



**Maine General Permit  
Application  
To the  
Army Corps of Engineers**

**For the  
Baxter/Bedford CSO Separation Project  
Outfall Culverts**

Prepared for

City of Portland  
55 Portland Street  
Portland, Maine 04101

Prepared by

Sebago Technics, Inc.  
75 John Roberts Road, Suite 1A  
South Portland, Maine 04106

December 2017

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December 12, 2017  
17112

Mr. Rodney Howe  
Maine Project Office  
442 Civic Center Drive, Suite 350  
Augusta, ME 04330

**Maine General Permit Application**  
**Baxter/Bedford CSO Separation Project**  
**Outfall Culverts, Portland, Maine**

Dear Mr. Howe:

On behalf of the City of Portland, please find the enclosed application package for natural resource impacts associated with the installation of storm drain outfalls which will discharge into Back Cove; there are two proposed outfall locations. We are submitting for an Army Corps of Engineers (ACOE) Category II General Permit authorization for the construction of these storm drain outfalls with rip rap outlets. The first location is just north of the intersection of Preble Street and Baxter Boulevard and is referred to as the Baxter Outfall. It will comprise twin 42" culverts that will discharge to an enlargement of the channel that services the existing CSO outfall. The second location will be east of the intersection of Belmeade Road and Baxter Boulevard; this outfall will be a 30" culvert with rip rap outlet; this outlet is referred to as the Belmeade Outfall.

The sewer separation work will include the installation of approximately 6,100 linear feet of new storm drains servicing approximately 69 acres of residential and commercial development in the vicinity of Bedford Street, Baxter Boulevard and Belmeade Road. This renovation of infrastructure will relieve these service areas by redirecting storm water out of the combined sewer system and discharging it into Back Cove. The other project improvements include replacing sanitary sewer and water lines.

Back Cove is a tidal estuary basin that discharges into the Atlantic Ocean. It is identified by the Maine Department of Environmental Protection as a Tidal Wading Waterfowl Habitat and a Shorebird Feeding Area Habitat, but is not identified as a shorebird roosting area. The storm drain installation will be constructed within the already disturbed slope associated with Baxter Boulevard. Based on the anticipated construction schedule, the work within the waterbody will occur between December 2017 and May 2018. Along with this submission, the project will also require a Natural Resource Protection Act (NRPA) Permit by Rule for "Outfall pipes" and "Activities located in, on or over high or moderate value inland waterfowl and wading bird habitat, or shorebird nesting, feeding, and staging areas," which will be submitted concurrent with this application.

This project encompasses improvements to an area that is already developed, therefore no trees larger than 4" caliper shall be removed from the site. It is understood that parts of Baxter Boulevard and Back Cove are recognized by the state of Maine and the U.S. as historic places. The City of Portland will review the project plans in conjunction with the local Historic Preservation Commission to ensure that the design preserves the historic features.

Enclosed is one (1) copy of the Submittal Package including copies of the notification letters to the Historical and Tribal agencies. We will transmit a complete PDF copy of the submission so that it can be transmitted to other federal agencies with which ACOE coordinates. Please feel free to contact us if additional information is needed. Thank you for your time and consideration relative to this project.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read 'R. McSorley', with a long horizontal flourish extending to the right.

Robert A. McSorley, P.E.,  
Senior Project Manager

RAM/llg  
Enc.

cc: Justin Pellerin, P.E., City of Portland



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**Exhibit 1**  
Application & Checklist



17. DIRECTIONS TO THE SITE

The project is a sewer separation project that will involve work on Bedford Street, Belmeade Road, and Baxter Boulevard in Portland. From I-295 southbound take exit 6B and continue north on Forest Avenue. Take a right on to Baxter Boulevard and the first outfall is just beyond the Preble Street extension intersection. To get to the second outfall continue on Baxter Boulevard until you reach Belmeade Road.

