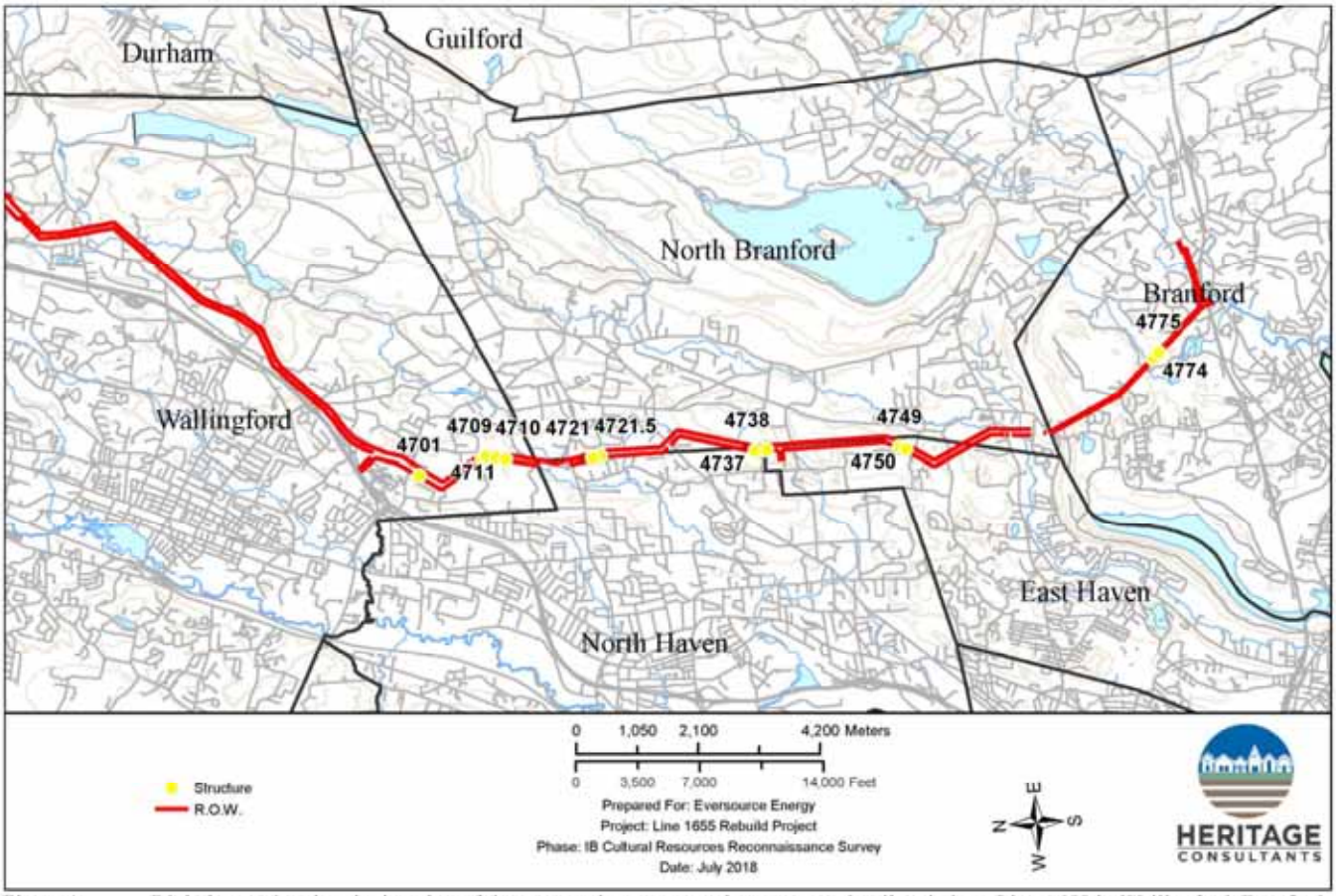


Figure 1. Digital map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

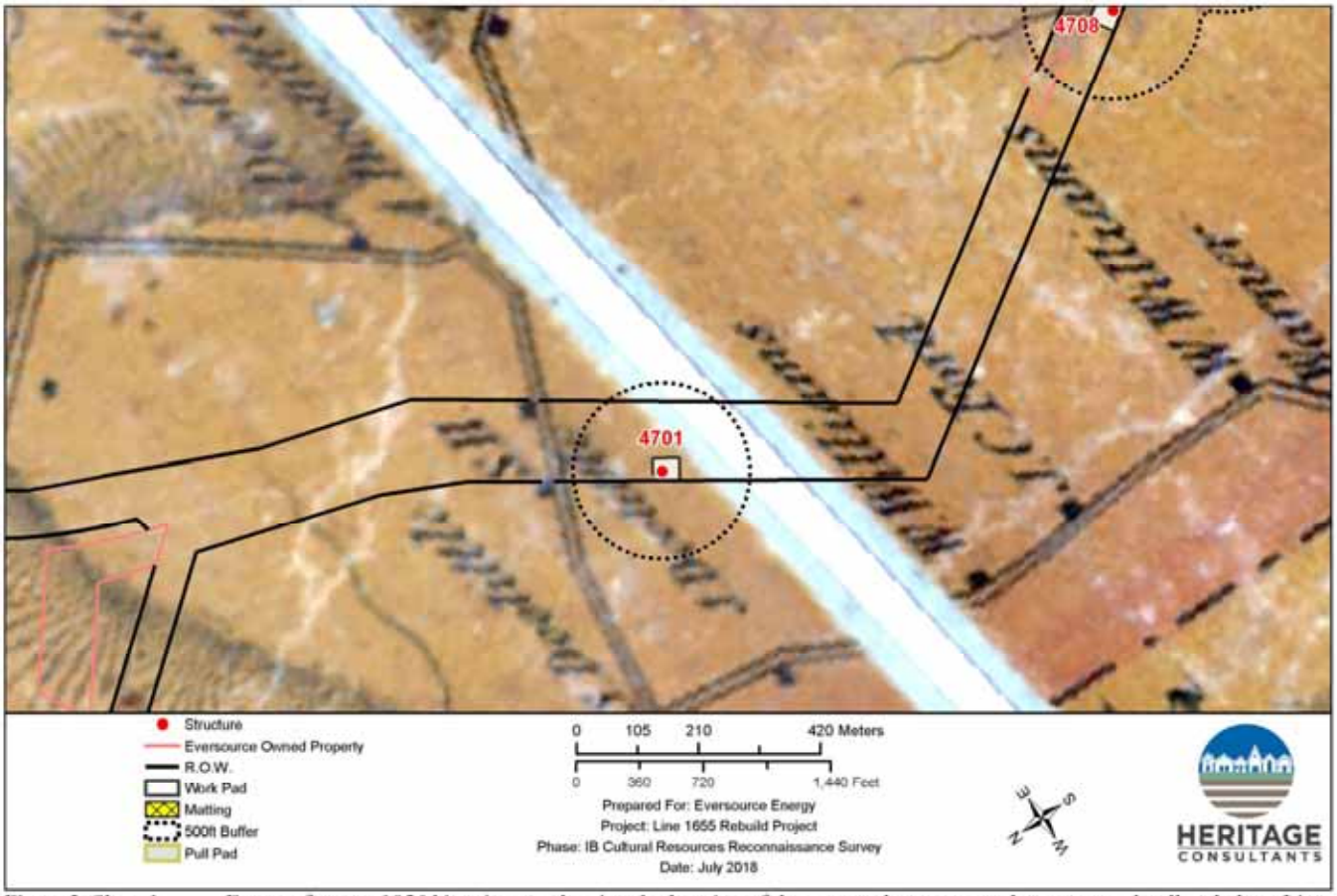


Figure 2; Sheet 1. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

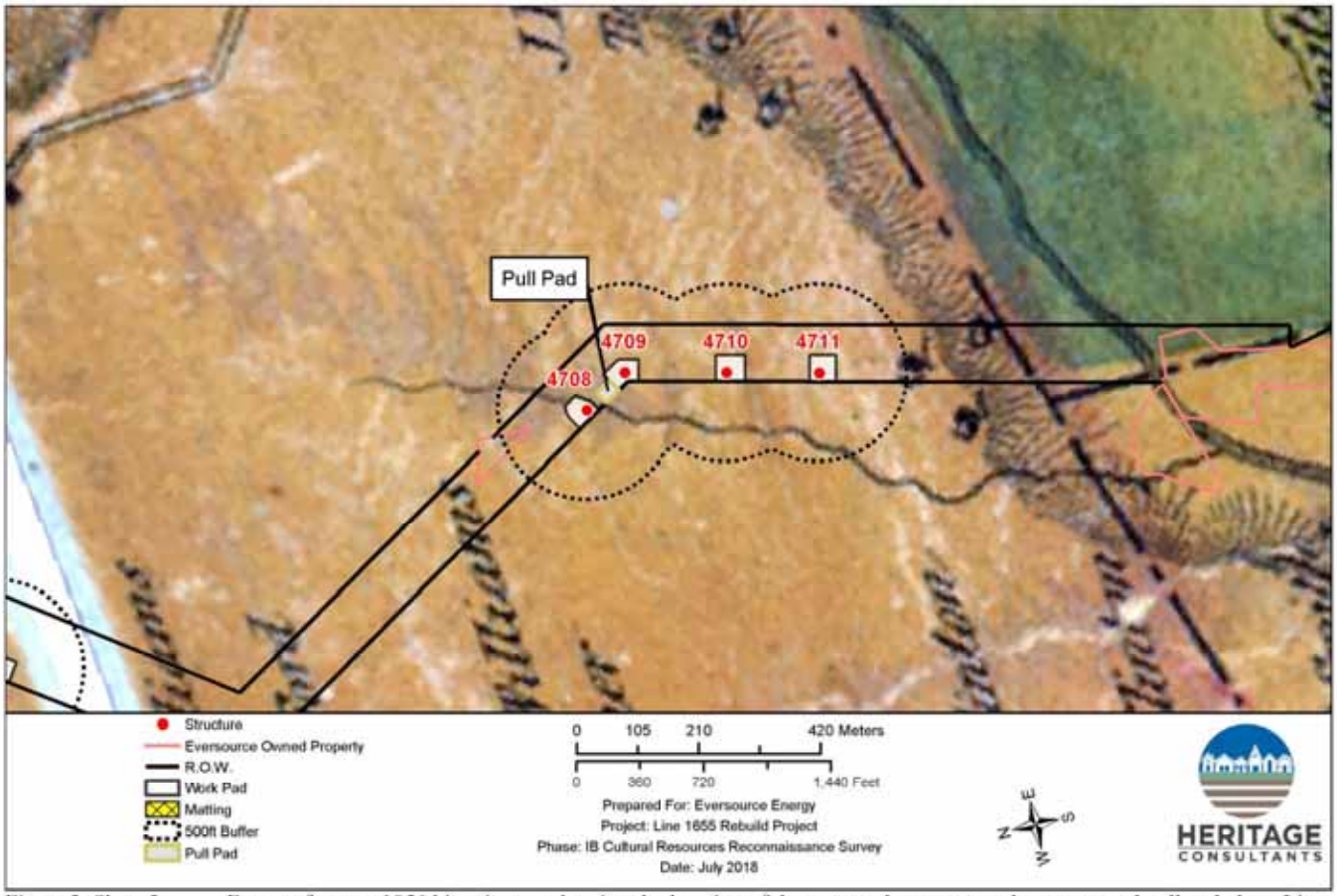
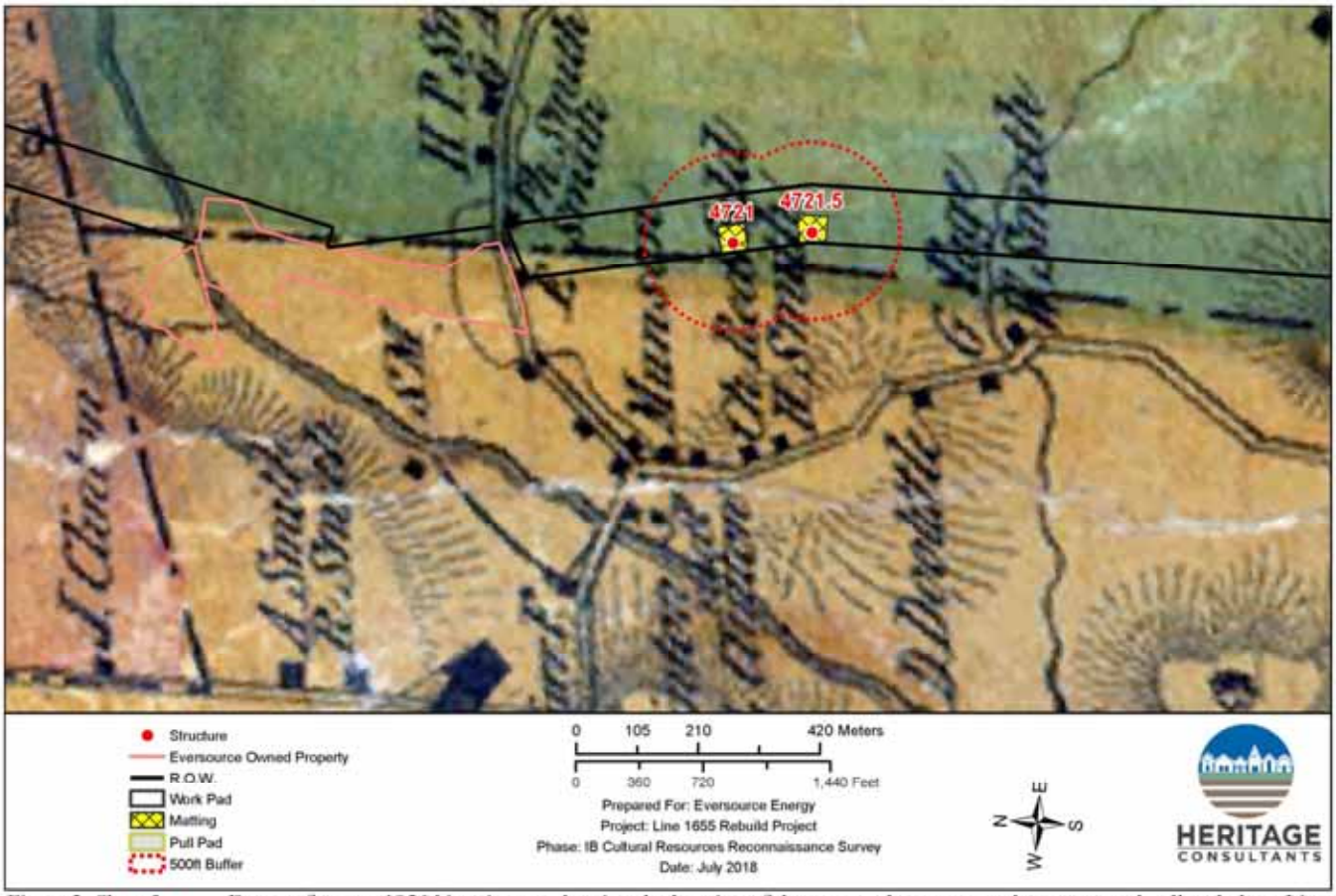


Figure 2; Sheet 2. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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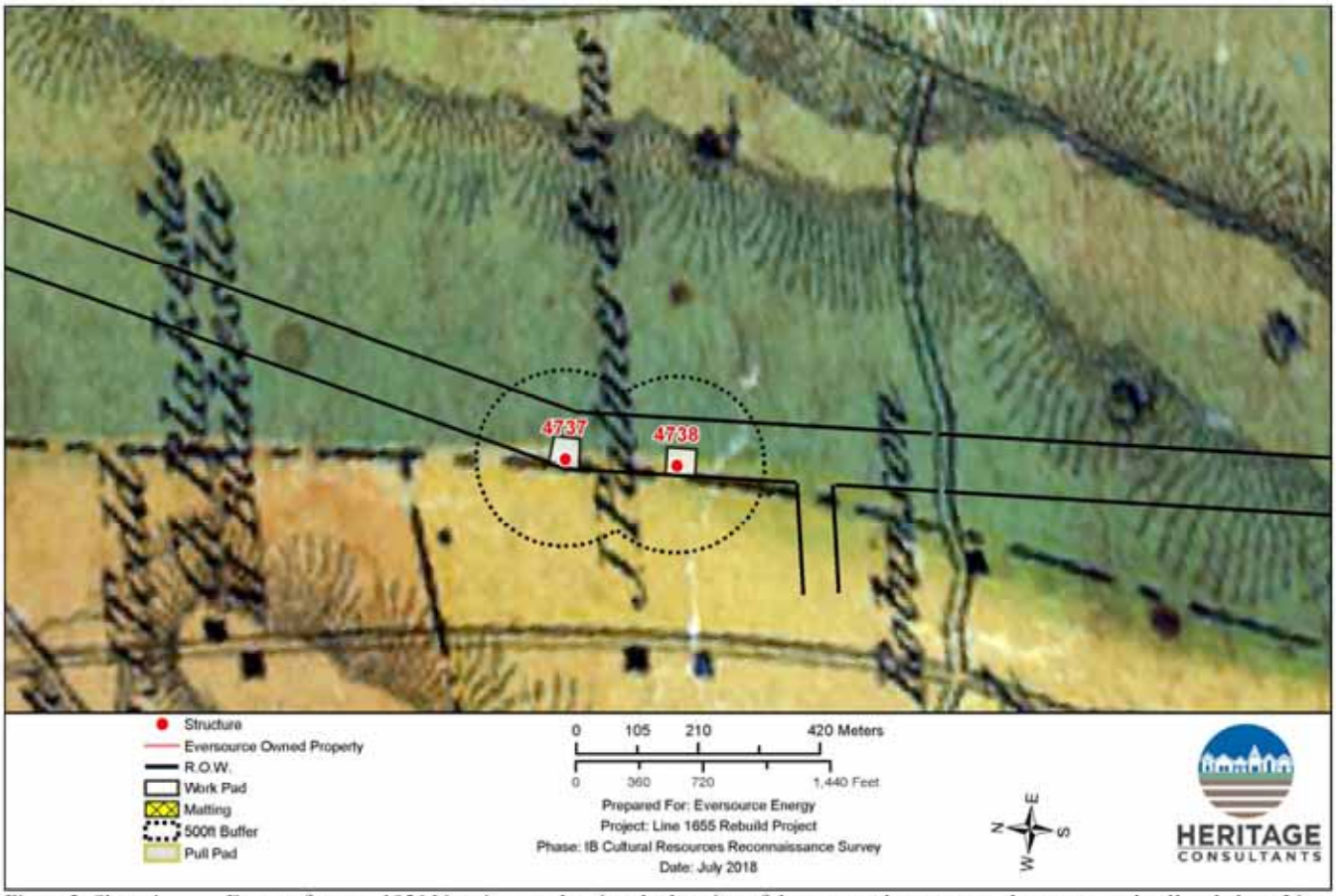


Figure 2; Sheet 4. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

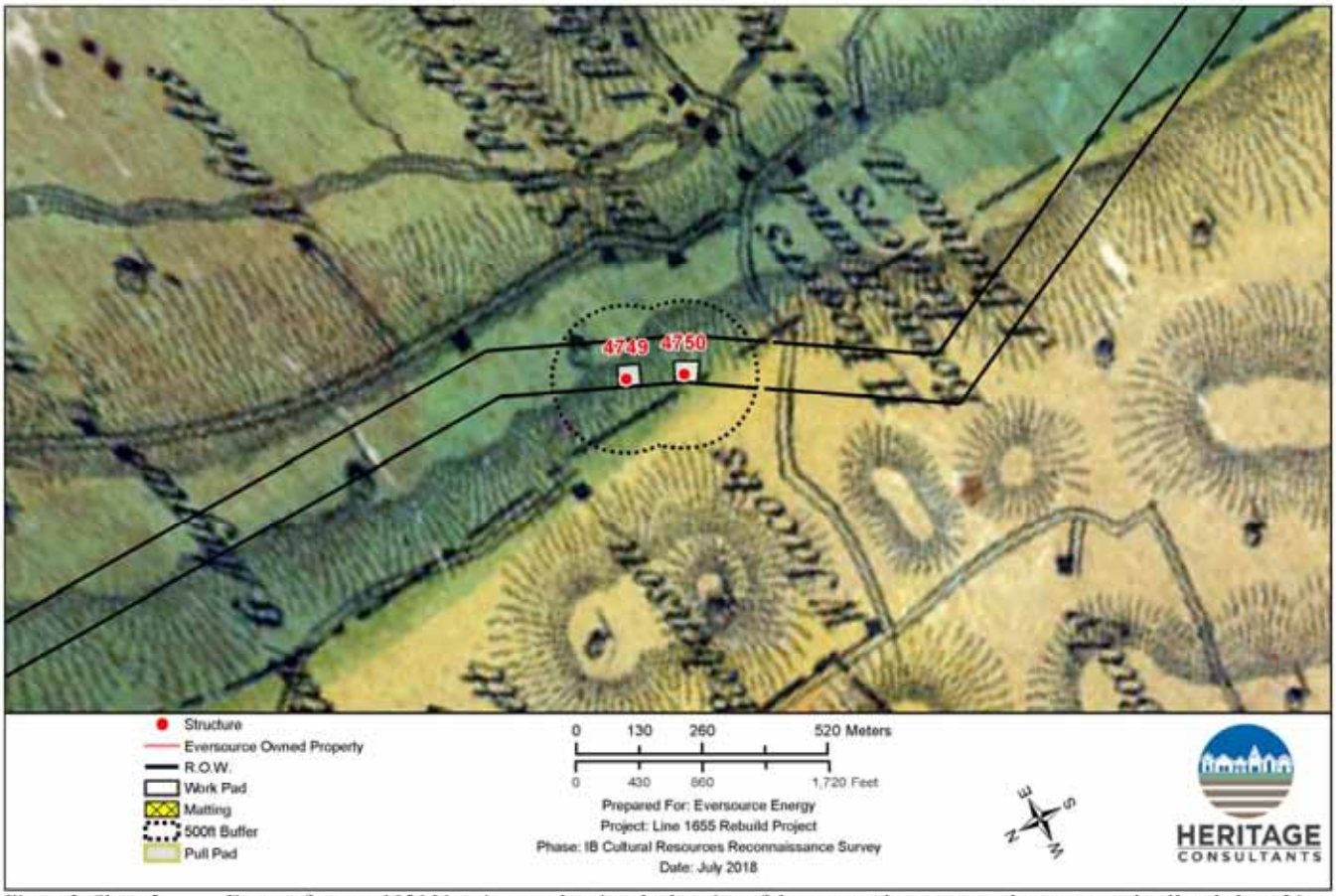


Figure 2; Sheet 5. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

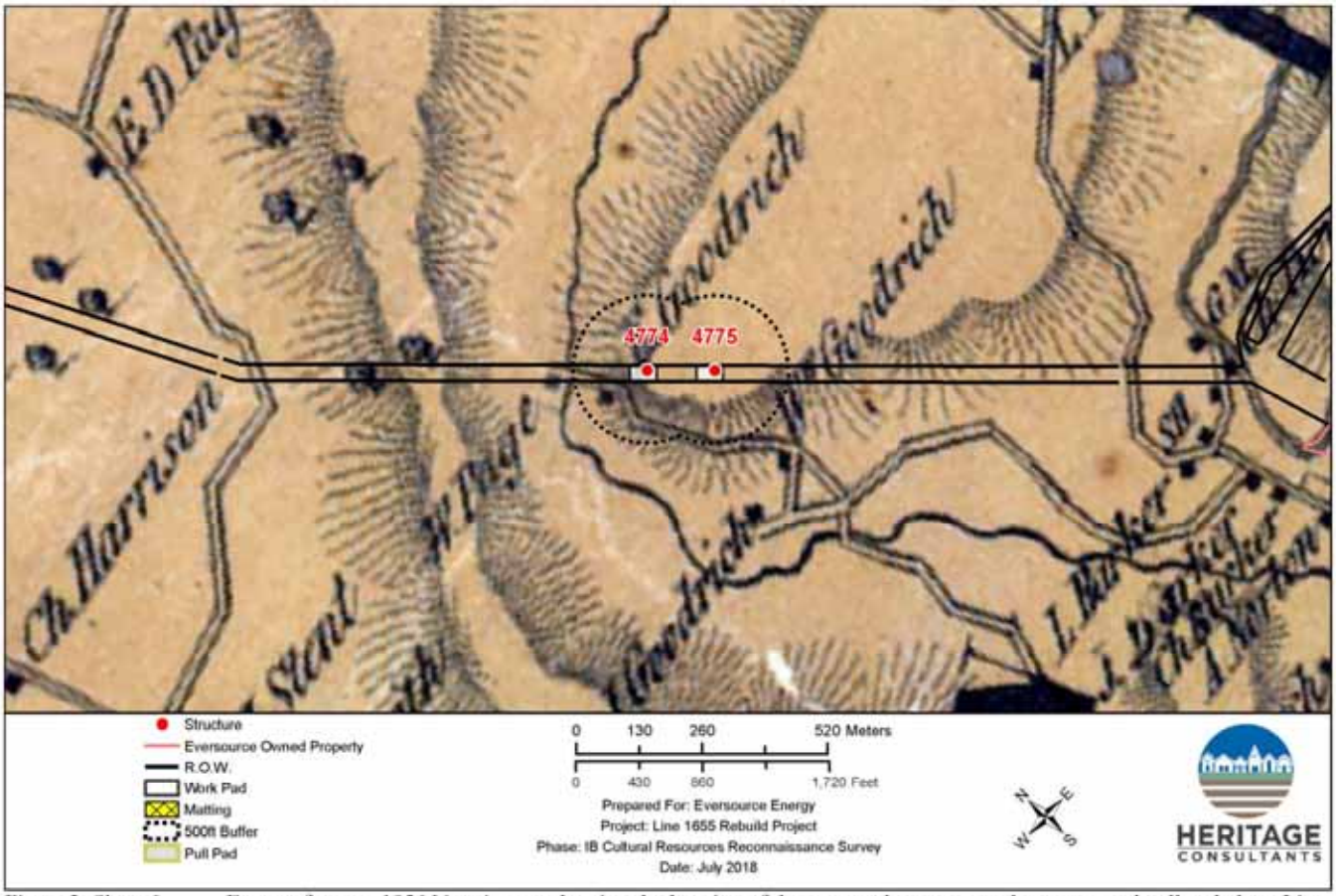


Figure 2; Sheet 6. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

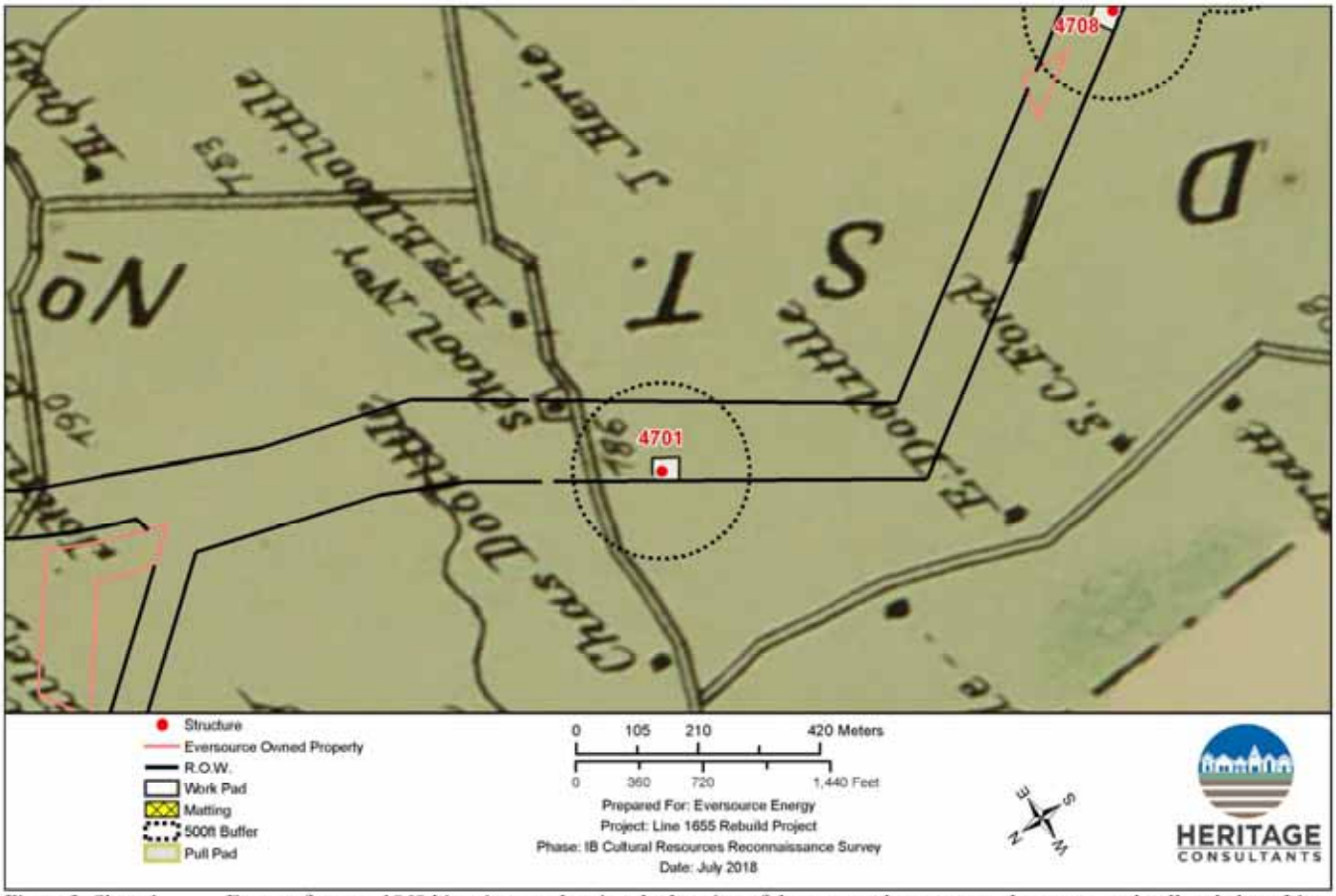


Figure 3; Sheet 1. Excerpt from an 1868 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

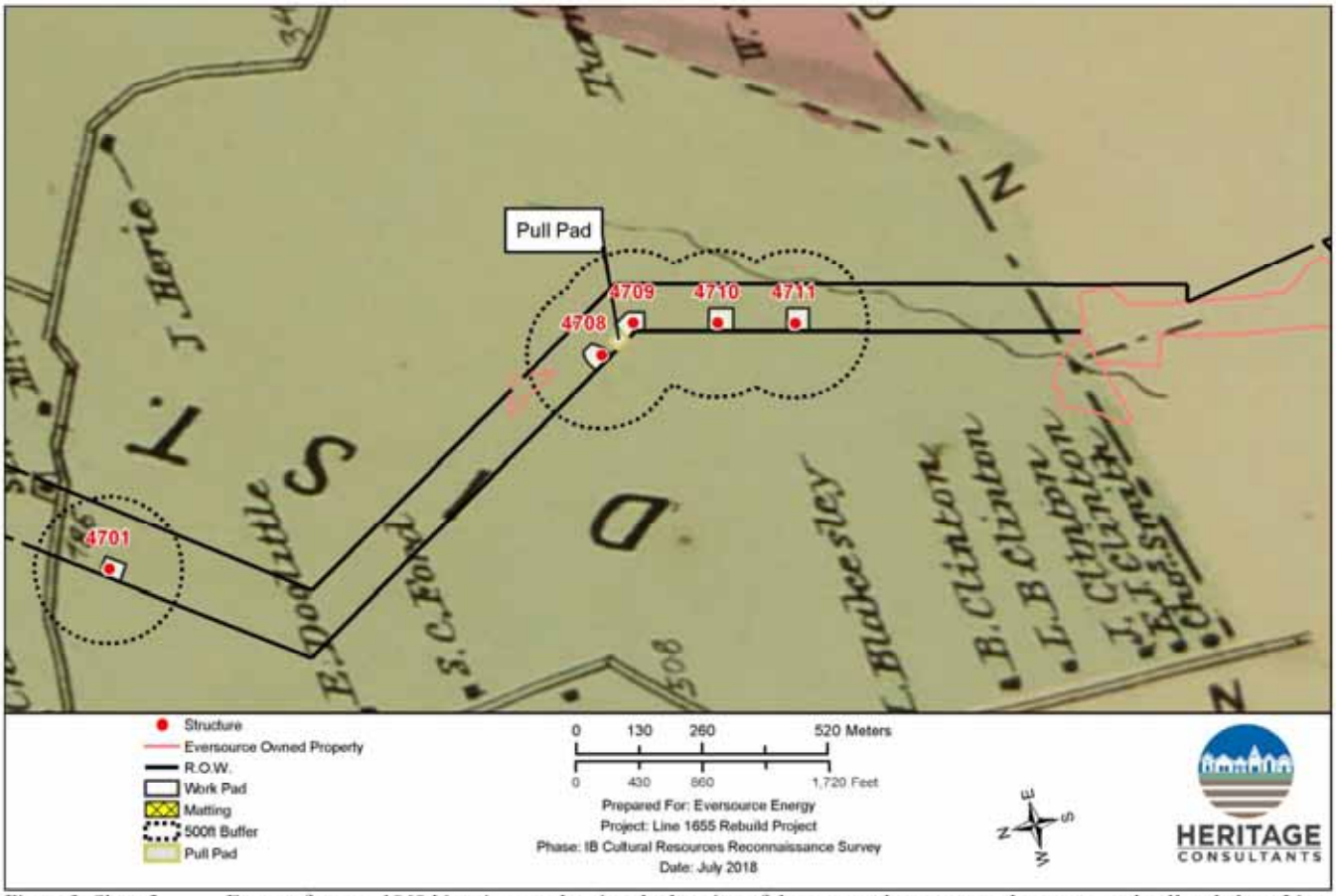


Figure 3; Sheet 2. Excerpt from an 1868 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

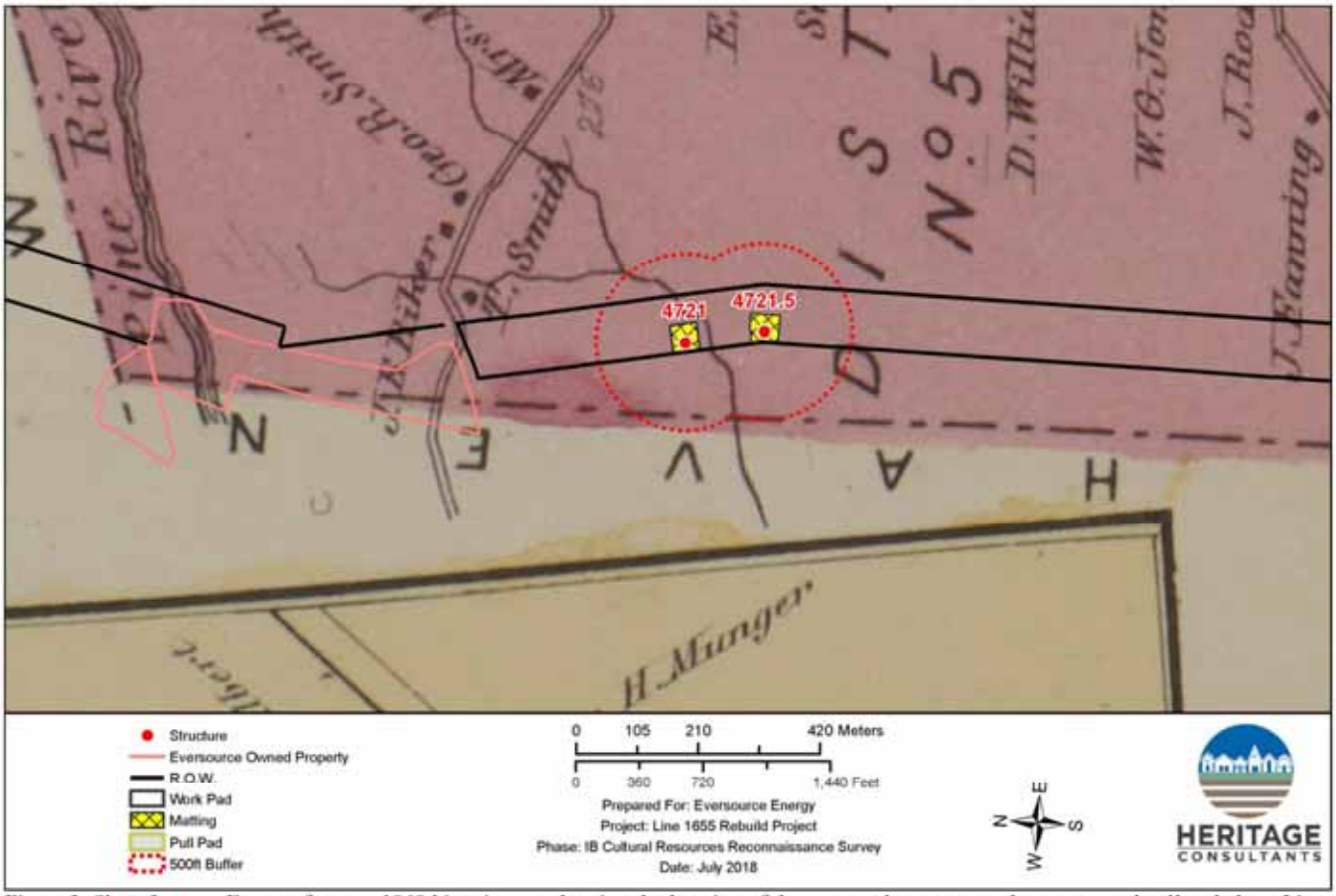


Figure 3; Sheet 3. Excerpt from an 1868 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

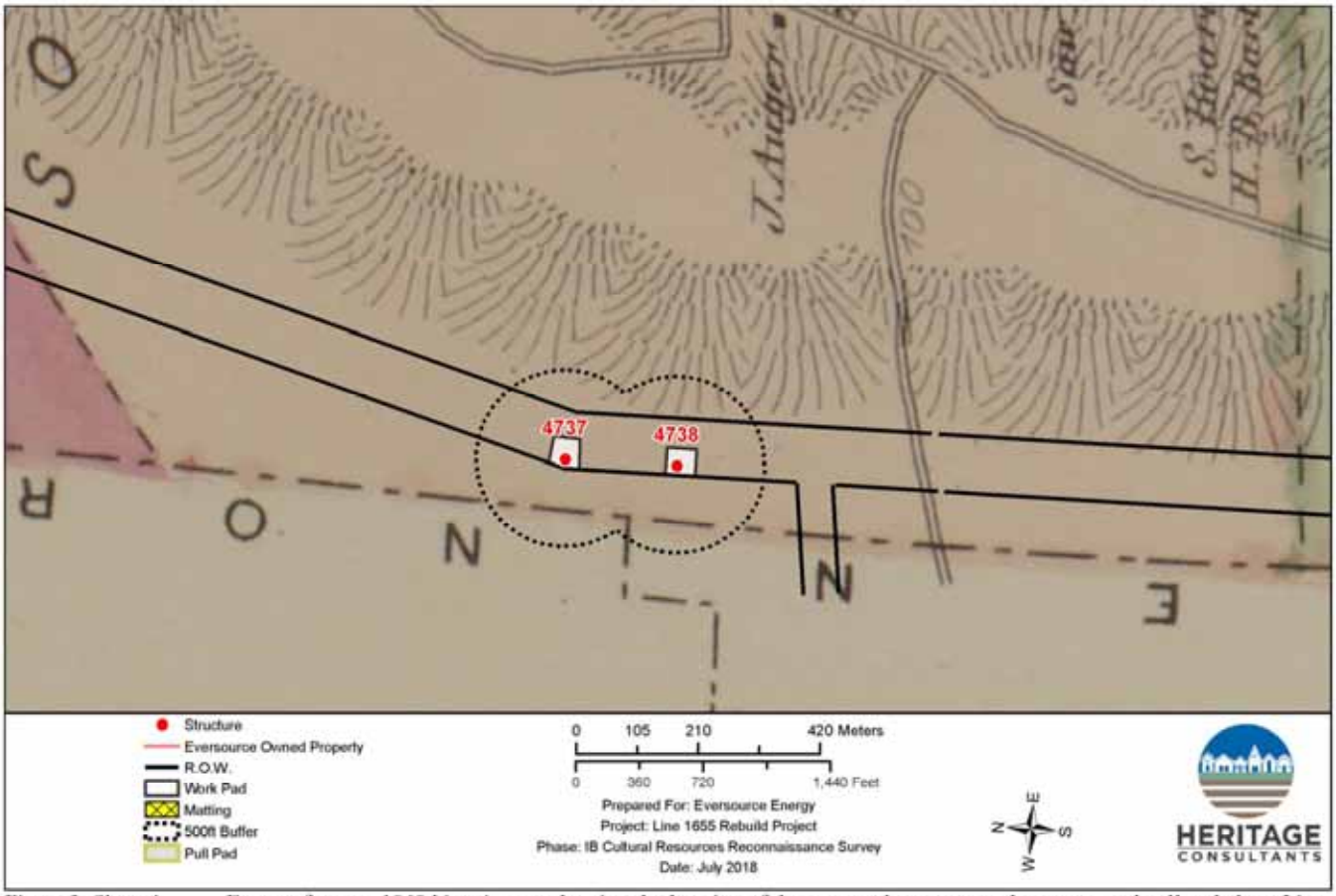
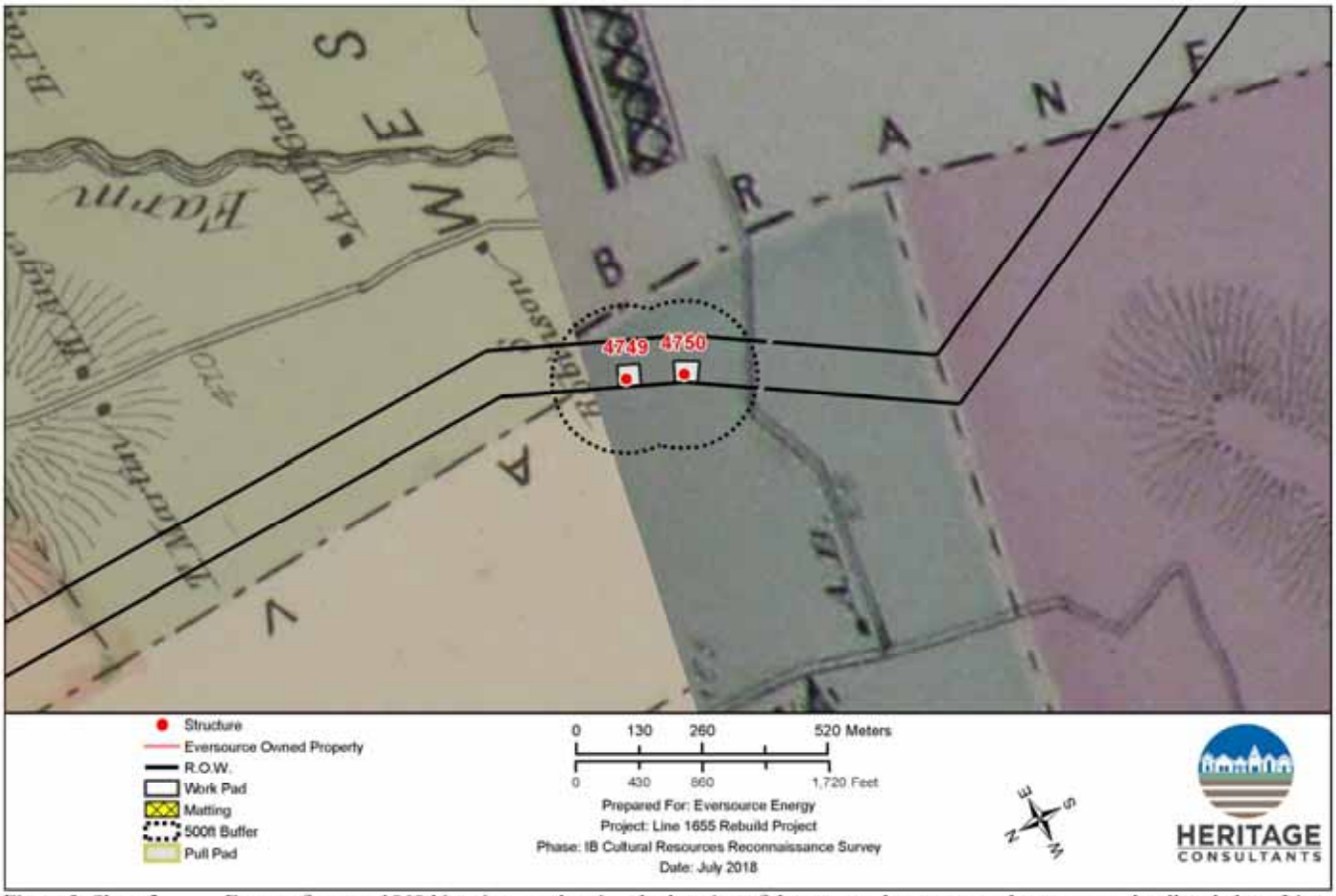


Figure 3; Sheet 4. Excerpt from an 1868 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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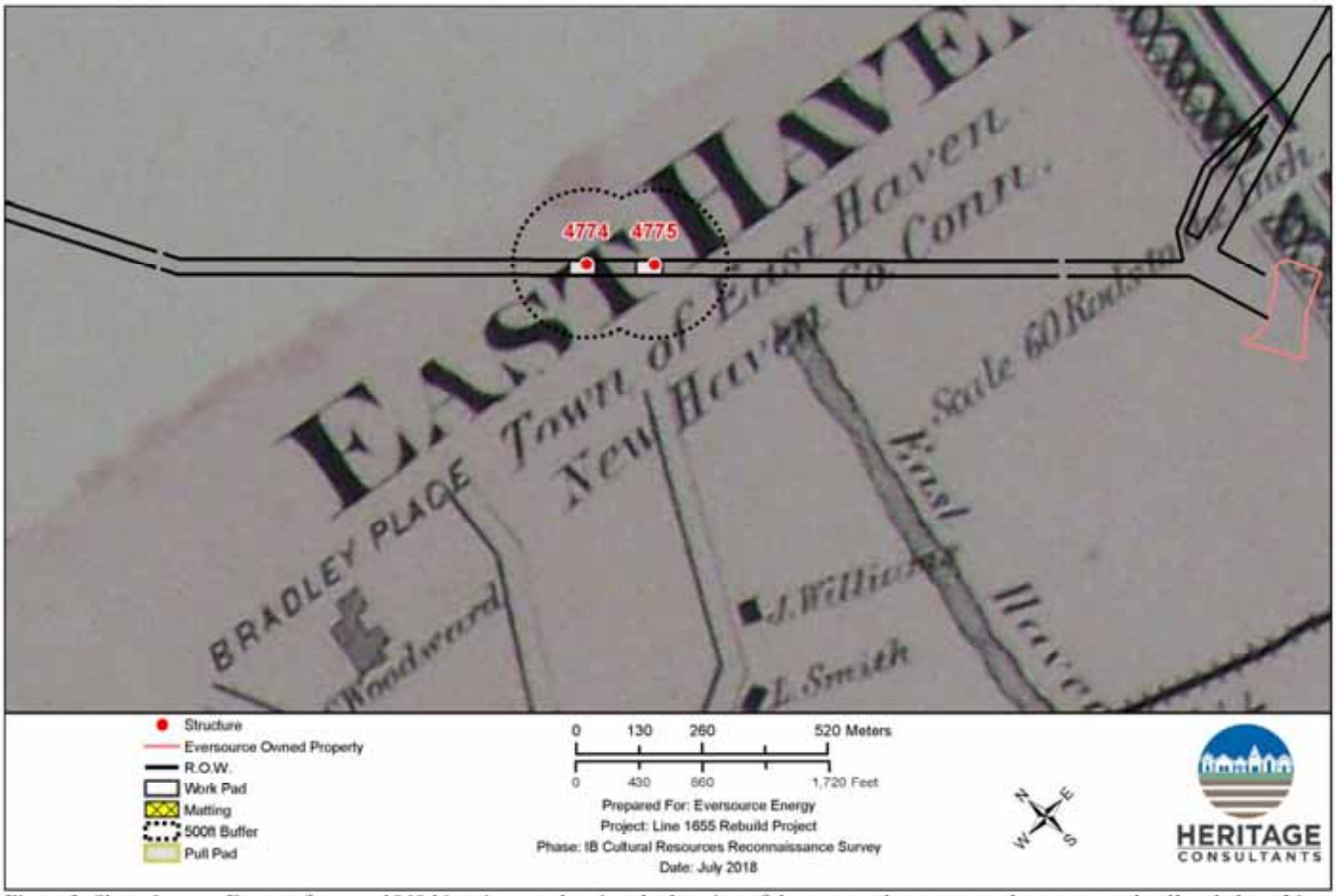

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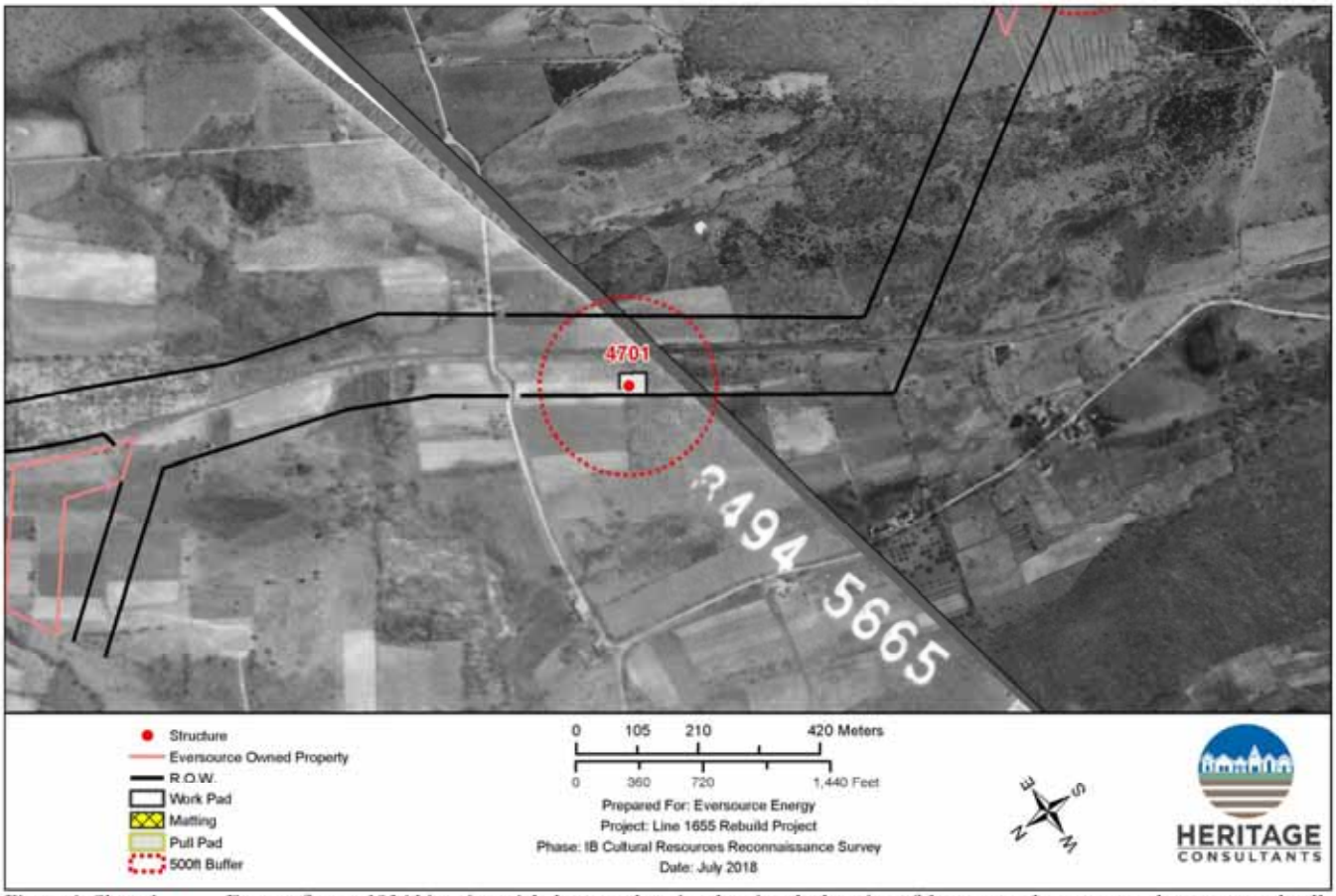

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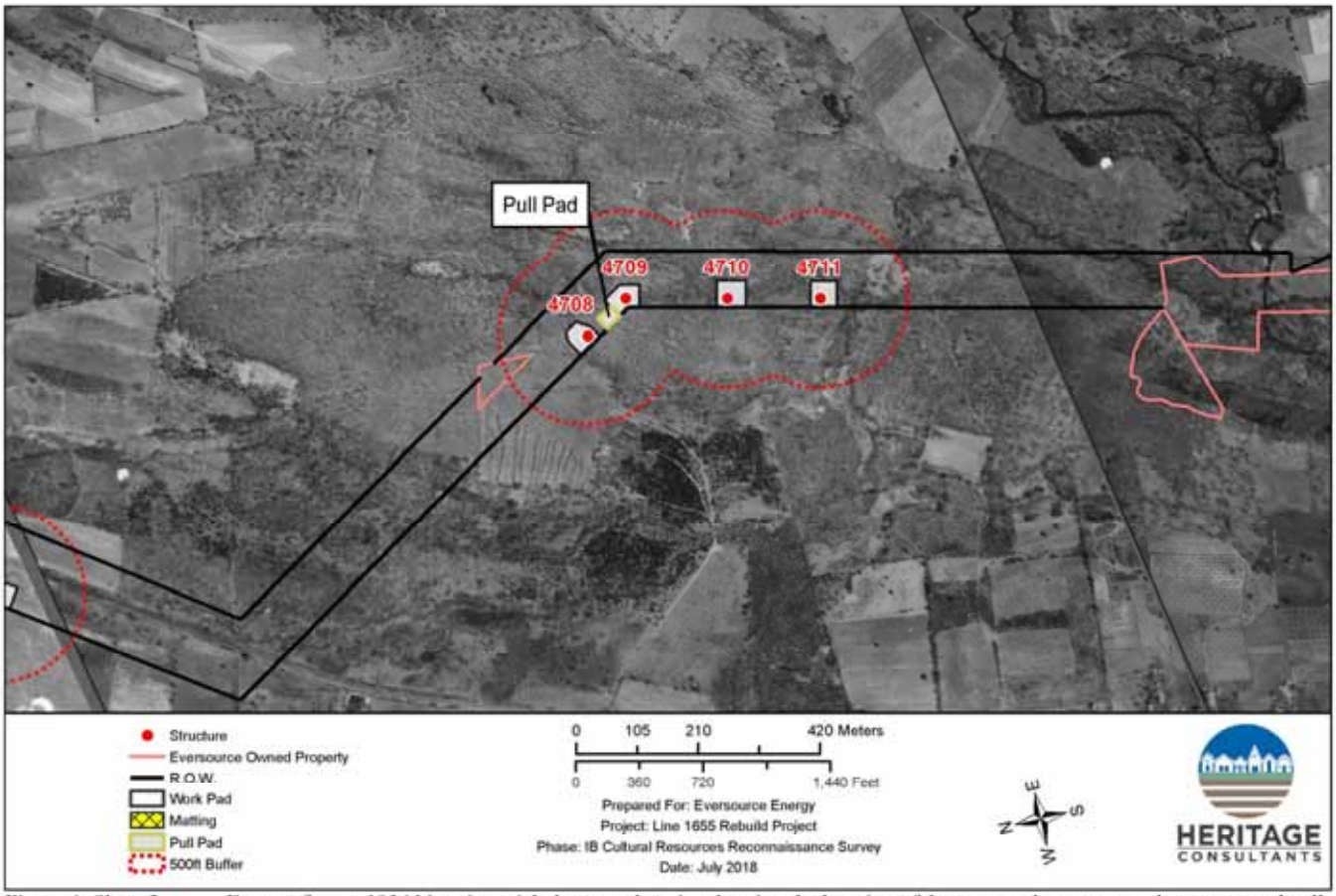

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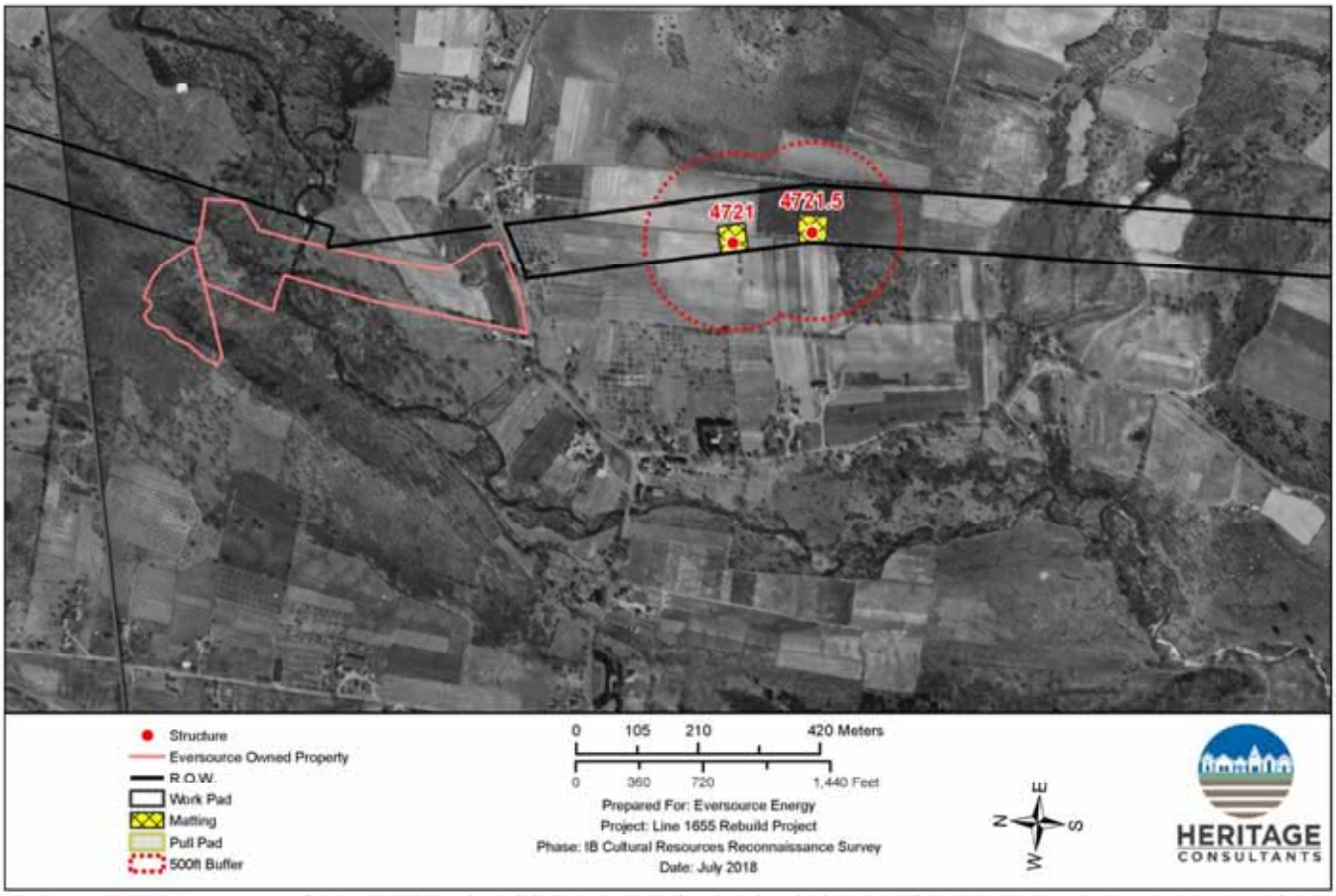

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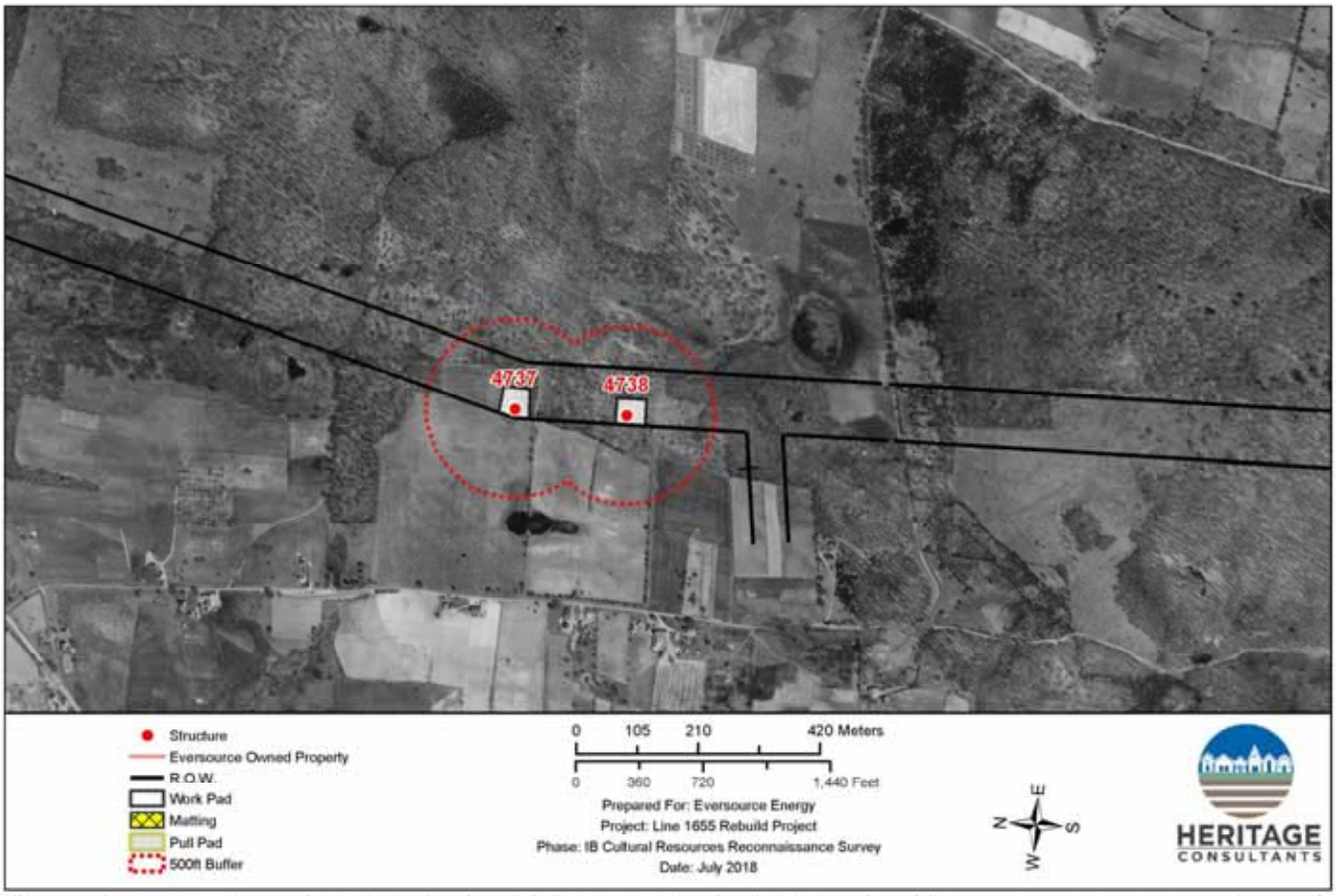

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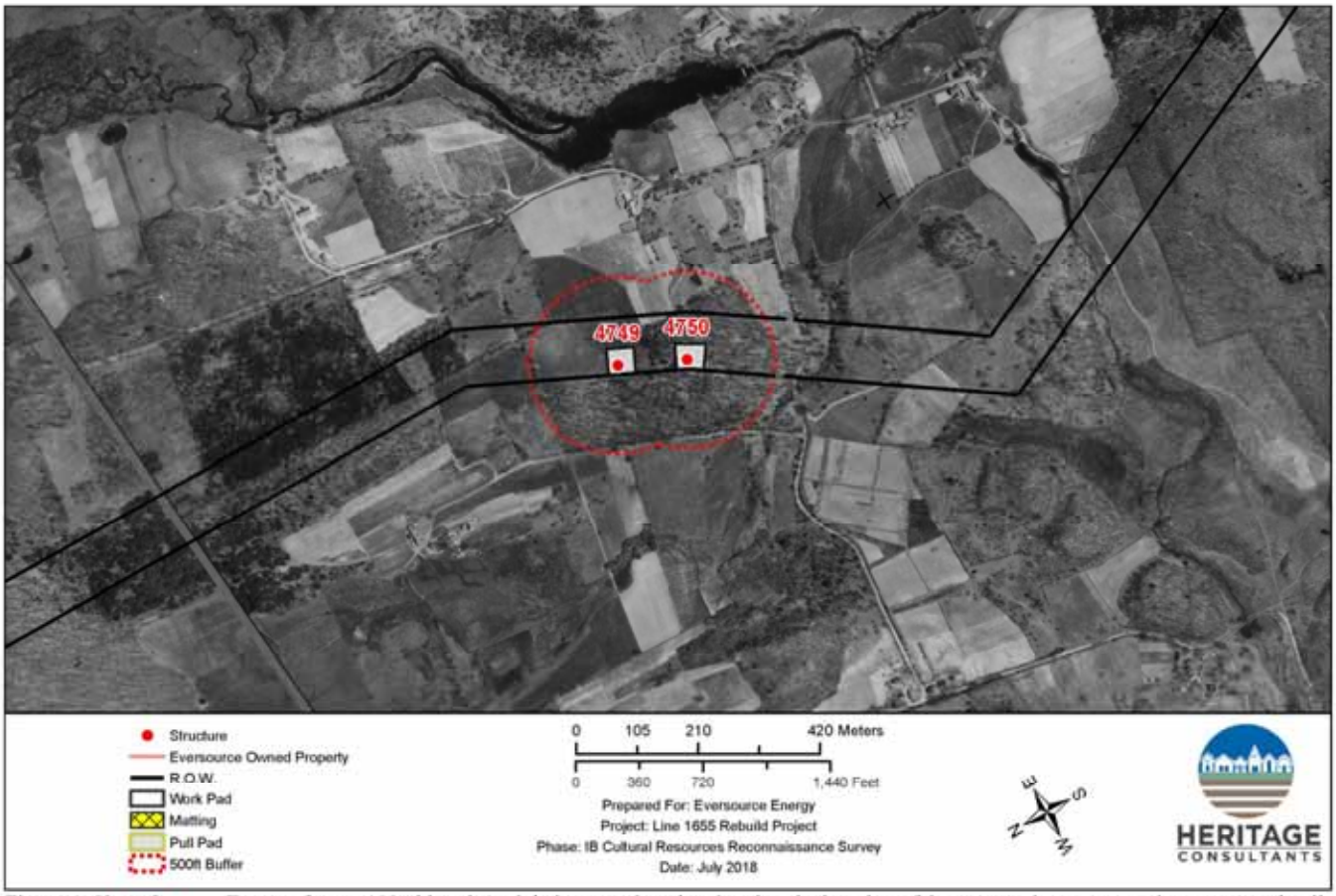

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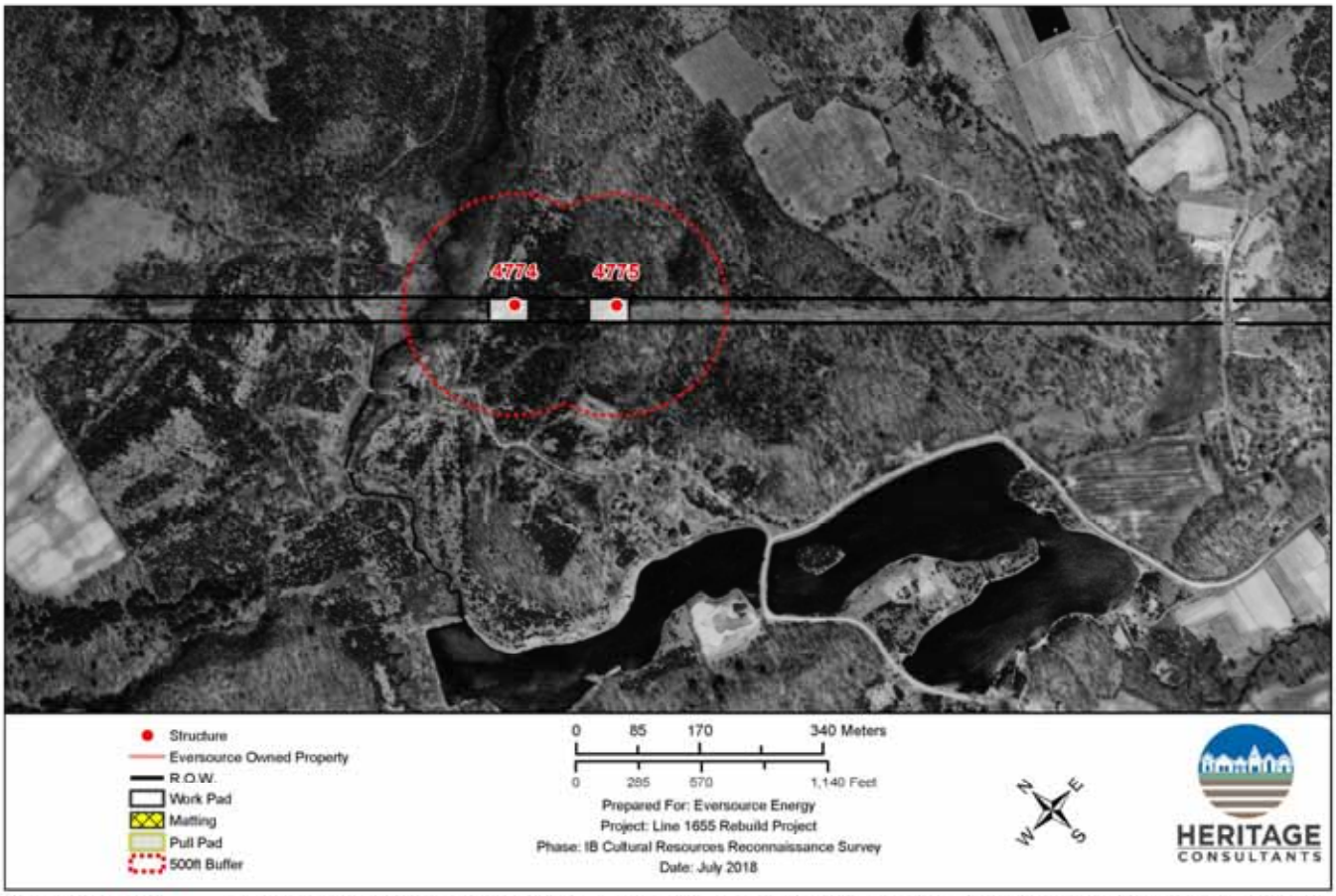

