

**City of Portland  
Level II Final Site Plan Development Review  
Permit Application**

**Project:**

*Coastal Shoreline Stabilization*

*60 Sullivan Street  
Portland, Maine*

**Owner & Applicant:**

*John M. Woodhead  
1276 N Wayne Street #707  
Arlington, VA 22201*

**March 6, 2015**

Prepared By:

**Land Design Solutions  
P.O. Box 316, 160 Longwoods Road  
Cumberland, Maine 04021**

## Table of Contents

1. Level II Application Form
2. Letter of Agent Authorization
3. Project Location Map
4. Project Description
5. Site Photographs
6. Evidence of Right Title and Interest (deed)
7. Evidence of State and/or Federal Permits
8. Evidence of Financial and Technical Capacity
9. Construction Management Plan
10. Erosion Control Plan
11. Assessor Parcel Information
12. Abutter List & Tax Map
13. Project Plans:
  - Survey of Existing Conditions
  - C-101 Site Plan & Details
  - C-102 Stabilization Sections
  - C-103 Planting Plan



Jeff Levine, AICP, Director  
Planning & Urban Development Department

## **Electronic Signature and Fee Payment Confirmation**

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are **paid in full** to the Inspections Office, City of Portland Maine by method noted below:

- Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Peter B. Biegel (agent)  
\_\_\_\_\_  
Applicant Signature:

March 6, 2015  
\_\_\_\_\_  
Date:

Peter B. Biegel  
\_\_\_\_\_  
I have provided digital copies and sent them on:

March 9, 2015  
\_\_\_\_\_  
Date:

NOTE: All electronic paperwork must be delivered to [buildinginspections@portlandmaine.gov](mailto:buildinginspections@portlandmaine.gov) or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3<sup>rd</sup> Floor, Room 315.



## Level II – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department  
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level II: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

### Level II: Site Plan Development includes:

- New construction of structures with a total floor area of less than 10,000 sq. ft. in all zones, except in Industrial Zones.
- New construction of structures with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Any new temporary or permanent parking area, paving of an existing unpaved surface parking area in excess of 7,500 sq. ft. and serving less than 75 vehicles, or creation of other impervious surface area greater than 7,500 sq. ft.
- Building addition(s) with a total floor area of less than 10,000 sq. ft. (cumulatively within a 3 year period) in any zone, except in Industrial Zones.
- Building addition(s) with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Park improvements: New structures or buildings with a total floor area of less than 10,000 sq. ft., facilities encompassing an area of greater than 7,500 sq. ft. and less than 20,000 sq. ft. (excludes rehabilitation or replacement of existing facilities).
- New construction of piers, docks, wharves, bridges, retaining walls, and other structures within the Shoreland Zone.
- Land disturbance between 1 and 3 acres that are stripped, graded, grubbed, filled or excavated.
- A change in the use of a total floor area between 10,000 and 20,000 sq. ft. in any existing building (cumulatively within a 3 year period).
- Lodging house, bed and breakfast facility, emergency shelter or special needs independent living unit.
- Signage subject to approval pursuant to Section 14-526 (d) 8.a. of the Land Use Code.
- Any new major or minor auto service station with less than 10,000 sq. ft. of building area in any permitted zone other than the B-2 or B-5 zones.
- The creation of day care or home babysitting facilities to serve more than 12 children in a residential zone (not permitted as a home occupation under section 14-410) in any principal structure that has not been used as a residence within the 5 years preceding the application.
- Any drive-through facility that is not otherwise reviewed as a conditional use under Article III.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

#### Planning Division

Fourth Floor, City Hall  
389 Congress Street  
(207) 874-8719

#### Office Hours

Monday thru Friday  
8:00 a.m. – 4:30 p.m.



**PROJECT NAME:** Woodhead Slope Stabilization Project

**PROPOSED DEVELOPMENT ADDRESS:**  
60 Sullivan Street

**PROJECT DESCRIPTION:**  
The stabilization of an eroding bank with riprap, turf reinforcement matt and vegetation.

**CHART/BLOCK/LOT:** 432A A006001

**PRELIMINARY PLAN** \_\_\_\_\_ (date)

**FINAL PLAN** \_\_\_\_\_ (date)

**CONTACT INFORMATION:**

<b>Applicant – must be owner, Lessee or Buyer</b> Name: John N. Woodhead Business Name, if applicable: Address: 1276 Wayne Street #707 City/State : Arlington, VA Zip Code: 22201	<b>Applicant Contact Information</b> E-mail: Home #: Work #: Cell #: Fax#:
<b>Owner – (if different from Applicant)</b> Name: Address: City/State : Zip Code:	<b>Owner Contact Information</b> E-mail: Home #: Work #: Cell #: Fax#:
<b>Agent/ Representative</b> Name: Land Design Solutions (Peter Biegel) Address: P.O. Box 316 City/State : Cumberland, ME Zip Code: 04021	<b>Agent/Representative Contact information</b> E-mail: pbiegel@landdesignsolutions.com Home #: Work #: (207) 939-1717 Cell #: (207) 939-1717 Fax#:
<b>Billing Information</b> Name: Carl Cullenberg Address: 75 Ledgewood Drive City/State : Falmouth, ME Zip Code: 04108	<b>Billing Information</b> E-mail: cullenberg13@msn.com Home #: Work #: (207) 650-8744 Cell #: (207) 650-8744 Fax#:

<p><b>Engineer</b></p> <p>Name: Land Design Solutions</p> <p>Address: P.O. Box 316</p> <p>City/State :Cumberland, ME Zip Code: 04021</p>	<p><b>Engineer Contact Information</b></p> <p>E-mail: Ptubbs@sytdesign.com</p> <p>Home #:</p> <p>Work #: (207) 671-9845</p> <p>Cell #: (207) 671-9845 Fax#:</p>
<p><b>Surveyor</b></p> <p>Name: Cullenberg Land Surveying (Kevin Cullenberg)</p> <p>Address: 892 Old Danville Road</p> <p>City/State : Auburn, ME Zip Code: 04210</p>	<p><b>Surveyor Contact Information</b></p> <p>E-mail: cls@myfairpoint.net</p> <p>Home #:</p> <p>Work #: (207) 777-1150</p> <p>Cell #: Fax#:</p>
<p><b>Architect</b></p> <p>Name:</p> <p>Address:</p> <p>City/State : Zip Code:</p>	<p><b>Architect Contact Information</b></p> <p>E-mail:</p> <p>Home #:</p> <p>Work #:</p> <p>Cell #: Fax#:</p>
<p><b>Attorney</b></p> <p>Name:</p> <p>Address:</p> <p>City/State : Zip Code:</p>	<p><b>Attorney Contact Information</b></p> <p>E-mail:</p> <p>Home #:</p> <p>Work #:</p> <p>Cell #: Fax#:</p>

**APPLICATION FEES:**

**Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)**

<p><b>Level II Development (check applicable reviews)</b></p> <p><input checked="" type="checkbox"/> Less than 10,000 sq. ft. (\$400)</p> <p><input type="checkbox"/> After-the-fact Review (\$1,000 plus applicable application fee)</p> <hr/> <p>The City invoices separately for the following:</p> <ul style="list-style-type: none"> <li>• Notices (\$.75 each)</li> <li>• Legal Ad (% of total Ad)</li> <li>• Planning Review (\$40.00 hour)</li> <li>• Legal Review (\$75.00 hour)</li> </ul> <p>Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.</p>	<p><b>Other Reviews (check applicable reviews)</b></p> <p><input type="checkbox"/> Traffic Movement (\$1,000)</p> <p><input type="checkbox"/> Stormwater Quality (\$250)</p> <p><input type="checkbox"/> Site Location (\$3,000, except for residential projects which shall be \$200/lot)</p> <p># of Lots ___ x \$200/lot = _____</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Change of Use</p> <p><input type="checkbox"/> Flood Plain</p> <p><input checked="" type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Design Review</p> <p><input type="checkbox"/> Housing Replacement</p> <p><input type="checkbox"/> Historic Preservation</p>
---	--

**APPLICATION SUBMISSION:**

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City’s website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

**The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:**

1. **One (1) full size site plans that must be folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
  - a. Application form that is completed and signed.
  - b. Cover letter stating the nature of the project.
  - c. All Written Submittals (Sec. 14-527 (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

**Please refer to the application checklist (attached) for a detailed list of submission requirements.**

**APPLICANT SIGNATURE:**

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement’s authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

**This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.**

<b>Signature of Applicant:</b> Peter Biegel (agent)	<b>Date:</b> March 6, 2015
--	-------------------------------

## PROJECT DATA

The following information is required where applicable, in order to complete the application.

<b>Total Area of Site</b>	5,317 sq. ft.
<b>Proposed Total Disturbed Area of the Site</b>	1,402 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland	
<b>Impervious Surface Area</b>	NA - No increase
Impervious Area (Total Existing)	sq. ft.
Impervious Area (Total Proposed)	sq. ft.
<b>Building Ground Floor Area and Total Floor Area</b>	NA
Building Footprint (Total Existing)	sq. ft.
Building Footprint (Total Proposed)	sq. ft.
Building Floor Area (Total Existing)	sq. ft.
Building Floor Area (Total Proposed)	sq. ft.
<b>Zoning</b>	
Existing	R3
Proposed, if applicable	
<b>Land Use</b>	
Existing	Single Family
Proposed	NA
<b>Residential, If applicable</b>	NA
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
<b>Proposed Bedroom Mix</b>	NA
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
<b>Parking Spaces</b>	NA
# of Parking Spaces (Total Existing)	
# of Parking Spaces (Total Proposed)	
# of Handicapped Spaces (Total Proposed)	
<b>Bicycle Parking Spaces</b>	NA
# of Bicycle Spaces (Total Existing)	
# of Bicycle Spaces (Total Proposed)	
<b>Estimated Cost of Project</b>	\$100,000

<b>FINAL PLAN - Level II Site Plan</b>			
<b>Applicant Checklist</b>	<b>Planner Checklist</b>	<b># of Copies</b>	<b>GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)</b>
x		1	* Completed Application form
x		1	* Application fees
x		1	* Written description of project
x		1	* Evidence of right, title and interest
x		1	* Evidence of state and/or federal permits
No Changes		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
No Changes		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
x		1	* Evidence of financial and technical capacity
x		1	Construction Management Plan
NA		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
No Changes		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
NA		1	Stormwater management plan and stormwater calculations, including description of project, hydrology and impervious area.
NA		1	Written summary of project's consistency with related city master plans
NA		1	Evidence of utility capacity to serve
NA		1	Written summary of solid waste generation and proposed management of solid waste
NA		1	A code summary referencing NFPA 1 and all Fire Department technical standards
NA		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
NA		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	<b>SITE PLAN SUBMISSIONS CHECKLIST</b> (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
x		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
x		1	<b>Final Site Plans including the following:</b>
x			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
x			Existing and proposed structures on parcels abutting site;
NA			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
NA			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
NA			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
NA			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
NA			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
NA			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
NA			Location of all snow storage areas and/or a snow removal plan;
NA			A traffic control plan as detailed in Section 1 of the Technical Manual;
NA			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
NA			Location and proposed alteration to any watercourse;
NA			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
NA			Proposed buffers and preservation measures for wetlands;
NA			Existing soil conditions and location of test pits and test borings;
x			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
NA			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
x			Grading plan;
NA			Ground water protection measures;
NA			Existing and proposed sewer mains and connections;
NA			Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
NA			Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;

- Continued on next page -

NA		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
NA		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
NA		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
NA		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
NA		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
NA		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
NA		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
NA		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
No Change		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.



Not applicable to this project

**PORTLAND FIRE DEPARTMENT  
SITE REVIEW  
FIRE DEPARTMENT CHECKLIST**



A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
  - **As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)**
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1



**Not applicable to this project**

**CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION**

Department of Public Services,  
55 Portland Street,  
Portland, Maine 04101-2991



Mr. Frank J. Brancely,  
Senior Engineering Technician,  
Phone #: (207) 874-8832,  
Fax #: (207) 874-8852,  
E-mail: fjb@portlandmaine.gov

Date: \_\_\_\_\_

**1. Please, Submit Utility, Site, and Locus Plans.**

Site Address: \_\_\_\_\_ Chart Block Lot Number: \_\_\_\_\_

Proposed Use: \_\_\_\_\_

Previous Use: \_\_\_\_\_

Existing Sanitary Flows: \_\_\_\_\_ GPD

Existing Process Flows: \_\_\_\_\_ GPD

Description and location of City sewer that is to receive  
the proposed building sewer lateral.

