

EVERSOURCE

Environmental Compliance Training for Contractors



Sudbury to Hudson Transmission Reliability Project

SWCA
ENVIRONMENTAL CONSULTANTS

Epsilon
ASSOCIATES INC.

Weston & SampsonSM

AECOM

Introductions

1- Environmental Compliance Team

- Epsilon Associates
- SWCA Environmental Consultants
- AECOM Technical Services
- Weston & Sampson (LSP-of-Record)

2- Contractor Team

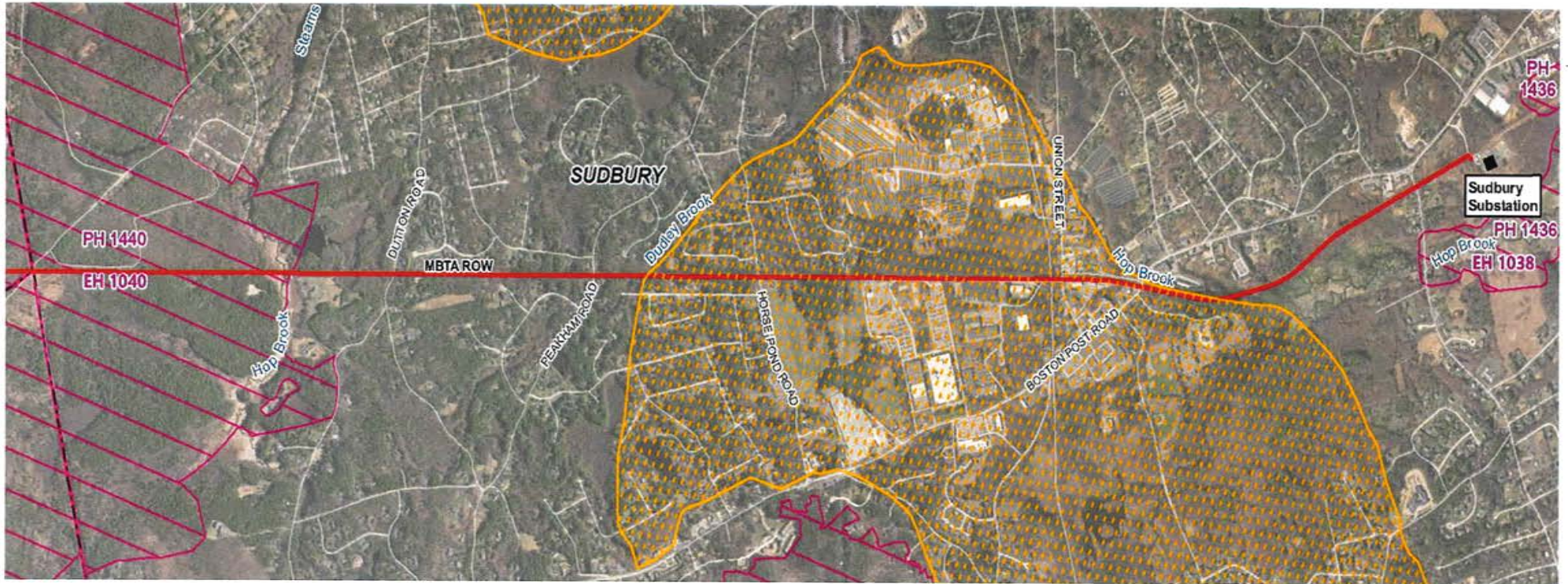
- BOND
- ET&L
- Moosehead
- G. Greene Construction (substation work only)

3- Eversource Team

- Mike Hager-Project Manager
- Matt Devlin-Environmental Representative
- Matt Lagoy – Site Supervisor

4- Commonwealth Heritage Group (cultural and historic resources)

Project Overview (Sudbury)



- Project in Sudbury = approximately 4.3 miles long (along abandoned MBTA ROW)
- Crosses two perennial waterbodies (Hop Brook and Dudley Brook) and adjacent to a number of vernal pools
- Hop Brook is a cold-water fishery
- Mapped Priority Habitat for state-listed species from Hudson/Sudbury town line to just east of Hop Brook (approximately 4,000 linear feet)
- Project located within the Zone II Wellhead Protection Areas of municipal public wells
- Permanent fill to vegetated wetland (392 sf) – proposed wetland replication area (784 sf)
- Hundreds of acres of conservation lands adjacent to MBTA corridor from Dutton Road to Hudson/Sudbury town line

Project Overview (Stow)



- Project in Stow = approximately 350-feet (access will be from Hudson either Wilkins St. or Chestnut St.)
- Located within Riverfront Area (RFA) of Tributary to Assabet River; 100-Foot Buffer Zone to Bordering Vegetated Wetland (BVW); and 100-Foot Buffer Zone to Bordering Land Subject to Flooding (BLSF) (Stow bylaw only)
- Project located within the Zone II Wellhead Protection Areas of municipal public wells
- No vernal pools, cold-water fisheries, or state-listed species habitat

Project Overview (Hudson)



- Project in Hudson = approximately 4.7 miles long (1.5 miles in public roadways and 3.2 miles along MBTA ROW)
- Crosses one perennial stream (Fort Meadow Brook) and is adjacent to a number of vernal pools
- Mapped Priority Habitat for state-listed species from Parmenter Road to Hudson/Sudbury town line
- Project located within the Zone II Wellhead Protection Areas of municipal public wells
- Hundreds of acres of conservation land adjacent to MBTA corridor from Parmenter Road to Hudson/Sudbury town line

Summary of Environmental Permits

- USEPA NPDES CONSTRUCTION GENERAL PERMIT (SWPPP)
- MNHESP NO TAKE DETERMINATION (TURTLE PROTECTION PLAN)
- TOWN OF SUDBURY ENVIRONMENTAL PERMITS
 - ORDER OF CONDITIONS (CONSERVATION COMMISSION)
 - STORMWATER MANAGEMENT PERMIT (PLANNING BOARD)
 - EARTH REMOVAL PERMIT (EARTH REMOVAL BOARD)
- TOWN OF STOW ENVIRONMENTAL PERMITS
 - ORDER OF CONDITIONS (CONSERVATION COMMISSION)
- TOWN OF HUDSON ENVIRONMENTAL PERMITS
 - ORDER OF CONDITIONS (CONSERVATION COMMISSION)