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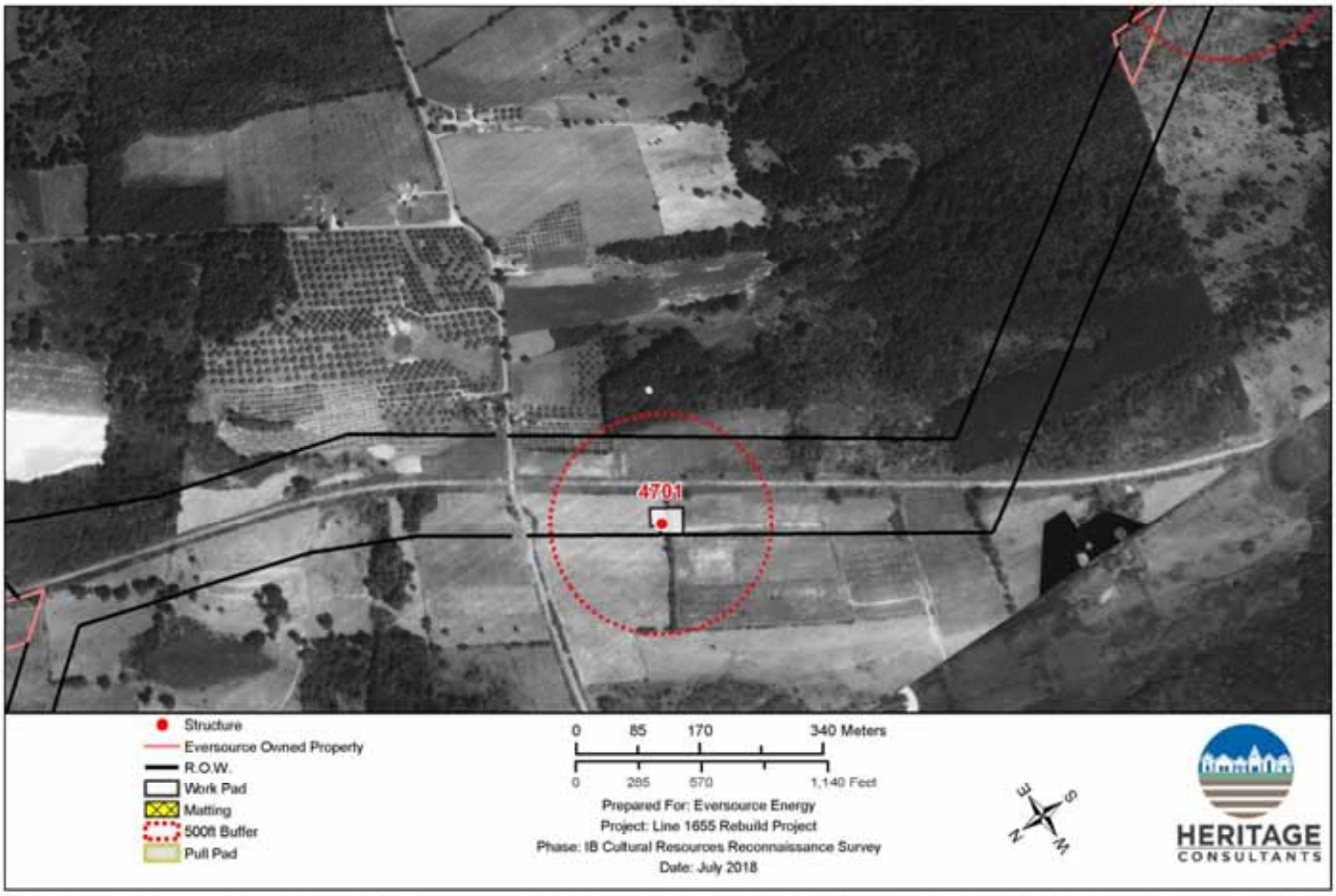

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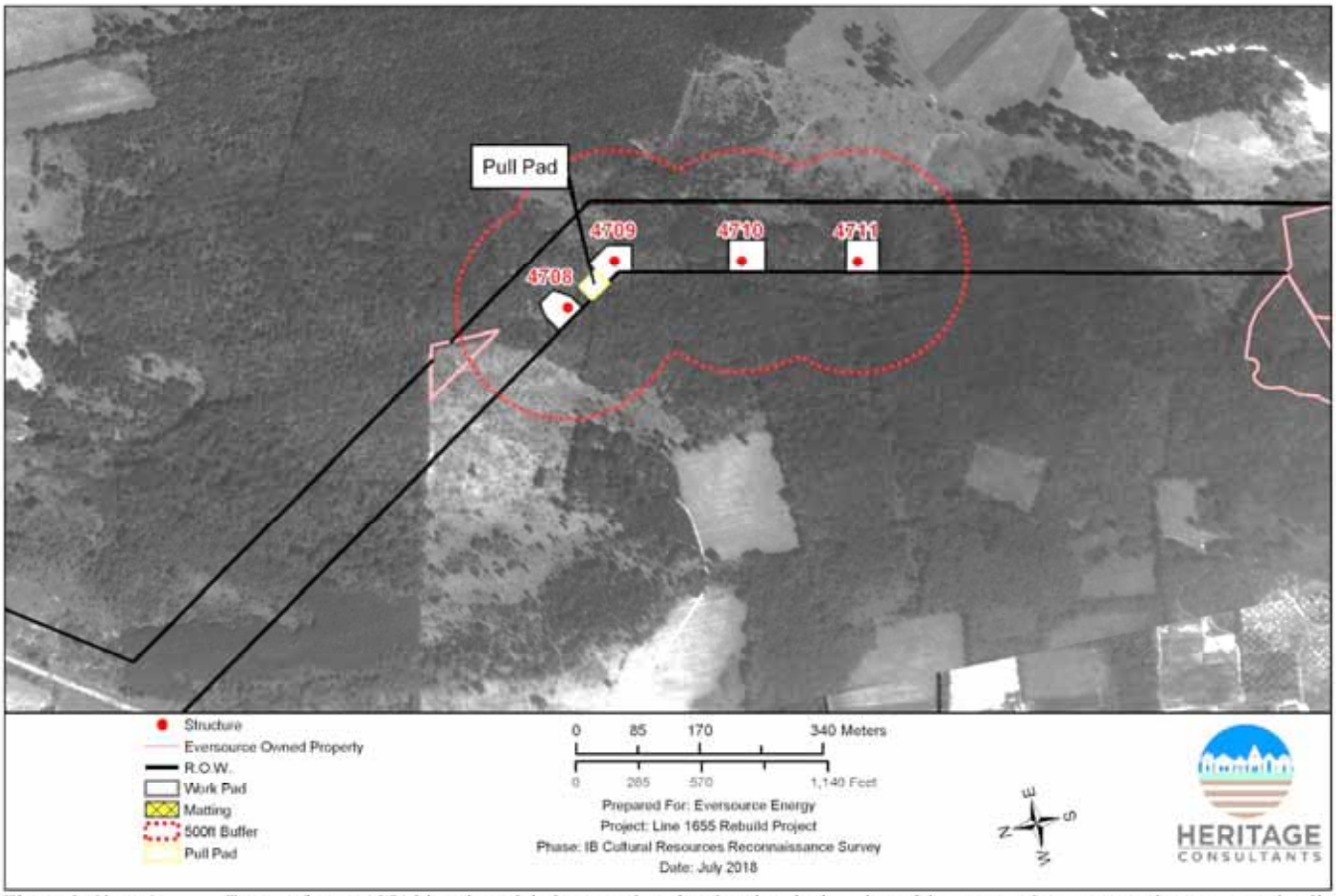

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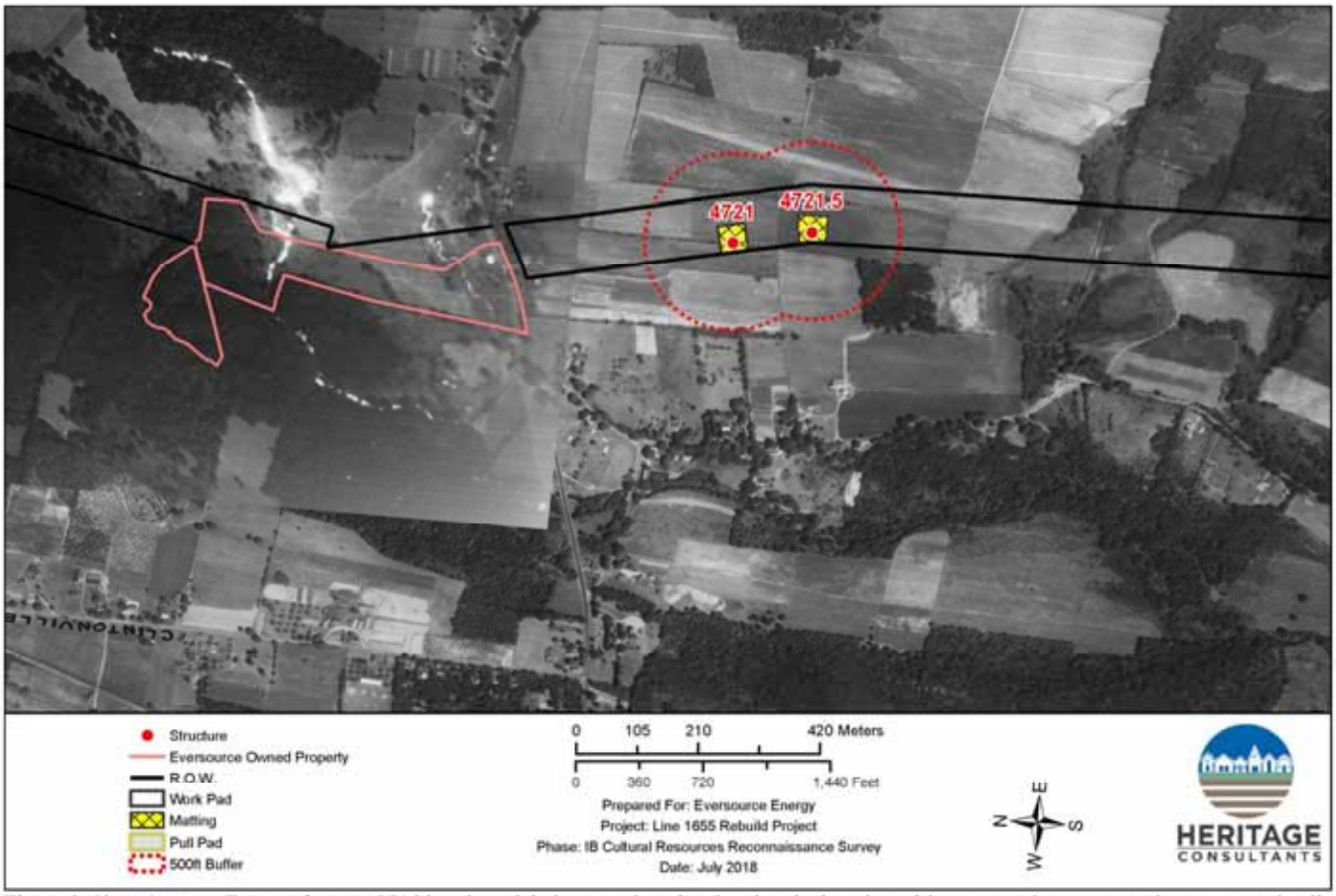

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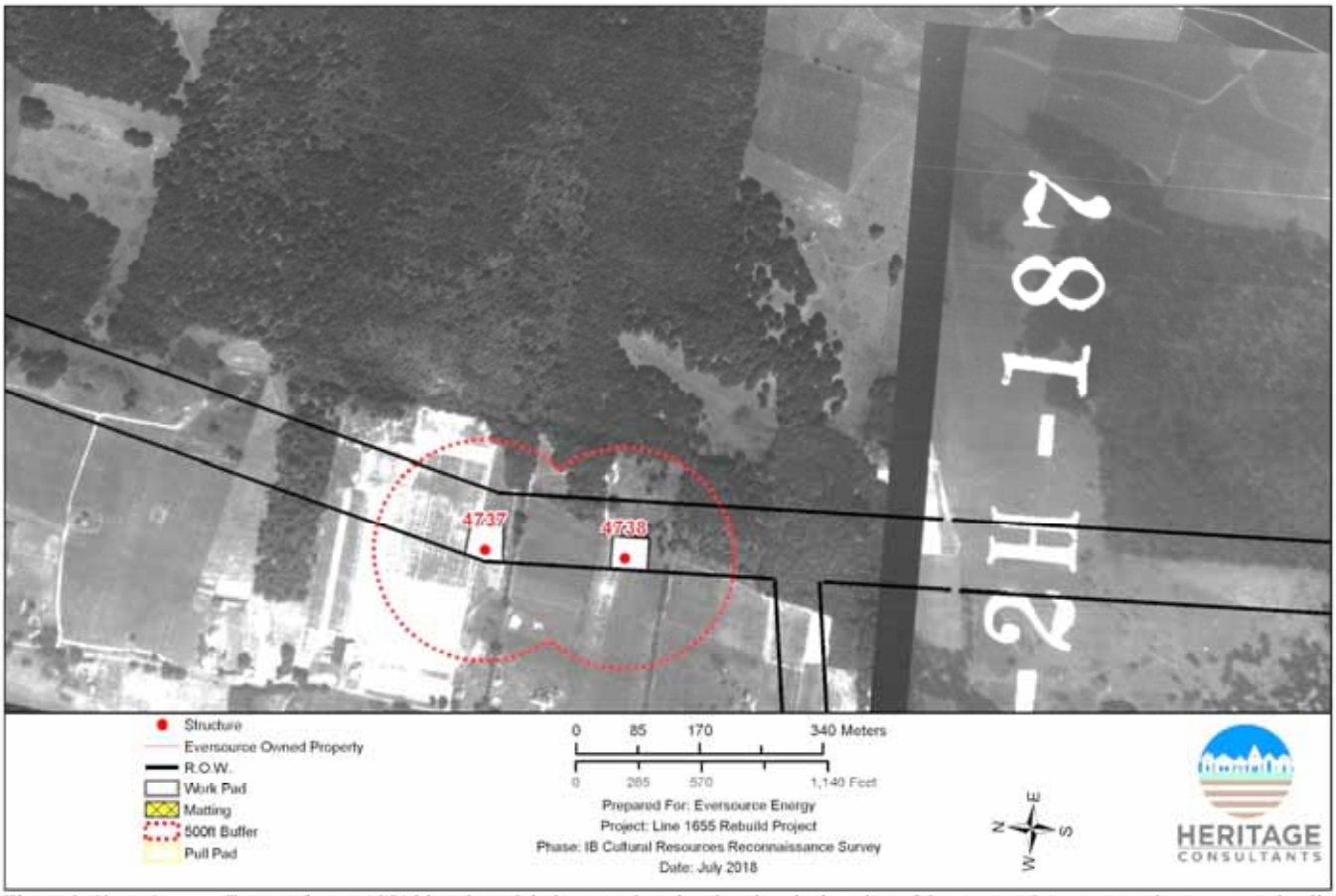

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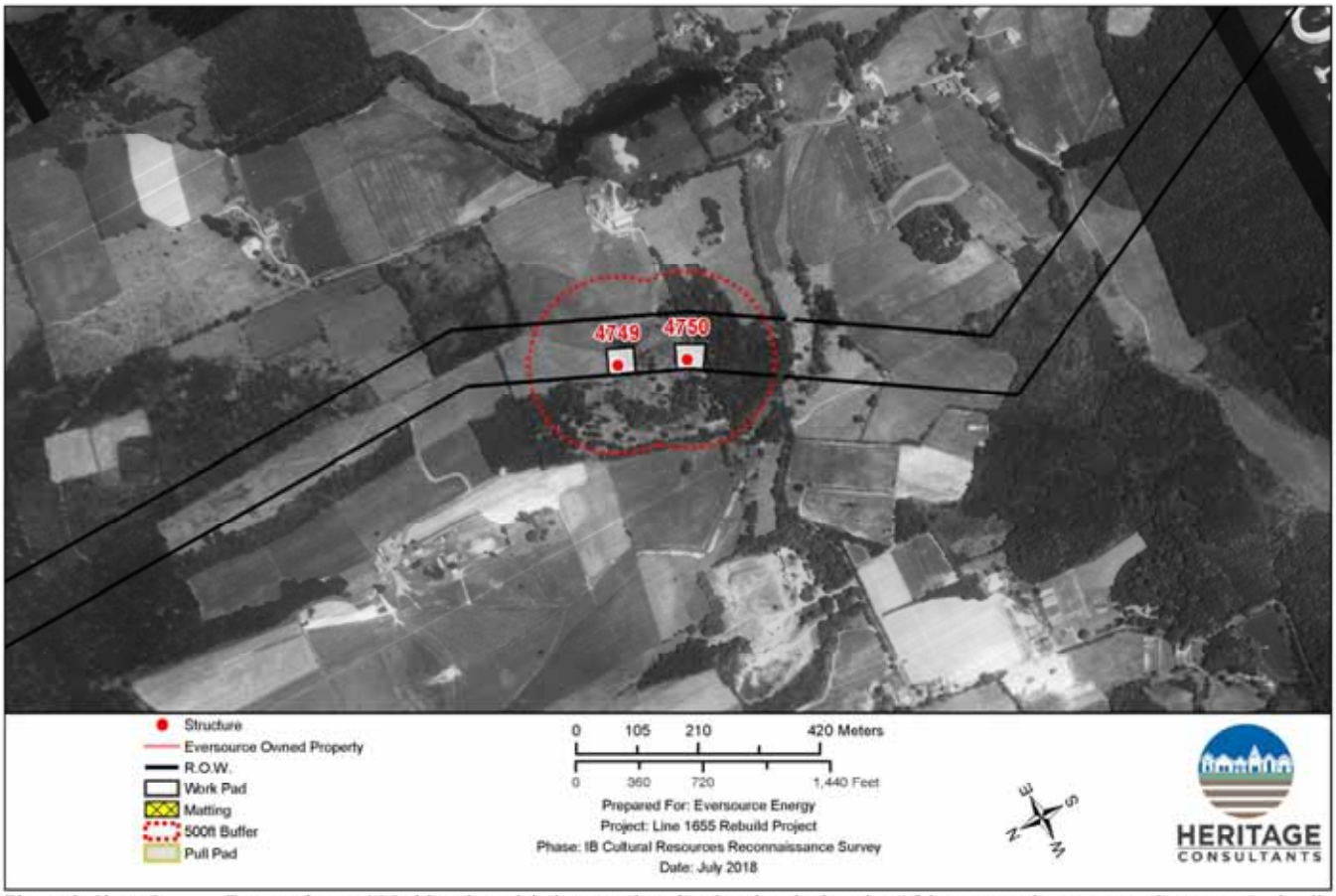

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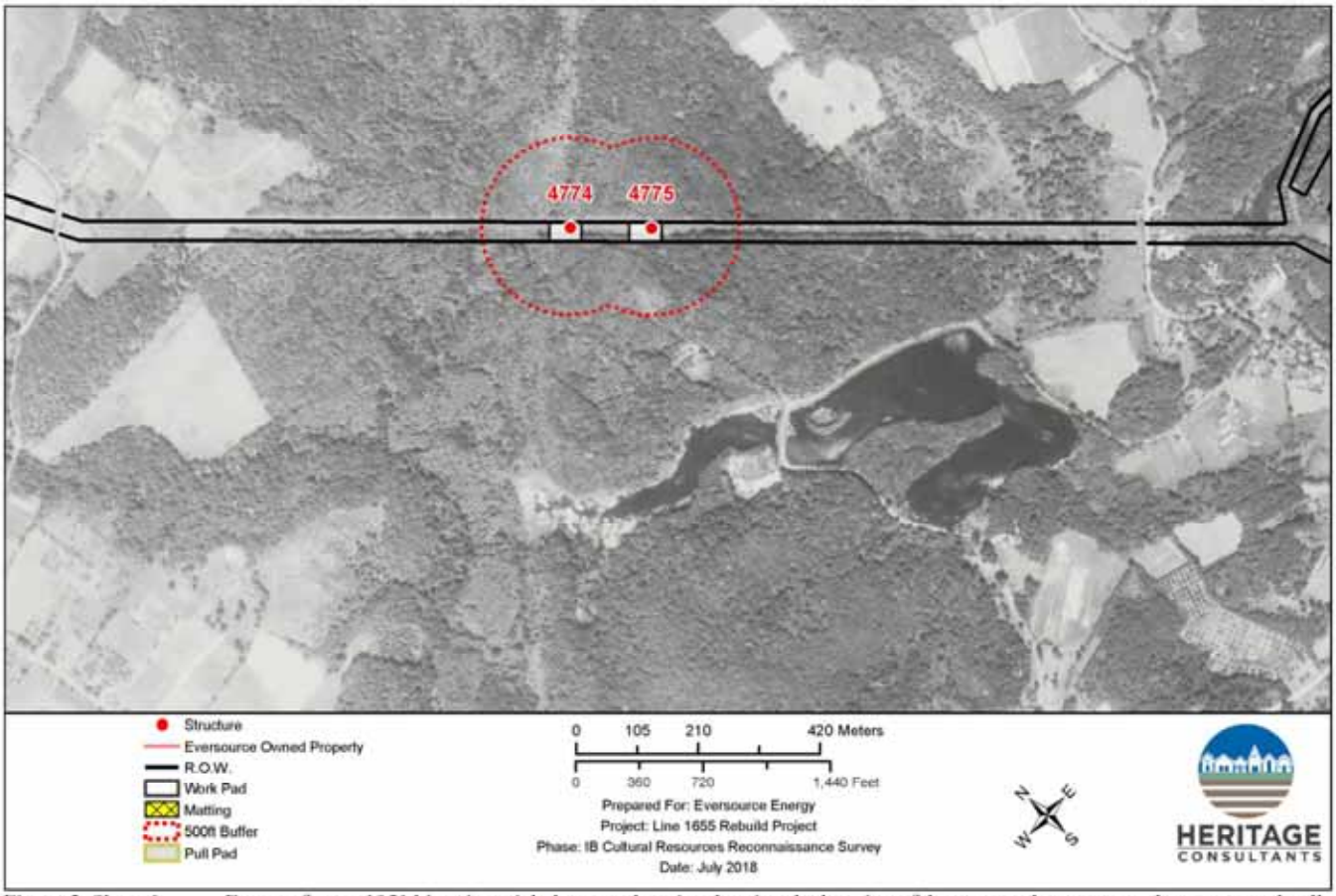

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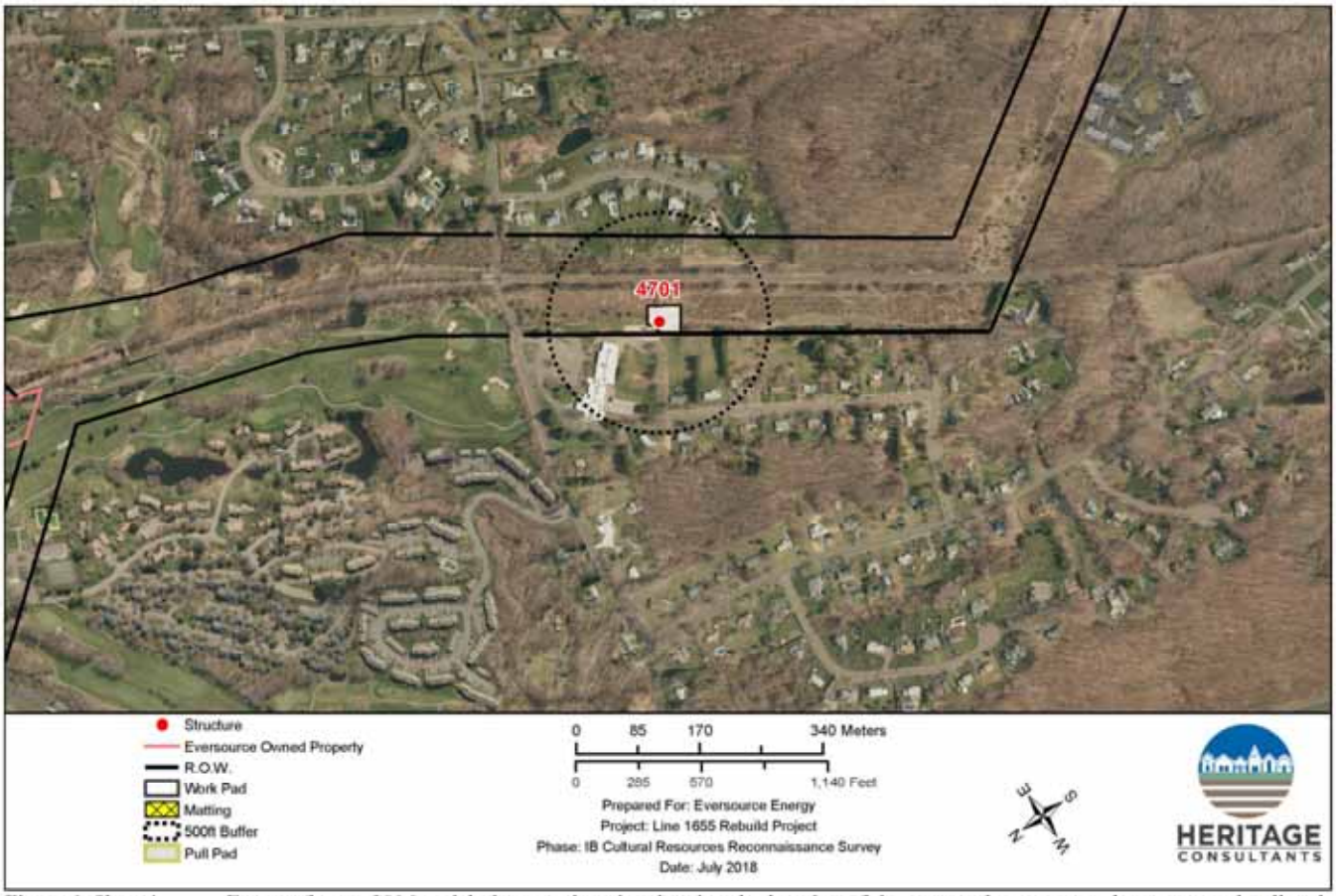

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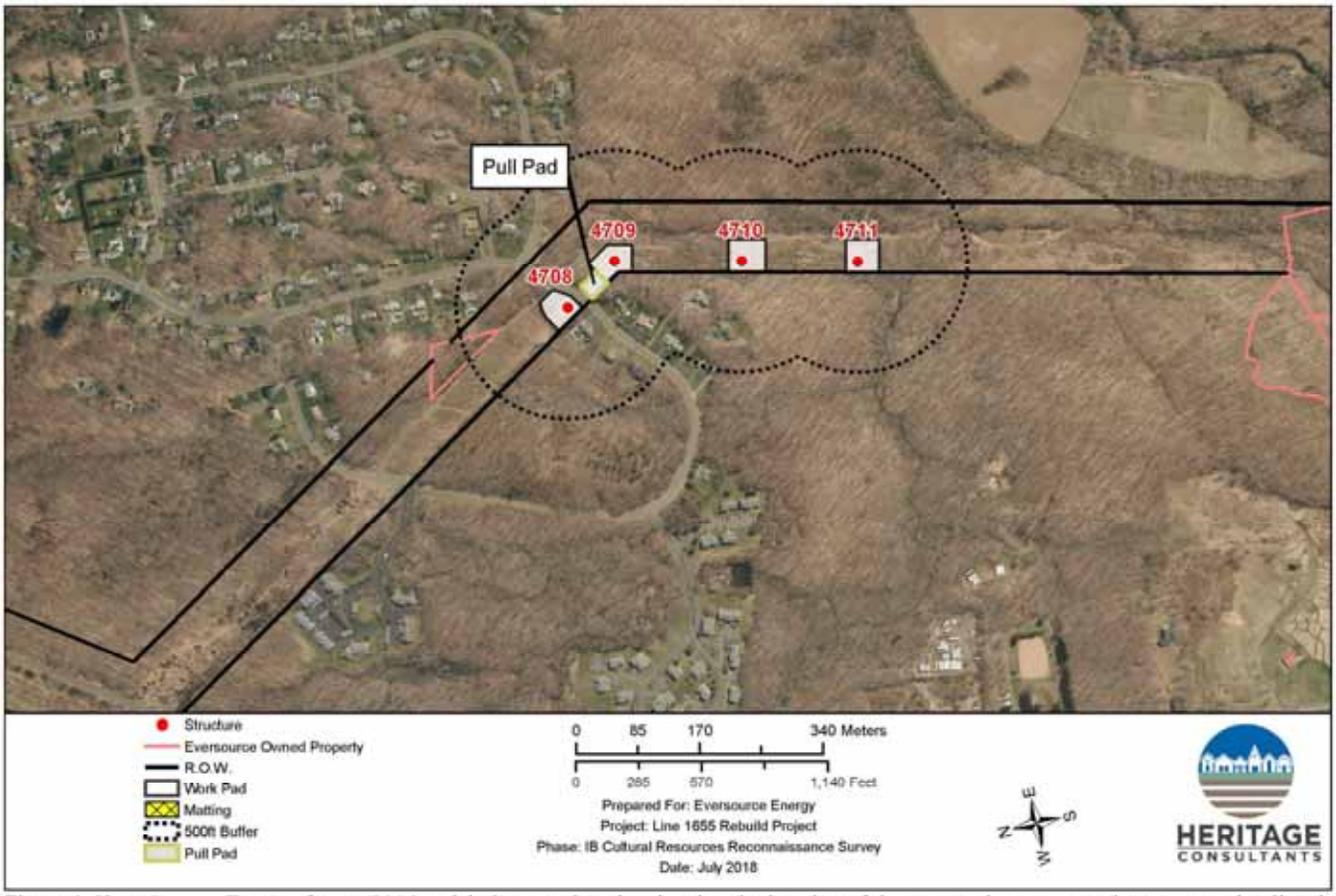

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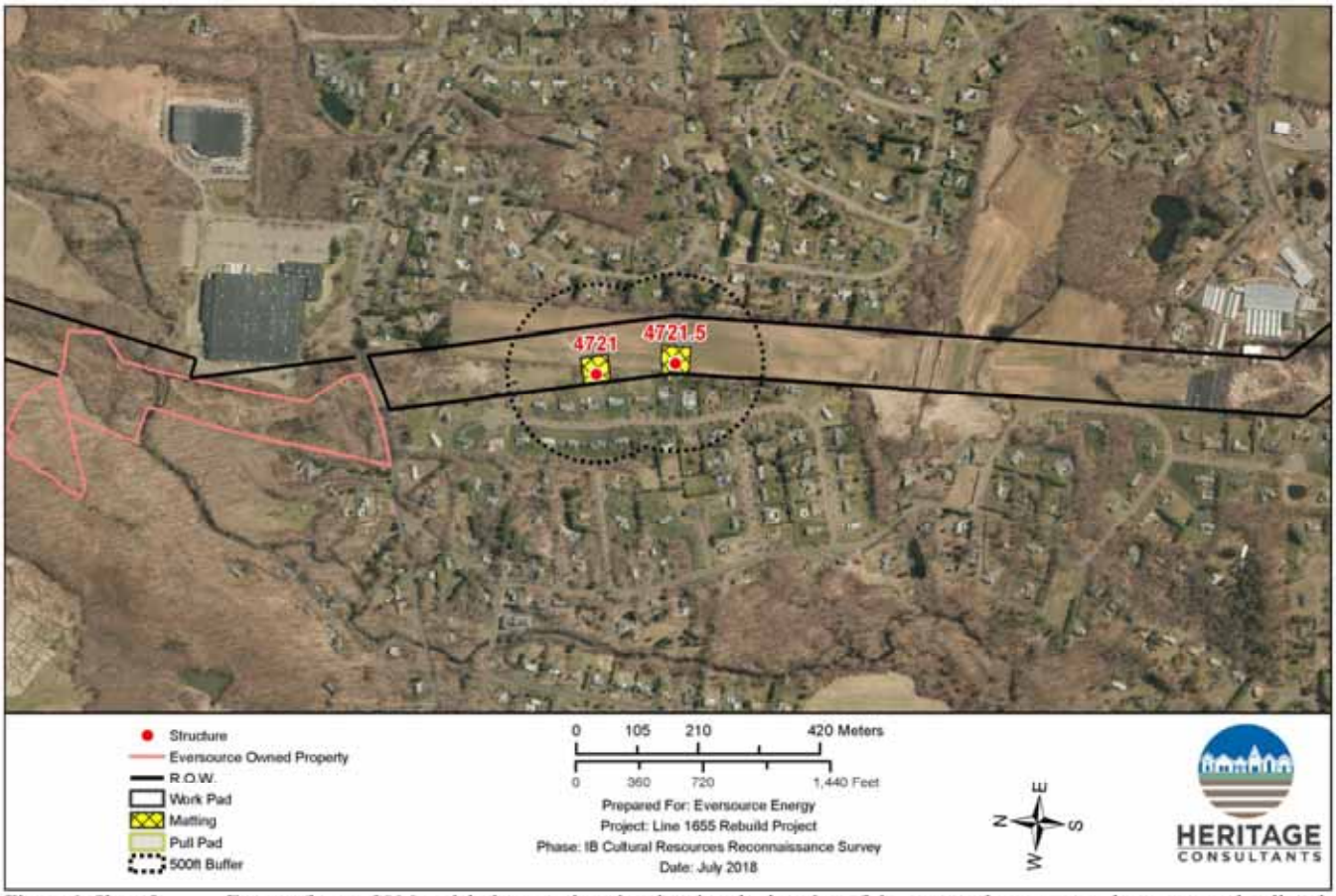

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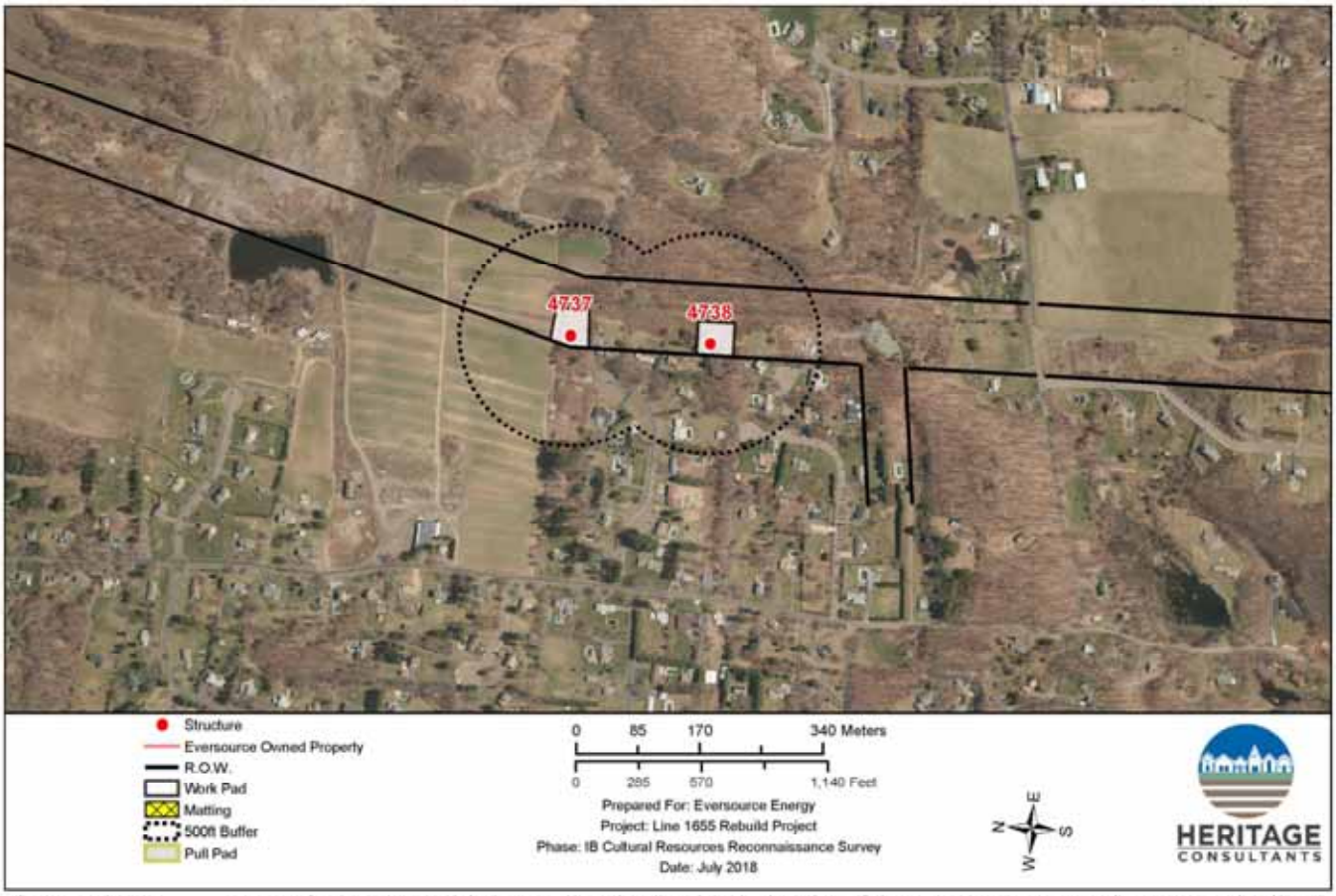

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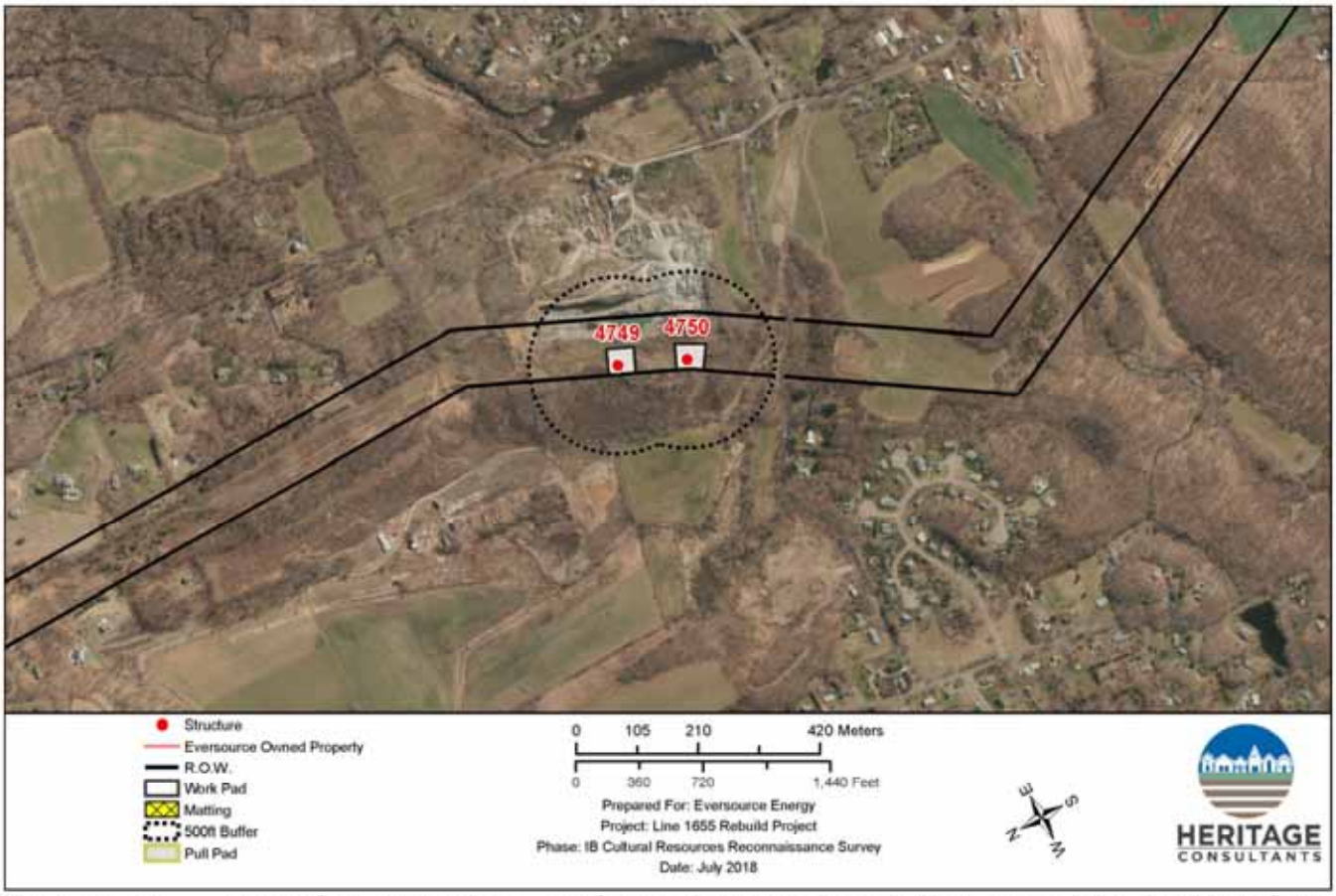

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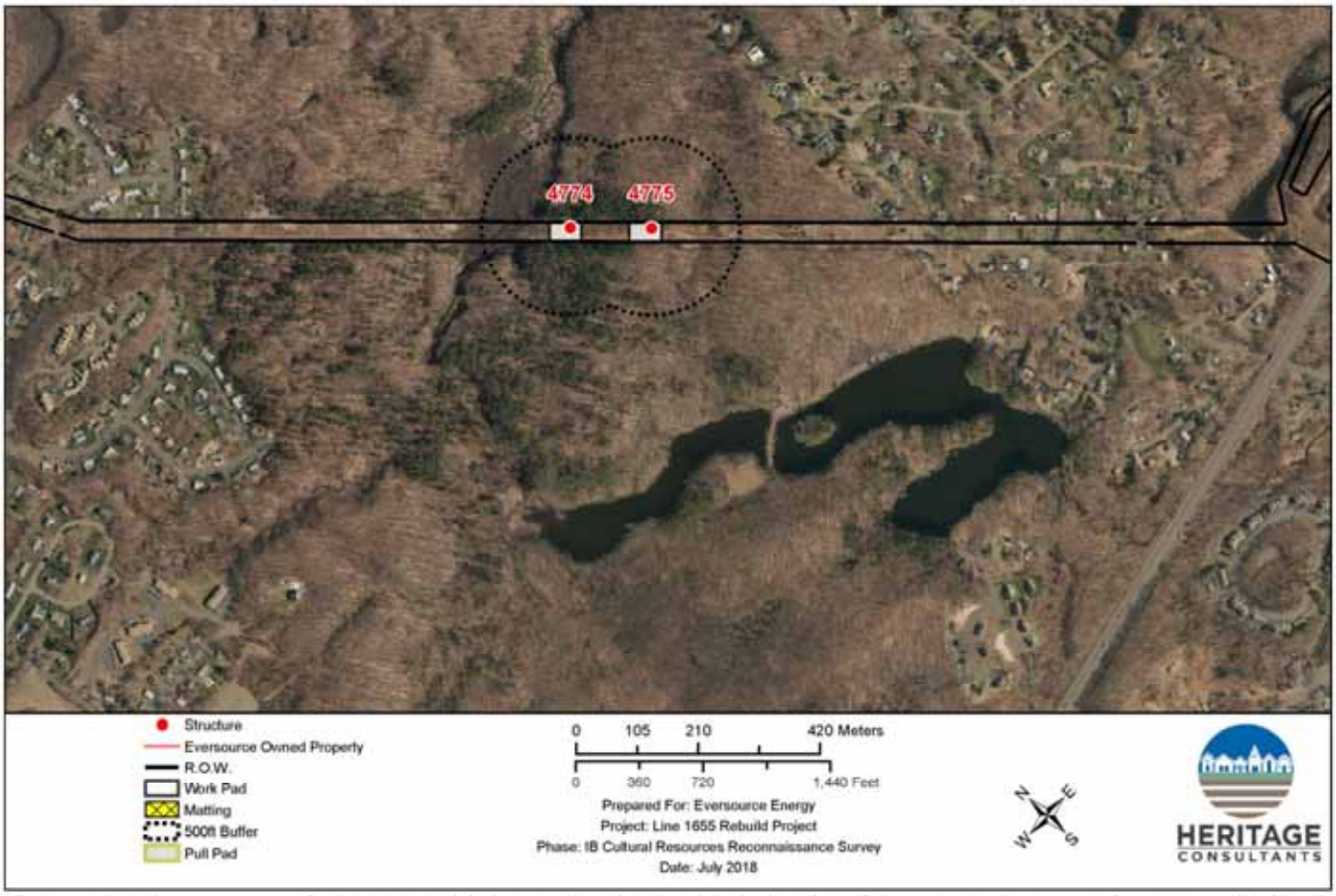

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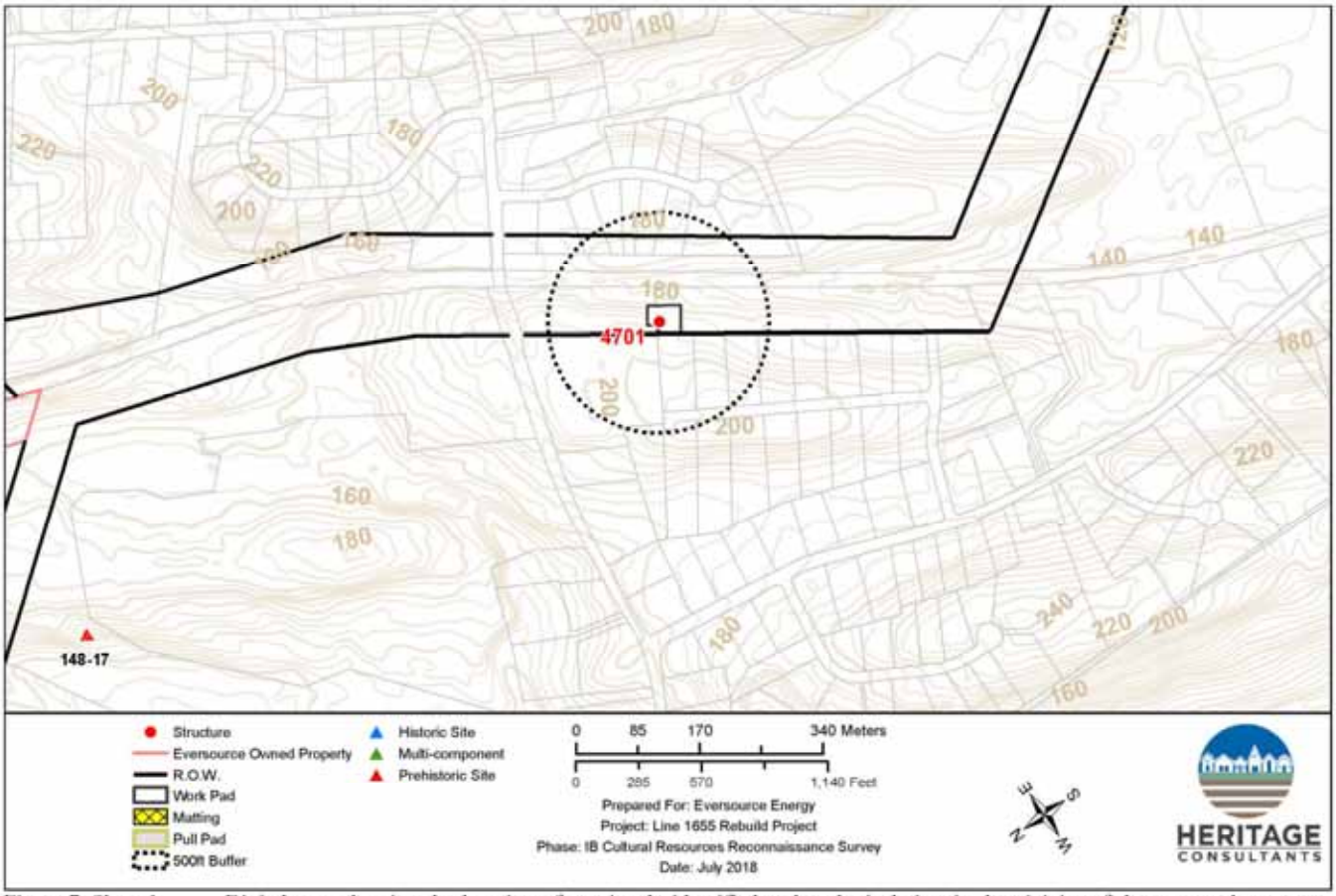

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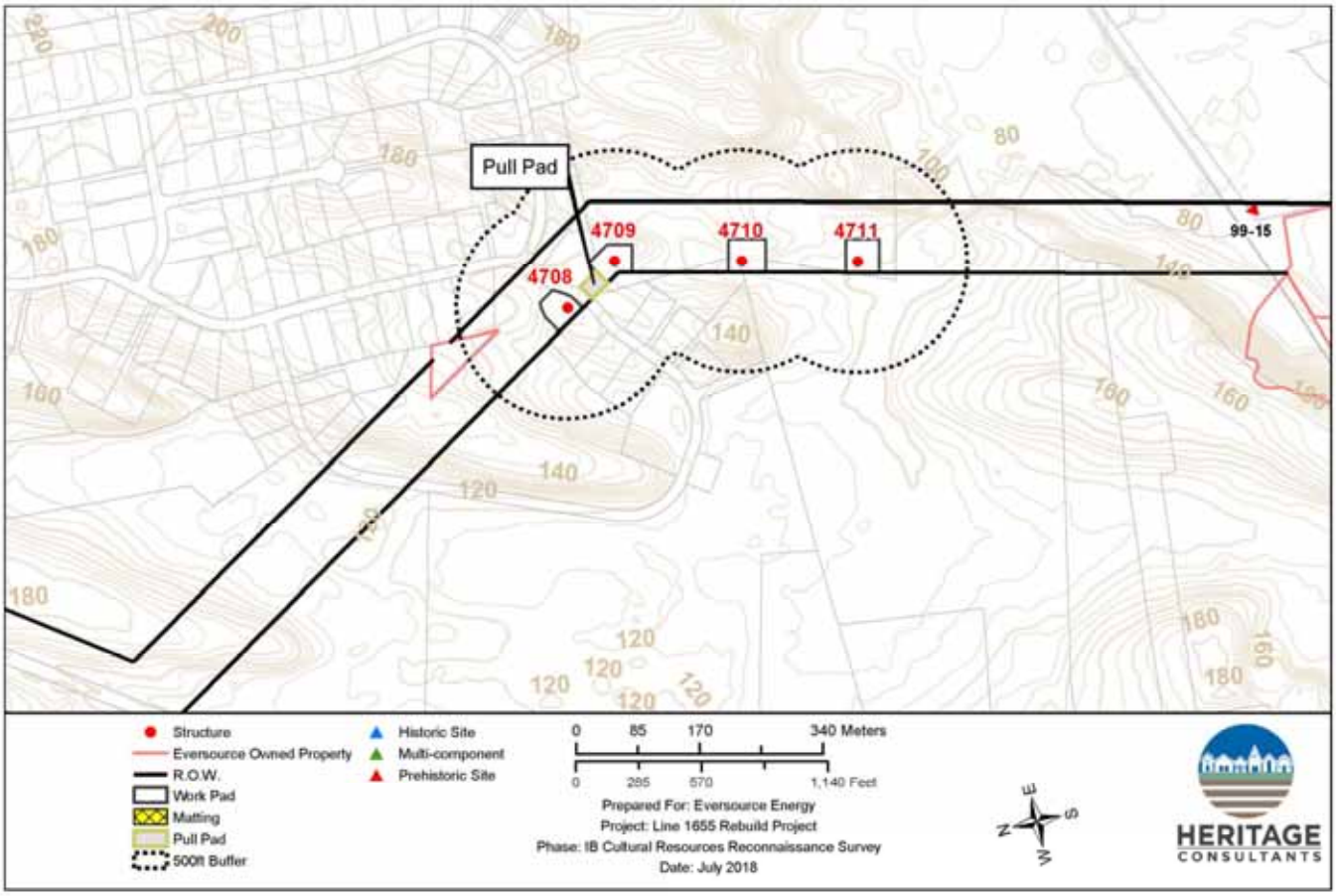
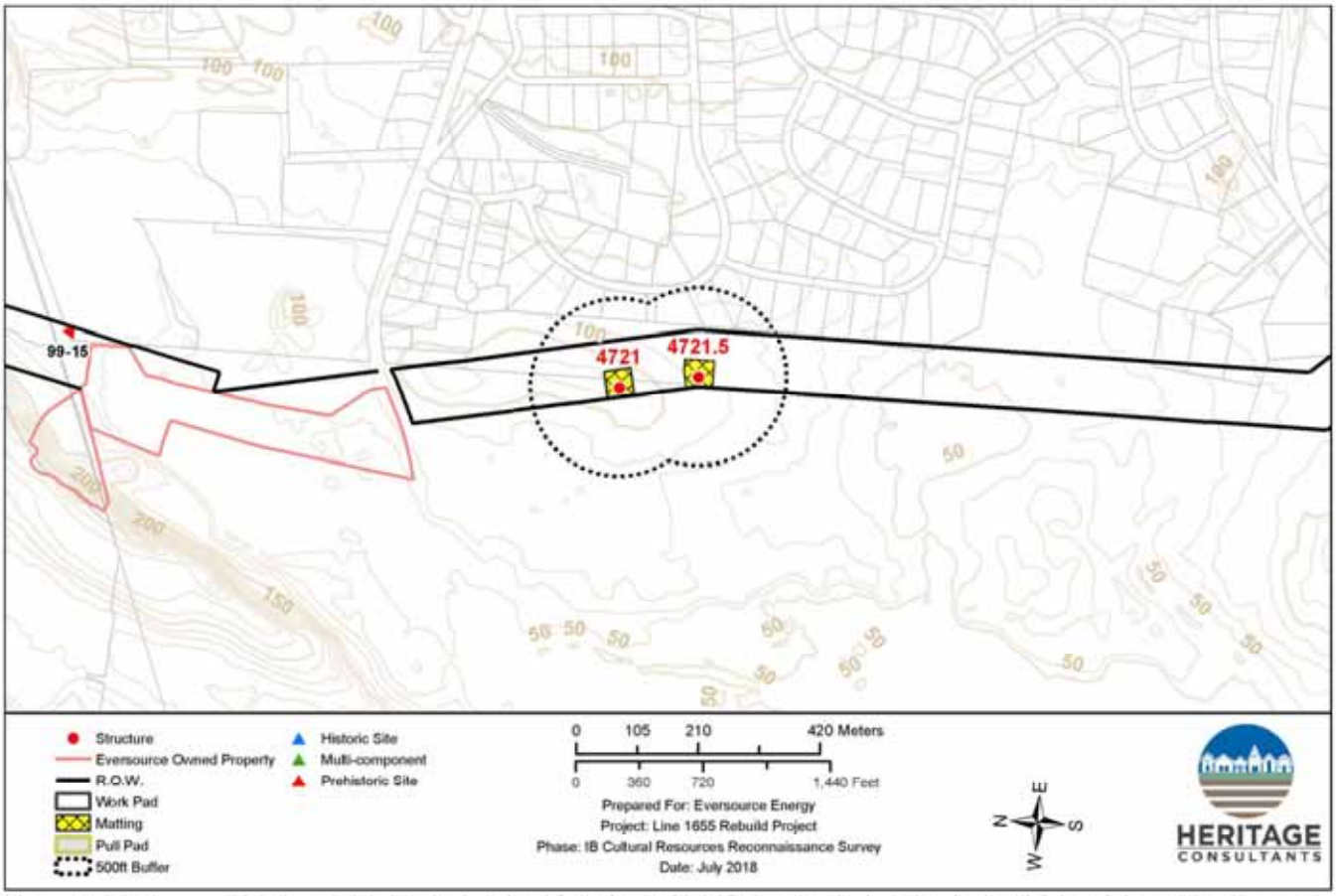

Pull Pad
4708
4709
4710
4711
99-15
Structure
Eversource Owned Property
R.O.W.
Work Pad
Matting
Pull Pad
500ft Buffer
Historic Site
Multi-component
Prehistoric Site
0 85 170 340 Meters
0 285 570 1,140 Feet
Prepared For: Eversource Energy
Project: Line 1655 Rebuild Project
Phase: IB Cultural Resources Reconnaissance Survey
Date: July 2018
HERITAGE
CONSULTANTS



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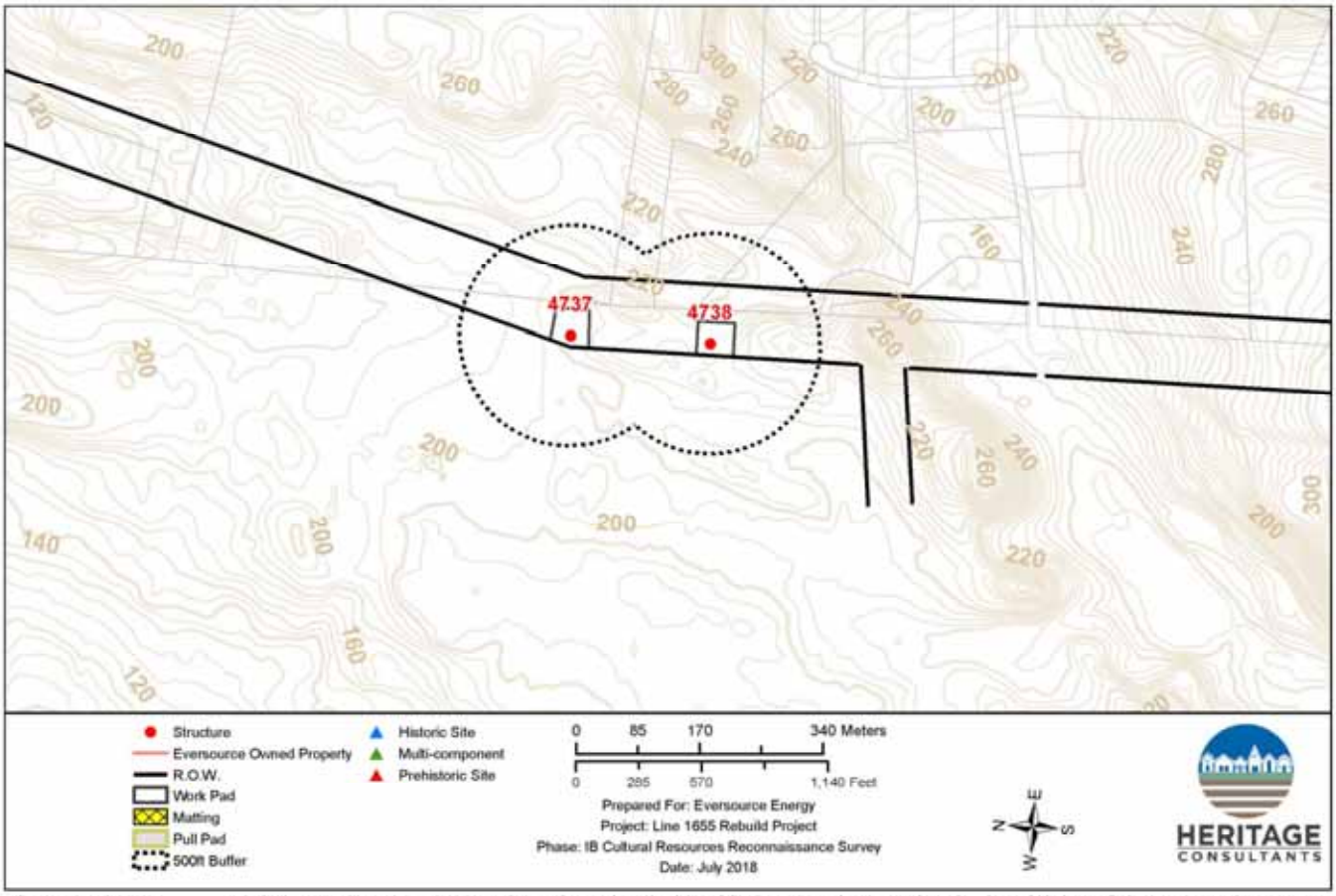

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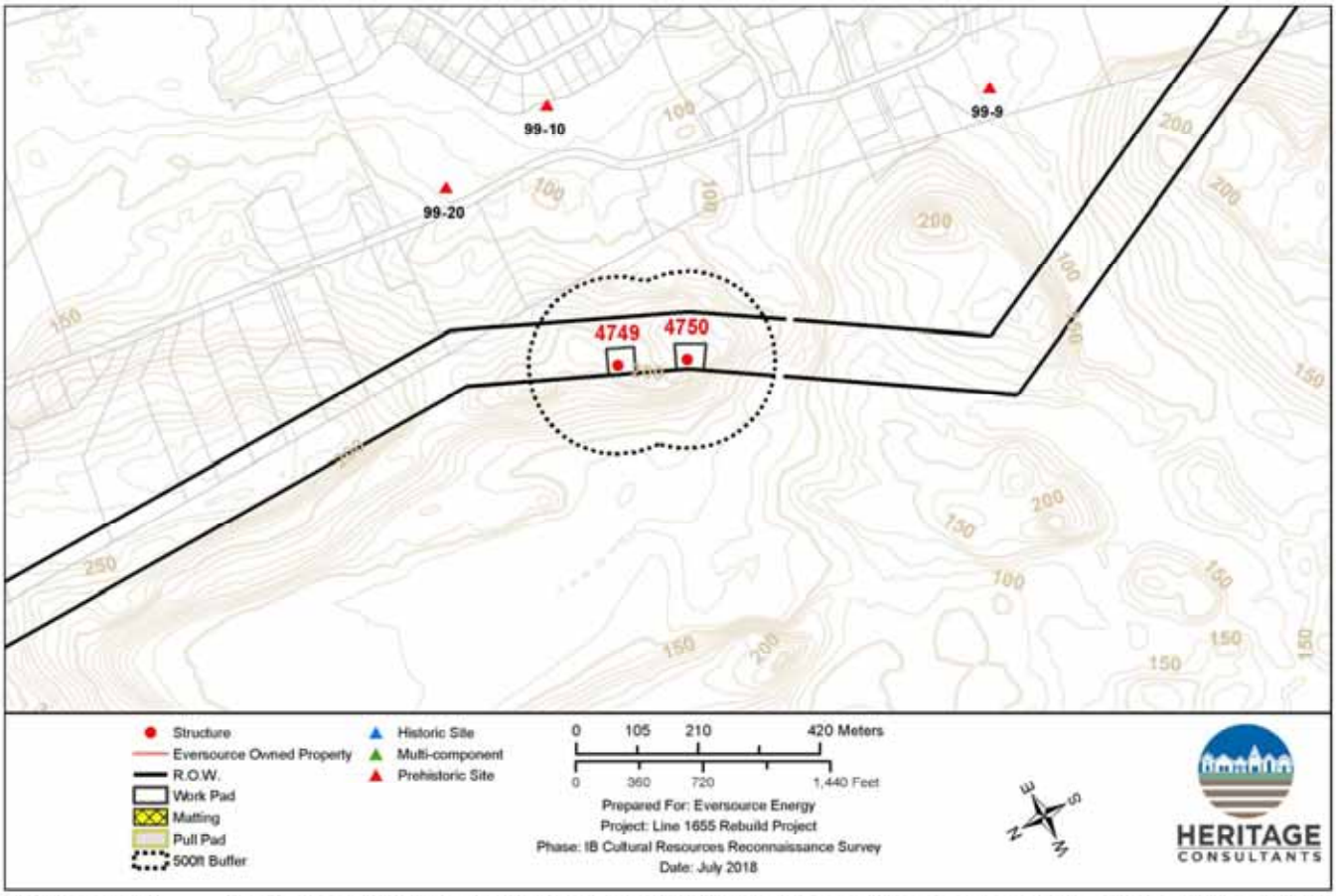

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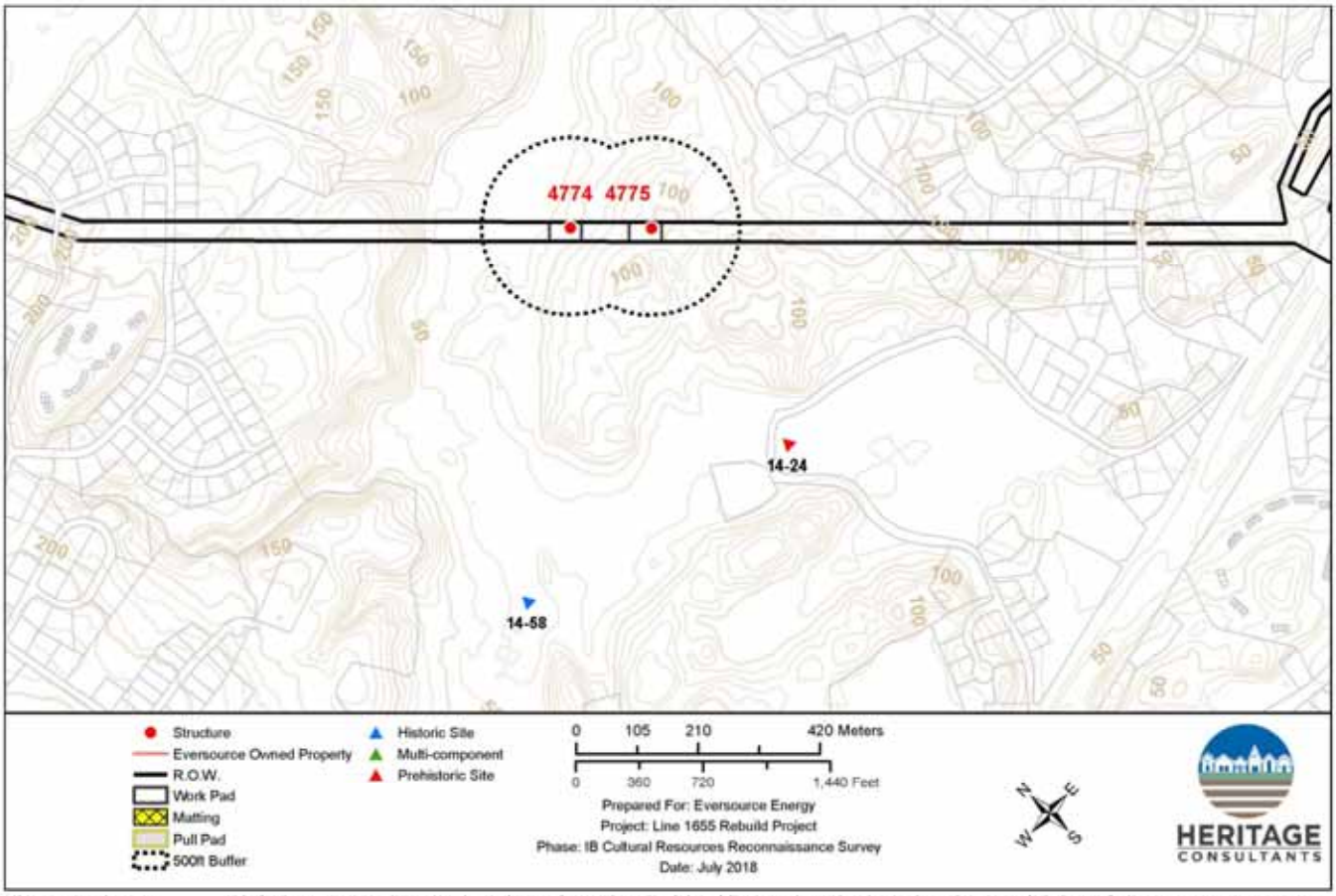