\_\_\_\_\_  
\_\_\_\_\_

Site Category	Commercial <i>(see part 4 below)</i>	<input type="checkbox"/>
	Industrial <i>(complete part 5 below)</i>	<input type="checkbox"/>
	Governmental	<input type="checkbox"/>
	Residential	<input type="checkbox"/>
	Other <i>(specify)</i>	<input type="checkbox"/>

*(Clearly, indicate the proposed connections, on the submitted plans)*

**2. Please, Submit Contact Information.**

City Planner's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Owner/Developer Name: \_\_\_\_\_

Owner/Developer Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Engineering Consultant Name: \_\_\_\_\_

Engineering Consultant Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

***(Note: Consultants and Developers should allow +/- 15 days, for capacity status,  
prior to Planning Board Review)***

**3. Please, Submit Domestic Wastewater Design Flow Calculations.**

Estimated Domestic Wastewater Flow Generated: \_\_\_\_\_ GPD

Peaking Factor/ Peak Times: \_\_\_\_\_

Specify the source of design guidelines: *(i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"*  
*"Plumbers and Pipe Fitters Calculation Manual,"* *Portland Water District Records,* *Other (specify)*

\_\_\_\_\_

***(Note: Please submit calculations showing the derivation of your design flows,  
either on the following page, in the space provided, or attached, as a separate sheet)***

**4. Please, Submit External Grease Interceptor Calculations.**

Total Drainage Fixture Unit (DFU) Values: \_\_\_\_\_  
Size of External Grease Interceptor: \_\_\_\_\_  
Retention Time: \_\_\_\_\_  
Peaking Factor/ Peak Times: \_\_\_\_\_

*(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)*

**5. Please, Submit Industrial Process Wastewater Flow Calculations**

Estimated Industrial Process Wastewater Flows Generated: \_\_\_\_\_ GPD  
Do you currently hold Federal or State discharge permits? Yes \_\_\_\_\_ No \_\_\_\_\_  
Is the process wastewater termed categorical under CFR 40? Yes \_\_\_\_\_ No \_\_\_\_\_  
OSHA Standard Industrial Code (SIC): <http://www.osha.gov/oshstats/sicser.html>  
Peaking Factor/Peak Process Times: \_\_\_\_\_

*(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)*

*(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)*

Notes, Comments or Calculation

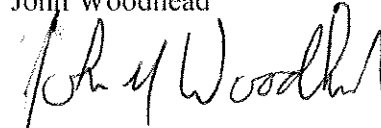
1276 N. Wayne Street #707  
Arlington, VA 22201  
June 10, 2014

**RE: 60 Sullivan Street  
Slope Stabilization Project**

To whom it may concern:

Please consider this letter as authorization for Land Design Solutions to act as the agent relative to the local, state and federal permitting required for the referenced project.

Sincerely,  
John Woodhead

A handwritten signature in black ink that reads "John Woodhead". The signature is written in a cursive style with a large initial "J" and "W".

Owner



070°18' 08.22" W  
043°43' 47.09" N

(CUMBERLAND CENTER)

070°12' 41.10" W  
043°43' 47.09" N



(PORTLAND WEST)

(SOUTH HARPSWELL)

60 Sullivan Street -  
Proposed Project  
Site.

043°38' 11.95" N  
070°18' 08.22" W

Copyright (C) 2009 MyTopo  
Printed: Fri Aug 22, 2014  
070°12' 41.10" W  
043°38' 11.95" N

(PROUTS NECK)

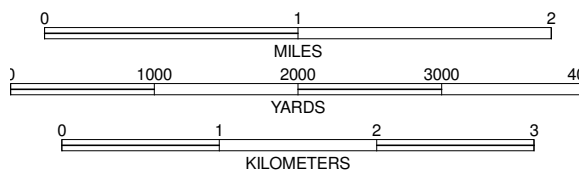
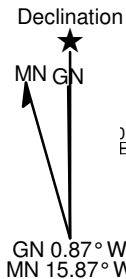
(PROUTS NECK)  
SCALE 1:48000

(Unavailable)

Produced by MyTopo Terrain Navigator  
Topography based on USGS 1:24,000  
Maps

North American 1983 Datum (NAD83)  
Polyconic Projection

To place on the predicted North American  
1927 move the projection lines 9M N and  
41M E



CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM 1929

PORTLAND WEST, ME  
1956

#### **4. Project Description**

The project is located at 60 Sullivan Street. The property is located in the City of Portland's R5 Zone and is approximately 5,317 s.f. in size. The parcel contains a residential structure and has approximately 123 linear feet of frontage on the Atlantic Ocean.

Although the owner has worked diligently to maintain the area on top of the embankment the existing slope continues to erode. The slope is quite steep with numerous areas of existing erosion which are not able to be re-vegetated due to the continuous erosive cycle. In addition to these erosive areas there is a very large tree that was uprooted and toppled over a number of years ago with the large root ball leaving a very large hole in the embankment. The tree is still lying there decaying very slowly as the disturbed embankment continues to erode around it. The top of the eroding bank is approximately 8' from the corner of the deck to the top of the slope, the owner would like to stabilize the slope before he loses anymore land to slump and erosion eventually compromising the structure.

The proposed design calls for a stone riprap revetment from the toe of the slope at approximately elevation 5.9 up to elevation 15.0. The 15.0 elevation is based on using the highest annual tide elevation of 7.4 and adding 6.3 ft to account for the 100 yr tide surge (per the Portland NOAA tidal station data) which = elevation 13.7, to which we added 1ft. to account for the rise in sea level over the next 100 years. This gave us an elevation of 14.7 which we rounded up to elevation 15.0

Above elevation 15.0, up to elevation 22.5 to 23.5 (top of slope) we are proposing that the existing non-invasive vegetation to be left in place and the rest of the area which contains invasive species vegetation; primarily bamboo with some honeysuckle and multiflora rose be renovated with the removal of the invasive species and replanting with plants more conducive to this situation. The issue with bamboo is that it is shallow rooted and does a poor job protecting the soil, in addition to being so aggressive that it crowds most other vegetation out. We are proposing to re-vegetate the slope with a variety of native and naturalized plant species which are shown on plan C-103 Planting Plan planted in masses similar to the way they would be found colonizing in a natural setting. This will give the embankment an attractive visual appearance for those viewing the embankment from the ocean or adjacent highway. Gullies and holes on the embankment which were created by erosion shall be filled, leveled and re-vegetated.

We have reviewed the erosion situation at the project site with regard to other alternatives which would resolve the embankments erosion and slumping issues, and prevent the continued loss of personal property as the existing embankment is being eaten away. The existing vegetation on the embankment has not been able to spread and/or hold the soil thus the embankments erosion continues with unprotected areas of the slope left vulnerable to erosion from the elements.

Many of the surrounding property owners in this area have constructed various stone revetments or retaining walls to protect the ocean side of their property/homes. We believe



that if the owner of 60 Sullivan Street does not protect their slope from erosion they will continue to lose the land between the ocean and their house until eventually the structure becomes compromised.

We do not believe that a solution which just re-vegetates the existing embankment is enough to provide protection from upslope stormwater run-off, and tidal activity at the toe of the slope during storms. We believe that stone revetment is required. However, instead of proposing stone riprap on the entire slope we have taken a more conservative approach and proposed stone riprap on the lower portion of the slope which will protect the slope from the 6.3 ft. tidal surge and 1 ft. to accommodate the sea level rise over the next 100 years.

## **5. Site Photographs**



Photo of house from the tidal flat.





Photo of existing vegetation



Photo of existing house, deck and the top of the slope.

**6. Evidence of Right Title and Interest:**

The applicant and owner purchased the property in 1998. The warranty deed is included as part of this section.



002450

WARRANTY DEED

Maine Statutory Short Form

KNOW ALL MEN BY THESE PRESENTS that WILLIAM F. MULLER and JENNIFER T. MULLER, of Falmouth, Maine, for consideration paid, grant to JOHN M. WOODHEAD, whose mailing address is 197 Dartmouth Street, Portland, Maine 04103, with warranty covenants, the property situated in Portland, Cumberland County, Maine described as follows:

A certain lot or parcel of land with the buildings thereon, situated on the northeasterly side of Fairfield Street (also known as Sullivan Street) in said Portland, and being a portion of lot numbered 147 in Marine Terrace as delineated on plan recorded in Cumberland County Registry of Deeds in Plan Book 10, Page 103, and being bounded and described as follows:

Beginning on the northeasterly side of said Fairfield Street at the most southerly corner of lot number 148 on said plan, said corner being about seven hundred fourteen and seventy-four hundredths (714.74) feet southeasterly from the southeasterly side of Veranda Street and running thence southeasterly by said Fairfield Street twenty-six and five hundredths (26.06) feet to land conveyed by Lillian Stover to William R. Totten by deed dated January 28, 1910, and recorded in said Registry of Deeds in Book 851, Page 328, thence north 40° 35' east, by said Totten land, forty-eight and ninety-five hundredths (48.95) feet to a point; thence south 48° 5' east, to the southeasterly boundary of said lot numbered 147 as delineated on said Plan and to the shore line at low water mark; thence following said shore line northeasterly and northwesterly to the southeasterly line of lot numbered 148; thence southwesterly by said lot numbered 148, one hundred fourteen (114) feet, more or less, to the point of beginning; Also all land in said lot numbered 147 between high and low water mark not conveyed by said Stover to said Totten.

Meaning and intending to convey, and hereby conveying, the same premises described in a deed from Wilfred J. Brown, Jr. and Jennifer T. Muller, f/k/a Jennifer T. Brown to William F. Muller and Jennifer T. Muller, dated January 29, 1990 and recorded in said Registry in Book 9073, Page 137.

MAINE REAL ESTATE TAX PAID

WITNESS our hands and seals this 6 day of the month of January, 1998

Witness

Witness

William F. Muller

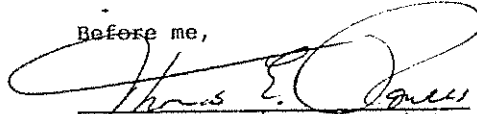
Jennifer T. Muller

STATE OF MAINE  
Cumberland, ss.

January 6, 1998

Then personally appeared the above-named William F. Muller and Jennifer T. Muller, and acknowledged the foregoing instrument to be their free act and deed.

Before me,

  
Thomas E. Powers  
Notary Public/Attorney at Law

Thomas E. Powers  
Printed Name

RECEIVED  
RECORDS & CLERK OF DEEDS  
1998 JAN 14 PM 3:09  
CUMBERLAND COUNTY  
*John B O'Brien*

## **7. Evidence of State and/or Federal Permits:**

A full NRPA permit from DEP has been obtained and is included as part of this section. A copy of the NRPA DEP application was also sent to the Army Corps of Engineers.

The abutter (Paul Vachon) has agreed to allow construction access through his property and down the embankment on his property. This will involve the demolition and rebuilding of a set of stairs that are located on the embankment. A letter from Mr. Vachon authorizing the use of his property for access is included as part of this section. An NRPA permit by rule notification is required for this activity given its proximity to the water. We anticipate submitting the permit by rule notification March 13, 2015.