Environmental Compliance Training Topics

- Environmental Compliance Team and Monitoring Requirements
- Project Sequencing Considerations and Requirements
- Vegetation and Rail Removal Activities
- Erosion Control Requirements
- Soil and Groundwater Management
- Pollution Prevention
- State-Listed Species and Vernal Pools
- Impaired and Sensitive Waterbodies
- Important Wildlife Habitat Features
- Invasive Species Requirements
- Bridge Construction Activities
- Plantings and Restoration Requirements
- Historic and Cultural Resource Considerations
- Public Outreach Protocols and Procedures

Environmental Compliance Team Leaders

Eversource Project Manager

Mike Hager (508) 341-5815 michael.hager@eversource.com

Eversource Environmental Department Representative

Matt Devlin (508) 596-0147 matthew.devlin@eversource.com

Epsilon Associates Team (Environmental Compliance Manager)

Marc Bergeron (508) 212-0420 mbergeron@epsilonassociates.com

Epsilon Associates Team (Environmental Compliance Assistant Manager)

Rebecca Weissman (339) 203-7045 rebecca.weissman@swca.com

BOND Environmental Compliance Officer

Matt Stock (617) 512-6766 mstock@bond-civilutility.com

E.T. & L. Corp. Environmental Compliance Officer

Daren Ducharme (978) 793-1287 dducharme@etlcorp.com

Weston & Sampson LSP

Paul McKinlay (617) 571-4521 Mckinlayp@wseinc.com

G. Greene Construction Site Supervisor

Nick DeSisto (617) 519-3256 ndesisto@ggreene.com

Environmental Monitoring Overview

Epsilon Team (will be on site daily)

- Epsilon Associates
- SWCA
- AECOM

Third-Party Independent Env. Monitor (Sudbury)

- Will be on site on a regular basis and will coordinate schedule with Epsilon Team

Weston & Sampson Representative

- Will be on site on a weekly basis to conduct inspections and will coordinate schedule with Epsilon Team

Town Professional Staff (all towns)

- Conservation Commission Agents and other Town Staff may be on site to conduct inspections (will coordinate with Epsilon Team)

Members of the Public

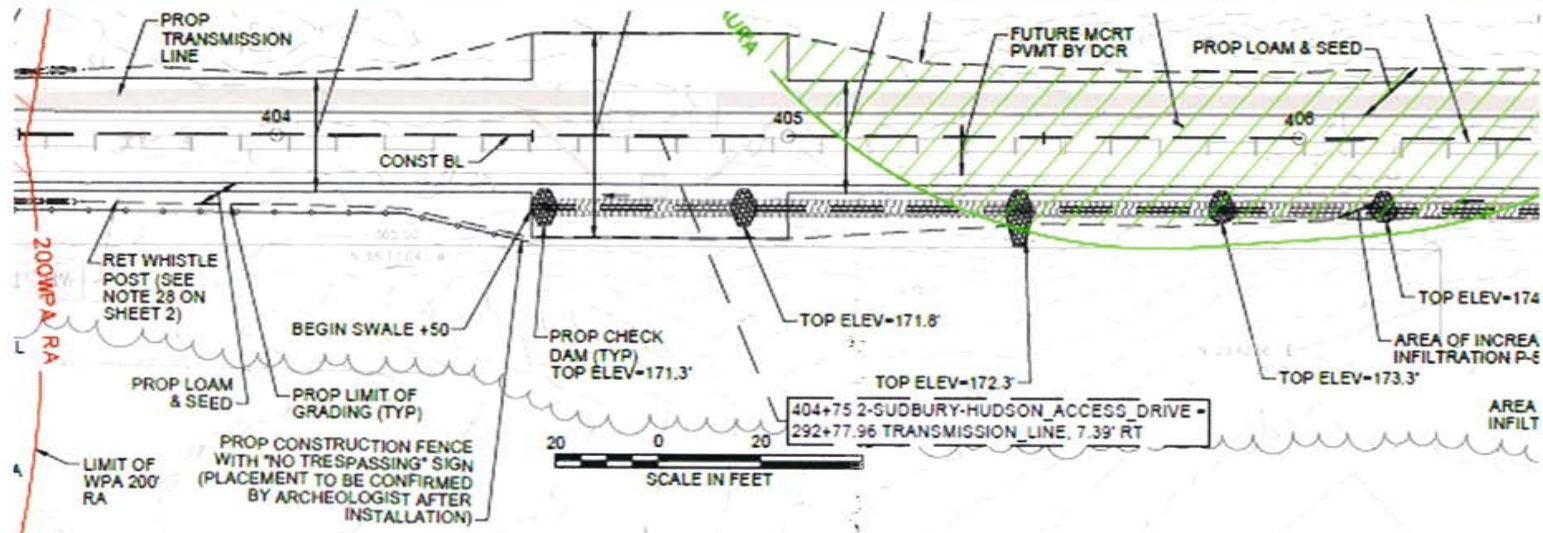
- Project will be highly scrutinized and is along a well used corridor



Environmental Compliance is Everyone's Responsibility

- Environmental Compliance is the responsibility of **all** personnel working on the Project Site
- Be familiar with the environmental features and compliance related actions necessary along each specific segment of the Project
- Communication and coordination will be key to success
- Need to plan ahead to allow for inspections by local Conservation Agents
- Proper planning prevents poor performance and potential project delays

Understand Your Limits of Work



ENVIRONMENTAL IMPACTS LEGEND	
HATCH	DESCRIPTION
	ISOLATED VEGETATED WETLAND
	BORDERING VEGETATED WETLAND
	LAND UNDER WATER
	VERNAL POOL
	PERMANENT DISTURBANCE TO VEGETATED WETLAND
	TEMPORARY DISTURBANCE TO VEGETATED WETLAND
	TEMPORARY DISTURBANCE TO LAND UNDER WATER (LUW)
	TEMPORARY DISTURBANCE TO BANK
	DISTURBANCE TO 100' VERNAL POOL BUFFER ZONE (100' VP BZ)
	DISTURBANCE TO WPA 200' RIVERFRONT AREA (WPA 200' RA)
	DISTURBANCE TO SUDBURY 200' RIVERFRONT AREA (SUD 200' RA)
	DISTURBANCE TO WPA 100' RIVERFRONT AREA (WPA 100' RA)
	DISTURBANCE TO SUDBURY 100' RIVERFRONT AREA (SUD 100' RA)
	DISTURBANCE TO 100' BUFFER ZONE (100' BZ-AURA)
	DISTURBANCE TO BLSF
	EXISTING TREE LINE
	LIMIT OF GRADING

