

# Conservation Commission

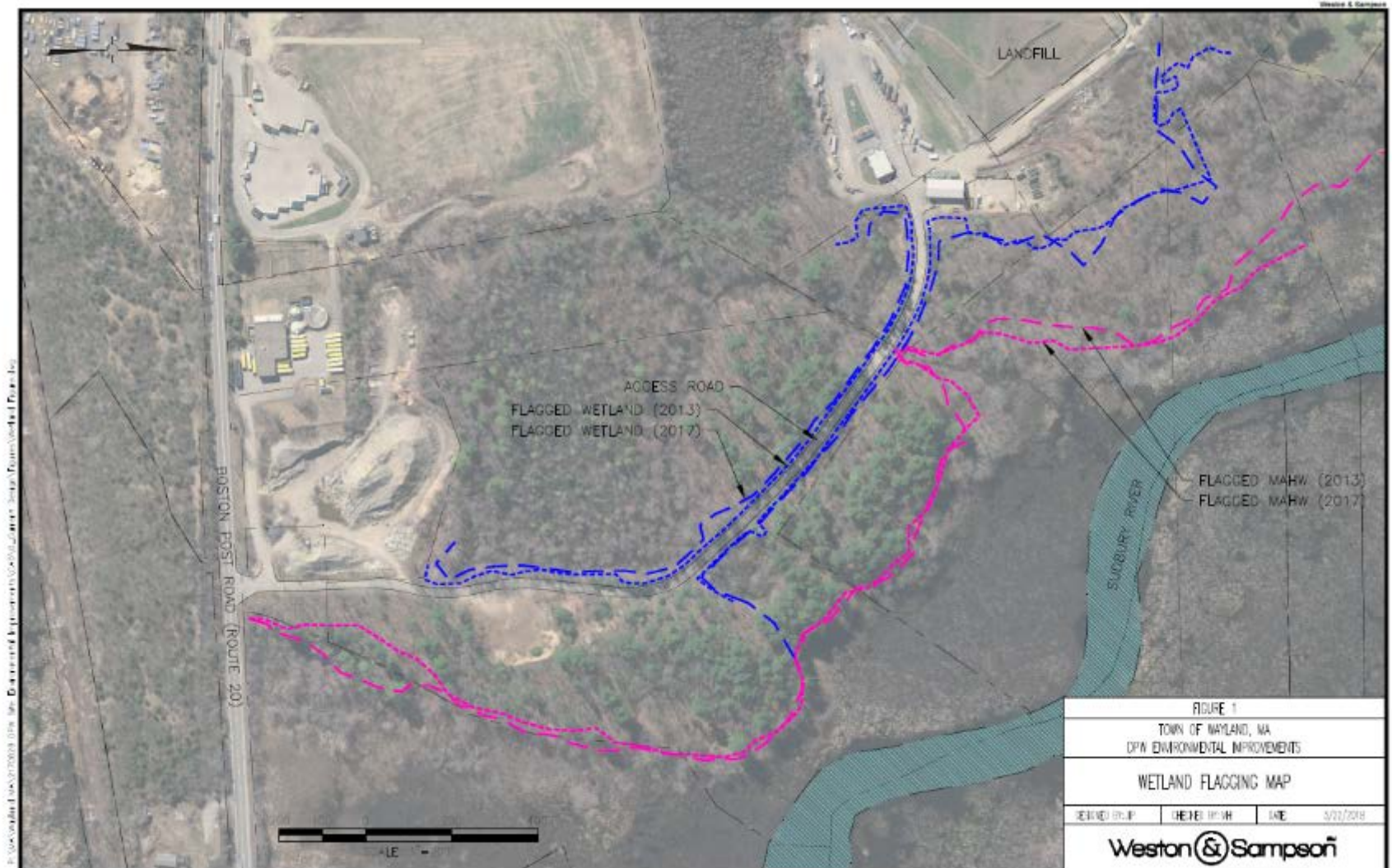
March 29, 2018

DPW Site Conservation Improvements

Paul Brinkman, Town Engineer

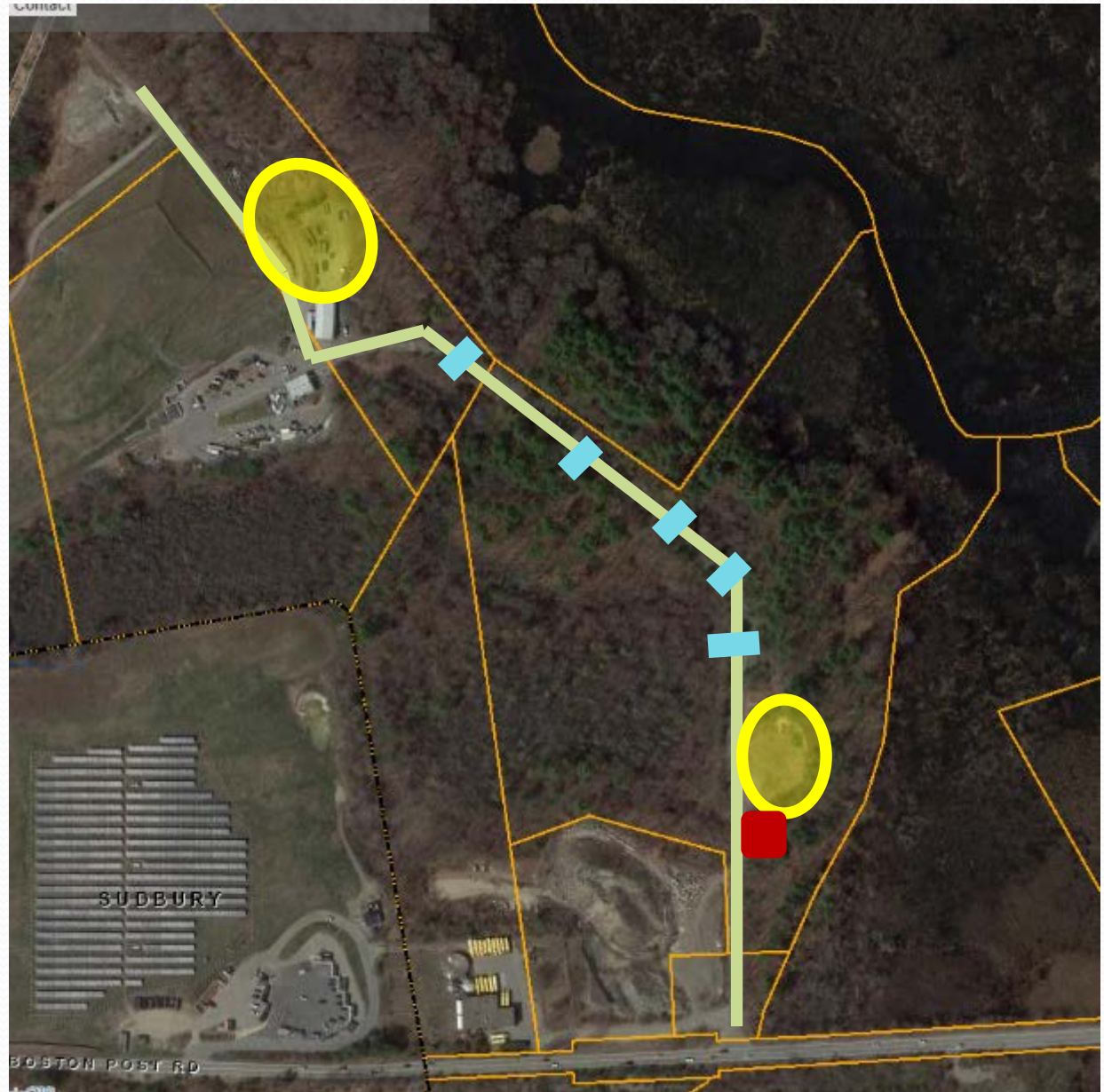


# Flagging

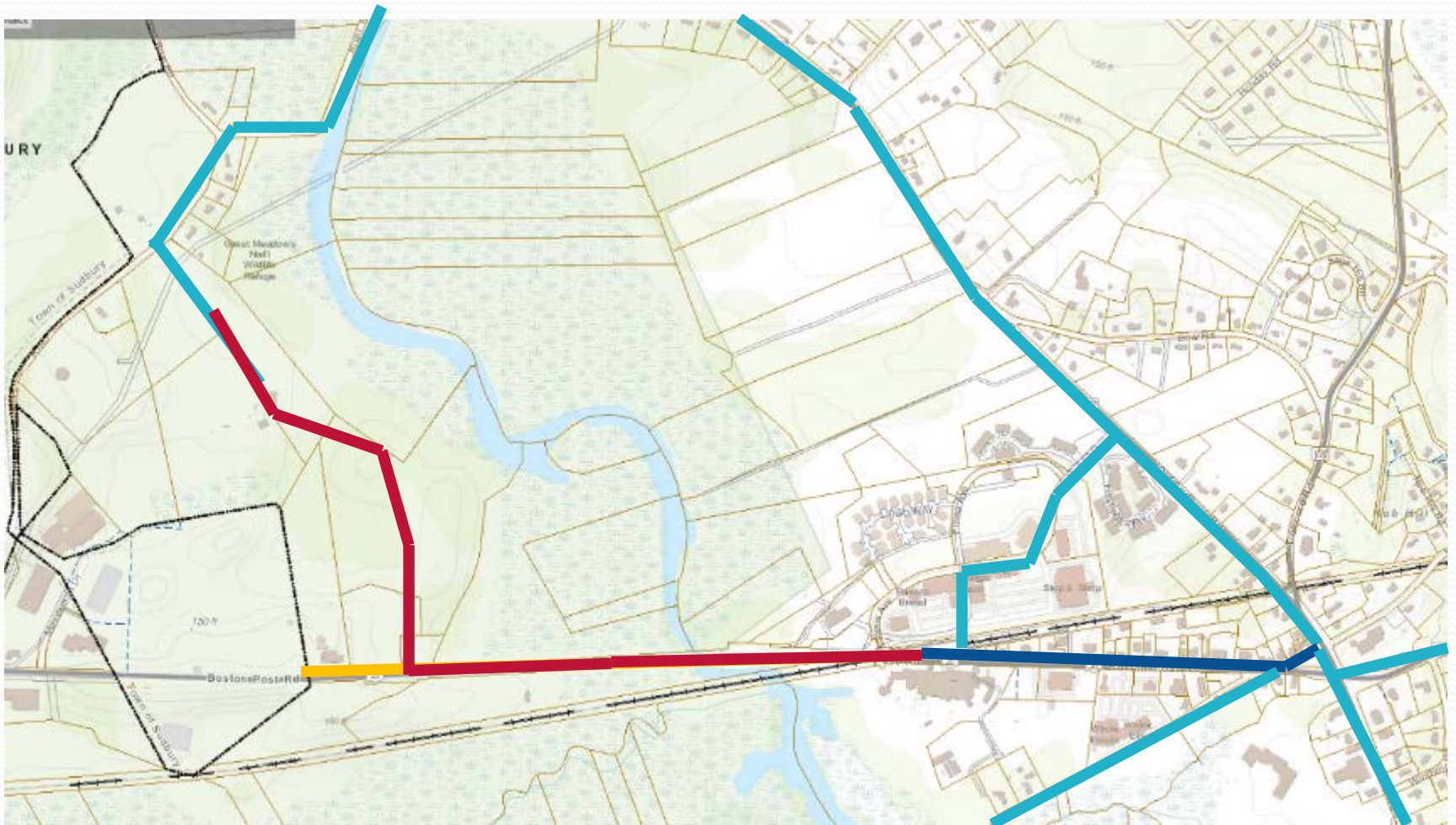




# Project Elements



# Water Main

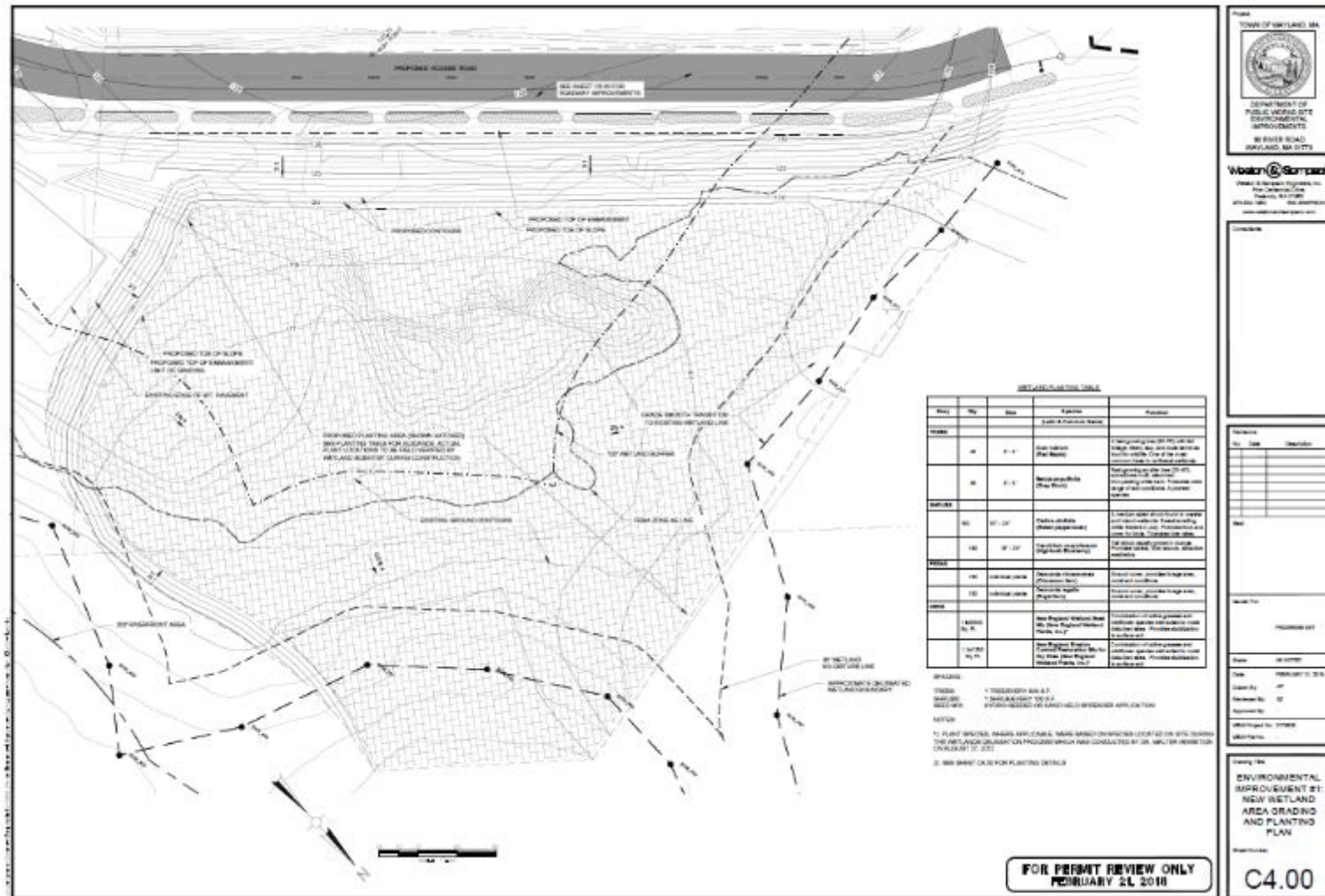




# Wetland Restoration



# Conservation Improvement



WETLAND PLANTING TABLE

Story	Qty.	Size	Species	Function
			(Latin & Common Name)	
<b>TREES</b>				