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

February 2015

John M. Woodhead  
1276 N Wayne Street #707  
Arlington, VA 22201

RE: Natural Resources Protection Act Application, Portland, DEP #L-26577-4D-A-N

Dear Mr. Woodhead:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at (207) 615-3236 or at [audie.arbo@maine.gov](mailto:audie.arbo@maine.gov)

Sincerely,

Audie Arbo, Project Manager  
Division of Land Resource Regulation  
Bureau of Land and Water Quality

pc: File

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143



DEPARTMENT ORDER

IN THE MATTER OF

JOHN M. WOODHEAD	) NATURAL RESOURCES PROTECTION ACT
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
SHORELINE STABILIZATION	) WATER QUALITY CERTIFICATION
L-26577-4D-A-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of JOHN M. WOODHEAD with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to stabilize approximately 124 linear feet of coastal shoreline by installing a combination of riprap and vegetation. The shoreline in the project area has a steep bank with pockets of erosion. The applicant proposes to use a three-foot thick layer of riprap stones from the bottom elevation of 5.9 up to an elevation of 15.0. Six-inch granite curb pieces will be pinned to existing ledge to anchor the toe of the slope, and three-foot thick toe stones will be used to stabilize the base of the riprap behind the granite pieces. The highest annual tide (HAT) is 1.5 feet above the toe of the slope and the proposed project will result in 330 square feet of alteration of the coastal wetland. The finished slope face of the riprap will be one foot horizontal to one foot vertical (1:1). The grade from the top of the riprap to the crest of the slope will be a transitional grade of two feet horizontal to one foot vertical (2:1). In this transitional grade the existing pockets of erosion will be filled with topsoil, erosion control blanket will be installed, and a variety of native vegetation will be planted. Vegetation to be planted will include common juniper, bearberry, shrubby cinquefoil, and northern bayberry. A three-foot wide (140-square foot) strip of lowbush blueberry sod will be installed along the top of the bank between existing lawn and the vegetation on the embankment.

The project is shown on a set of plans titled "Slope Stabilization 60 Sullivan Street, Portland, Maine," prepared by Land Design Solutions and dated May 2014, with a most recent revision date of January 26, 2015. The project site is located on Sullivan Road in the City of Portland.

B. Current Use of the Site: The applicant owns a 0.122-acre lot that is developed with a residential dwelling including a deck and associated improvements. The lawn currently extends to the top of the shorefront bank. At the closest point, the deck is approximately eight feet from the top of the bank. The distance from the north corner of the house and the top of bank is 17 feet. A drain pipe outlet, connected to the roof gutter

system, currently extends out of the embankment and drains onto the slope. The parcel is identified as Lot A-6001 on Map 432A of the City of Portland's tax maps.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site. Department staff visited the project site on June 3, 2014 and on January 14, 2015.

The proposed project is located in and adjacent to the Atlantic Ocean, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The applicant has minimized the total amount of riprap and is proposing to leave existing native, non-invasive vegetation where possible. Much of the slope is currently covered with invasive vegetation, including honeysuckle, bamboo and multiflora rose. Invasive vegetation will be removed, the area covered with erosion control blanket, and planted with native vegetation. The applicant must monitor the plantings and the plantings must be replaced or maintained as necessary to achieve 85% survival after one full growing season.

The proposed project site is located in a section of the coastline that is developed with residential houses and other shoreline stabilization projects of varying construction types. The shoreline along the Route 1 embankment is currently stabilized with riprap. The proposed project will be compatible with the surrounding developed and stabilized shore frontages. The applicant proposes to use stone that is similar in color and to install vegetation to reduce the visibility of the proposed riprap from the scenic resource. These measures are expected to reduce the visibility of the project from the scenic resource.

The proposed project was evaluated using the Department's Visual Impact Assessment Matrix and was found to have an acceptable potential visual impact rating. Based on the information submitted in the application, the visual impact rating and the site visits, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department did not identify any issues involving existing recreational and navigational uses.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource provided that the applicant monitors and maintains the plantings as described above.

3. SOIL EROSION:

The applicant submitted an Erosion and Sediment Control Plan on Sheet C-102 of the set of plans referenced in Finding 1. The proposed project will stabilize an existing eroding bank with riprap over geotextile fabric at the bottom of the slope and vegetation over erosion control blanket above the stone. The erosion control blanket and plantings will extend to two feet above the top of the slope crest to secure all disturbed soil. The existing outflow pipe will be reset and extended over an apron of riprap, to prevent future erosion from the pipe discharge. All materials for the project will be brought to the site and no materials will be sourced from the intertidal area. The work will be scheduled around the tide cycle, so that work occurs during the low tide and the work will be stabilized at the end of the tide cycle each day. No equipment will be operated in the water.

The work area will be accessed by a construction entrance on an abutting property, where a set of access stairs will be removed for the construction. The abutting property owner has provided written permission for this work to occur on his property, with the expectation that any damage to the property will be repaired.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

According to the Department's Geographic Information System (GIS) database there are no mapped Essential or Significant Wildlife Habitats located at the site.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The proposed project is intended to stabilize an eroding bank using angular stone, geotextile fabric, erosion control blanket, loam and native plantings. These materials and the construction techniques proposed are not expected to result in any significant soil erosion or have an adverse effect on water quality.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

A large tree has been uprooted at the site, leaving a sizable hole in the embankment that continues to erode. At the toe of the slope there is an approximately five-foot strip of sand and cobble beach. Coastal wetland vegetation exists on the other side of this strip and extends towards open water.

The applicant proposes to directly alter 330 square feet of coastal wetland to construct the proposed shoreline stabilization project as a result of riprap being placed below the HAT line. The total area disturbed above the HAT line will be approximately 1,402 square feet. The area to be riprapped directly above the HAT line will be 747 square feet and the area to be vegetated on the slope above the riprap will be 655 square feet.

The Wetland and Waterbodies Protection Rules, Chapter 310, interpret and elaborate on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a coastal wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. The applicant submitted an alternatives analysis for the proposed project completed by Peter Biegel of Land Design Solutions, dated November 28, 2014, and revised January 26, 2015. The project purpose is to stabilize the shoreline to prevent further erosion and slumping of the slope and to protect the house and deck, while also removing invasive plants and replacing them with native plantings. The existing uprooted tree along the bottom of the bank is at risk of being dislodged by wave action. If this occurs, there is a high likelihood that it could cause more erosion. The no-action alternative was rejected because the toe of the slope would continue to be eroded by tidal activity during storms and the potential exists for major bank erosion from loss of the uprooted tree. To meet the project purpose, some amount of coastal wetland alteration is unavoidable.

B. Minimal Alteration. The amount of coastal wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant has minimized wetland impacts by using riprap with a steep stone face to reduce the amount of wetland impact and by selecting a combination of stabilizing methods that minimizes the potential for additional erosion from coastal wave action and stormwater discharge after the project is complete. The contractor will utilize construction mats in the intertidal areas where equipment must traverse over existing wetland vegetation. The applicant has also minimized the amount of proposed riprap by using the elevation of the 100-year tide surge above the HAT as the minimum elevation needed for successful stabilization of the slope against future wave action and by utilizing vegetation where possible.



C. Compensation. In accordance with Chapter 310 Section 5(C)(6)(b), compensation is not required to achieve the goal of no net loss of coastal wetland functions and values since the project will not result in over 500 square feet of fill in the resource, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on wildlife habitat as determined by the Department. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized coastal wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses provided that the applicant monitors and maintains vegetation as described in Finding 2.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.

- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of JOHN M. WOODHEAD to alter coastal wetland to stabilize shoreline as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

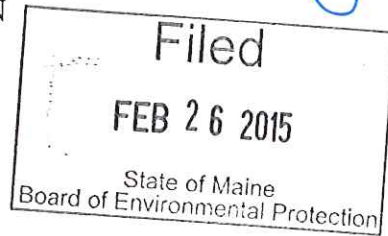
- 1. Standard Conditions of Approval, a copy attached.
- 2. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
- 3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
- 4. The applicant shall monitor the plantings and the plantings must be replaced or maintained as necessary to achieve 85% survival after one full growing season.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 25<sup>th</sup> DAY OF February, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns  
For: Patricia W. Aho, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES...

AA/L26577AN/ATS#78605



## Natural Resources Protection Act (NRPA) Standard Conditions

---

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 480-A ET.SEQ. UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

To: Carl Cullenberg, Contractor

February 13, 2015

John Woodhead, property owner at 60 Sullivan St, Portland

To Whom It May Concern, I give you permission to use my property for your bank stabilization project.

You may drive equipment and materials over my property.

I just ask that you repair any damage you cause to driveway, lawn and/or stairs to the shore.

Thank you

A handwritten signature in cursive script, appearing to read "Paul Vachon".

Paul Vachon

Property owner at 56 Sullivan Street  
Portland, Maine 04103

## **8. Evidence of Financial and Technical Capacity:**

Financial Capacity - The Owner has secured a home equity loan to pay for the construction.

Technical Capacity – The Owner has retained the services of Land Design Solutions in association with SYTDesign Consultants to evaluate and prepare a stabilization plan for the eroding slope. Project Manager Peter Biegel (Land Design Solutions) has worked in the Southern Maine area as a project manager and landscape architect since 1996 and has been working with Senior Civil Engineer Peter Tubbs P.E. (SYTDesign Consultants) for the past 14 years. Peter Tubbs has over 50 years of civil engineering experience including many slope stabilization projects. The contractor the owner has been talking with to date is Scott Dugas Trucking and Excavating from Yarmouth, Maine who has extensive experience with riprap slopes and stabilization projects such as this.

## **9. Construction Management Plan:**

The owner has been discussing the project with Scott Dugas Trucking & Excavating, who did the slope stabilization on a property a couple parcels over from this one. The owner has spoken with the project's northern abutter (Paul Vachon) and received permission to utilize his driveway and property to access the shoreline for the project's construction purposes. The Contractor estimates he will need approximately 200 cubic yards of stone riprap to construct the stone revetment per the proposed design. The Contractor will prepare the slope by removing loose material and grubbing, and remove them from the site. The exposed ground will be compacted and fabric placed over the surface upon which riprap will be placed by an excavator. The stone used for the riprap shall be angular and of various sizes so that it will "lock" together and fill in the voids. The stone shall be uniform in color so that visually it blends in with the surroundings as well as can be expected. Two existing drainage pipes will be extended and a riprap apron constructed so water running out of the pipes and down the slope will not erode the embankment.

The Contractor intends to utilize a track backhoe and hand labor to install the riprap along the bottom of the slope and the plantings along the top of the slope. No work will be performed in the water. However, approximately 330 s.f. of the inter-tidal area (HAT elevation 7.4 down to Normal High Water) will be disturbed. We anticipate the project taking approximately four weeks to complete.

## **10. Erosion Control Plan:**

The Contractor will be installing geotextile fabric and erosion control blanket over the re-graded embankment, and utilizing seeding and mulching over other areas of incidental disturbance to minimize erosion.

- a. Erosion and sedimentation control during construction will consist of a stabilized construction entrance and the timing of construction activities so that the lower area of the slope is only under construction during the low tide cycle and is permanently stabilized by the end of that cycle each day.
- b. The top of the slope is proposed to be re-vegetated. Erosion control blanket is specified which can be placed as the work proceeds.
- c. The construction entrance shall consist of crushed stone entrance to prevent sediment tracking off-site. The contractor shall be responsible for minimizing sediment tracking onto Sullivan Street and street sweeping as required.
- d. General erosion control practices for the proposed project:
  - Erosion control practices shall conform to all local (city of Portland), State (nrpa) and Federal (acoe) erosion control requirements.
  - Contractor shall not work any equipment within the water.
  - Contractor shall limit demolition removal, re-grading and installation of toe stones and infill rock to low tide cycle.
  - Contractor shall monitor the site for erosion on a daily basis and after rain events.
  - Contractor shall correct any erosion problems immediately.

**11. Assessor Parcel Information:**

Included as part of this section.

This page contains a detailed description of the Parcel ID you selected. Press the **New Search** button at the bottom of the screen to submit a new query.

**Current Owner Information:**

**CBL** 432A A006001  
**Land Use Type** SINGLE FAMILY  
Verify legal use with  
Inspections Division  
**Property Location** 60 SULLIVAN ST  
**Owner Information** WOODHEAD JOHN M  
1276 N WAYNE ST # 707  
ARLINGTON VA 22201  
**Book and Page** 13549/285  
**Legal Description** 432A-A-6  
SULLIVAN ST 60  
5317 SF  
**Acres** 0.1221

**Current Assessed Valuation:**

<b>TAX ACCT NO.</b>	44064	<b>OWNER OF RECORD AS OF APRIL 2013</b>
<b>LAND VALUE</b>	\$257,800.00	WOODHEAD JOHN M
<b>BUILDING VALUE</b>	\$127,700.00	1276 N WAYNE ST # 707
<b>NET TAXABLE - REAL ESTATE</b>	\$385,500.00	ARLINGTON VA 22201
<b>TAX AMOUNT</b>	\$7,482.56	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or [e-mailed](#).