- Your Limits of Work (LOW) are shown on the Project Plans – Attachment D of the SWPPP
- Keep all Work, Traffic, Parking, Laydown, and Stockpiles entirely within the LOW
- Follow approved haul routes and soil stockpile procedures prescribed by Eversource
- All dewatering activities need to be reviewed with environmental monitors prior to any discharges

Know and Implement Best Management Practices

- Be familiar with the BMP's prescribed on the Project Plans
- Ensure erosion control barriers are installed and maintained properly.
- Avoid stockpiling within wetland jurisdictional areas.
- Implement proper stockpile management (cover and erosion controls) and duration of stockpiles (not more than a week in Sudbury).
- Ensure all catch basin inlet protection measures installed and maintained properly.
- Install and maintain construction entrance tracking pads.
- Identify dewatering locations and work with environmental compliance team for proper set up and treatment measures. Locate outside of wetland resource areas to extent practicable. All locations need approval from environmental team.
- Be aware of and adhere to all Time of Year restrictions related to wildlife and rare species.

Project Sequencing Considerations

- Install E&S Controls immediately after clearing and before rail removal and grubbing. All E&S needs inspection after installed.
- Hudson, Sudbury and Stow all have preconstruction E&S inspections
- Be aware of Time of Year Restrictions where can and can't perform active work (work should be scheduled accordingly)
- Wetland Replication Area (Sudbury) has to be completed following vegetation removal and during rough grading activities
- Final restoration (installation of plantings) in areas adjacent to vernal pools immediately following completion of work in these areas (Sudbury)

Erosion & Sediment Control Requirements

- The contractor will complete maintenance of E&S controls by the close of the next business day; including removing accumulated sediment from perimeter controls when it reaches 50% capacity



- The contractor will take corrective actions immediately and complete the work within 7 calendar days



Erosion & Sediment Control Requirements

- The contractor will establish a stabilized construction entrance consisting of a stone pad at each access point off public roads
- The contractor will remove the stabilized construction entrance/exit and installing final finishing materials upon the completion of earth-disturbing activities

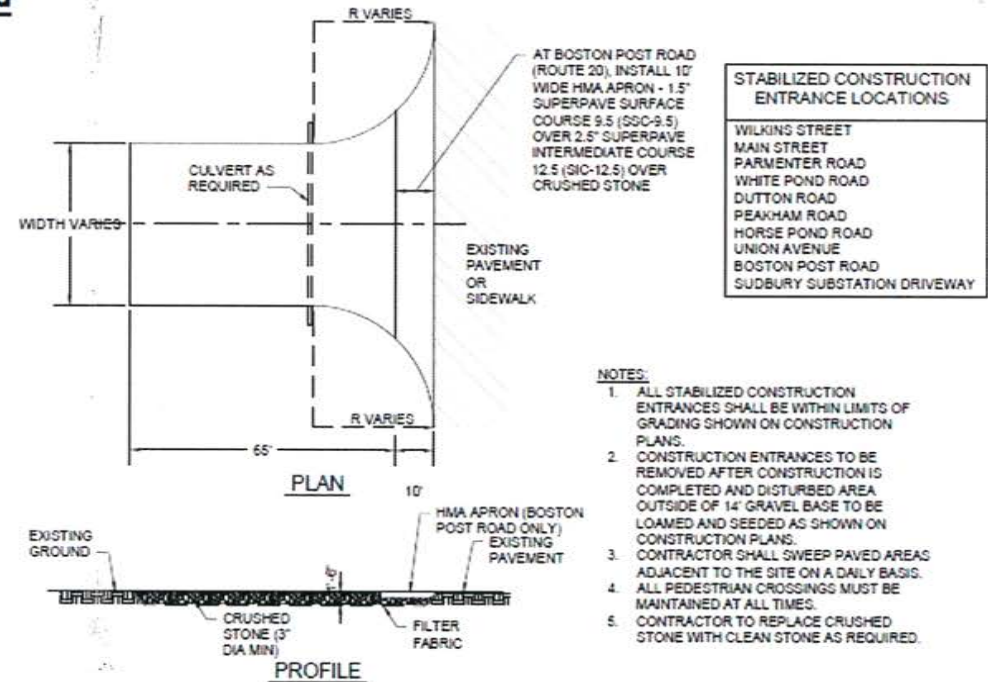
Section 3 Construction Considerations

Tighe & Bond



Photo provided courtesy of BSC Group CLAP.

Construction entrance track pad.

