

# HUGHES ENVIRONMENTAL CONSULTING

---

44 MERRIMAC STREET, NEWBURYPORT, MA 01950  
PHONE 978.465.5400 • FAX 978.465.8100  
EMAIL THUGHES@HUGHESENVR.COM

PO BOX 392, CONCORD, MA 01742  
PHONE/FAX 978.369.2100

August 10, 2022

Nicholas Moreno Executive Director  
Boston Conservation Commission  
City of Boston Environment Department  
Boston City Hall, Room 709  
1 City Hall Square  
Boston, MA 02201

Re: 581 American Legion Highway, DEP file number 006-1882

Dear Mr. Moreno:

The attached materials and this letter represent a response to issues raised at our last hearing for the project at 581 American Legion Highway. The following is a summary of issues raised in bold italic and our response in plain text.

***Regarding the Vegetation Management Plan:***

- ***More details on the specific needs/management of the sedge, how the timing of the mow will be determined, or details on the entity that will perform the work.***  
The vegetation management plan has been updated to clarify that the sedge should be mowed between November 15 and December 15, annually to the 4 inch height. This applies to all sedge site wide. The Condo Association will be responsible for maintenance through a landscape management firm.
- ***Removal of references to a Conservation Restriction.***  
This has been corrected.
- ***More specificity on the aesthetic values that are to be managed for and the desired goals of vegetation pruning along ALH.***  
This has been clarified.
- ***A prohibition of herbicides, pesticides, fungicides, insecticides, with instructions to seek an NOI from the Commission should their use be needed.***  
We have added language to the management plan to this effect, giving a little wiggle room for staff or the Commission to determine some other form of written approval (such as a determination) is appropriate based on individual circumstances. The intent is more to give staff and the Commission appropriate flexibility in the future rather than locking them into processing a NOI if such a filing is not the appropriate type.

***A 3 year monitoring/establishment period.***

We have updated the VMP to include 3 years of monitoring by a wetland scientist with annual reports and defined that for a growing season to count, plants must be installed prior to June 15.

***Regarding the Stormwater Infrastructure Maintenance Plan:***

- ***More specific language regarding whether the BMPs are all applicable to this kind of infrastructure and how these tasks will be performed at this site in particular (sweeping away from the resource area not towards, etc.).***

The O&M now references the specific BMPs on site and we have prepared a cleaner version of the proposed plan that shows all BMPs to assist staff and the Commission in reviewing the updated O&M. We have added that any sweeping is to start at the back of the property and work forward.

- ***Firm commitments to a regular maintenance schedule.***

We have included mandatory language and timing on all maintenance. The Condo docs will require adherence to the O&M.

***Regarding the Revised Planting Plan and Narrative:***

- ***The arborist's completed tree assessment.***

We ask that the actual report be conditioned. We intend to have the arborist evaluate the tree to remain west of the building, and whether it can withstand the demolition of the building. The arborist will prepare a protection plan unless they determine it is in ill health or could not withstand the demolition. We would commit to replacing this tree with a native sapling (red maple) with a 2-3" caliper if the arborist does not conclude that it can withstand the removal of the building.

The arborist will also evaluate the health and condition of the remaining native trees in the adjacent easement area (Lots 1 and 2). If any are deemed to have health issues or pose a significant fall hazard we will remove and replace with a native tree in a location and of a species acceptable to the Commission and to BWSC. The reason for this is a concern noted in our field meeting with BSWC where we observed one tree in particular that is leaning over the Brook. BWSC staff noted that they have ongoing concerns regarding trees and large branches that could block flows.

- ***Plans detailing the existing and proposed grades and what other impacts there might be to the bank and riverfront area***

We have updated the language in our plan and show the existing spot grades around the chain link fence that is to be removed. The intent is to taper the elevation from the existing fence location, which is 5+ feet in the easement to the proposed grades at the property line where the new fence will be installed. We will not require cutting into the bank. The bulk of that fence sits around elevation 42. In one location it is at 41. The closest point of the elevation 41 area is at just under 6 feet. Our proposed grades on the site plan at the property line are at 42.8, so our slope at its steepest would be around 35% and at much of it will be closer to 10%. This area is all inside the fence-line and used by

the repair shop at present. The grading is too subtle to be represented in proposed contour lines. This work will be coordinated with BWSC and subject to their approval.