**Building Information:**

**Building 1**

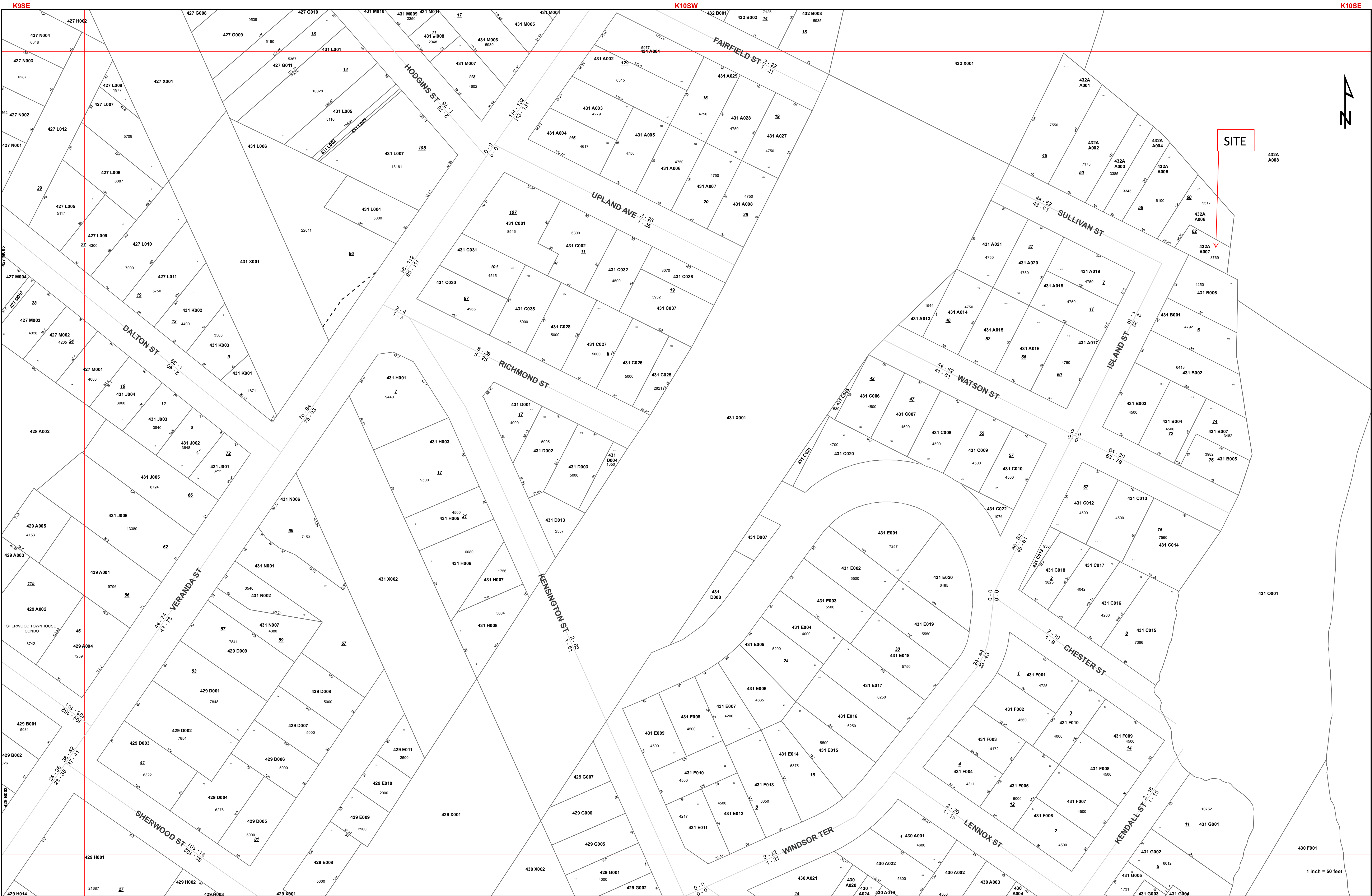
**Year Built** 1939  
**Style/Structure Type** OLD STYLE  
**# Stories** 1.5  
**# Units** 1  
**Bedrooms** 2  
**Full Baths** 2  
**Total Rooms** 6  
**Attic** NONE  
**Basement** FULL  
**Square Feet** 1293

[View Sketch](#)      [View Map](#)      [View Picture](#)



**12: Abutter List & Tax Map:**

<u>Property (Tax Map &amp; Lot #)</u>	<u>Street Address</u>	<u>Owner / Address</u>
J10NW 432A A004001	56 Sullivan Street	Louise G. & Paul A. Vachon 56 Sullivan Street Portland, ME 04103
J10NW 432A A007001	62 Sullivan Street	Carl D. & Heather L. Vickerson 62 Sullivan Street Portland, ME 04103
J10NW 431 A019001	7 Island Street	Richard C. & Sheri Moulton 7 Island Street Portland, ME 04103
J10NW 431 B001	6 Island Street	Alan E. & Geraldine G. Wolf (Trustees) P.O. Box 1292 Portland, ME 04104



SITE

1 inch = 50 feet

**13. Project Plans:**

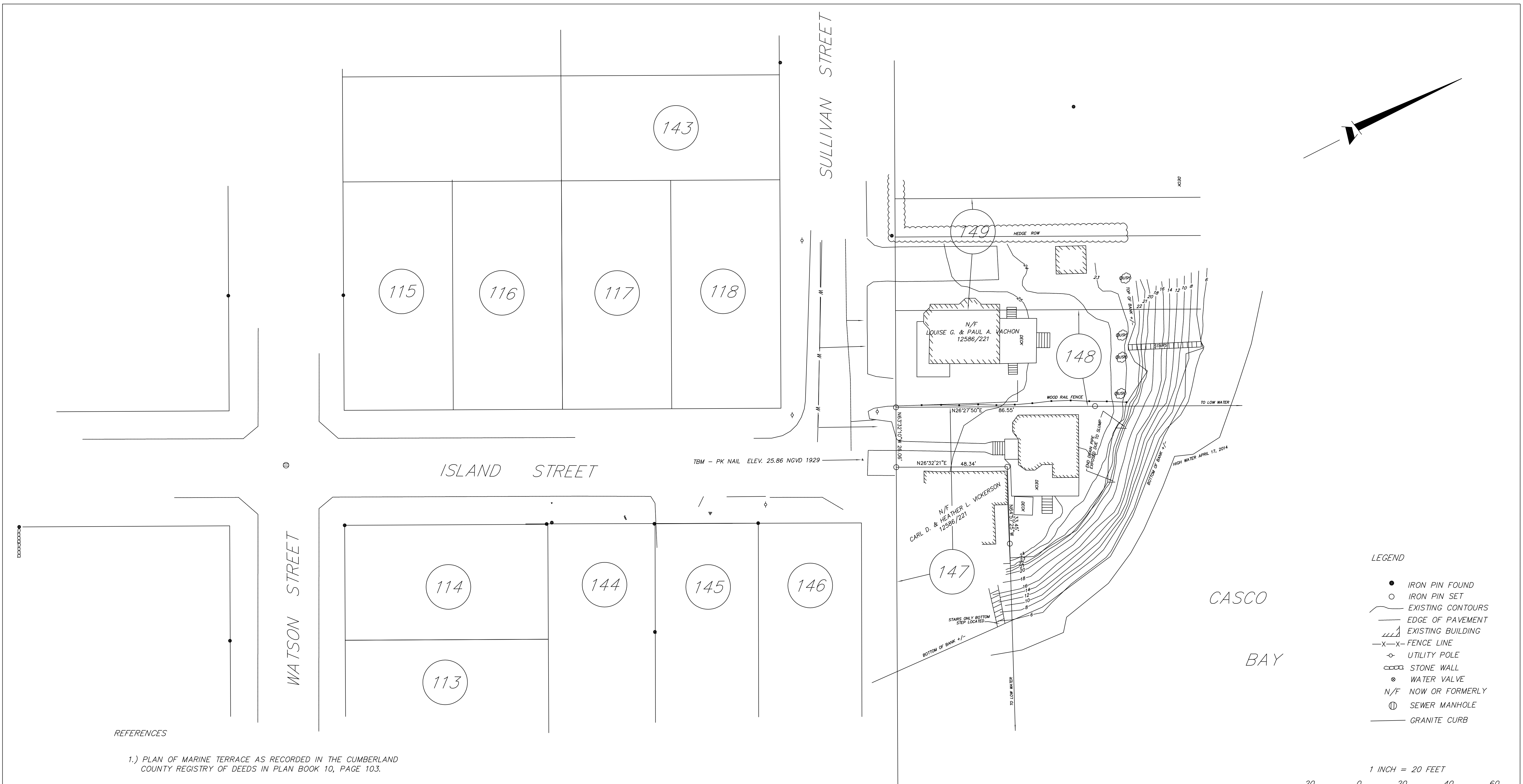
Survey of Existing Conditions

C-101 Site Plan & Details

C-102 Stabilization Sections

C-103 Planting Plan





REFERENCES

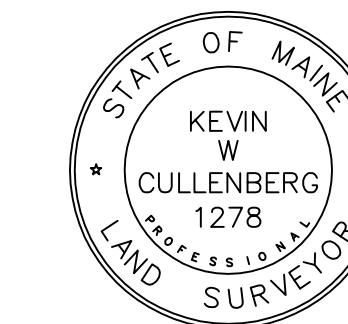
- 1.) PLAN OF MARINE TERRACE AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 10, PAGE 103.
- 2.) PLAN OF STANDARD BOUNDARY SURVEY MADE FOR MAURINE C. WILLIAMSON DATED MARCH 21, 1996 BY TITCOMB ASSOCIATES.

NOTES

- 1.) BEARINGS ARE REFERENCED TO GRID NORTH. SEE REFERENCE 2.
- 2.) ELEVATIONS ARE NAVD29 (COMPUTED USING GEOID03)

ALWAYS CALL DIG SAFE BEFORE ANY CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES

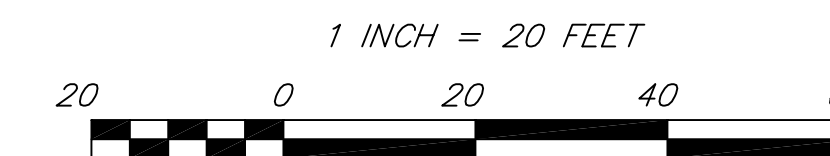
OWNER OF RECORD  
JOHN M. WOODHEAD  
13549/285



KEVIN W. CULLENBERG PLS 1278

LEGEND

- IRON PIN FOUND
- IRON PIN SET
- EXISTING CONTOURS
- EDGE OF PAVEMENT
- ▭ EXISTING BUILDING
- X-X- FENCE LINE
- UTILITY POLE
- ▭ STONE WALL
- WATER VALVE
- N/F NOW OR FORMERLY
- ⊕ SEWER MANHOLE
- GRANITE CURB