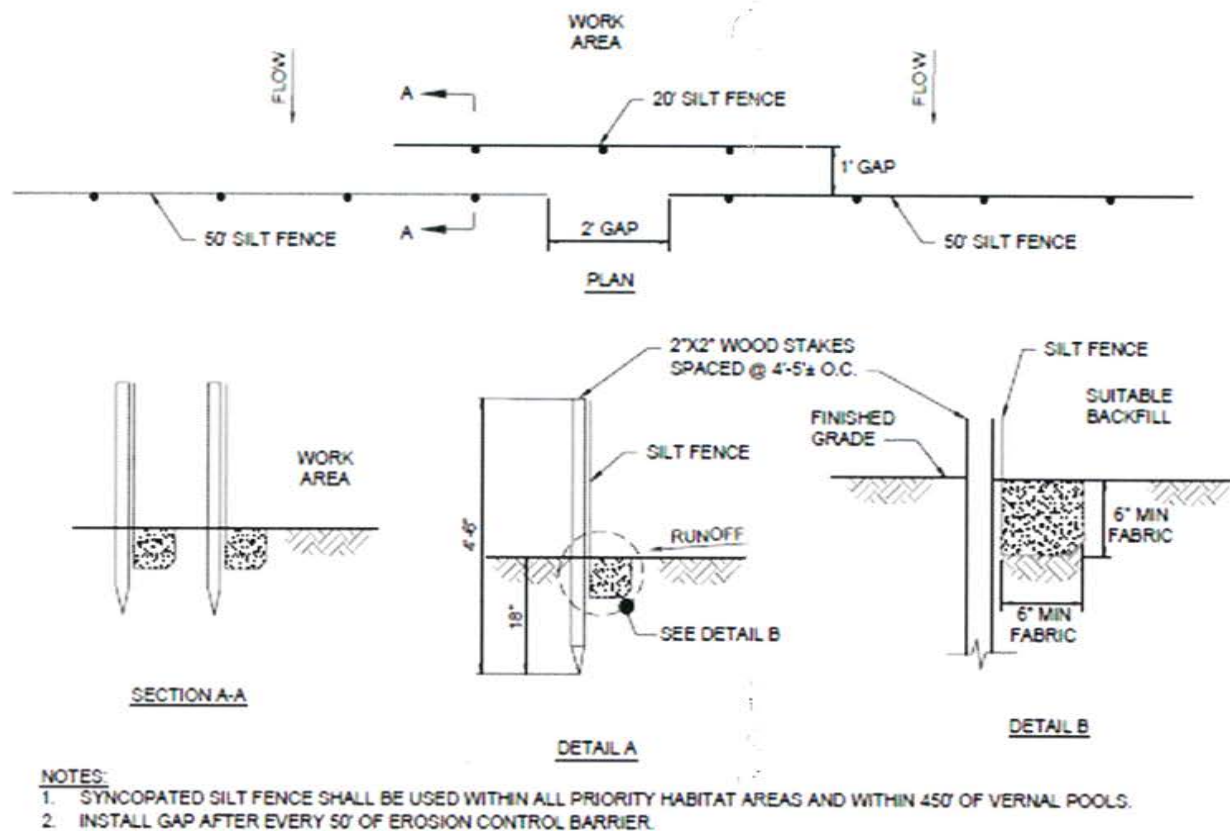


STABILIZED CONSTRUCTION ENTRANCE

SCALE: N.T.S.

Erosion & Sediment Control Requirements

- The contractor will place syncopated silt-fences at the limits of work (as shown on Project Plans) for those areas within 450 feet of a vernal pools

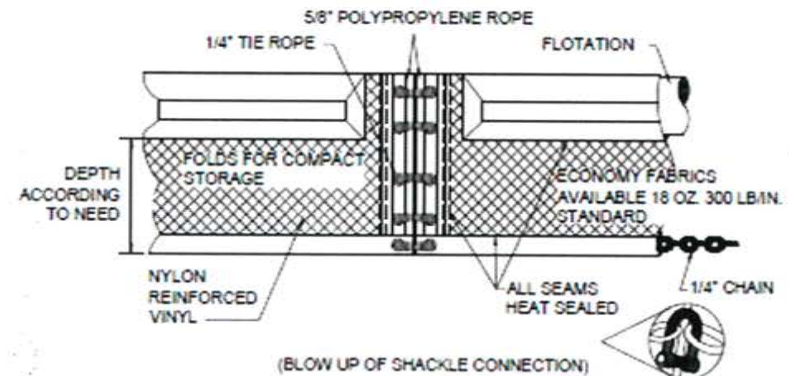


SYNCOPATED SILT FENCE DETAIL - TYPE B EROSION CONTROL BARRIER

SCALE: N.T.S.

Erosion & Sediment Control Requirements

- The contractor will place turbidity curtain at the downgradient edge of disturbed areas at major waterbody crossings (Ft. Meadow Brook in Hudson and Hop Brook in Sudbury)



TURBIDITY CURTAIN DETAIL - EROSION CONTROL BARRIER TYPE C (OPTION 2)

SCALE: N.T.S.

Erosion & Sediment Control Requirements

- The contractor will install storm drain inlet protection and record storm drain inlet protection activities in project logs



Erosion & Sediment Control Requirements

- The contractor will conduct daily street sweeping; If track-out occurs on a non-workday, sediment will be removed by the end of the next workday



Soil and Groundwater Management

- The Contractor should be familiar with and follow soil handling procedures outlined in the Soil and Groundwater Management Plan
- Locations for any stockpiled sediment or soil must be coordinated with Eversource or the Epsilon Team (no specific locations provided on the Project Plans). Avoid wetland resource area buffers and areas of jurisdiction.
- The contractor will provide cover or appropriate temporary stabilization to stockpiles that will remain inactive/unused for more than 14 days (no stockpiles in place for more than a week in Sudbury and they must be covered and safeguarded with best management practices)



Soil and Groundwater Management

ON SITE REUSE:

- In general, geotechnically suitable excavated soil shall be reused to greatest extent feasible to reduce surplus soil requiring off-site transportation and disposal.
- For work in the in-road areas, soil will be reused in the general locations it was excavated.
- Reuse within the MBTA ROW portion will be performed according to MassDEP's RTG and the segment classification.
 1. Reuse from Rural/Residential & Industrial/Commercial segments will be kept separate.
 2. Intermixing of soil between different segments classifications is not allowed.
 3. It is prohibited to reuse excavated soil from the ROW across municipal boundaries.
- Excavated soils shall be handled according to their pre-characterization Eversource soil category and their RTG segment designation.
- Soils may be reclassified by the LSP and/or Eversource during excavation based on field screening, visual and olfactory observations, and additional laboratory results

Right of Way Rail Trail Classifications			
Project Segments		Project Stationing (STA)*	
		Begin	End
Segment 1	Rural/Residential	100 + 00	130 + 00
	Industrial/Commercial	130 + 00	132 + 76
	Rural/Residential	132 + 76	150 + 00
Segment 2	Industrial/Commercial	150 + 00	307 + 70
Segment 3	Rural/Residential	307 + 70	360 + 35
	Industrial/Commercial	360 + 35	363 + 05
	Rural/Residential	363 + 05	569 + 61
Segment 4	Industrial/Commercial	569 + 61	767 + 21

*Stationing from Sudbury-Hudson Transmission Reliability Project Plans dated October 2020.