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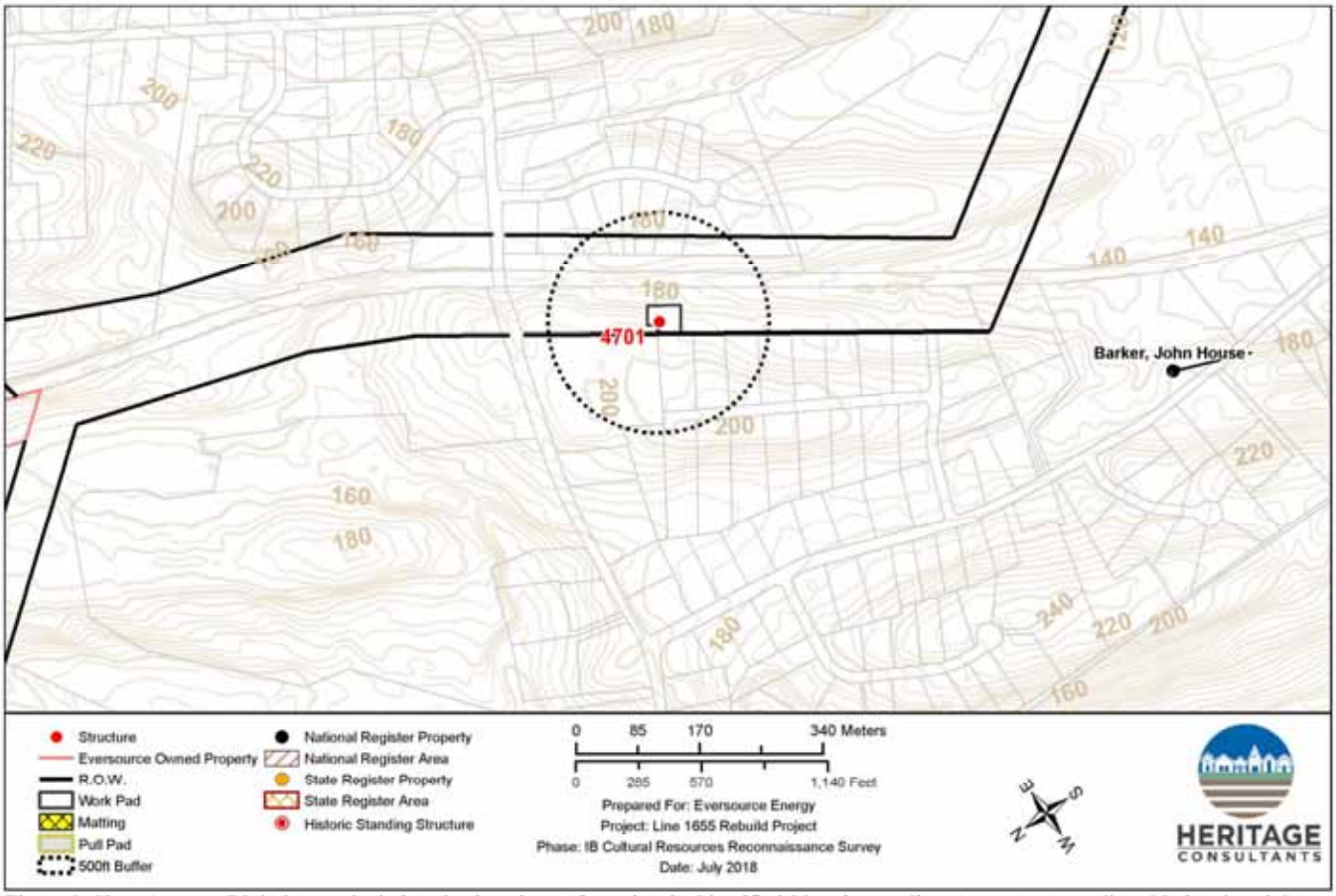

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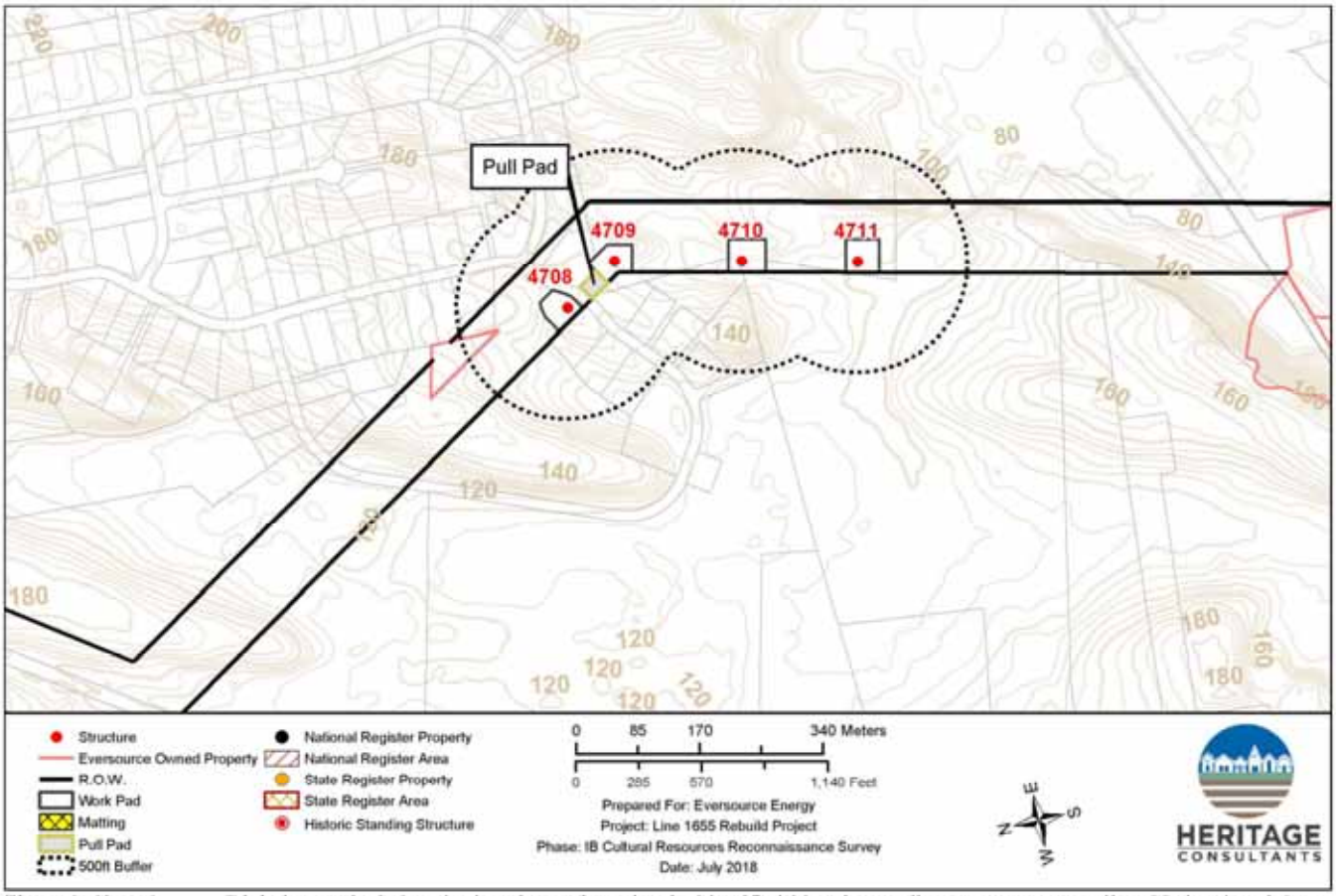
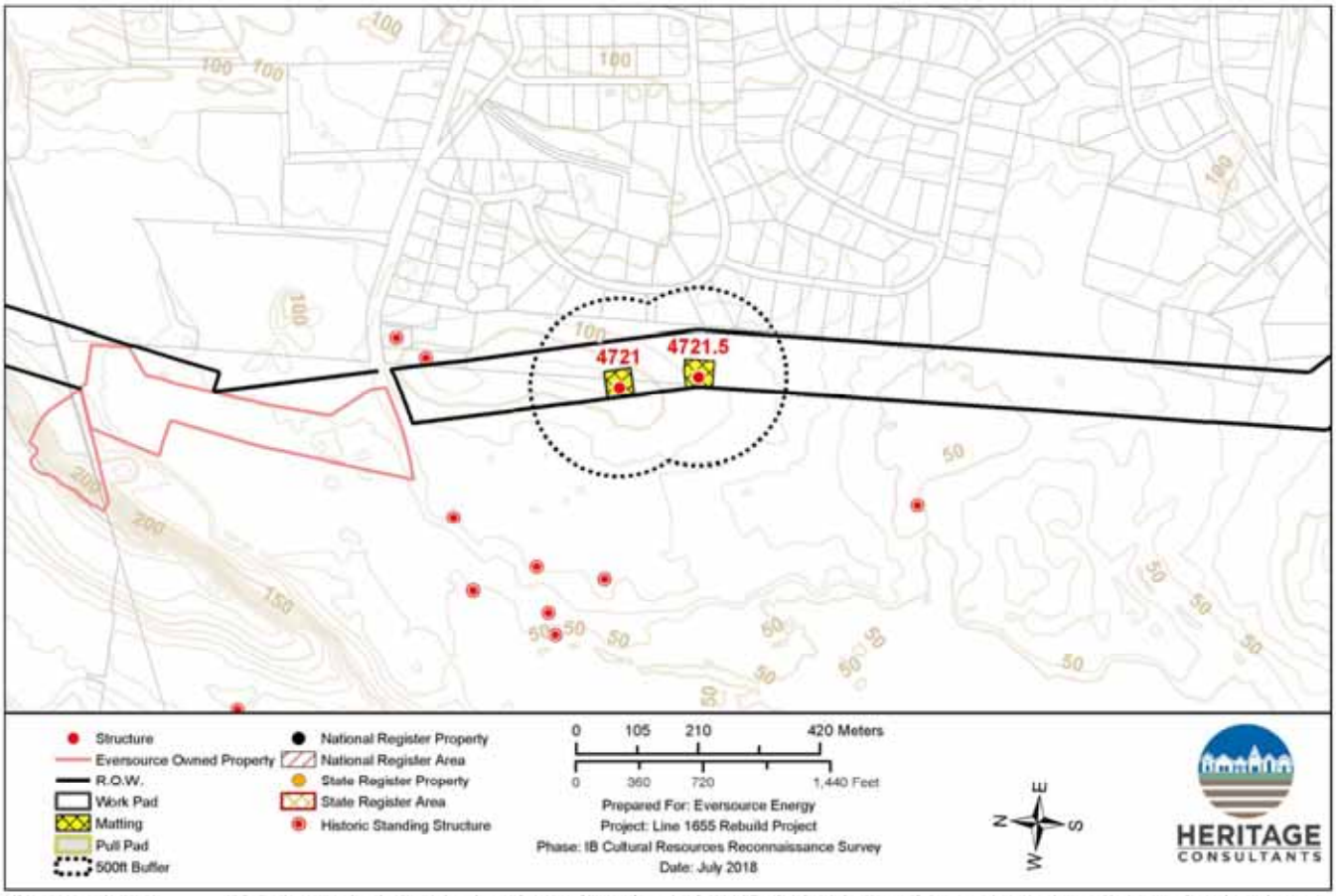


Figure 8; Sheet 2. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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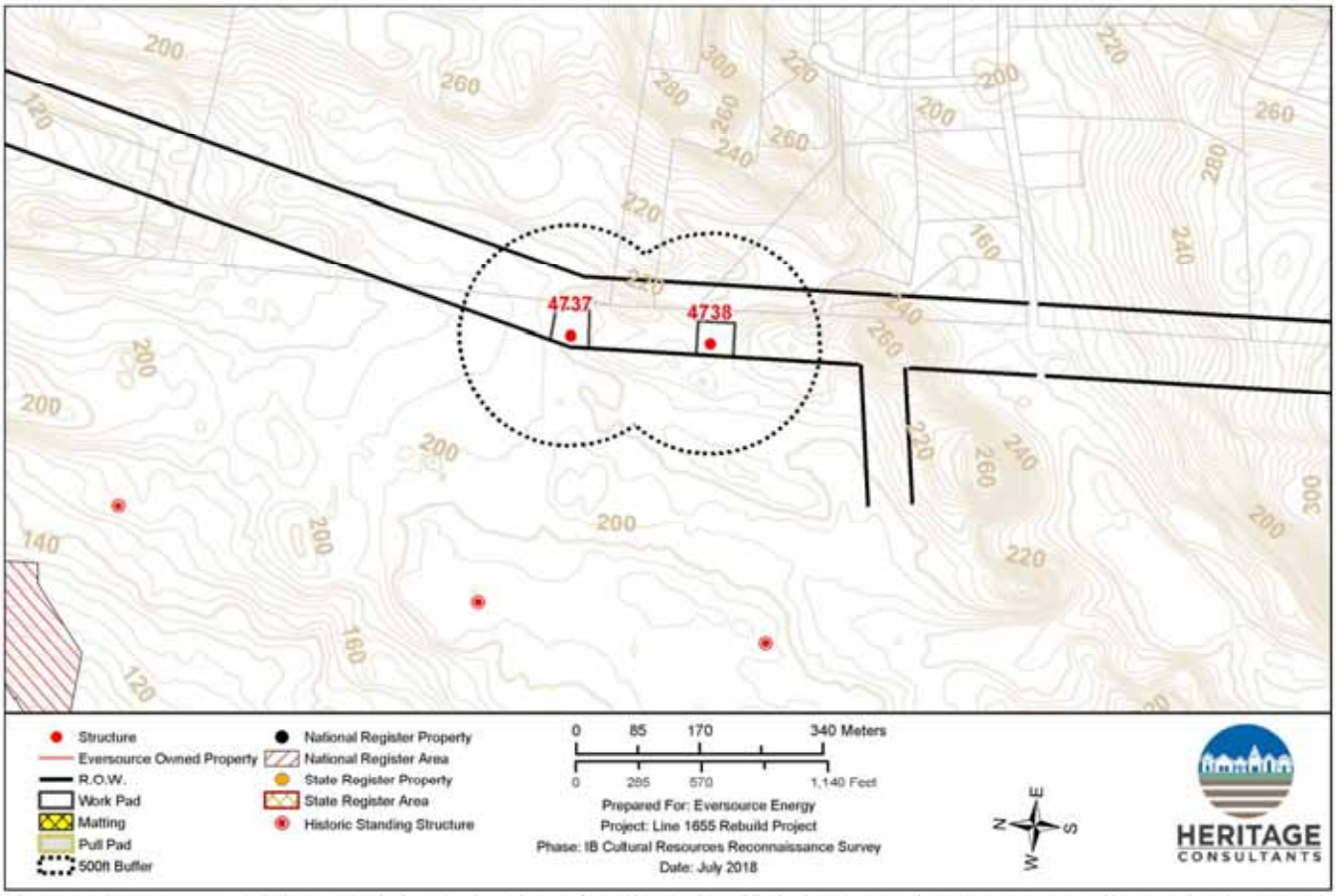

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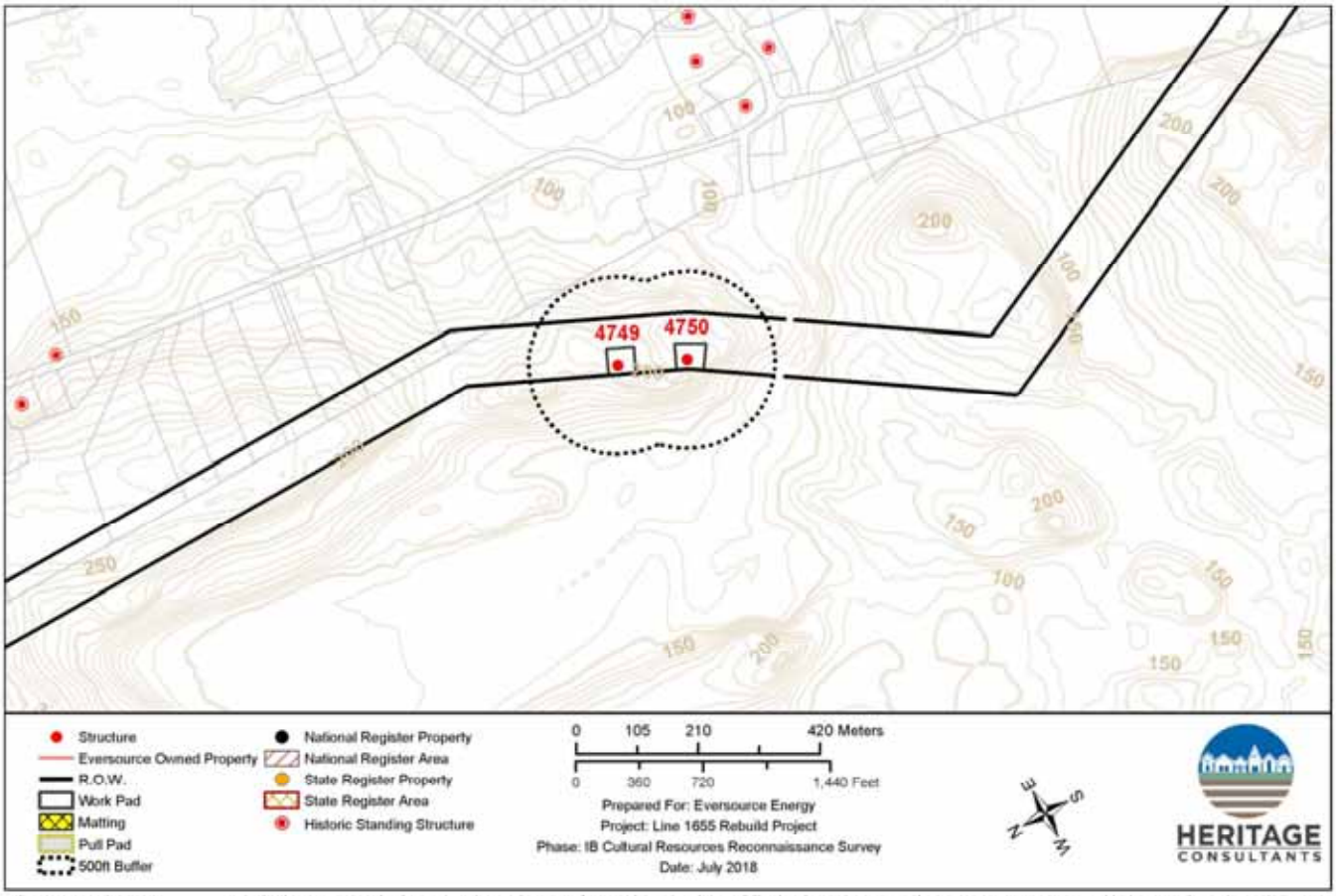

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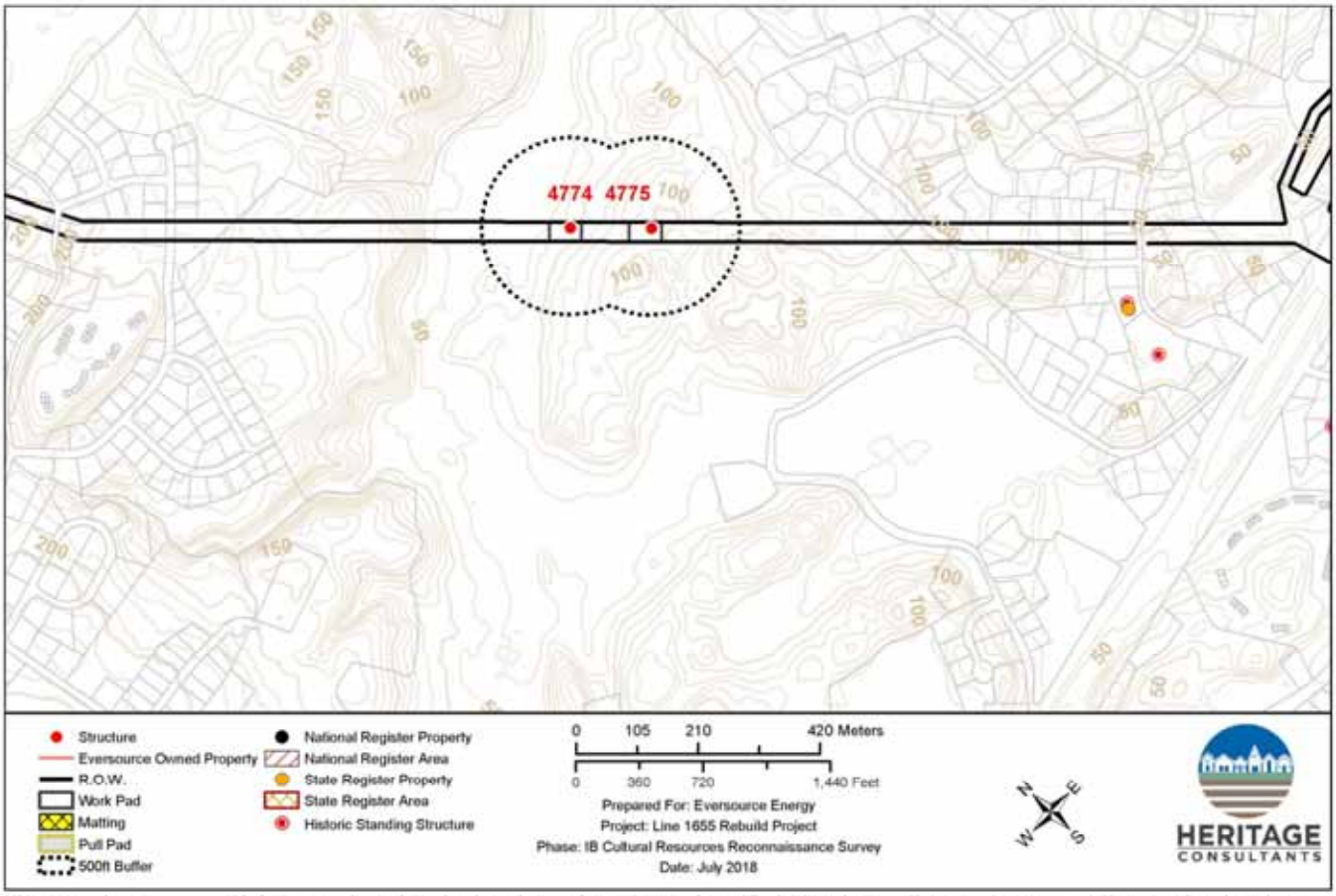

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ATTACHMENT C

JULY 2018

PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY OF PROPOSED STRUCTURE REPLACEMENTS ALONG LINE 1655 IN BRANFORD, NORTH BRANFORD, EAST HAVEN, NORTH HAVEN, AND WALLINGFORD, CONNECTICUT

PREPARED FOR:

EVERSOURCE ENERGY

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BERLIN, CONNECTICUT 06037

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NEWINGTON, CONNECTICUT 06131

ABSTRACT

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during July of 2018. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, North Haven, and Wallingford, Connecticut. Fieldwork completed during this investigation consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad area. Despite the field effort, no archaeological materials or cultural features were identified within any of the proposed project items. Thus, no additional archaeological examination of the 14 work areas along Line 1655 is recommended.

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1.0 Introduction

This report summarizes the results of a Phase IB cultural resources reconnaissance survey of 13 Eversource Energy (Eversource) replacement structures and a single proposed pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut. These included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709. Heritage Consultants, LLC (Heritage) completed the field investigation portion of this project in July of 2018 on behalf of Eversource. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the proposed project items associated with this undertaking, information used as project context, the methods by which the current Phase IB cultural resources reconnaissance survey was completed, results of the investigation, and management recommendations for the project.

2.0 Project Description and Methods

As mentioned above, the proposed structure replacements are situated in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut (Figure 1). The work areas associated with the proposed replacement structures and the pull pad were positioned at approximate elevations ranging from 50 to 150 m (164 to 492.1 ft) NGVD. The proposed work pads associated with the structure replacement locations measured 45.7 x 45.7 m (150 x 150 ft) in size while the pull pad area encompassed an area measuring approximately 30 x 30 m (100 x 100 ft) in size. These areas will be accessed using existing dirt and gravel thoroughfares. At the time of survey, the structure replacement areas and the pull pad location were characterized by low lying shrubs, bushes, and open fields. Field methodologies employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing within the portions of the proposed work areas contained low slopes and undisturbed soil deposits. The details of the field methods used, as well as the results of this field effort, are reviewed below.

3.0 Background Research

The current Phase IB cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the portions Branford, North Branford, North Haven, and Wallingford encompassing the work areas. This was followed by a review of all previously recorded archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties in the vicinity of the proposed replacement structures in an effort to determine the archaeological and historical context of the area. Finally, this approach entailed the completion of fieldwork associated with the current Phase IB cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the area encompassing the structure replacement areas and the pull pad; an examination of the pertinent 1996 USGS 7.5' series topographic quadrangle; and a review of all cultural resources data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within and/or immediately adjacent to the work areas. This information was used to develop the archaeological context for assessing cultural resources that may be identified during survey.

4.0 Project Context: Natural & Prehistoric Settings, Historic Overview and Previous Investigations

The following sections provide an overview of the region's natural setting, prehistoric context, and historic backdrop, as well as previous cultural resources investigations completed within the vicinity of the work areas. These brief discussions are included to provide contextual information relative to the locations of the proposed structure replacements, their natural characteristics, and their prehistoric and

historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

4.1 Natural Setting

The proposed structure replacement areas and the pull pad are situated within the Southwest Hills ecoregion, which consists of "coastal uplands, lying within 25 miles of Long Island Sound, characterized by low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography" (Dowhan and Craig 1976). Elevations in the Southwest Hills ecoregion generally range from 75.7 to 227.2 m (250 to 750 ft) NGVD (Dowhan and Craig 1976). The bedrock of the region is composed of schists, and gneisses deposited during the Paleozoic. Soils in the region have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys and upland areas (Dowhan and Craig 1976). Freshwater sources in this region include Eightmile Brook, Muddy River, Farm River, and the Quinnipiac River. Soils types in vicinity of the proposed structure replacement locations and the pull pad include Yalesville, Cheshire-Holyoke, and Branford, all of which are well drained, and when situated on low slopes and are not disturbed, retain the potential to yield archaeological deposits.

4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190±300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced gravers, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, gravers, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into four subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), Late Archaic (6,000 to 3,700 B.P.), and Terminal Archaic (3,700 to 2,700 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from high quality lithics, though some quartz and quartzite specimens have been recovered. Current archaeological evidence suggests that Early Archaic groups became more focused on locally available and smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a "diversity of site types, with both large-scale occupations and small special purpose present" (McBride 1984:96). Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archaeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified, they generally encompass less than 500 m^2 in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to "settle into" well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually "killed" (intentionally broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as "characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations" (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting "population aggregations along major rivers, interior lakes, and wetlands" (McBride and Soulsby 1989:50). In sum, archaeological evidence indicates that Early Woodland populations consisted of mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archaeologically by the use of narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. The ceramic types dating from the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine ecozones. Both river confluences and coastal zones were favored areas for the establishment of large village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary

and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by "1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks" (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

4.3 History of the Proposed Project Region

The proposed project items consist of 13 structure replacement and a single pull pad situated along Line 1665. The relevant segment of the electrical transmission line begins in Wallingford and passes along the borders between North Haven, North Branford, and East Haven before terminating in Branford, Connecticut. The structure locations and the pull pad are relatively close to the major modern transportation arteries of Interstates 91 and 95, and, as a result, the areas containing them have been heavily developed during the latter part of the twentieth century.

Native American History

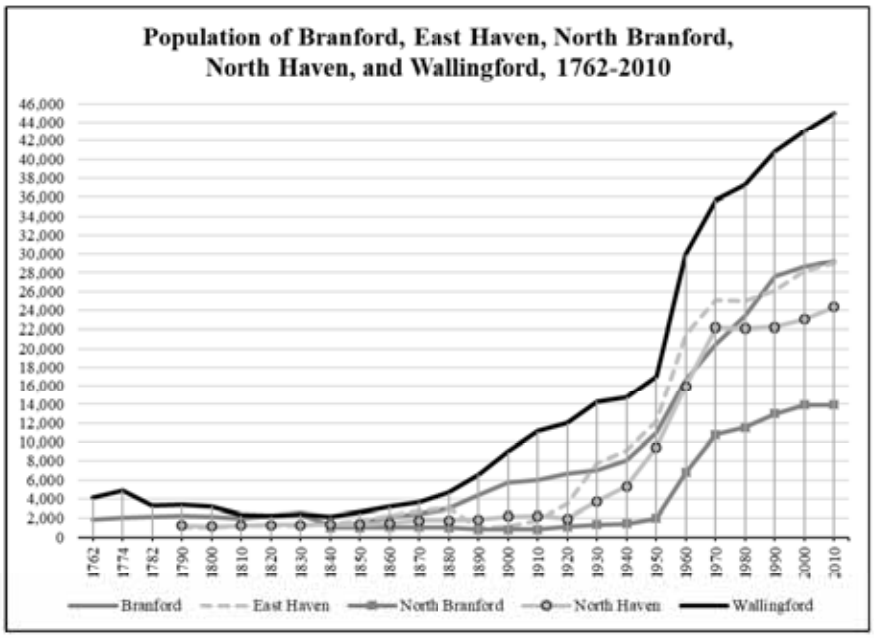
The area that became Wallingford was part of the New Haven Colony's 1638 treaties and 1645 agreement with the sachems Momauguin and Montowese, which included a large swath of the central coastal region of Connecticut between East Haven and Branford and extending northward to Wallingford and Meriden (Osterweis 1953). According to the Treaty of 1638 with Momauguin and the Quinnipiacs, this transfer was made out of gratitude for the English colonists' protection and support against the Pequots. As a result of the treaty, Indians reserved a small area for planting and the right to hunt and fish across the rest; it has been suggested by historians that they did not know that the colonists' lifeways were so incompatible with their own. The Quinnipiacs' reservation was in the present town of East Haven, where the last sachem recognized by the Euroamerican settlers died in either 1730 or 1740. Some years later, ca., 1768, a number of the Quinnipiac tribal members sold their land in East Haven and moved to north to join the Tunxis Indians at Farmington (De Forest 1852).

There was also a separate 1638 agreement with Montowese, which transferred an area called Totoket that consisted of 13 miles east to west, on both sides of the Quinnipiac River, and 10 miles north to south. This transfer was made in exchange for some goods, a small reservation of land, and hunting rights (De Forest 1852). This is the area that contained the future Towns of Wallingford and Branford (Crofut 1937). This deed was renewed in 1645, and in 1861 Montowese's sister and others received an unspecified sum of money to clear the town's title to this tract (Davis 1870). In 1685, a supplemental and confirmatory deed to Branford's area was obtained. Part of the area of Branford known as Indian Neck was retained by the Native Americans as a reservation, and for a time an individual Indian named Pawson owned 34 acres

of land nearby, which later became a public picnic ground called Pawson's Park (Crofut 1937). What became of Montowese and his people has not been recorded (De Forest 1852). Chances are that, like the Quinnipiacs, they stayed in the area for some time but eventually wearied of trying to compete with the colonists and moved on.

Colonial Era History (to 1790)

As mentioned above the proposed structure replacement areas are situated in portions of Branford, North Branford, East Haven, North Haven, and Wallingford. The New Haven Colony, which was the first English Colony established in this part of Connecticut, was founded in 1638 by two Englishmen, Pastor John Davenport and Master Theophilus Eaton, who preferred a new colony over the established Massachusetts Bay or Plymouth Colonies to satisfy their religious and commercial ambitions. They brought 300 colonists with them and quickly established the center of the present city of New Haven (Hill 1918). They also made the land purchases referenced above, which included an area much too large for convenient administration during the colonial era. As a result, the new Town of Wallingford was set off from New Haven in 1670. The colonists first settled a little to the west of the geographic center of the town, on the east side of the valley of the Quinnipiac River, and settled their boundaries with New Haven in 1674 (Crofut 1937). With its two elevated ridges of land, Wallingford was an early site of mining enterprises in Connecticut, beginning in 1712 and 1737; however most of this activity seems to have taken place in the areas that are now Cheshire and Meriden (Davis 1870). At the time of the first U.S. Census in 1790, the town had a substantial 3,375 residents (see the population chart below; Keegan 2012).



East Haven, first known as East Farms, was colonized by a large group in 1639 and acquired the status of a Congregational ecclesiastical society in 1680. Just over 100 years later, in 1785, the community secured town status (Hill 1918). Colonists probably began settling in the North Haven by the 1650s or 1660s, but settlement accelerated after New Haven distributed areas of land in the area in 1680, and 200 people lived in the area by 1715. In that year, the Northeast Parish of the Congregational Church was established; it became the separate town of North Haven in 1786 (Brusic 1986). At the 1790 census, East Haven had 1,025 residents and North Haven had 1,236; in contrast, New Haven had 4,484 people (see the population chart above; Keegan 2012). The original main village of North Haven was near the center of town, while

that of East Haven was in the south part of the town (Figure 2; Sheets 1 through 6). The locations of these villages, and that of Wallingford, are quite distant from the locations of the proposed structure replacements.

Branford was founded in 1644, after the colony of New Haven gave the right to settle there to a group from Wethersfield; it was formally recognized as being a separate settlement of that name in 1653. North Branford did not become a separate town until after the colonial era, but the village of North Branford in its southeast corner probably was established before 1700, and the smaller village in the north-central part of town (Northford) by ca., 1720 (Crofut 1937). Again, these locations of higher population density are well away from the proposed project items. Branford grew steadily through the colonial period, reaching a population of 2,267 as of 1790 (see the population chart above; Keegan 2012). Although the two coastal towns had river access to the Sound, like the inland towns (and, in fact, most other settlements of the era) their economies focused on agricultural, timber, fishing, and occasionally mining or quarrying production, most of it for local or regional consumption rather than export.

Early National and Nineteenth Century History (to 1900)

An 1819 gazetteer reported that Wallingford had good alluvial soil along the Quinnipiac River, and that grains, flax, potatoes, cider apples, and broom corn were grown there. The river also provided water power to support a woolen factory and two metal spoon factories, among other firms (Pease and Niles 1819). Railroads were an important key to Wallingford's economic growth in the nineteenth century. The Hartford & New Haven Railroad company was chartered in 1832 began building in 1837 despite a national financial crisis. The 18-mile segment between New Haven and Meriden opened in 1838 and eventually it connected to Hartford and Springfield. The rail corridor between Hartford and New Haven, now operated by Amtrak, is one of the few surviving passenger lines, and it also supports Conrail freight traffic. The Air Line, which passes through eastern Wallingford (and not far from the proposed project items) was constructed in 1846 but was not built from New Haven to Middletown until 1870, some of which is still actively used. In an 1856 county map, the proposed Air Line appears as a dotted line just east of Structure 4701; otherwise the nearest, but not very near, buildings were a school house ("S.H.") and an unlabeled building. Structures 4708, 4709, 4710, and 4711, as well as the pull pad, are in an area the map identified as a forested hill, with no buildings nearby (Figure 2; Sheet 2). The 1868 town map omitted the Air Line (which was a dormant project at the time) and shows School No. 7 and the home of Mrs. B. Doolittle north of Structure 4701; the other structures still had nothing nearby (Figure 3; Sheet 1). These maps show that the town's urban and industrial development – its silver ware, wire, rubber, fireworks, and other factories, municipal buildings, clubs, banks, etc. – were located elsewhere, leaving the project item in a rural and agricultural area (Hill 1918). These industrial activities, aided by the railroads, allowed Wallingford's total population to grow steadily throughout the century, from just over 2,000 in 1840 to 9,001 in 1900 (see the population chart above; Keegan 2012).

East Haven's population rose to 3,057 in 1880 before dropping abruptly to 955 in 1890 and recovering only a little by 1900 (see the population chart above; Keegan 2012). This reflects the transfer of East Haven's territory (and population) west of the Quinnipiac River back to the adjacent City of New Haven in 1881, provoked by the debt incurred by building a bridge across that river. Although various industries were attempted on East Haven's rivers, no large ones survived for very long and the town remained overwhelmingly agricultural (Hill 1918). The 1856 county map shows that the location of Structures 4749 and 4750 was between north-south roads and not close to any recorded farm buildings, and the 1868 town maps show exactly the same situation (Figures 2; Sheet 5 and Figure 3; Sheet 5).

North Haven, in partial contrast, did not see its population cross the 2,000 mark until 1900, when it had 2,164 residents (see the population chart above; Keegan 2012). The village of Clintonville, at the northeast corner of town, once hosted some industry, starting in 1830 with a factory making farm implements; others followed, but over the century mostly passed away (Hill 1918). The 1856 county map

is unfortunately so inaccurate that it appears that Structures 4737 and 4738 were in North Branford or East Haven instead of North Haven, although it could be that the towns' boundaries have changed since the map was made. Regardless, the location of the roads makes it clear that the structures' location is well away from any historic development (Figure 2; Sheet 4). The town boundary issues continued with the 1868 town maps, in which the two structures appear to be located outside the boundaries of both North Haven and North Branford; but the maps are consistent in depicting no buildings near the town line area (Figure 3; Sheet 3). One industry that did survive through the century was brick making, but the maps show no such activity nearby the proposed project items (Hill 1918).

According to the 1819 gazetteer, Branford's agriculture concentrated on corn, and it had a small harbor that would accommodate ships up to sixty tons and supported a thriving fishing industry as well as a modest amount of shipping along the coast. Most of the town's industrial activity was in processing agricultural products, though there was also a small furnace. The 30-house village had a post office and shops (Pease and Niles 1819). North Branford officially became a separate town in 1831, but as the population chart shows, the census counted its people separately in 1830. In the 1830s Branford's village had an academy and churches for Congregational and Episcopal congregations, but not many other buildings; it had an eight-ship fishing fleet that traveled to Maine for the salmon fishery. North Branford in the 1830s had its village of the same name in the southern part, and good soil for agriculture (Barber 1837). Although Branford's economy stayed focused on agriculture, it also developed an iron industry based on imported iron and the coastal railroad (built in the 1830s), which by the end of the century was represented by one large company. The town's other main industry, as the urban middle class increased in numbers, came to be coastal summer resorts (Hill 1918). As seen in Figure 2; Sheet 6, Structures 4774 and 4775 were a little way (but more than 500 feet) east of a road and three probable farm buildings strung along the west side of it, in an area with only scattered buildings. Both the road and the houses, and the low building density, were still present in the 1868 historic map (Figure 3; Sheet 6). North Branford changed only a little over the century, mainly by beginning to attract holiday residents with its rural charms. The Northford section developed some modest industry, based on water power from the Farm River and its position on a main road to Middletown (Hill 1918). The 1856 map shows North Branford's Structures 4721 and 4721½ as lying between (and well away from) two north-south roads, one in North Branford and one in North Haven (Figure 2; Sheet 3). Figure 3; Sheet 3 only shows the North Branford side of the picture, but there is no sign of any new east-west roads that might have complicated things; the two structures were not close to any recorded buildings. Overall, the differences between these two towns can be seen most starkly in the population chart above: while North Branford's population lingered around or under 1,000 residents and stood at only 814 in 1900, Branford grew steadily after 1840 to reach 5,706 in 1900 (Keegan 2012).

Modern History (to present)

A 1932 summary of information about Connecticut towns included agriculture at the end of a list of Wallingford's manufacturing that still ranged from silver goods to hardware to fireworks (Connecticut 1932). This is reflected in the 1934 aerial photography showing that Structure 4701's location was a cleared or reforesting field, while the other four structures stand where there was forest that may never have been fully cleared (though it could have been logged for fuel) (Figure 4; Sheets 1 through 6). Like other towns that had a solid industrial base, Wallingford continued to grow after 1900, reaching 16,976 residents by 1950; then suburbanization made the population more than double to 35,714 as of 1970, and though it has grown more slowly since then, in 2010 its population was 45,030 (see the population chart above; Keegan 2012). The 1951 aerial photography indicates that the population growth had not yet reached the project items, as the structures were still in a cleared field and a forest, respectively, although the forest showed signs of recent logging (Figure 5; Sheets 1 through 6). By 2016, however, the utility right-of-way had appeared and even the forested area was surrounded by housing subdivisions and other development (Figure 6; Sheets 1 through 6). In the twenty-first century, Wallingford still has substantial manufacturing employment but very little in agriculture, as the development near the proposed project

items suggests, and the still-rising population suggests that any surviving open space is under development pressure (CERC 2006).

In the early part of the twentieth century, trolleys made East Haven's shore accessible to New Haven visitors (Hill 1918). This caused a substantial burst of population growth over the first three decades, to 7,815 in 1930; then after the Depression and the development of automobile transport, very rapid growth from 1940 to 1970, when it reached 25,120. Since then population growth has slowed and as of 2010 it stood at 29,063 (see the population chart above; Keegan 2012). The 1932 statement that the town's only industry was agriculture indicates that early resort development and suburbanization are the best explanation for the early population growth (Connecticut 1932). The 1934 aerial photograph shows the location of Structures 4749 and 4750 as in or near either a farm field or a large woodlot (Figure 4; Sheet 5; the overall area had both large areas of farms and large areas of woods and swamp (Figure 4; Sheets 1 through 6). In 1951, the woodlot had apparently been partially cleared or logged, but the area was substantially the same (Figure 5; Sheets 1 through 6). In 2016, the area shows as have a wide mixture of uses, from a sand and gravel quarry to farms and woods, and also some housing development (Figure 6; Sheets 1 through 6). Whether this will change in the future is unclear.

North Haven's industries in 1932 included brick making, printing, and wood products for carriages as well as agriculture (Connecticut 1932). As these industries did not raise its population much during the previous century, during the twentieth century the population stayed small – dipping to 1,968 in 1920 – until trolley and then automobile technology began pushing it up, to 5,326 in 1940 and 22,194 in 1970 (an over 400 percent increase) before it mostly leveled off and stood at 24,374 in 2010 (see population chart above; Keegan 2012). Unsurprisingly, the 1934 aerial photography shows the locations of Structures 4737 and 4738 as being in or near the edge of cleared agricultural fields, with large areas of farms to the west and an area of forest to the east (Figure 4; Sheet 4). This had not changed in the 1951 aerial photography, and by 2016 there was still some working farm area nearby, in addition to housing developments on both the west and east sides (Figures 5; Sheet 4 and Figure 6; Sheet 4).

The 1932 town summaries stated that Branford's industries included agriculture, malleable iron goods, steel items, wire, and shirts (Connecticut 1932). The 1934 aerial photograph series shows the area of Structures 4774 and 4775 as forested and north of a new reservoir, which seems to have caused the removal, or at least abandonment, of the road and houses that once lay west of the project items (Figure 4; Sheet 6). Otherwise the only notable items here were a small cleared area just west of the structures, with an apparent structure of unknown purpose on it, and an apparent cleared utility right-of-way running southeastward from Structure 4775 (Figure 4; Sheets 1 through 6). The 1932 town information reported North Branford's sole industry as agriculture (Connecticut 1932). The 1934 aerial photography recorded the area of Structures 4721 and 4721½ as in the midst of cleared agricultural fields and an occasional woodlot, with the nearest farmstead well away to the west (Figure 4; Sheet 3). Branford's population increased slowly through 1940, then began increasingly very rapidly to 27,603 in 1990, and then slowed again to only reach 29,243 by 2010. Similarly, North Branford saw very slow growth through 1950 and then very rapid growth to 10,778 in 1970, followed by slower growth to 13,944 as of 2010 (see the population chart above; Keegan 2012). These trends are consistent with the suburbanization of areas near cities and in coastal areas in the United States from about 1940, abetted by transportation improvements, especially the construction of limited-access highways such as Interstates 95 and 91 in the vicinity of these towns. The location of Branford's two structures near reservoirs, however, seems to have protected the vicinity from development, aside from utility infrastructure; both the 1951 and 2016 aerial photographs show the structures surrounded by woods, except for the cleared utility right-of-way (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). The North Branford structures are located in an area that remained cleared fields in 1951, and also in 2016 – except that in the latter case, the utility right-of-way seems to be the only agricultural area, flanked on both sides by dense housing developments (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). Although both towns are still growing

slowly, the vicinity of the Area of Potential Effect in these cases appears to be protected from development (Branford) or almost fully developed (North Branford).

Conclusion

The documentary record indicates that it is unlikely that significant historic resources will be disturbed by the proposed structure replacement project. Certain structures, being located in or near places that were agricultural fields in 1934, may hold less-significant remains of farming activity such as stone walls or fencing (Structure 4701 in Wallingford, Structures 4721 and 4721½ in North Branford, Structure 4737 and possibly 4738 in North Haven, and Structure 4749 and possibly 4750 in East Haven). The wooded locations may show signs of past logging activities or undocumented farming work.

4.4 Previous Investigations

As mentioned above, the current effort also involved an examination of State Historic Preservation Office records as they pertain to archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties situated within 152 m (500 ft) of the proposed structure replacement areas (Figures 7; Sheets 1 through 6 and Figure 8; Sheets 1 through 6). In addition, the electronic site files maintained by Heritage also were examined during the investigation. This review failed to identify any previously recorded cultural resources within 152 m (500 ft) of Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 or the proposed pull pad in the vicinity of Structure 4709.

5.0 Field Methods

Following the completion of all background research, the work areas were subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide thorough coverage of all portions of the proposed structure relocation areas, work pads, and the single pull pad. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the work areas. Those structure replacement locations or any portions of them that were found to contain steep slopes, wet areas, or have been previously disturbed were subjected to pedestrian survey and photo-documentation only; no shovel testing was completed in these areas.

For those work areas that contained low to moderate slopes and well drained soils, the subsurface testing portion of this investigation involved the excavation of shovel tests in the testable portions of the work areas scheduled for construction related impacts. This included the placement of shovel tests situated 3 m (10 ft) on either side of the vertical poles constituting the structures along Line 1655, as well as the placement of shovel tests in each of the corners of the proposed work pads and the pull pad. During survey, each shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size and each was excavated to a depth of 50 cmbs (19.7 inbs) or until glacially derived C-Horizon or wet soils were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archaeological recordation process.

6.0 Curation

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with:

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7.0 Results of the Investigation

As mentioned above, the current project entailed a Phase IB cultural resources reconnaissance of 13 proposed structure replacements and a single pull pad located along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut, Connecticut (Figure 1; Sheets 1 through 6; Table 1). Fieldwork for this project was initiated through a pedestrian survey of all 14 proposed project items. The purpose of the visual reconnaissance was to determine which of the work areas were situated on level to moderate slopes, characterized by well drained soils, and were located near a freshwater source, thus indicating that they retained a moderate/high archaeological sensitivity. The results of the pedestrian survey revealed that all of the proposed structure replacement locations and the pull pad fell within moderate/high sensitive areas for archaeological deposits and should be subjected to Phase IB shovel testing.

Table 1. List of structure replacements and Phase IB testing results.

Structure Number	No. of Shovel Tests Excavated	No. of Shovel Test Planned	Reason for Unexcavated Shovel Tests	Results
4701	5	8	Slopes	No Cultural Materials or Features
4708	5	8	Slopes	No Cultural Materials or Features
4709	4	8	Slopes	No Cultural Materials or Features
4710	4	8	Wet/Rocky	No Cultural Materials or Features
4711	5	8	Wet	No Cultural Materials or Features
4721	6	8	Disturbance	No Cultural Materials or Features
4721 ½	6	8	Crops	No Cultural Materials or Features
4737	2	8	Push Piles	No Cultural Materials or Features
4738	7	8	Slopes	No Cultural Materials or Features
4749	2	8	Disturbance	No Cultural Materials or Features
4750	4	8	Disturbance	No Cultural Materials or Features
4774	0	8	Gravel pad in place	No Cultural Materials or Features
4775	0	8	Exposed Bedrock; Disturbance	No Cultural Materials or Features
Pull Pad 1	15	16	Disturbance	No Cultural Materials or Features

A total of 65 of 120 (54 percent) planned shovel tests were excavated throughout the Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 areas, as well as within the area encompassing pull pad in the vicinity of Structure 4709 (Table 1). The 55 planned but unexcavated shovel tests fell within previously disturbed areas, on steep slopes, and/or within very rocky or wet areas. A typical shovel test profile exhibited three strata in profile and it extended to a depth of 70 cmbs (28 inbs). Stratum I, the A-Horizon, extended from 0 to 20 cmbs (0 to 8 inbs) and consisted of a layer of brown (7.5YR 5/4) silty loam. Stratum II, the B-Horizon, reached from 20 to 60 cmbs (7.2 to 24 inbs) and it was characterized as a deposit of strong brown (7.5YR 5/8) silty sand. Finally, Stratum III, the glacially derived C-Horizon, was classified as a deposit of olive brown (2.5Y 4/4) coarse sand and pebbles; it was excavated to a terminal depth of 70 cmbs (28 inbs). Despite the fieldwork effort, no evidence of cultural features was identified

within any of the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered from the proposed replacement areas associated with proposed work areas along Line 1655.

8.0 Summary and Management Recommendations

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during August of 2017. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad area along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut (Figure 1). Fieldwork for this project consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad. Despite completion of the fieldwork, no cultural materials or cultural features were identified. Thus, no additional Phase IB cultural resources survey of any of the project items along Line 1655 is recommended.

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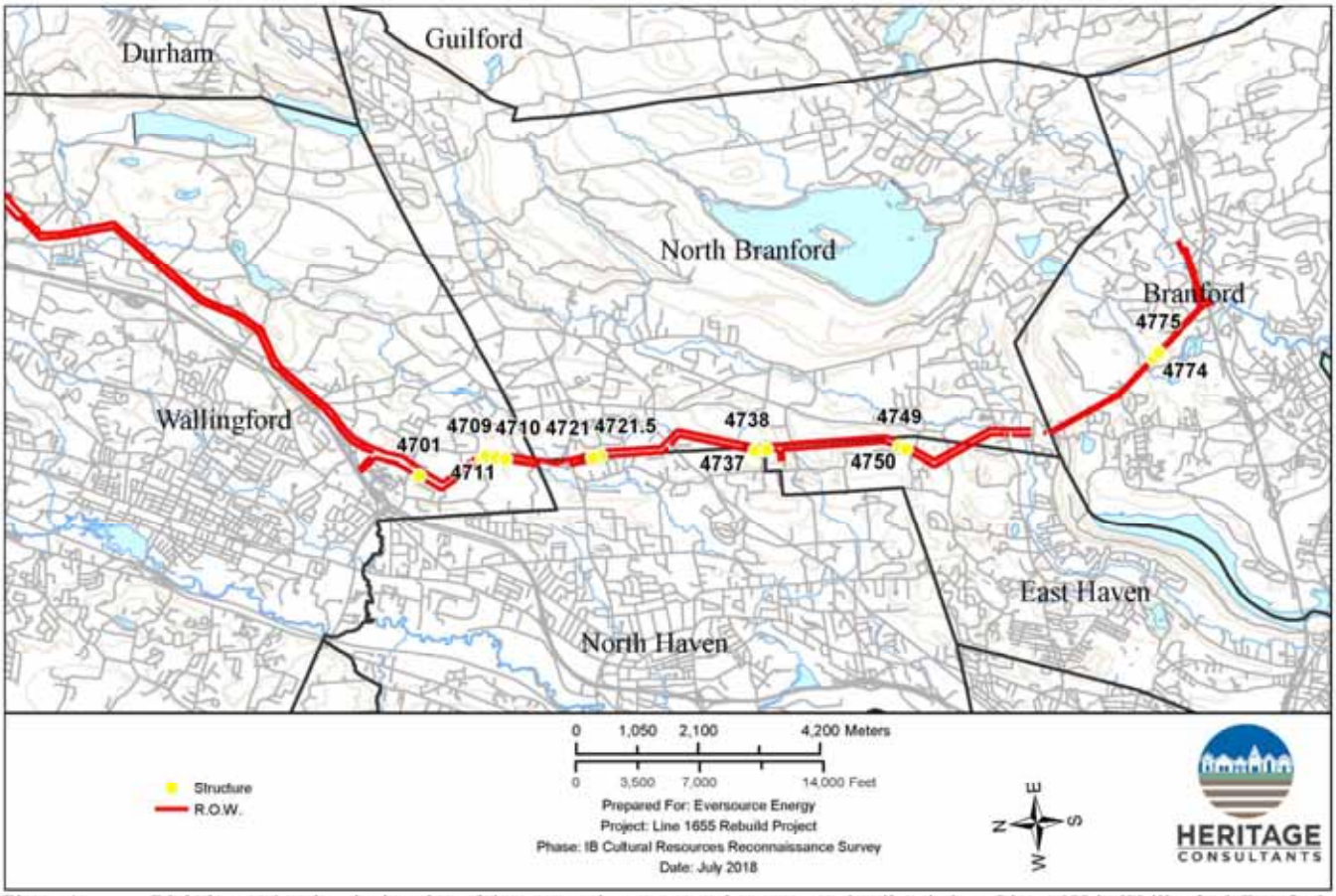


Figure 1. Digital map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

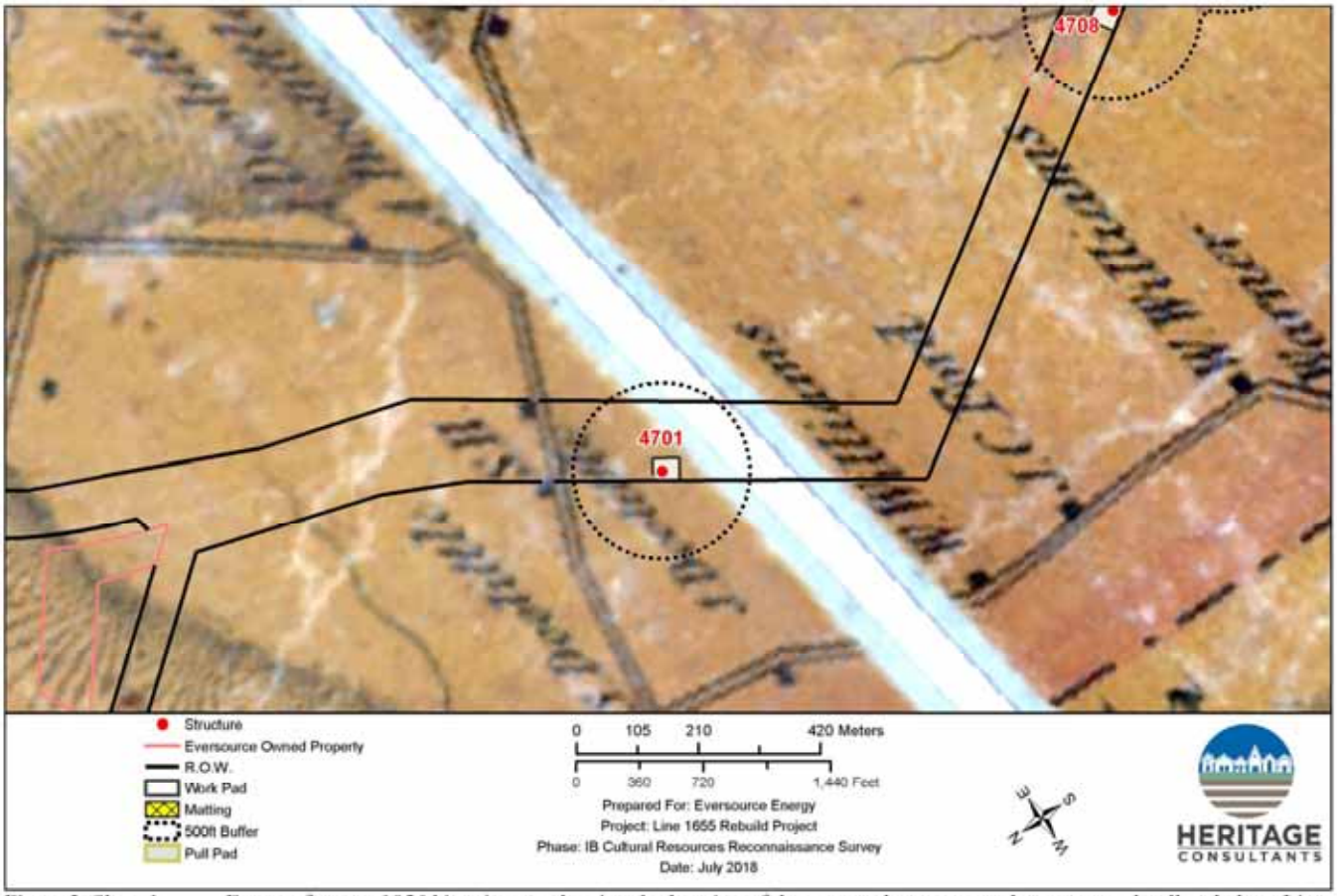
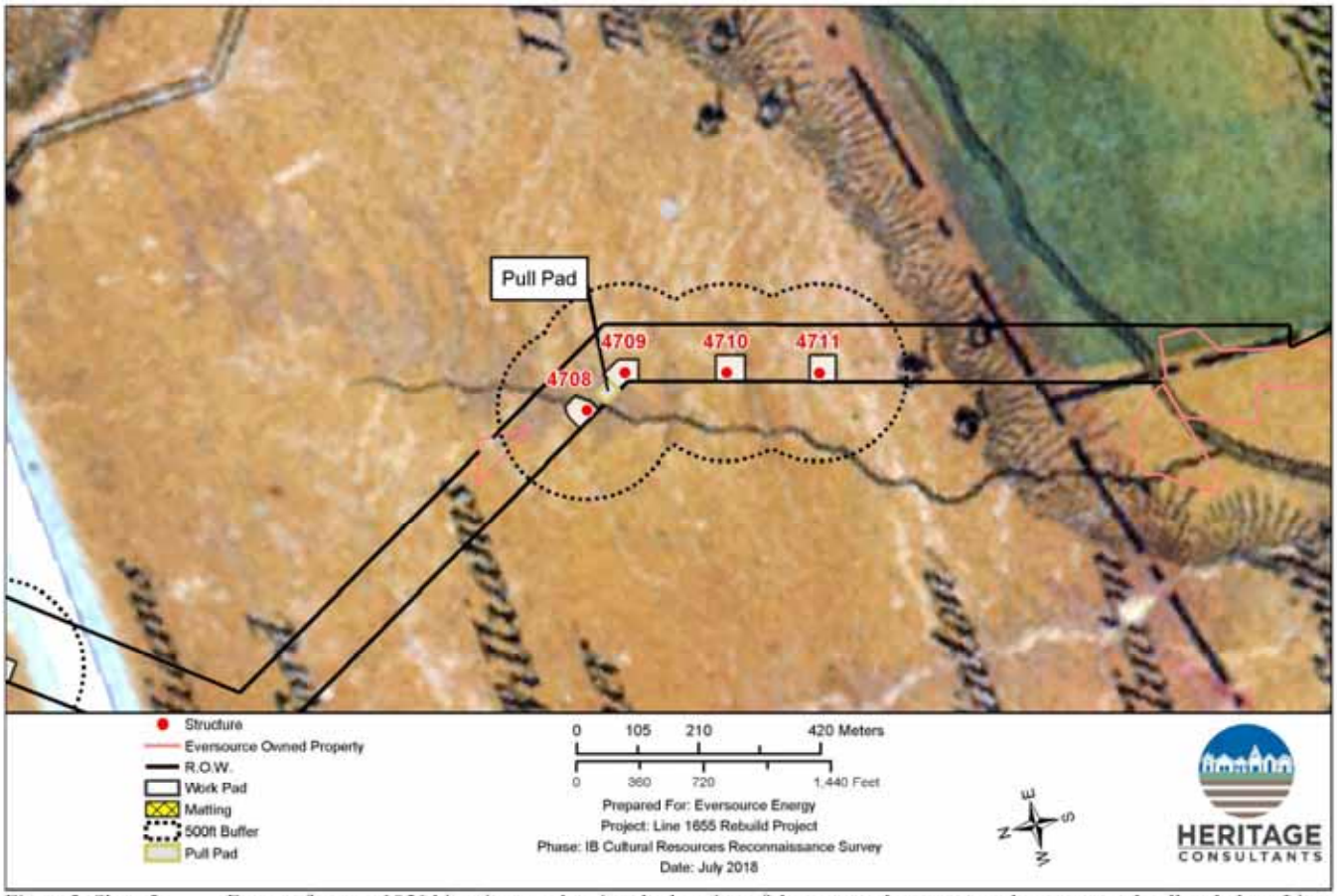


Figure 2; Sheet 1. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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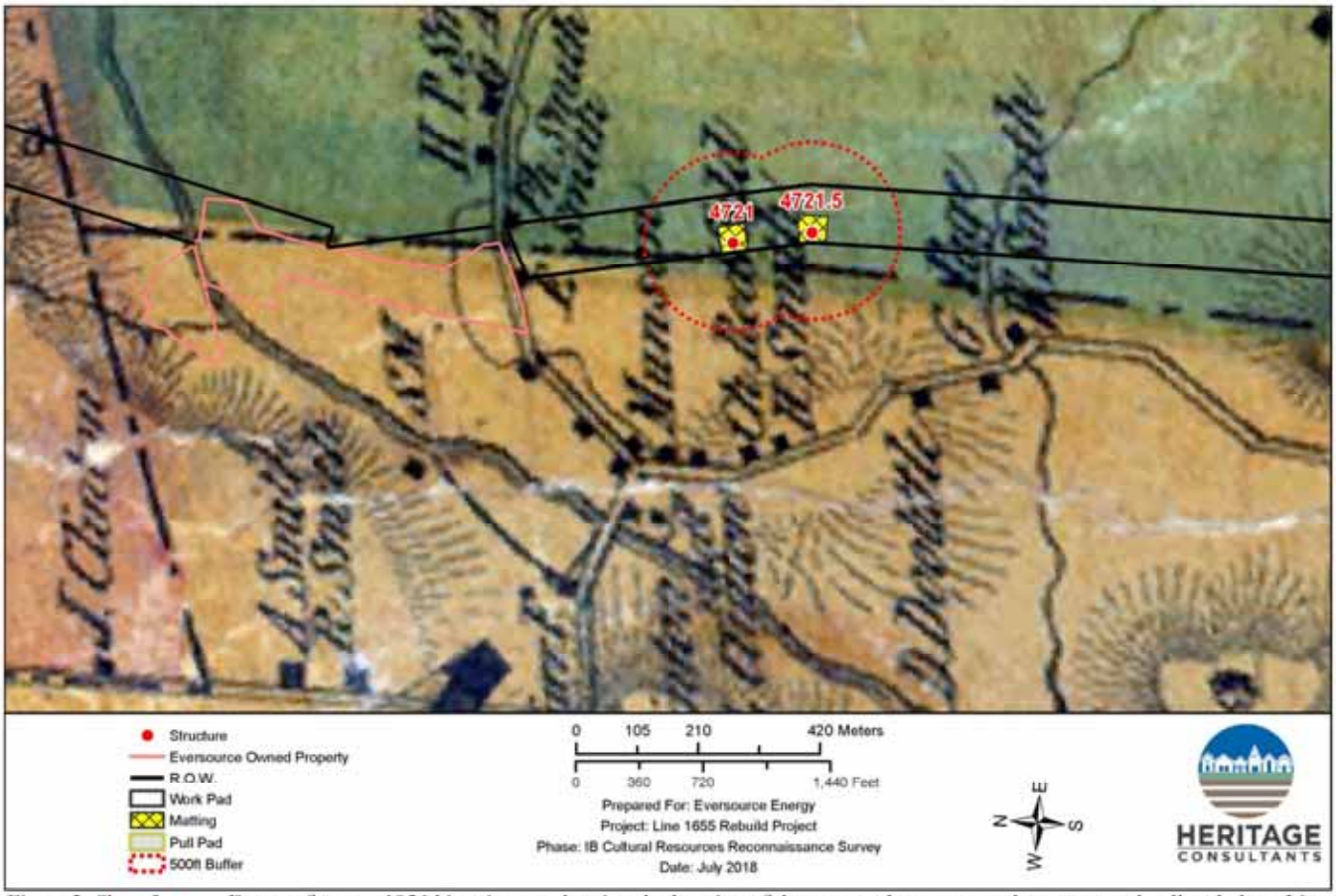