EXISTING CONDITIONS PLAN

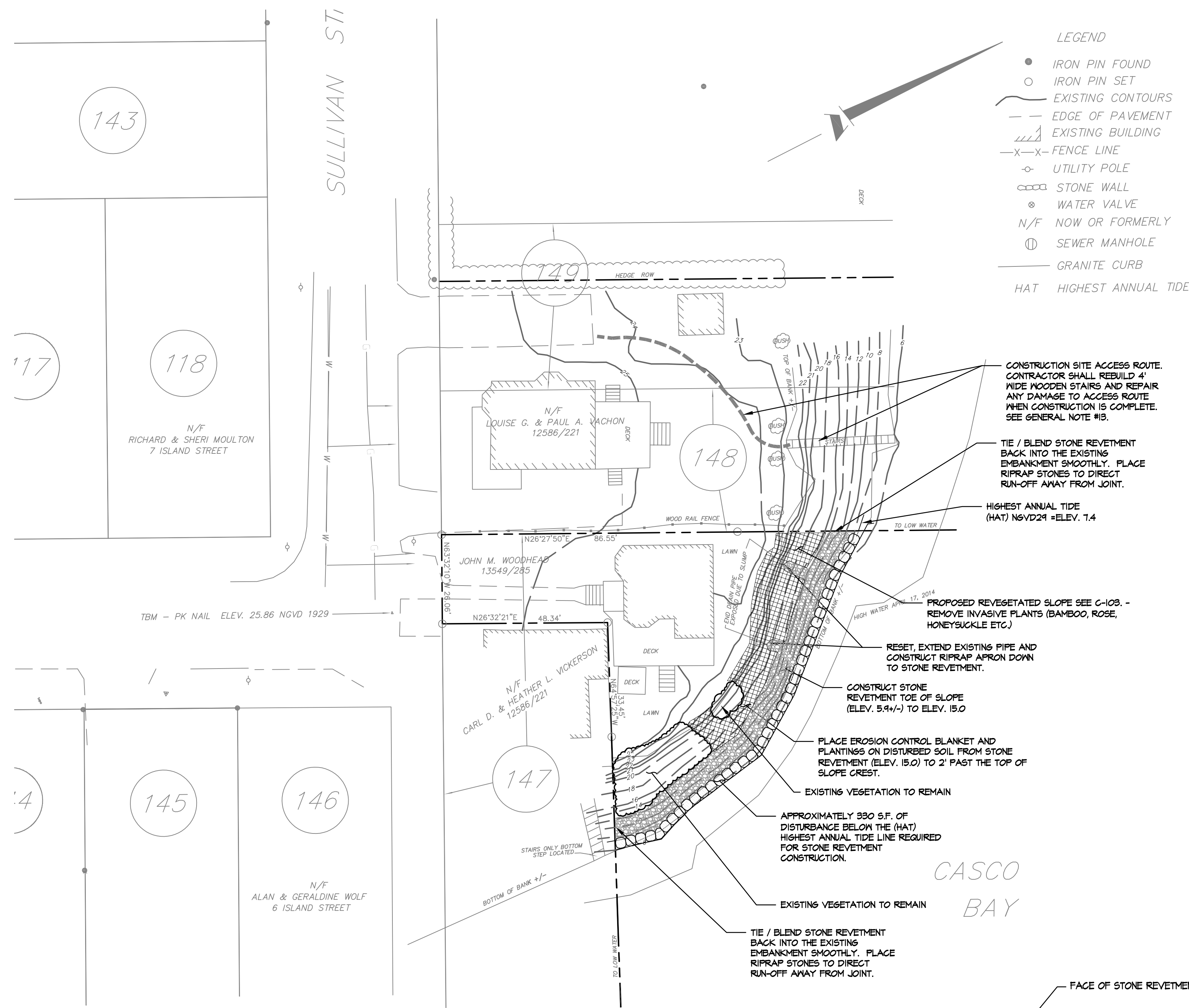
SULLIVAN STREET PORTLAND, MAINE  
MADE FOR

JOHN WOODHEAD

APRIL 24, 2014

BY

CULLENBERG LAND SURVEYING  
892 OLD DANVILLE ROAD  
AUBURN, MAINE 04210  
(207) 777-1150



- LEGEND**
- IRON PIN FOUND
  - IRON PIN SET
  - EXISTING CONTOURS
  - - - EDGE OF PAVEMENT
  - - - EXISTING BUILDING
  - X-X- FENCE LINE
  - UTILITY POLE
  - STONE WALL
  - ⊗ WATER VALVE
  - N/F NOW OR FORMERLY
  - ⊕ SEWER MANHOLE
  - GRANITE CURB
  - HAT HIGHEST ANNUAL TIDE

CONSTRUCTION SITE ACCESS ROUTE. CONTRACTOR SHALL REBUILD 4' WIDE WOODEN STAIRS AND REPAIR ANY DAMAGE TO ACCESS ROUTE WHEN CONSTRUCTION IS COMPLETE. SEE GENERAL NOTE #13.

TIE / BLEND STONE REVEMENT BACK INTO THE EXISTING EMBANKMENT SMOOTHLY. PLACE RIPRAP STONES TO DIRECT RUN-OFF AWAY FROM JOINT.

HIGHEST ANNUAL TIDE (HAT) NSVD21 ELEV. 14

PROPOSED REVEGETATED SLOPE SEE C-103. - REMOVE INVASIVE PLANTS (BAMBOO, ROSE, HONEYSUCKLE ETC.)

RESET, EXTEND EXISTING PIPE AND CONSTRUCT RIPRAP APRON DOWN TO STONE REVEMENT.

CONSTRUCT STONE REVEMENT TOE OF SLOPE (ELEV. 5.9 +/-) TO ELEV. 15.0

PLACE EROSION CONTROL BLANKET AND PLANTINGS ON DISTURBED SOIL FROM STONE REVEMENT (ELEV. 15.0) TO 2' PAST THE TOP OF SLOPE CREST.

EXISTING VEGETATION TO REMAIN

APPROXIMATELY 930 S.F. OF DISTURBANCE BELOW THE (HAT) HIGHEST ANNUAL TIDE LINE REQUIRED FOR STONE REVEMENT CONSTRUCTION.

EXISTING VEGETATION TO REMAIN

TIE / BLEND STONE REVEMENT BACK INTO THE EXISTING EMBANKMENT SMOOTHLY. PLACE RIPRAP STONES TO DIRECT RUN-OFF AWAY FROM JOINT.

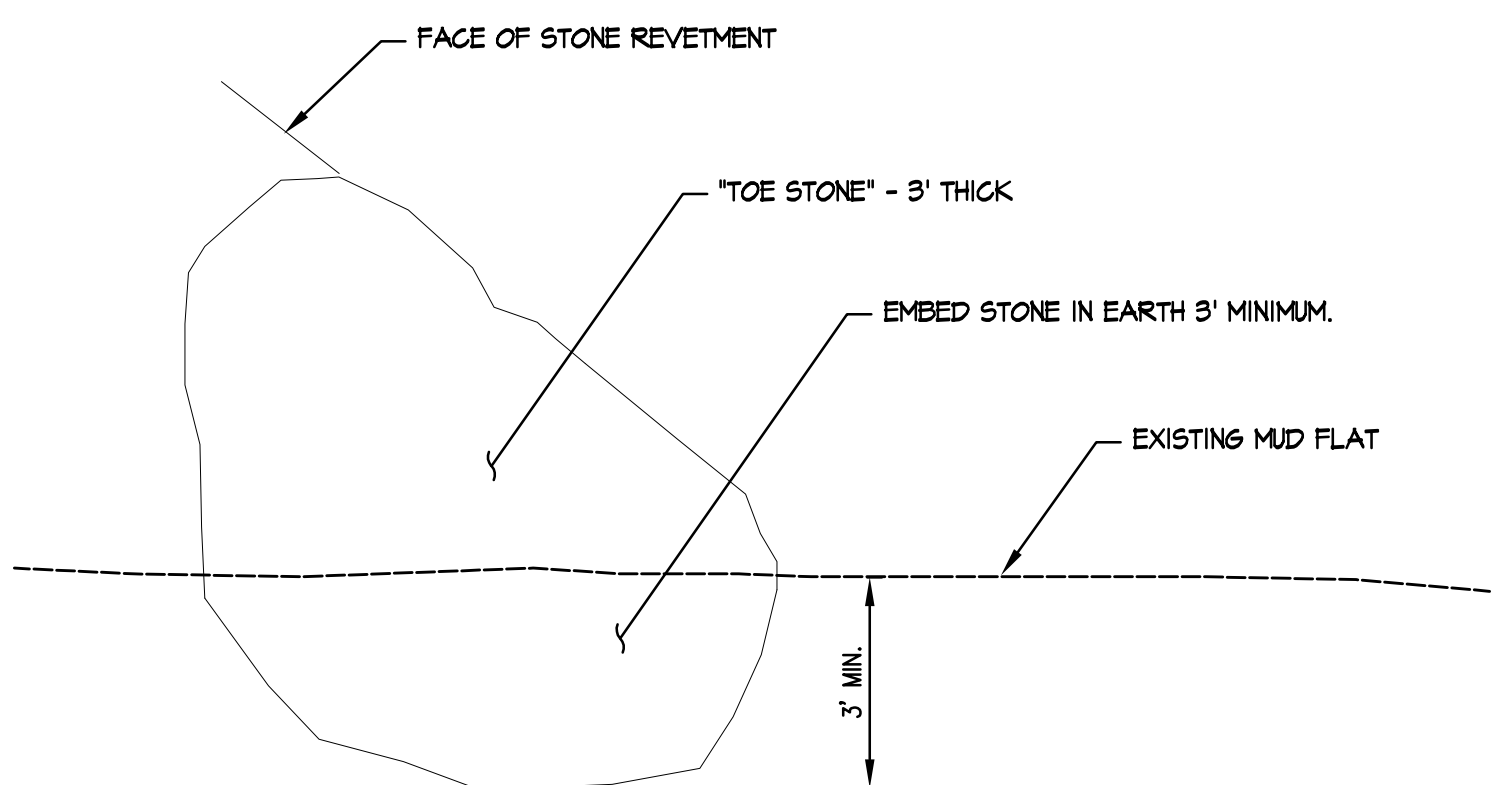
- GENERAL PROJECT NOTES:**
- BOUNDARY, TOPOGRAPHIC AND EXISTING CONDITIONS INFORMATION FOR THIS PLAN WAS PROVIDED BY CULLENBERG LAND SURVEYING OF AUBURN, MAINE, APRIL 2014. ELEVATIONS ARE BASED ON NSVD21.
  - OWNER OF RECORD IS JOHN M. WOODHEAD, 1276 N WAYNE STREET #107, ARLINGTON, VA 22201.
  - SLOPE STABILIZATION DESIGNED BY SYTDESIGN CONSULTANTS OF CUMBERLAND MAINE.
  - PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT, BOTH ON-SITE AND OFF-SITE, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND BE PROVIDED WITH A DIGSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND CLEARLY MARKED.
  - CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL DRAWINGS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
  - IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL PERMITS AND APPROVALS AND CONDUCT THE WORK IN ACCORDANCE WITH THESE PERMITS AND APPROVALS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL ADDITIONAL PERMITS, STREET OPENINGS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK.
  - ANY DISCREPANCIES BETWEEN DRAWINGS AND SITE CONDITIONS AS WELL AS MANUFACTURER'S RECOMMENDATIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
  - WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPINGED UPON BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ADJUSTED, ABANDONED AND/OR CAPPED OR DEMOLISHED, AS REQUIRED.
  - CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS AND TECHNIQUES EMPLOYED TO PERFORM WORK SHOWN ON THESE PLANS.
  - THE CONTRACTOR SHALL LIMIT THE CONSTRUCTION ACTIVITY TO THE LIMITS SHOWN ON THE PLANS, UNLESS OTHERWISE AUTHORIZED BY THE OWNERS REPRESENTATIVE.
  - THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL PERMITS AND REGULATIONS GOVERNING THE CONSTRUCTION ACTIVITIES.
  - THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES PRIOR TO STARTING CONSTRUCTION.
  - A NRPA PERMIT BY RULE WILL BE COMPLETED SUBMITTED BY LAND DESIGN SOLUTIONS FOR THE ACCESS ROUTE AND STAIR REPLACEMENT ON THE ADJACENT LOT.

- SITE PREPARATION NOTES:**
- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, AND REPAIR EXISTING UTILITIES AS REQUIRED TO COMPLETE THE WORK.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.
  - ANY EXISTING PROPERTY DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO MATCH ITS ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO CHARGE TO THE OWNER OR ENGINEER.
  - THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING LANDSCAPE, STONE DEBRIS, SOIL ON THE SITE WITHIN THE AREAS DESIGNATED FOR REMOVAL UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.
  - ALL MATERIALS DESIGNATED FOR REMOVAL/DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS, ORDINANCES AND CODES.
  - THE CONTRACTOR SHALL UTILIZE CONSTRUCTION MATS IN THE INTERTIDAL AREAS WHERE EQUIPMENT MUST MUST TRAVERSE OVER EXISTING GRASS.