Soil Management Summary					
Town	Figure 2 Sheet No.	Soil Type Grouping Locations	Project Stationing		Soil Category
			Begin	End	
Hudson	1	Project Start to MP-1	00+00	--	B-1
		MP-1 to MP-3	--	--	C-1
		MP-3 to SB-1	--	--	B-1
		SB-1 to MP-6	--	--	C-1
		MP-6 to SB-2	--	--	B-1
		SB-2 to MP-10	--	--	A
	2	MP-10 to MP-14	--	--	B-1
		MP-14 to MP-15	100+00	129+00	B-1
		MP-15 to SB/MW-5	129+00	131+50	A
		SB/MW-5 to SB-14	131+50	152+05	B-1
		SB-14 to SB-15	152+05	156+52	A
		SB-15 to SB-44	156+52	161+87	B-1
	2-3	SB-44 to SB-45	161+87	180+40	A
		SB-45 to MP-22	180+40	186+50	C-1
	3	MP-22 to SB-18	186+50	211+43	A
		SB-18 to SB-43	211+43	303+65	B-1
		SB-43 to SB-101	303+65	361+50	A
	Sudbury	3-4	SB-101 to B-28	361+50	382+25
B-28 to SB-105			382+25	381+50	D-3
5		SB-105 to SB-106	381+50	386+50	C-1
		SB-106 to SB-114	386+50	509+50	D-3
5		SB-114 to SB-116	509+50	519+50	C-1
		SB-116 to SB-121	519+50	544+50	D-3
6		SB-121 to SB-125	544+50	564+50	C-1
		SB-125 to MP-27	564+50	572+00	D-3
6		MP-27 SB/MW-33	572+00	576+76	A
		SB/MW-33 to MP-28	576+76	579+96	B-1
6-7		MP-28 to MP-29	576+96	587+00	C-1
		MP-29 to SB-34	587+00	591+83	A
7		SB-34 to MP-32	591+83	603/700+00	B-1
		MP-32 to SB-40	603/700+00	714+90	C-1
		SB-40 to MP-39	714+90	760+50	B-1
7-8		MP-39 to Project End	760+50	767+20.85	D-3

Soil and Groundwater Management

- Work with Eversource and the Epsilon Team to identify dewatering locations. Locations will need to be approved by local conservation commissions prior to use (need to factor in enough time for coordination)
- Dewatering locations should be outside of wetland resource area jurisdictional areas
- The contractor will comply with velocity dissipation requirements of Part 2.2.11 of the GCP
- The contractor will replace and clean the filter media used in the dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications



Soil and Groundwater Management

Sudbury

- The contractor will not keep stockpiles for more than 7 days in Sudbury
- The contractor will not use equipment with 3 psi or greater in areas where final grading, aeration, and vegetation restoration/mitigation have been completed
- The contractor will ensure that dewatering activities do not discharge to wetland resource areas

Hudson

- The contractor will not discharge any dewatering water directly into any waterbodies, BVW, or inner 100' of Riverfront Area



Pollution Prevention

Pollution prevention involves trash removal, chemical storage, sanitary waste management, and other related measures designed to prevent non-stormwater pollutants from impacting regulated areas.

- The contractor will maintain a copy of all Material Safety Data Sheets (MSDS) in the office trailer
- The contractor will ensure portable toilets will be placed away from waters of the U.S., stormwater inlets and/or conveyances, and will be secured in place and disposed of by a licensed contractor
- The contractor is responsible for coordinating spill prevention and cleanup coordination per the CGP, and will notify the 24-hour Emergency Contact immediately if a spill occurs
- Must store equipment outside of buffer zones and 100-foot inner riparian area of perennial streams (need approval if exception is necessary).

WHAT IS AN MSDS?

material safety data sheet (or MSDS)

*a document that provides workers
with procedures for safely
handling or working with a
particular substance*



Subsidiary Pollution Prevention Reporting Project (Guiding, Marlborough, Stone, Hudson, Massachusetts)	
Non-hazardous Waste & Oil Spill Report	
Date:	Time: AM/PM
Site location (Town/State):	Site: _____
Type of equipment:	Make: _____
SN:	Weather Conditions: _____
On or near water: <input type="checkbox"/> No <input type="checkbox"/> Yes	If Yes, name of body of water: _____
Type of chemical / oil spilled:	
Amount of chemical / oil spilled:	
Color of spill:	
Measures taken to contain or clean up spill:	
Amount of chemical / oil recovered:	Method: _____
Material collected as a result of cleanup:	
_____ drums containing _____	
_____ drums containing _____	
_____ drums containing _____	
Location and method of debris disposal:	
Name and address of any person, firm, or corporation suffering charges:	
Procedure, method, and products involved to prevent or control additional spill(s):	
Submitted to: _____ Date: AM/PM	
Submitted to: _____ Date: AM/PM	
Inspected by: _____ Date: AM/PM	
Inspected by: _____ Date: AM/PM	
Inspector:	
Inspector:	
Additional comments:	

Pollution Prevention

Sudbury

- The contractor will remove trash daily from the site
- The contractor will not store chemicals or hazardous wastes on the site
- Herbicide use is prohibited along entire Project
- Do not apply fertilizers within any vernal pool, vegetated wetland, or waterbody
- No refueling within wetland jurisdictional areas, except for crane at Hop Brook crossings
- The contractor will not conduct vehicle washing on the site



NOTICE

**NO CHEMICAL
STORAGE**



Pollution Prevention

Stow

- The contractor will not discharge any concrete wash-out water within the 100' buffer or within 100' of any drainage system
- The contractor will not store chemicals or hazardous wastes shall be stored on the site
- The contractor will not refuel within the 100' buffer zone
- The contractor will not dump of leaves, woody debris, dog waste, excessive snow and any other materials is permitted in the 100' buffer zone



Vernal Pools

- Vernal pools are areas that fill with water in the autumn or winter and remain ponded through the spring and into early summer and which are critical to reproductive success of many amphibian species
- There are approximately 20 vernal pools along the MBTA corridor portion of the Project (all shown on the Project Plans)
- No active construction allowed within 450 feet of a vernal pool between March 1 and June 1
- Use syncopated silt fence as erosion control barrier in these areas
- Can use any existing access roads that have been constructed during this activity restriction window, however, an Epsilon Team Environmental Monitor must be on site to monitor vehicular traffic during this time (Sudbury)
- Final restoration (installation of plantings) in areas adjacent to vernal pools immediately following completion of work in these areas (Sudbury)
- Be familiar with where vernal pools are and refer to project plans for any mitigation (plantings or placement of important wildlife habitat features) related actions in the vicinity of each

Important Wildlife Habitat Features (Sudbury)

- Certain important wildlife habitat features such as dead standing snags, downed woody material, and overhanging trees have been identified along the MBTA corridor portion of the Project
- The Project Plans identify mitigation measures proposed to avoid and/or replace important wildlife habitat features
- Work with Eversource and Epsilon Team to identify trees and downed material to be avoided and/or saved to be used for mitigation (brush piles and redistribution of downed woody material necessary)
- Hop Brook is a Coldwater Fishery (no in stream work from October 1 to June 30)
- Black Racer (reptile) restriction at gas pipeline at Sudbury/Marlborough/Hudson border (no work from November 1 to March 31)

