



Environmental Consulting & Restoration, LLC



RESTORATION PROPOSAL

TO: Hingham Conservation Commission

FROM: Brad Holmes, Professional Wetland Scientist #1464, Massachusetts Certified Arborist #2130

DATE: September 19, 2025

RE: 10 Village Lane, Hingham

INTRODUCTION

Environmental Consulting & Restoration, LLC (ECR) is pleased to present the Hingham Conservation Commission (the Commission) with this Restoration Proposal and accompanying Restoration Plan to restore the wetland located at 10 Village Lane in Hingham (the site). More specifically, the proposed restoration activities have been designed to restore a portion of the Bordering Vegetated Wetland (BVW) located at the rear of the existing home at the site. ECR has reviewed available online databases, historical aerial imagery of the site, reviewed an as-built plan from 2007, and completed a site review on June 12, 2025 in order to prepare this restoration proposal.

EXISTING CONDITIONS

The property at 10 Village Lane consists of a single-family home with associated paved driveway, deck to the rear, maintained lawn, landscaped areas, etc. To the rear of the home exists a USGS perennial stream and associated BVW. The as-built plan from 2007 shows the BVW delineation to the rear of the home. In comparing the 2007 wetland delineation to today's site conditions (shown on the existing conditions plan and as observed during ECR's site visit), it is evident that the existing lawn has encroached into the BVW. Based on ECR's research and review of the site, it has been approximated that 6,565 square feet of BVW has been impacted at the site. Native vegetation has been removed from this area and turf lawn installed with the exception of four mature Weeping Willows that remain within the area. The attached Conservation Plan shows the limit of maintained lawn as a yellow line and the historic wetland limit as a red dashed line. The historic wetland limit was scaled onto current aerial imagery and compared to the GPS data collected during the June 12th wetland survey to determine the full extent of alteration.

For more information, please see the 2007 as-built plan and the Conservation Plan attached.

ECR confirms that the site contains the following wetland resource areas and areas of Conservation Commission jurisdiction:

- Bordering Vegetated Wetland
- 100-foot Buffer Zone to BVW
- Inland Bank of a Perennial Stream
- 200-foot Riverfront Area
- Bordering Land Subject to Flooding

Also, a review of the MassMapper database reveals the following:

1. The site is not located within Estimated/Priority Habitat for Rare Species according to the Massachusetts Natural Heritage & Endangered Species Program (MaNHESP).
2. The site does not contain mapped Certified or Potential Vernal Pools according to the MaNHESP.
3. The site is not located within an Area of Critical Environmental Concern.



PROPOSED RESTORATION & REPLICATION

In order to remedy past activities and bring the site into compliance with the Hingham Wetlands Bylaw and its Regulations, ECR has designed a plan to restore 4,865 square feet of the altered BVW and replicate 2,550 square feet of BVW. The proposed replication has been designed to account for 1,700 square feet of existing lawn to remain in place. The property owner has limited space to the rear of the home and to offset the lawn, wetland replication has been designed at a 1:5 to 1 ratio.

ECR proposes the following restoration tasks:

- 1.) Prior to the start of restoration activities, an erosion control line (mulch sock or strawwattle) will be installed along the limit of the restoration area and the adjacent undisturbed vegetated wetland.
- 2.) Remove the existing lawn within the proposed planting area. The intent of removing the lawn is to expose the native topsoil. It does not appear that any fill was placed within the altered BVW as saturated soil conditions and organic topsoil was observed during ECR's field work. If necessary, a light layer of clean loam/compost mix (topdressing) should be spread over the restoration area by hand to supplement the existing soil.
- 3.) Once the restoration area has been prepared, the area will be hand planted with a mix of native shrubs and saplings. The restoration plan has been designed to provide a diverse wetland habitat by utilizing clusters of shrubs with interplanted sapling to create pockets of wet meadow habitat within the restoration area. The wet meadow pockets will be maintained by an annual mowing event (using a handheld string trimmer) at the end of each growing season to maintain the meadow habitat, which is an important diverse habitat for a variety of wildlife species. The design has also considered the mature Weeping Willows that remain within the area.