Figure 2; Sheet 3. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

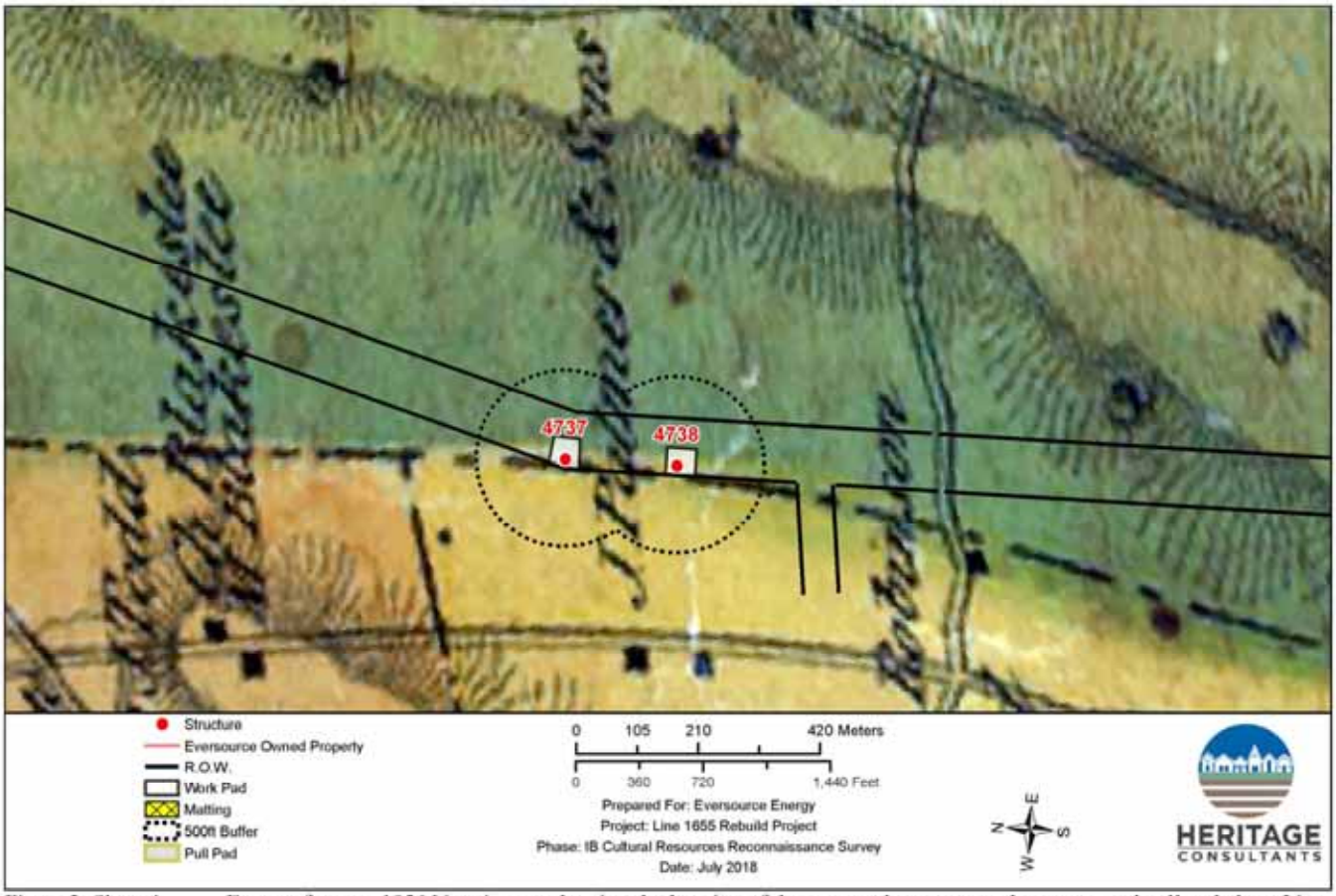


Figure 2; Sheet 4. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

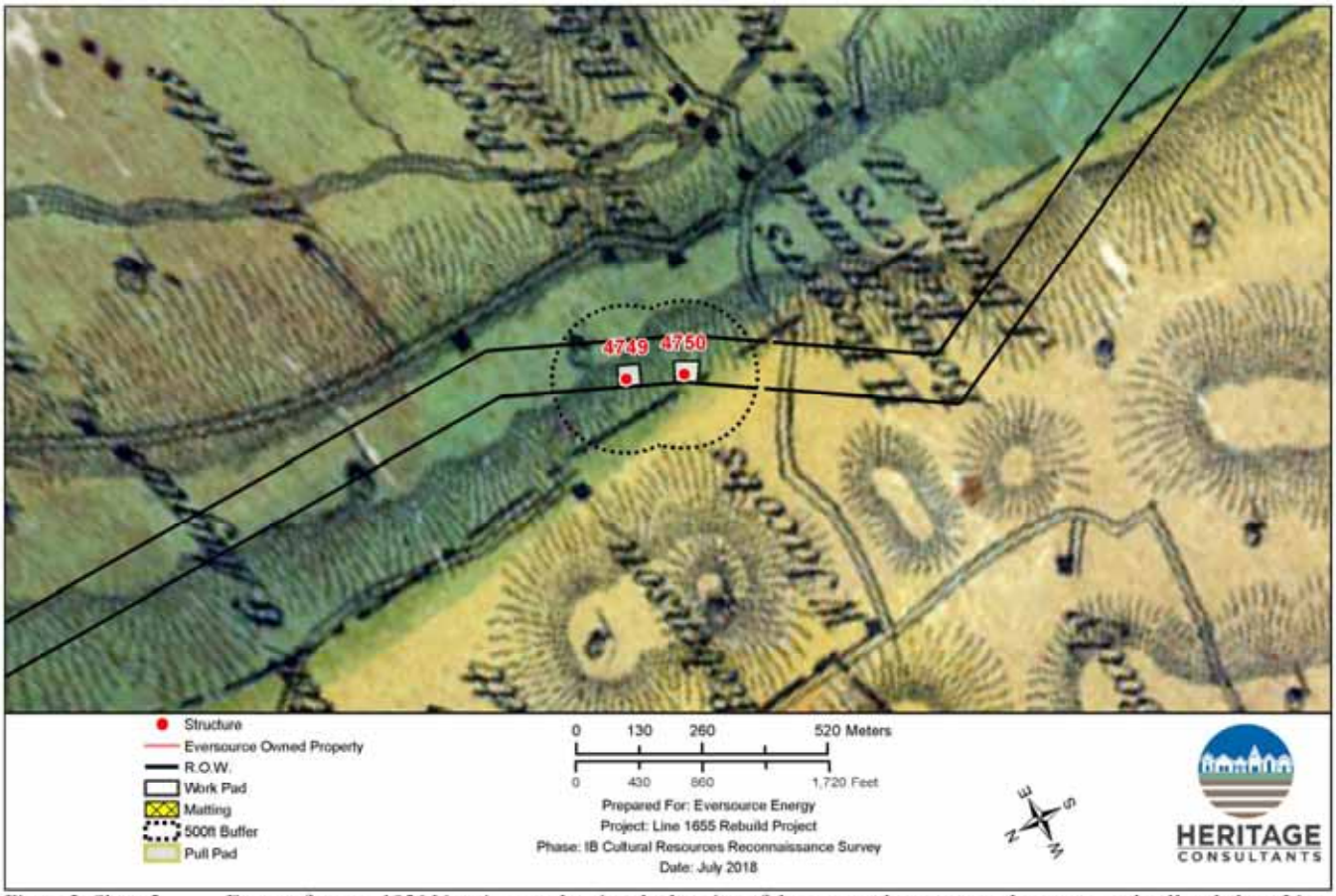


Figure 2; Sheet 5. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

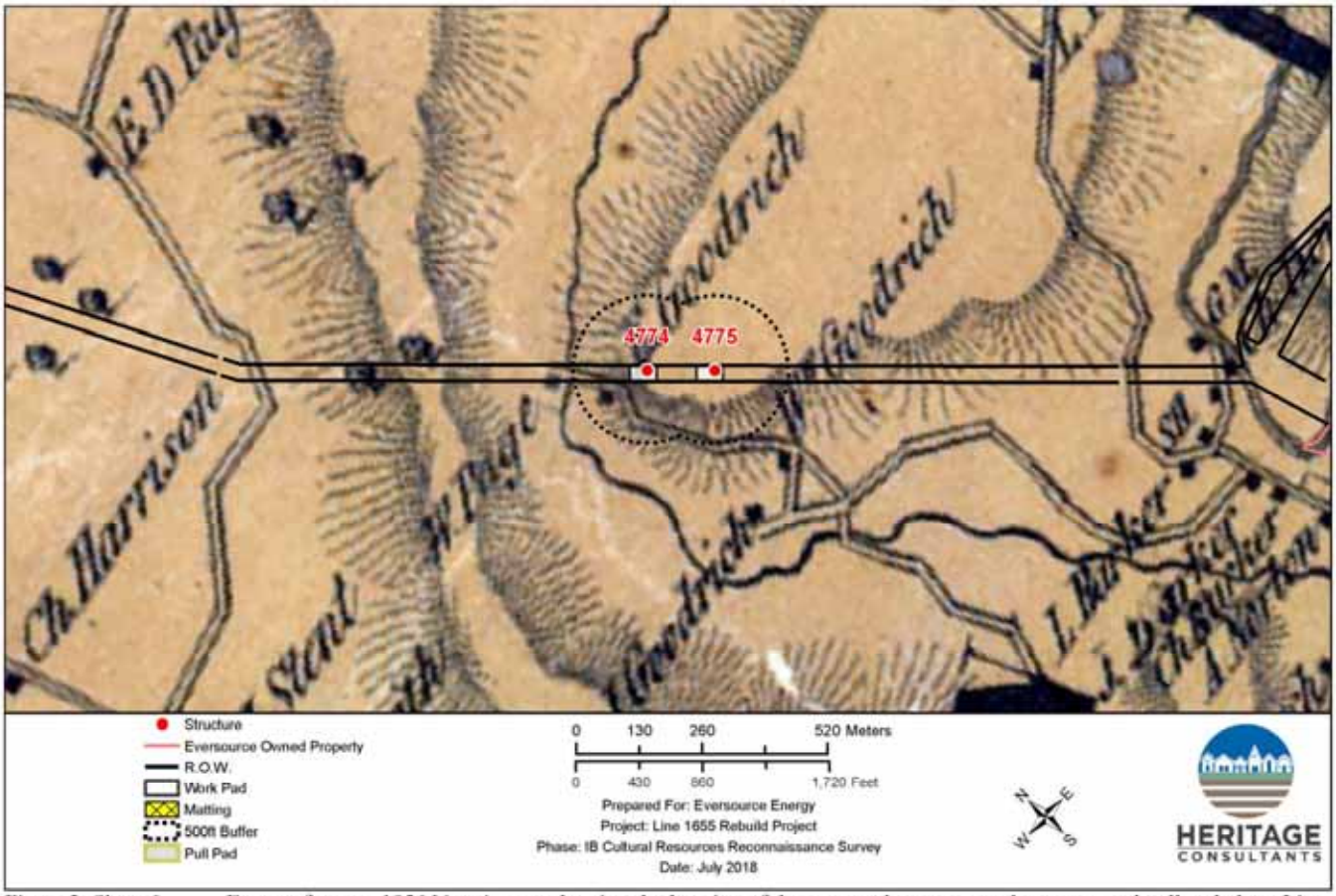
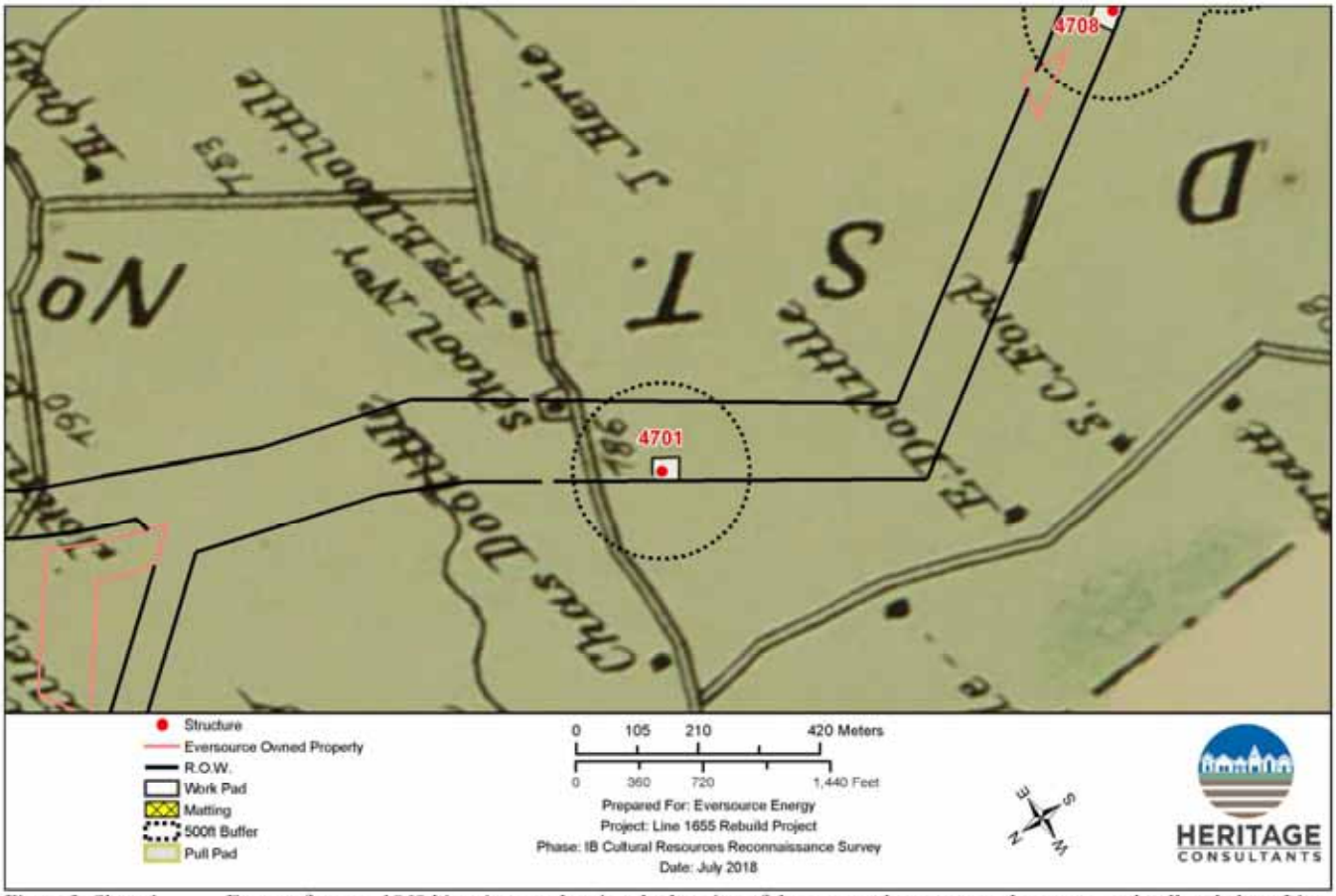


Figure 2; Sheet 6. Excerpt from an 1856 historic map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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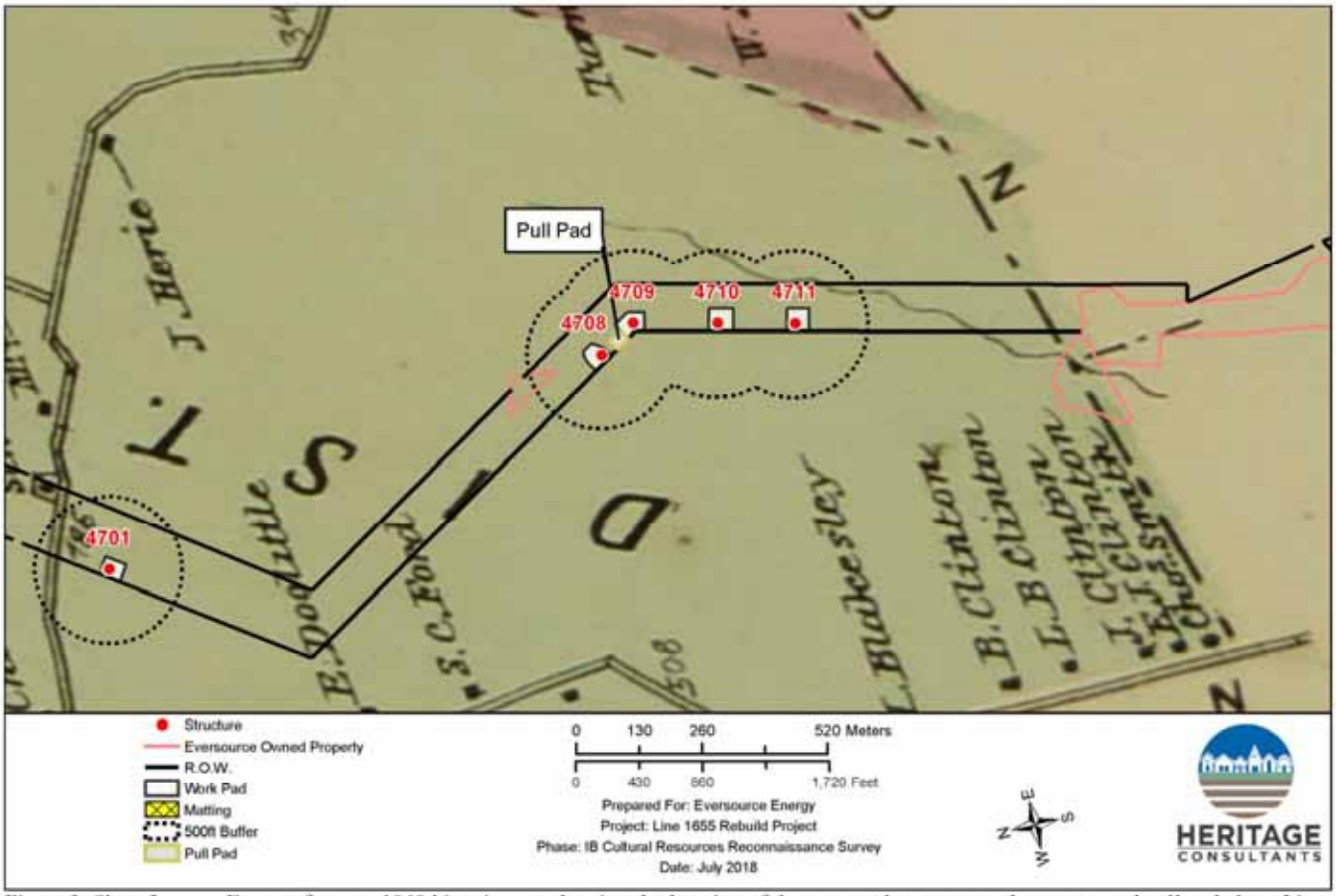

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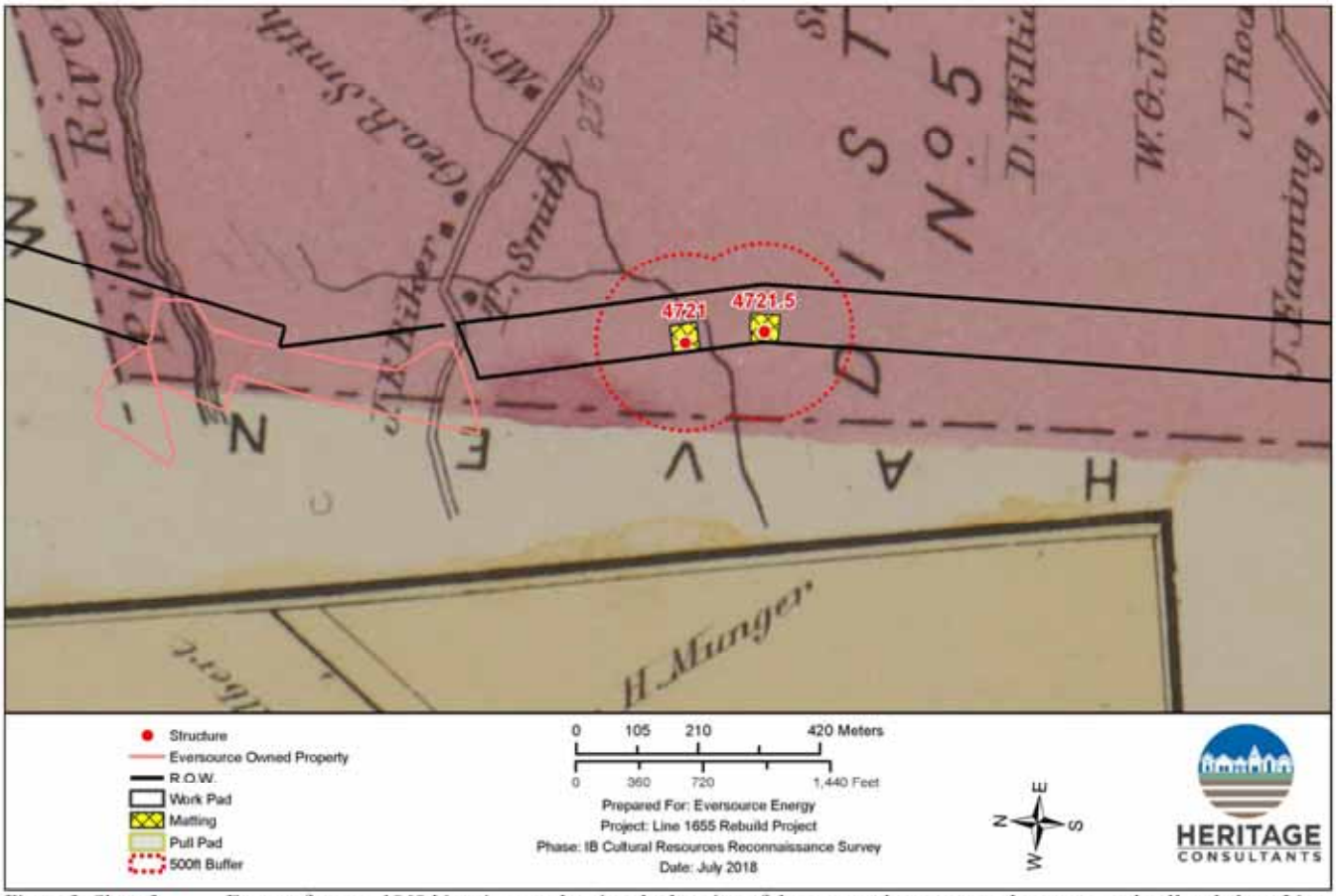

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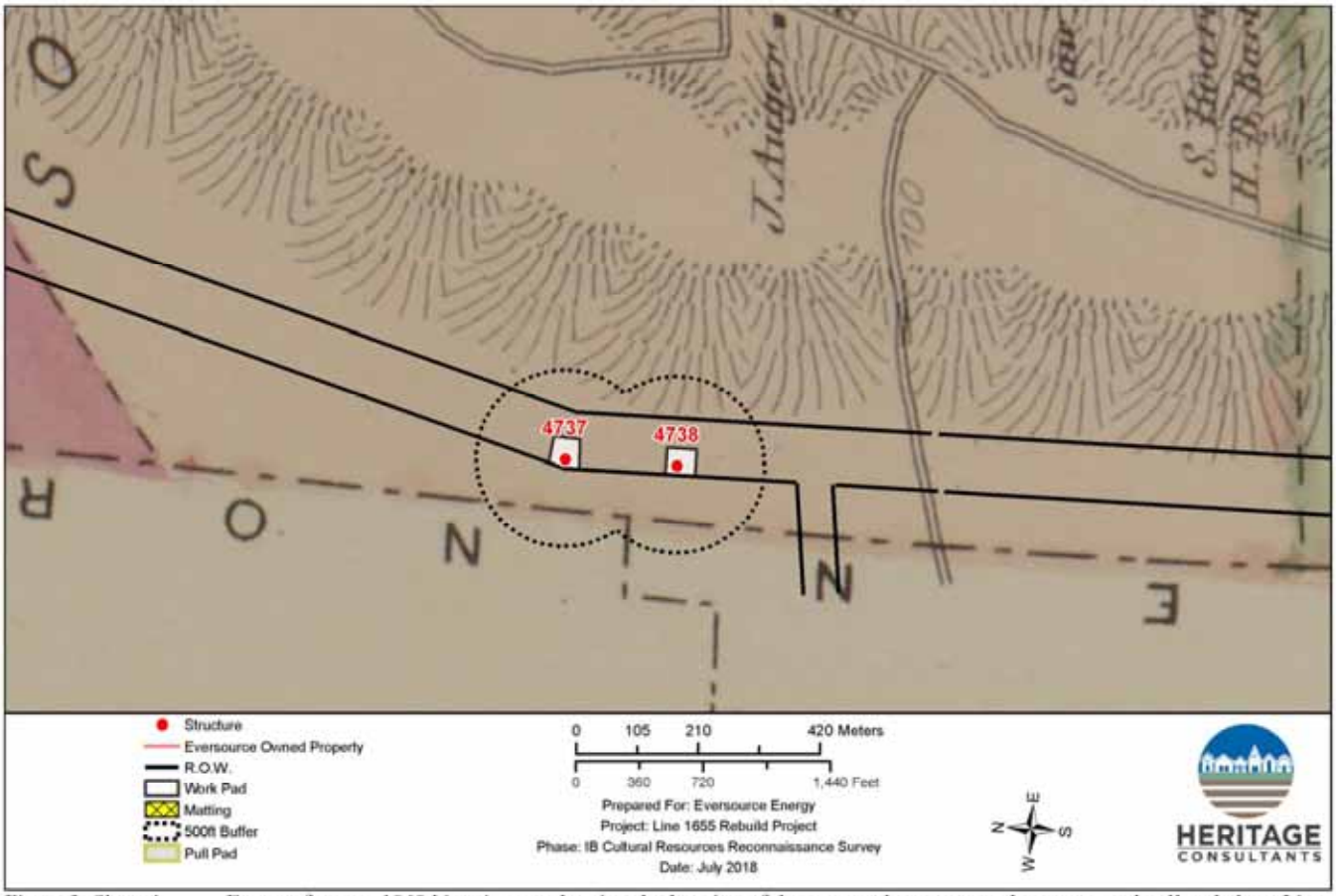

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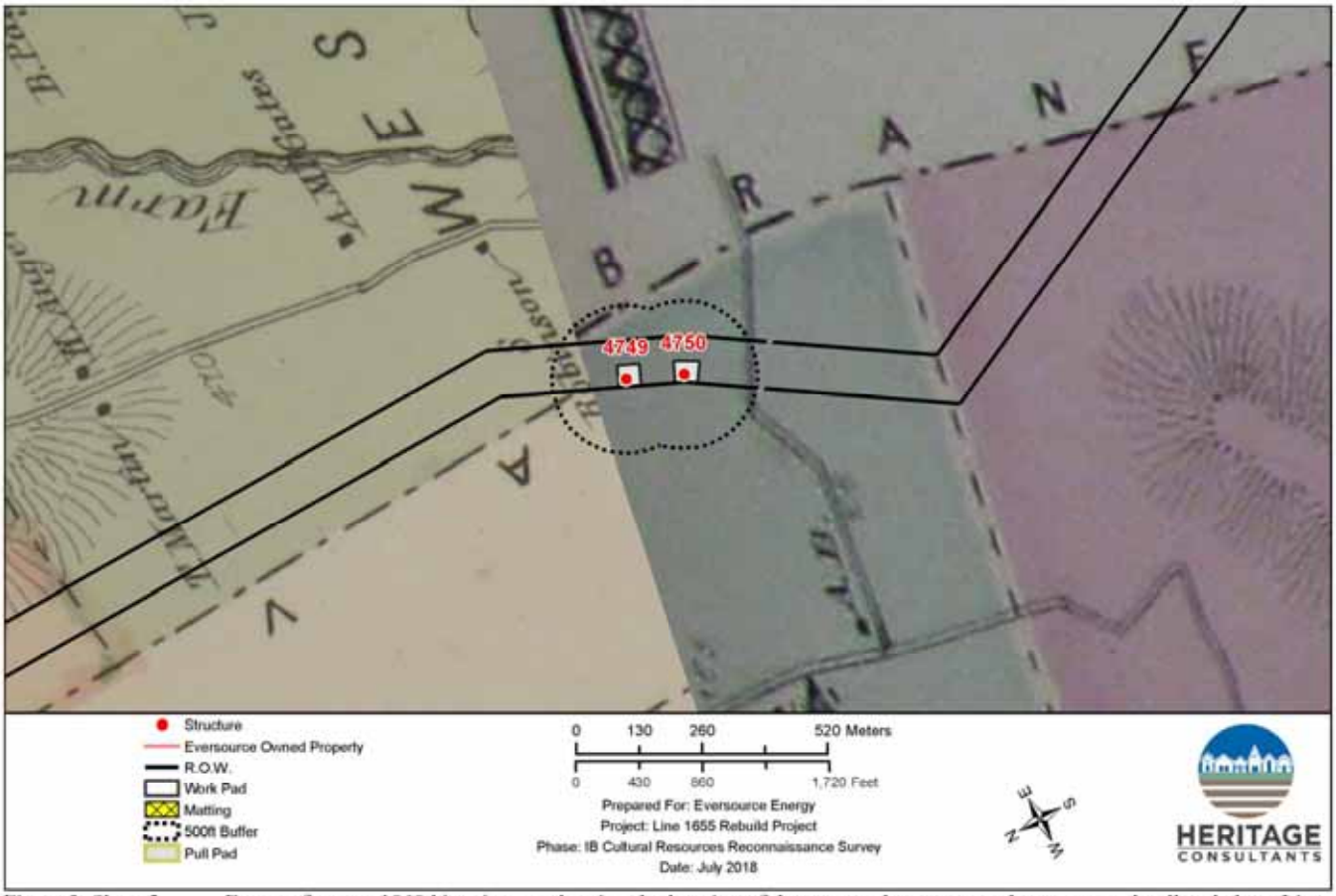

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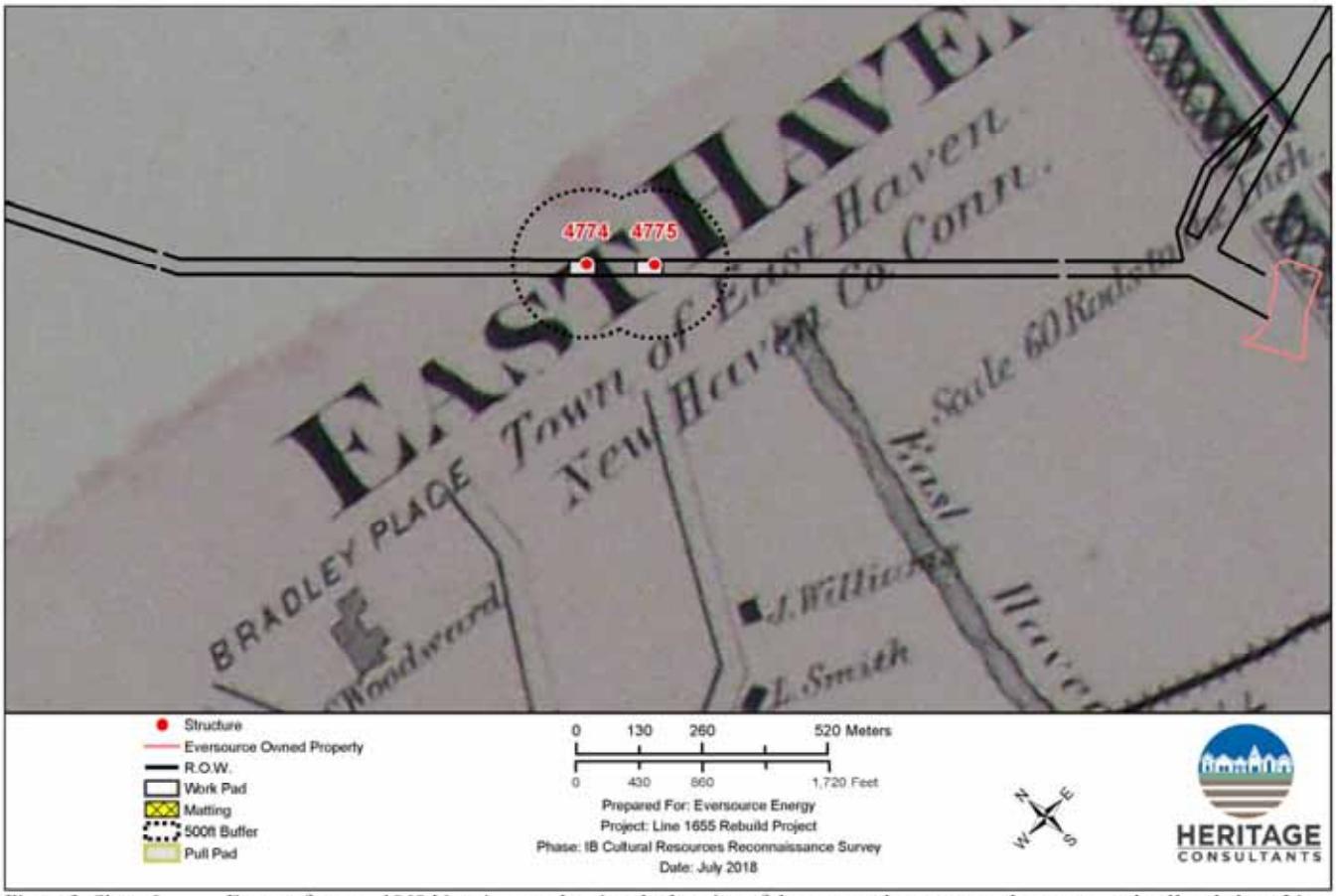

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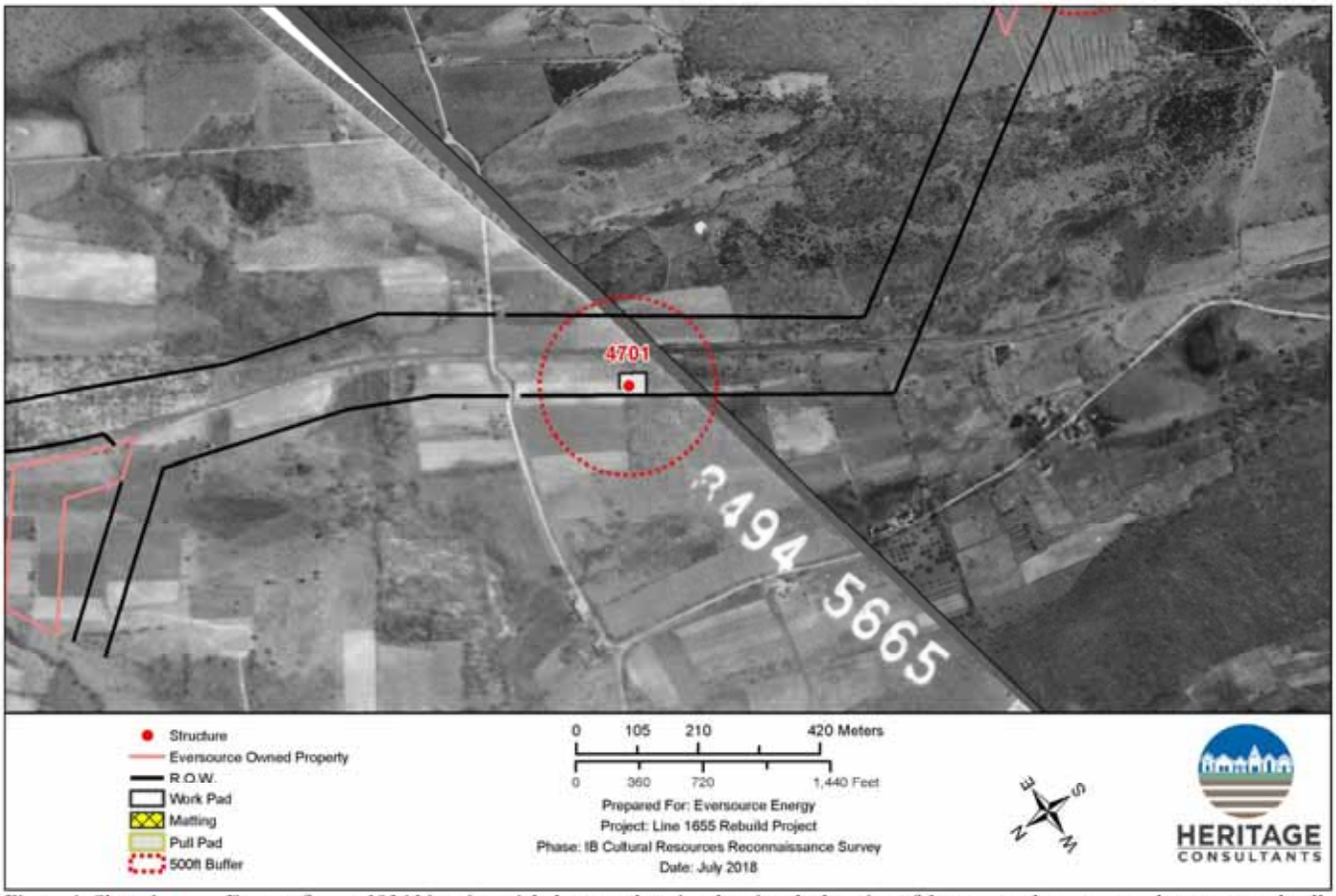


Figure 4; Sheet 1. Excerpt from a 1934 historic aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

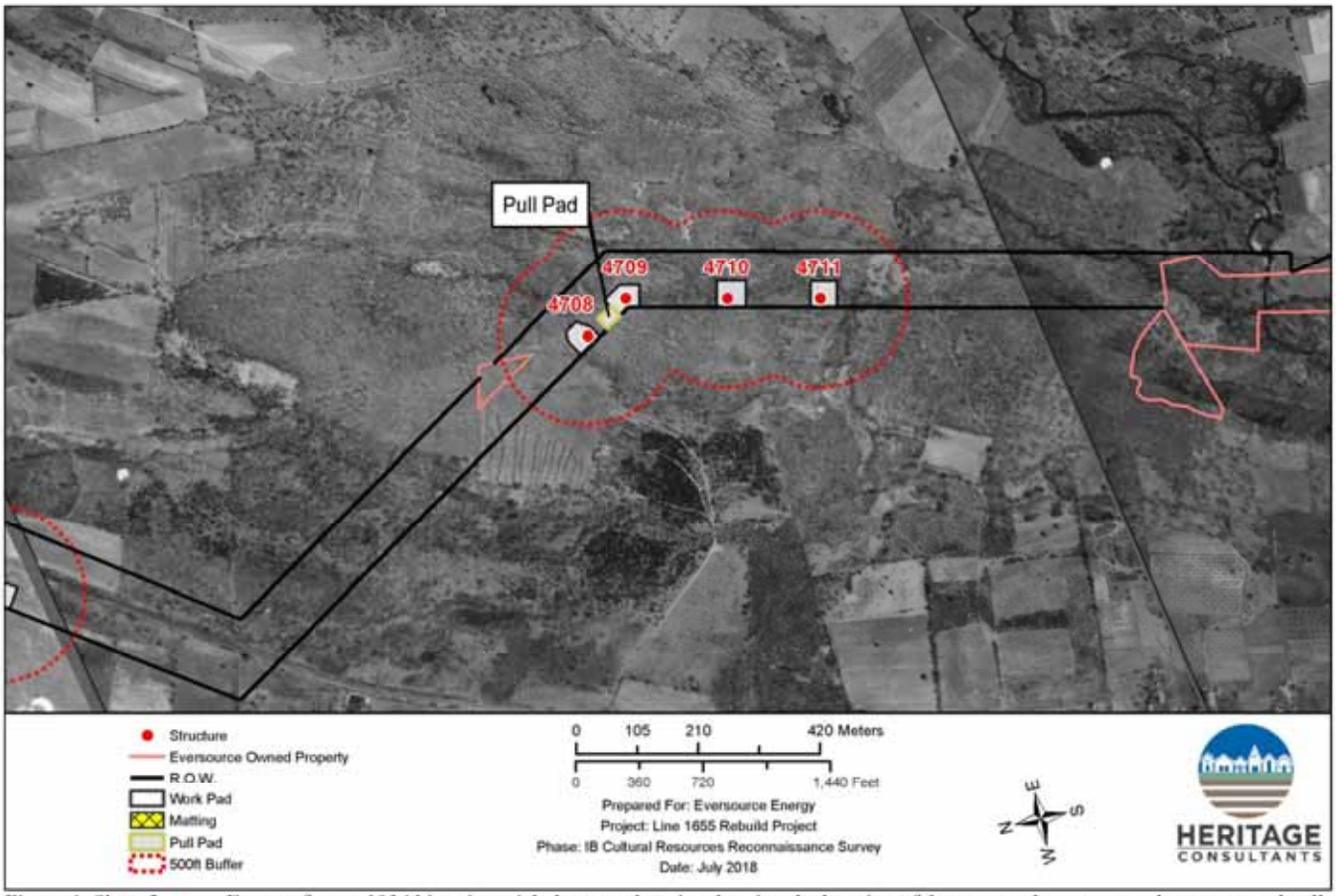
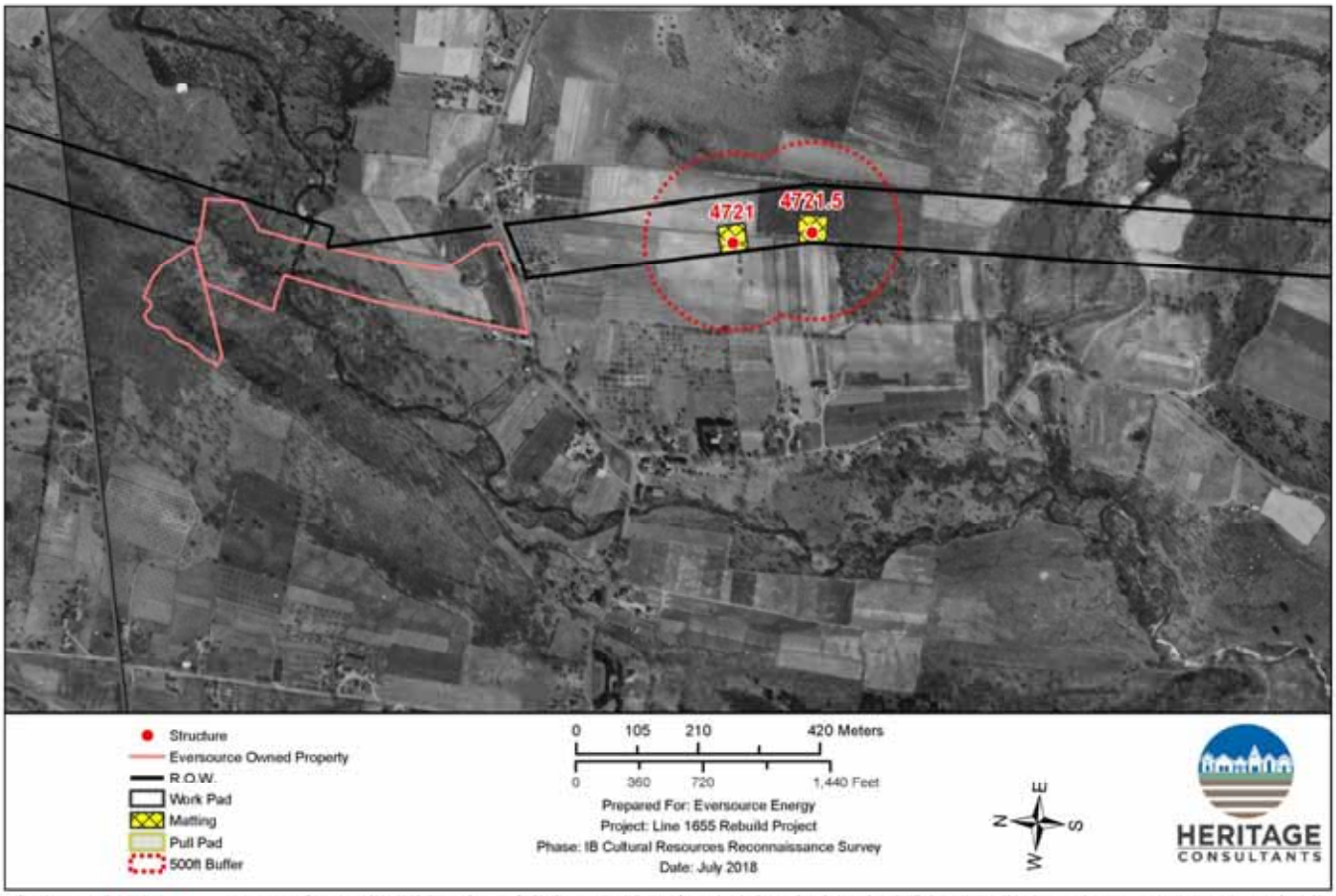


Figure 4; Sheet 2. Excerpt from a 1934 historic aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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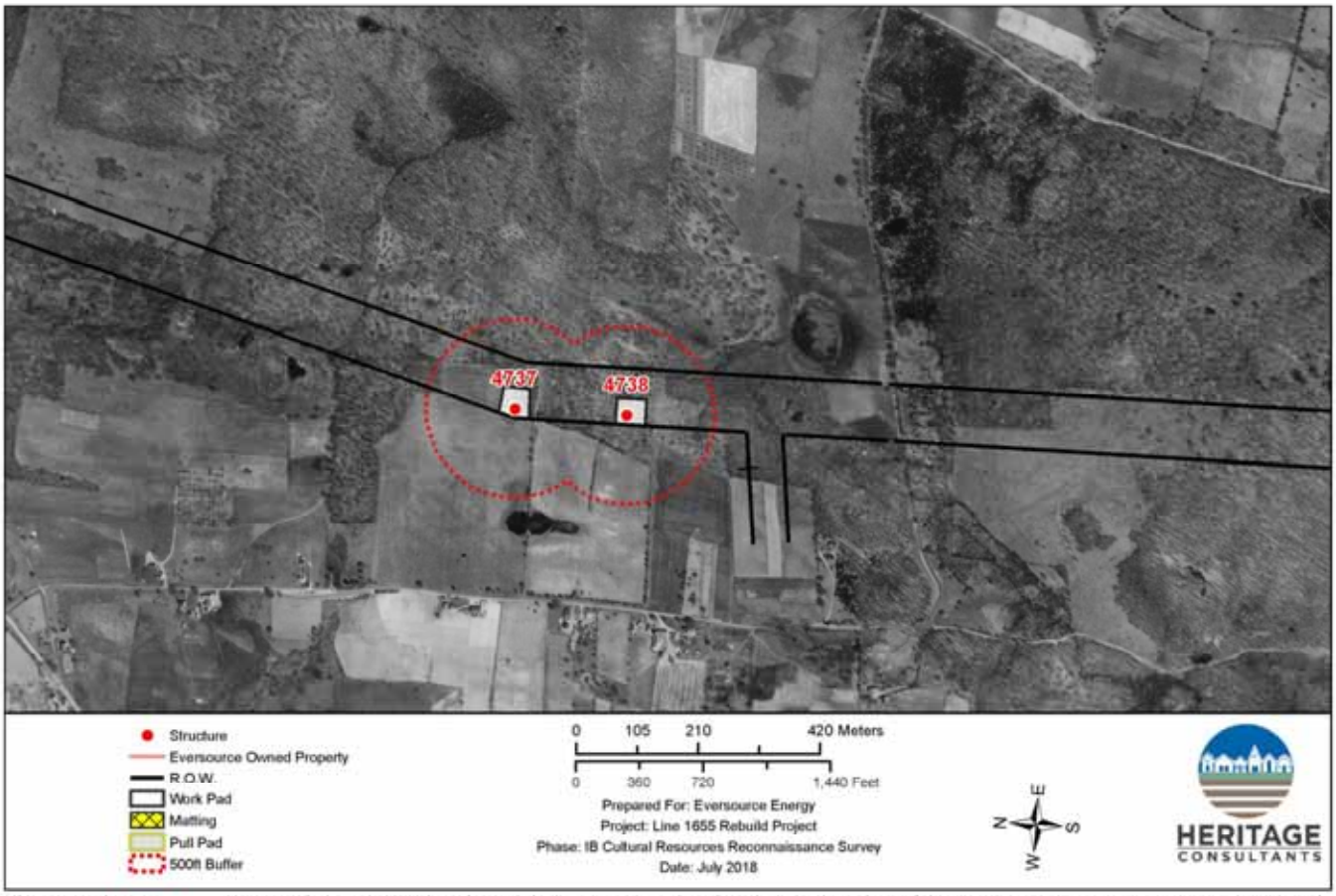

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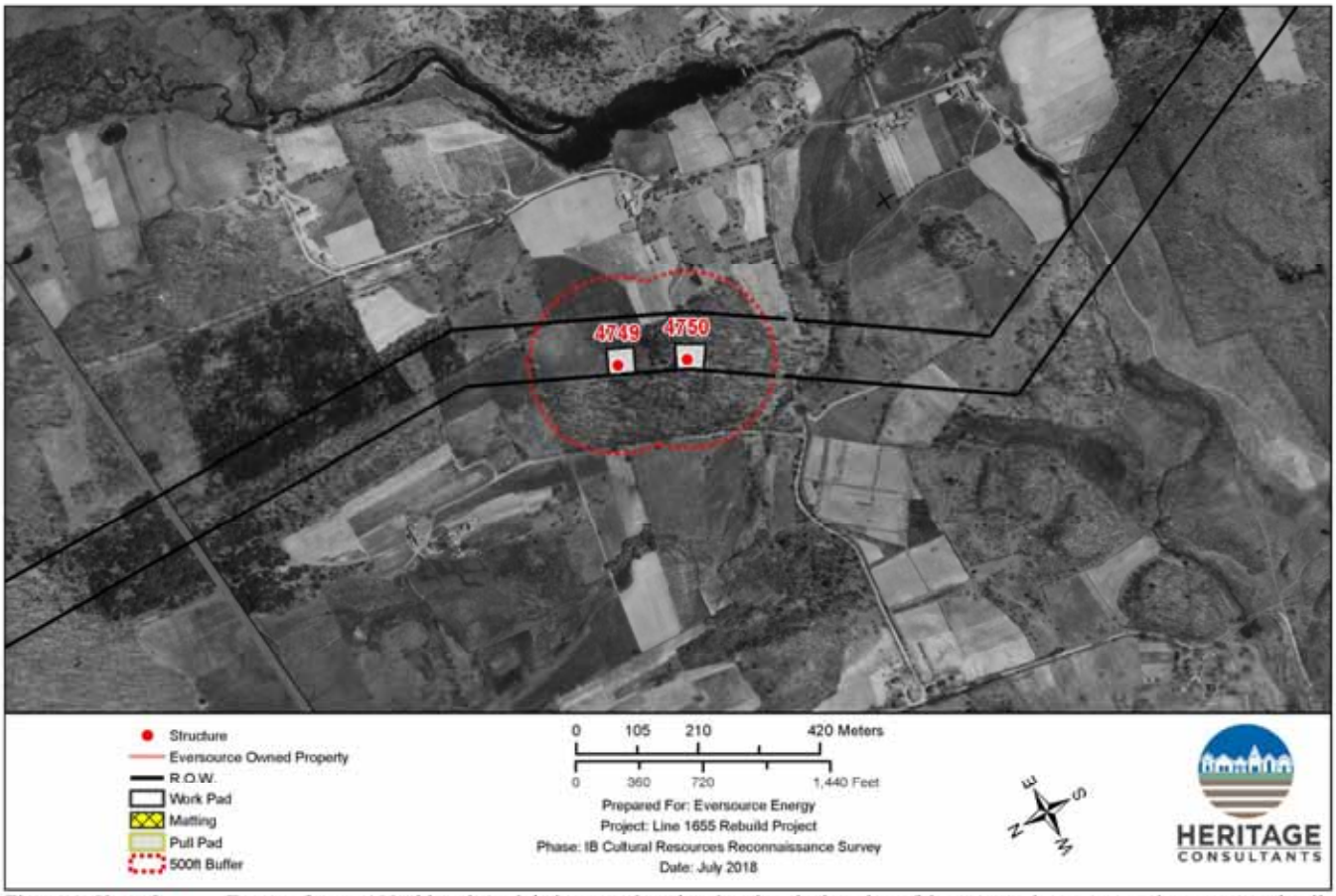

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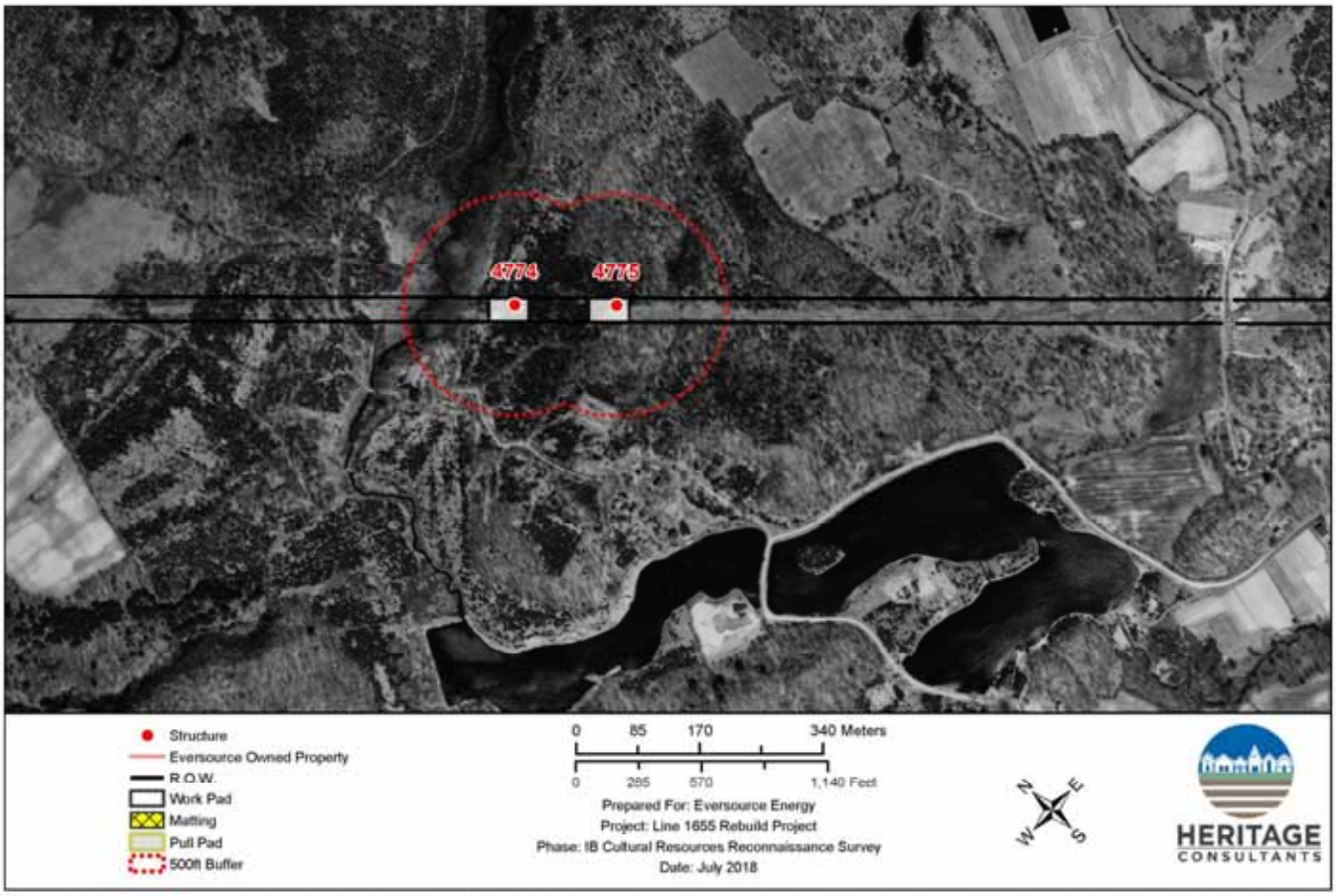

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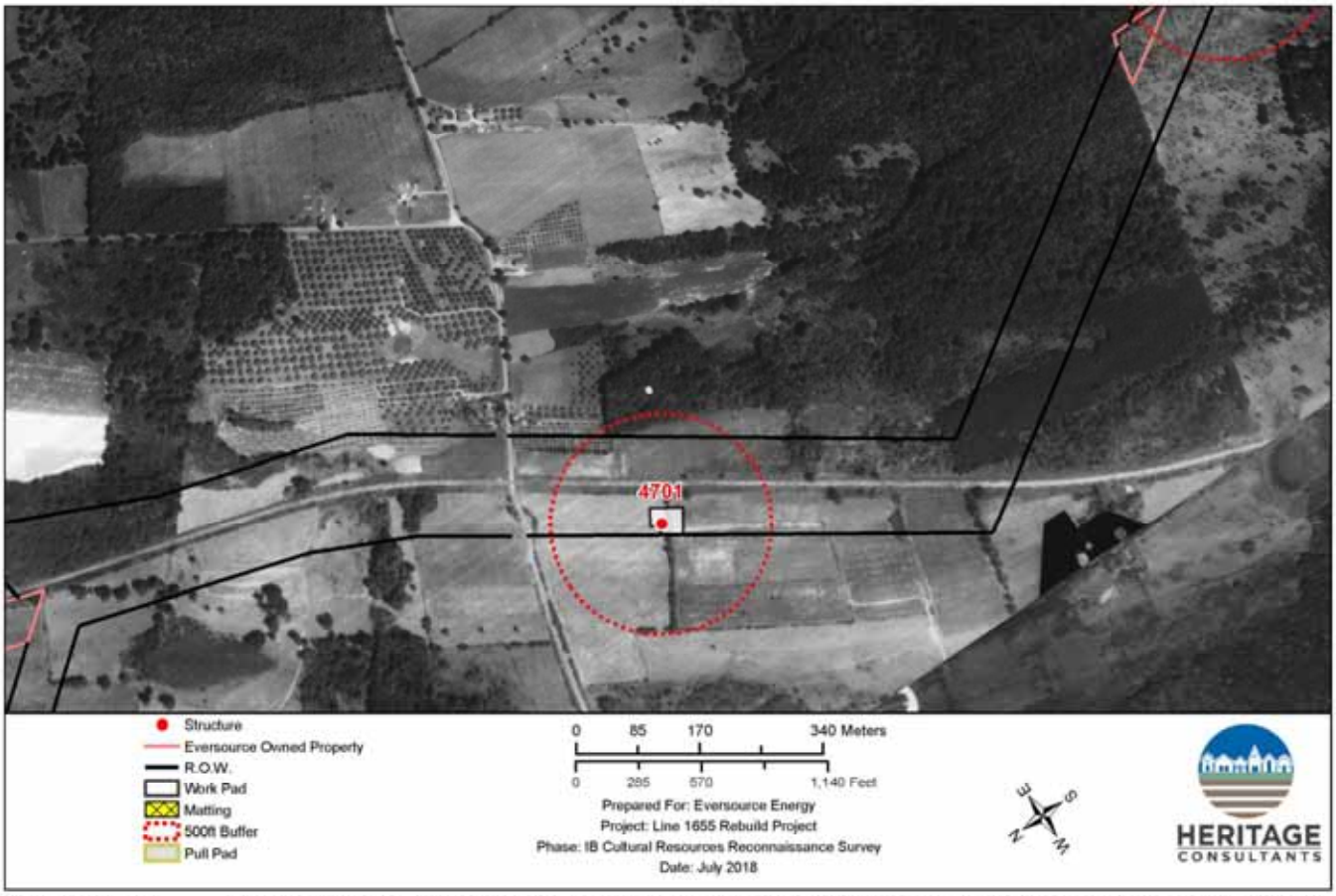
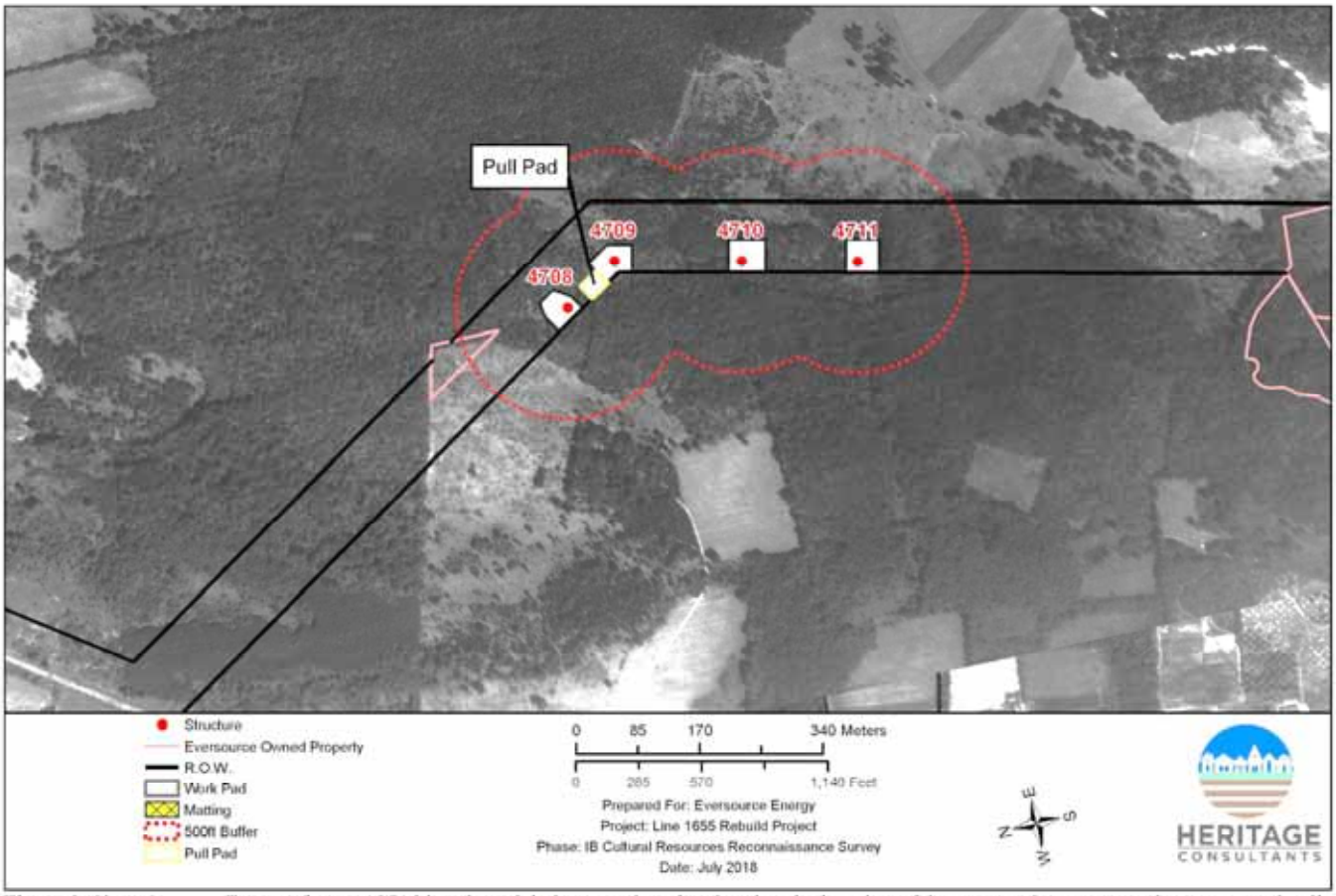


Figure 5; Sheet 1. Excerpt from a 1951 historic aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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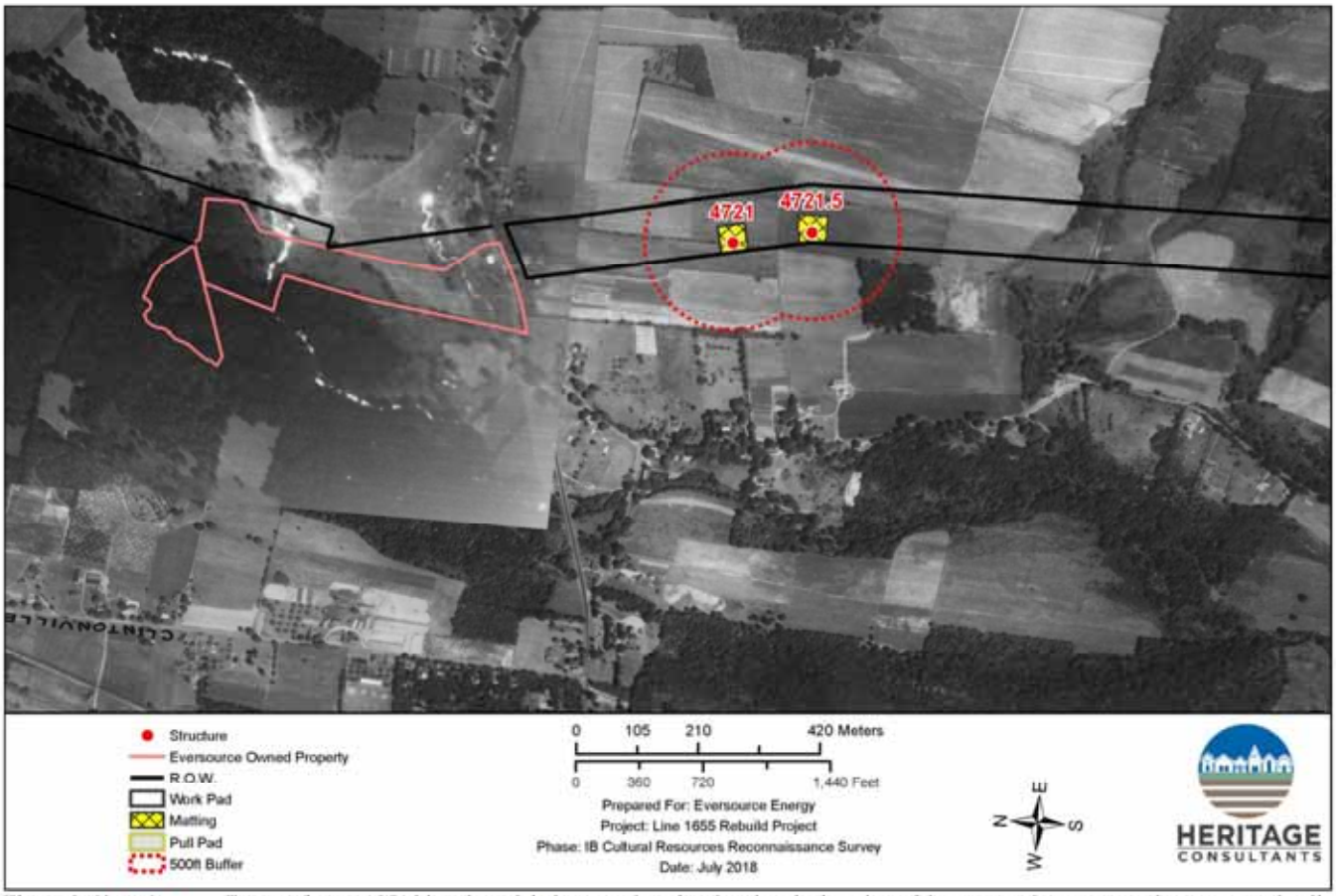

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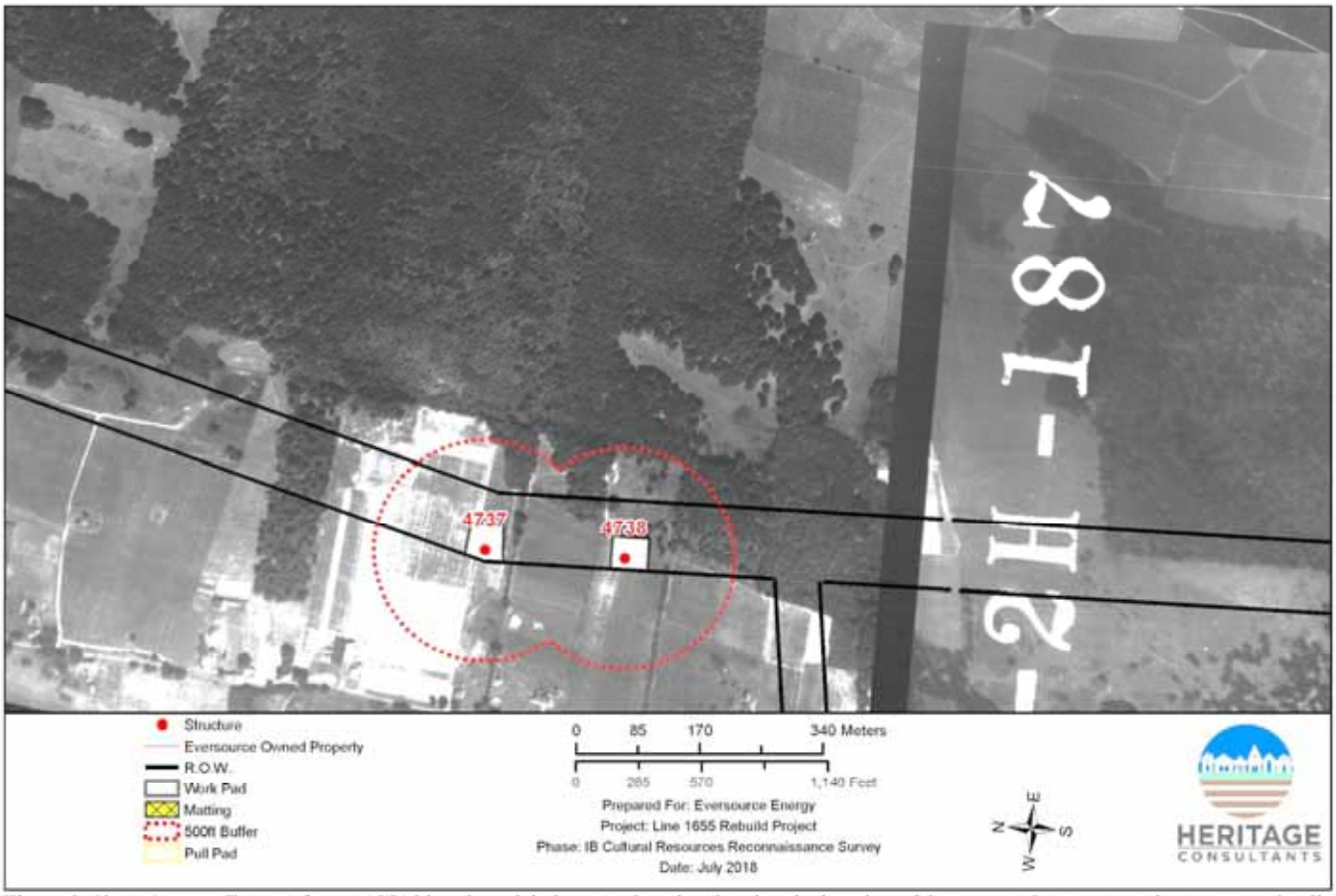

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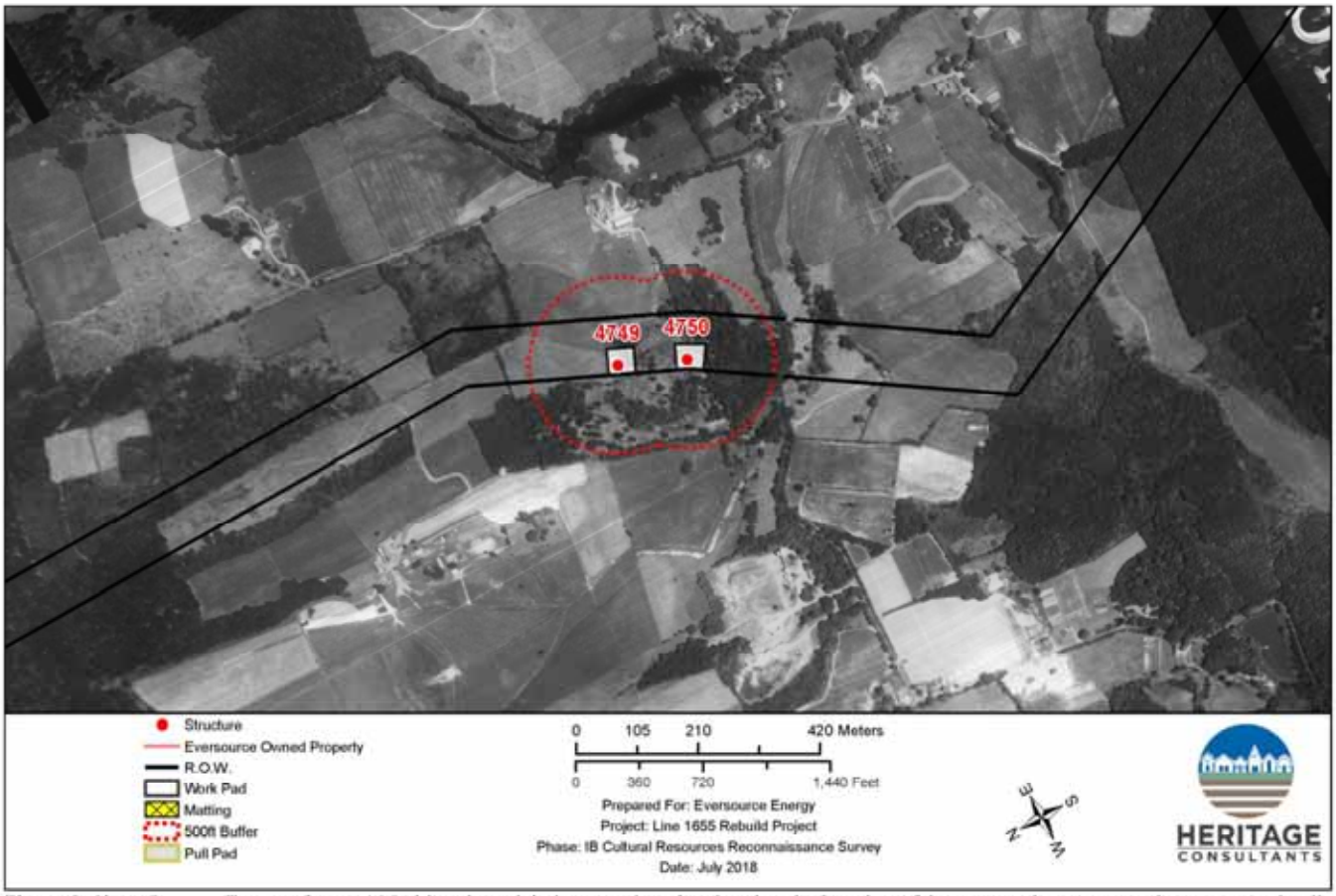