State-Listed Species Considerations

- There are multiple state-listed species documented between Dutton Road in Sudbury and west to Parmenter Road in Hudson
 - Eastern Box Turtle (reptile)
 - Wood Turtle (reptile)
 - Eastern Whip-poor-will (bird)
 - Moths (insects)
- No active construction in this area to avoid Whip-poor-will nesting season (May 1 to August 1). Can utilize existing access roads in this area during this period.
- There is a Turtle Protection Plan that must be implemented in this portion of the Project
- All construction personnel must be familiar with all time of year restrictions and with the protocol in the Turtle Protection Plan

Turtle Training

Scott Egan

AECOM

Turtle Training

- 8 Turtle species in Massachusetts

- Bog Turtle
- Spotted Turtle
- Common Musk Turtle
- Eastern Painted Turtle
- Snapping Turtle
- Northern Diamondback Terrapin
- Wood Turtle
- Eastern Box Turtle



Turtle Training

- 8 Turtle species in Massachusetts
 - Bog Turtle
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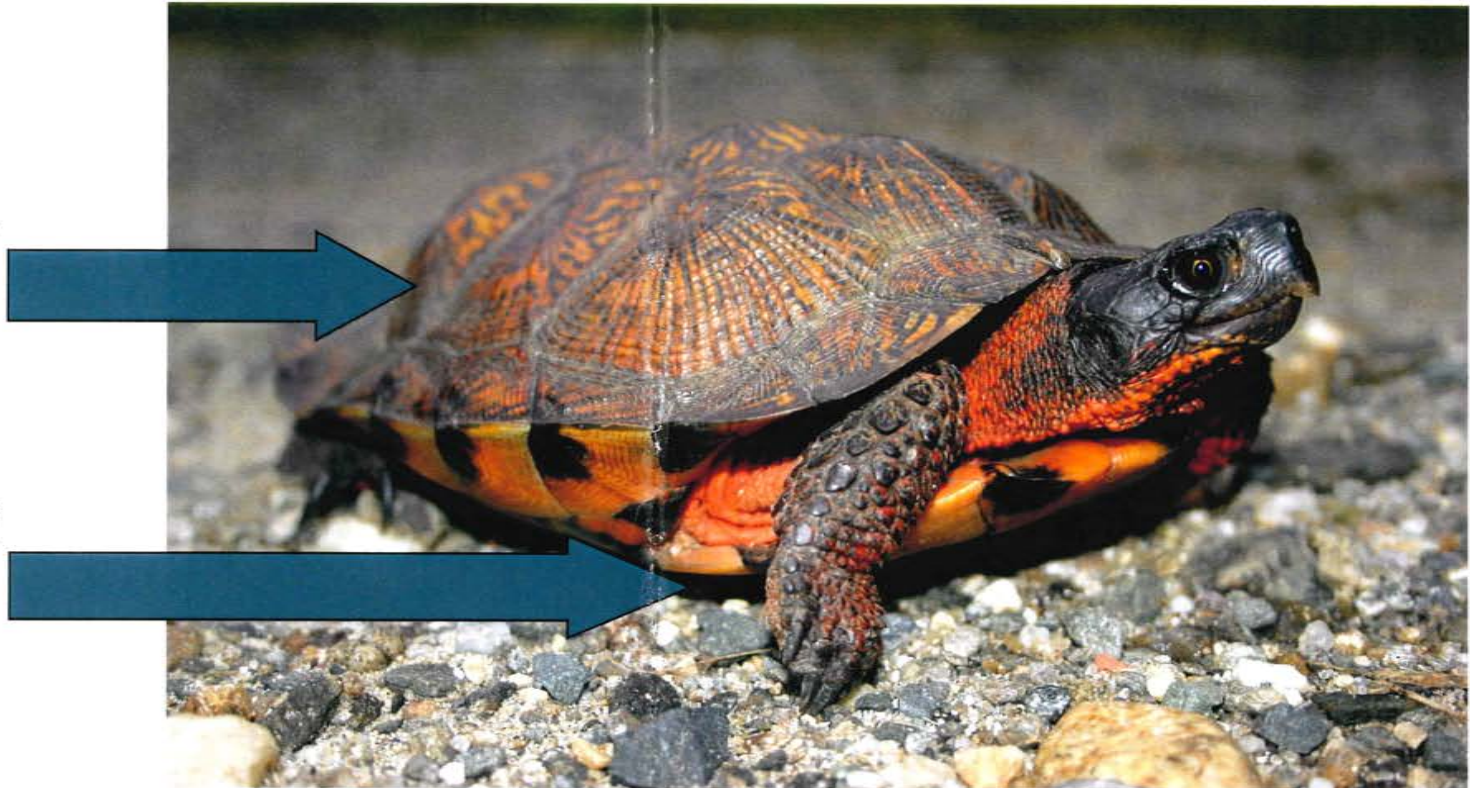


Turtle Training

- Wood Turtle (*Glyptemys insculpta*) - SC
 - Habitat: Rivers, streams, woods, and fields; found throughout MA except Cape & Islands
 - Shell Length: 5.5 to 8 inches
 - Food: Omnivorous - berries, plants, invertebrates, mushrooms
 - Reproductive age: 15-20 years

Shell
"sculptured",
resembles
wood grain

Underside of
legs & neck
orange



Turtle Training

- Eastern Box Turtle (*Terrapene carolina*) - SC
 - Habitat: Woods, fields and wetland edges; primarily found on Cape Cod and CT River Valley.
 - Shell Length: 4.5 to 6.5 inches
 - Food: Omnivorous - prefers plants and mushrooms, eats invertebrates
 - Reproductive age: about 13 years

Shell highly domed and colorful



Shell hinged so it can be closed like a "box"

Head & neck often marked with orange or yellow



Turtle Training

- Annual Life Cycle
 - Inactive through the winter (November 1st through March 31st)
 - Wood turtles hibernate in small rivers and streams
 - Box turtles hibernate in forested uplands and wetlands



Turtle Training

- Annual Life Cycle
 - Active Period generally from April 1st through October 31st
 - Use a variety of habitats including:
 - Open fields
 - Scrub-shrub habitats
 - Forest edges and interiors
 - Forested wetlands and small streams when conditions are hot and dry
 - Often found stationary under leaves, shrubs and brush piles, but may move long overland distances (nesting season)
 - Active mostly after rain or when humid

Turtle Training

- Annual Life Cycle
 - Nesting season in June (last week of May through first week of July)
 - Hatchlings emerge late September into October