The entire restoration area (highlighted by green on the Conservation Plan) will be hand planted with native shrubs. Following DEP guidance for shrub and sapling spacing a total of 56 shrubs and 12 saplings would typically be proposed to revegetate the area. To incorporate pockets of wet meadow, the area will be planted using 50% of the typical quantity – 30 shrubs and 6 saplings are proposed throughout the restoration area. An over-viewing wetland scientist will place the plantings prior to installation. The shrubs will be clustered into groups of three to leave small open areas to establish as wet meadow habitat. The saplings will be spaced randomly throughout the restoration area. See the table below for more information.

Table 1 – Proposed Restoration Plant Palette

Species	SIZE (height)	NUMBER
Red Maple (<i>Acer rubrum</i>)	5-6 ft.	3
Swamp Tupelo (<i>Nyssa sylvatica</i>)	5-6 ft.	3
Inkberry (<i>Ilex glabra</i>)	1.5-2 ft.	6
Northern Arrowwood (<i>Viburnum recognitum</i>)	1.5-2 ft.	6
Sweet Pepperbush (<i>Clethra alnifolia</i>)	1.5-2 ft.	6
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	1.5-2 ft.	6
Red Chokeberry (<i>Aronia arbutifolia</i>)	1.5-2 ft.	6
Total		6 saplings 30 shrubs



All plantings to be spaced at the direction of an overseeing botanist/wetland scientist. Upon completion of planting, only the root zones of the plants will be mulched with a 1 to 2-inch-thick layer of leaf litter or other natural organic mulch. The intent is to only mulch the root zones of the plants, not the entire restoration area.

- 4.) Following the installation of all the proposed plantings, the exposed soils will be stabilized with a native seed mix to establish an herbaceous layer and the wet meadow habitat. The seed mix has been specified on the attached Restoration Plan.

ECR proposes the following replication tasks:

- 1) A survey crew will stake out the limits of the proposed 2,550 square foot wetland replication area.
- 2) The supervising wetland scientist will flag any existing healthy trees to be saved within the wetland replication area. Only native wetland indicator trees such as Red Maples, Tupelos, etc. shall be flagged for saving
- 3) Prior to all earthwork activities, erosion control barriers will be installed along the downgradient edge of the wetland replication area.
- 4) Currently, most of the replication area is occupied by a compost pile and yard waste. All this material will be removed from the site prior to implementation of the replication work. Some vegetation will be required to be removed within the replication area. Care will be taken to avoid excavation over the root zone of the trees flagged to be saved.
- 5) Following the removal of material and existing vegetation, the area will be excavated. The area will be excavated to a depth of approximately 6 to 8 inches below the designed level of the wetland replication area. Several test pits within the excavation area will be performed and overseen by the supervising wetland scientist to determine the elevation of existing subsurface hydric soils so that the appropriate construction elevation can be coordinated with the excavator operator. The excavated sediment will be removed from the site. The supervising wetland scientist will inspect the sub-grade of the replication area to ensure that the proper hydrology has been established.
- 6) The replication area will then be backfilled with 6 to 8 inches of wetland soils appropriate for the site. A high organic soil will be spread over the entire wetland replication area. Clean leaf or commercially available compost may amend the soils to achieve a high organic content. These soils will then be graded to achieve a slight hummock and hollow micro-topography, similar to that of a natural wetland substrate. Please note that the supervising wetland scientist shall evaluate these soils prior to placement.
- 7) Fallen logs, branches, and other natural debris existing with the upland areas will be relocated to the replication area to provide beneficial habitat features for wildlife. Where possible, fallen logs should be of varying sizes and in varying degrees of decomposition.
- 8) An erosion control barrier will be placed along the upgradient edge of the wetland replication area.
- 9) Replication area plantings will take place once the above listed tasks have been completed. The species, size, and quantity of the plantings will follow the Replication Planting Palette found in