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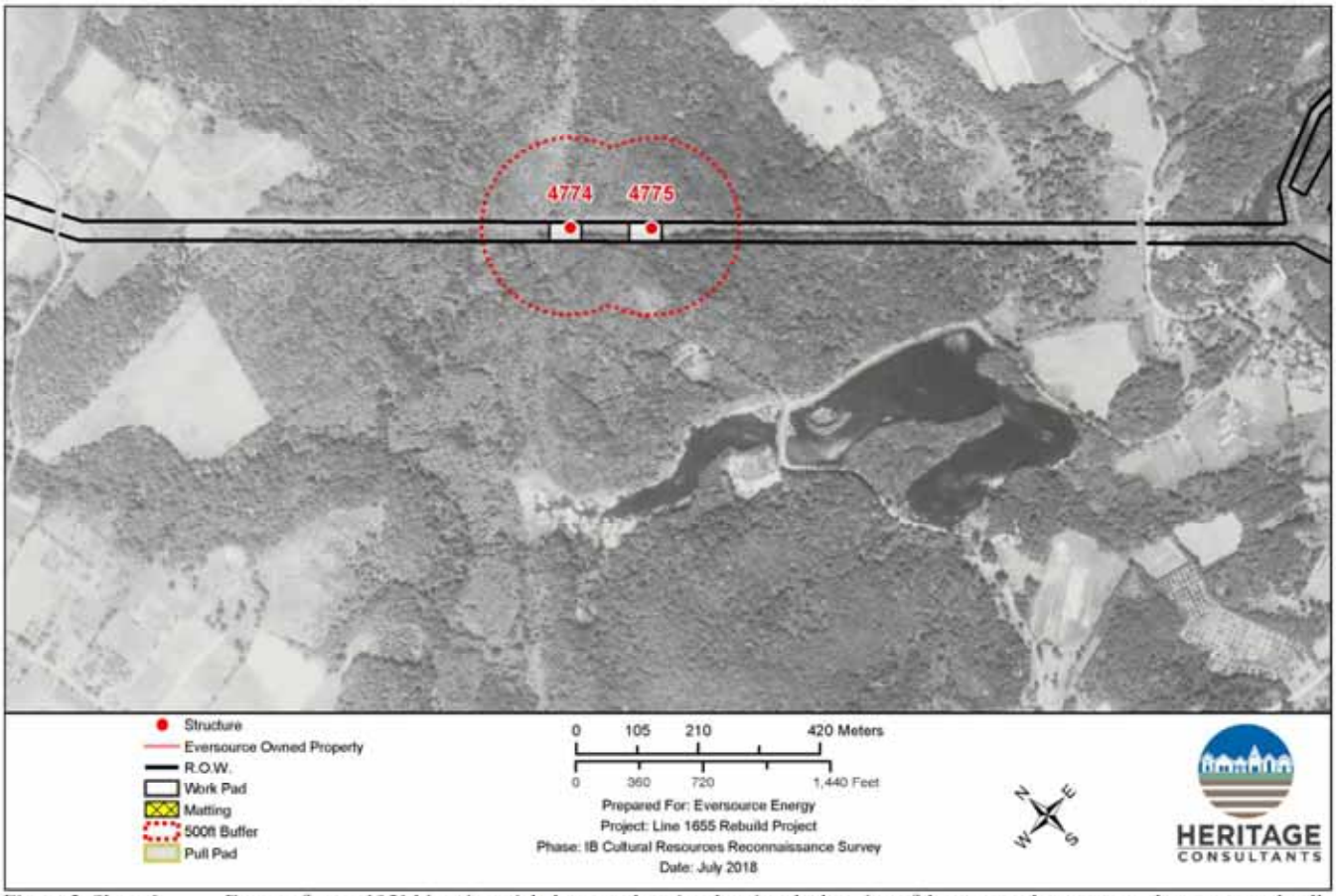

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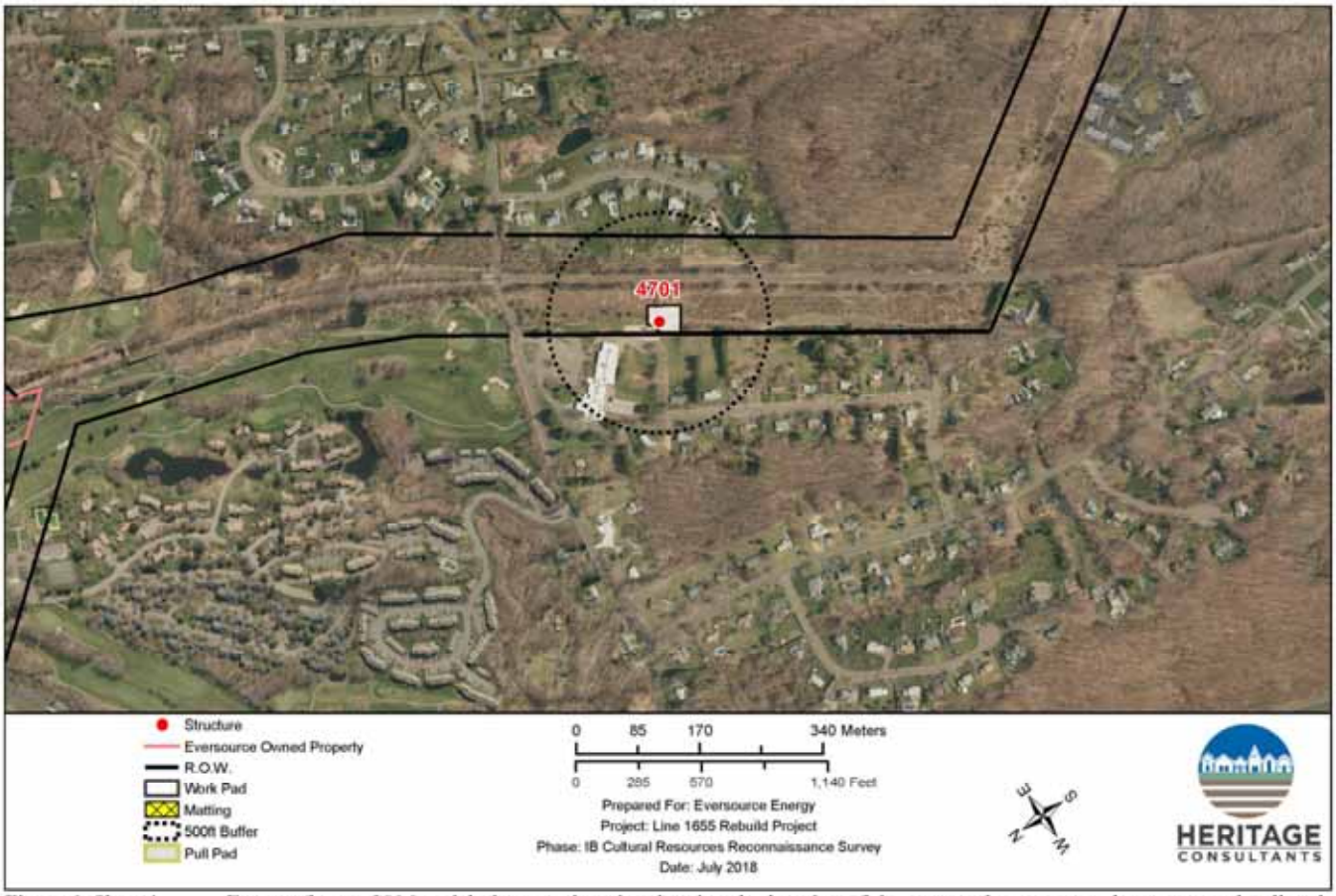


Figure 6; Sheet 1. Excerpt from a 2016 aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

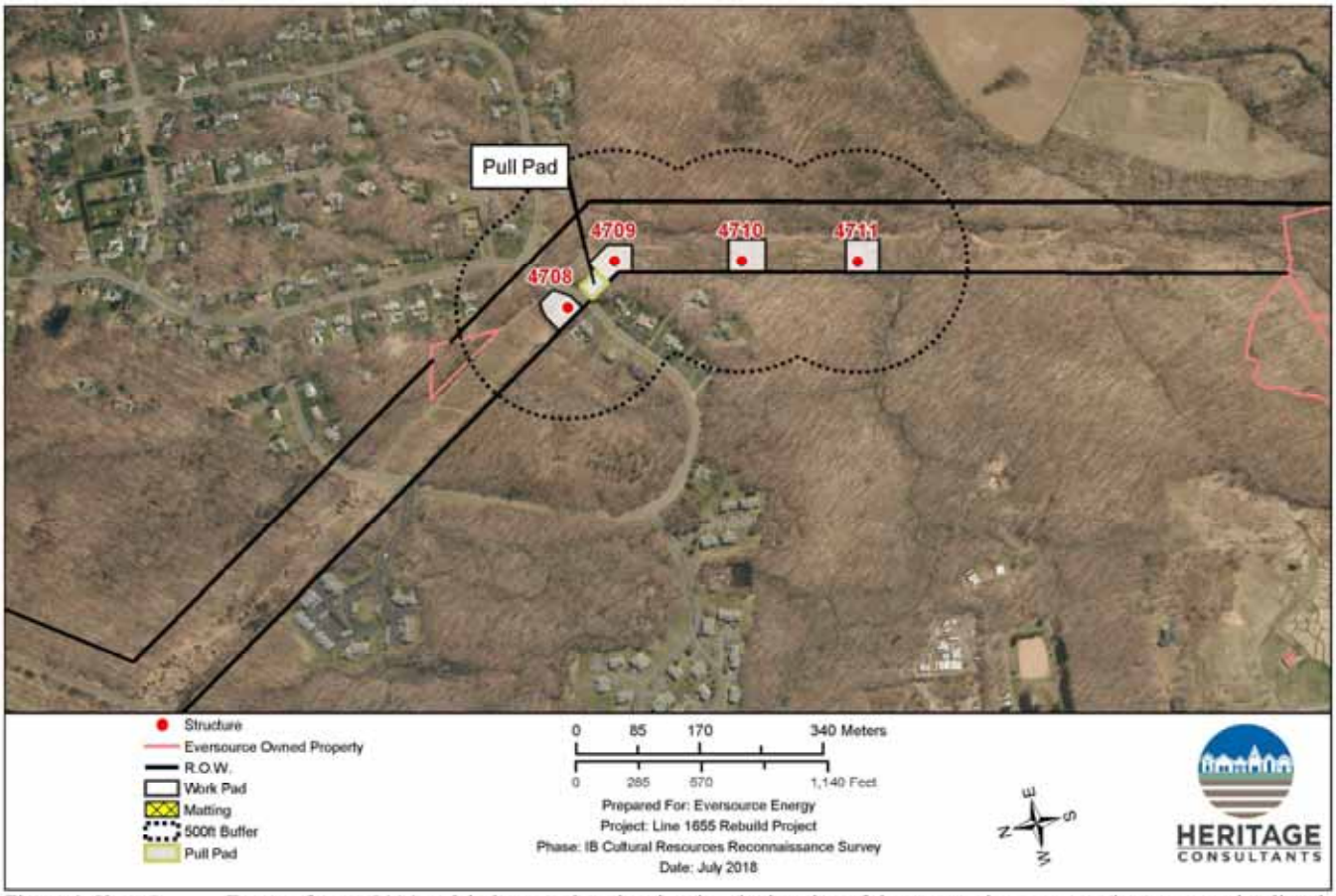


Figure 6; Sheet 2. Excerpt from a 2016 aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

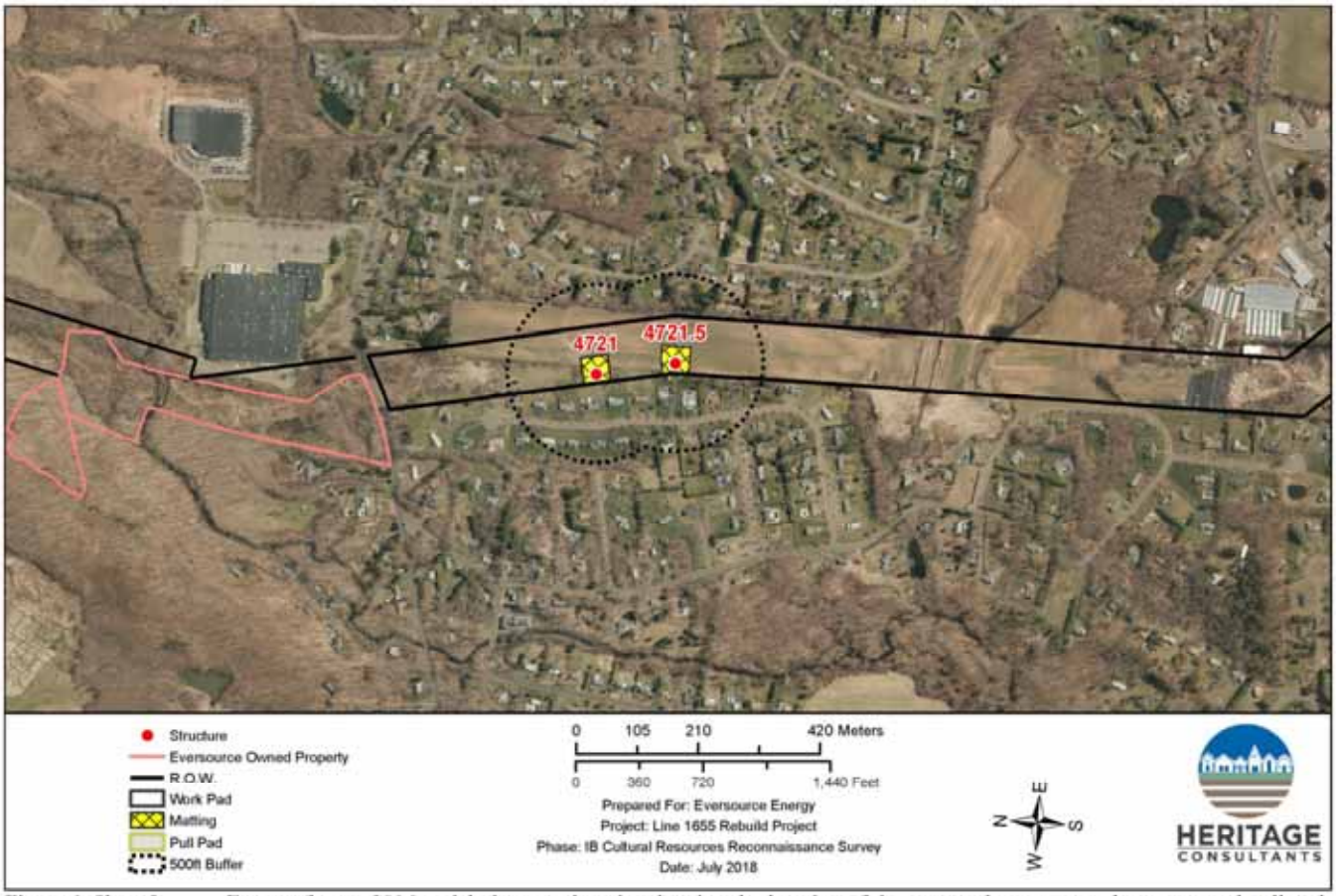


Figure 6; Sheet 3. Excerpt from a 2016 aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

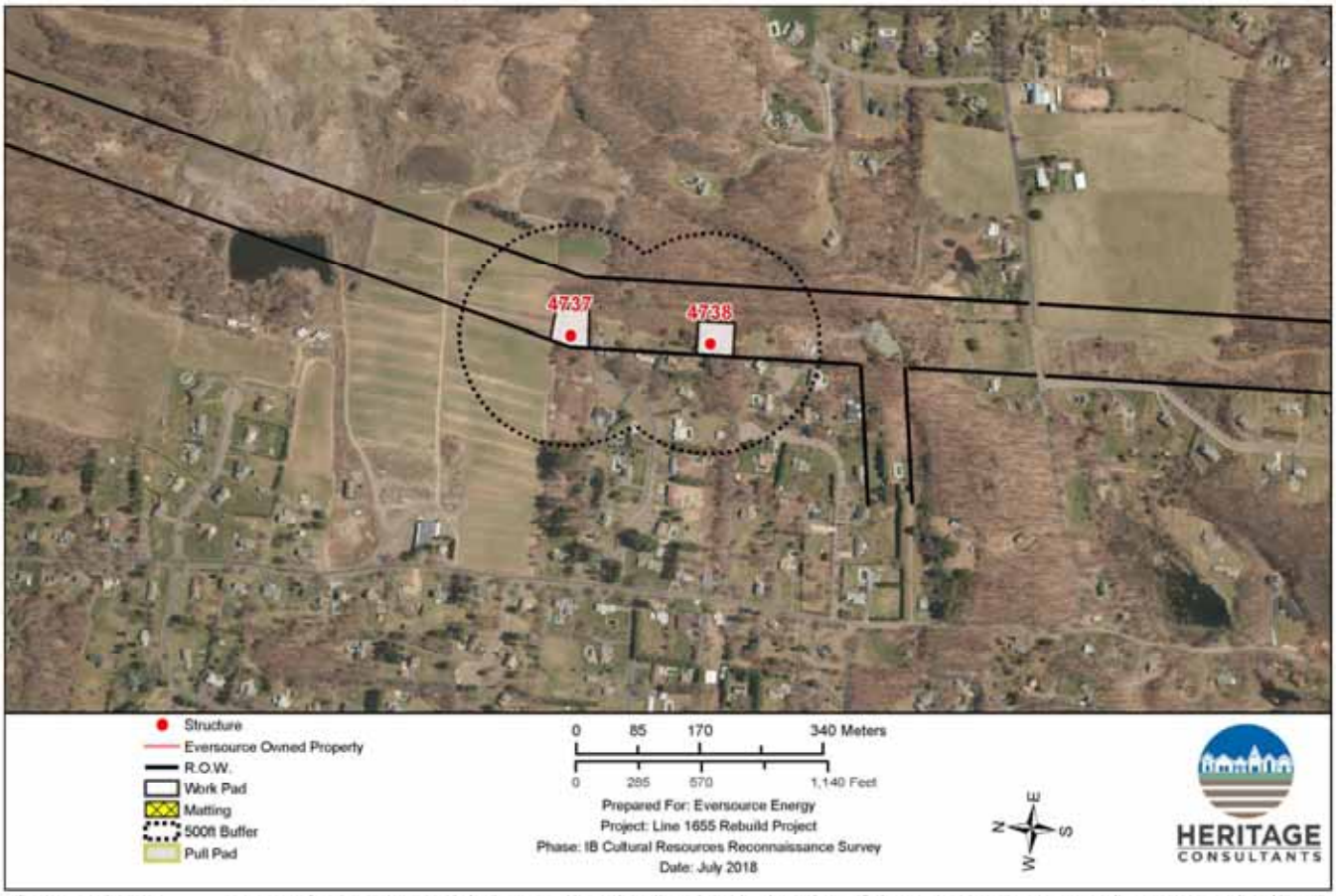


Figure 6; Sheet 4. Excerpt from a 2016 aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in North Haven and Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

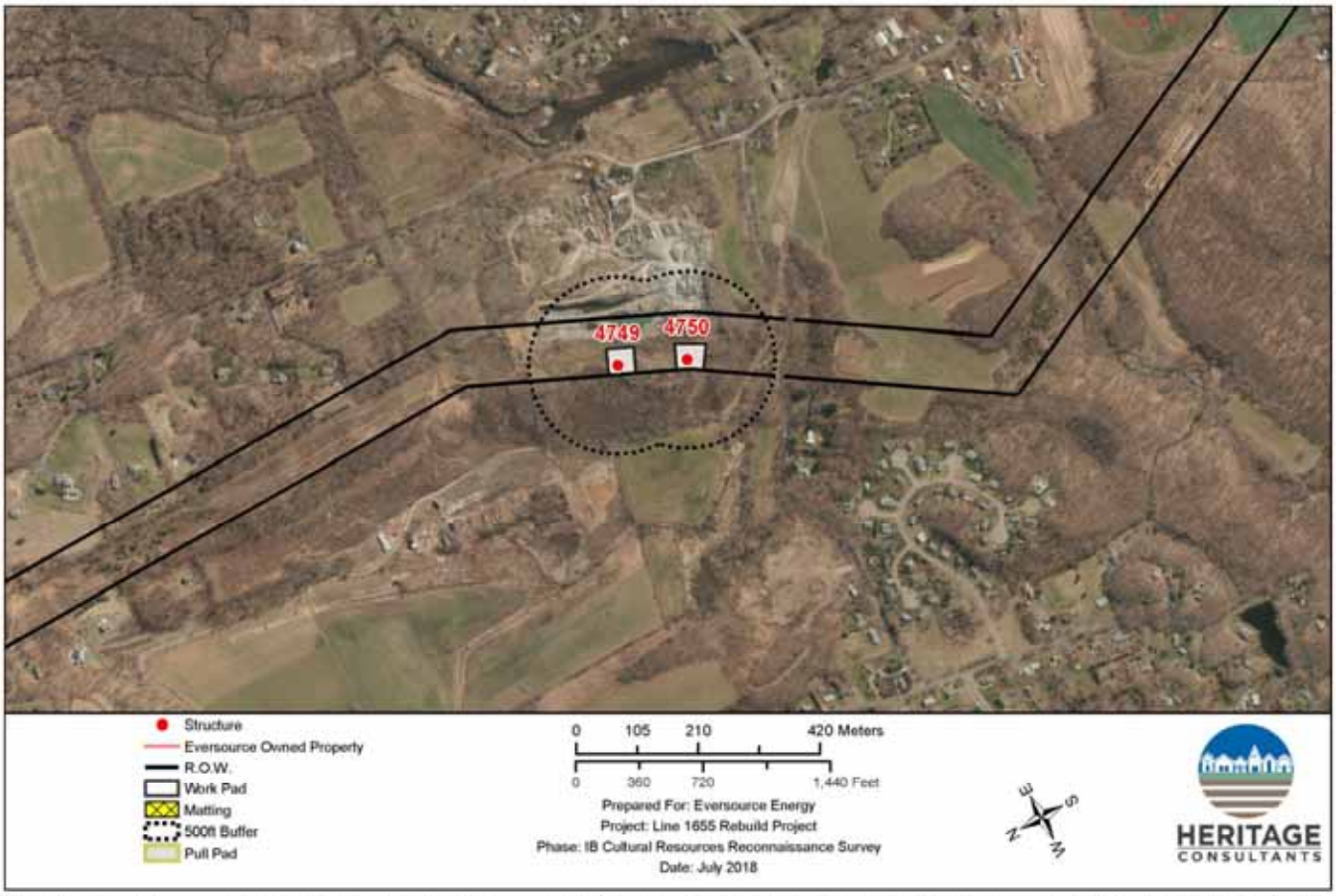
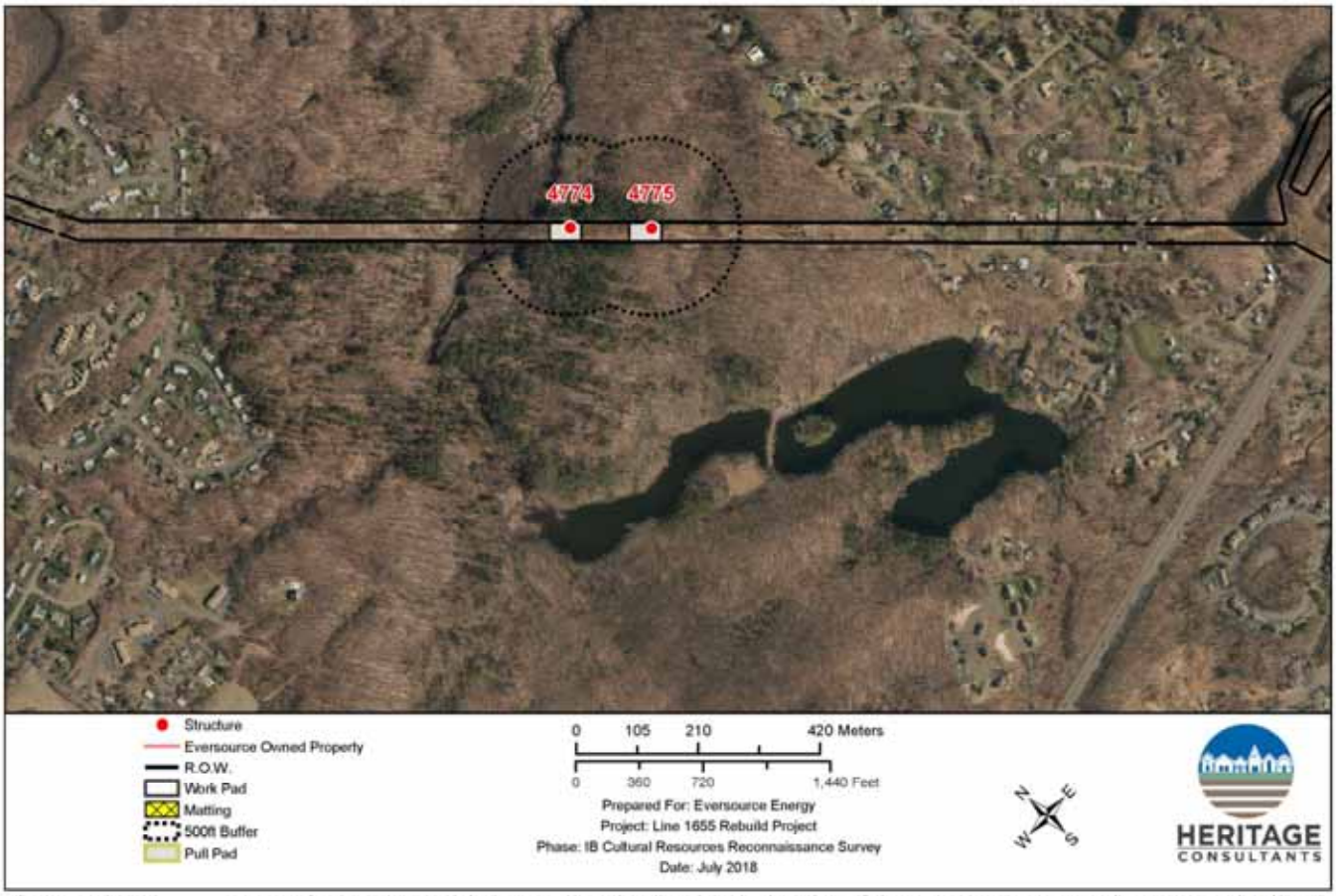


Figure 6; Sheet 5. Excerpt from a 2016 aerial photograph series showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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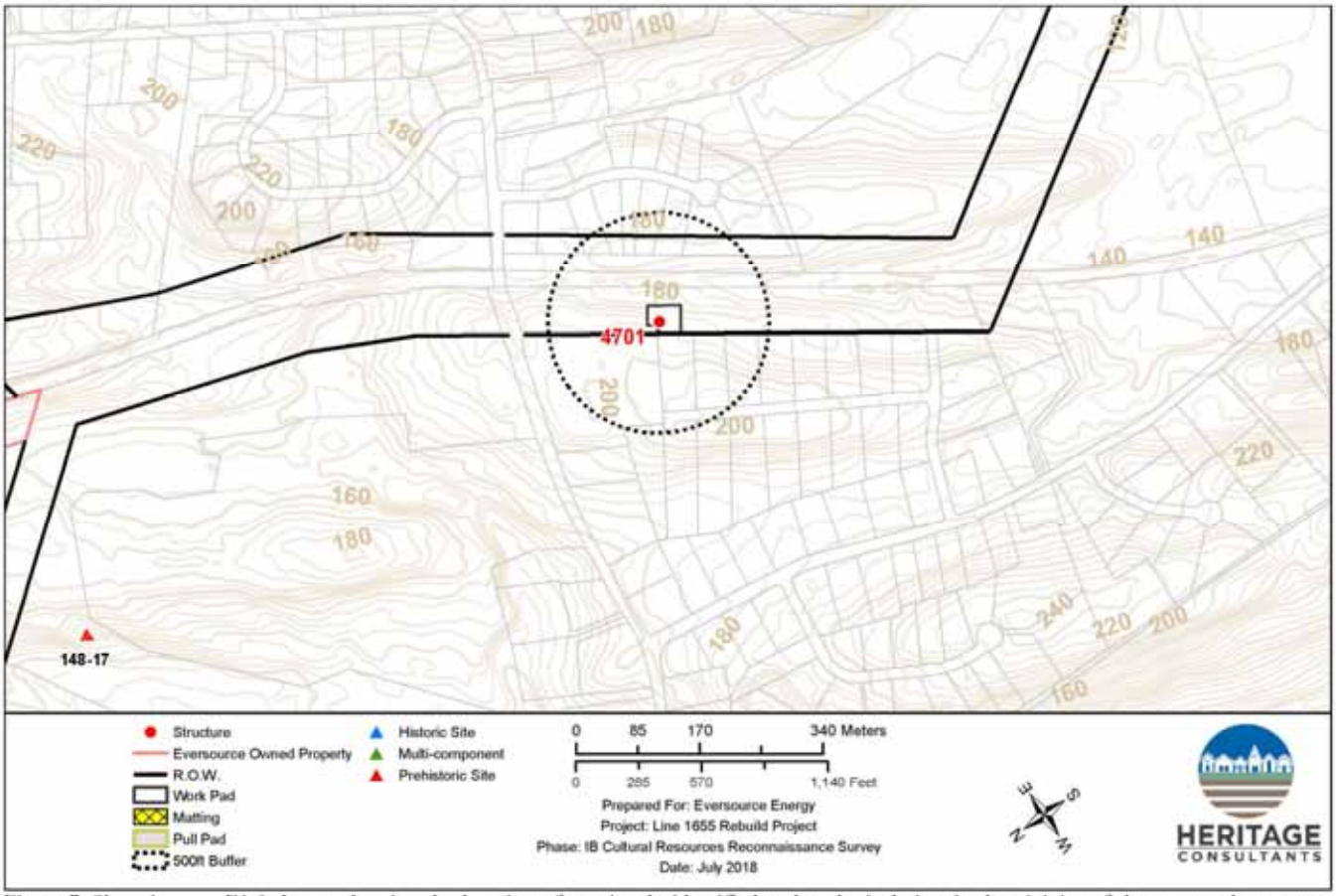
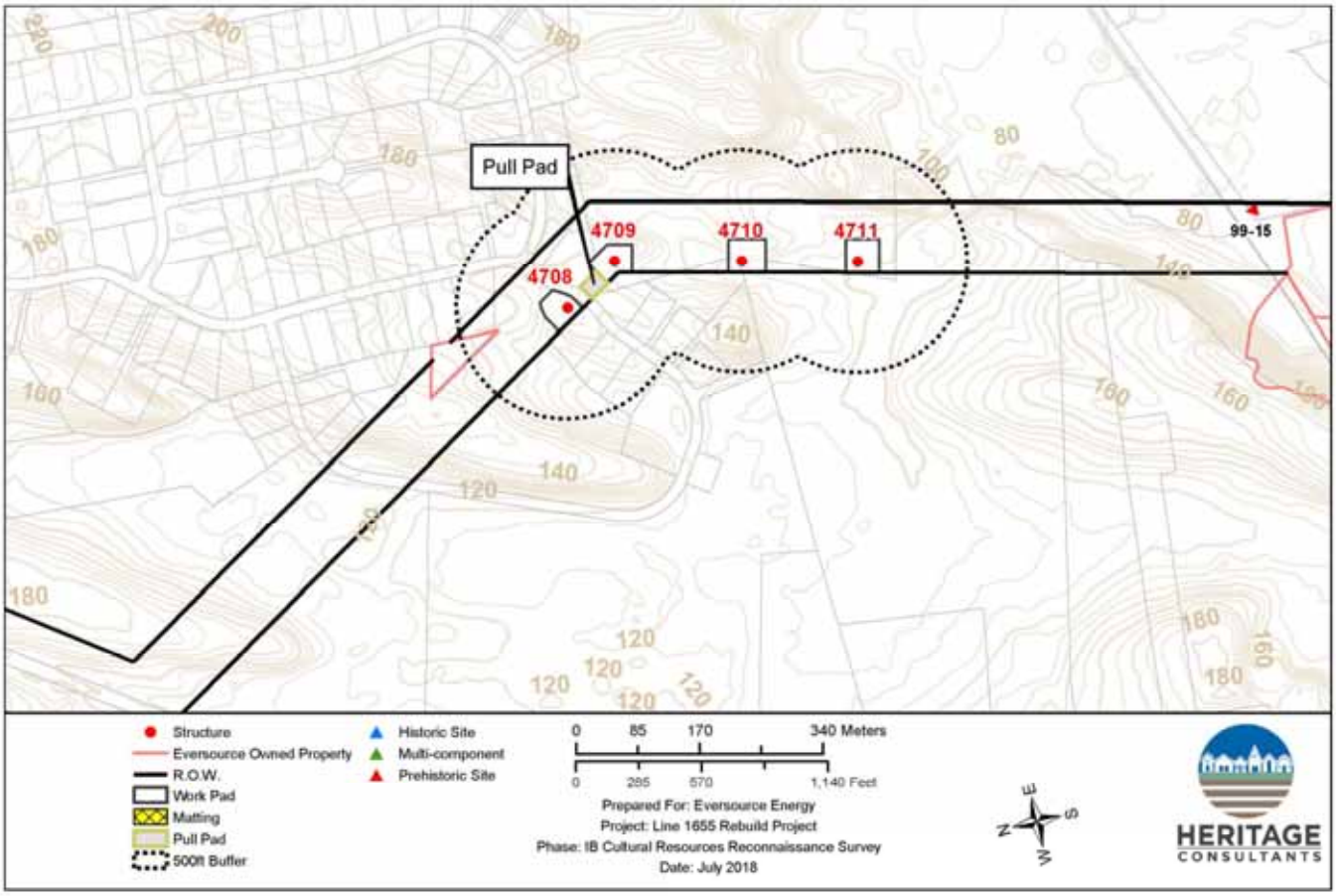


Figure 7; Sheet 1. Digital map showing the location of previously identified archaeological sites in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.


Pull Pad
4708
4709
4710
4711
99-15
Structure
Eversource Owned Property
R.O.W.
Work Pad
Matting
Pull Pad
500ft Buffer
Historic Site
Multi-component
Prehistoric Site
0 85 170 340 Meters
0 285 570 1,140 Feet
Prepared For: Eversource Energy
Project: Line 1655 Rebuild Project
Phase: IB Cultural Resources Reconnaissance Survey
Date: July 2018
HERITAGE
CONSULTANTS

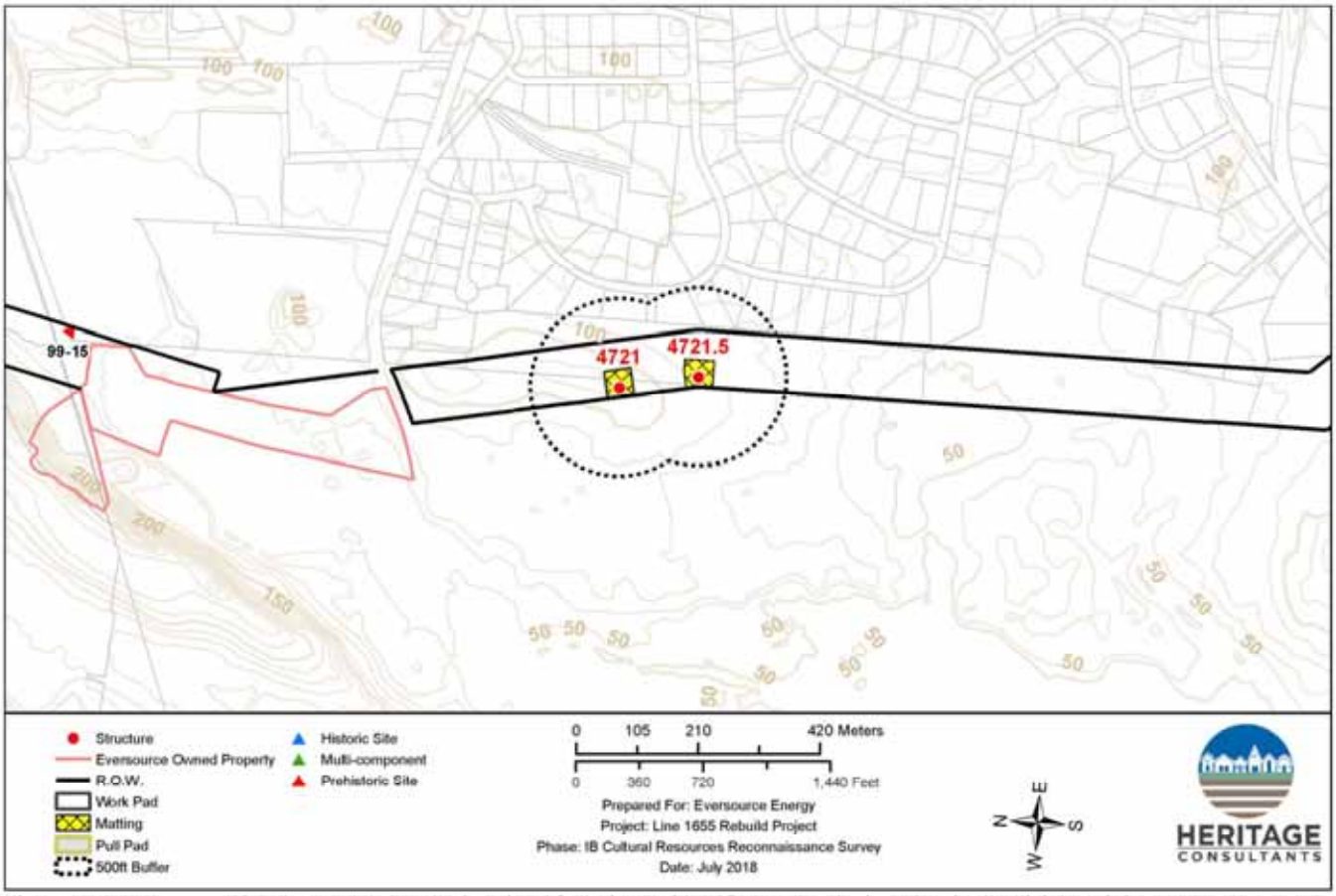


Figure 7; Sheet 3. Digital map showing the location of previously identified archaeological sites in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

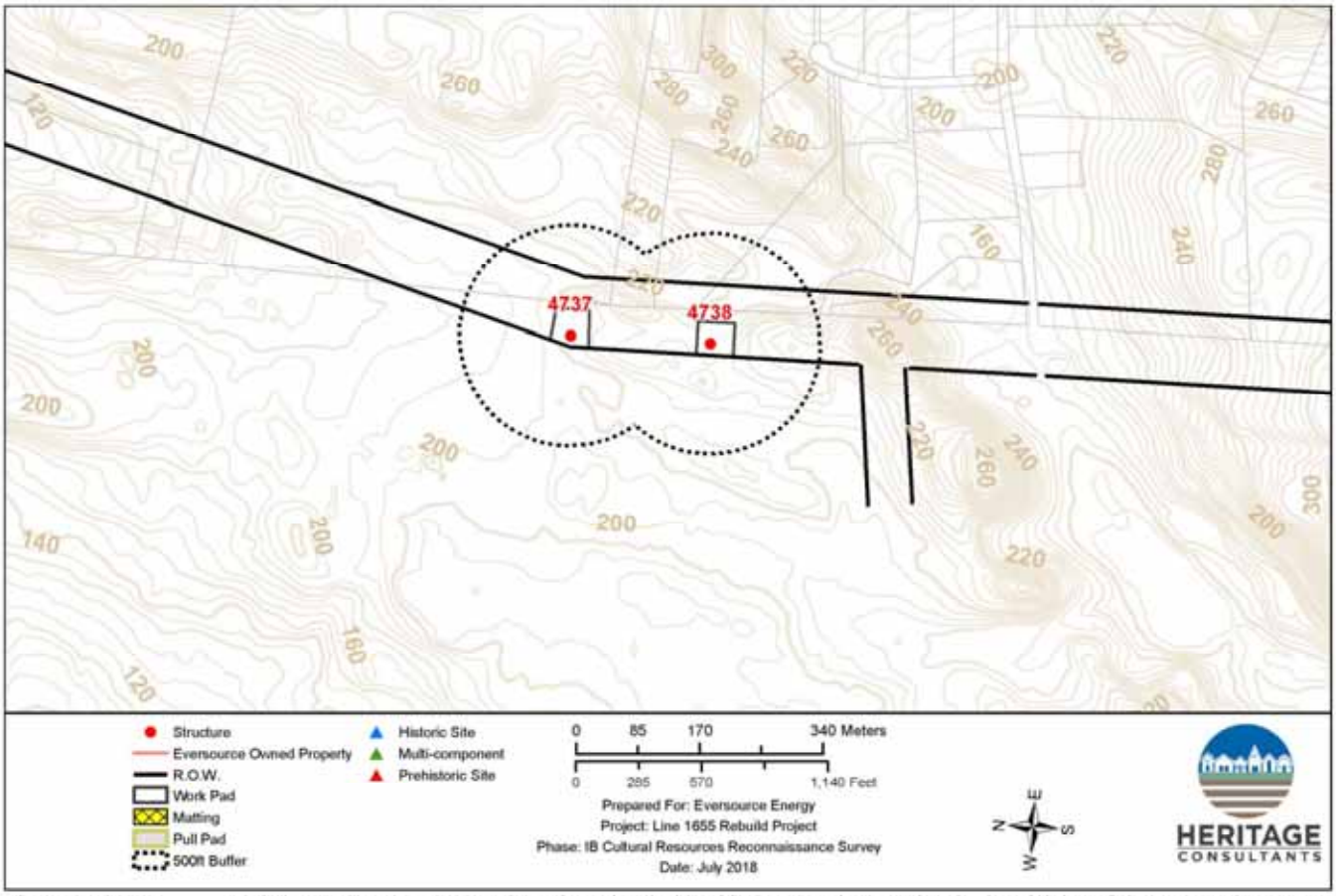
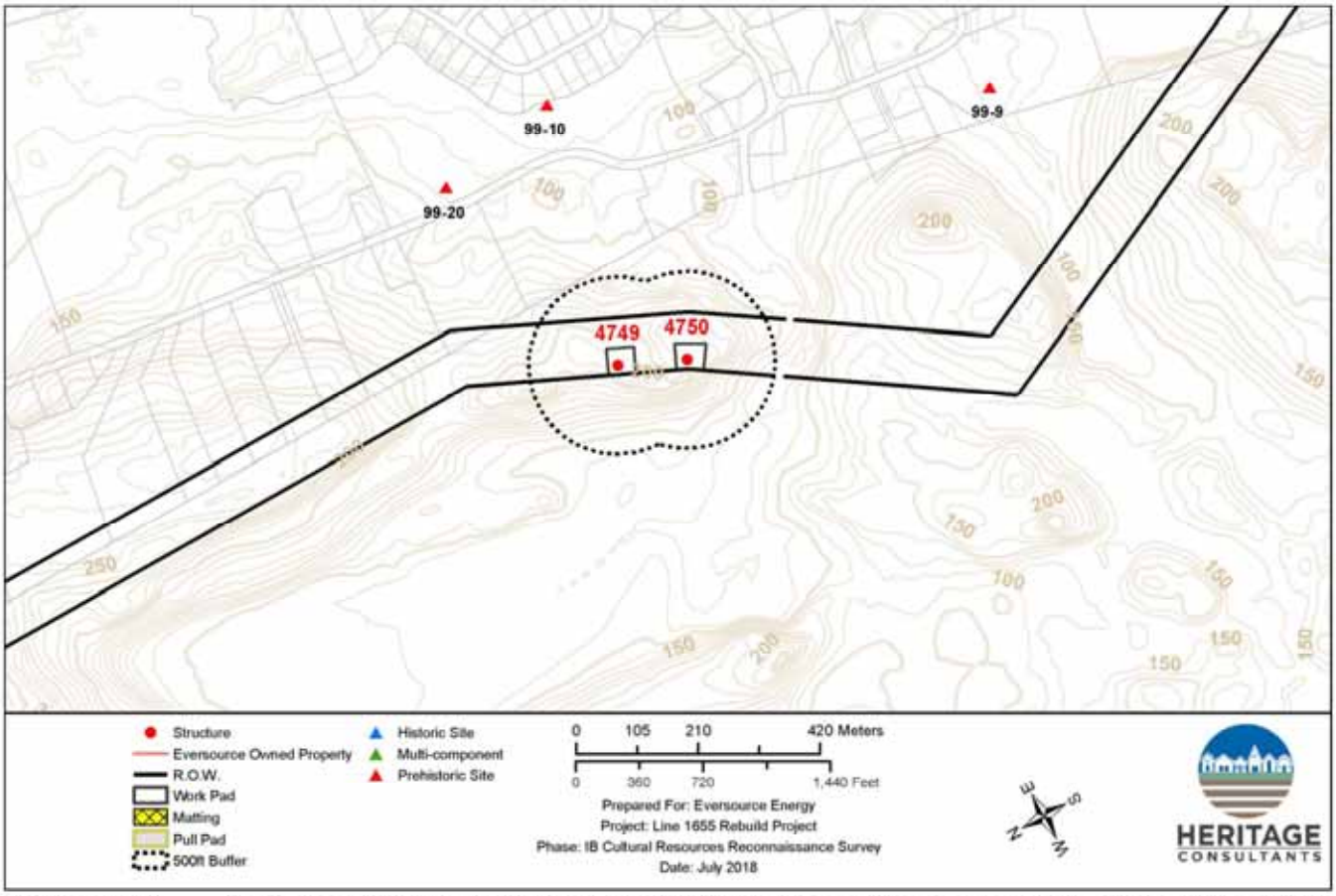


Figure 7; Sheet 4. Digital map showing the location of previously identified archaeological sites in the vicinity of the proposed structure replacements and pull pad along Line 1655 in North Haven and Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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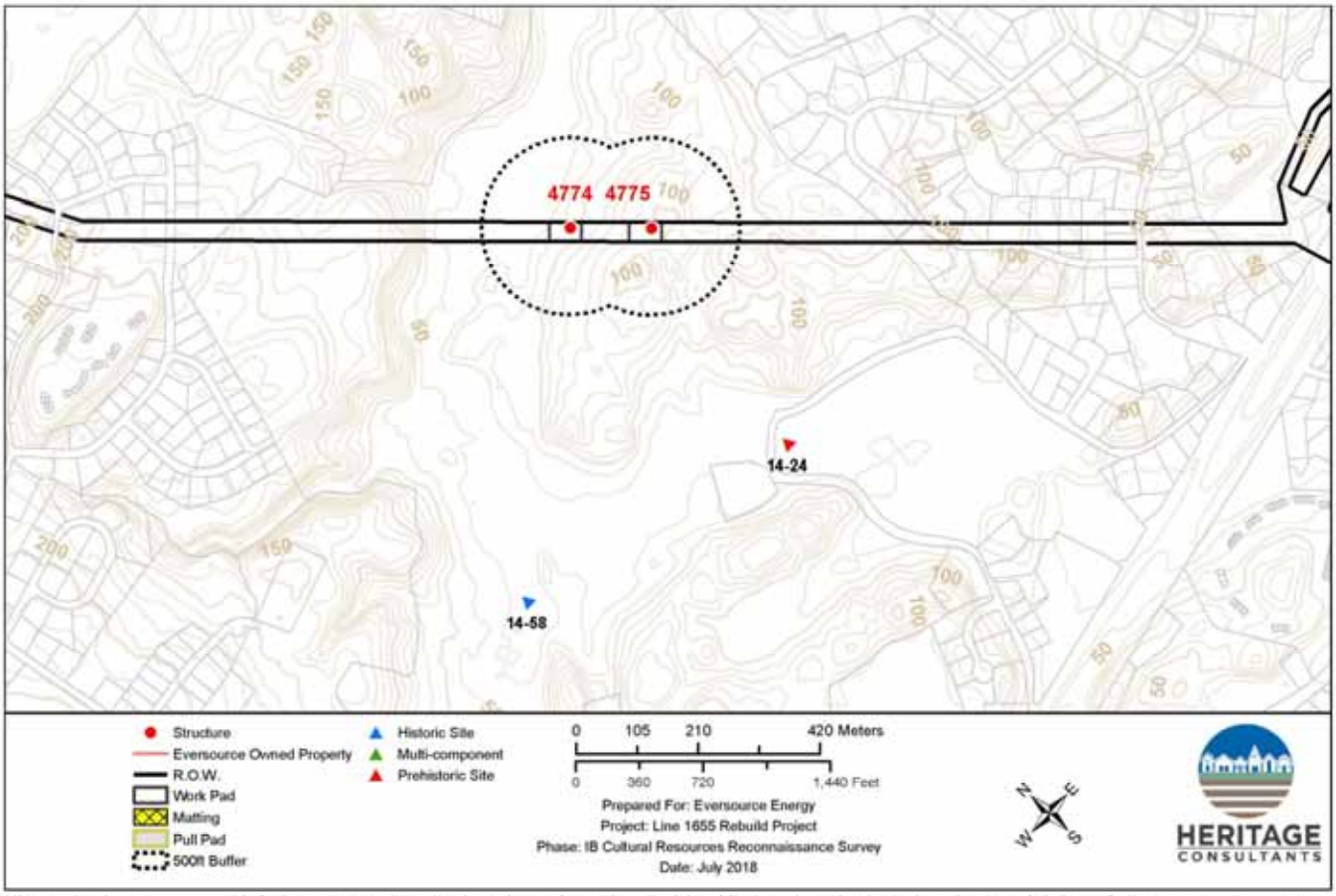

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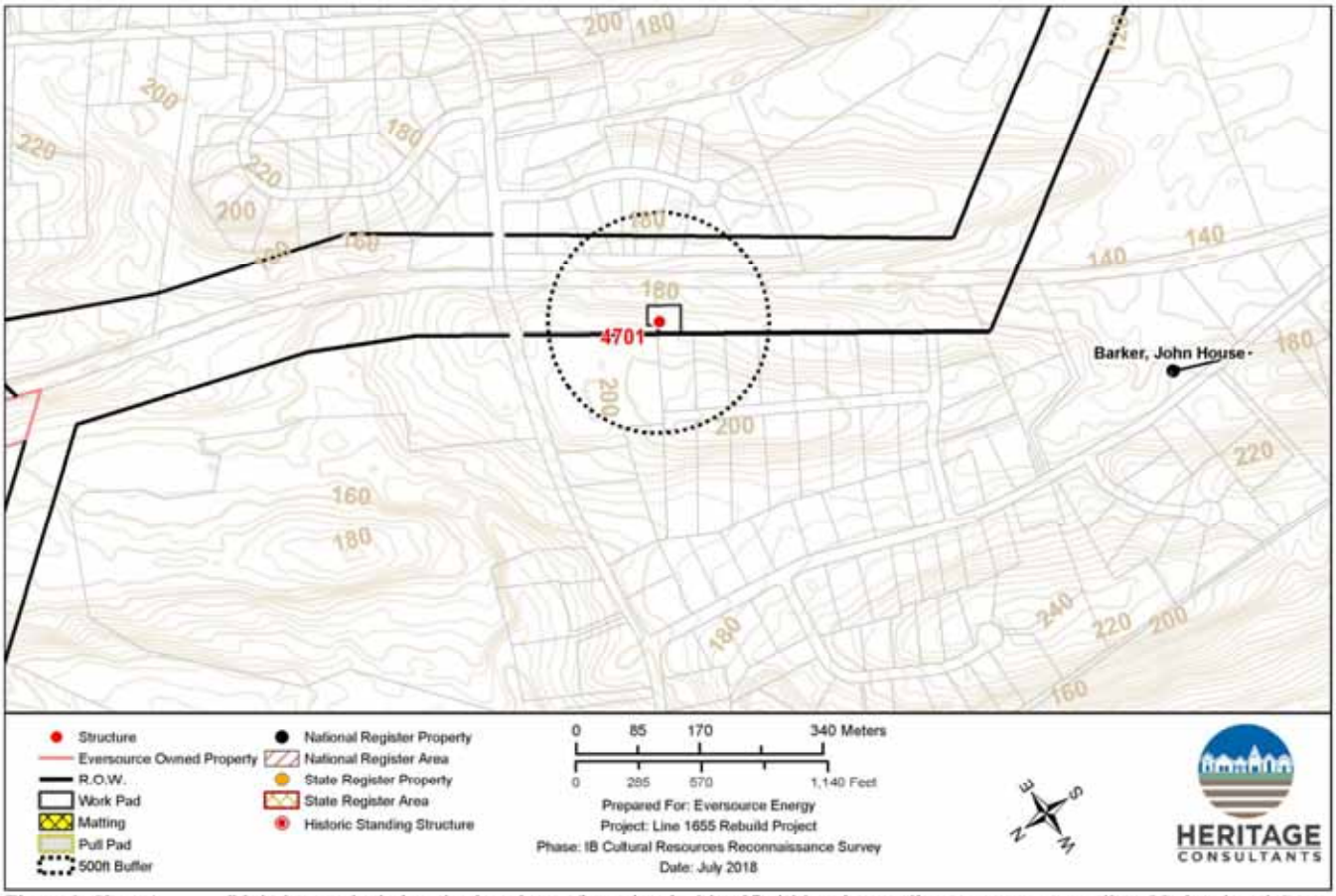


Figure 8; Sheet 1. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

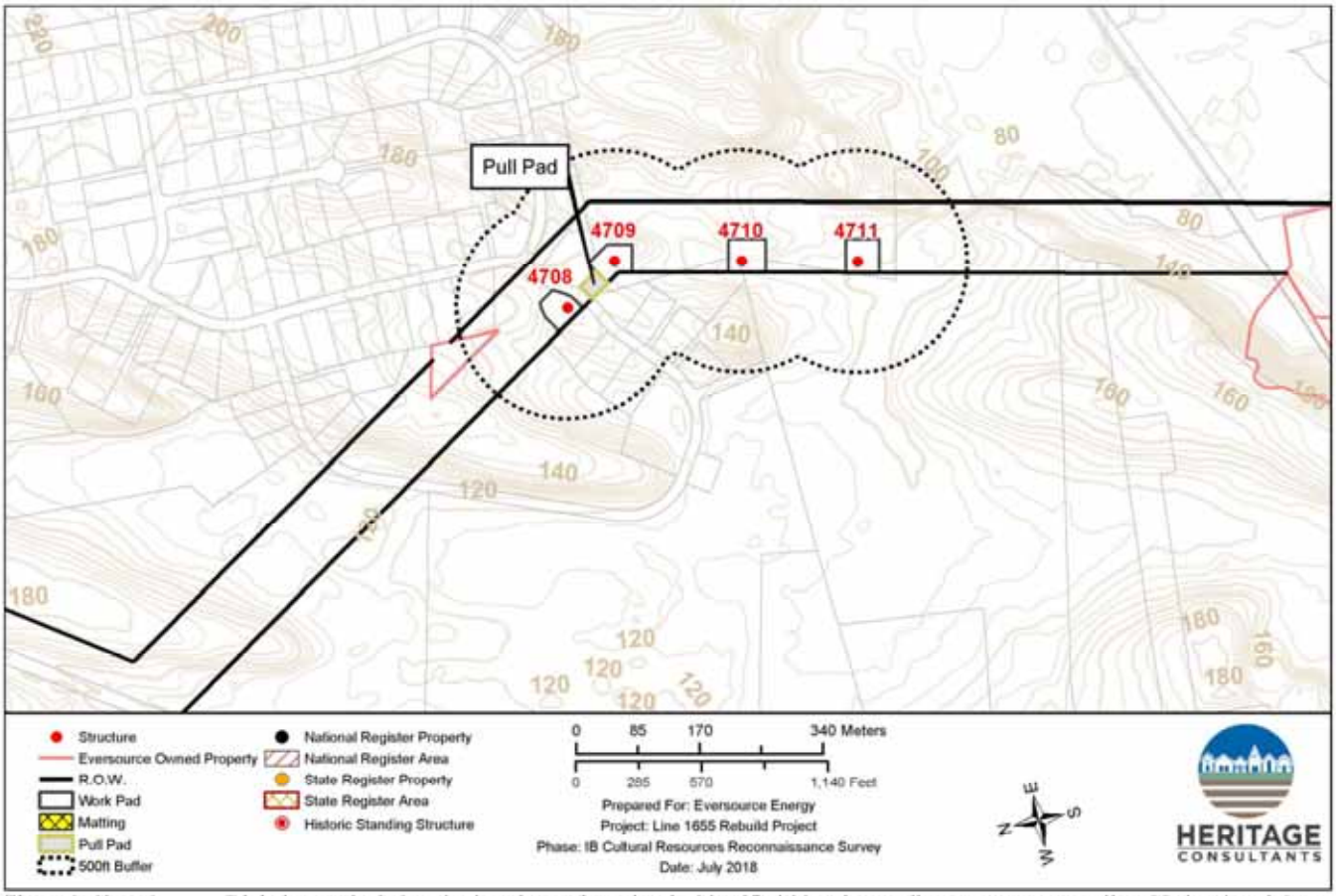
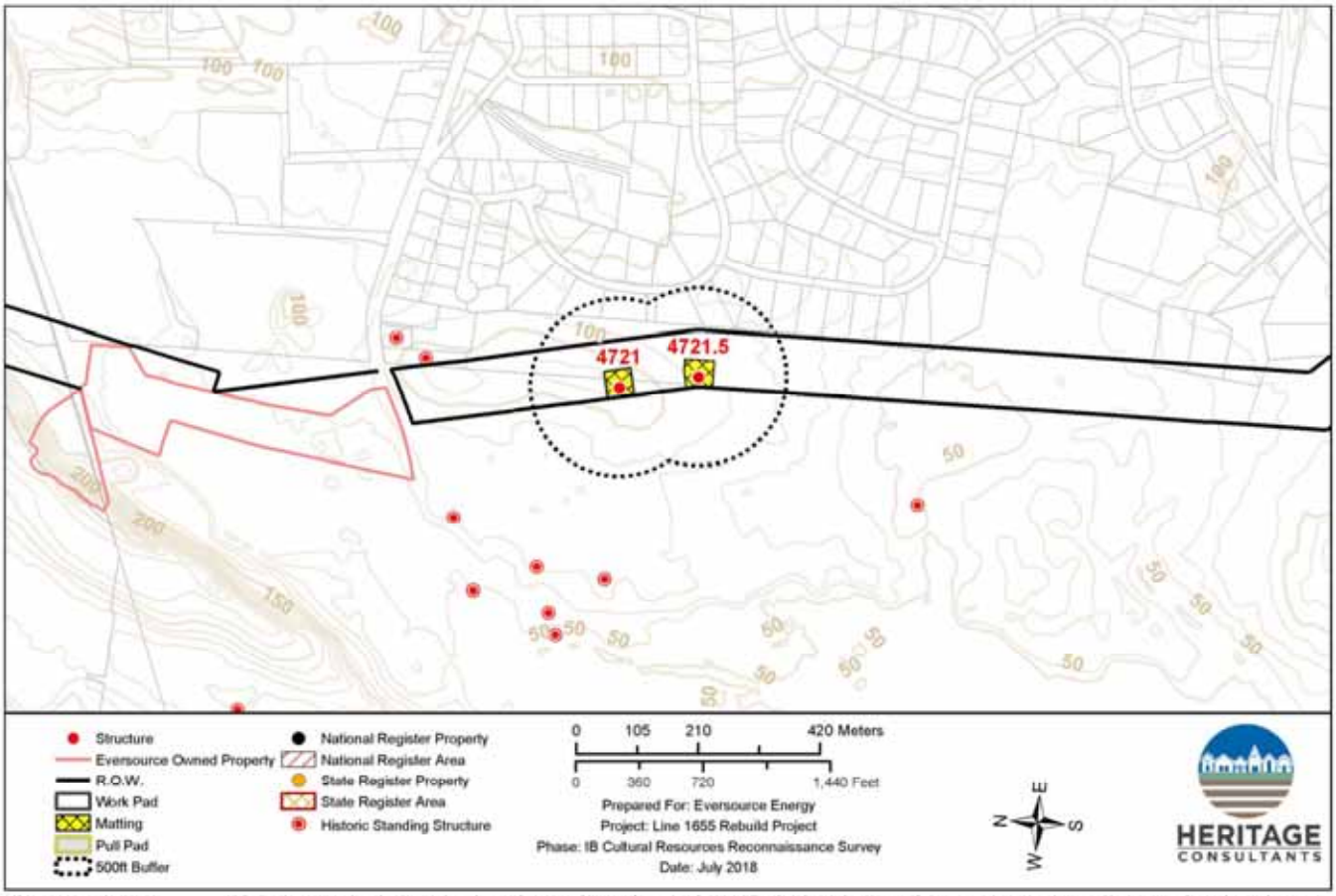


Figure 8; Sheet 2. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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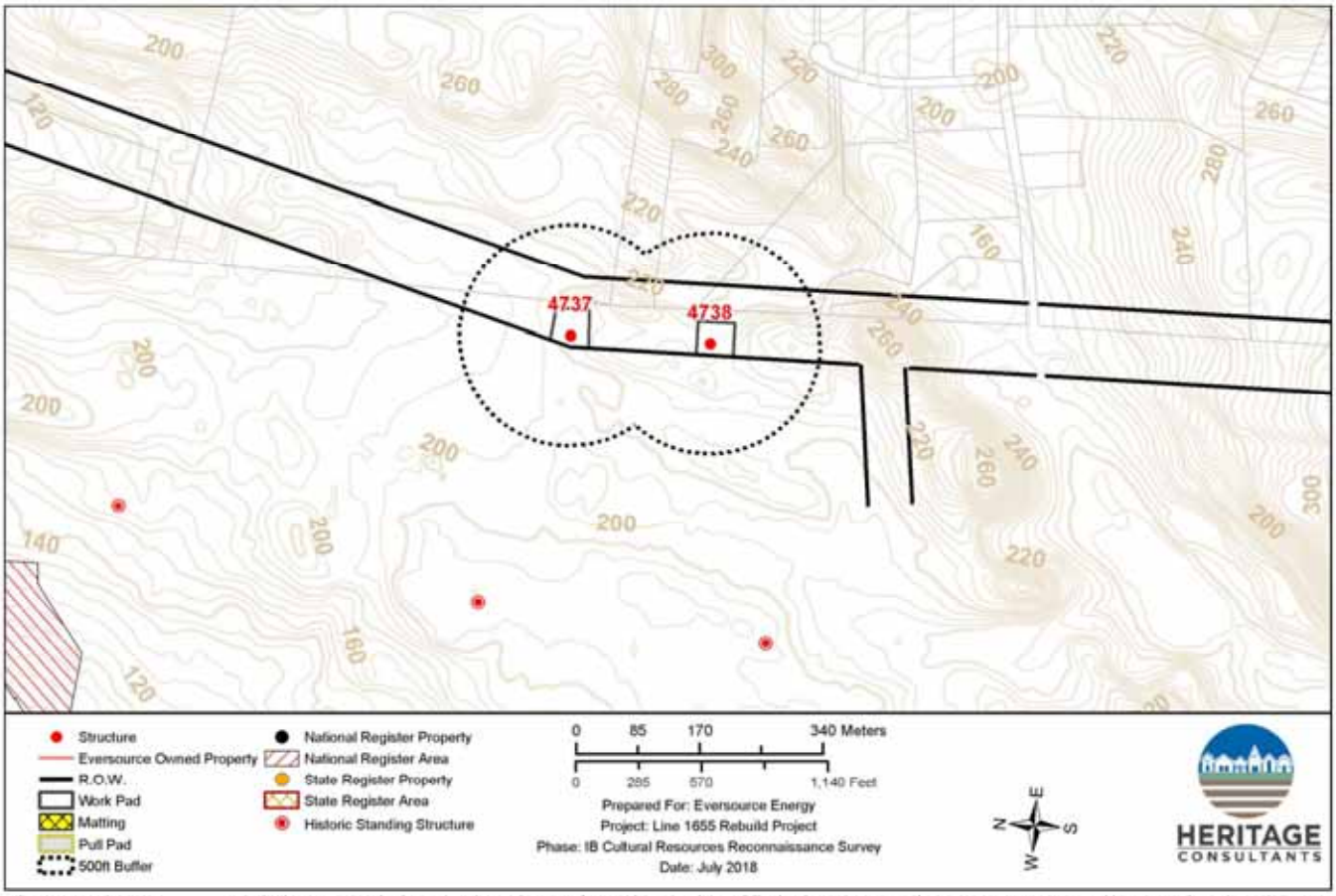

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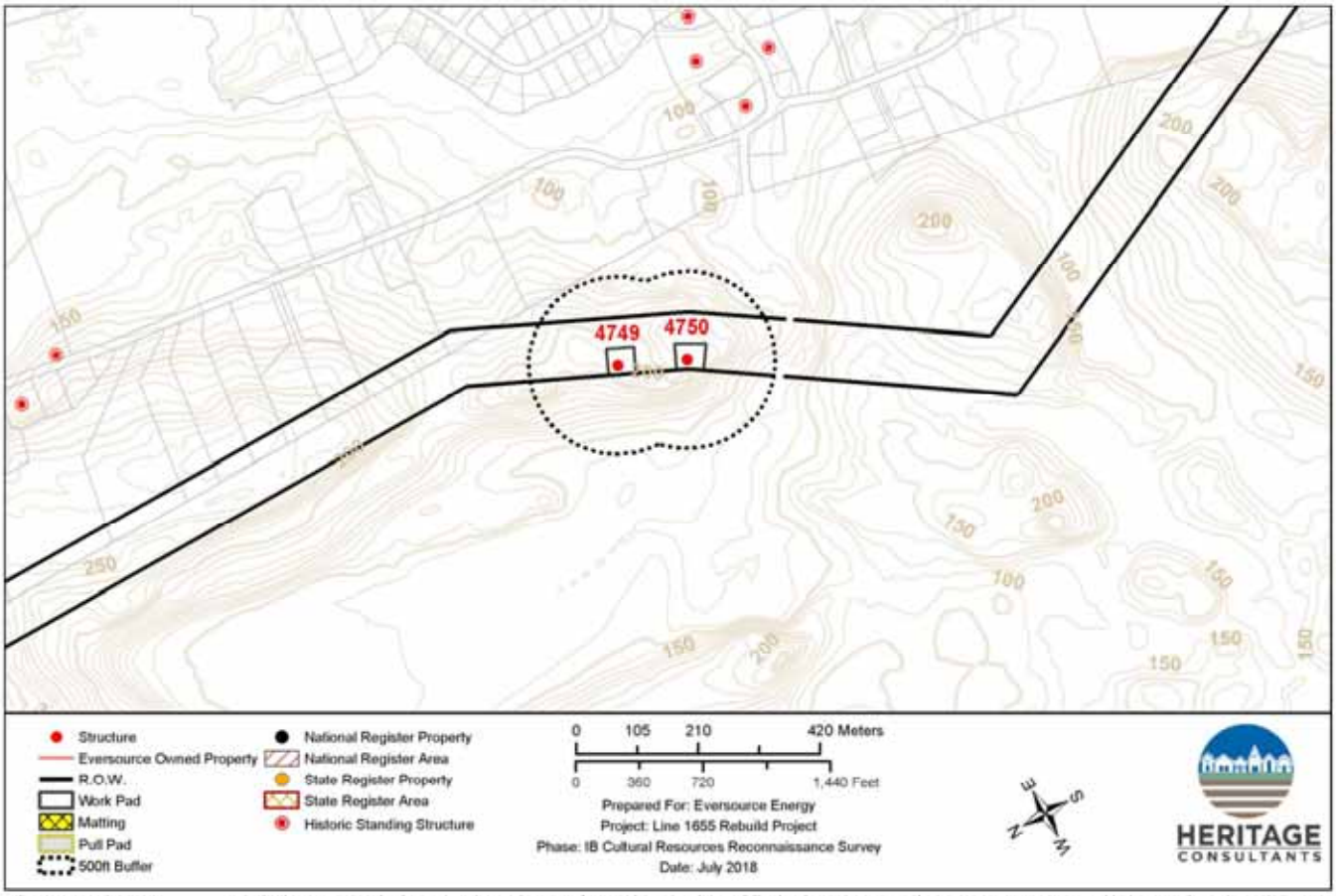

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ATTACHMENT C

JULY 2018

PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY OF PROPOSED STRUCTURE REPLACEMENTS ALONG LINE 1655 IN BRANFORD, NORTH BRANFORD, EAST HAVEN, NORTH HAVEN, AND WALLINGFORD, CONNECTICUT

PREPARED FOR:

EVERSOURCE ENERGY

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ABSTRACT

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during July of 2018. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, North Haven, and Wallingford, Connecticut. Fieldwork completed during this investigation consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad area. Despite the field effort, no archaeological materials or cultural features were identified within any of the proposed project items. Thus, no additional archaeological examination of the 14 work areas along Line 1655 is recommended.

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LIST OF FIGURES

1.0 Introduction

This report summarizes the results of a Phase IB cultural resources reconnaissance survey of 13 Eversource Energy (Eversource) replacement structures and a single proposed pull pad along Line 1655 between the East Wallingford Junction to the Branford Substation in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut. These included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a single pull pad in the vicinity of Structure 4709. Heritage Consultants, LLC (Heritage) completed the field investigation portion of this project in July of 2018 on behalf of Eversource. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the proposed project items associated with this undertaking, information used as project context, the methods by which the current Phase IB cultural resources reconnaissance survey was completed, results of the investigation, and management recommendations for the project.