18. Nature of Activity (Description of project, include all features)

The project involves the installation of two outfalls into Back Cove from Baxter Boulevard. The first outfall will be twin 42" storm drain outfall pipes with a rip rap apron/channel approximately 80' north of intersection of Baxter Boulevard and Preble Street. The second outfall will be a 30" storm drain with a riprap apron/channel that will discharge from the intersection Baxter Boulevard and Belmeade Road.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is for two outfalls for a new separated storm drains constructed to relieve inflow to an adjacent existing combined sewer overflow (CSO) location

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Minor excavation is required to install the storm drain and riprap apron outfall protection.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Baxter Outfall - 317.78 c.y. riprap	Belmeade Outfall - 130.67 c.y. riprap	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres Baxter Outfall - 0.049 ac. (2,145 s.f.) Belmeade Outfall - 0.020 ac (882 s.f.).  
or  
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The Baxter Boulevard discharge has been placed adjacent to the existing CSO discharge to widen and utilize the existing channel to minimize the disturbance area with Back Cove. In addition, some of the fill to be placed is to stabilize the existing channel. The installation will also include approximately 60 sf of temporary disturbance and restoration of the existing riprap shoreland below the HAT. The outfall pipe for Belmeade Road has been raised by one foot to eliminate an approximately 85 feet extension of the outfall into Back Cove; therefore, reducing the area of disturbance and the amount of riprap fill to stabilize the disturbance. The installation will also include approximately 225 sf of temporary disturbance below the HAT and above the riprap placement; this area will be restored after installation of the outfall.

24. Is Any Portion of the Work Already Complete?  Yes  No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See Attached

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-


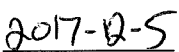
City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Maine DEP	Permit By Rule	N/A		TBD	

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.



  
 SIGNATURE OF APPLICANT                      DATE                      SIGNATURE OF AGENT                      DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



**US Army Corps  
of Engineers**®  
New England District

**REGULATORY DIVISION  
APPLICATION AND PLAN GUIDELINE CHECKLIST**

The following checklist is designed to assist applicants and their consultants when preparing applications and plans and when requesting sampling plans and suitability determinations for dredge projects. This is not a comprehensive list, nor are all items mandatory for all projects. However, the list contains some frequently omitted information often necessary to process a permit application and provides some direction for plan preparation. Applicants are only required to furnish such additional information as deemed essential to make a public interest determination. Please consult with the Corps Regulatory Project Manager assigned to your project to determine which information is required.

**I. APPLICATION INFORMATION:**

- Application Form:** All applicants must submit a Corps application form (ENG FORM 4345) or some state forms are acceptable. Please see the PGP for your state at [www.nae.usace.army.mil](http://www.nae.usace.army.mil) and select “Regulatory/ Permitting,” and then “State Programmatic General Permits.”
- Include the name and address of the applicant. We address any issued permit to this person.
- Historical and Tribal Notification:** All Category 2 applicants shall submit a copy of their application materials to the State Historic Preservation Officer and the appropriate Federally recognized Indian tribes in their state when applicable. See the Corps PGP for your state for addresses. The PGP’s for each of the six New England states are located at [www.nae.usace.army.mil](http://www.nae.usace.army.mil). Please go to “Regulatory/ Permitting,” and then “State Programmatic General Permits.”
- Describe the intended use; public, private, commercial. If it is for multiple uses (multi-family, industrial complex, etc.) indicate whether the entire development is existing or proposed.
- Provide names and complete mailing addresses, including zip code, for adjacent property owners. This information may be obtained from local tax roles/assessors’ offices.
- Provide the street address of the proposed work site. If there is no street address, provide directions to the site using landmarks, types of roads, mileage, etc.
- Provide the longitude and latitude, township, county, and state location of the project site.
- Provide a list of State and local permits or approvals for which you have applied. If none, indicate the basis for determining that no state or local approvals are required. Provide the current zoning classification.
- Provide a list of previous applications applied for and state the outcome of the application; issued, denied, deactivated, and the date. Also reference any nearby activities and/or property owners that may have recently received a Corps permit.

**N/A**  Provide a signed statement from the property owner giving the Corps permission to enter the site.

- Sign and date the application.
- Describe the proposed activity.

**Structures:**

Describe the need and intended use of the structure.

**N/A**  Describe the plans for sewage pump-out facilities, fueling facilities and contingency plans for oil spills.

**N/A**  Describe the type of vessel to use the facility

**N/A**  Describe and give dimensions of adjoining structures.

**N/A**  Provide the width of the waterway and the distance to Federal or other navigation channels.

**Fill Projects:** **Riprap**

State the project’s purpose to include the intended use & the structures proposed to be erected on the fill.