Table 2 below. The spacing of trees and shrubs are in accordance with the guidelines established in DEP's Massachusetts Inland Wetland Replication Guidelines, which are 15 feet apart for trees and 10 feet apart for shrubs. Using trees spaced 15 feet on center and shrubs spaced 10 feet on center requires 13 trees and 30 shrubs to vegetate the 2,550 square foot replication area. Prior to delivery to the site, the supervising wetland scientist will visit the nursery providing the planting stock to ensure that the specimens are healthy, free from pests, and suitable for use with the replication area. Any planting substitutions must be approved by the wetland scientist. Planting within the wetland replication area will conform to the plans or will be completed in accordance with directions provided in the field. Only plant materials native and indigenous to the region shall be used. Species not specified in the replication plan shall not be used without written approval from the permitting agency. Please note that due to Hemlock Woolly Adelgid, Hemlock trees are not proposed for planting within the replication area.

Table 2 – Proposed Replication Plant Palette

Species	SIZE (height)	NUMBER
Red Maple (<i>Acer rubrum</i>)	5-6 ft.	4
Swamp Tupelo (<i>Nyssa sylvatica</i>)	5-6 ft.	4
American Elm (<i>Ulmus americana</i>)	5-6 ft.	5
Inkberry (<i>Ilex glabra</i>)	1.5-2 ft.	6
Northern Arrowwood (<i>Viburnum recognitum</i>)	1.5-2 ft.	6
Sweet Pepperbush (<i>Clethra alnifolia</i>)	1.5-2 ft.	6
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	1.5-2 ft.	6
Red Chokeberry (<i>Aronia arbutifolia</i>)	1.5-2 ft.	6
Total		13 saplings 30 shrubs

- 10) The remaining wetland replication area to be scratched and seeded with a New England Wetland Mix at the rates specified by the supplier. The side slope from the wetland replication area to the buffer zone (buffer zone area) to be scratched and seeded with a New England Conservation/Wildlife Seed Mix at the rate specified by the supplier. Please refer to the attached seed mix profiles for more information.
- 11) All plantings to be spaced randomly at the direction of the wetland scientist to simulate natural growth patterns.
- 12) Upon completion of planting, the root zones of the plants will be mulched with a 1 to 2 inch thick layer of leaf litter or other natural organic mulch.
- 13) The erosion control barriers will be disassembled and properly disposed of after the three fill growing season after the planting of the wetland replication areas. Sediment collected by these devices will be removed and disposed of in a manner that prevents erosion and transport to a waterway of wetland.



Environmental Consulting & Restoration, LLC



At the completion of the restoration & replication work, a report with photographs will be prepared by the overseeing specialist and submitted to the Conservation Commission documenting the compliance with the approved restoration plan.