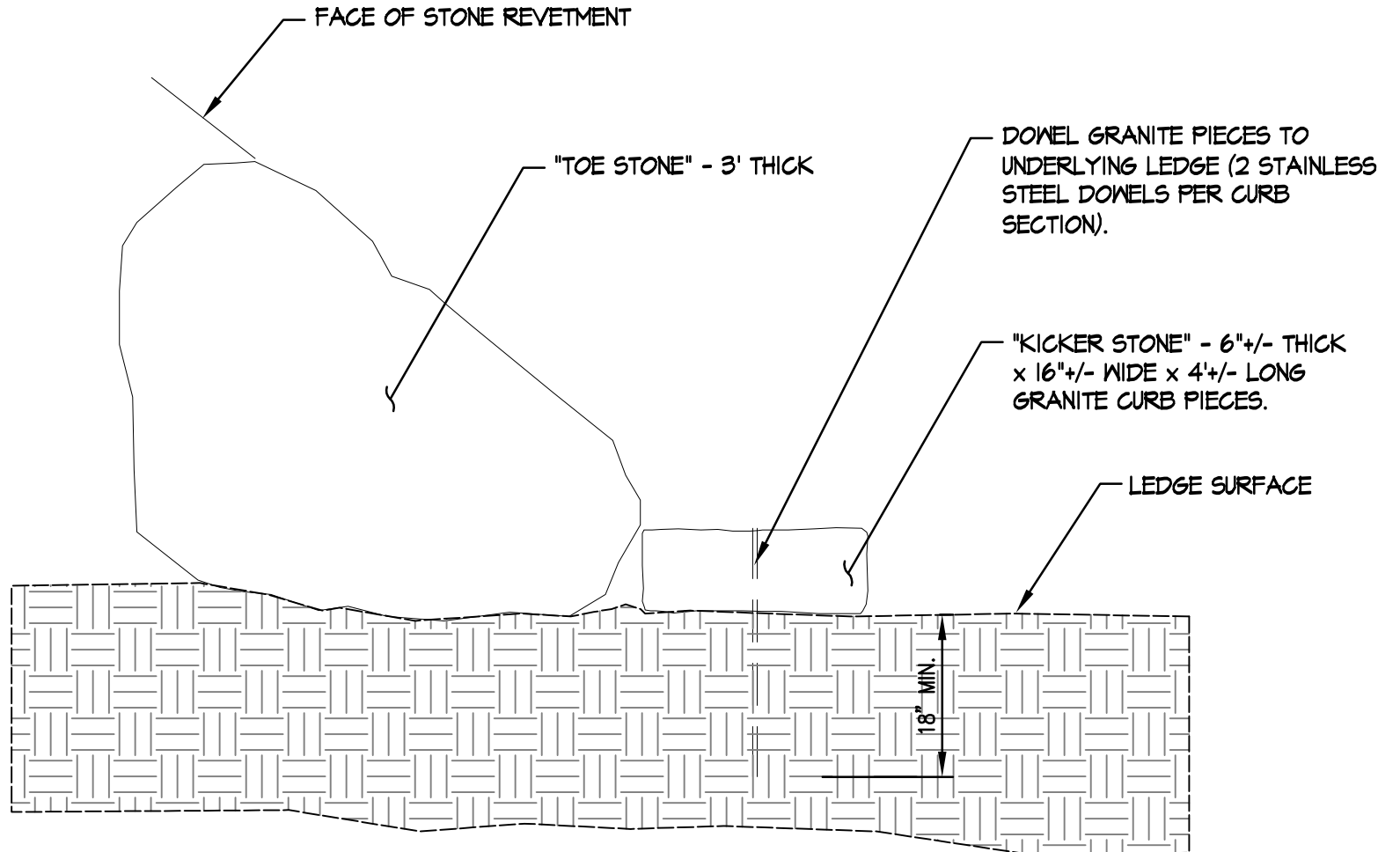
- EROSION AND SEDIMENTATION CONTROL NOTES:**
- EROSION AND SEDIMENTATION CONTROL DURING CONSTRUCTION WILL CONSIST OF A STABILIZED CONSTRUCTION ENTRANCE, AND THE TIMING OF CONSTRUCTION ACTIVITIES SO THAT THE LOWER AREA OF THE SLOPE IS ONLY UNDER CONSTRUCTION DURING THE LOW TIDE CYCLE AND IS PERMANENTLY STABILIZED BY THE END OF THAT CYCLE EACH DAY.
  - THE TOP OF THE SLOPE IS PROPOSED TO BE RE-VEGETATED. EROSION CONTROL BLANKET IS SPECIFIED WHICH CAN BE PLACED AS THE WORK PROCEEDS.
  - THE CONSTRUCTION ENTRANCE SHALL CONSIST OF CRUSHED STONE ENTRANCE TO PREVENT SEDIMENT TRACKING OFF-SITE.
  - GENERAL EROSION CONTROL PRACTICES:
    - CONFORM TO ALL LOCAL (CITY OF PORTLAND), STATE (NRPA) AND FEDERAL (ACOE) EROSION CONTROL REQUIREMENTS
    - DO NOT WORK ANY EQUIPMENT WITHIN THE WATER.
    - LIMIT DEMOLITION REMOVAL, RE-GRADING AND INSTALLATION OF TOE STONES AND INFILL ROCK TO LOW TIDE CYCLE.
    - MONITOR THE SITE FOR EROSION ON A DAILY BASIS AND AFTER RAIN EVENTS.
    - CORRECT ANY EROSION PROBLEMS IMMEDIATELY.

- LAYOUT & MATERIAL NOTES:**
- ALL DIMENSIONS ARE PERPENDICULAR UNLESS OTHERWISE NOTED.
  - DO NOT SCALE DRAWINGS, ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL STAKE THE LAYOUT FOR APPROVAL BY THE OWNER PRIOR TO CONSTRUCTION.

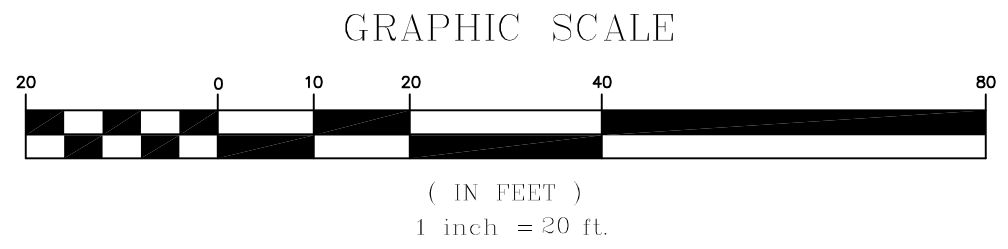
- GRADING & DRAINAGE NOTES:**
- CONTRACTOR TO ADJUST EXISTING AND PROPOSED UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN-OUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ETC) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
  - WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
  - ALL UNSUITABLE AND UNUSED MATERIALS SHALL BE REMOVED AND DISPOSED OF OFF SITE BY THE CONTRACTOR IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.
  - IF TOE OF SLOPE EMBEDMENT SHOWN IN DETAIL #2 IS NOT POSSIBLE DUE TO LEDGE ELEVATION THEN EXCAVATE TO LEDGE AND PROVIDE GRANITE KICKER STONE DOVELEDED TO LEDGE.



1 TOE OF SLOPE STONE IN EARTH  
SCALE: N.T.S.

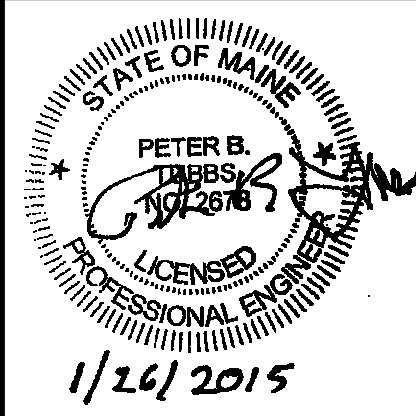


2 TOE OF SLOPE STONE IN LEDGE  
SCALE: N.T.S.



Drawn: Name: C:\Users\BPT\OneDrive\Design Solutions\Projects\14-01-Sullivan Street Embankment Stabilization\Drawings\14-01-Sullivan Street Embankment Stabilization.dwg (14-01-Sullivan Street Embankment Stabilization.dwg) Plot Date: / Date: Jan. 15, 2015 3:08 PM

REV.	DATE	STATUS	BY	CHKD.	APPD.	REV.	DATE	STATUS	BY	CHKD.	APPD.
B	1/26/15	REVISED PER DEP COMMENTS AND RESUBMITTED	PBB	PBT	PBT						
A	8/5/14	ISSUED FOR MAINE DEP REVIEW	PBB	PBT	PBT						



**LAND DESIGN SOLUTIONS**  
 LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE  
 P.O. Box 916, 160 Longhorns Road, Cumberland, ME 04001 tel:(207) 494-1717  
 CLIENT: **CULLENBERG PROJECT MANAGEMENT**  
 75 LEDGEWOOD DRIVE, FALMOUTH, MAINE 04108