	45	3' - 5'	<b>Acer rubrum</b> (Red Maple)	A fast-growing tree (60-75') with fall foliage. Seed, sap, and buds serve as food for wildlife. One of the most common trees in northeast wetlands.
	45	3' - 5'	<b>Betula populifolia</b> (Gray Birch)	Fast-growing smaller tree (20-40'), sometimes multi-stemmed. Non-peeling white bark. Tolerates wide range of soil conditions. A pioneer species.
<b>SHRUBS</b>				
	180	18" - 24"	<b>Clethra alnifolia</b> (Sweet pepperbush)	A medium-sized shrub found in coastal and inland wetlands. Sweet-smelling white flowers in July. Provides food and cover for birds. Tolerates drier sites.
	180	18" - 24"	<b>Vaccinium corymbosum</b> (Highbush Blueberry)	Tall shrub usually grows in clumps. Provides habitat, food source, attractive aesthetics.
<b>FERNS</b>				
	150	Individual plants	<b>Osmunda cinnamomea</b> (Cinnamon fern)	Ground cover, provides forage area, moist soil conditions
	150	Individual plants	<b>Osmunda regalis</b> (Royal fern)	Ground cover, provides forage area, moist soil conditions.
<b>HERB</b>				
	1 lb/2500 Sq. Ft.		<b>New England Wetland Seed Mix (New England Wetland Plants, Inc.)*</b>	Combination of native grasses and wildflower species well suited to moist disturbed sites. Provides stabilization to surface soil.
	1 lb/1250 Sq. Ft.		<b>New England Erosion Control/ Restoration Mix for Dry Sites (New England Wetland Plants, Inc.)*</b>	Combination of native grasses and wildflower species well suited to moist disturbed sites. Provides stabilization to surface soil.