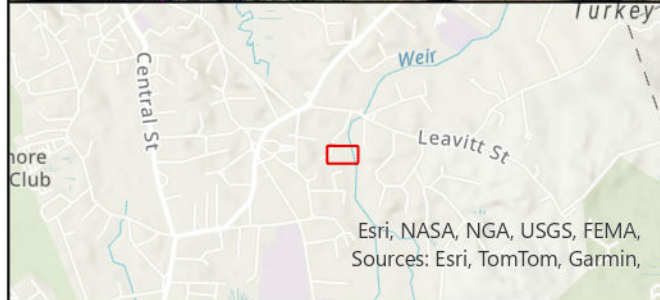
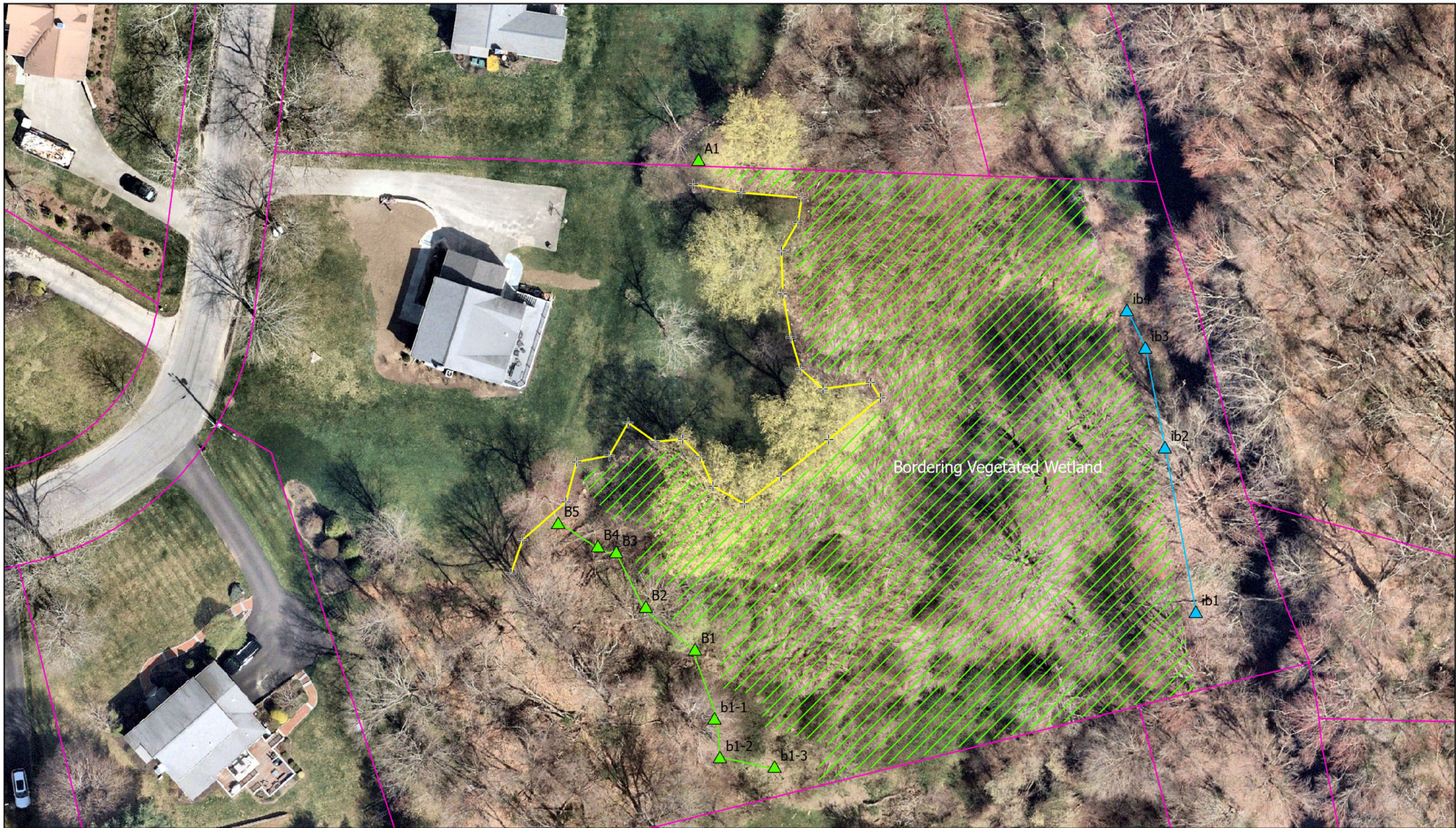
The restoration & replication areas will be monitored for two full growing seasons following the completion of work. Monitoring should include two site inspections each year, the first should be early in the growing season (mid April) in order to determine if any plantings need to be replaced, determine if overseeding is required, and to inspect/remove any new growth of non-native invasives. The second inspection should be completed near the end of the growing season (October) to document the success of the restoration & replication efforts. During the inspections, the botanist should hand pull and place into trash bags for disposal any non-native invasive plant growth found in the restoration area, if any. A report will be prepared and submitted to the Conservation Commission following the inspection at the end of the growing season summarizing the success of the restoration project. This report will also include recommendations for additional restoration/replication efforts.

ATTACHMENTS

Included with this proposal are the following attachments:

1. Conservation Plan (2 sheets)
2. 2007 As-Built Plan

We look forward to presenting this proposal to the Commission. If there are questions or requests for additional information, please contact us at (617) 529 – 3792 or brad@ecrwetlands.com.