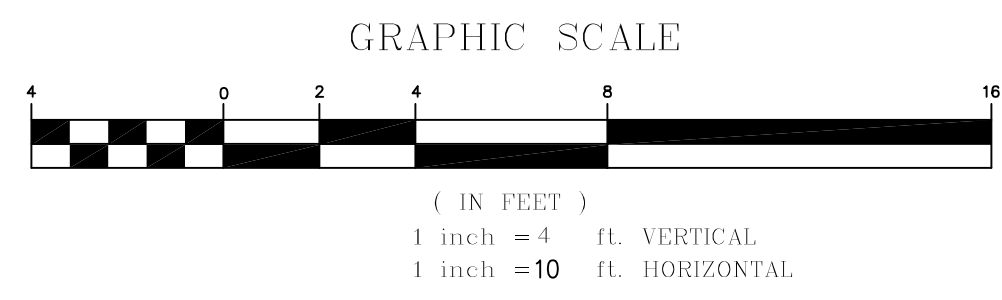
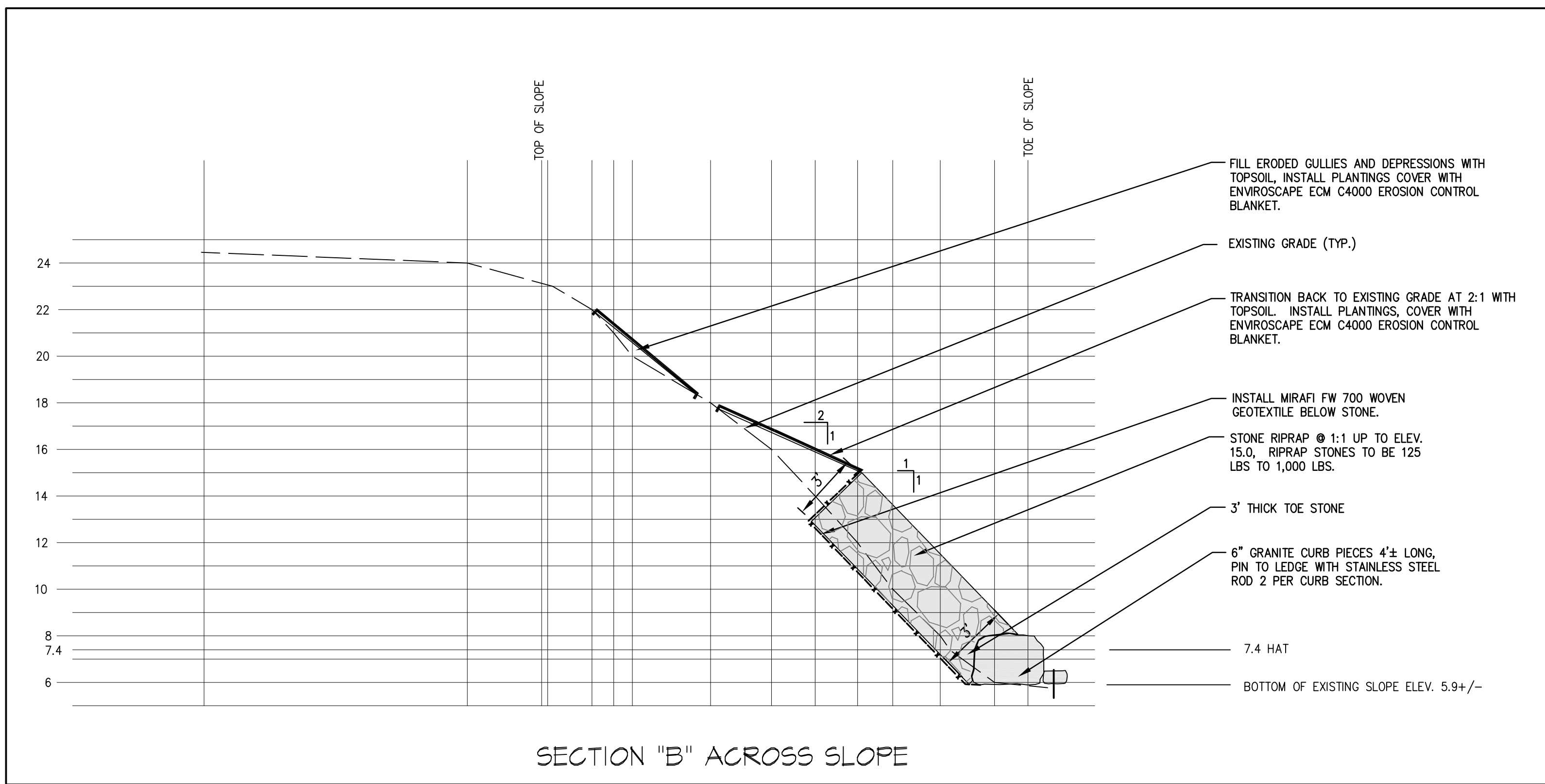
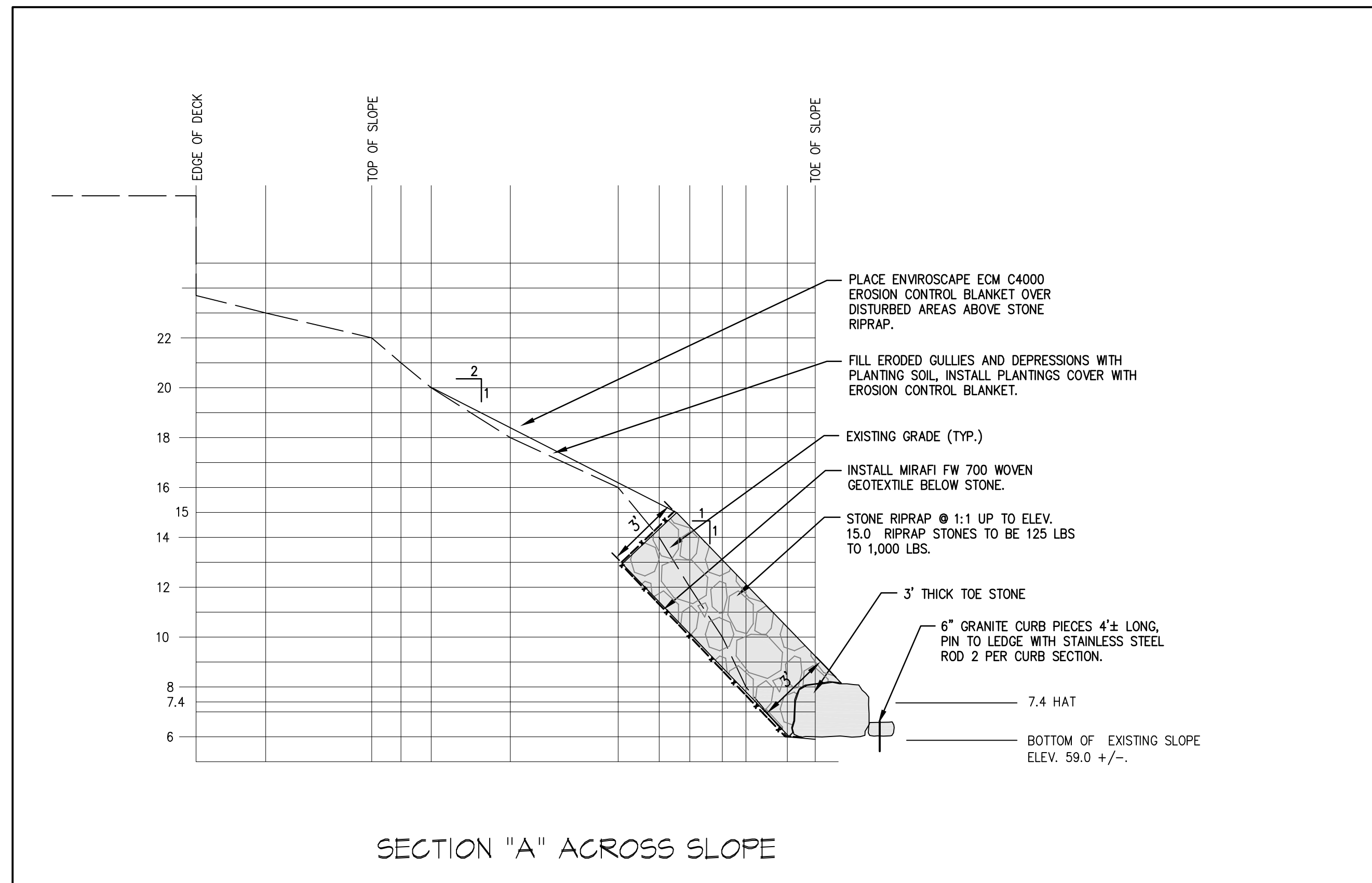
DESIGN: PBT
DRAWN: PBB
CHKD: PBT
DATE: MAY 2014
SCALE: 1"=20'

**SLOPE STABILIZATION**  
 60 SULLIVAN STREET, PORTLAND, MAINE

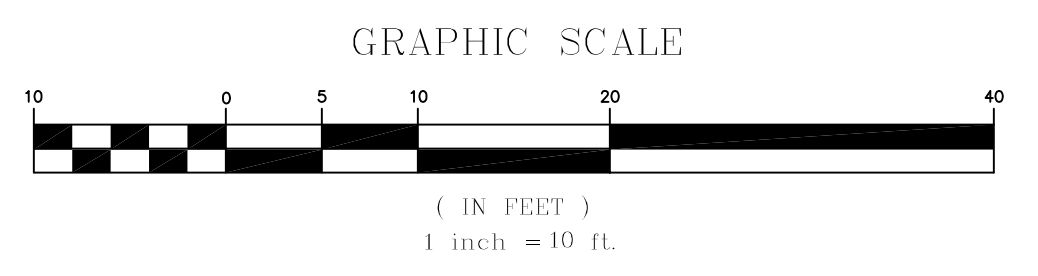
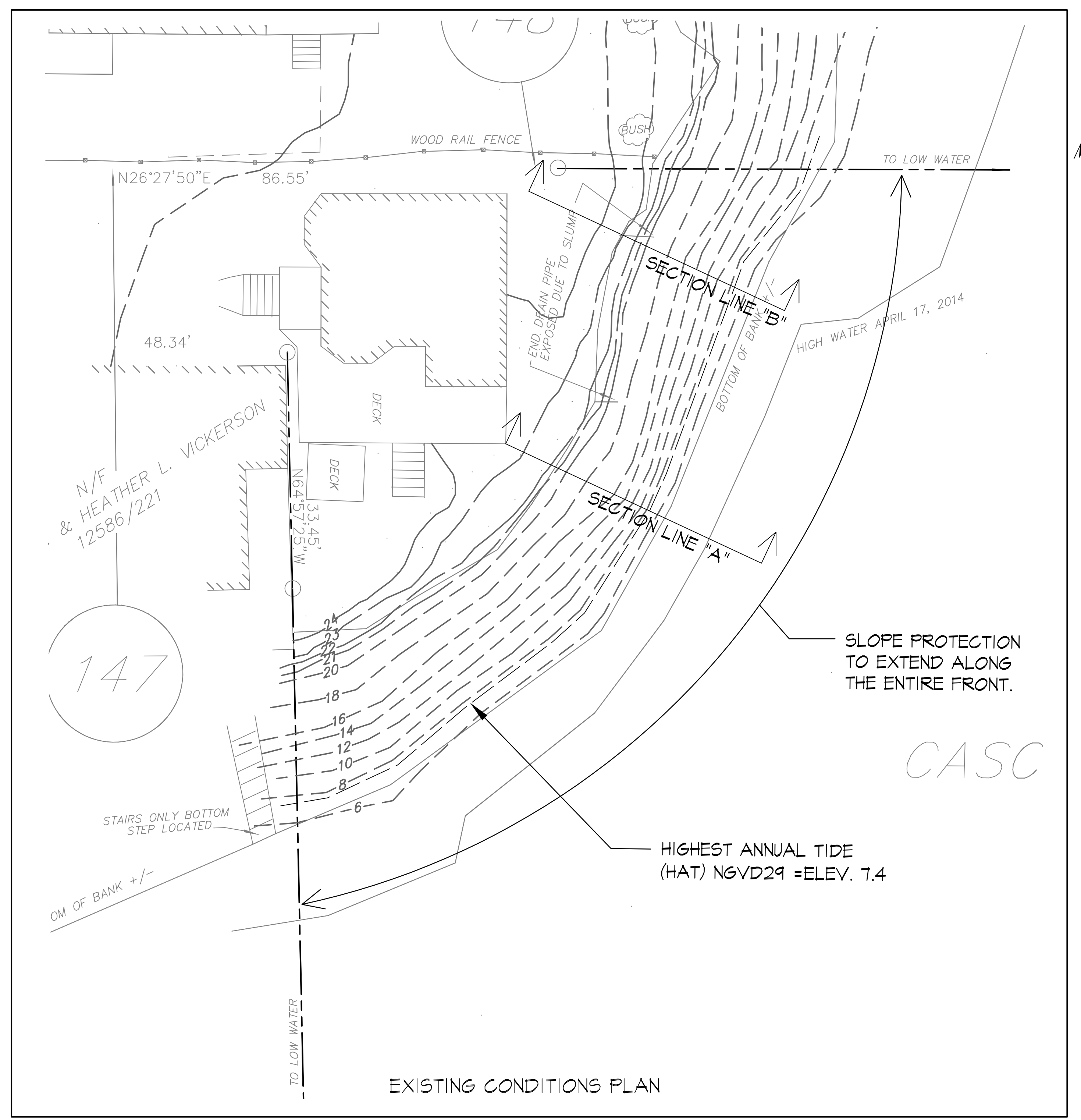
**SITE PLAN & DETAILS**

PROJ. NO.		REV.	
DWG. NO.			

**C-101**

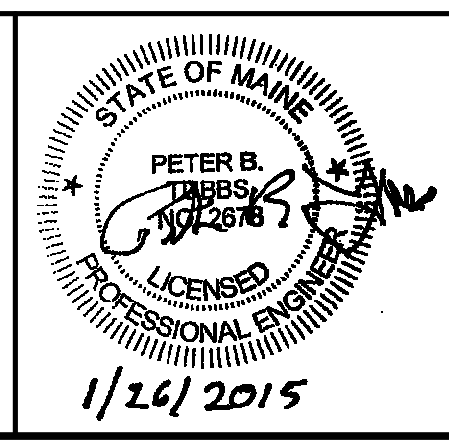


RIPRAP NOTES:  
1. THE CONTRACTOR SHALL PROVIDE RIPRAP STONE IN A GRAYISH COLOR. STONE SUPPLY SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PURCHASING OR BEING HAULED TO THE SITE.