Turtle Training

- General Characteristics
 - Long lifespan (est. 40-80 yrs)
 - Delayed sexual maturity (up to age 13-20)
 - Few eggs (typically 5-9, up to 12 for the wood turtle)
 - High nest mortality (to 100%)
 - High hatchling / juvenile mortality



MASSWildlife

Turtle Training

- Threats to Survival:



Turtle Training

- Threats to Survival
 - Habitat loss
 - Collection from the wild
 - Direct mortality (killed by cars or heavy machinery)
 - If **ONE** turtle is collected from the wild or killed, then that turtle and **ALL** potential future offspring are removed from the population



Turtle Training

- In Nature:
 - Detection of Wood and Box turtles are hindered by:
 - Habitat selection
 - Cryptic coloration/patterns, and
 - Secretive behaviors
 - Hinders scientist's ability to locate, study and protect these animals



Turtle Training



Turtle Training



Turtle Training



Turtle Training

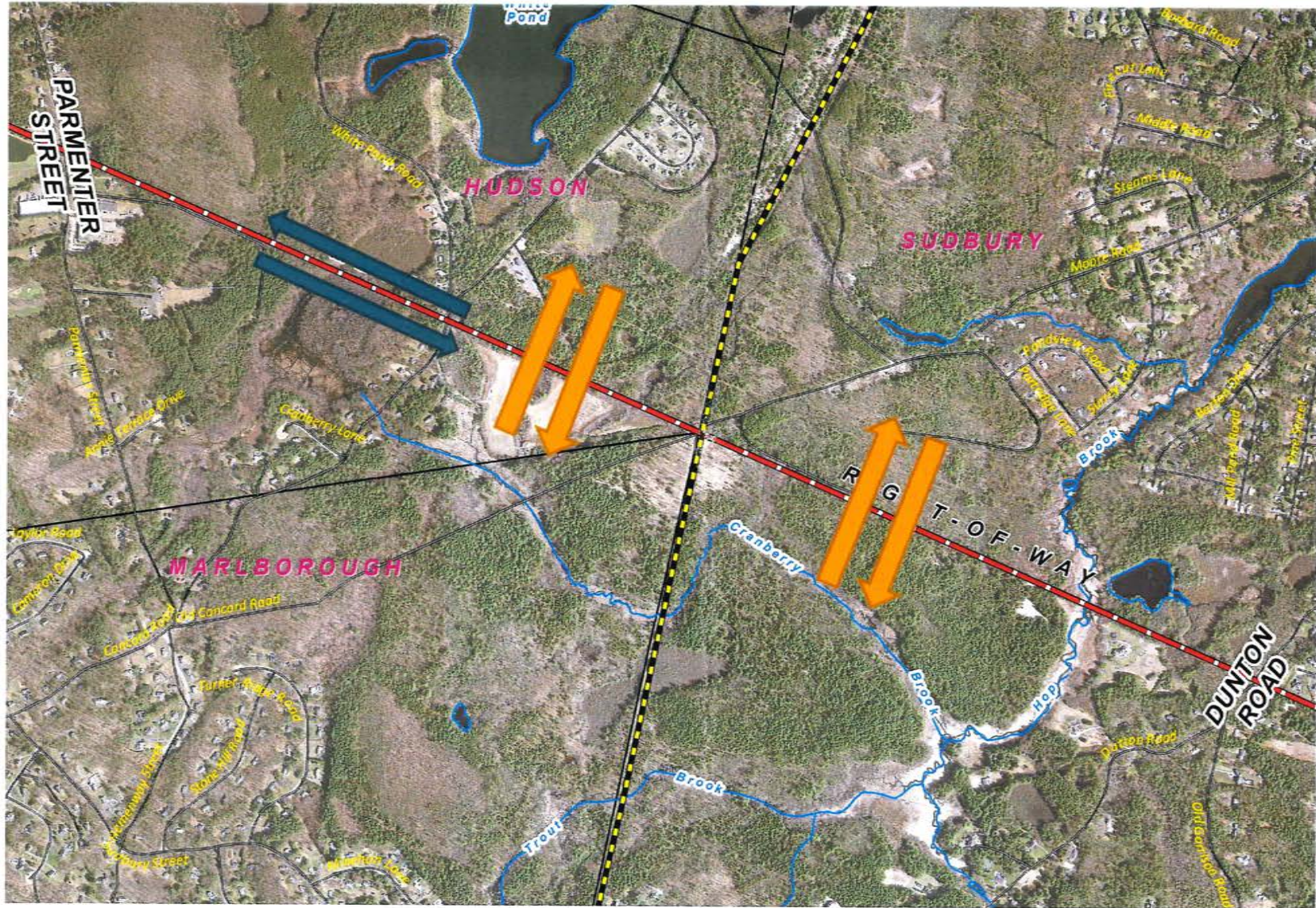


Turtle Training

- Turtle Protection
 - On behalf of Eversource, AECOM has been monitoring this population of turtles since the fall of 2017
 - Surveys include meander surveys, habitat focused surveys, radio-telemetry and canine assisted surveys



Turtle Training



1 inch = 1,200 feet



Legend

- Town Boundaries
- MBTA ROW / Project Area
- Gas Pipeline ROW
- Waterbodies

Turtle Training

- Turtle Protection
- Epsilon Team will have full time Environmental Monitor (EM) on Site
- Contractors are expected to understand and respect work zones
 - Extra caution driving on access roads through turtle habitat
 - No plastic or wire mesh erosion controls that can ensnare turtles and other animals
 - Protective measures installed daily around open trenches (using barriers or iron plates) to prevent wildlife from falling into the trenches
- Contractors are expected to perform visual inspections before accessing new areas and performing any activities requiring heavy equipment
 - Inspect areas with shrub cover, brush piles, edges of work zones
 - Check vehicle tires prior to moving (turtles may seek shady areas under machinery)

Turtle Training

- Turtle Handling Procedures
 - Observations of wood or box turtles shall be reported immediately to the EM for processing and relocation to areas away from the work zone
 - The turtle should be captured and temporarily detained until the EM arrives onsite
 - The turtle may be detained in a large plastic tub, or watched closely at point of observation
 - If using a plastic tub, fresh vegetation (e.g., leaves, tall grass cuttings) and water SHALL be placed into the tub for cover and hydration
 - The tub MUST be placed in a cool shaded area out of direct sunlight, indoors or out
 - Turtles shall not be detained for more than four hours at any time
 - Any turtle mortality or injury shall be immediately reported to the onsite EM, who will notify Eversource and Epsilon