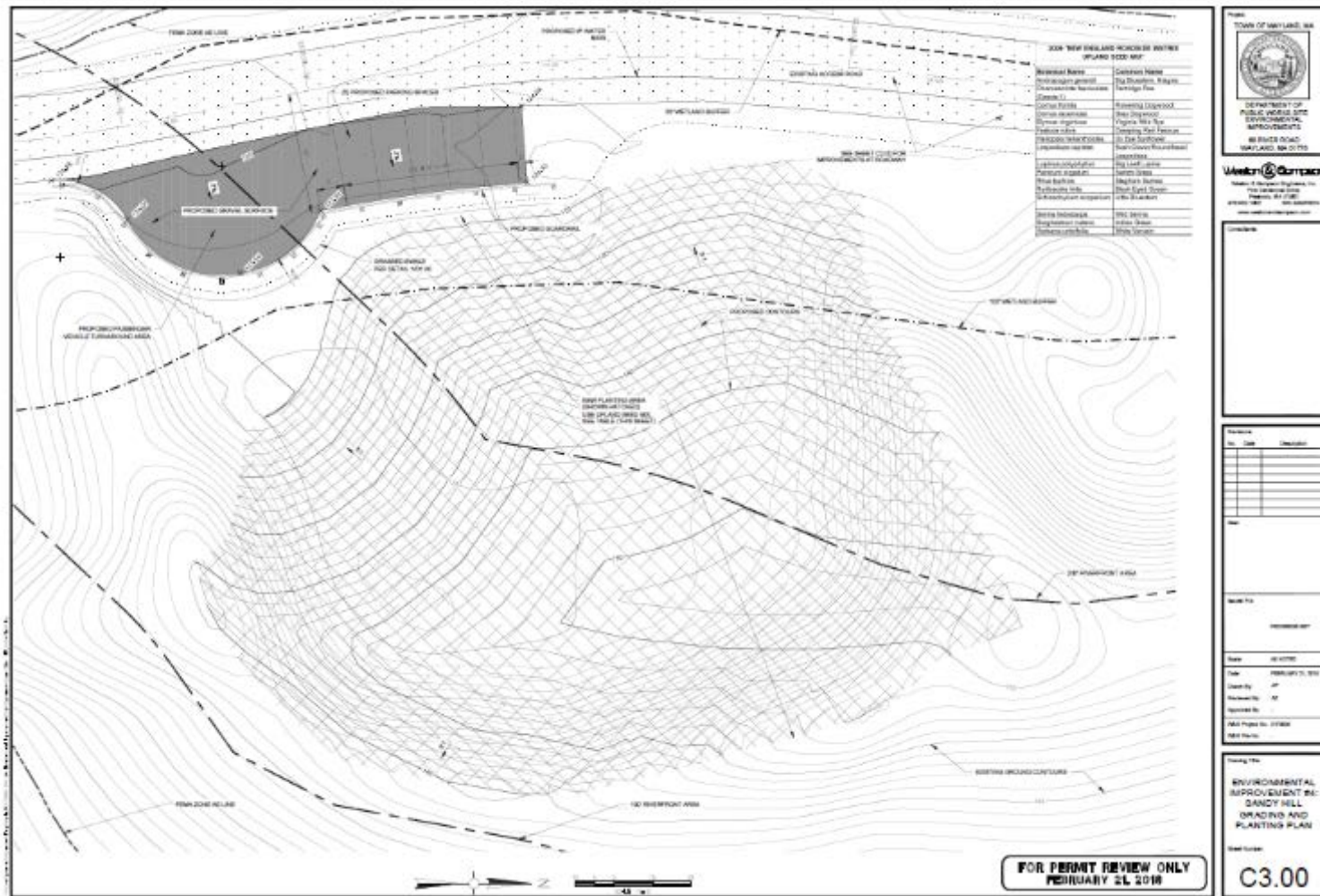


# Surface Reestablishment





# Conservation Improvement



**2009 "NEW ENGLAND ROADSIDE MATRIX  
UPLAND SEED MIX"**

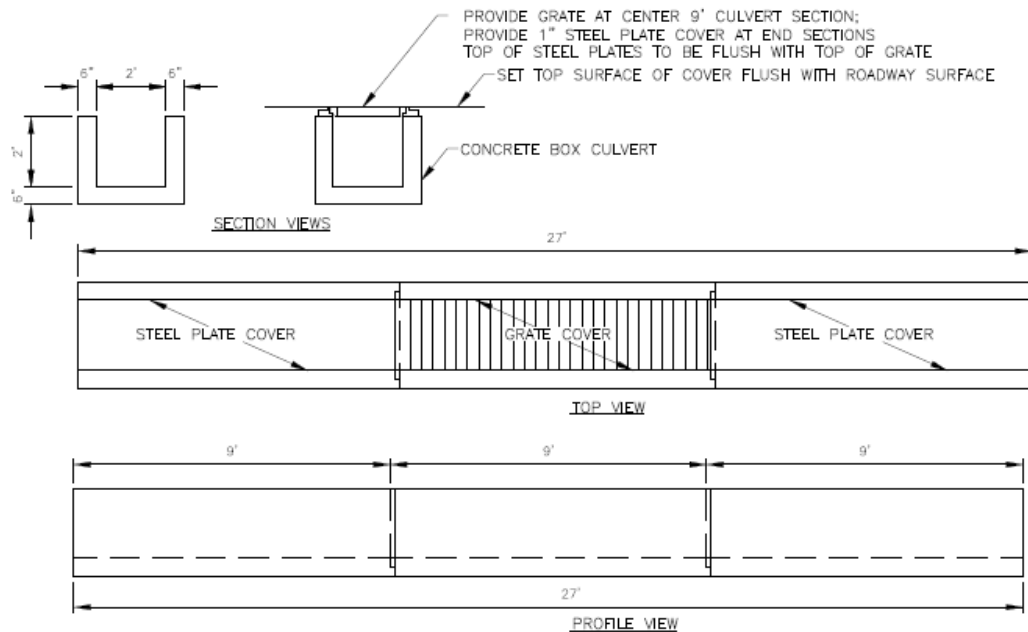
<b>Botanical Name</b>	<b>Common Name</b>
Andropogon gerardii	Big Bluestem, Niagra
Chamaecrista fasciculata (Cassia f.)	Partridge Pea
Cornus florida	Flowering Dogwood
Cornus racemosa	Grey Dogwood
Elymus virginicus	Virginia Wild Rye
Festuca rubra	Creeping Red Fescue
Heliopsis helianthoides	Ox Eye Sunflower
Lespedeza capitata	Bush Clover/Roundhead Lespedeza
Lupinus polyphyllus	Big Leaf Lupine
Panicum virgatum	Switch Grass
Rhus typhina	Staghorn Sumac
Rudbeckia hirta	Black Eyed Susan
Schizachyrium scoparium	Little Bluestem
Senna hebecarpa	Wild Senna
Sorghastrum nutans	Indian Grass
Verbena urticifolia	White Vervain