I also note that we corrected the headwall location in the plan and the correction increases our mitigation planting in the riverfront area. The original mitigation plan was based on an older existing conditions plan.

***Written means and methods for the grading.***

Erosion controls will be installed on the Brook side of the chain-link fence located within the easement. The fence will be removed by a mini excavator with a thumb on the bucket. The excavator will grab each post and lift upwards to remove the post and any cement. The fence will be dragged back into the site for disposal. The excavator will operate within the area currently occupied by the repair shop on the upland side of the fence.

After removal of the fence, a grading bucket will be installed on the excavator and the grades smoothed to make a consistent slope from the old fence line to the property line, matching the proposed grades at the property line. Again, the excavator will operate from the upland side.

The disturbed area will be stabilized after removal and taper grading with the seed mix specified in our mitigation plan and any areas steeper than 3:1 will be covered with jute fabric. All other areas will either be covered with jute or stabilized with straw or salt marsh hay mulch. Temporary construction chain link perimeter fence will be installed along the property line until such time as the permanent fence is installed.

The removal of the fence on the opposite side will be cut flush to the surface since we cannot easily access that fence with equipment.

***Revised WPA and Boston NOI forms.***

We have attached the updated forms. I have also attached an updated summary table of alterations that provides the basis for those numbers and additional detail.

I look forward to discussing the above with the Commission at the August 17, 2022 hearing. We ask that any remaining issues be considered for conditions of approval.

Sincerely,



Thomas G. Hughes, BS, MA

Enclosures: Vegetation Management Plan, revised August 10, 2022  
Revised O&M for Stormwater  
Plan showing development BMPs  
NOI form impact pages (State and City)  
Summary Table  
Updated Easement Mitigation Plan



# HUGHES ENVIRONMENTAL CONSULTING

---

44 MERRIMAC STREET, NEWBURYPORT, MA 01950  
PHONE 978.465.5400 • FAX 978.465.8100  
EMAIL THUGHES@HUGHESENVR.COM

PO BOX 392, CONCORD, MA 01742  
PHONE/FAX 978.369.2100

## 581 American Legion Highway Vegetation Management Plan

**Date:** July 26, 2022  
Revised August 10, 2022

**Prepared For:**  
**Boston Pinnacle Properties, LLC**

**Prepared By:**  
Thomas G. Hughes, BS, MA

## Overview

The following Landscape Operation and Vegetation Management Plan was prepared for the property at 581 American Legion Highway as well as the Boston Water and Sewer Commission easement area directly to the north. The focus of this plan is the limitations and protocols associated with the site, which is entirely located within areas protected under state and local wetland laws associated with Canterbury Brook, located just north of the site. Since the entire site is jurisdictional to the Boston Conservation Commission, all landscape maintenance on the property is subject to both the Order of Conditions issued for the development of 581 American Legion Highway as well as state and local wetlands laws. This management plan shall be referenced in the Condo Documentation and included in all landscape contracts.

### **Area Overview and Jurisdiction of the Boston Conservation Commission:**

The Wetlands Protection Act (Massachusetts General Laws (MGL) Chapter 131, Section 40, Act) protects wetland resource areas and the public interests they serve, including flood control, prevention of pollution and storm damage, and protection of public and private water supplies, groundwater supply, fisheries, land containing shellfish, and wildlife habitat. These public interests are protected by requiring certain activities within resource areas and their buffer zones to receive review and approval from the Conservation Commission. Additionally, the Boston Conservation Commission administers its own City Wetlands Protection Ordinance with additional protections. Any deviation from this plan will require written approval from the Conservation Commission and must be consistent with the overall intent of maintaining the jurisdictional areas in a way that is protective of their functions and values under applicable laws. The entire property is located within protected resource areas and therefore subject to regulations administered by the Boston Conservation Commission.

On the property at 581 American Legion Highway, protected wetland resource areas at the time of permitting include:

- A 25-foot Riverfront Area from the mean high water of the Brook. This is jurisdictional under both the state and local wetlands regulations.
- A 25 foot Waterfront Resource Area. This is measured from the Riverfront Area. This is a resource area under the local ordinance and buffer zone under the state law.
- A 100 foot buffer zone from the bank of the brook. This is a resource area under the local ordinance and a buffer zone under the state law.