Describe the impact area, i.e. wetlands or open water & give the area’s dimensions in SF and/or acres.

Describe the quantity of dredged material in cubic yards.

Describe the type and composition of the fill material and it’s source.

**N/A**  Describe any temporary construction or access fills possibly required to complete the proposed project.

**N/A** **Dredging Projects:** Information accompanying sampling plan or suitability determination requests may be submitted before the application, and should include the following:

- State the purpose of the proposed dredging.
- Date the area was last dredged
- Volume (CY) and area (SF) for each dredge location
- Character of the dredge area, including the type of existing bottom material, biota and vegetation.
- Existing or nearby test results. Don't perform new testing without Corps input. Bulk sediment analysis, elutriate and bioassay tests may be required. We will provide detailed instructions should a review of the submitted information indicate further testing is required.
- Describe the dredging purpose – new, maintenance or both
- Describe the dredging method (e.g. mechanical or hydraulic) and what equipment will be used.
- Method of handling/transporting
- Information on any recent spills of oil and/or other hazardous materials and on nearby outfalls. Document the information source. A good source is the harbormaster or fire chief.
- For open-water disposal, provide a brief alternatives analysis showing why inland or beneficial reuse sites aren't practicable.
- Describe methods to retain or prevent dredged material from running back into the wetland or waterway.
- Describe the size of the disposal site in area (square feet) and volume (cubic yards) for beach nourishment
- Describe the area to be dredged, i.e. open water, existing channel, wetlands, uplands, etc. and indicate the surface area to be dredged in square feet and the volume of material to be removed in cubic yards.
- Provide information on any wetland, intertidal or submerged aquatic vegetation that may be affected.

Plans (sketches are acceptable for this preapplication request) must accompany the sampling plan or suitability determination request, and must include the following:

- Plan and cross-section views
- Dredge boundaries
- Bathymetry: existing, proposed and historical (include dates and Corps permits) dredge depths
- Location and dimensions or SF of the dredged material disposal area, including the HTL for beach nourishment. A map should be included for upland disposal areas.
- Dewatering methods and areas
- Sampling locations for existing or nearby test results
- Outfall locations
- Proposed detention levees, weirs, and/or other devices for retaining hydraulically placed materials.
- Capacity and the points of runback into the aquatic system.

## II. PLAN INFORMATION:

### General Requirements:

- 8.5x11" plans on white paper, suitable for copying. Larger plans for clarity are ok, but not required.
- N/A**  Ch.91 plans may be cut to 8.5x11" - ensure proper margins (at least 1/2 inch).
- Avoid reducing plans. If so, adjust the graphic and numerical scale. Scale should be in common units (1" = 10', 20', 50', 100', etc.) so drawings can be measured with a standard engineering scale.
- Drawings clear enough and of sufficient scale to read, and dark enough to allow clear reproduction.
- N/A**  For large sites, use a Key Sheet of entire project w/numbered reference to attached detailed sheets.
- Submit the fewest number of sheets necessary to show the proposed work.
- Provide detailed sheets of work in Corps jurisdiction. Don't cut full-size drawings into even sections.
- Try to fit work in a particular area on one sheet. Don't use match lines, unless absolutely necessary.
- Only construction details related to Corps program are necessary.
- Don't use color shading. Use dot shading, hatching or similar graphics to clarify line drawings.
- P.E. stamp isn't required

**Plans for all projects should include:**

Vicinity Map. This should be the first page of the plan set. Location in upper right-hand corner of the plan is ok, but not preferred. Using a USGS Quad Sheet photocopy or a local road map is ok. A person should be able to find the site from the plan set alone.

Include names or numbers of all roads in the site's vicinity

Clearly indicate the project location on the map.

Each sheet of the project plan set, including the vicinity map, should contain:

Title block - project title, address, activity (existing conditions, proposed conditions, etc.)

Date and revision date, if necessary

Sheet number indicating total number of sheets in the set (i.e. 2 of 9).

Numerical *and* graphic scale – avoid reduction and enlargement

North arrow

Existing property lines.

Show the dimensions of the applicant's property.

On plan view, show the names of adjoining property owners.