2.0 Project Description and Methods

As mentioned above, the proposed structure replacements are situated in Branford, North Branford, East Haven, North Haven, and Wallingford, Connecticut (Figure 1). The work areas associated with the proposed replacement structures and the pull pad were positioned at approximate elevations ranging from 50 to 150 m (164 to 492.1 ft) NGVD. The proposed work pads associated with the structure replacement locations measured 45.7 x 45.7 m (150 x 150 ft) in size while the pull pad area encompassed an area measuring approximately 30 x 30 m (100 x 100 ft) in size. These areas will be accessed using existing dirt and gravel thoroughfares. At the time of survey, the structure replacement areas and the pull pad location were characterized by low lying shrubs, bushes, and open fields. Field methodologies employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing within the portions of the proposed work areas contained low slopes and undisturbed soil deposits. The details of the field methods used, as well as the results of this field effort, are reviewed below.

3.0 Background Research

The current Phase IB cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the portions Branford, North Branford, North Haven, and Wallingford encompassing the work areas. This was followed by a review of all previously recorded archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties in the vicinity of the proposed replacement structures in an effort to determine the archaeological and historical context of the area. Finally, this approach entailed the completion of fieldwork associated with the current Phase IB cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the area encompassing the structure replacement areas and the pull pad; an examination of the pertinent 1996 USGS 7.5' series topographic quadrangle; and a review of all cultural resources data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within and/or immediately adjacent to the work areas. This information was used to develop the archaeological context for assessing cultural resources that may be identified during survey.

4.0 Project Context: Natural & Prehistoric Settings, Historic Overview and Previous Investigations

The following sections provide an overview of the region's natural setting, prehistoric context, and historic backdrop, as well as previous cultural resources investigations completed within the vicinity of the work areas. These brief discussions are included to provide contextual information relative to the locations of the proposed structure replacements, their natural characteristics, and their prehistoric and

historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

4.1 Natural Setting

The proposed structure replacement areas and the pull pad are situated within the Southwest Hills ecoregion, which consists of "coastal uplands, lying within 25 miles of Long Island Sound, characterized by low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography" (Dowhan and Craig 1976). Elevations in the Southwest Hills ecoregion generally range from 75.7 to 227.2 m (250 to 750 ft) NGVD (Dowhan and Craig 1976). The bedrock of the region is composed of schists, and gneisses deposited during the Paleozoic. Soils in the region have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys and upland areas (Dowhan and Craig 1976). Freshwater sources in this region include Eightmile Brook, Muddy River, Farm River, and the Quinnipiac River. Soils types in vicinity of the proposed structure replacement locations and the pull pad include Yalesville, Cheshire-Holyoke, and Branford, all of which are well drained, and when situated on low slopes and are not disturbed, retain the potential to yield archaeological deposits.

4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190±300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced gravers, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, gravers, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into four subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), Late Archaic (6,000 to 3,700 B.P.), and Terminal Archaic (3,700 to 2,700 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from high quality lithics, though some quartz and quartzite specimens have been recovered. Current archaeological evidence suggests that Early Archaic groups became more focused on locally available and smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a "diversity of site types, with both large-scale occupations and small special purpose present" (McBride 1984:96). Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archaeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified, they generally encompass less than 500 m^2 in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to "settle into" well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually "killed" (intentionally broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as "characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations" (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting "population aggregations along major rivers, interior lakes, and wetlands" (McBride and Soulsby 1989:50). In sum, archaeological evidence indicates that Early Woodland populations consisted of mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archaeologically by the use of narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. The ceramic types dating from the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine ecozones. Both river confluences and coastal zones were favored areas for the establishment of large village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary

and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by "1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks" (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

4.3 History of the Proposed Project Region

The proposed project items consist of 13 structure replacement and a single pull pad situated along Line 1665. The relevant segment of the electrical transmission line begins in Wallingford and passes along the borders between North Haven, North Branford, and East Haven before terminating in Branford, Connecticut. The structure locations and the pull pad are relatively close to the major modern transportation arteries of Interstates 91 and 95, and, as a result, the areas containing them have been heavily developed during the latter part of the twentieth century.

Native American History

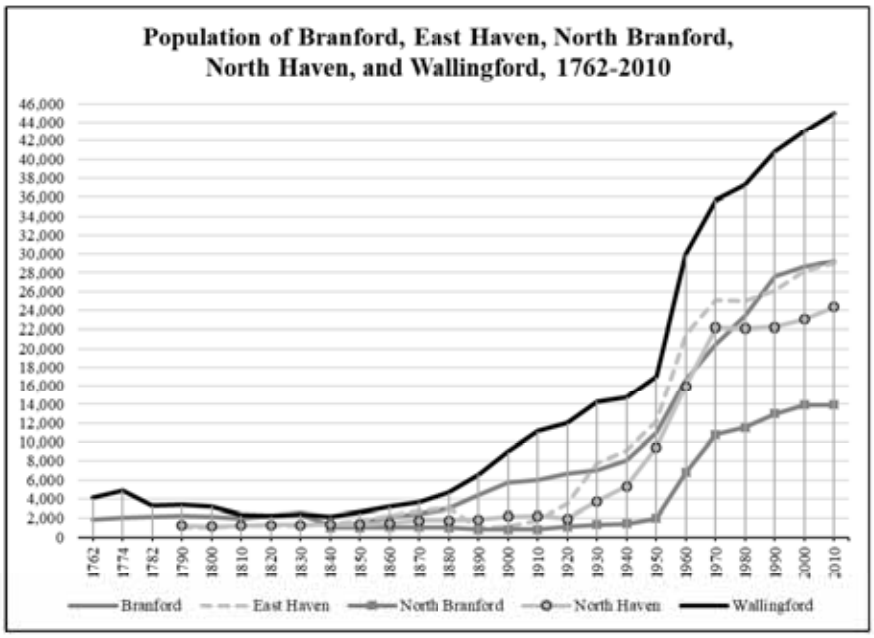
The area that became Wallingford was part of the New Haven Colony's 1638 treaties and 1645 agreement with the sachems Momauguin and Montowese, which included a large swath of the central coastal region of Connecticut between East Haven and Branford and extending northward to Wallingford and Meriden (Osterweis 1953). According to the Treaty of 1638 with Momauguin and the Quinnipiacs, this transfer was made out of gratitude for the English colonists' protection and support against the Pequots. As a result of the treaty, Indians reserved a small area for planting and the right to hunt and fish across the rest; it has been suggested by historians that they did not know that the colonists' lifeways were so incompatible with their own. The Quinnipiacs' reservation was in the present town of East Haven, where the last sachem recognized by the Euroamerican settlers died in either 1730 or 1740. Some years later, ca., 1768, a number of the Quinnipiac tribal members sold their land in East Haven and moved to north to join the Tunxis Indians at Farmington (De Forest 1852).

There was also a separate 1638 agreement with Montowese, which transferred an area called Totoket that consisted of 13 miles east to west, on both sides of the Quinnipiac River, and 10 miles north to south. This transfer was made in exchange for some goods, a small reservation of land, and hunting rights (De Forest 1852). This is the area that contained the future Towns of Wallingford and Branford (Crofut 1937). This deed was renewed in 1645, and in 1861 Montowese's sister and others received an unspecified sum of money to clear the town's title to this tract (Davis 1870). In 1685, a supplemental and confirmatory deed to Branford's area was obtained. Part of the area of Branford known as Indian Neck was retained by the Native Americans as a reservation, and for a time an individual Indian named Pawson owned 34 acres

of land nearby, which later became a public picnic ground called Pawson's Park (Crofut 1937). What became of Montowese and his people has not been recorded (De Forest 1852). Chances are that, like the Quinnipiacs, they stayed in the area for some time but eventually wearied of trying to compete with the colonists and moved on.

Colonial Era History (to 1790)

As mentioned above the proposed structure replacement areas are situated in portions of Branford, North Branford, East Haven, North Haven, and Wallingford. The New Haven Colony, which was the first English Colony established in this part of Connecticut, was founded in 1638 by two Englishmen, Pastor John Davenport and Master Theophilus Eaton, who preferred a new colony over the established Massachusetts Bay or Plymouth Colonies to satisfy their religious and commercial ambitions. They brought 300 colonists with them and quickly established the center of the present city of New Haven (Hill 1918). They also made the land purchases referenced above, which included an area much too large for convenient administration during the colonial era. As a result, the new Town of Wallingford was set off from New Haven in 1670. The colonists first settled a little to the west of the geographic center of the town, on the east side of the valley of the Quinnipiac River, and settled their boundaries with New Haven in 1674 (Crofut 1937). With its two elevated ridges of land, Wallingford was an early site of mining enterprises in Connecticut, beginning in 1712 and 1737; however most of this activity seems to have taken place in the areas that are now Cheshire and Meriden (Davis 1870). At the time of the first U.S. Census in 1790, the town had a substantial 3,375 residents (see the population chart below; Keegan 2012).



East Haven, first known as East Farms, was colonized by a large group in 1639 and acquired the status of a Congregational ecclesiastical society in 1680. Just over 100 years later, in 1785, the community secured town status (Hill 1918). Colonists probably began settling in the North Haven by the 1650s or 1660s, but settlement accelerated after New Haven distributed areas of land in the area in 1680, and 200 people lived in the area by 1715. In that year, the Northeast Parish of the Congregational Church was established; it became the separate town of North Haven in 1786 (Brusic 1986). At the 1790 census, East Haven had 1,025 residents and North Haven had 1,236; in contrast, New Haven had 4,484 people (see the population chart above; Keegan 2012). The original main village of North Haven was near the center of town, while

that of East Haven was in the south part of the town (Figure 2; Sheets 1 through 6). The locations of these villages, and that of Wallingford, are quite distant from the locations of the proposed structure replacements.

Branford was founded in 1644, after the colony of New Haven gave the right to settle there to a group from Wethersfield; it was formally recognized as being a separate settlement of that name in 1653. North Branford did not become a separate town until after the colonial era, but the village of North Branford in its southeast corner probably was established before 1700, and the smaller village in the north-central part of town (Northford) by ca., 1720 (Crofut 1937). Again, these locations of higher population density are well away from the proposed project items. Branford grew steadily through the colonial period, reaching a population of 2,267 as of 1790 (see the population chart above; Keegan 2012). Although the two coastal towns had river access to the Sound, like the inland towns (and, in fact, most other settlements of the era) their economies focused on agricultural, timber, fishing, and occasionally mining or quarrying production, most of it for local or regional consumption rather than export.

Early National and Nineteenth Century History (to 1900)

An 1819 gazetteer reported that Wallingford had good alluvial soil along the Quinnipiac River, and that grains, flax, potatoes, cider apples, and broom corn were grown there. The river also provided water power to support a woolen factory and two metal spoon factories, among other firms (Pease and Niles 1819). Railroads were an important key to Wallingford's economic growth in the nineteenth century. The Hartford & New Haven Railroad company was chartered in 1832 began building in 1837 despite a national financial crisis. The 18-mile segment between New Haven and Meriden opened in 1838 and eventually it connected to Hartford and Springfield. The rail corridor between Hartford and New Haven, now operated by Amtrak, is one of the few surviving passenger lines, and it also supports Conrail freight traffic. The Air Line, which passes through eastern Wallingford (and not far from the proposed project items) was constructed in 1846 but was not built from New Haven to Middletown until 1870, some of which is still actively used. In an 1856 county map, the proposed Air Line appears as a dotted line just east of Structure 4701; otherwise the nearest, but not very near, buildings were a school house ("S.H.") and an unlabeled building. Structures 4708, 4709, 4710, and 4711, as well as the pull pad, are in an area the map identified as a forested hill, with no buildings nearby (Figure 2; Sheet 2). The 1868 town map omitted the Air Line (which was a dormant project at the time) and shows School No. 7 and the home of Mrs. B. Doolittle north of Structure 4701; the other structures still had nothing nearby (Figure 3; Sheet 1). These maps show that the town's urban and industrial development – its silver ware, wire, rubber, fireworks, and other factories, municipal buildings, clubs, banks, etc. – were located elsewhere, leaving the project item in a rural and agricultural area (Hill 1918). These industrial activities, aided by the railroads, allowed Wallingford's total population to grow steadily throughout the century, from just over 2,000 in 1840 to 9,001 in 1900 (see the population chart above; Keegan 2012).

East Haven's population rose to 3,057 in 1880 before dropping abruptly to 955 in 1890 and recovering only a little by 1900 (see the population chart above; Keegan 2012). This reflects the transfer of East Haven's territory (and population) west of the Quinnipiac River back to the adjacent City of New Haven in 1881, provoked by the debt incurred by building a bridge across that river. Although various industries were attempted on East Haven's rivers, no large ones survived for very long and the town remained overwhelmingly agricultural (Hill 1918). The 1856 county map shows that the location of Structures 4749 and 4750 was between north-south roads and not close to any recorded farm buildings, and the 1868 town maps show exactly the same situation (Figures 2; Sheet 5 and Figure 3; Sheet 5).

North Haven, in partial contrast, did not see its population cross the 2,000 mark until 1900, when it had 2,164 residents (see the population chart above; Keegan 2012). The village of Clintonville, at the northeast corner of town, once hosted some industry, starting in 1830 with a factory making farm implements; others followed, but over the century mostly passed away (Hill 1918). The 1856 county map

is unfortunately so inaccurate that it appears that Structures 4737 and 4738 were in North Branford or East Haven instead of North Haven, although it could be that the towns' boundaries have changed since the map was made. Regardless, the location of the roads makes it clear that the structures' location is well away from any historic development (Figure 2; Sheet 4). The town boundary issues continued with the 1868 town maps, in which the two structures appear to be located outside the boundaries of both North Haven and North Branford; but the maps are consistent in depicting no buildings near the town line area (Figure 3; Sheet 3). One industry that did survive through the century was brick making, but the maps show no such activity nearby the proposed project items (Hill 1918).

According to the 1819 gazetteer, Branford's agriculture concentrated on corn, and it had a small harbor that would accommodate ships up to sixty tons and supported a thriving fishing industry as well as a modest amount of shipping along the coast. Most of the town's industrial activity was in processing agricultural products, though there was also a small furnace. The 30-house village had a post office and shops (Pease and Niles 1819). North Branford officially became a separate town in 1831, but as the population chart shows, the census counted its people separately in 1830. In the 1830s Branford's village had an academy and churches for Congregational and Episcopal congregations, but not many other buildings; it had an eight-ship fishing fleet that traveled to Maine for the salmon fishery. North Branford in the 1830s had its village of the same name in the southern part, and good soil for agriculture (Barber 1837). Although Branford's economy stayed focused on agriculture, it also developed an iron industry based on imported iron and the coastal railroad (built in the 1830s), which by the end of the century was represented by one large company. The town's other main industry, as the urban middle class increased in numbers, came to be coastal summer resorts (Hill 1918). As seen in Figure 2; Sheet 6, Structures 4774 and 4775 were a little way (but more than 500 feet) east of a road and three probable farm buildings strung along the west side of it, in an area with only scattered buildings. Both the road and the houses, and the low building density, were still present in the 1868 historic map (Figure 3; Sheet 6). North Branford changed only a little over the century, mainly by beginning to attract holiday residents with its rural charms. The Northford section developed some modest industry, based on water power from the Farm River and its position on a main road to Middletown (Hill 1918). The 1856 map shows North Branford's Structures 4721 and 4721½ as lying between (and well away from) two north-south roads, one in North Branford and one in North Haven (Figure 2; Sheet 3). Figure 3; Sheet 3 only shows the North Branford side of the picture, but there is no sign of any new east-west roads that might have complicated things; the two structures were not close to any recorded buildings. Overall, the differences between these two towns can be seen most starkly in the population chart above: while North Branford's population lingered around or under 1,000 residents and stood at only 814 in 1900, Branford grew steadily after 1840 to reach 5,706 in 1900 (Keegan 2012).

Modern History (to present)

A 1932 summary of information about Connecticut towns included agriculture at the end of a list of Wallingford's manufacturing that still ranged from silver goods to hardware to fireworks (Connecticut 1932). This is reflected in the 1934 aerial photography showing that Structure 4701's location was a cleared or reforesting field, while the other four structures stand where there was forest that may never have been fully cleared (though it could have been logged for fuel) (Figure 4; Sheets 1 through 6). Like other towns that had a solid industrial base, Wallingford continued to grow after 1900, reaching 16,976 residents by 1950; then suburbanization made the population more than double to 35,714 as of 1970, and though it has grown more slowly since then, in 2010 its population was 45,030 (see the population chart above; Keegan 2012). The 1951 aerial photography indicates that the population growth had not yet reached the project items, as the structures were still in a cleared field and a forest, respectively, although the forest showed signs of recent logging (Figure 5; Sheets 1 through 6). By 2016, however, the utility right-of-way had appeared and even the forested area was surrounded by housing subdivisions and other development (Figure 6; Sheets 1 through 6). In the twenty-first century, Wallingford still has substantial manufacturing employment but very little in agriculture, as the development near the proposed project

items suggests, and the still-rising population suggests that any surviving open space is under development pressure (CERC 2006).

In the early part of the twentieth century, trolleys made East Haven's shore accessible to New Haven visitors (Hill 1918). This caused a substantial burst of population growth over the first three decades, to 7,815 in 1930; then after the Depression and the development of automobile transport, very rapid growth from 1940 to 1970, when it reached 25,120. Since then population growth has slowed and as of 2010 it stood at 29,063 (see the population chart above; Keegan 2012). The 1932 statement that the town's only industry was agriculture indicates that early resort development and suburbanization are the best explanation for the early population growth (Connecticut 1932). The 1934 aerial photograph shows the location of Structures 4749 and 4750 as in or near either a farm field or a large woodlot (Figure 4; Sheet 5; the overall area had both large areas of farms and large areas of woods and swamp (Figure 4; Sheets 1 through 6). In 1951, the woodlot had apparently been partially cleared or logged, but the area was substantially the same (Figure 5; Sheets 1 through 6). In 2016, the area shows as have a wide mixture of uses, from a sand and gravel quarry to farms and woods, and also some housing development (Figure 6; Sheets 1 through 6). Whether this will change in the future is unclear.

North Haven's industries in 1932 included brick making, printing, and wood products for carriages as well as agriculture (Connecticut 1932). As these industries did not raise its population much during the previous century, during the twentieth century the population stayed small – dipping to 1,968 in 1920 – until trolley and then automobile technology began pushing it up, to 5,326 in 1940 and 22,194 in 1970 (an over 400 percent increase) before it mostly leveled off and stood at 24,374 in 2010 (see population chart above; Keegan 2012). Unsurprisingly, the 1934 aerial photography shows the locations of Structures 4737 and 4738 as being in or near the edge of cleared agricultural fields, with large areas of farms to the west and an area of forest to the east (Figure 4; Sheet 4). This had not changed in the 1951 aerial photography, and by 2016 there was still some working farm area nearby, in addition to housing developments on both the west and east sides (Figures 5; Sheet 4 and Figure 6; Sheet 4).

The 1932 town summaries stated that Branford's industries included agriculture, malleable iron goods, steel items, wire, and shirts (Connecticut 1932). The 1934 aerial photograph series shows the area of Structures 4774 and 4775 as forested and north of a new reservoir, which seems to have caused the removal, or at least abandonment, of the road and houses that once lay west of the project items (Figure 4; Sheet 6). Otherwise the only notable items here were a small cleared area just west of the structures, with an apparent structure of unknown purpose on it, and an apparent cleared utility right-of-way running southeastward from Structure 4775 (Figure 4; Sheets 1 through 6). The 1932 town information reported North Branford's sole industry as agriculture (Connecticut 1932). The 1934 aerial photography recorded the area of Structures 4721 and 4721½ as in the midst of cleared agricultural fields and an occasional woodlot, with the nearest farmstead well away to the west (Figure 4; Sheet 3). Branford's population increased slowly through 1940, then began increasingly very rapidly to 27,603 in 1990, and then slowed again to only reach 29,243 by 2010. Similarly, North Branford saw very slow growth through 1950 and then very rapid growth to 10,778 in 1970, followed by slower growth to 13,944 as of 2010 (see the population chart above; Keegan 2012). These trends are consistent with the suburbanization of areas near cities and in coastal areas in the United States from about 1940, abetted by transportation improvements, especially the construction of limited-access highways such as Interstates 95 and 91 in the vicinity of these towns. The location of Branford's two structures near reservoirs, however, seems to have protected the vicinity from development, aside from utility infrastructure; both the 1951 and 2016 aerial photographs show the structures surrounded by woods, except for the cleared utility right-of-way (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). The North Branford structures are located in an area that remained cleared fields in 1951, and also in 2016 – except that in the latter case, the utility right-of-way seems to be the only agricultural area, flanked on both sides by dense housing developments (Figures 5; Sheets 1 through and Figure 6; Sheets 1 through 6). Although both towns are still growing

slowly, the vicinity of the Area of Potential Effect in these cases appears to be protected from development (Branford) or almost fully developed (North Branford).

Conclusion

The documentary record indicates that it is unlikely that significant historic resources will be disturbed by the proposed structure replacement project. Certain structures, being located in or near places that were agricultural fields in 1934, may hold less-significant remains of farming activity such as stone walls or fencing (Structure 4701 in Wallingford, Structures 4721 and 4721½ in North Branford, Structure 4737 and possibly 4738 in North Haven, and Structure 4749 and possibly 4750 in East Haven). The wooded locations may show signs of past logging activities or undocumented farming work.

4.4 Previous Investigations

As mentioned above, the current effort also involved an examination of State Historic Preservation Office records as they pertain to archaeological sites, National Register of Historic Places properties, and State Register of Historic Places properties situated within 152 m (500 ft) of the proposed structure replacement areas (Figures 7; Sheets 1 through 6 and Figure 8; Sheets 1 through 6). In addition, the electronic site files maintained by Heritage also were examined during the investigation. This review failed to identify any previously recorded cultural resources within 152 m (500 ft) of Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 or the proposed pull pad in the vicinity of Structure 4709.

5.0 Field Methods

Following the completion of all background research, the work areas were subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide thorough coverage of all portions of the proposed structure relocation areas, work pads, and the single pull pad. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the work areas. Those structure replacement locations or any portions of them that were found to contain steep slopes, wet areas, or have been previously disturbed were subjected to pedestrian survey and photo-documentation only; no shovel testing was completed in these areas.

For those work areas that contained low to moderate slopes and well drained soils, the subsurface testing portion of this investigation involved the excavation of shovel tests in the testable portions of the work areas scheduled for construction related impacts. This included the placement of shovel tests situated 3 m (10 ft) on either side of the vertical poles constituting the structures along Line 1655, as well as the placement of shovel tests in each of the corners of the proposed work pads and the pull pad. During survey, each shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size and each was excavated to a depth of 50 cmbs (19.7 inbs) or until glacially derived C-Horizon or wet soils were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archaeological recordation process.

6.0 Curation

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with:

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7.0 Results of the Investigation

As mentioned above, the current project entailed a Phase IB cultural resources reconnaissance of 13 proposed structure replacements and a single pull pad located along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut, Connecticut (Figure 1; Sheets 1 through 6; Table 1). Fieldwork for this project was initiated through a pedestrian survey of all 14 proposed project items. The purpose of the visual reconnaissance was to determine which of the work areas were situated on level to moderate slopes, characterized by well drained soils, and were located near a freshwater source, thus indicating that they retained a moderate/high archaeological sensitivity. The results of the pedestrian survey revealed that all of the proposed structure replacement locations and the pull pad fell within moderate/high sensitive areas for archaeological deposits and should be subjected to Phase IB shovel testing.

Table 1. List of structure replacements and Phase IB testing results.

Structure Number	No. of Shovel Tests Excavated	No. of Shovel Test Planned	Reason for Unexcavated Shovel Tests	Results
4701	5	8	Slopes	No Cultural Materials or Features
4708	5	8	Slopes	No Cultural Materials or Features
4709	4	8	Slopes	No Cultural Materials or Features
4710	4	8	Wet/Rocky	No Cultural Materials or Features
4711	5	8	Wet	No Cultural Materials or Features
4721	6	8	Disturbance	No Cultural Materials or Features
4721 ½	6	8	Crops	No Cultural Materials or Features
4737	2	8	Push Piles	No Cultural Materials or Features
4738	7	8	Slopes	No Cultural Materials or Features
4749	2	8	Disturbance	No Cultural Materials or Features
4750	4	8	Disturbance	No Cultural Materials or Features
4774	0	8	Gravel pad in place	No Cultural Materials or Features
4775	0	8	Exposed Bedrock; Disturbance	No Cultural Materials or Features
Pull Pad 1	15	16	Disturbance	No Cultural Materials or Features

A total of 65 of 120 (54 percent) planned shovel tests were excavated throughout the Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775 areas, as well as within the area encompassing pull pad in the vicinity of Structure 4709 (Table 1). The 55 planned but unexcavated shovel tests fell within previously disturbed areas, on steep slopes, and/or within very rocky or wet areas. A typical shovel test profile exhibited three strata in profile and it extended to a depth of 70 cmbs (28 inbs). Stratum I, the A-Horizon, extended from 0 to 20 cmbs (0 to 8 inbs) and consisted of a layer of brown (7.5YR 5/4) silty loam. Stratum II, the B-Horizon, reached from 20 to 60 cmbs (7.2 to 24 inbs) and it was characterized as a deposit of strong brown (7.5YR 5/8) silty sand. Finally, Stratum III, the glacially derived C-Horizon, was classified as a deposit of olive brown (2.5Y 4/4) coarse sand and pebbles; it was excavated to a terminal depth of 70 cmbs (28 inbs). Despite the fieldwork effort, no evidence of cultural features was identified

within any of the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered from the proposed replacement areas associated with proposed work areas along Line 1655.

8.0 Summary and Management Recommendations

Heritage Consultants, LLC completed this project on behalf of Eversource Energy during August of 2017. It consisted of Phase IB cultural resources reconnaissance survey of 13 proposed structure replacement locations and a single pull pad area along Line 1655 in Branford, North Branford, North Haven, and Wallingford, Connecticut (Figure 1). Fieldwork for this project consisted of pedestrian survey, photo-documentation, and subsurface testing. The proposed project items included Structures 4701, 4708, 4709, 4710, 4711, 4721, 4721½, 4737, 4738, 4749, 4750, 4774, and 4775, as well as a pull pad in the vicinity of Structure 4709, all of which were located within moderate/high sensitive areas for archaeological deposits. During Phase IB survey, a total of 65 of 120 (54 percent) planned shovel tests were excavated throughout 13 replacement areas and the pull pad. Despite completion of the fieldwork, no cultural materials or cultural features were identified. Thus, no additional Phase IB cultural resources survey of any of the project items along Line 1655 is recommended.

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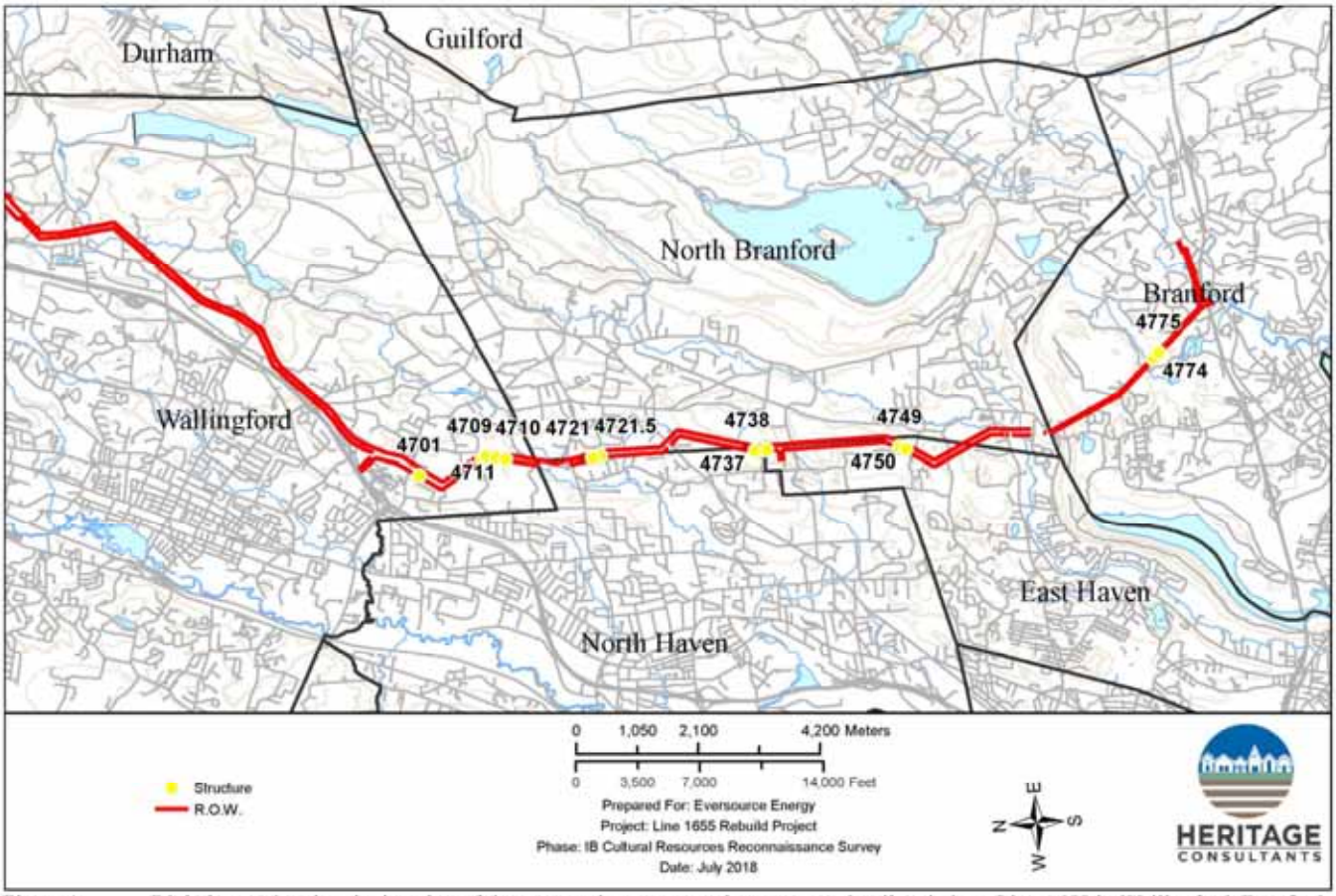
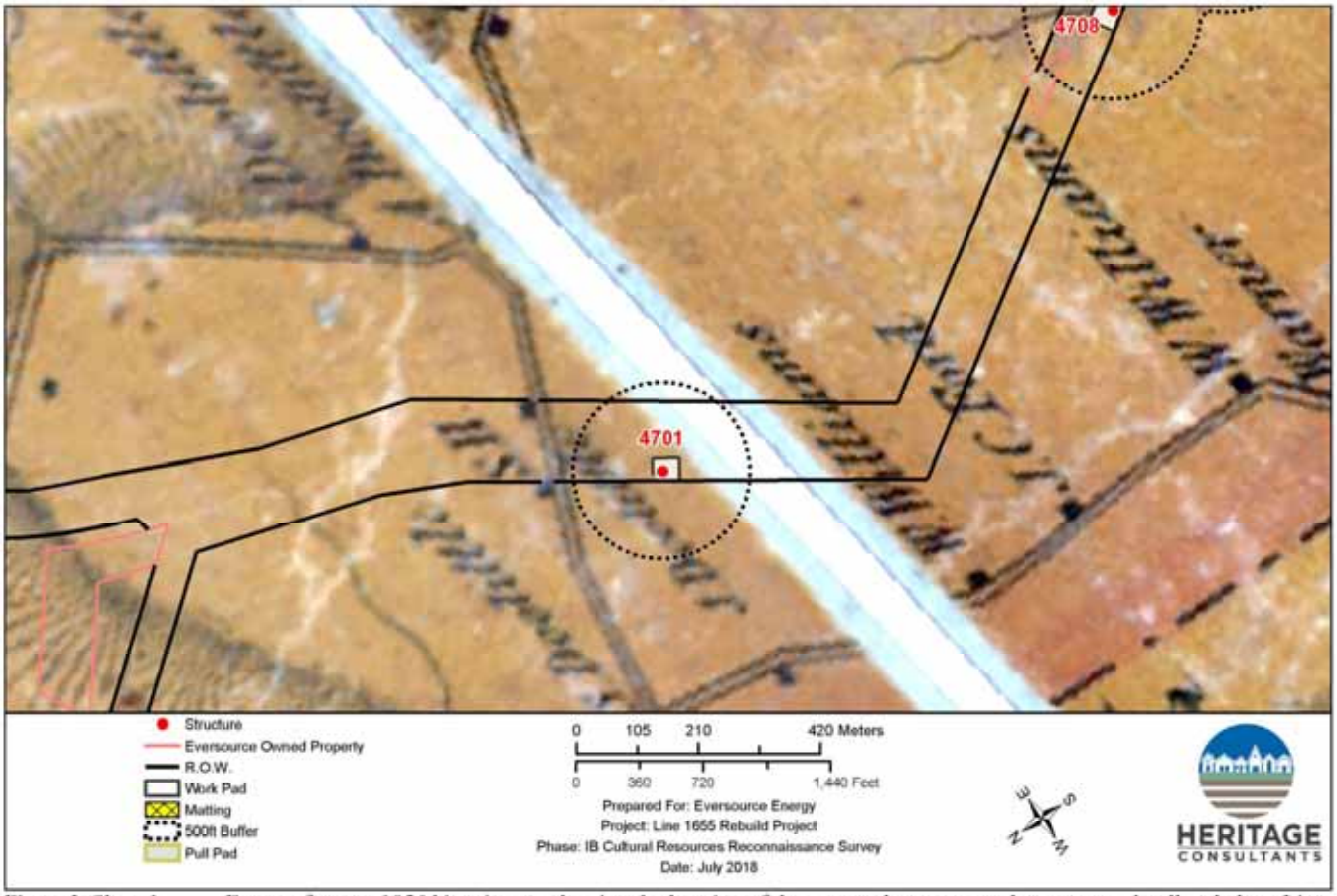


Figure 1. Digital map showing the location of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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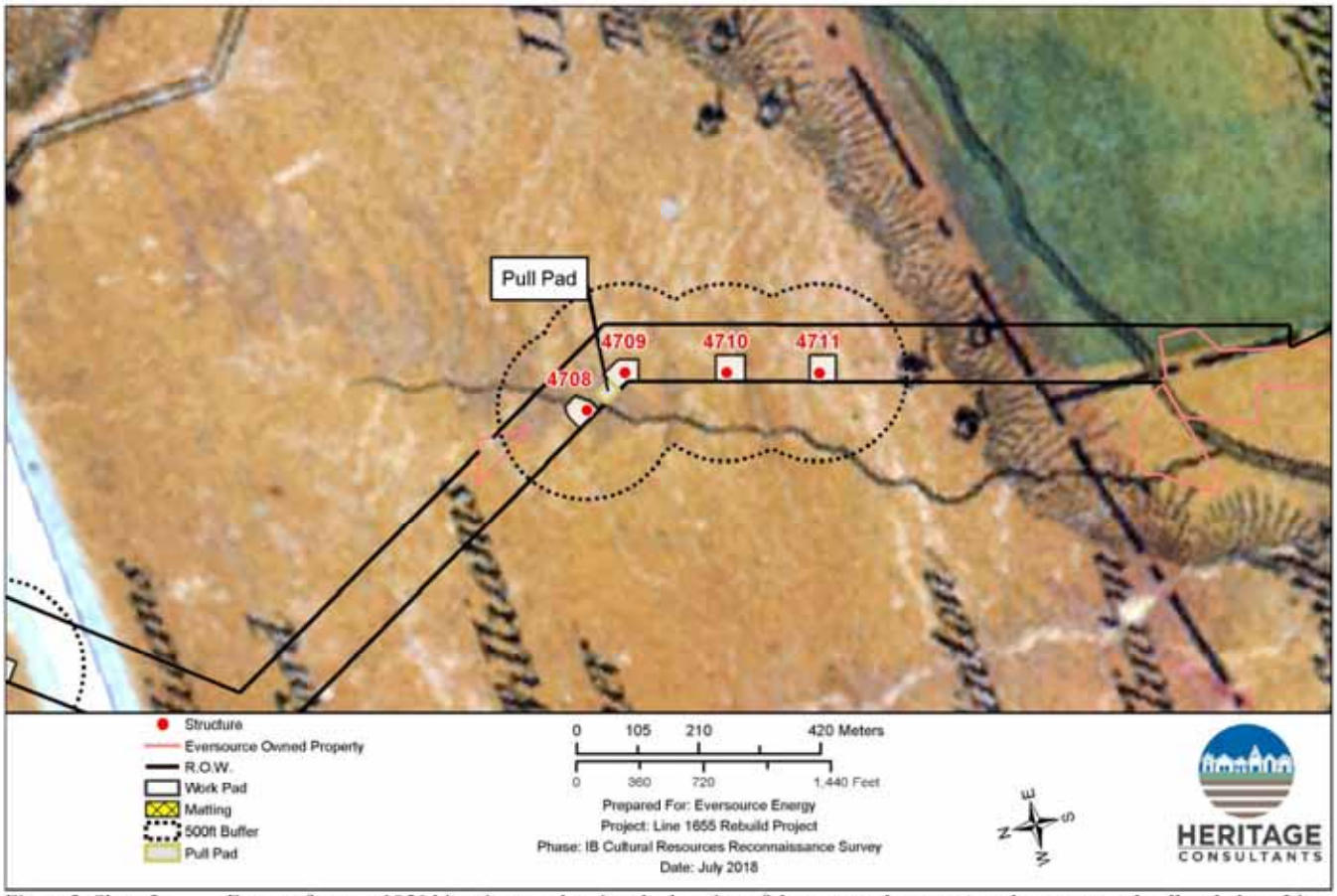

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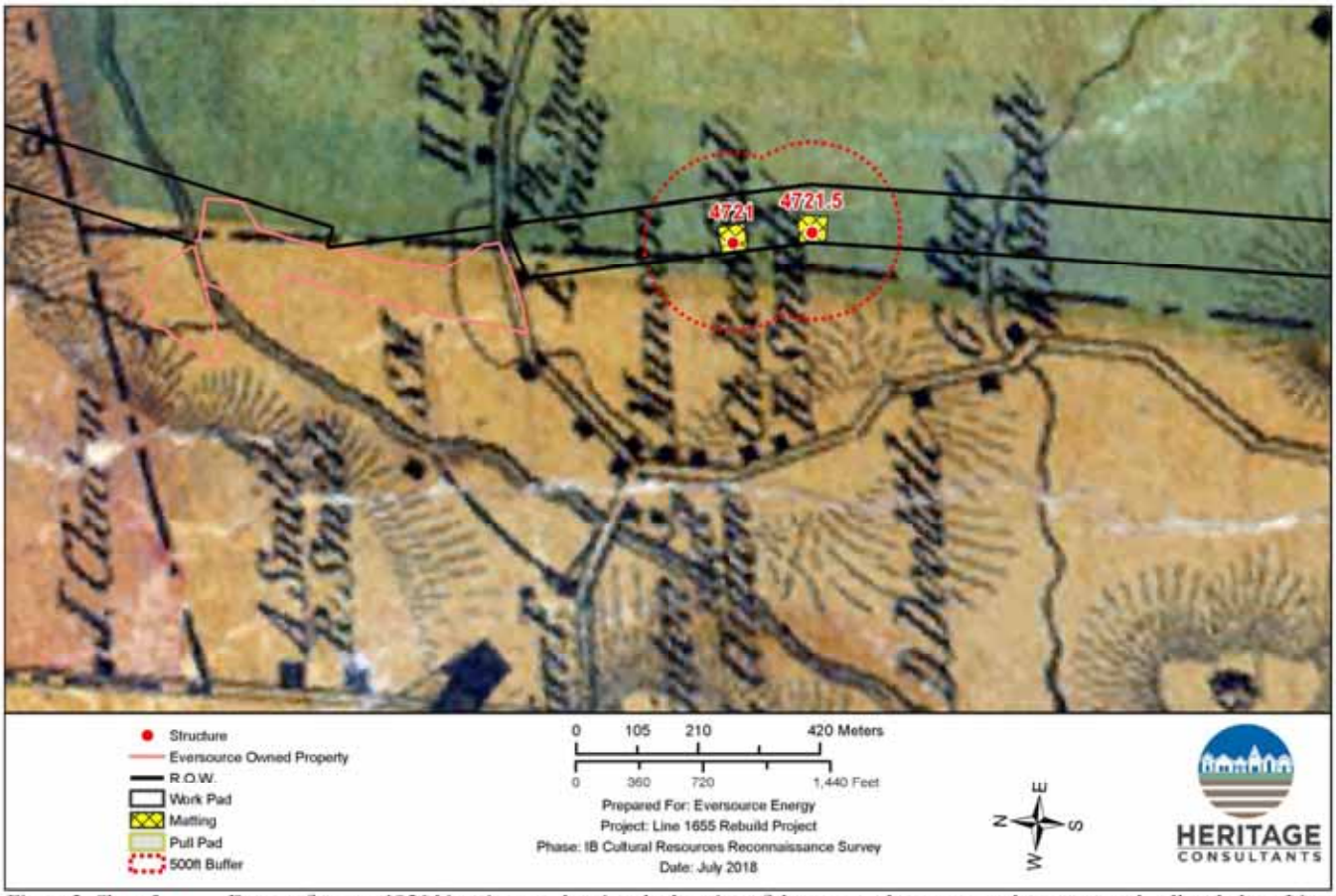

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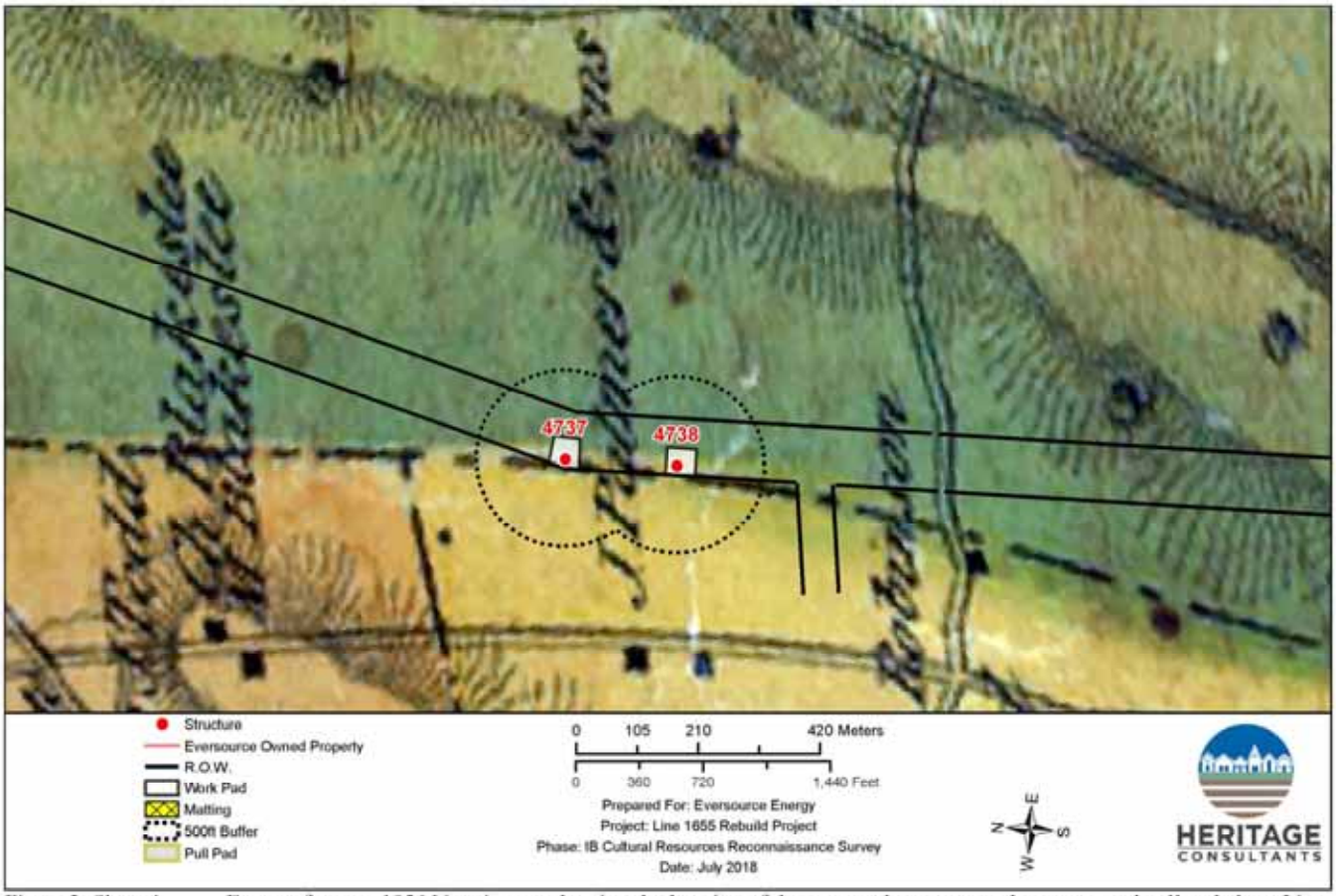

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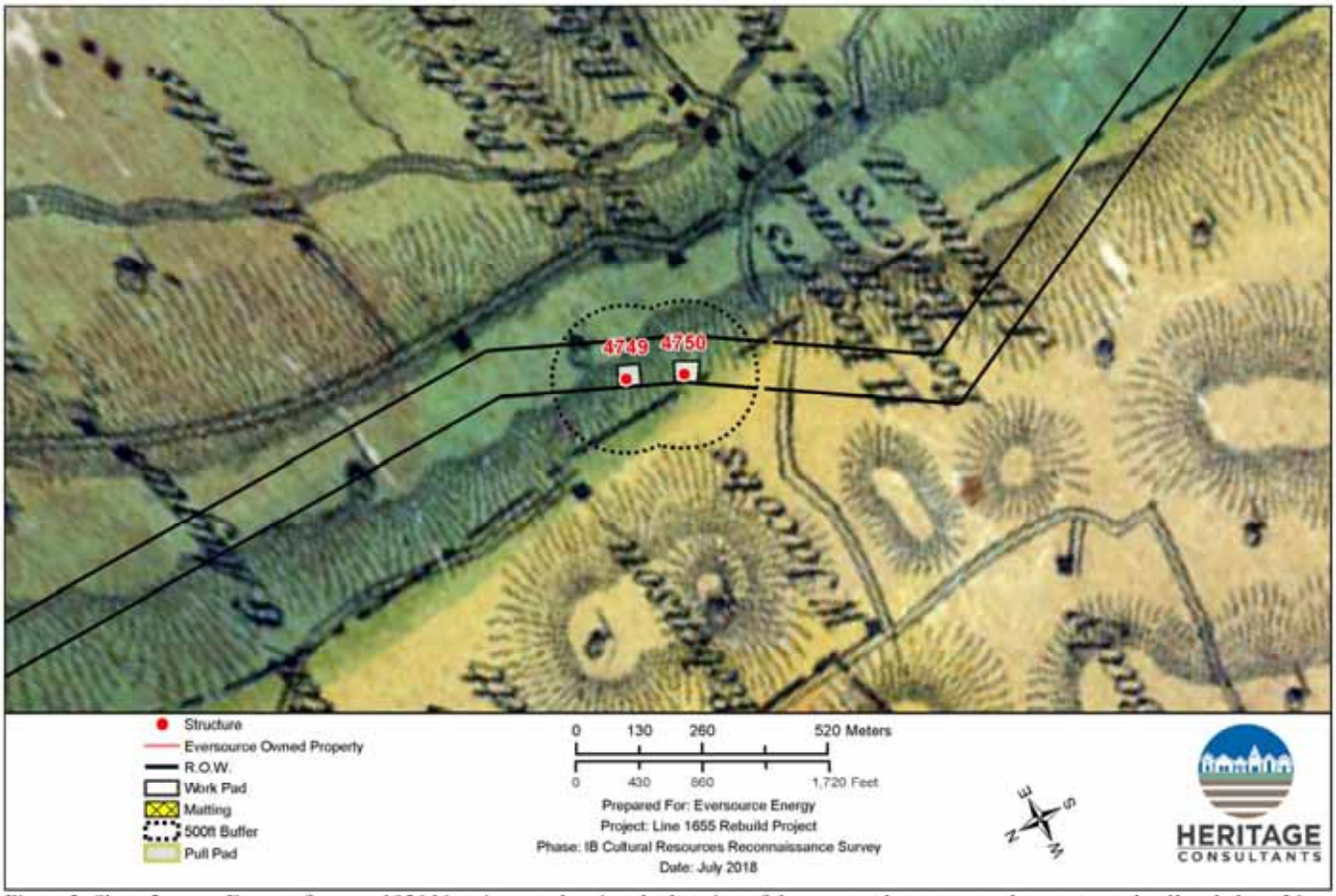

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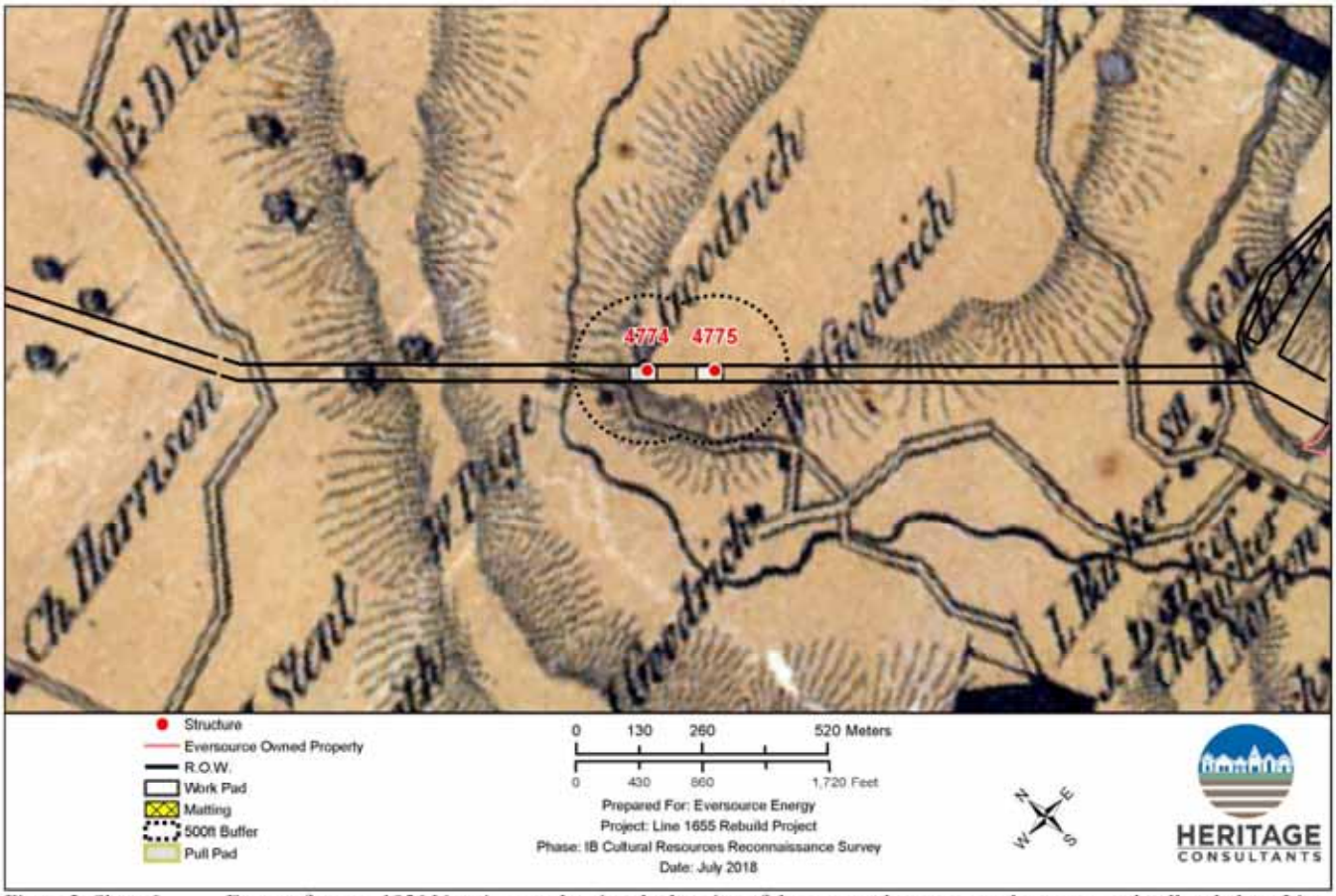

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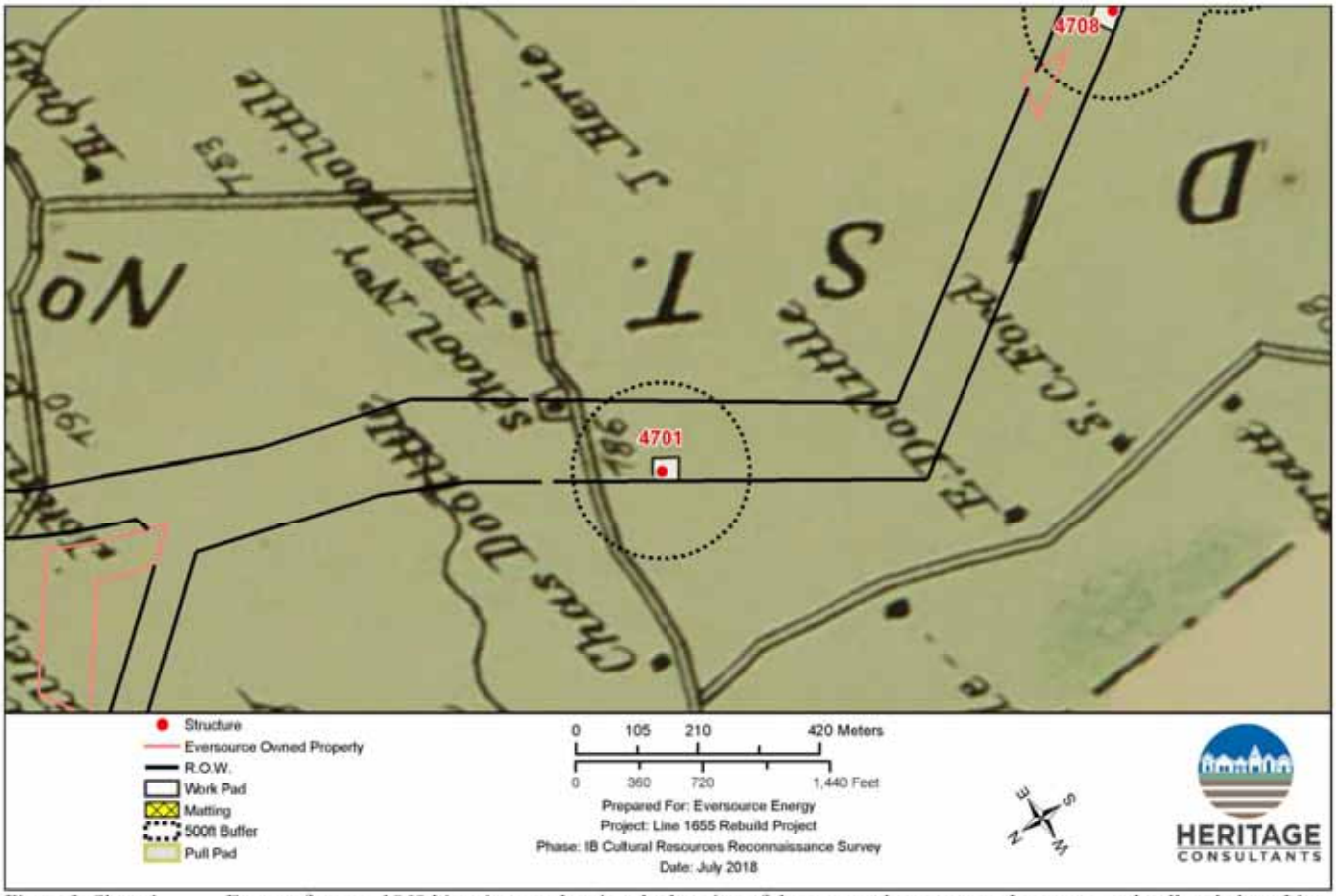

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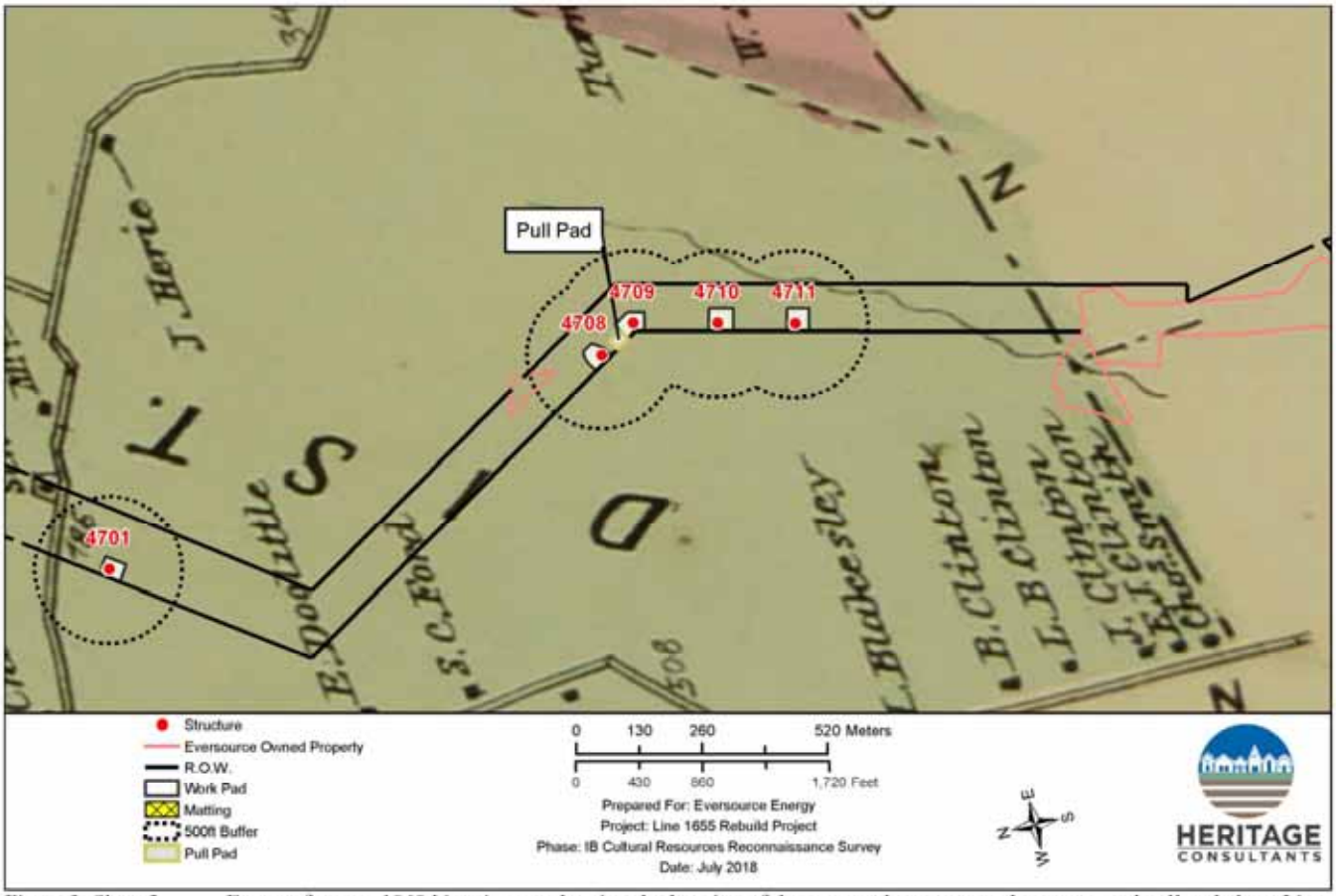

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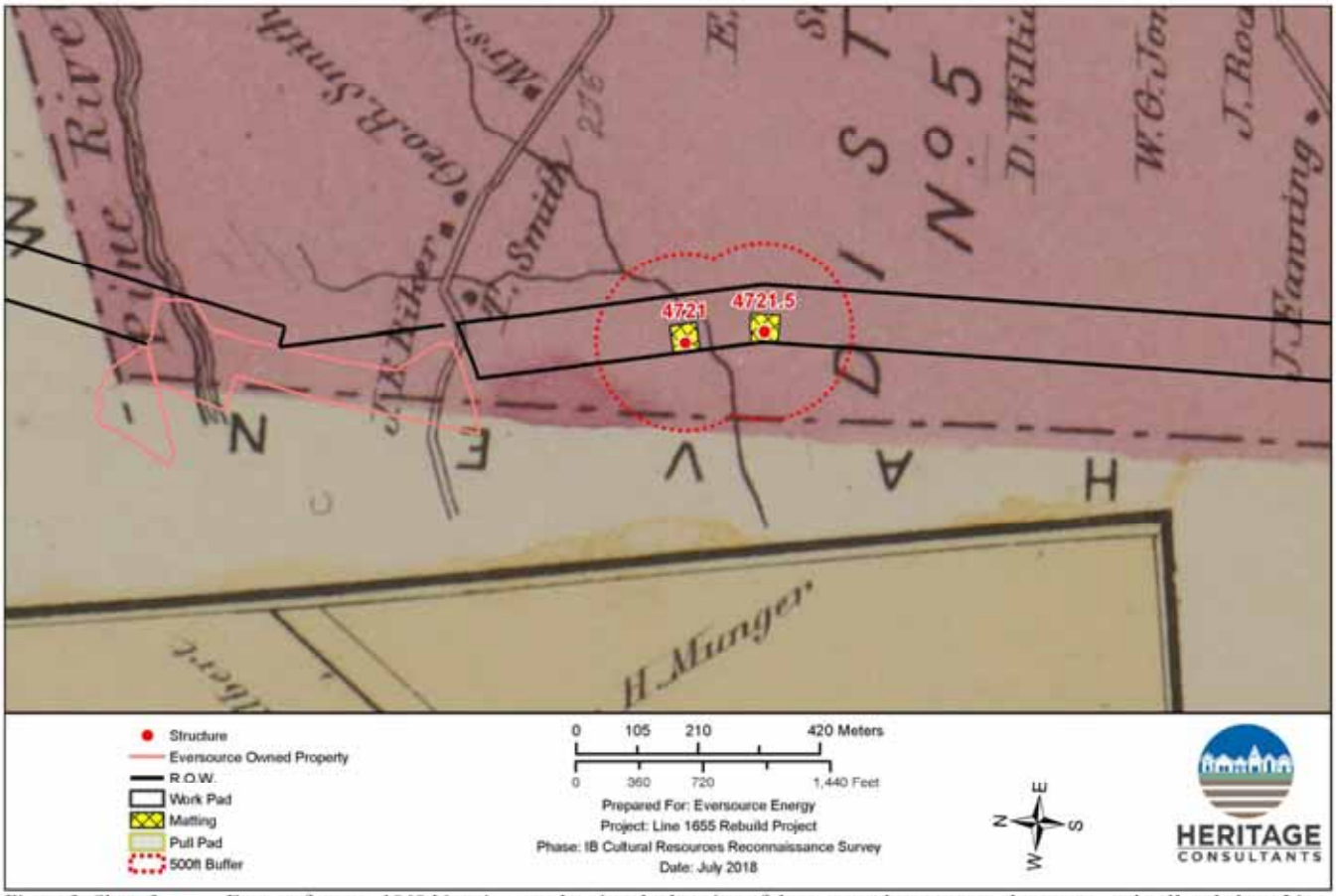

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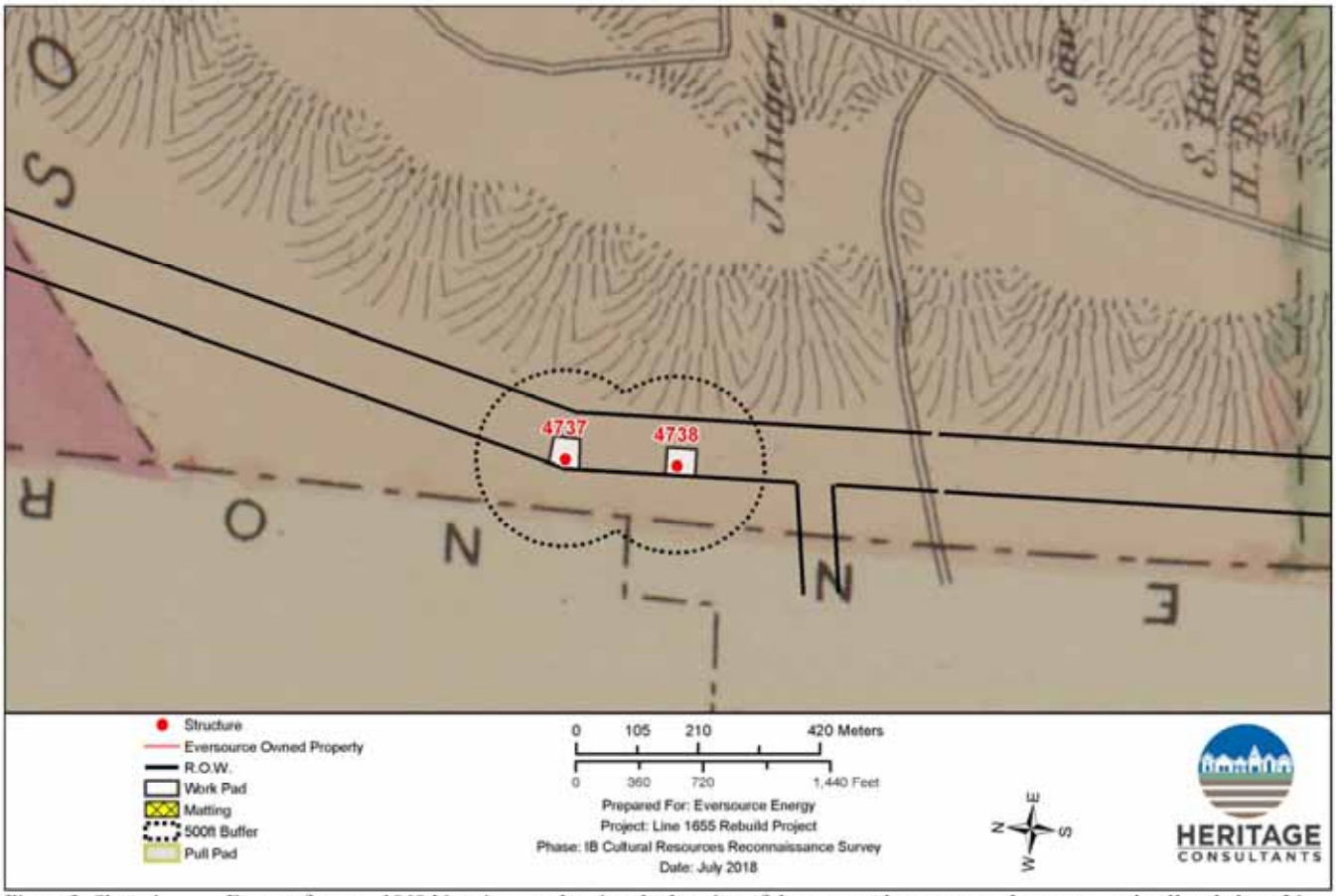

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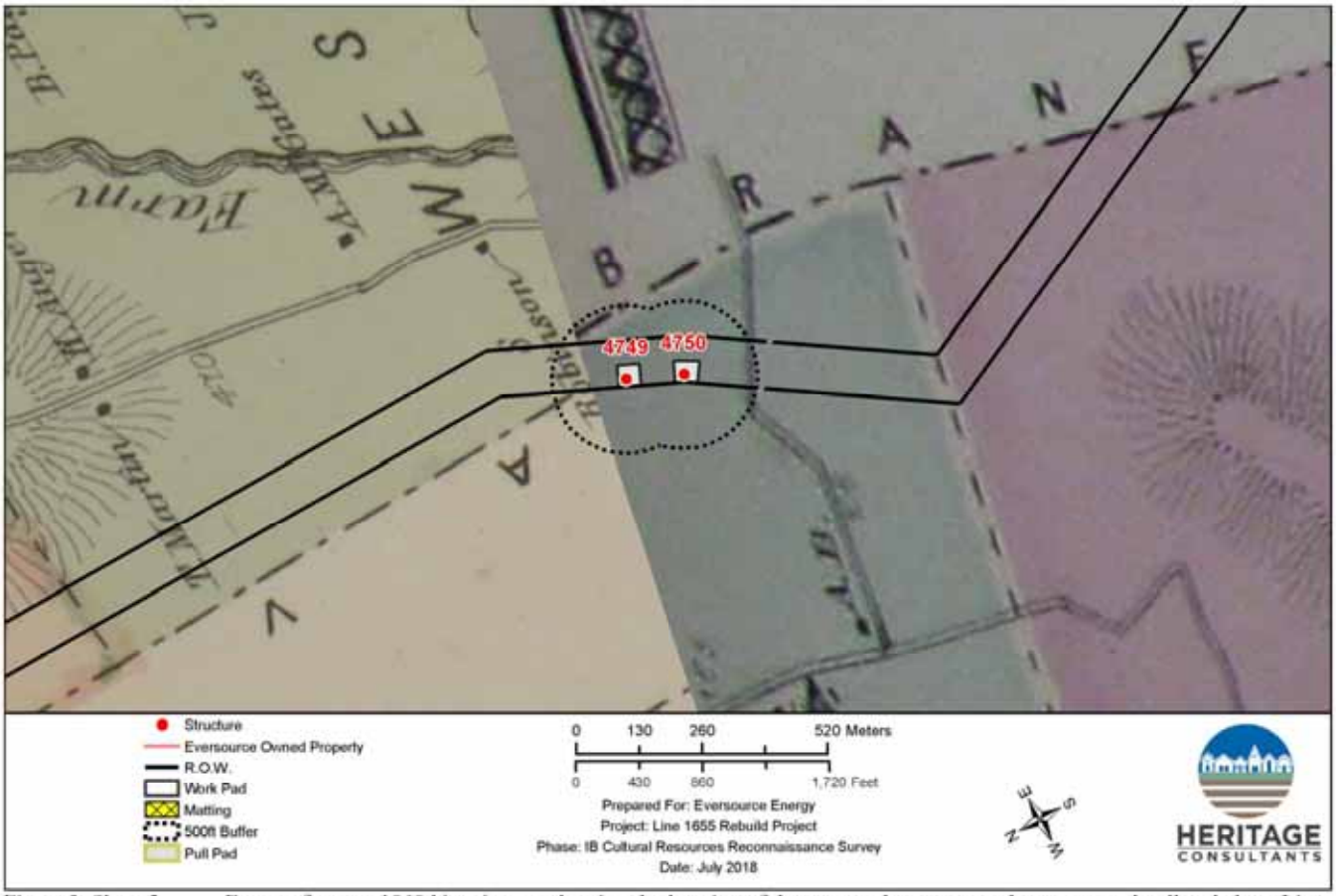