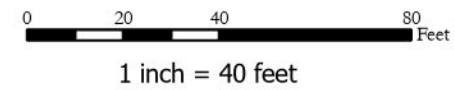


Conservation Plan

10 Village Lane, Hingham, MA

Sheet 2 of 2: Proposed Restoration & Replication

Prepared By: C. Larson



Date: 9/19/2025

Environmental Consulting & Restoration, LLC



Notes:

- 1.) Wetland delineation and GPS survey completed by ECR, LLC on 6/12/25 and 8/26/25.
- 2.) Aerial Image Source: NearMap - April 10, 2025
- 3.) Parcel Boundary Source: MassGIS Data

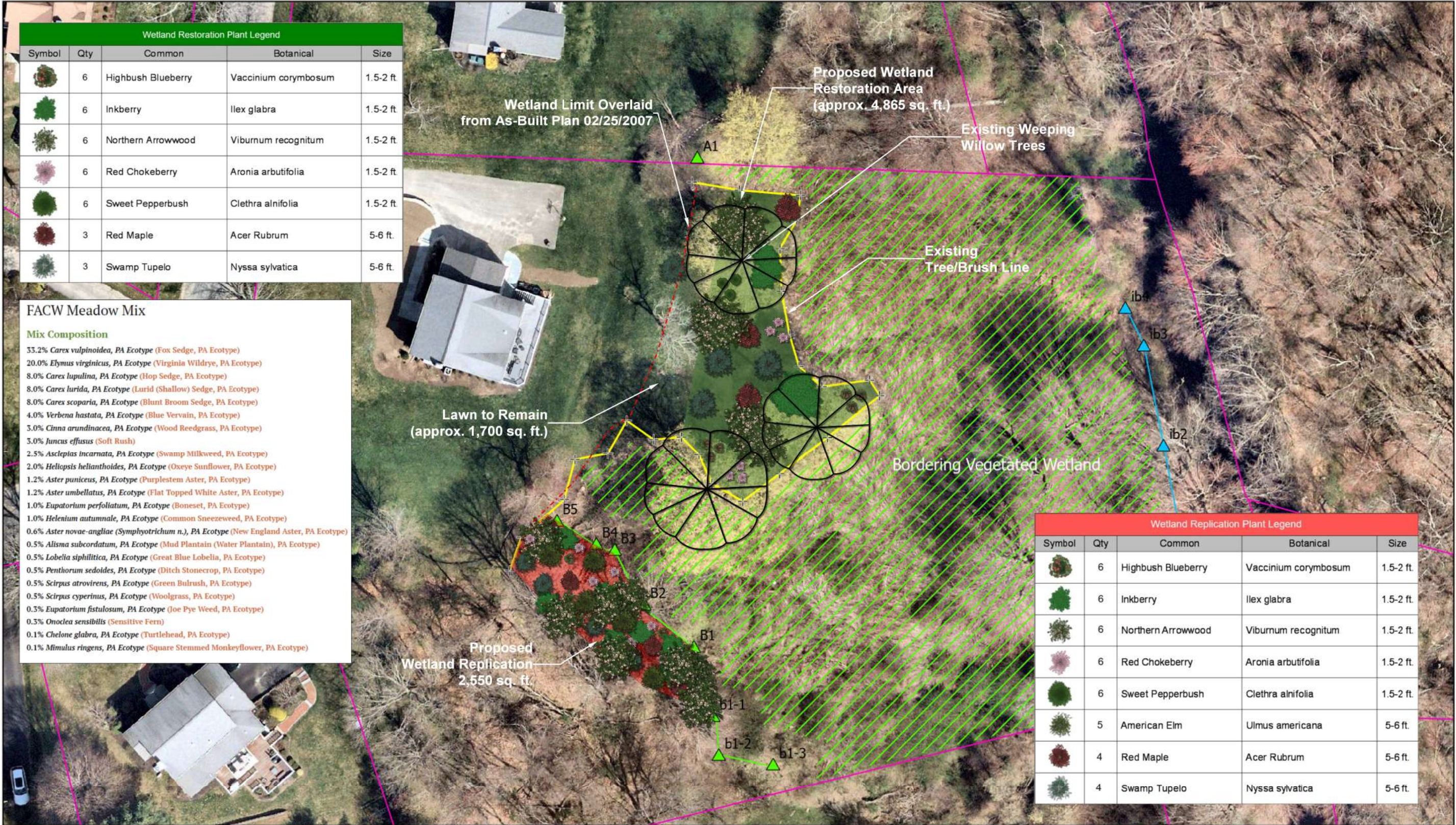
Wetland Restoration Plant Legend				
Symbol	Qty	Common	Botanical	Size
	6	Highbush Blueberry	Vaccinium corymbosum	1.5-2 ft.
	6	Inkberry	Ilex glabra	1.5-2 ft.
	6	Northern Arrowwood	Viburnum recognitum	1.5-2 ft.
	6	Red Chokeberry	Aronia arbutifolia	1.5-2 ft.
	6	Sweet Pepperbush	Clethra alnifolia	1.5-2 ft.
	3	Red Maple	Acer Rubrum	5-6 ft.
	3	Swamp Tupelo	Nyssa sylvatica	5-6 ft.