Ebb and flood in tidal waters and direction of flow in non-tidal waters

Indicate the relationship of the proposed work site to waters of the U.S., i.e. adjacent wetlands, tidal influence through culverts, etc. Include the name of the waterbody and of the large waterbody to which the waterbody is an immediate tributary.

One set of coordinates to locate the project

Typical pipeline cross-sections with details of the bedding and backfill to be used in wetlands and waterways. Show proposed trench dams and detail for inland projects.

Show the dimensions of the work; dimensions of pier, length of bulkhead or shoreline stabilization, dimensions of area to be dredged, dimensions of disposal area, dimensions of fill area, etc. Include all temporary impact areas.

Show the location and dimensions of culverts.

Indicate the location of cross-sectional views.

Cross-sectional views:

Show the mean high and low waterlines or the ordinary high and low water elevations.

Show the existing contours and the proposed contours indicating existing and proposed elevations.

Show the depth of water at the waterward end of piers.

Show the dimensions of the work.

Show the disposal area for dredged material, including retention dikes and overflow route.

Show the finished top elevation of the disposal site.

Show the top width, bottom width, and side slopes of road crossings. Include bottom and invert elevations of culverts and the finished top elevation.

**N/A Plans for Section 10 projects should include:**

Shoreline/limits of waterways on all views [labels: HTL (fill projects), MHW (structures) & MLW]

Delineate and place specific labels on biological resources. E.g. special aquatic sites: salt marsh, mudflats, riffles and pools, and vegetated shallows (eelgrass, etc.); and endangered species and shellfish habitat.

Datum in plan and elevation views

Standard Coordinate Systems – Grid lines or marginal hash marks should be based on a standard coordinate system, i.e. Geographic (at least to the nearest tenth of a second), State Plane or UTM. Indicate on the plan legend the coordinate system (and zone for UTM), units (English or metric) and the corresponding geodetic datum, either NAD27 or NAD83.

Vertical Datum – On each plan show the NGVD 1929 equivalent for the project's vertical datum (MLW, MLLW or NGVD) with the vertical units.

Don't use local datum.

If near a Federal project call your Corps Regulatory Project Manager (PM).

Dimensions of the existing and proposed structures

- Cross-section view for piers, floats and other projects, if necessary
- For piers and other structures, show minimal height of structure above the marsh.
- For floats, show methods of securing (piles, bottom anchors) and keeping off substrate (skids, stops).
- Water depths around the project in all views
- Show distance waterward of the MHW line for proposed structures.
- Show distances from two fixed upland points to the landward end of proposed structures.
- Show any existing structures and moorings in waters adjacent to the proposed activity and show the distance to the proposed work. If no structures exist (or are proposed), state this on the project plans.
- Show the location and dimensions of existing bulkheads and/or shoreline stabilization on adjacent properties and, if applicable, how the proposed work will tie into existing structures.
- Shoreline of adjacent properties
- Distance to opposite shoreline. In narrow waterbodies, show water width and show structures across from proposed work.
- State plane coordinates of seaward end(s) of structures near a Federal Navigation Project (FNP) (anchorage or channel). Contact Corps PM for details.
- Show adjacent FNP and/or state/local navigation projects, distance to them and the authorized depths.
- Delineate and place specific labels on special aquatic sites: salt marsh, mudflats, riffles and pools, and vegetated shallows (eelgrass, etc.).
- Provide existing Corps permit numbers. Provide the names under which the permits were obtained if the permit numbers are unknown. Provide construction dates and proof of existence (aerials, photos, town hall records, affidavits, state or local permits, etc.) to verify “grandfathering.”
- For reconfiguration zones, provide the coordinates of the corners and specify the maximum number of vessels moored within the zone.