Vegetation on site will be maintained for health. In areas readily visible from American Legion Highway and further from Canterbury Brook, some limited aesthetic maintenance will be allowed. Key elements of site landscape maintenance are detailed below:

1. There is no lawn on site. Pennsylvania sedge is located in the site perimeter planting areas. Pennsylvania sedge maintenance includes replacing any dead plants and mowing the sedge grasses once per growth season between November 15 and December 15.
2. Ostrich ferns are included in plantings North of the Building. They do not need any significant maintenance. Prune dead foliage and fertile fronds in the late winter. Foliage that grows into the parking areas may be trimmed back to no more than 1 foot from the edge of the parking areas.

3. Dogwoods and the Tree along the North and Northwestern portion of the site can be pruned for health. They can also be pruned to prevent them from growing into the building or into parking areas and walkways.
4. American Wisteria is included in the planting plan along the western property edge. Wisteria can be pruned for health and to guide its growth direction.
5. There are two yellow birches along the American Legion Highway side of the property in the southwestern corner of the lot. These may be pruned for health, form, and symmetry. Pruning must not be used to limit the height or general growth of the plant. Additionally, they should be pruned to prevent low branches from obstructing the sidewalk, to maintain a safe distance to any power lines, or to prevent growth against the building.
6. Along American Legion Highway, there is a bed of Eastern Purple Coneflower. In the spring, this area may be refreshed with a layer of weed free compost. Between November 15 and December 15, dead stems may be cut back to make way for the spring growth.

Plants throughout the site may only be replaced with the same species or as otherwise approved in writing by the Boston Conservation Commission or their staff.

There will be no use of herbicides, pesticides, fungicides, or insecticides on site and no use of such materials is authorized by the Order of Conditions or this management plan. Use of any herbicides or pesticides requires the filing of a Notice of Intent with the Boston Conservation Commission and subsequent written approval through an Order of Conditions, or other written application and written approval as directed by the Commission or their staff based on the specific circumstances of any request.

The area off site in the easement area will be maintained and monitored for health for three growing seasons. Additionally, the property owners at 581 American Legion will conduct a sweep for litter and trash at least twice per year. In the event any obstruction of flow from debris or downed trees is noticed by the owners, they shall contact BWSC to inform them of the situation.

The plantings and landscape, both on site and within the easement area shall be monitored for 3 years, starting in the first full growing season (requires plants installed by June 15). Monitoring shall be completed by a wetland scientist or other professional approved by the Boston Conservation Commission or their staff, with a report submitted by November 30 of each year.





**OPERATION AND MAINTENANCE PLAN  
581 AMERICAN LEGION HIGHWAY  
BOSTON, MASSACHUSETTS**

**1 June 2022**

**Revised August 10, 2022**

**Prepared by Spruhan Engineering, P.C.**

The proposed project includes stormwater runoff controls associated with the development of a three-story building (5 units) that will require continued maintenance by the proponent and then homeowner(s) upon sale. The major components associated with maintenance needs are the trench drain, manhole, and infiltration system. These will need to be inspected and cleaned periodically as noted below. Cleaning of these structures shall be contracted by the proponent and then homeowner(s) with condo association or successive property owners via a specialty contractor with hydraulic cleaning ability. In addition to the facilities noted below, the homeowners shall maintain any roof gutters/drains on a regular basis to prevent clogging and carryover of debris into the drainage systems. The property owner shall also provide for the periodic cleaning of the driveway areas to remove large debris and sand particles prior to discharge through the trench drains.

This document shall be referenced in the Condo Association Documents and require to be included in all associated maintenance contracts.

The following outlines the major maintenance issues associated with the project:

**Maintenance Responsibilities:**

The maintenance of the stormwater runoff controls is the responsibility of the proponent until the property is sold; after any sale, the responsibility shifts to the condo association or successive property owner.

The actual work to inspect and clean the trench drain, manhole sump, and infiltration systems shall be subcontracted to a company that specializes in the cleaning of storm drainage facilities.