# Critter Passage



# Conservation Improvement

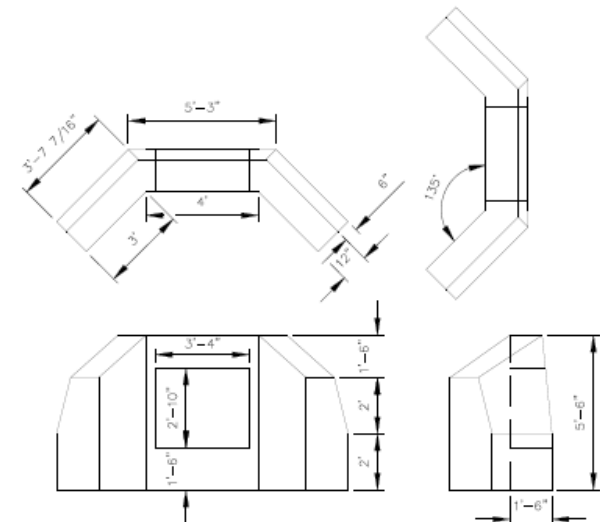


## NOTES:

1. CONCRETE 5,000 PSI @ 28 DAYS
2. REINFORCEMENT ASTM A-615 GRADE 60, 1" MIN. COVER
3. H-20 LOADING WITH 18" TO 60" OF COVER

AMPHIBIAN CROSSING STRUCTURE

N.T.S.



## NOTES:

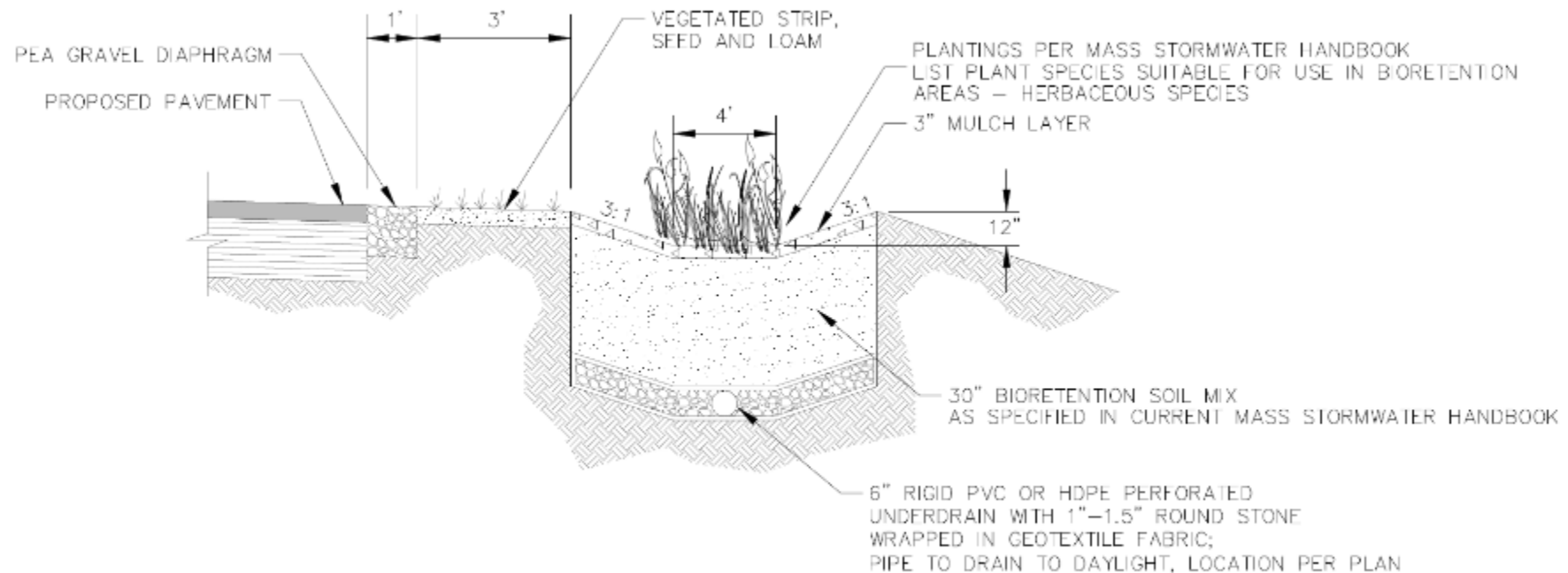
1. CONCRETE 5,000 PSI @ 28 DAYS
2. REINFORCEMENT ASTM A-615 GRADE 60, 1" MIN. COVER
3. DESIGNED FOR H-20 LOADING
4. WINGWALL PER MHD SPEC 206.6.0
5. AREA SURROUNDING WINGWALL SHALL BE GRADED TO MATCH EXISTING GROUND AND SHALL SLOPE AWAY FROM BOX FLOOR, 5% SLOPE MIN/5:1 SLOPE MAX TO PROMOTE WILDLIFE USAGE