**N/A In addition to the above, plans for Section 10 dredge projects should include:**

- See Section I (Dredging Projects) and Section III (40 CFR 230 Guideline) for additional required dredge info.
- Dredge boundaries
- Volume (CY) and area (SF) for each dredge location
- Cross-section
- Based on the physical characterization of the material to be dredged and based upon the high/ medium/low, wave or current energy of the location, identify the likely final angle of repose of the sidecuts. Incorporate total final footprint of dredged area in characterizing impact to resources.
- Disposal location on a separate sheet
  - For beach disposal: the disposal footprint, existing and proposed nourishment profiles (include profiles for each site for multiple non-contiguous sites. Multiple profiles may also be appropriate if the placement site is more than 50 meters long), total fill area (SF) and volume (CY), fill area and volume below the HTL, and delineation of dunes, banks, existing beach vegetation, and contours. Sediment sample analysis for beach should typically consist of standard grain size analysis with results presented in graphical form using the Unified Soils and Wentworth Classification systems.
  - For upland sites, provide a vicinity map in the plan set. If immediately adjacent to wetlands, provide plan with wetland delineation.
  - For open-water sites, provide a vicinity map.

**Plans for Section 404 projects should include:**

- Limits of wetlands (label: wetland boundary) and waterways (labels: OHW or HTL) on all views.
- Area (SF) of each fill area in waters and wetlands. State if fill is permanent or temporary.
- Volume (CY) and area (SF) for each fill area below the OHW line.
- Show limits of temporary and permanent fill to be used in any wetlands or waterway, including construction access and work areas, cofferdams, bedding, and backfill.
- Show the total plan of development, including the proposed use of upland and wetland areas.
- The 100, 500-year and regulatory floodway boundaries as shown on the community’s current National Flood Insurance Program maps, if applicable.



- Datum in plan and elevation views.
  - Standard Coordinate Systems – Grid lines or marginal hash marks should be based on a standard coordinate system, i.e. Geographic (at least to the nearest tenth of a second), State Plane or UTM. Indicate on the plan legend the coordinate system (and zone for UTM), units (English or metric) and the corresponding geodetic datum, either NAD27 or NAD83.
  - Vertical Datum – On each plan show the NGVD 1929 equivalent for the project’s vertical datum with the vertical units.
  - Don’t use local datum.
- Show the disposal site of the excess excavated material. If necessary, submit an additional sheet showing the location of the proposed disposal site. Provide quantity of excess excavated material.
- Show the existing and proposed ground contours or spot elevations on all views.
- Wetland delineation report showing the delineation was performed in conformance with the 1987 Corps wetlands delineation manual or the Massachusetts DEP three-parameter delineation. **Tidal waterbody**
- Provide any known vernal pool information. How do you know an area is or isn’t a vernal pool?
- Show and label the mitigation areas. Clearly show boundaries and provide SF of each area.
- Copies of sections of National Wetland Inventory Maps, marked to show locations and site boundaries. Please be sure to ID the quad name and year.
- Copies of County Soil Surveys, marked to show locations and site boundaries. Please be sure to ID the County, Sheet Number, and year.

**III. OTHER INFORMATION:**

- Please submit a copy of any environmental assessments or impact statements done by or for any local, state, or federal agencies.