Invasive Species and Equipment Cleaning

- All equipment and matting must be free of soil plant material before it arrives on the Project Site
- If necessary, equipment and matting must be cleaned in a designated area only and by mechanical means only (no water)
- During vegetation removal must chip vegetation into truck to avoid release of and spread of invasive seed

Sudbury

- The contractor will provide certification to the commission that all equipment, including timber mats, are cleaned and certified invasive species free, prior to start of work

Hudson

- The contractor will clean all equipment and timber mats prior to use on the site. No cleaning is permitted within the 100-foot Buffer Zone, Riverfront Area, or any other Resource Area

Plantings and Restoration Requirements

- The contractor will adhere to all the specific seed mix and supplemental planting requirements for the Project
- The contractor will use vegetative and non-vegetative stabilization measures during the project; Non-vegetative stabilization practices may include applying straw mulch or an erosion control blanket
- The contractor will conduct temporary, rapid vegetative stabilization using annual grasses, such as annual rye
- The contractor will apply hydroseed-mulch at a rate of 90 pounds per 1,000 square feet. Steeper slopes (greater than 10 percent) will be covered with a fiber matrix

Plantings and Restoration Requirements

Sudbury

- The contractor will aerate compacted soils prior to being revegetated
- The contractor will stabilize areas adjacent to vernal pools immediately following the completion of all necessary grading in these areas
- The contractor will not use fertilizers within jurisdictional areas
- The contractor will use Biodegradable jute netting to stabilize slopes as soon as possible

Stow

- The contractor will ensure so soil contaminated with Japanese knotweed and/or knotweed rhizomes is reused

Hudson

- The contractor will use pesticide-free seed mixes for all restoration areas
- The Contractor and/or Eversource will maintain all sedimentation barriers until all disturbed areas have been fully stabilized

Cultural Resource Avoidance and Protection Plan

- The Project Site is located along an abandoned and inactive railroad corridor and contains cultural features deemed historically significant
- There is an approved Historic Properties Avoidance and Protection Plan (HPAPP) for historic resources, including removal and resetting of railroad features such as rail rests, whistle posts, and signal relay boxes
- The Project Plans identify the removal and resetting requirements for relic railroad features
- Please review and plan accordingly to allow for these features to be handled properly
- Removal and resetting of railroad features will be directed by Commonwealth Heritage Group



Cultural Resource Post-Review Discoveries Plan

For
Discoveries
Contact:

Matthew
Devlin at
Eversource

508.596.0147

&

Marty Dudek
at CHG

978.793.2579

- Basic training in cultural resource site recognition will be provided to Project Inspectors and construction contractor personnel
- Archaeological Sites and Additional Railroad features
- Notification Procedures and Immediate Site Avoidance Measures

Cultural Resource Post-Review Discoveries Plan

For
Discoveries
Contact:

Matthew
Devlin at
Eversource

508.596.0147

&

Marty Dudek
at CHG

978.793.2579

Archaeological Sites:

- Foundations; masonry; animal bones or human remains; artifact deposits; Native American artifacts.



Cultural Resource Post-Review Discoveries Plan

For
Discoveries
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Additional Railroad Features:

- Whistle posts; buried culverts; electrical signals or rail switches; rail rests; concrete bases, etc.



Human Remains are of immediate concern and protected by law, with a strict protocol to follow

INFORMATION AND ASSISTANCE FROM THE MASSACHUSETTS HISTORICAL COMMISSION

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What to Do When Human Burials are Accidentally Uncovered

1. Why are bones sometimes found?

In Massachusetts, many unmarked graves exist without gravestones, fences, tombstones, or other surface indications of their presence. These are chiefly the graves of prehistoric and historic Indians, which may never have been marked at all; and graves which had been identified at one time in the past, but the markings are no longer visible. As a result, bones are often found during ordinary ground disturbance activities such as the construction of new homes, utilities, or roads; in the agricultural or industrial use of a site; or the excavation of sand or gravel borrow. Bones are also sometimes found eroding out of areas exposed by natural erosion, floodwater scouring, or sand dune formation.

A new law has been enacted which establishes procedures to follow when human bones are accidentally discovered.

2. Who is involved?

Private citizens, State and Local Police, Medical Examiners, State Archaeologist, and the Commission on Indian Affairs.

3. What should you do if you discover bones?

Do not touch or disturb the bones. Notify the state or local police and the regional medical examiner about the discovery and location.

4. What does the Medical Examiner do?

The Medical Examiner investigates the discovery to determine whether the bones are human, and whether they are recent or more than 100 years old. If the bones are less than 100 years old, a criminal investigation may be warranted. If the bones are more than 100 years old, the Medical Examiner then notifies the State Archaeologist, who immediately conducts an archaeological investigation of the site. Throughout these investigations, the police authorities must insure that the site is protected from further damage.

5. What does the State Archaeologist do?

The State Archaeologist investigates the site to determine the age, cultural association and identity of the burial. If the State Archaeologist determines that the burial is that of a Native American, the Commission on Indian Affairs is notified. The State Archaeologist consults with the landowner to determine whether the burial can remain undisturbed. In the case of development projects, the owner and State Archaeologist discuss whether there are prudent and feasible steps the owner can take to protect the burial. If it is impossible to avoid future harm to the burial, the State Archaeologist removes the remains.

6. What does the Commission on Indian Affairs do?

The archaeological investigation of Indian burials is monitored by the Commission on Indian Affairs to insure that the remains are treated respectfully.

Please remember: Once bones or artifacts are removed from the site, valuable information concerning the identity and age of the human remains is lost. Therefore, it is important not to disturb the site in any way until the State Archaeologist can conduct an investigation and record the discovery.

BIBLIOGRAPHY

Massachusetts General Laws, Chapter 38, section 6; Chapter 9, sections 26A & 27C; Chapter 7, section 38A; Chapter 114, section 17; as amended by Chapter 659 of the Acts of 1983 and Chapter 386 of the Acts of 1989.

For Further Information:

Please contact the State Archaeologist at the Massachusetts Historical Commission.

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If you find something of potential significance: What to do:

Contact Matthew Devlin/Marty Dudek

- Protect Area with High Visibility Temporary Fence (Orange Fence); Add No Trespassing Signs;
- Avoid the Fenced Area until further notice by Eversource/CHG.

Questions / Discussion