FACW Meadow Mix

Mix Composition

33.2% *Carex vulpinoidea*, PA Ecotype (Fox Sedge, PA Ecotype)
20.0% *Elymus virginicus*, PA Ecotype (Virginia Wildrye, PA Ecotype)
8.0% *Carex lupulina*, PA Ecotype (Hop Sedge, PA Ecotype)
8.0% *Carex lurida*, PA Ecotype (Lurid (Shallow) Sedge, PA Ecotype)
8.0% *Carex scoparia*, PA Ecotype (Blunt Broom Sedge, PA Ecotype)
4.0% *Verbena hastata*, PA Ecotype (Blue Vervain, PA Ecotype)
3.0% *Cinna arundinacea*, PA Ecotype (Wood Reedgrass, PA Ecotype)
3.0% *Juncus effusus* (Soft Rush)
2.5% *Asclepias incarnata*, PA Ecotype (Swamp Milkweed, PA Ecotype)
2.0% *Helianthus helianthoides*, PA Ecotype (Oxeye Sunflower, PA Ecotype)
1.2% *Aster puniceus*, PA Ecotype (Purplestem Aster, PA Ecotype)
1.2% *Aster umbellatus*, PA Ecotype (Flat Topped White Aster, PA Ecotype)
1.0% *Eupatorium perfoliatum*, PA Ecotype (Boneset, PA Ecotype)
1.0% *Helenium autumnale*, PA Ecotype (Common Sneezeweed, PA Ecotype)
0.6% *Aster novae-angliae* (*Symphiotrichum n.*), PA Ecotype (New England Aster, PA Ecotype)
0.5% *Alisma subcordatum*, PA Ecotype (Mud Plantain (Water Plantain), PA Ecotype)
0.5% *Lobelia siphilitica*, PA Ecotype (Great Blue Lobelia, PA Ecotype)
0.5% *Penthorum sedoides*, PA Ecotype (Ditch Stonecrop, PA Ecotype)
0.5% *Scirpus atrovirens*, PA Ecotype (Green Bulrush, PA Ecotype)
0.5% *Scirpus cyperinus*, PA Ecotype (Woolgrass, PA Ecotype)
0.3% *Eupatorium fistulosum*, PA Ecotype (Joe Pye Weed, PA Ecotype)
0.3% *Onclea sensibilis* (Sensitive Fern)
0.1% *Chelone glabra*, PA Ecotype (Turtlehead, PA Ecotype)
0.1% *Mimulus ringens*, PA Ecotype (Square Stemmed Monkeyflower, PA Ecotype)

Wetland Replication Plant Legend				
Symbol	Qty	Common	Botanical	Size
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	6	Inkberry	Ilex glabra	1.5-2 ft.
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	6	Red Chokeberry	Aronia arbutifolia	1.5-2 ft.
	6	Sweet Pepperbush	Clethra alnifolia	1.5-2 ft.
	5	American Elm	Ulmus americana	5-6 ft.
	4	Red Maple	Acer Rubrum	5-6 ft.
	4	Swamp Tupelo	Nyssa sylvatica	5-6 ft.