AMPHIBIAN CROSSING WINGWALL

N.T.S.



# Stormwater Management



5

BIORETENTION AREA WITH VEGETATED FILTER STRIP

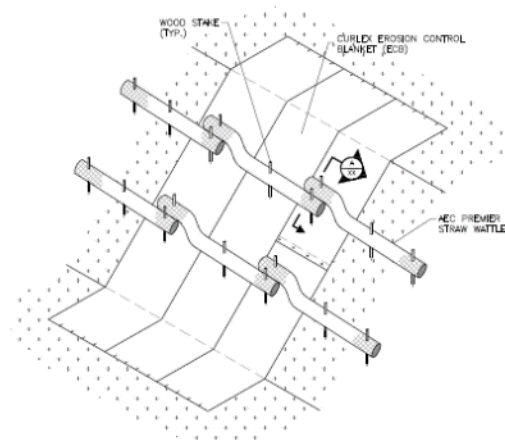
SCALE: N.T.S.

# Salt Shed

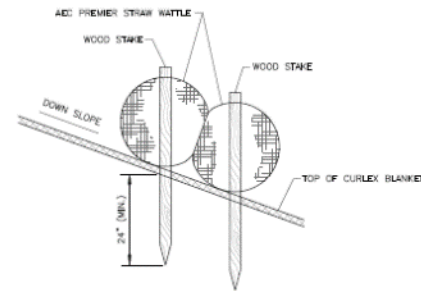




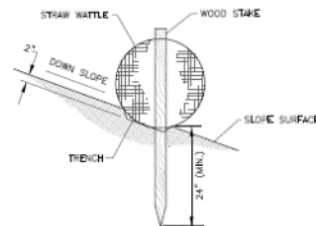
# Construction Protection



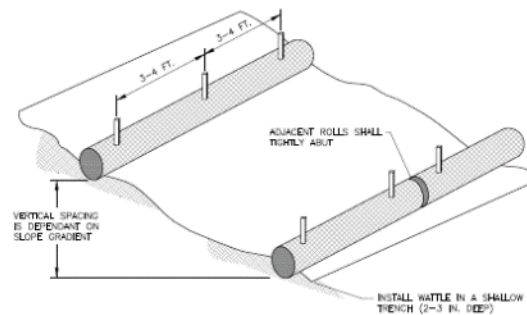
SLOPE DETAIL  
N.T.S.



STAKE DETAIL SECTION A-A  
N.T.S.



STAKE DETAIL (ON BARE SOIL)  
N.T.S.



STRAW WATTLE INSTALLATION GUIDE  
N.T.S.

## NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD THIRTY ABUT.
3. SECURE THE WATTLE WITH 18-24" STAKES EVERY 3-4" AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.