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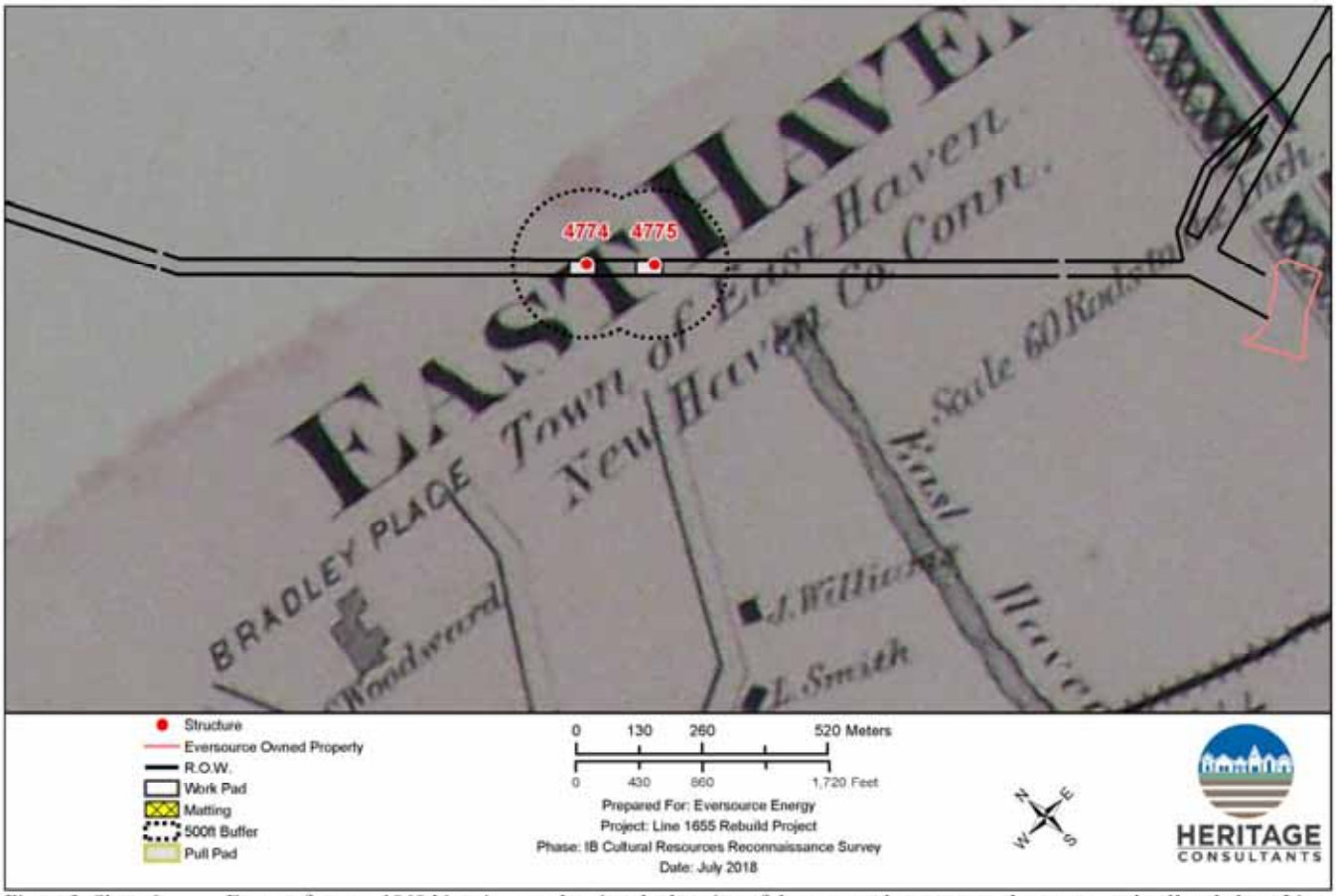

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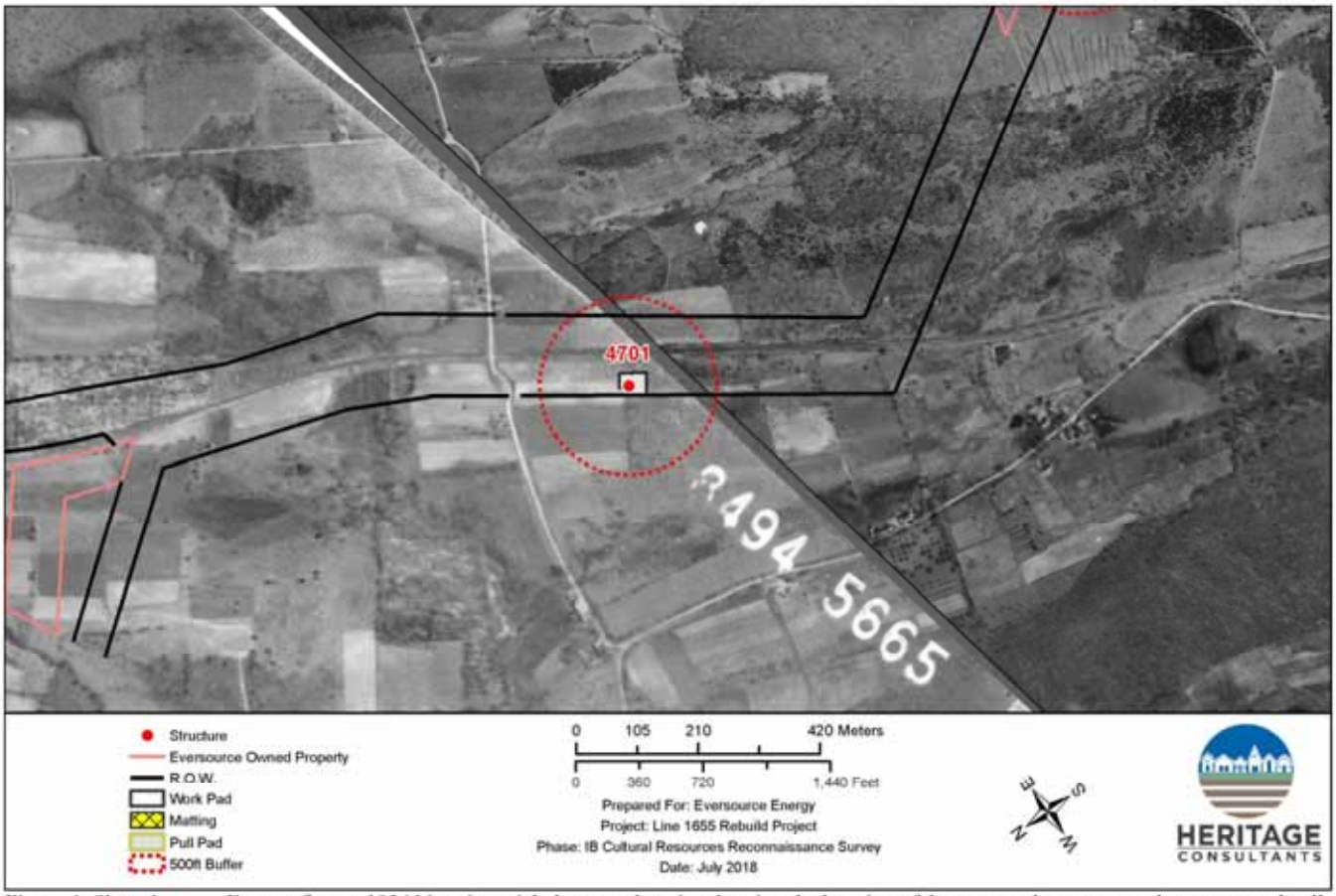

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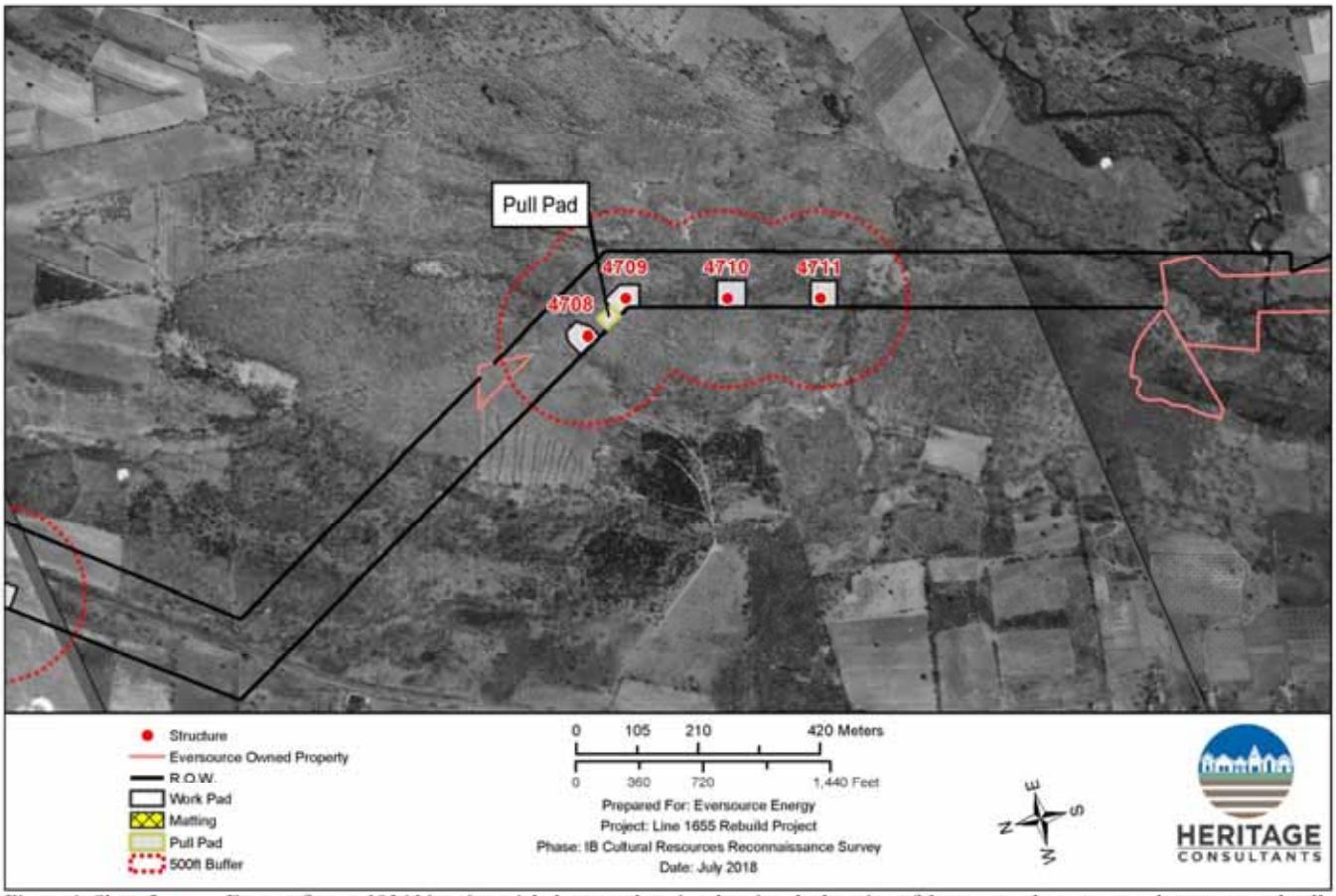

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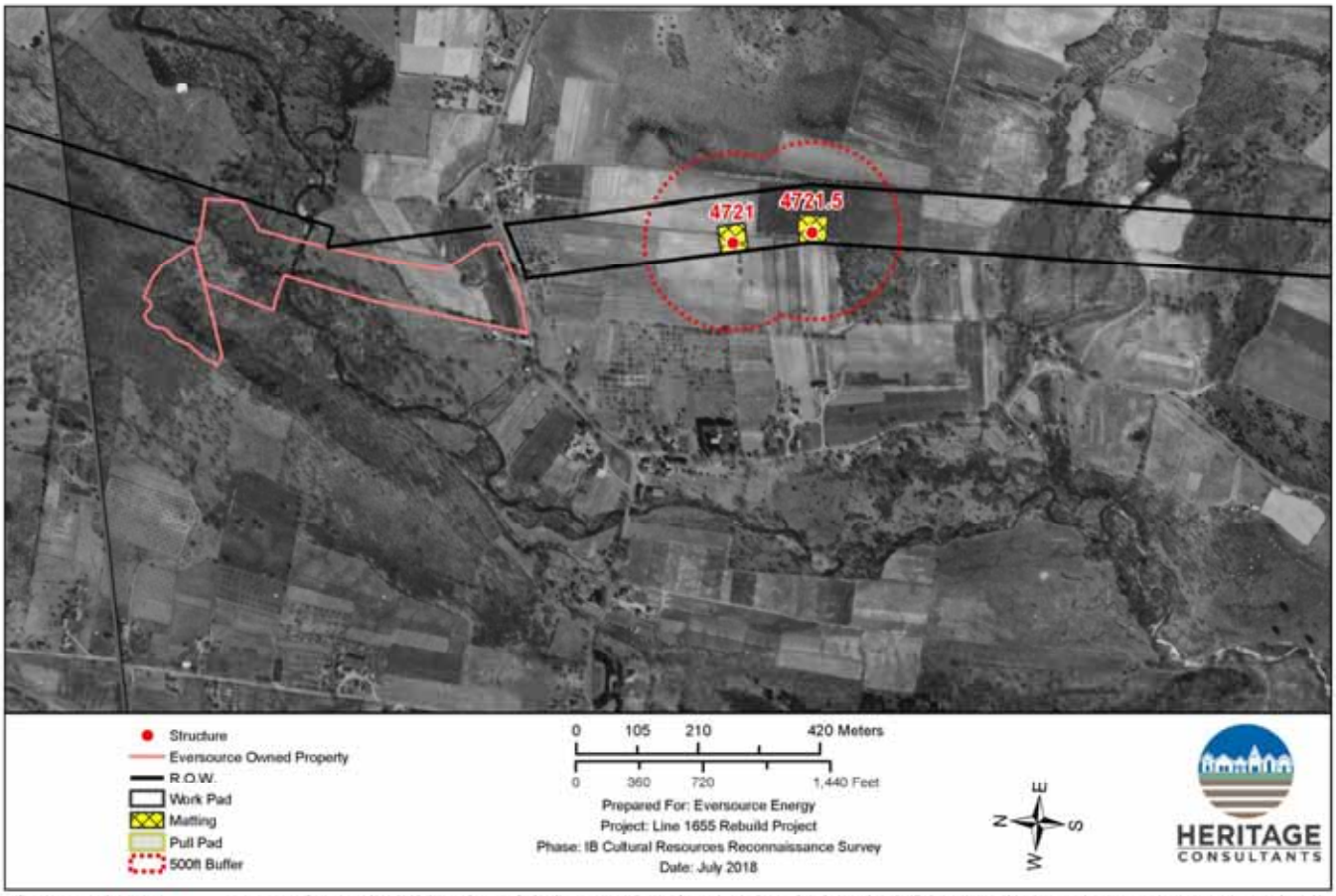

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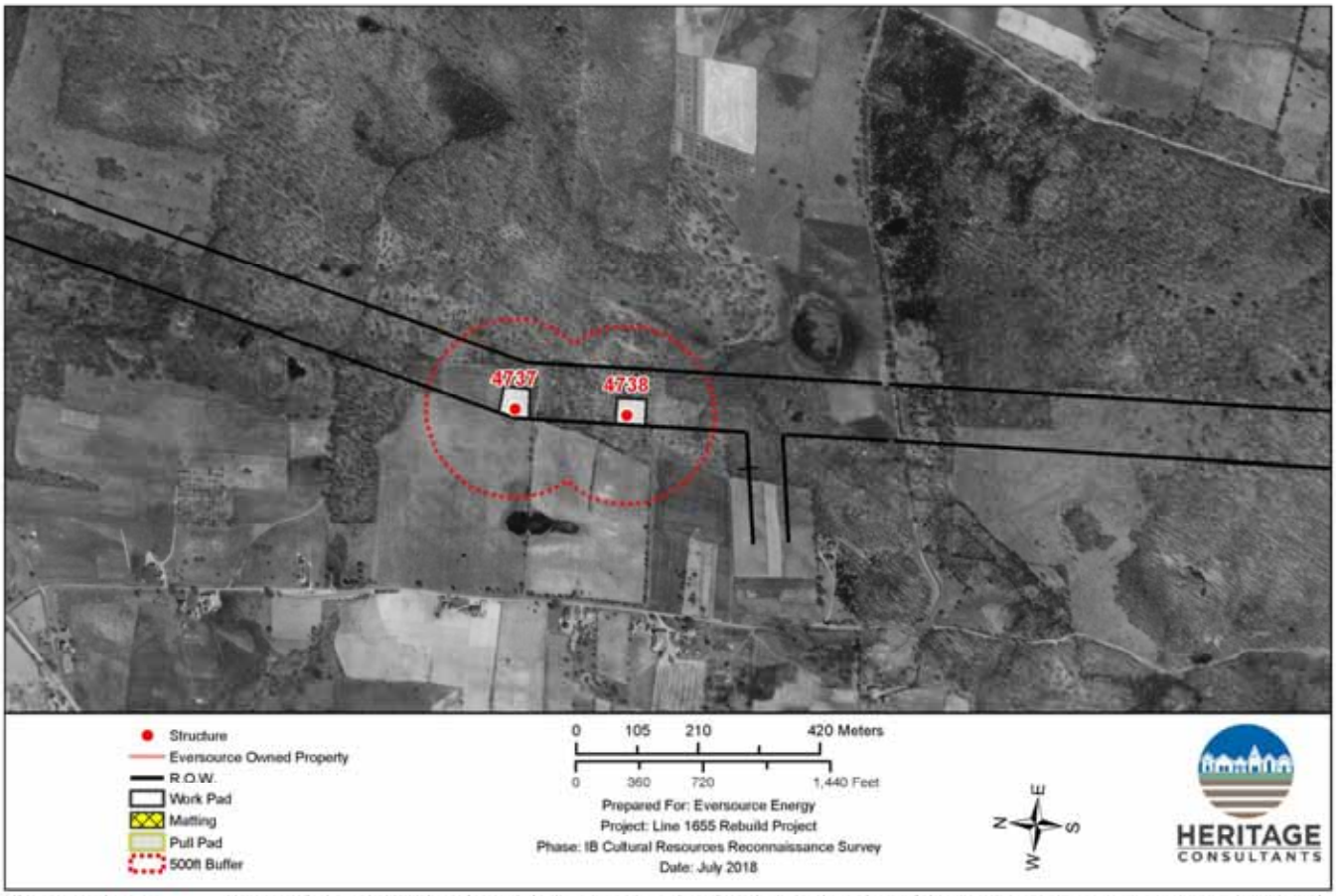

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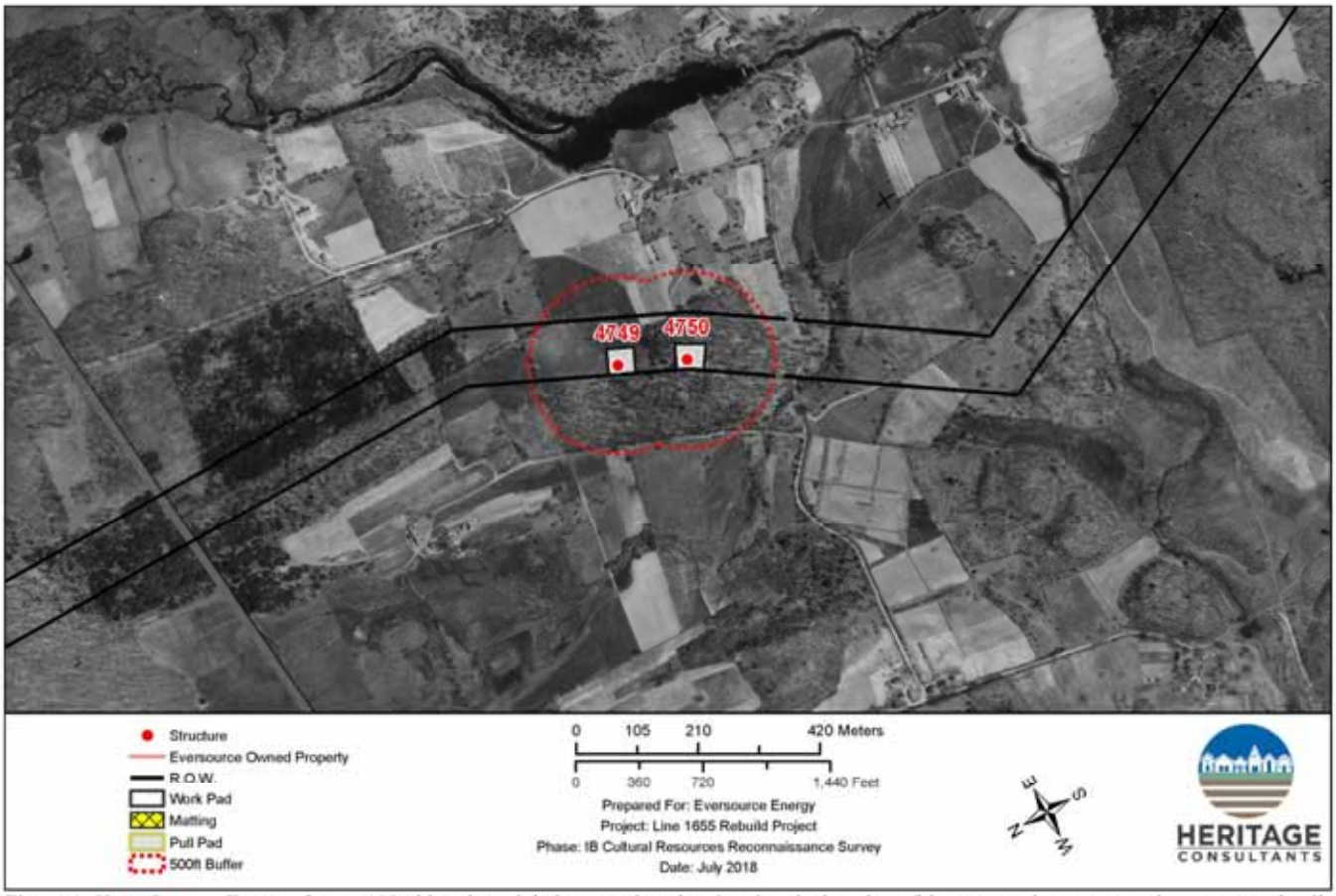

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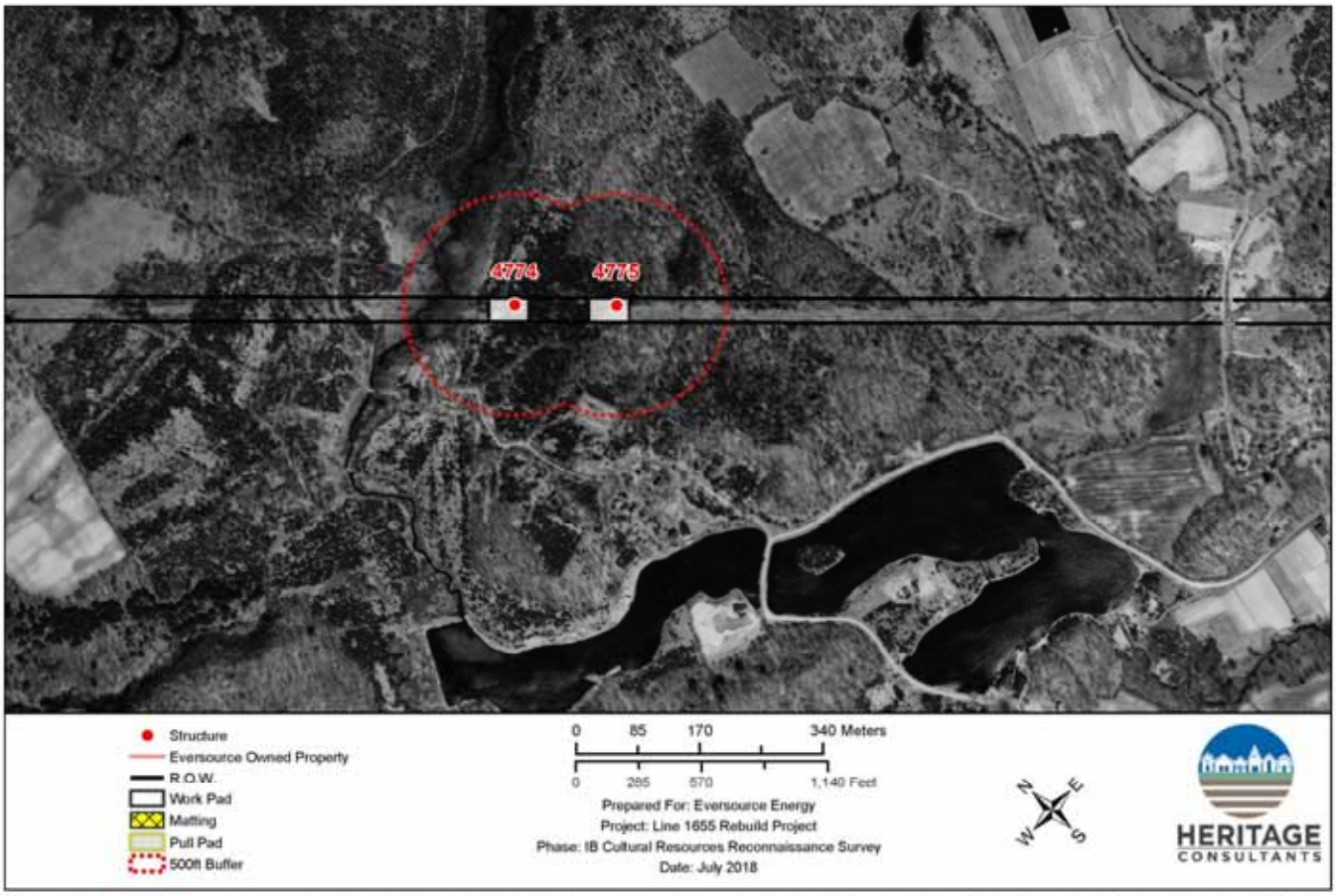

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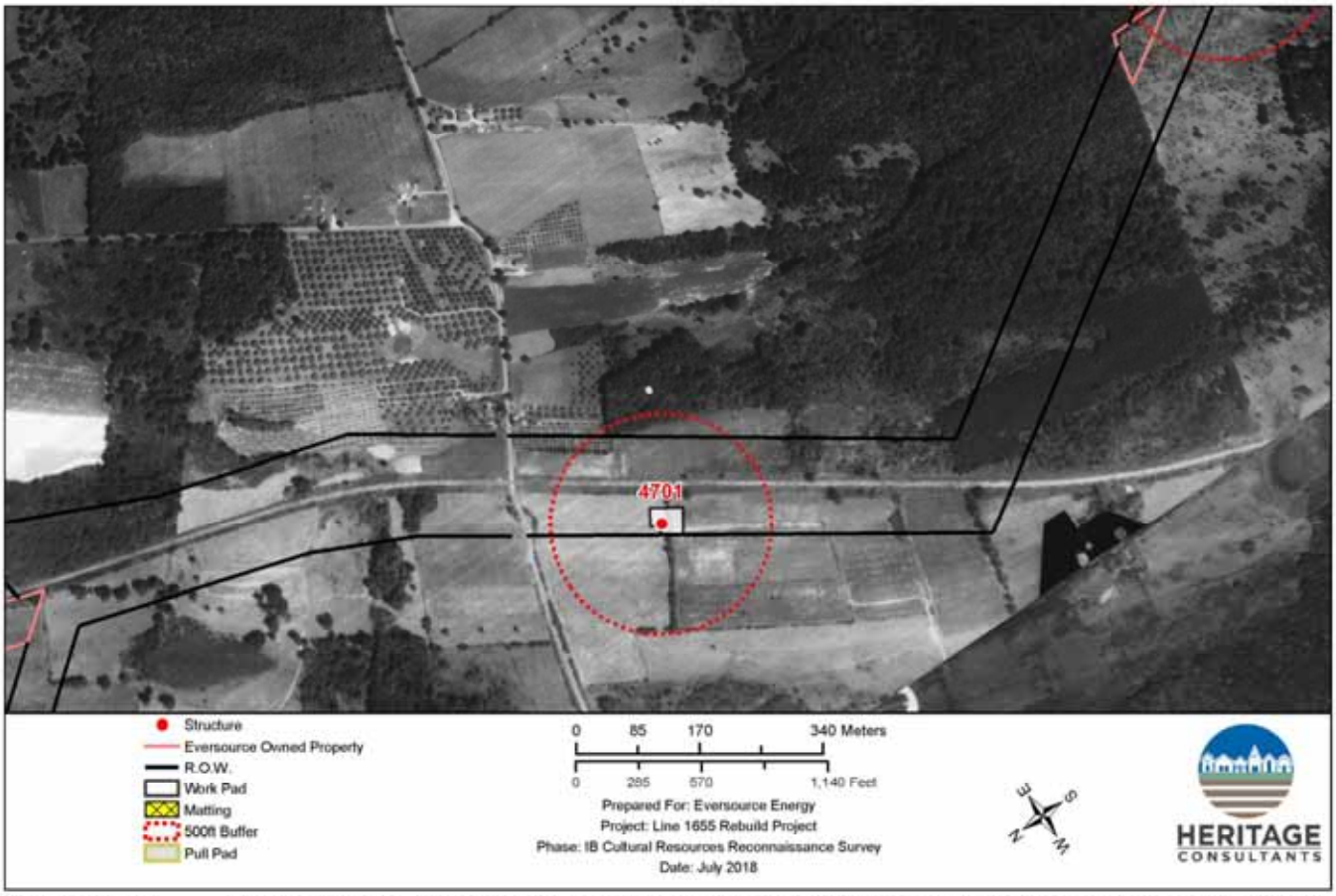

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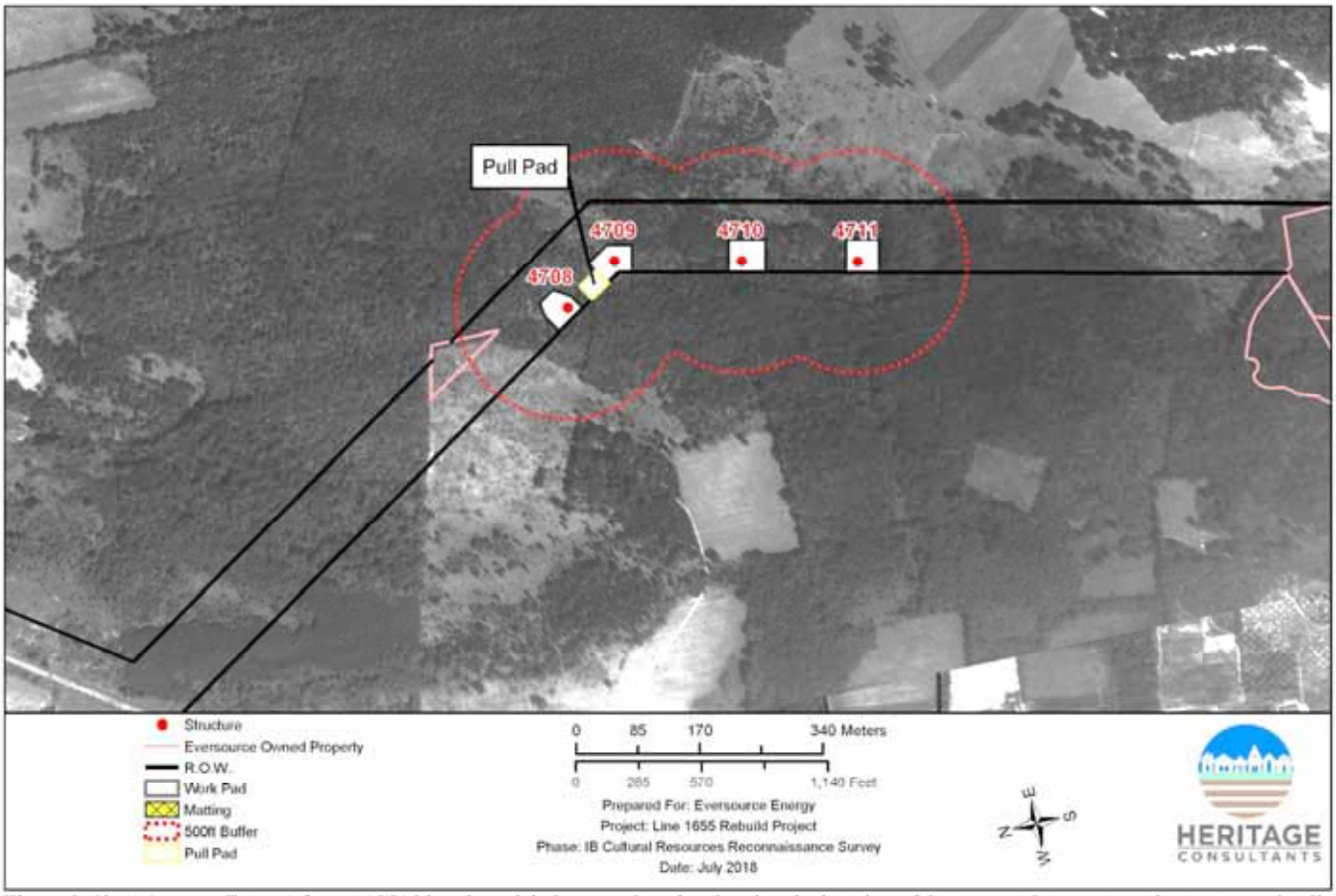

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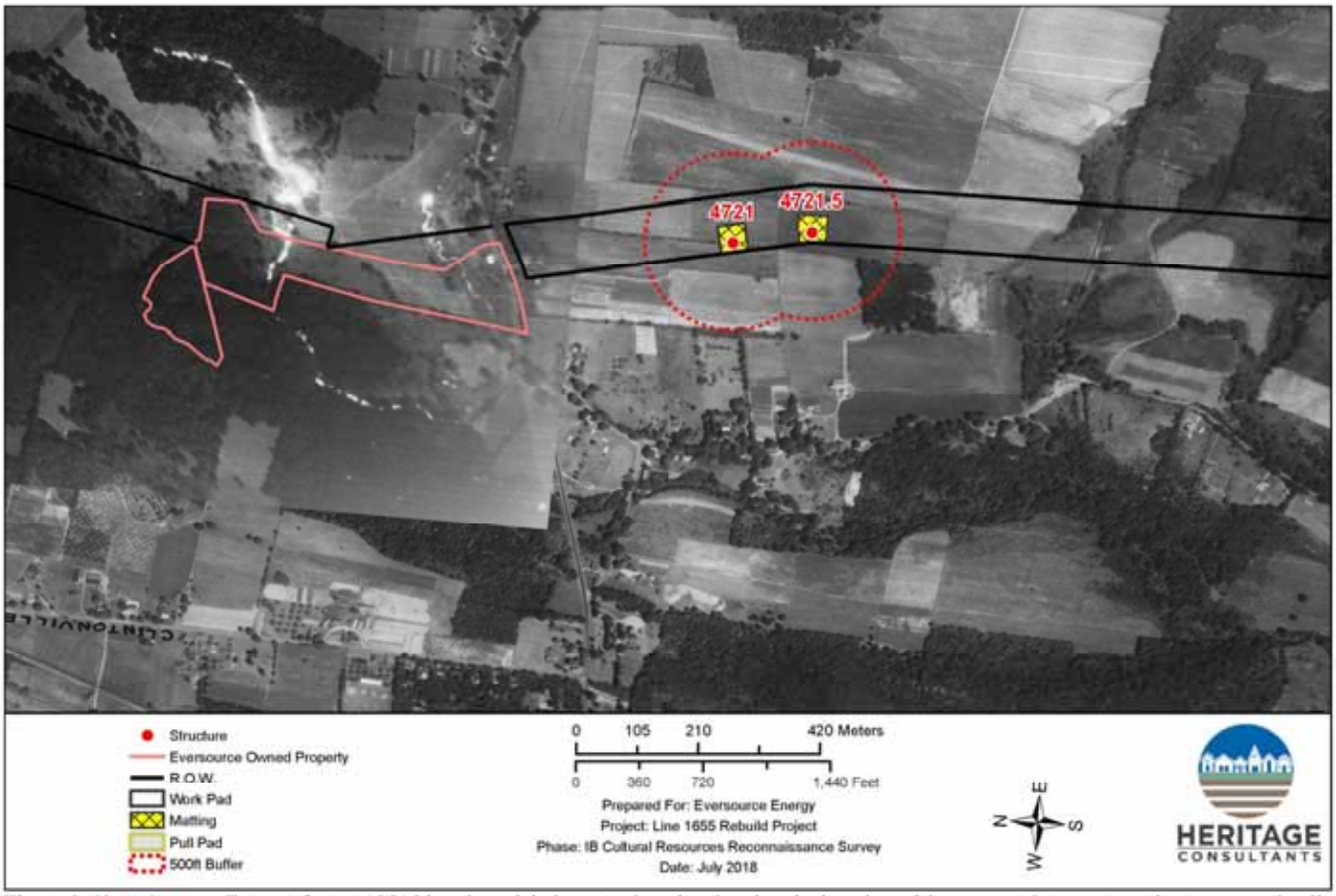

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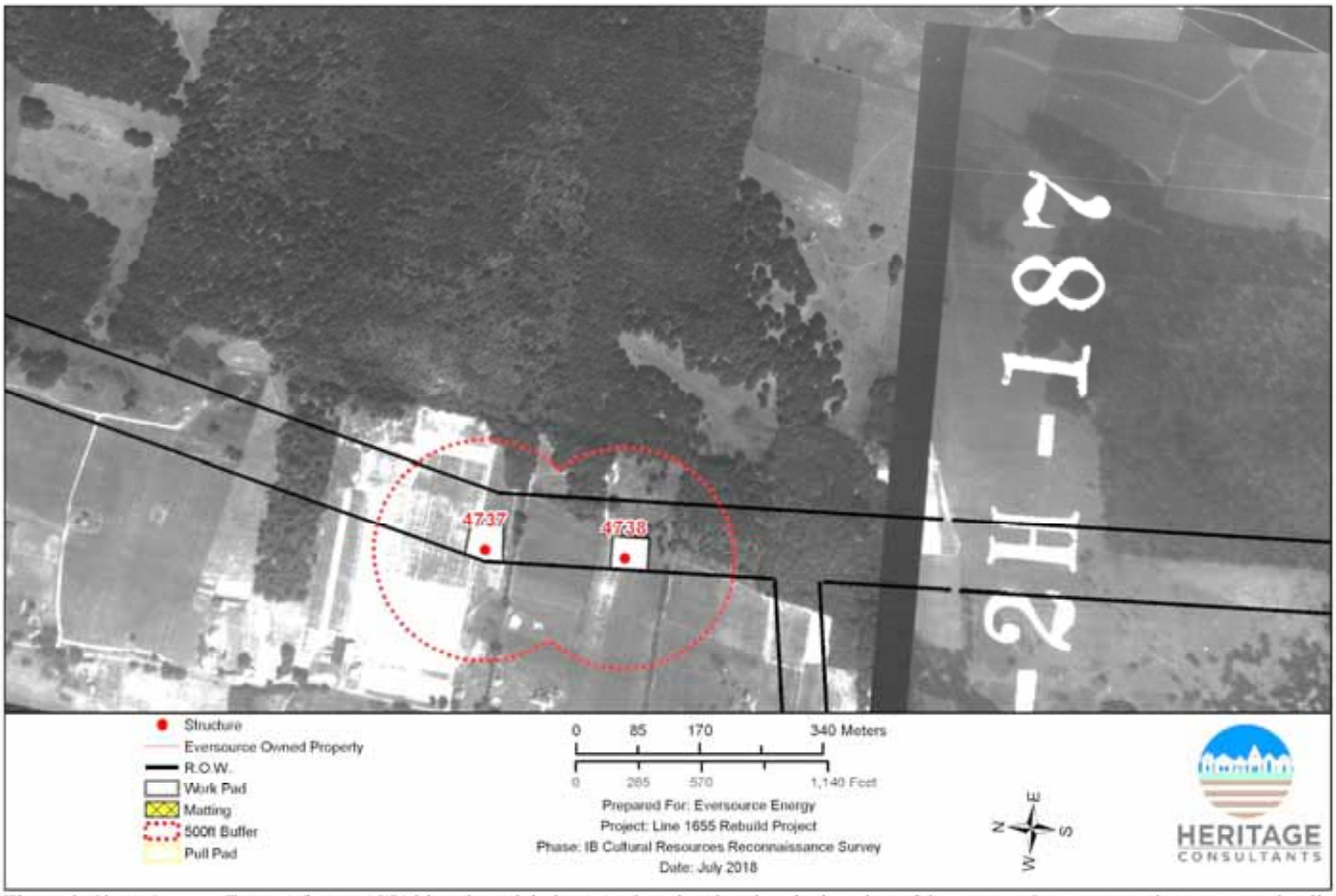

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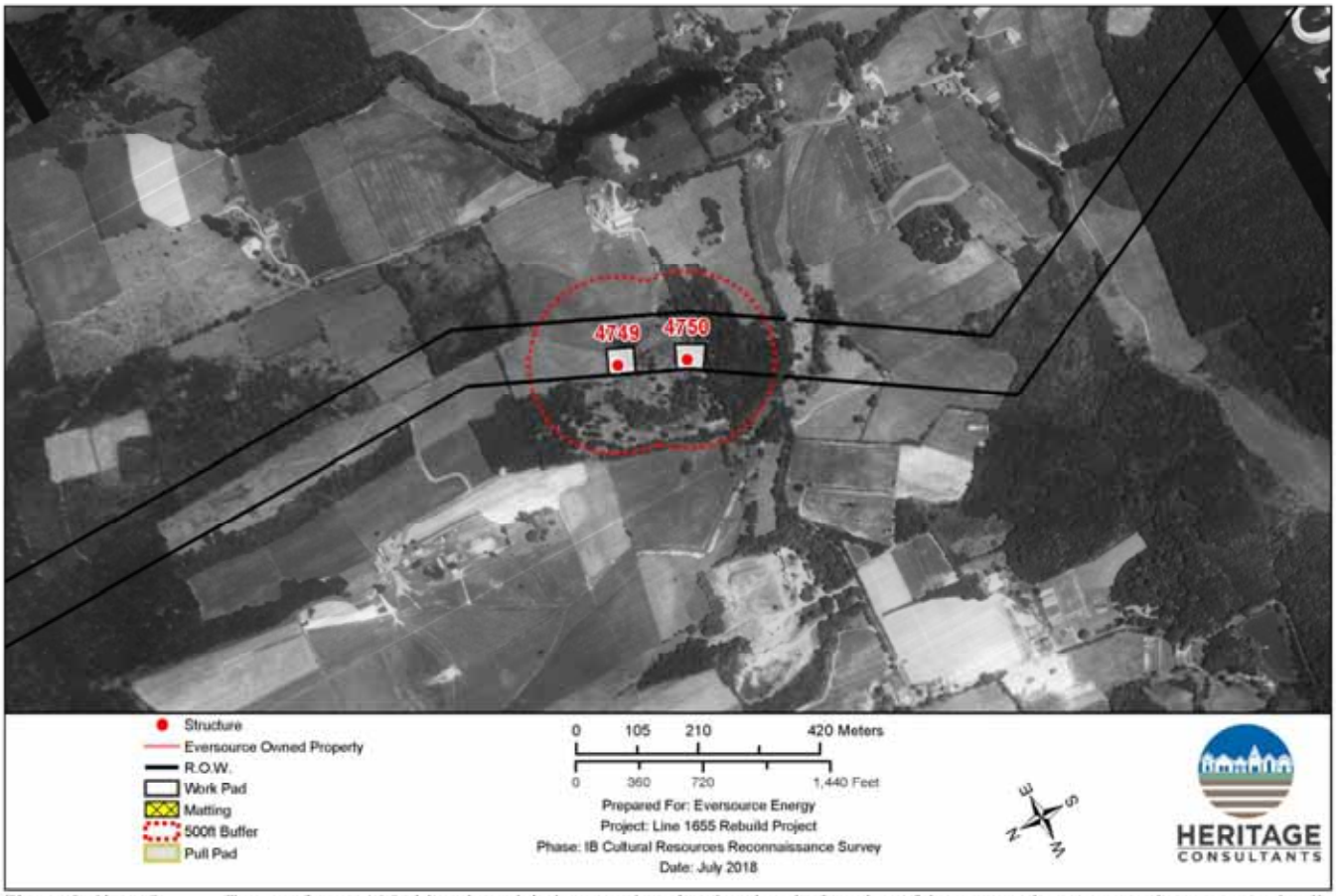

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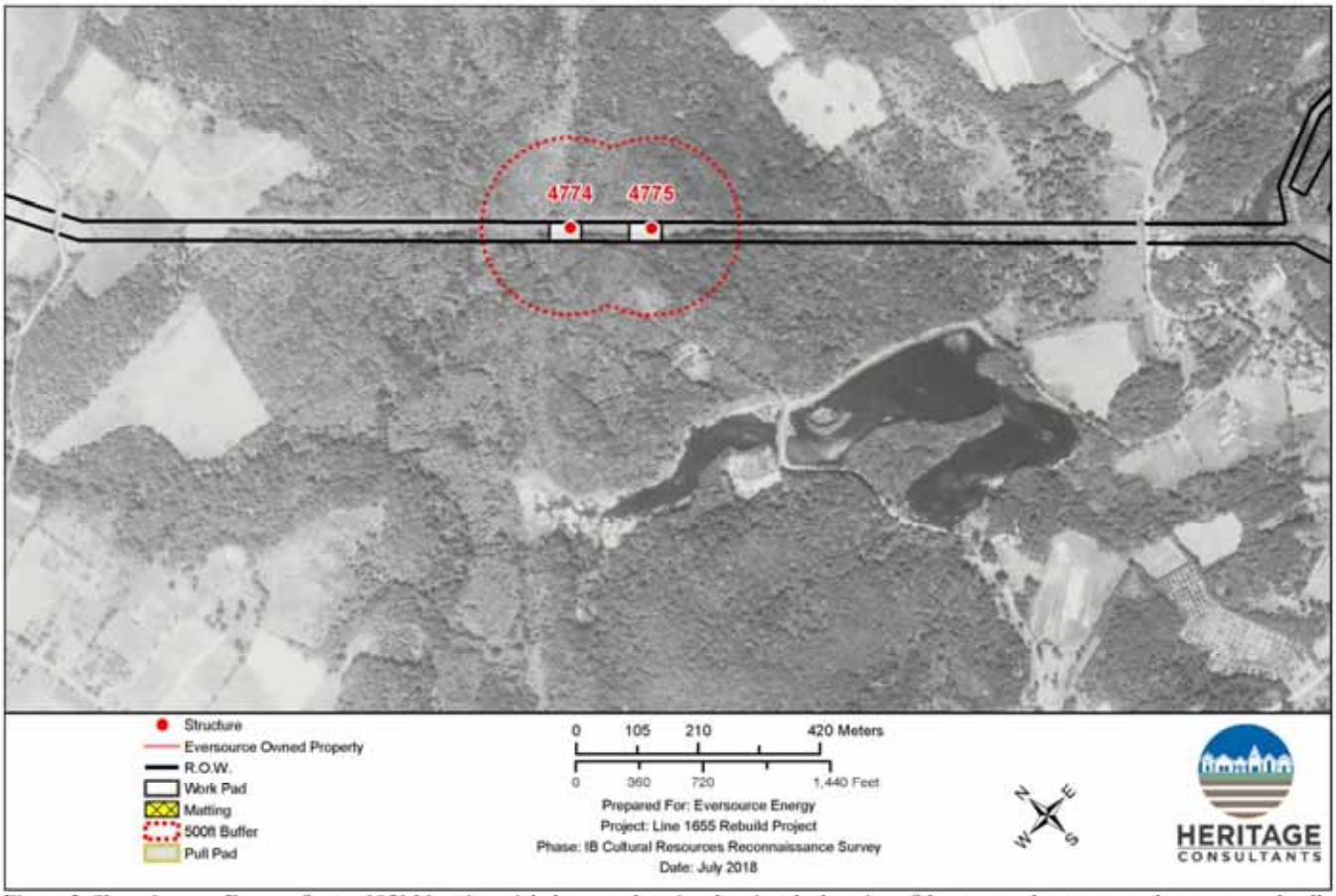

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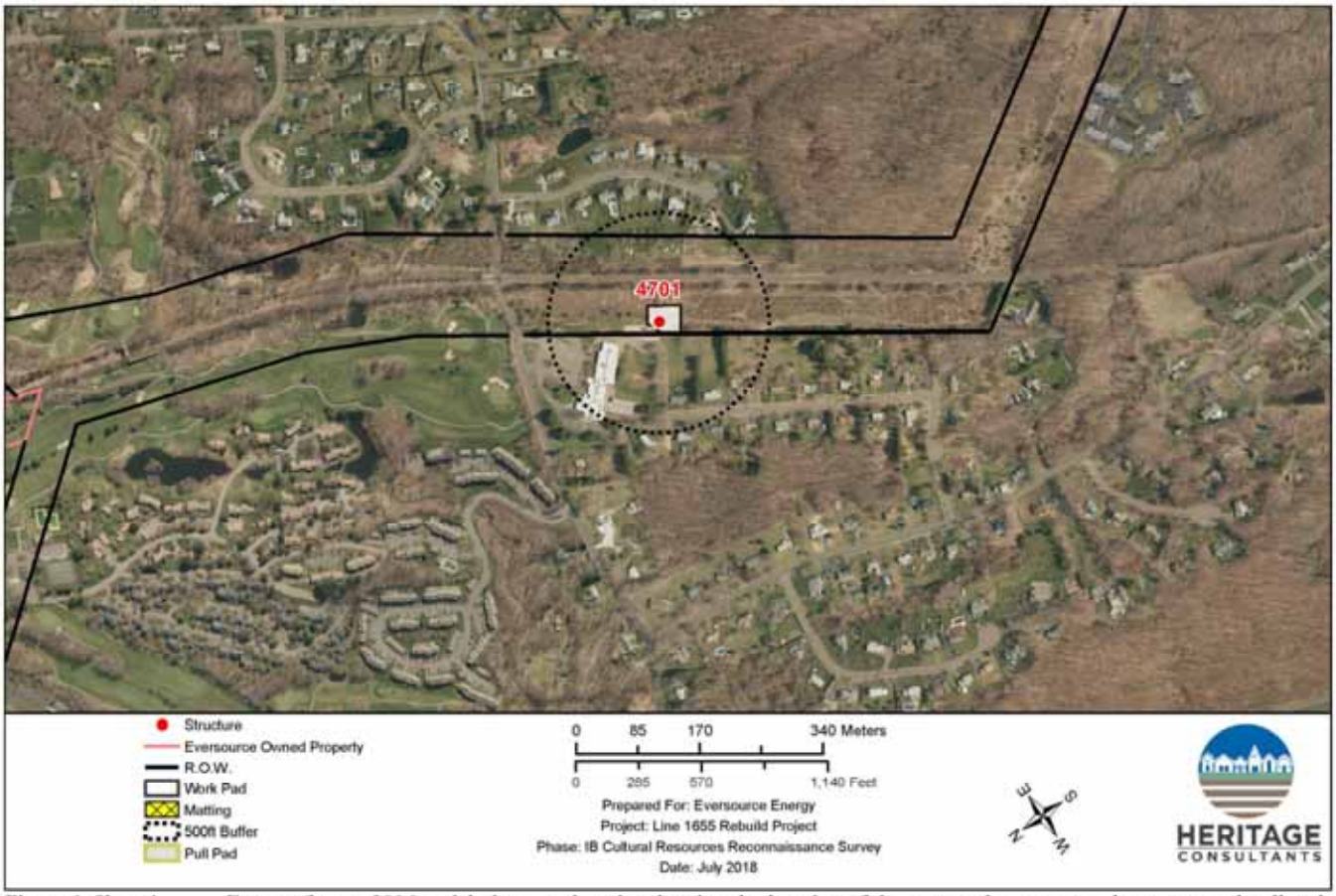

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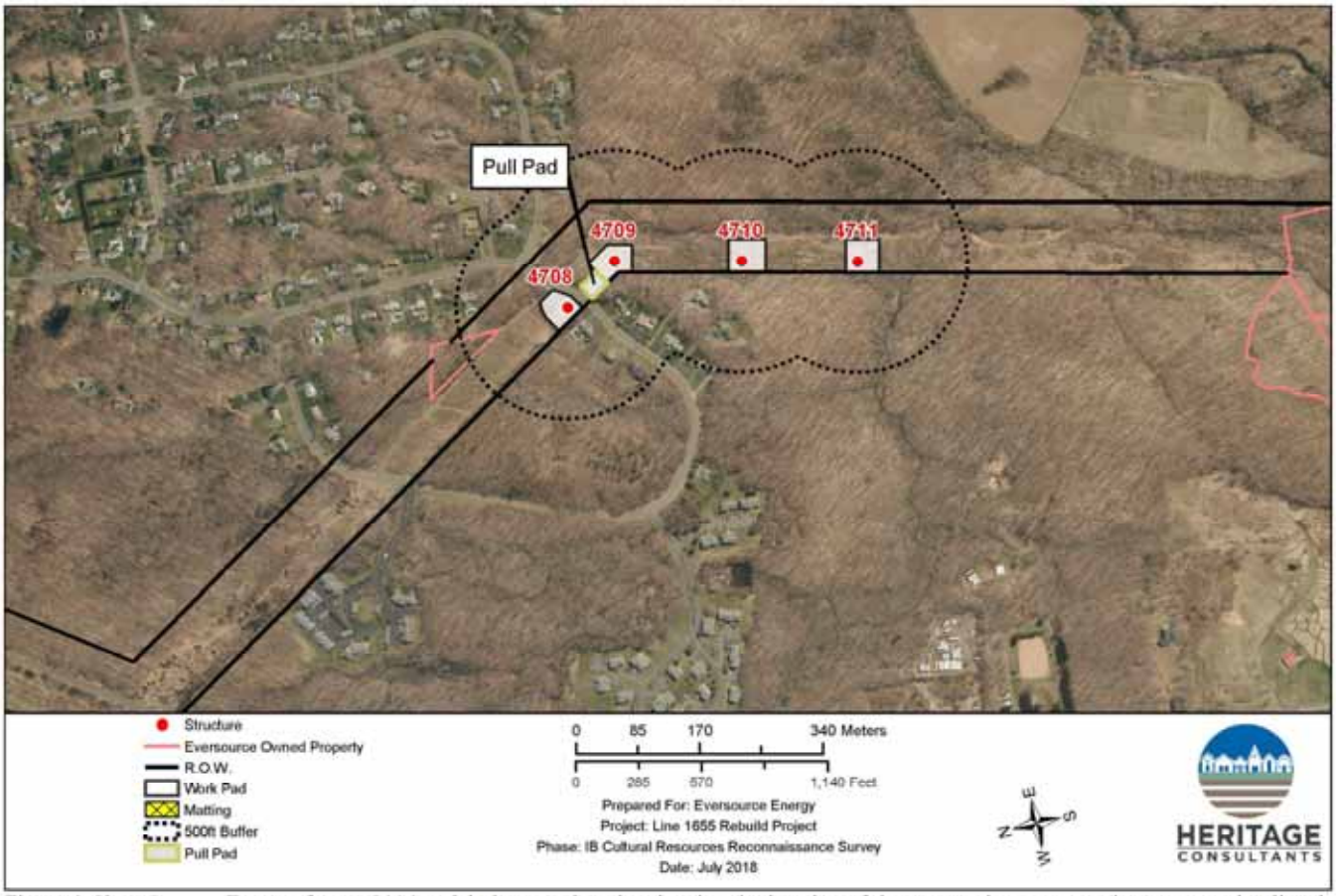

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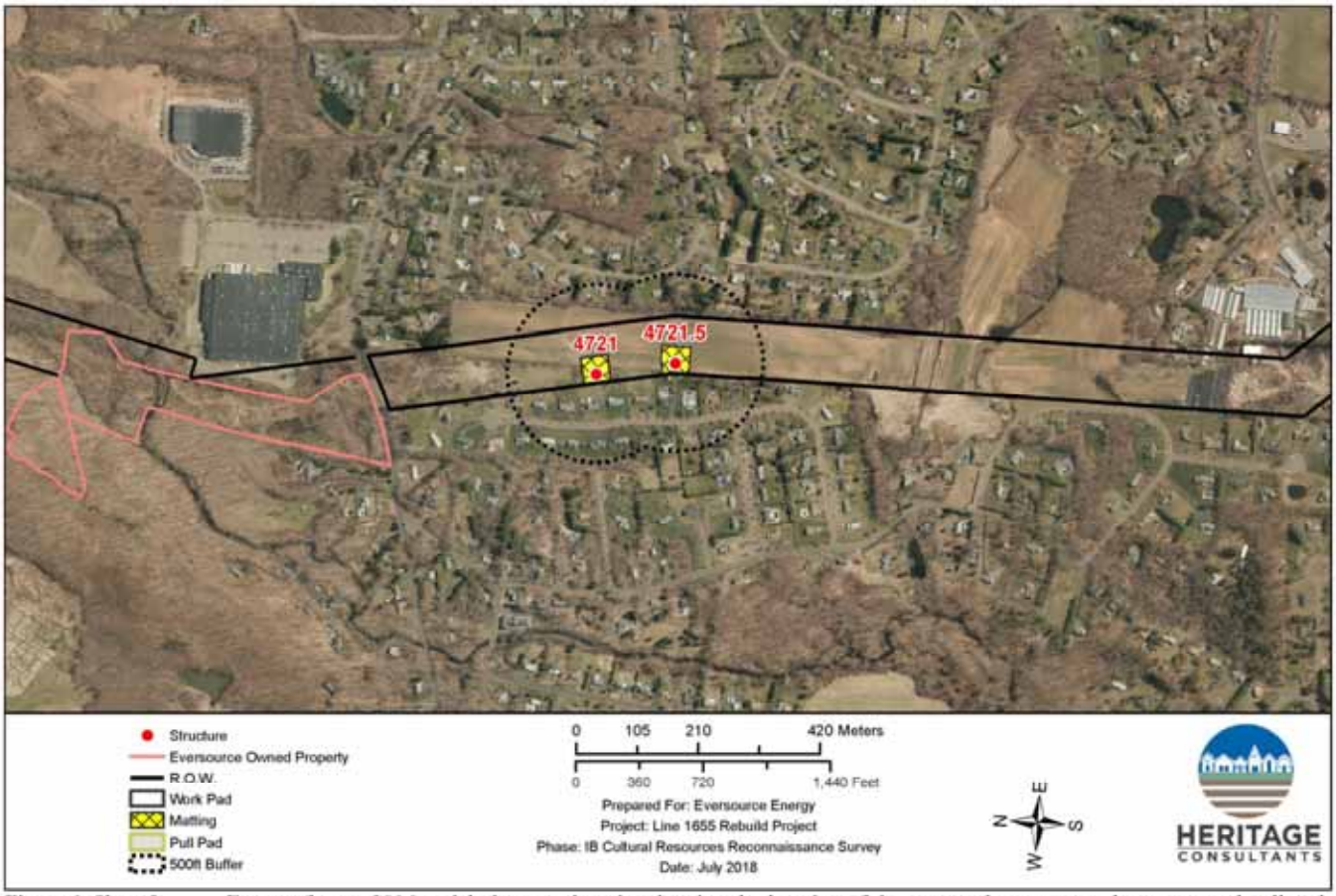

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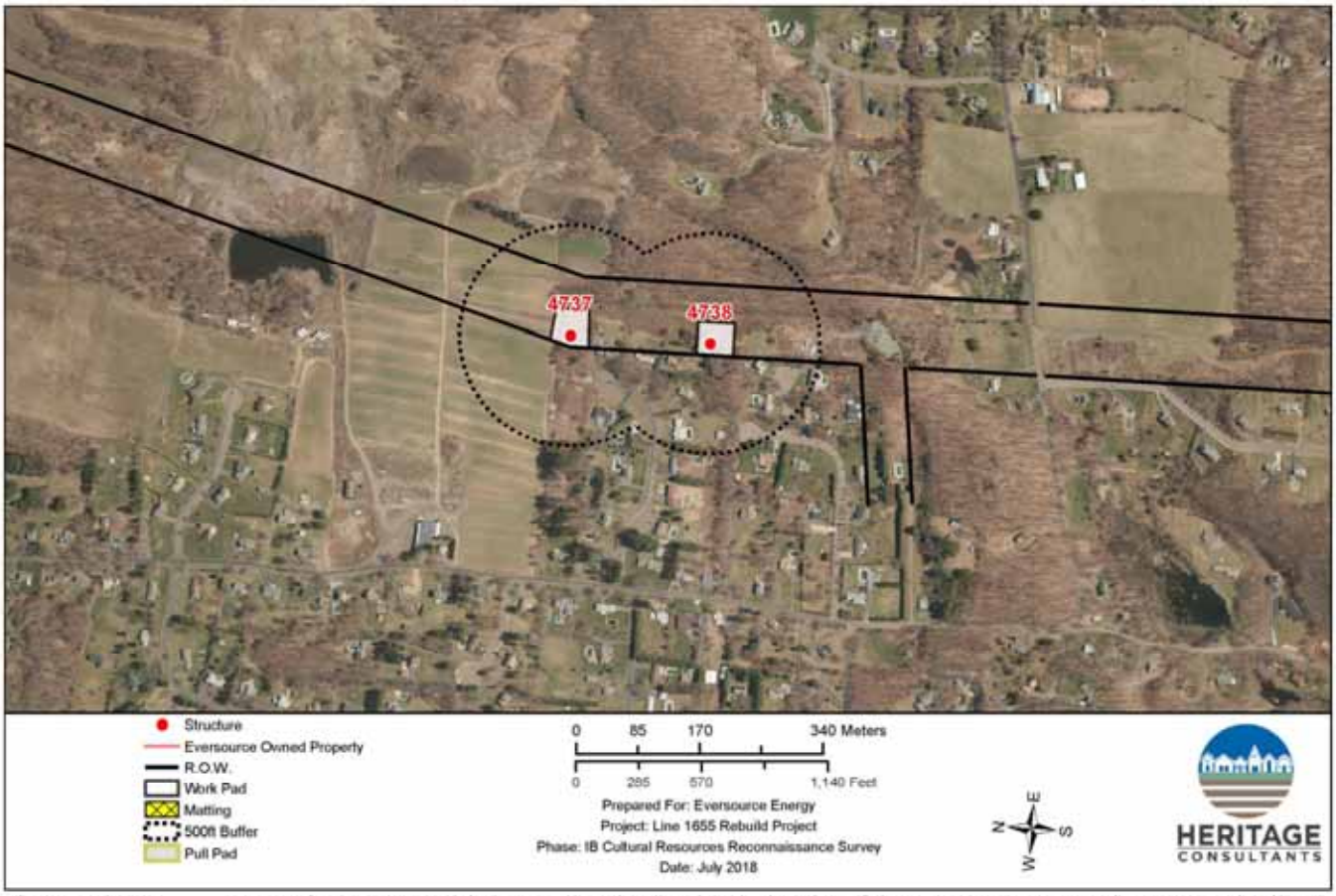

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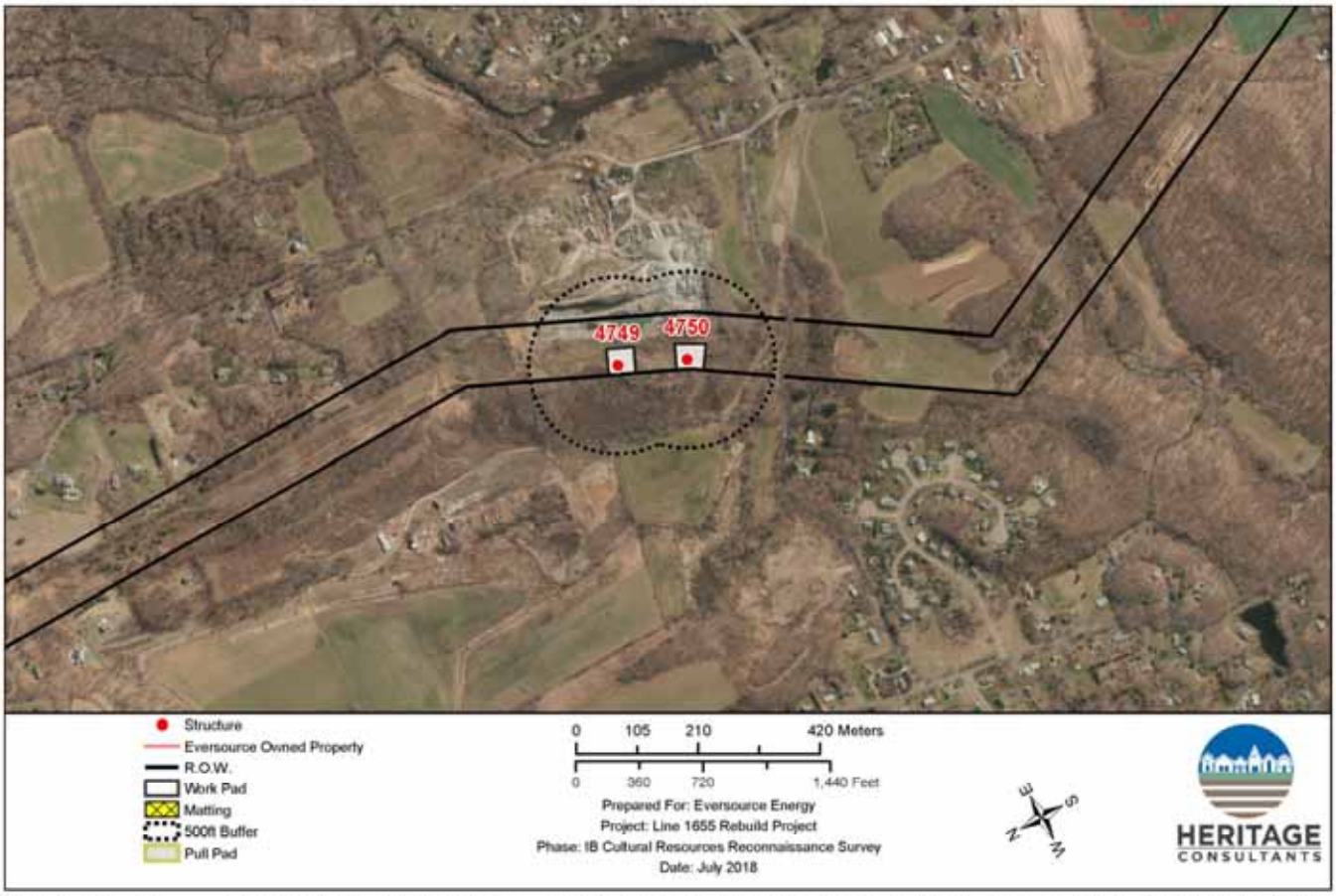