### **Permeable pavers.**

Normal Maintenance: All permeable pavers surfaces will require standard structural BMP practices for pavement maintenance regarding sweeping procedures twice a year (Spring and fall). A dry vacuum type sweeper shall be used during dry periods to remove encrusted sediment, leaves, grass clippings, etc. Vacuum and sweeper settings shall be adjusted to prevent uptake of aggregate from the paver voids and joints. The pavers shall be swept once a year or more frequently if visible puddling occurs due to excessive silts and fines, if this happens, the schedule should be adjusted to remove accumulated debris and prevent puddling. Additional void materials may be added by mechanically or manually sweeping into joints and void areas if necessary. It is not recommended to utilize pressure washer on open jointed systems. Adjacent properties, pavements, landscaped areas and grasses should be monitored periodically to ensure that run-off from these sources is not depositing silts and debris on the permeable surface. Construction traffic, agricultural areas (no ground cover), beach area, and areas subject to high winds that will carry these fine particles, will require more frequent sweeping than urban areas. Settlements in pavement surface, access for utility repair, removal of broken or damaged pavers may be performed by an experienced paver installer. Pavers will be removed, setting bed and void materials will be salvaged and kept separate. Base materials are to be removed if access for utilities is required, Settlement repair depending on depth will be restored with additional base materials if settlement exceeds 1/2". Setting bed will be made level and pavers re-instated with void materials replaced in joints and voids with compaction bringing the pavers to flush condition and ready to use.

Remedial Maintenance: If water stops infiltrating and ponds start appearing application of a commercial vacuum sweeper with water jets, sweeper and vacuum bar attachment will cause evacuation of clogged pervious materials from joint and void openings. This material may be recycled at a wash site or new aggregate materials may be utilized. Jointing materials are to be swept into joints and void openings until full, typically the bottom of chamfer is full.

Jets shall be directed away from the Canterbury Brook and materials shall be taken off site for disposal or cleaning for reuse.

Winter Maintenance: Snow Removal: Pervious patios shall be snowblowed or hand shoveled away from Canterbury Brook.

### **Trench Drains. & Manhole Sumps:**

The trench drains and manhole sump shall be inspected after completion of construction to assure that all debris has been removed and construction material will not cause the system to clog. This inspection should also include the drain lines within the system.

The trench drains shall be inspected twice per year (Spring and Fall) and after significant storm events and all debris removed. The manhole sump should be inspected twice per year; if depth of sediment in sumps exceeds 50% capacity, sediment must be removed. The structures should be cleaned with a hydraulic vacuum system at least once per year to remove accumulated solids and debris. At the same time, the drain lines should be inspected and cleaned, if needed. Assuming the structures and drain lines are maintained and cleaning is in accordance with normal standards, the solids removal efficiency should be as required to prevent carry over of large solids to the infiltration systems.

### **Infiltration System:**

The storage/infiltration system should be inspected after completion of construction to assure that all debris has been removed and construction material will not cause the systems to clog.

The storage/infiltration system should be inspected two times a year (Spring and Fall), the system piping should be also cleaned to remove any accumulated sediments and sediments in the infiltration chambers should be removed when they reach two inches in depth.

### **Other Activities:**

**Pavement Sweeping:** The paved areas shall be swept twice per year, once in the spring right after snowmelt, and once in the fall. All sweeping shall start at the rear of the property and work its way towards American Legion Highway and away from the brook.

**Lawn and Landscape Repairs:** The landscaped areas on site shall be maintained in a stable condition in accordance with the requirement of the Order of Conditions for the property and the approved vegetation management plan protocol.

**OPERATION & MAINTENANCE PLAN  
LOG SHEET  
581 AMERICAN LEGION HIGHWAY  
BOSTON, MASSACHUSETTS**

**INSPECTION REPORT:**

Inspection Firm: \_\_\_\_\_

Inspector's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Components Inspected: \_\_\_\_\_

\_\_\_\_\_

Signed: \_\_\_\_\_

**SYSTEM MAINTENANCE:**

Maintenance Firm: \_\_\_\_\_ Date: \_\_\_\_\_

Trench Drain Cleaned: Yes \_\_\_\_ No \_\_\_\_ Comments: \_\_\_\_\_

\_\_\_\_\_

Manhole Sump Cleaned: Yes \_\_\_\_ No \_\_\_\_ Comments: \_\_\_\_\_

\_\_\_\_\_

Drain Lines Inspected: Yes \_\_\_\_ No \_\_\_\_ Comments: \_\_\_\_\_

\_\_\_\_\_

Infiltration System Cleaned: Yes \_\_\_\_ No \_\_\_\_ Comments: \_\_\_\_\_

\_\_\_\_\_

Estimate of Material Removed: \_\_\_\_\_

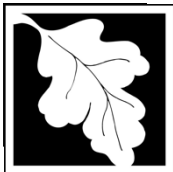
Other Comments: \_\_\_\_\_

\_\_\_\_\_

Signed: \_\_\_\_\_







Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

---

MassDEP File Number

---

Document Transaction Number

---

Boston

---

City/Town

**B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)**

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input checked="" type="checkbox"/> Riverfront Area	Canterbury Brook - inland waterway	
	1. Name of Waterway (if available) - <b>specify coastal or inland</b>	

2. Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 1,124 square feet

4. Proposed alteration of the Riverfront Area:

<u>615</u>	<u>615</u>	<u>NA</u>
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI?  Yes  No

6. Was the lot where the activity is proposed created prior to August 1, 1996?  Yes  No

3.  Coastal Resource Areas: (See 310 CMR 10.25-10.35)

**Note:** for coastal riverfront areas, please complete **Section B.2.f.** above.







<u>Resource Area</u>	<u>Resource Area Size</u>	<u>Proposed Alteration*</u>	<u>Proposed Mitigation</u>
<input type="checkbox"/> Coastal Flood Resilience Zone	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> 25-foot Waterfront Area	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> 100-foot Salt Marsh Area	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> Riverfront Area	_____ Square feet	_____ Square feet	_____ Square feet

2. Inland Resource Areas

<u>Resource Area</u>	<u>Resource Area Size</u>	<u>Proposed Alteration*</u>	<u>Proposed Mitigation</u>
<input type="checkbox"/> Inland Flood Resilience Zone	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> Isolated Wetlands	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> Vernal Pool	_____ Square feet	_____ Square feet	_____ Square feet
<input type="checkbox"/> Vernal Pool Habitat (vernal pool + 100 ft. upland area)	_____ Square feet	_____ Square feet	_____ Square feet
<input checked="" type="checkbox"/> 25-foot Waterfront Area	1638* _____ Square feet	1638* _____ Square feet	0 _____ Square feet
<input checked="" type="checkbox"/> Riverfront Area	530 _____ Square feet	530 _____ Square feet	+/-750 _____ Square feet

**C. OTHER APPLICABLE STANDARDS & REQUIREMENTS**

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

- Project is by right for Zoning \_\_\_\_\_
- BPDA Review - Complete \_\_\_\_\_
- Building Permit - post Conservation \_\_\_\_\_
- BWSC - In process \_\_\_\_\_



# Summary Table of Areas Altered

## 581 American Legion Highway

Revised 8-10-2022

Alterations 581 American Legion

<b>Area</b>	<b>Alteration</b>
<b>Lot 1</b>	
25' Riverfront	529
25' Waterfront Resource Area	1637
100' Buffer Zone	3791
<b>Lot 2 (portion of existing building on lot 2)</b>	
25' Riverfront	86
25' Waterfront Resource Area	30
100' Buffer Zone	116
Note Lot 2 areas doubled to account for potential overdigging during demo	
<b>Easement Area</b>	
25' Riverfront	653
25' Waterfront Resource Area	464
100' Buffer Zone	1117
<b>Total All Areas</b>	
25' Riverfront	1268
25' Waterfront Resource Area	2131
100' Buffer Zone	5024