Drawn: Name: C:\Users\BETTER\Land Design Solutions\Land Design Solutions\Drawings\147\_Slope Stabilization\Drawings\147\_Slope Stabilization.dwg (Date: 04/15/15) 3:08 PM

REV.	DATE	STATUS	BY	CHKD.	APPD.	REV.	DATE	STATUS	BY	CHKD.	APPD.
B	1/26/15	REVISED PER DEP COMMENTS AND RESUBMITTED FOR REVIEW	PBB	PBT	PBT						
A	8/5/14	ISSUED FOR MAINE DEP REVIEW	PBB	PBT	PBT						

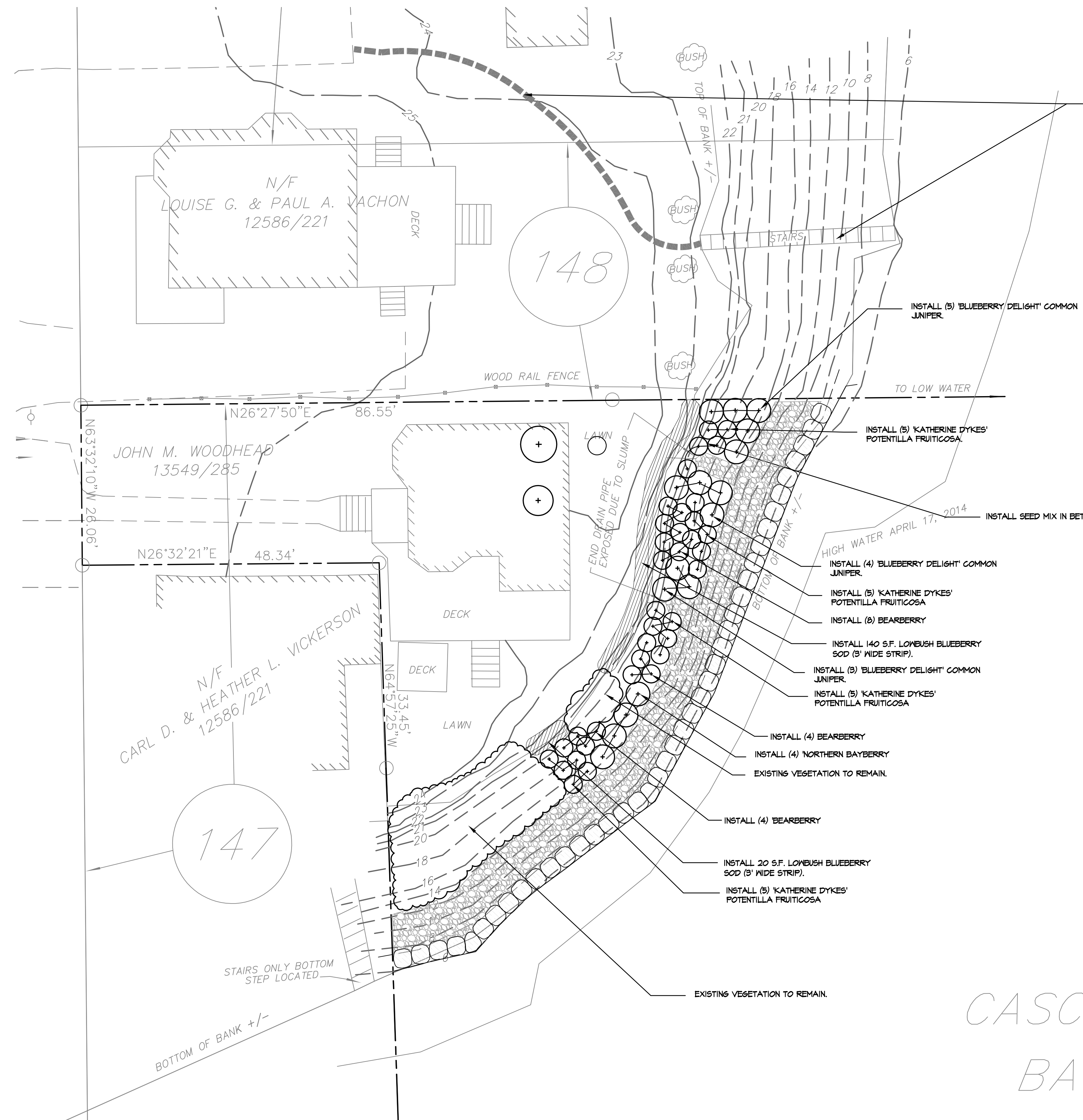
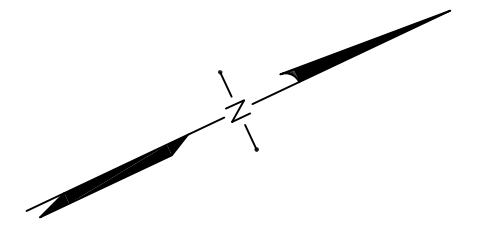


**LAND DESIGN SOLUTIONS**  
LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE  
P.O. Box 316, 160 Longwoods Road, Cumberland, ME 04021 tel:(207) 434-1171  
CLIENT: **CULLENBERG PROJECT MANAGEMENT**  
75 LEDGEWOOD DRIVE, FALMOUTH, MAINE 04108

DESIGN: PBT  
DRAWN: PBB  
CHKD: PBT  
DATE: MAY 2014  
SCALE: AS NOTED

**SLOPE STABILIZATION**  
60 SULLIVAN STREET, PORTLAND, MAINE  
**STABILIZATION SECTIONS**  
PROJ. NO. \_\_\_\_\_  
DWG. NO. \_\_\_\_\_  
REV. B  
C-102





CONSTRUCTION SITE ACCESS ROUTE. CONTRACTOR SHALL REBUILD 4' WIDE WOODEN STAIRS AND REPAIR ANY DAMAGE TO ACCESS ROUTE WHEN CONSTRUCTION IS COMPLETE.

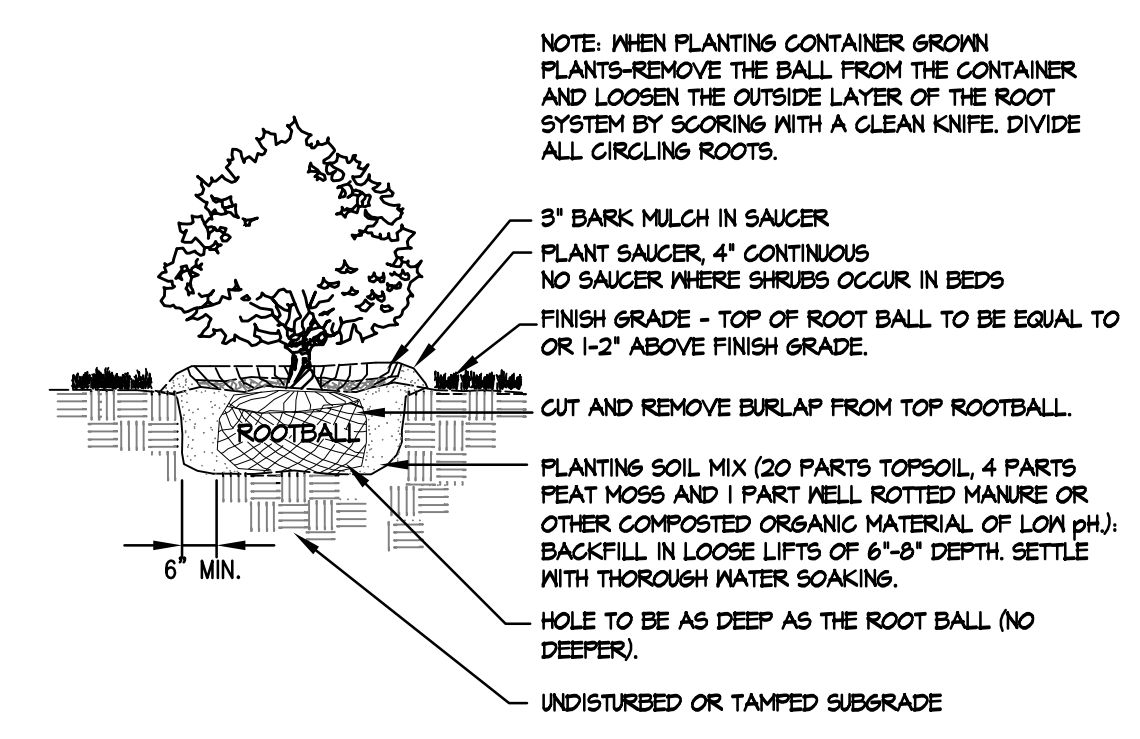
**PLANTING NOTES:**

1. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTINGS SHOWN GRAPHICALLY ON THIS DRAWING. CLARIFY ANY DISCREPANCIES WITH THE LANDSCAPE ARCHITECT PRIOR TO PRICING ANY PLANT MATERIAL.
2. ALL PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD OF NURSERY STOCK".
3. CONTRACTOR SHALL LOAM DISTURBED AREAS AS FOLLOWS:  
 - SLOPE AREA UNDER EROSION CONTROL BLANKET 4" DEPTH OF TOPSOIL  
 - DISTURBED LAWN AREA 6" DEPTH OF TOPSOIL
4. SEED MIX:  
 - LAWN AREA (DISTURBED AREA ABOVE TOP OF SLOPE) - SHALL BE SEEDED WITH SEED TYPE & BY WEIGHT: CREEPING RED FESCUE (MIN. 2 VARIETIES) 55%, KENTUCKY BLUEGRASS (MIN. 2 VARIETIES) 30%, PERENNIAL RYEGRASS 15%. SEEDING RATE PER 1000 SQ.FT. AS PER DISTRIBUTOR, BUT NOT LESS THAN 3 LBS. MIN.  
 - SLOPE AREA - SHALL BE SEEDED WITH A FINE FESCUE MIX CONSISTING THE FOLLOWING SEED TYPE BY WEIGHT, OF BLUE FESCUE 35%, HARD FESCUE 30% BY WEIGHT, CREEPING RED FESCUE, CHEENINGS FESCUE 15%. SEED AT A RATE OF 6 LBS. PER 1,000 SF.
5. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF FINAL ACCEPTANCE.

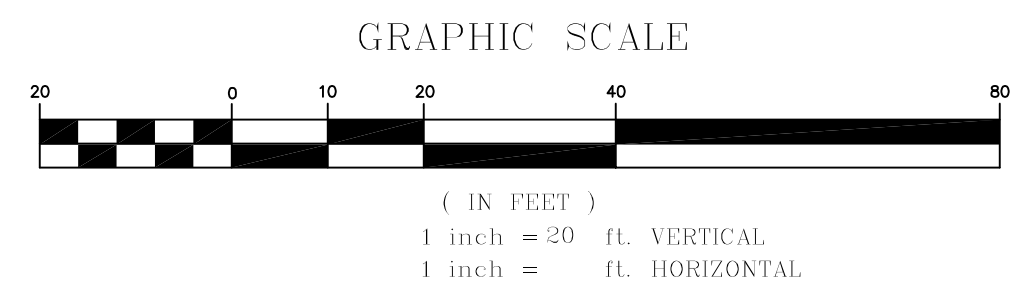
**PLANT LIST:**

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENTS
<b>DECIDUOUS TREES</b>					
	JUNIPERUS COMMUNIS 'BLUEBERRY DELIGHT'	BLUEBERRY DELIGHT COMMON JUNIPER	12	2' SPD.	FULL # BUSHY
	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	4	24" HT.	FULL # BUSHY
	POTENTILLA FRUITICOSA 'KATHERINE DYKES'	KATHERINE DYKES POTENTILLA	20	18" HT.	FULL # BUSHY
	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	16	3 GALLON	FULL # BUSHY
	VACCINIUM ANSUSTIFOLIUM	LOWBUSH BLUEBERRY	160 SF.	-	-

CASCO BAY

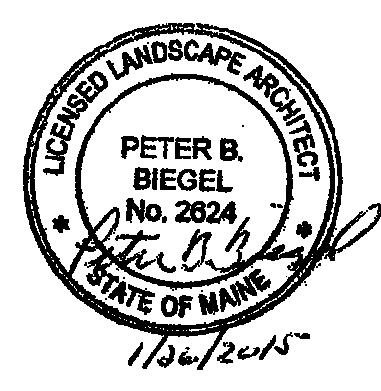


1 SHRUB PLANTING DETAIL  
SCALE: N.T.S.



Drawn: Name: C:\Users\PBB\Desktop\Land Design Solutions\Land Design Solutions\Drawings\Site Plans\Site Plans\15\_1318.Dwg

REV.	DATE	STATUS	BY	CHKD.	APPD.	REV.	DATE	STATUS	BY	CHKD.	APPD.
A	1/26/15	ISSUED FOR MAINE DEP REVIEW	PBB	PBB	PBB						



**LAND DESIGN SOLUTIONS**  
 LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE  
 P.O. Box 316, 160 Longhorns Road, Cumberland, ME 04001 tel:(207) 434-1111  
 CLIENT: **CULLENBERG PROJECT MANAGEMENT**  
 75 LEDGEWOOD DRIVE, FALMOUTH, MAINE 04108

DESIGN: PBB  
 DRAWN: PBB  
 CHKD: PBB  
 DATE: MAY 2014  
 SCALE: 1"=20'

**SLOPE STABILIZATION**  
 60 SULLIVAN STREET, PORTLAND, MAINE  
**PLANTING PLAN**  
 PROJ. NO. \_\_\_\_\_  
 DWG. NO. **C-103**  
 REV. **A**