Conservation Plan

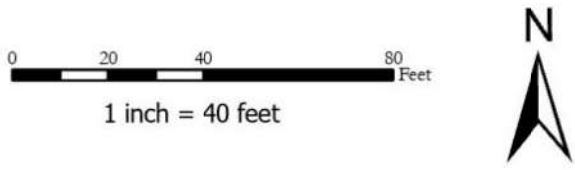
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Sheet 2 of 2: Proposed Restoration & Replication

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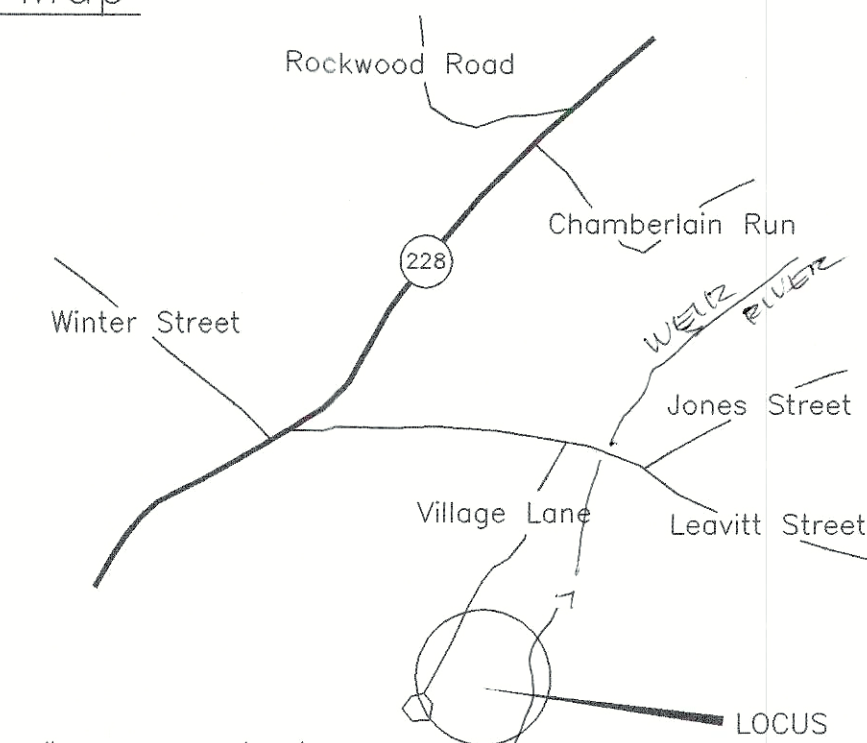


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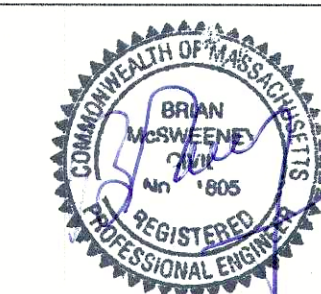
LOCUS

KEY

Locus Map



Lot Data:
Deed: LCC #99354 - 5/31/01
Hingham Assessors Map 82/61 - 66.066 s.f.
Reference Plan:
L.W. Perkins and Sons, 3/3/1969
Plan Book 15/192 (Plymouth ROD)



McSweeney Associates, Inc.

M c S
Environmental
Engineering
Services

Revisions:

Deck "As-Built" Plan
10 Village Lane
Hingham, Massachusetts

Job Reference:	FordVill
Scale:	As Noted
Date:	2/25/07
Drawn By:	T McS
Checked By:	B McS

Brian McSweeney 150 Union Street Hingham, MA (781) 749-2859	Terence McSweeney 745 Winter Street Hanson, MA (781) 826-4571
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