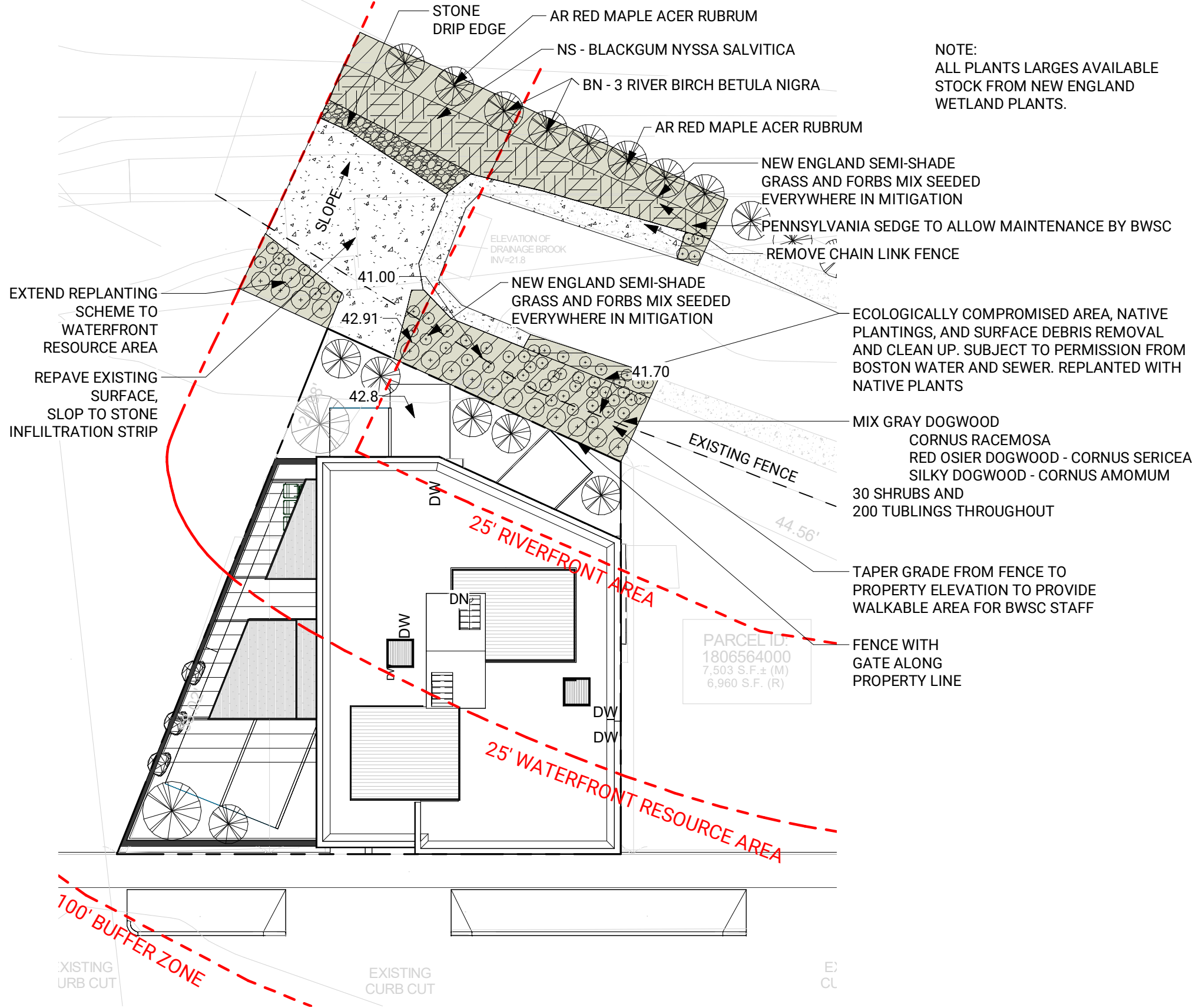
Note: Approximately 1,000 square feet of paved access drive to be reconstructed as shown to smooth the surface out and direct water to the drip edge. All of which is in the buffer zone, 453 square feet of which is in the Waterfront Resource Area, and none of which is in Riverfront. This is not included in the above calculations.



EXISTING CONDITIONS PLAN		PROPOSED PLAN	
<b>25' RIVERFRONT AREA</b>		<b>25' RIVERFRONT AREA</b>	
PAVED AREA	-	PAVED AREA	-
ECOLOGICALLY COMPROMISED LANDSCAPE	588 SF	NATIVE HABITAT RESTORATION	653 SF
<b>25' WATERFRONT RESOURCE AREA</b>		<b>25' WATERFRONT RESOURCE AREA</b>	
PAVED AREA	473 SF	PAVED AREA	473 SF
ECOLOGICALLY COMPROMISED LANDSCAPE	464 SF	NATIVE HABITAT RESTORATION	464 SF

NOTE:  
ALL PLANTS LARGES AVAILABLE STOCK FROM NEW ENGLAND WETLAND PLANTS.

NOTE: IN BWSC EASEMENT AREA REMOVE ANY INVASIVE OR HAZARD TREE AND REPLACE WITH SMALLER TREES OR SHRUBS. LOW DENSITY PLANTING TO ENSURE ACCESS BY BWSC



**1** ARCHITECTURAL SITE PLAN  
1/16" = 1'-0"