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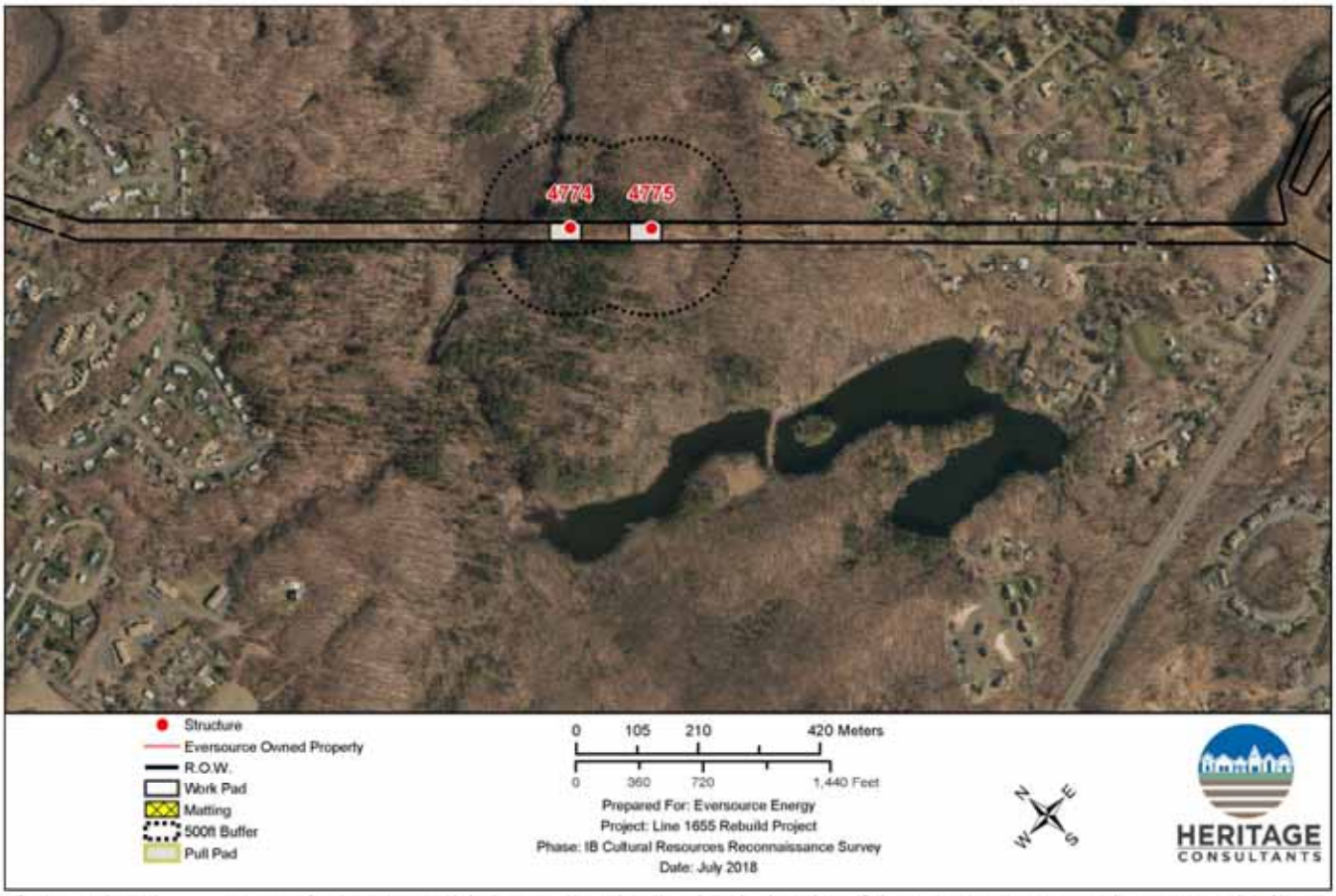

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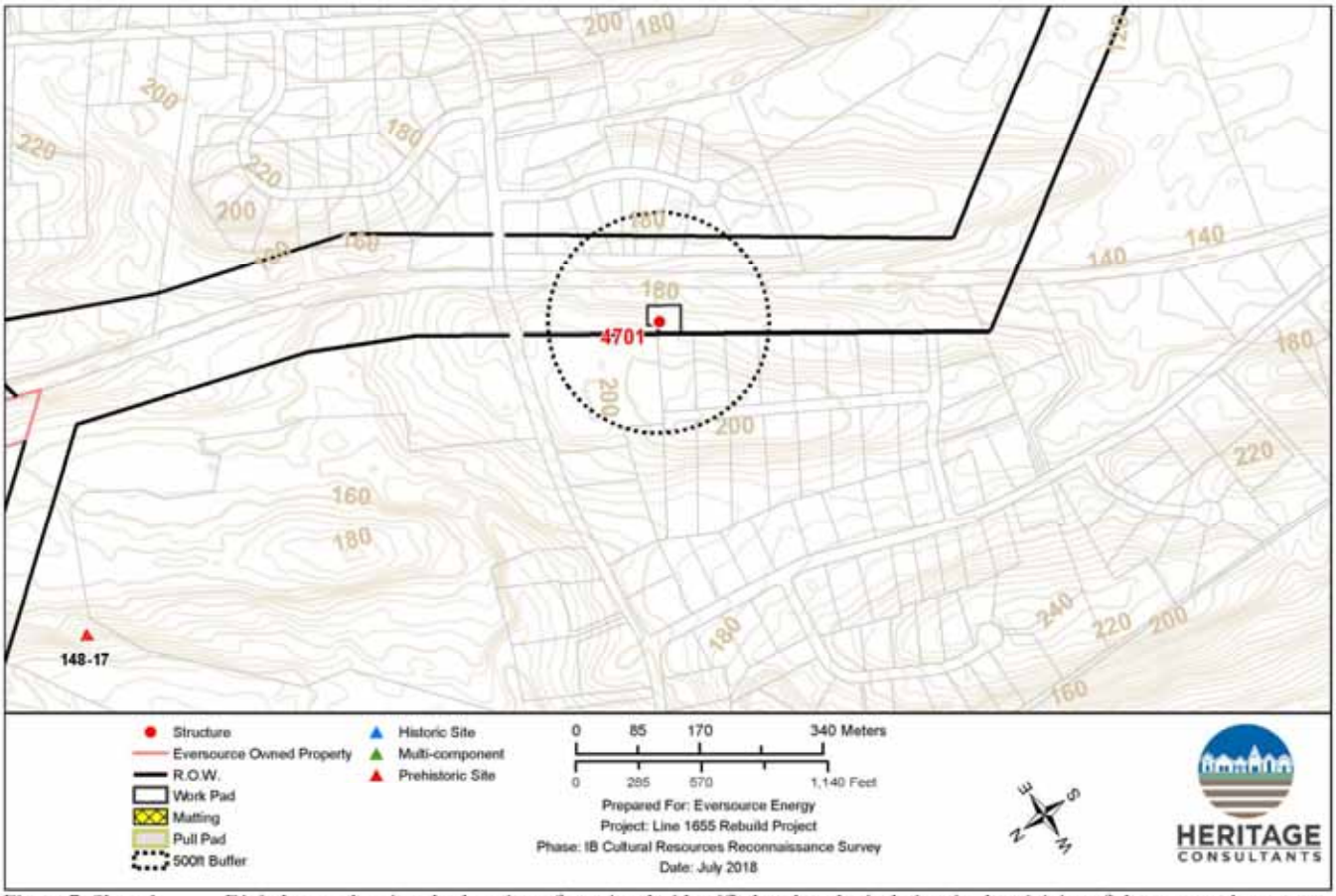
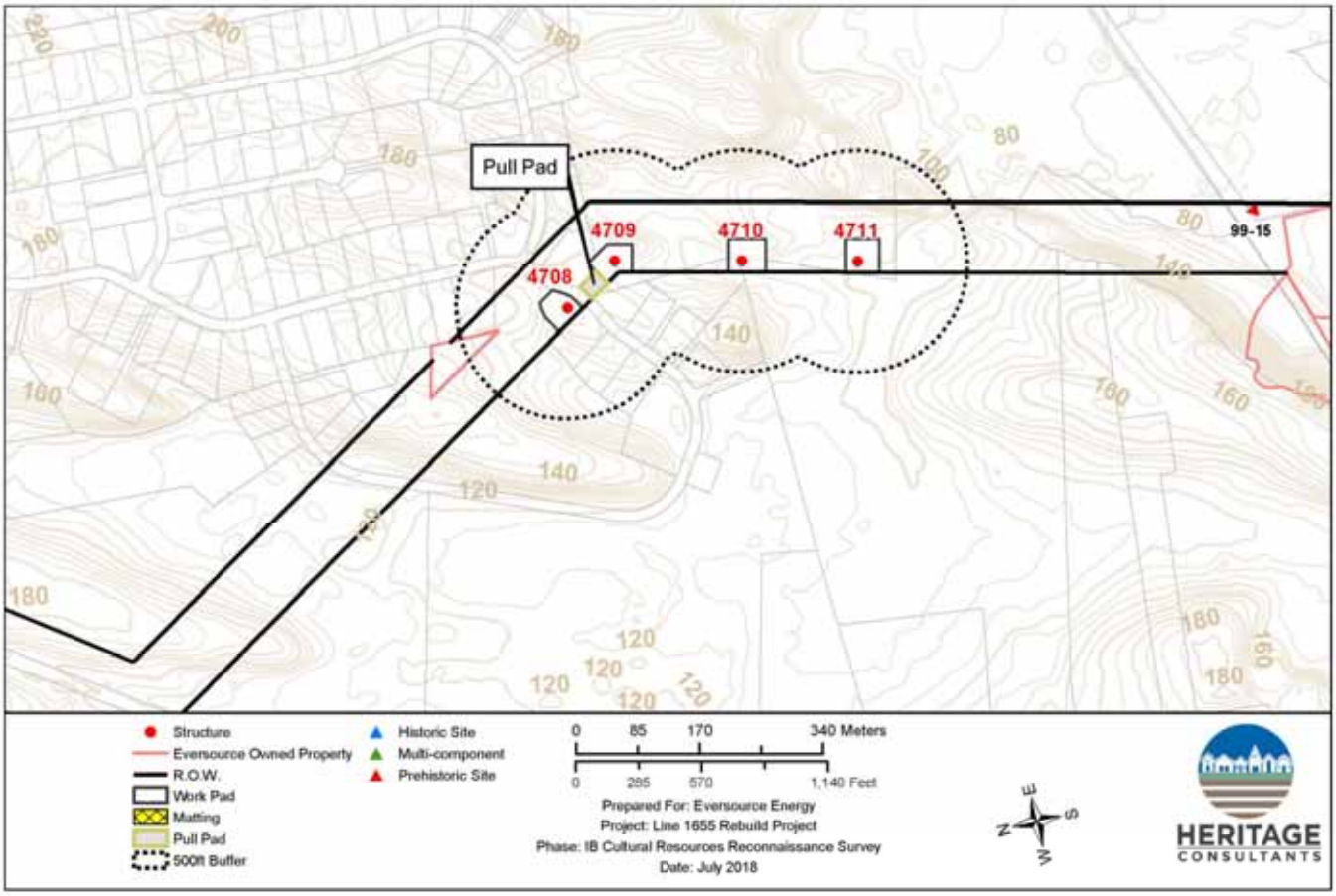
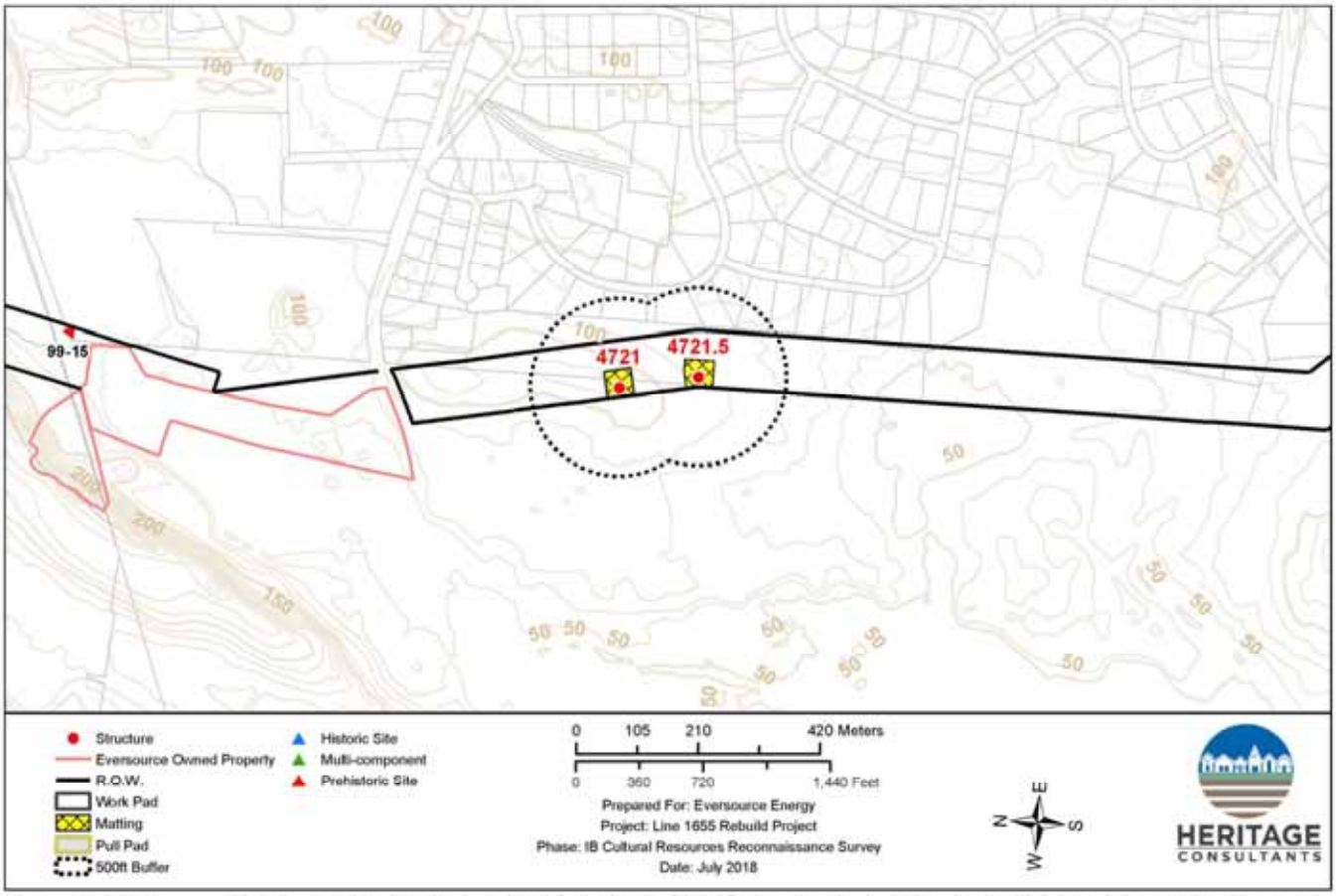


Figure 7; Sheet 1. Digital map showing the location of previously identified archaeological sites in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.


Pull Pad
4708
4709
4710
4711
99-15
Structure
Eversource Owned Property
R.O.W.
Work Pad
Matting
Pull Pad
500ft Buffer
Historic Site
Multi-component
Prehistoric Site
0 85 170 340 Meters
0 285 570 1,140 Feet
Prepared For: Eversource Energy
Project: Line 1655 Rebuild Project
Phase: IB Cultural Resources Reconnaissance Survey
Date: July 2018
HERITAGE
CONSULTANTS



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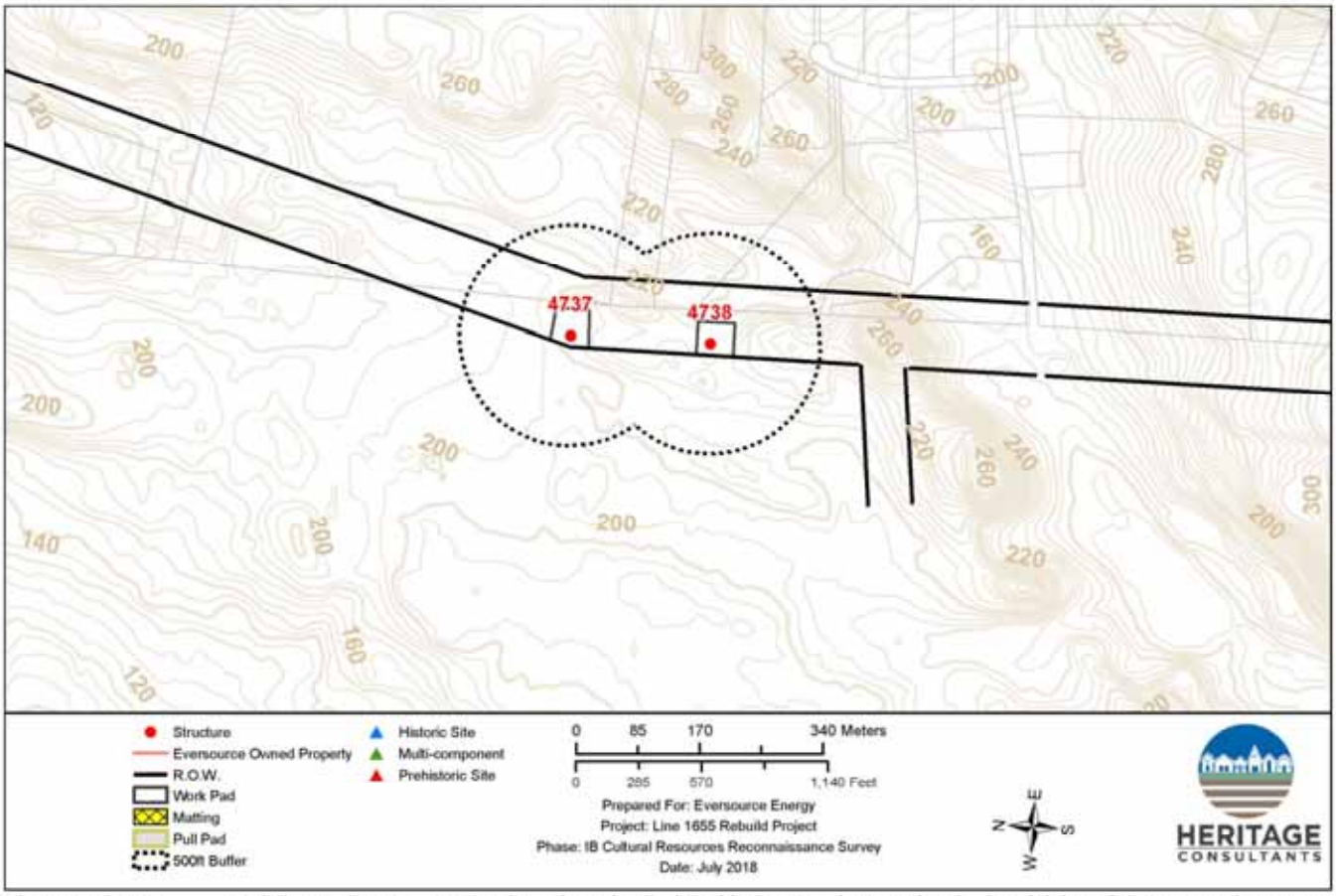

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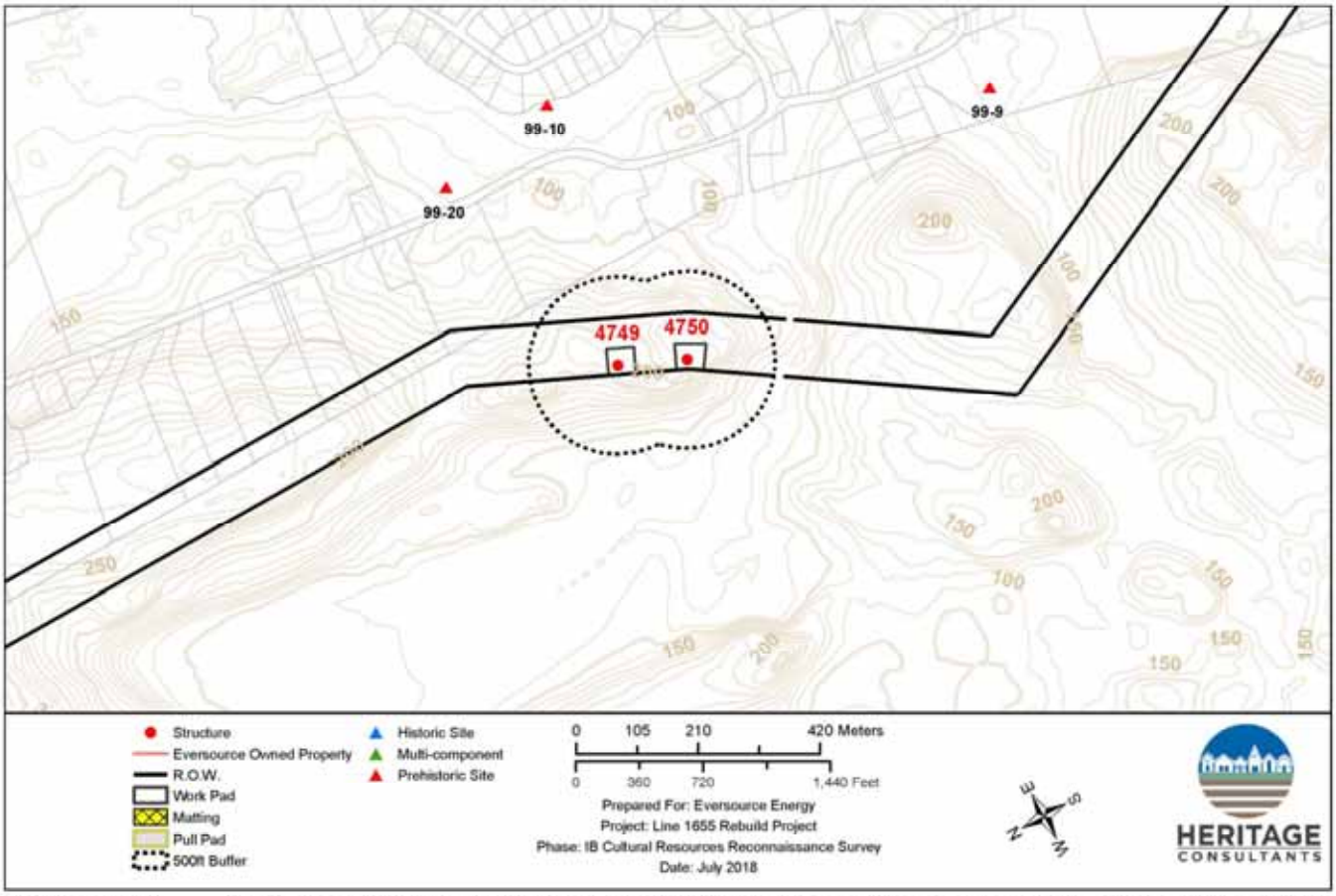

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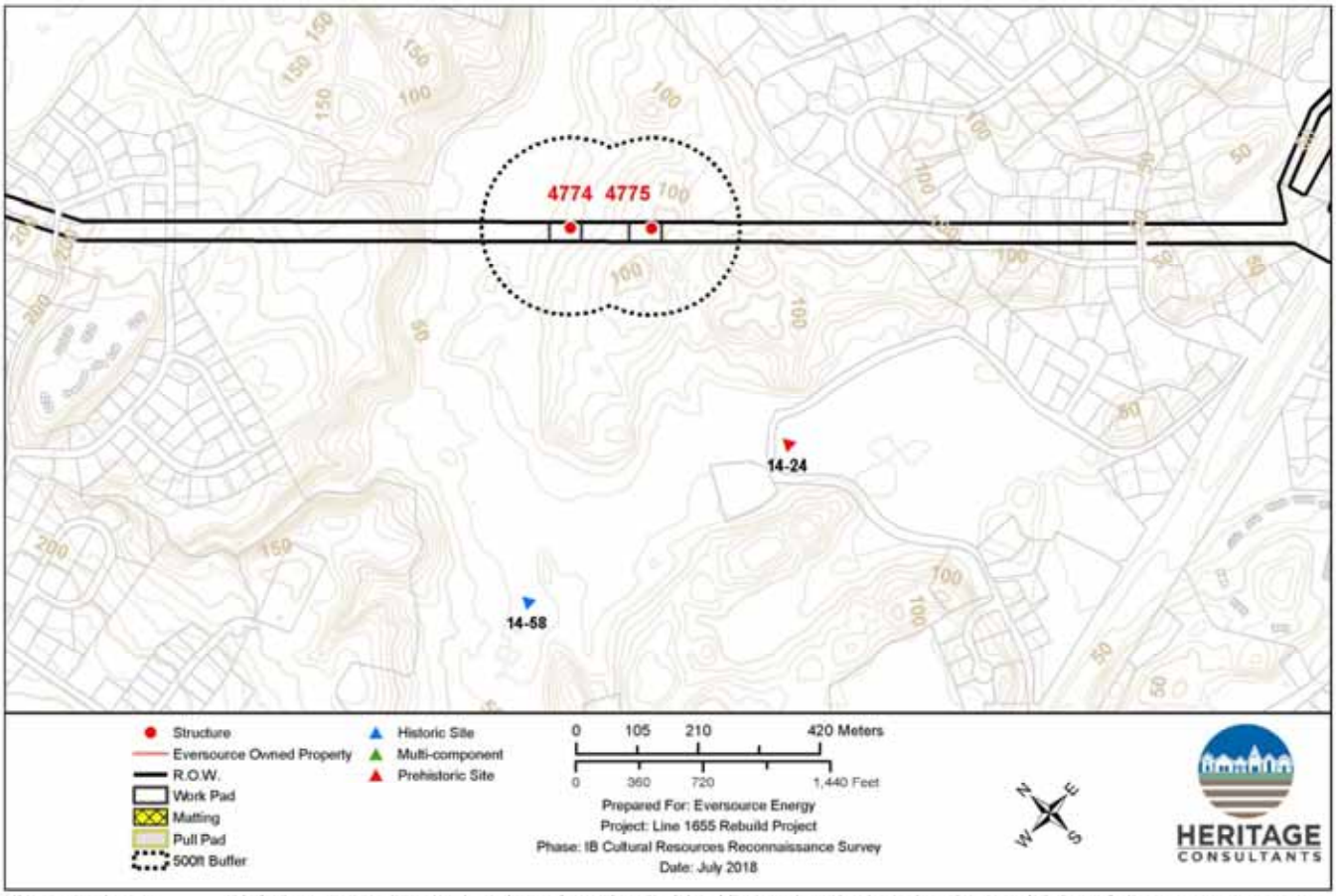

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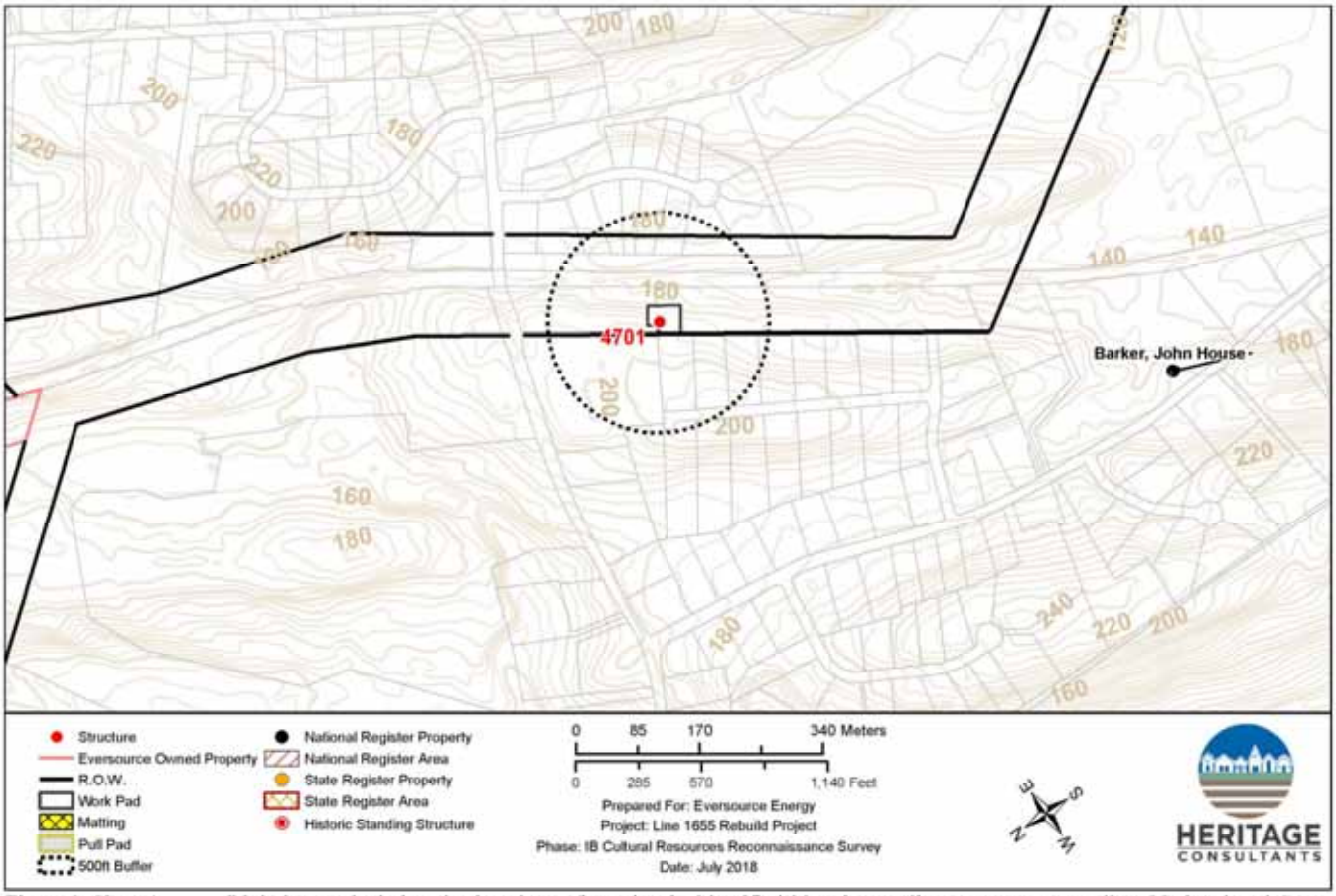
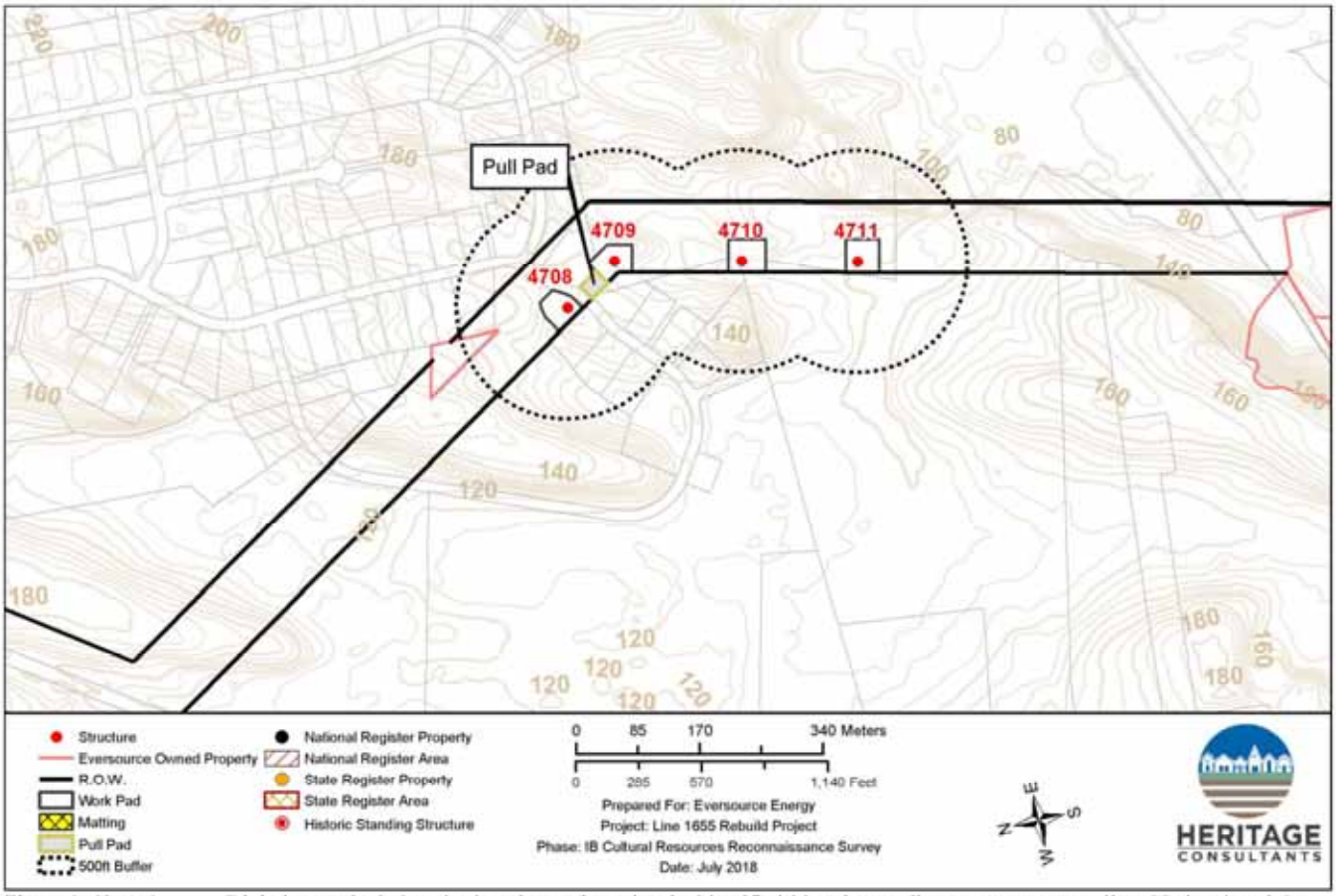


Figure 8; Sheet 1. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.



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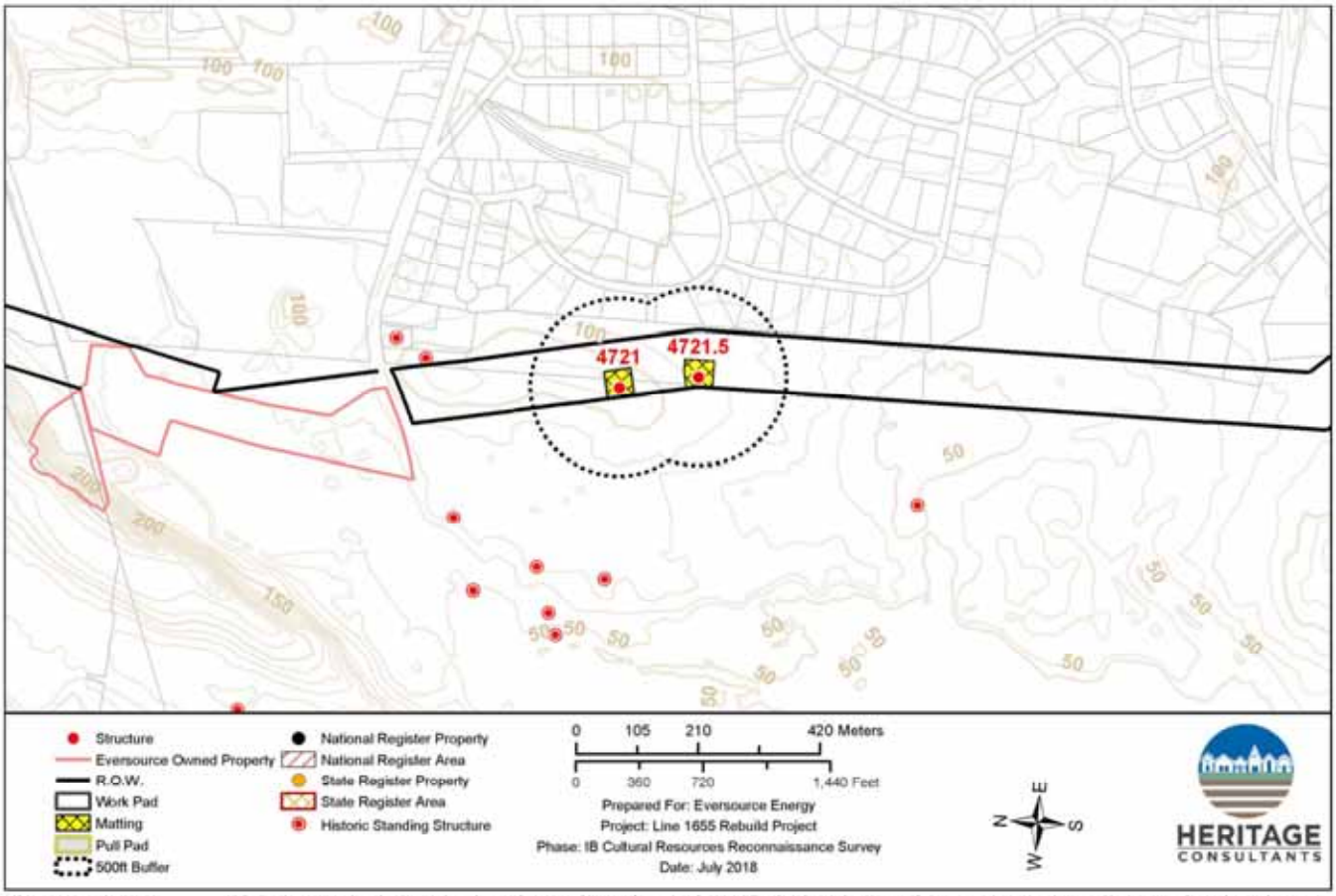

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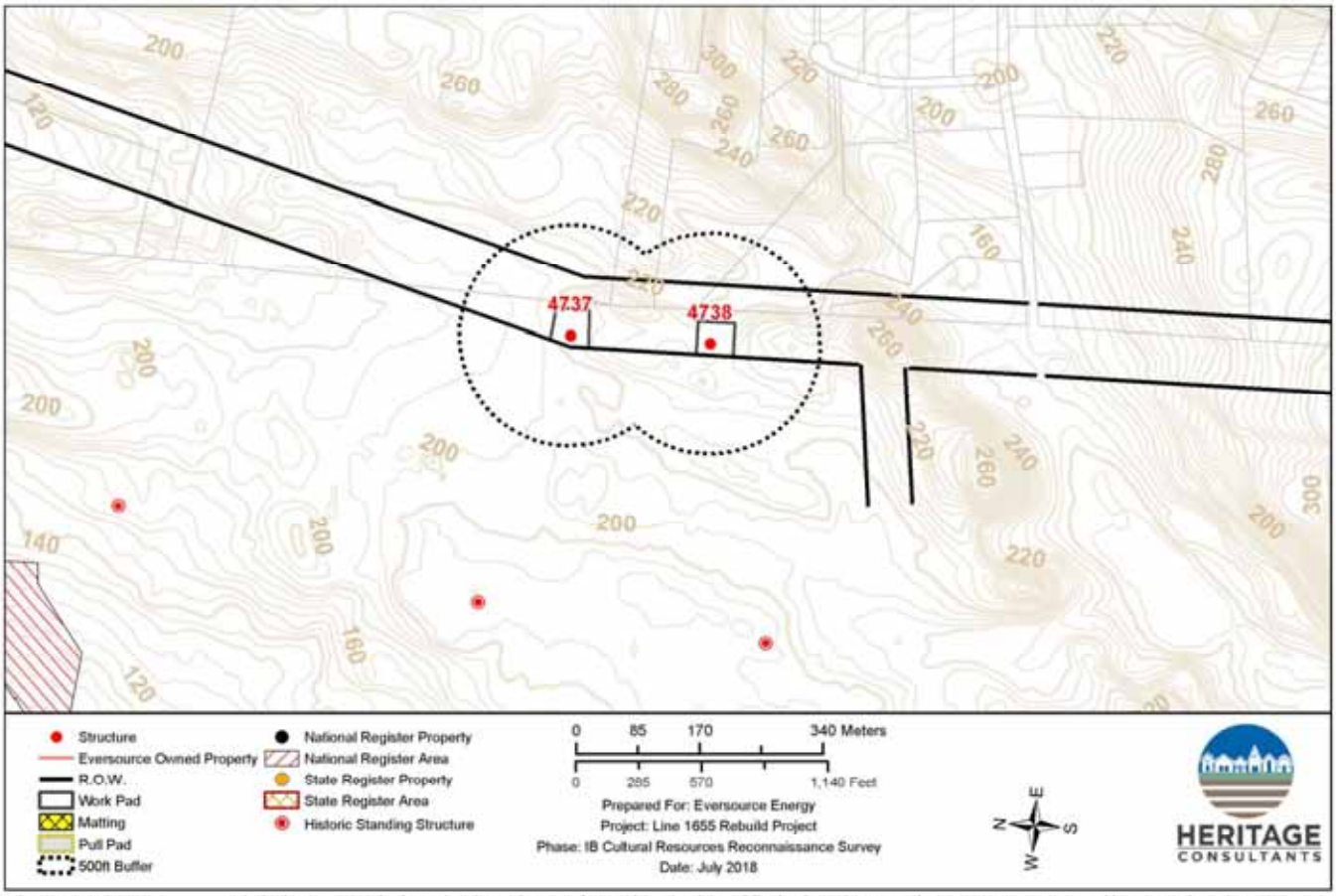

Figure 8; Sheet 4. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

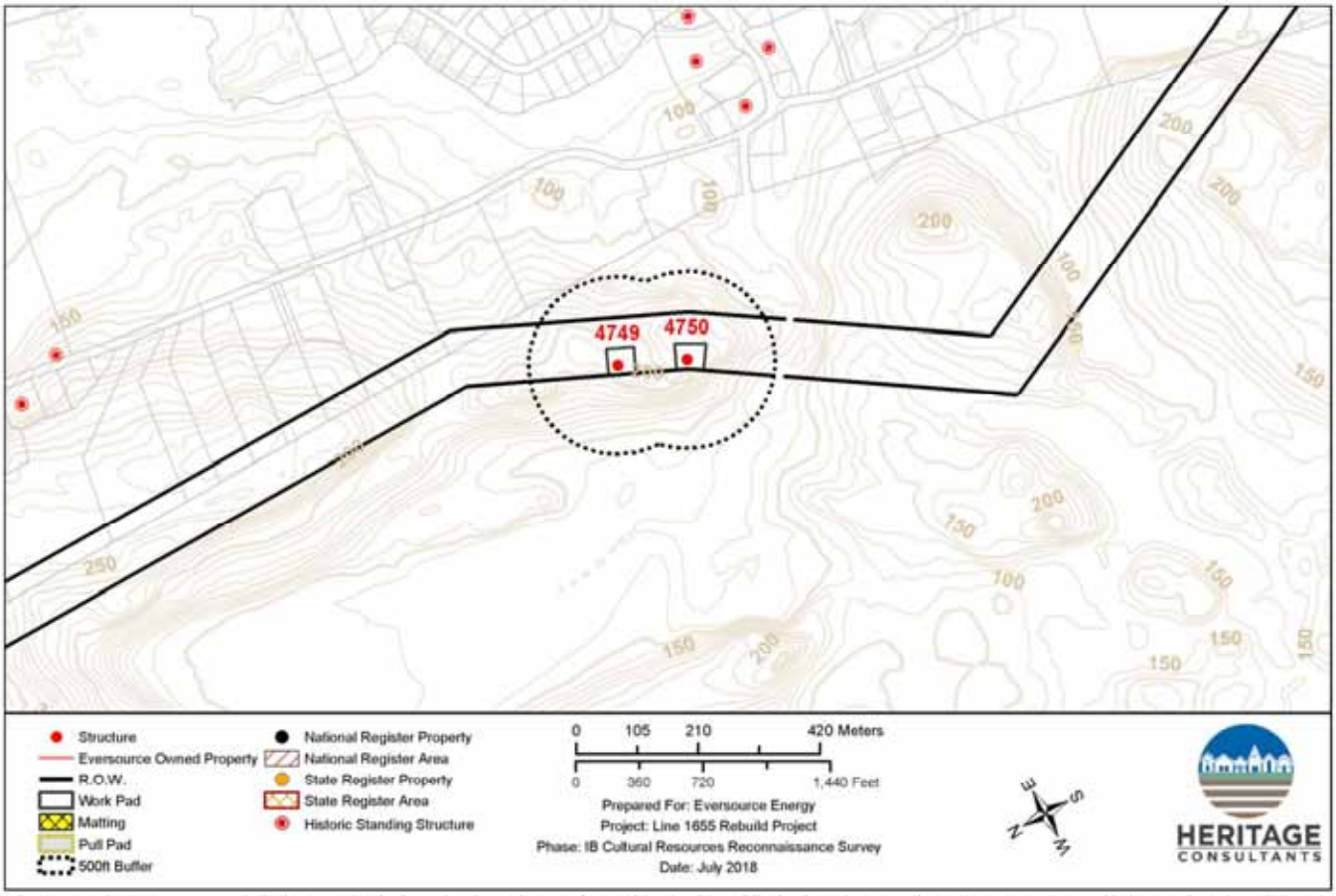

Figure 8; Sheet 5. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

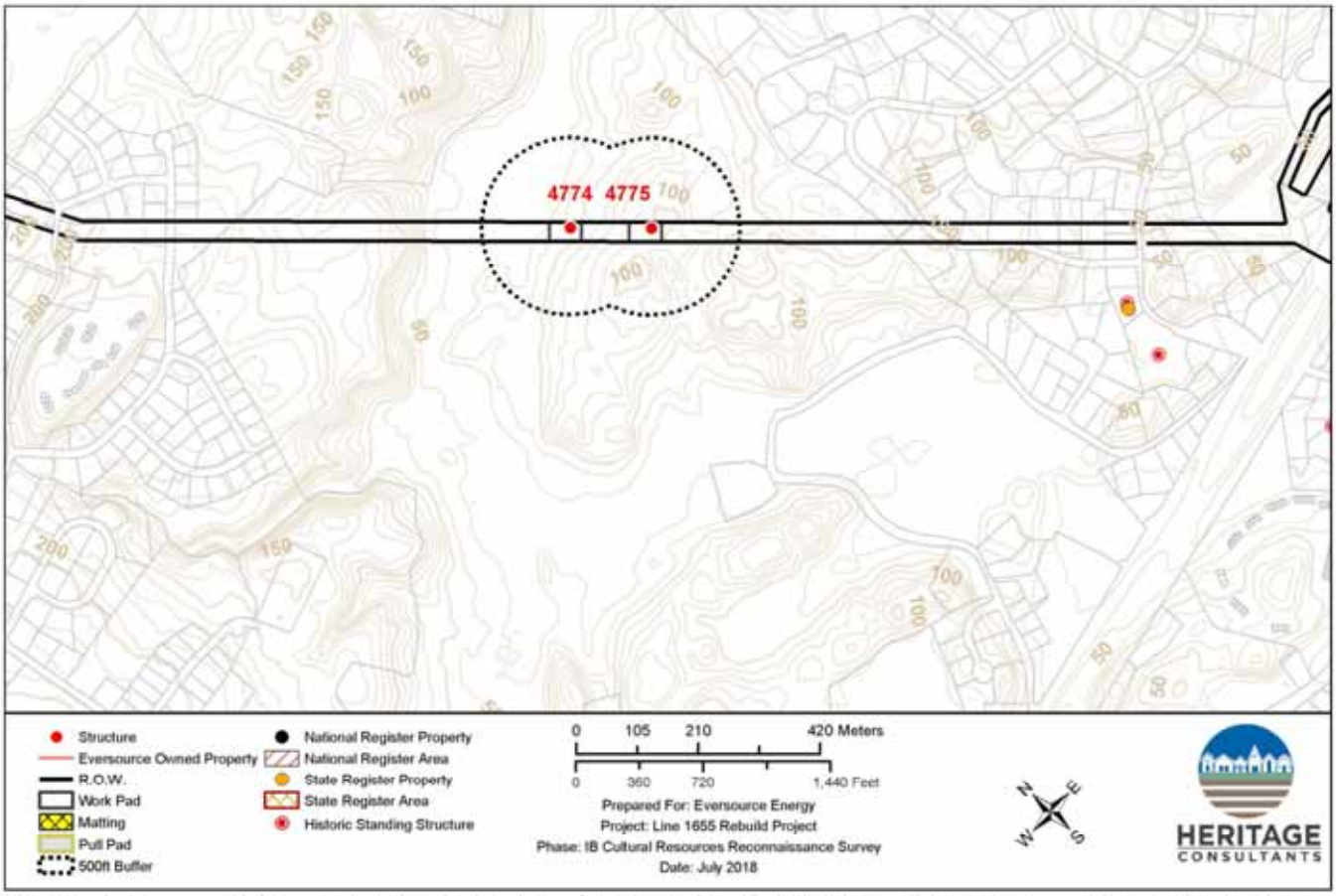

Figure 8; Sheet 6. Digital map depicting the locations of previously identified historic standing structures as well as National and State Register of Historic Places properties in the vicinity of the proposed structure replacements and pull pad along Line 1655 in Wallingford, Branford, North Haven, North Branford, East Haven, Connecticut.

ATTACHMENT D

DAVISON ENVIRONMENTAL

Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

Wetland Delineation

June 27, 2018 **DE Project No.: 2017-20**

Prepared For:	Eversource Energy 56 Prospect Street Hartford, CT 06103 Attn: Mark Pappalardo
Eversource Project Name:	Wallingford to Branford Upgrade Project
Project Location:	Wallingford, North Haven, North Branford, East Haven, & Branford, Connecticut
Date(s) of Investigations:	May & June 2017
Field Conditions:	Weather: variable, 60s to 80s Soil Moisture: dry to moist
Wetland/Watercourse Delineation Methodology[1]:	☒Connecticut Inland Wetlands and Watercourses ☐Connecticut Tidal Wetlands ☐Massachusetts Wetlands ☒U.S. Army Corps of Engineers

The wetlands inspection was performed by[2]:

Davison Environmental, LLC

Matthew Davison
Professional Soil Scientist
Professional Wetland Scientist

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[1]*Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.*

[2]*Wetlands were delinetead by Davison Environmental Professional Soil Scientists Eric and Matthew Davison in May and June, 2017.*

Attachments

- Table 1: Delineated Wetlands and Watercourses within the Wallingford to Branford Upgrade Project Area
- Wetland Delineation Field Forms

Table 1: Delineated Wetlands and Watercourses within the Wallingford to Branford Upgrade Project Area

Aerial Map Sheet No.	Wetland No.[1]	Dominant NWI Class[2]	Other NWI Classes	Dominant Water Regime	Associated Watercourse[3]	Associated Vernal Pool[4]
1	W1	PFO	PSS	Seasonally Saturated-seepage	---	---
1	W2	PEM	PSS	Permanently Flooded	---	---
2	W3	PSS	---	Seasonally Saturated-seepage	---	---
2	W4	PSS	---	Seasonally Saturated-seepage	---	---
3	W5	PSS	PEM	Seasonally Saturated-seepage	S1 (Intermittent)	---
3	W6	PSS	PEM	Permanently Saturated	S2, S3 (Unnamed Perennial)	---
3, 4	W7	PSS	PEM	Permanently Saturated	S4 (Pine River), S5 (Muddy River)	VP1
4	W8	PSS	PEM	Permanently Saturated	S6 (Unnamed Perennial)	---
5	W9	PSS	PEM	Permanently Saturated	S7, S8 (Intermittent), S9 (Eightmile Brook), S10 (Unnamed Perennial)	---
5	W10	POW	PSS	Permanently Flooded	---	---
6, 7	W11	PSS	PEM	Permanently Saturated	S11 (Eightmile Brook), S12 (Intermittent), Borrelli Farm Pond	---
8	W12	PEM	PFO	Seasonally Saturated-seepage	---	---
9	W13	PSS	PEM	Seasonally Saturated-seepage	---	---
10	W14	PEM	---	Seasonally Saturated-seepage	---	---
10	W15	PSS	PFO	Permanently Saturated	S13 (Unnamed Perennial)	---

Aerial Map Sheet No.	Wetland No.[1]	Dominant NWI Class[2]	Other NWI Classes	Dominant Water Regime	Associated Watercourse[3]	Associated Vernal Pool[4]
11	W16	PSS	PFO	Permanently Saturated	S14 (Unnamed Perennial)	---
12	W17	PSS	PFO	Seasonally Flooded	S15 (Farm River), S16 (Burrs Brook)	---
12	W18	PEM	PSS	Seasonally Saturated-seepage	---	---
13	W19	PSS	PEM	Seasonally Flooded	---	---
14	W20	PSS	PFO	Seasonally Saturated-seepage	S17 (Intermittent)	---
14	W21	PSS	PEM	Permanently Saturated	---	---
14, 15	W22	PSS	PEM	Seasonally Saturated-seepage	---	---
15	W23	PEM	PSS	Seasonally Flooded	S18 (Pisgah Brook)	---
15	W24	PSS	PEM	Seasonally Saturated-seepage	---	---
16	W25	POW	---	Permanently Flooded	S20 (Branford River / Wards Millpond)	---
16	W26	PSS	---	Seasonally Flooded	S20 (Branford River)	---
17	W27	PSS	---	Seasonally Flooded	S20 (Branford River / Wards Millpond)	---
17	W28	PSS	---	Seasonally Flooded	---	---

[1]Wetland No. refers to the number generated during the 2017 field surveys within the Wallingford to Branford Upgrade Project area. This Wetland No. is keyed to those depicted on the 200 scale Aerial Maps (Attached to the Petition).

[2]Wetlands classified according to Cowardin et al 1979; PEM = Palustrine Emergent Wetland; PFO = Palustrine Forested Wetland; PSS = Palustrine Scrub-Shrub Wetland; POW = Palustrine Open Water.

[3]Associated Watercourse refers to the identification number assigned during the 2017 field surveys to identify watercourses within the Wallingford to Branford Upgrade Project area.

[4] Vernal pools were identified within the Project area during surveys conducted in May and June 2017 by Davison Environmental

Wetland Delineation Field Form

Wetland I.D.:	W1	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: constructed wet swale in golf course		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments:	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☐	No ☒

DOMINANT PLANTS:

Jewelweed (Impatiens capensis)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W2	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: Permanent pond with marsh fringe		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Specked Alder (Alnus rugosa)	Rushes (Juncus spp.)
Salix spp.	
Broad-Leaf Cattail (Typha latifolia)	
Silky Dogwood (Cornus amomum)	
Tussock Sedge (Carex stricta)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W3	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: Groundwater slope wetland		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Sensitive Fern (Onoclea sensibilis)	Skunk Cabbage (Symplocarpus foetidus)
Northern Arrow-wood (Viburnum recognitum)	
Rough-stem goldenrod (Solidago rugosa)	
Reed Canarygrass (Phalaris arundinacea)	
Tussock Sedge (Carex stricta)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W4	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Northern Arrow-wood (Viburnum recognitum)	
Elderberry/Black-Berried Elder (Sambucus canadensis)	
Winterberry (Ilex verticillata)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W5	Stream I.D.:	N/A
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: Ditched intermittent watercourse and narrow bordering wetland		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Specked Alder (Alnus rugosa)	
Jewelweed (Impatiens capensis)	
Skunk Cabbage (Symplocarpus foetidus)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W6	Stream I.D.:	S2, S3
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Two unnamed perennial watercourses flow within interior		
Comments: Two existing access road crossings, crossings are unimproved		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Jewelweed (Impatiens capensis)	Bebb Willow (Salix bebbiana)
Specked Alder (Alnus rugosa)	Rough stem goldenrod (Solidago rugosa)
Soft Rush (Juncus effuses)	
Winterberry (Ilex verticillata)	
Northern Arrow-wood (Viburnum recognitum)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W7	Stream I.D.:	S4, S5
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: ranges from saturated to seasonally flooded hydrology is influenced by access road, culverts		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Pine River (S4) and Muddy River (S5) flow through wetland		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☒ No ☐ Potential ☐	Other ☐
Vernal Pool Habitat Type: 'Cryptic'	
Comments: Vernal pool is within a backwater to the Muddy River	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Northern Arrow-wood (Viburnum recognitum)	Skunk Cabbage (Symplocarpus foetidus)
Winterberry (Ilex verticillata)	Tussock Sedge (Carex stricta)
Salix spp.	
Specked Alder (Alnus rugosa)	
Silky Dogwood (Cornus amomum)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W8	Stream I.D.:	S6
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Unnamed perennial		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Bebb Willow (Salix bebbiana)	Silky Dogwood (Cornus amomum)
Winterberry (Ilex verticillata)	Skunk Cabbage (Symplocarpus foetidus)
Specked Alder (Alnus rugosa)	Reed Canarygrass* (Phalaris arundinacea)
Northern Arrow-wood (Viburnum recognitum)	
Rough stem goldenrod (Solidago rugosa)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W9	Stream I.D.:	S7, S8, S9, S10
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: Hydrology ranges from saturated to seasonally flooded		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☒	Tidal ☐
Watercourse Name: Eightmile Brook (S9)		
Comments: S7 and S8 are intermittent, S10 is an unnamed perennial		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Speckled Alder (Alnus rugosa)	
Soft Rush (Juncus effuses)	
Reed Canarygrass* (Phalaris arundinacea)	
Tussock Sedge (Carex stricta)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W10	Stream I.D.:	Stream: NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☐
Open Water ☒	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Red Maple (Acer rubrum)	
Speckled Alder (Alnus rugosa)	
American Elm (Ulmus americana)	
Salix spp.	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W11	Stream I.D.:	S11, S12
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☒	Tidal ☐
Watercourse Name: Eightmile Brook (S11)		
Comments: S12 (intermittent) is a dug ditch at the edge of an agricultural field		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Specked Alder (Alnus rugosa)	Skunk Cabbage (Symplocarpus foetidus)
Winterberry (Ilex verticillata)	Bebb Willow (Salix bebbiana)
Japanese Knotweed* (Polygonum cuspidatum)	Arrowwood (Viburnum dentatum)
Common Reed* (Phragmites australis)	Tussock Sedge (Carex stricta)
Common Cattail (Typha latifolia)	Reed Canarygrass* (Phalaris arundinacea)

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W12	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☐	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Soft Rush (Juncus effuses)	
Red Maple (Acer rubrum)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W13	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W14	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☐	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Soft Rush (Juncus effuses)	
Cattail (Typha latifolia)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W15	Stream I.D.:	S13
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Unnamed perennial		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Red Maple (Acer rubrum)	
Common Cattail (Typha latifolia)	
Common Reed* (Phragmites australis)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W16	Stream I.D.:	S14
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments:		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Unnamed perennial		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Red Maple (Acer rubrum)	
Specked Alder (Alnus rugosa)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W17	Stream I.D.:	S15, S16
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Farm River (S15), Burrs Brook (S16)		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Red Maple (Acer rubrum)	Common Reed (Phragmites australis)*
Winterberry (Ilex vertillicata)	
Speckled Alder (Alnus rugosa)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W18	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Soft Rush (Juncus effuses)	
Meadowsweet (Spiraea latifolia)	
Sensitive Fern (Onoclea sensibilis)	
Goldenrod (Solidago spp.)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W19	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	Sensitive Fern (Onoclea sensibilis)
Northern Arrow-wood (Viburnum recognitum)	Halberd-leaved Tearthumb (Polygonum arifolium)
Winterberry (Ilex verticillata)	
Skunk Cabbage (Symplocarpus foetidus)	
Common Cattail (Typha latifolia)	
Speckled Alder (Alnus rugosa)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W20	Stream I.D.:	S17
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Specked Alder (Alnus rugosa)	
Red Maple (Acer rubrum)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W21	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☒	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: Permanently flooded areas are predominantly off-ROW		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W22	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W23	Stream I.D.:	S18
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Pisgah Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	
Northern Arrow-wood (Viburnum recognitum)	
Tussock Sedge (Carex stricta)	
Cattail (Typha latifolia)	
Speckled Alder (Alnus rugosa)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W24	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Skunk Cabbage (Symplocarpus foetidus)	Elderberry (Sambucus canadensis)
Specked Alder (Alnus rugosa)	
Tussock Sedge (Carex stricta)	
Cattail (Typha latifolia)	
Greenbriar (Smilax rotundifolia)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W25	Stream I.D.:	S20
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☐	Scrub-shrub ☐	Forested ☐
Open Water ☒	Disturbed ☐	Wet Meadow ☐
Comments: Wards Millpond (impounded portion of Branford River – S20) with narrow emergent/scrub-shrub fringe on the sides		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Branford River (S20)		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W26	Stream I.D.:	S20
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Branford River (S20)		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	
Northern Arrow-wood (Viburnum recognitum)	
Elderberry/Black-Berried Elder (Sambucus canadensis)	
Bebb Willow (Salix bebbiana)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W27	Stream I.D.:	S20
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Watercourse Name: Branford River		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	
Specked Alder (Alnus rugosa)	
Bebb Willow (Salix bebbiana)	
Elderberry/Black-Berried Elder (Sambucus canadensis)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W28	Stream I.D.:	NA
Flag Location Method:	Site Sketch ☐	GPS (sub-meter) located ☒	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: None		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☐
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: None		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Common Reed* (Phragmites australis)	
Specked Alder (Alnus rugosa)	
Bebb Willow (Salix bebbiana)	
Elderberry/Black-Berried Elder (Sambucus canadensis)	

* denotes Connecticut Invasive Species Council invasive plant species

ATTACHMENT E

DAVISON ENVIRONMENTAL

Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

Vernal Pool Survey

June 26, 2018 **DE Project No.: 2017-20**

Prepared For:	Eversource Energy 56 Prospect Street Hartford, CT 06103 Attn: Mark Pappalardo
Eversource Project Name:	Wallingford to Branford (1655 Line) Upgrade Project
Project Location:	Wallingford, North Haven, North Branford, East Haven, & Branford, Connecticut
Date(s) of Investigations:	May - June, 2017
Survey Methodology:	Visual and Audial Survey, and Dip Netting

The vernal pool survey was performed by:

Davison Environmental, LLC

Eric Davison
Wildlife Biologist
Professional Soil Scientist
Professional Wetland Scientist

INTRODUCTION

The following details vernal pool surveys conducted by Davison Environmental in support of The Connecticut Light and Power Company doing business as Eversource Energy's ("Eversource") petition to the Connecticut Siting Council for the Wallingford to Branford (1655 Line) Upgrade Project within an existing transmission line right-of-way ("ROW") in Wallingford, North Haven, North Branford, East Haven, & Branford, Connecticut ("Project").

VERNAL POOL DEFINITION

Several vernal pool definitions have been developed by both regulatory authorities and conservation organizations. The Connecticut Department of Energy and Environmental Protection (CT DEEP) generally describes vernal pools on its website, but cautions that the data provided is informational in nature and should not supplant regulations of municipal inland wetlands agencies. CT DEEP describes vernal pools as *"small bodies of standing fresh water found throughout the spring*" that are "*usually temporary"* and "*result from various combinations of snowmelt, precipitation and high water tables associated with the spring season*".

Calhoun and Klemens (2002) *Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States* (BDP Manual) provides the following operational definition of vernal pools:

Vernal pools are seasonal bodies of water that attain maximum depths in the spring or fall, and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, varies depending upon the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than one year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including Ambystomid salamanders (Ambystoma spp., called "mole salamanders" because they live in burrows), wood frogs (Rana sylvatica), and fairy shrimp (Eubranchipus spp.).

Vernal pool physical characteristics can vary widely while still providing habitat for indicator species. "Classic" vernal pools are natural depressions in a wooded upland with no permanent hydrologic connection to other wetland systems. Anthropogenic depressions such as quarry holes, old farm ponds and borrow pits can also provide similar habitat. Often, vernal pools are depressions or impoundments embedded within larger wetland systems. These vernal pool habitats are commonly referred to as "cryptic" vernal pools.

Several species of amphibians depend on vernal pools for reproduction and development. These species are referred to as indicator[1] vernal pool species, and their presence in a temporary wetland during the breeding season helps to identify that area as a vernal pool. Indicator species present in Connecticut include the following:

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[1] Calhoun and Klemens (2002) argue that "indicator" species is a better word than the commonly used "obligate" species, as they will occasionally breed in roadside ditches and small ponds that are not vernal pools.

- Blue-spotted salamander *(Ambystoma laterale)*;
- Wood frog *(Rana sylvatica)*;
- Spotted salamander *(Ambystoma maculatum)*;
- Jefferson salamander *(Ambystoma jeffersonianum)*;
- Marbled salamander *(Ambystoma opacum)*; and
- Fairy shrimp *(Branchiopoda anostraca)*.

Facultative vernal pool species are fauna that utilize but do not necessarily require vernal pools for reproductive success. Examples of facultative species include spotted turtles *(Clemmys guttata)* and four-toed salamander *(Hemidactylium scutatum)*. These species may breed or feed in vernal pools but are also capable of carrying out all phases of their lifecycle in other types of wetlands or water bodies. Evidence of breeding by facultative species alone is not considered indicative of the presence of a vernal pool.

EXISTING WETLANDS ALONG THE PROJECT ROW

Project wetlands are predominantly characterized by active flood zones and riparian corridors and are generally lacking suitable vernal pool hydrology and morphology (seasonally flooded wetland depressions). Wetland hydrology within Project wetlands is typically characterized by short duration late winter-early spring and storm driven flooding. These hydrologic regimes are not conducive to providing productive vernal pool habitat.

Permanently flooded wetland areas (e.g. Wetlands W10, portions of W11, portions of W19 and W21), while possessing a sufficient hydroperiod to support indicator species, are often inhabited by predatory species such as fish, green frog *(Lithobates clamitans)*, and American bullfrog *(Lithobates catesbeianus)* which can limit the productivity of these areas.

VERNAL POOL SURVEY & RESULTS

Vernal pool surveys were conducted by biologist Eric Davison of Davison Environmental, LLC coincident to wetland inspections in May and June 2017. Field surveys were conducted to identify both species richness and abundance of indicator species. Survey methods used included visual surveys to identify adults, larvae and egg masses, audial surveys to record breeding choruses and dip-net surveys to identify amphibian larvae.

A single vernal pool was identified within the Project ROW, Vernal Pool 1 (VP1) on Map Sheet 4. Vernal Pool 1 is a cryptic pool embedded within Wetland W7 (see attached photographs). The pool consists of a flooded backwater adjacent to the Muddy River. The pool contained wood frog only; no Ambystomid salamanders were observed. Two other pools were observed in the vicinity of the Project area during surveys but were determined to be off ROW upon evaluation of field-collected GPS data. One is located in Wetland W19, the other is located in Wetland W24. Two vernal pool indicator species were observed in these pools, the wood frog and the spotted salamander.

Other species observed or heard during the surveys included pickerel frog (*Lithobates palustris*), green frog, spring peeper (*Pseudacris crucifer*), American toad (*Anaxyrus americanus*), bullfrog, painted turtle (*Chrysemys picta*), and garter snake (*Thamnophis sirtalis*).

Vernal Pool 1

(photos taken 6-13-17)

ATTACHMENT F

EVERSOURCE ENERGY

56 Prospect Street
Hartford, CT 06103

October 12, 2018

Dear Neighbor,

At Eversource, we're always working to serve you better. We are submitting a petition to the Connecticut Siting Council (CSC) for a proposed transmission upgrade project in your area.

Proposed Project Information

The upgrade, called the Wallingford to Branford Upgrade Project, involves replacing the existing wood structures on the 1655 line with weathering steel structures and installing a new weathering steel H-frame structure on Eversource property. These are steel poles with a finish that "weathers" or darkens over time. We are also upgrading the communication/ground wire associated with each structure. Due to the age and condition of the existing wood structures, they need to be replaced to provide continued reliability of the transmission line and maintain the integrity of the transmission system.

The project construction will be located entirely within existing rights-of-way (power line corridors) between the East Wallingford Junction at the Traditions Golf Course in Wallingford and the Branford Substation on East Main Street in Branford, Conn. Other towns along the transmission rights-of-way are North Haven, North Branford, and East Haven.

If the CSC approves this proposed work, construction is expected to begin in the February of 2019. We anticipate restoration of any affected areas will be completed by spring 2020.

Please note, this work is not associated with ongoing Eversource Maintenance work in the area.

Contact Information

Eversource is committed to being a good neighbor and doing our work with respect for you and your community. For more information please call 1-800-793-2202 or send an email to TransmissionInfo@eversource.com.

If you would like to send comments regarding Eversource's petition to the CSC, please send them via email to siting.council@ct.gov or send a letter to the following address: Melanie Bachman, Executive Director, Connecticut Siting Council, Ten Franklin Square, New Britain, CT 06051

Thank you.

Sincerely,

Gregory Emery
Eversource Project Manager

AFFIDAVIT OF SERVICE OF NOTICE

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Sec. 16-50j-40 of the Regulations of Connecticut State Agencies ("RCSA") provides that proof of notice to the affected municipalities, property owners and abutters shall be submitted with a petition for declaratory ruling to the Connecticut Siting Council. In accordance with that RCSA section, I hereby certify that I caused notice of The Connecticut Light and Power Company doing business as Eversource Energy's proposed modifications of its 1655 transmission line to be served by mail or courier upon the following municipal officials:

Municipal Officials:

The Honorable William Dickinson,Jr.
Mayor of Wallingford
45 South Main Street, Rm. 310
Wallingford, CT 06492

Michael T. Paulhus
Town Manager of North Branford
909 Foxon Road
North Branford, CT 06471

The Honorable Michael Freda
First Selectman of North Haven
18 Church Street
North Haven, CT 06473

The Honorable Joseph Maturo
Mayor of East Haven
250 Main Street
East Haven, CT 06512

The Honorable James Cosgrove
First Selectman of Branford
1019 Main Street
Branford, CT 06405

I also certify that I caused notice of the proposed modifications to be served by mail or courier upon 296 owners of abutting properties shown on the maps in Attachment A to the Petition.

Gregory Emery
Project Manager

On this the 15th day of October, 2018, before me, the undersigned representative, personally appeared, Gregory Emery, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument and acknowledged that she executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Gina M. Leo

Notary Public
My Commission expires:

GINA M. LEO
NOTARY PUBLIC
MY COMMISSION EXPIRES FEB. 28, 2021