**40 CFR 230 Guidelines for Specification of Disposal Sites for Dredged or Fill Material**

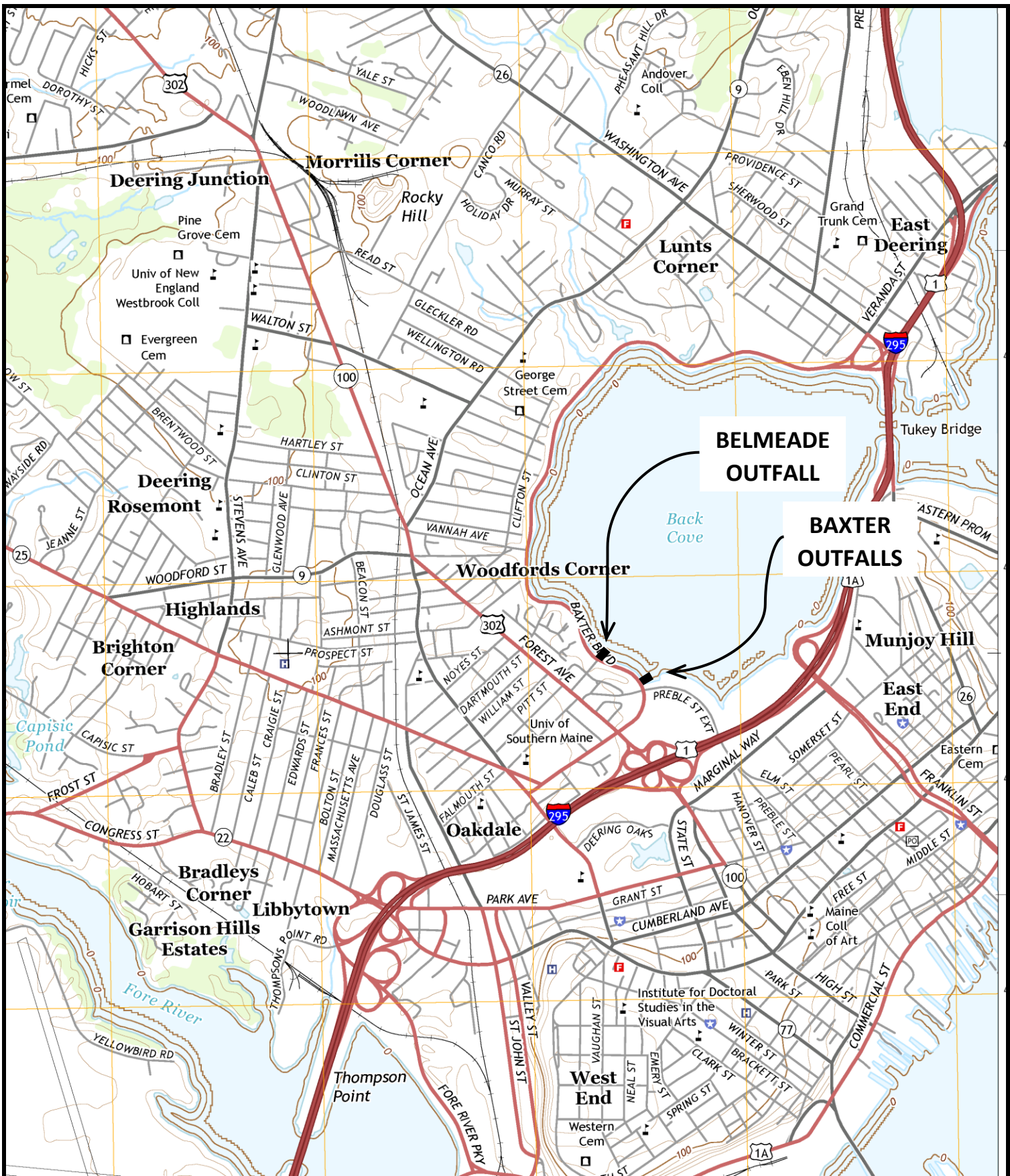
- Waterways and wetlands are vital areas that constitute productive and valuable public resource, the unnecessary alteration or destruction of which is to be discouraged. Therefore, federal regulations state that no discharges of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.
- An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.
- Where the activity associated with a discharge that is proposed for a special aquatic site (as defined in at 40 CFR 230, Subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not “water dependent”), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

**Flood Zone**

- The following questions pertain to your project's potential impact on flooding. Where appropriate, the information should also be included on your plan.
  - Is the project located in a flood zone designated on the current Flood Insurance Rate Map or Flood Hazard Boundary Map?
    - What Zone? **ZONE A2**
    - What is the 100-year flood elevation? **10.00**
    - Date of Map? **JULY 17, 1986**
  - Is the project partially or wholly located in the floodway on the Flood Boundary & Floodway Map? **At the edge of the floodway boundary**
  - If the project is located in the floodway, how much does the project increase the 100-year frequency flood level? **NONE**
  - How much effective floodplain storage will be removed from the 100-year floodplain by fill? **0 CF**

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**Exhibit 2**  
Site Location Map



WWW.SEAGOTECHNICS.COM  
 75 John Roberts Rd. - Suite 1A    250 Goddard Rd. - Suite B  
 South Portland, ME 04106    Lewiston, ME 04240  
 (207) 200-2100    (207) 783-5656

**SITE LOCATION MAP**  
**OF BAXTER/BEDFORD CSO SEPARATION PROJECT**  
**OUTFALLS**

Project No. 17112

LOCATION:  
 BAXTER BOULEVARD  
 PORTLAND, ME

FOR:  
 CITY OF PORTLAND

SCALE: 1"=2000'

DATE: 10/03/17

SHEET:  
 1 OF 1

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**Exhibit 3**  
Property Tax Map & List of  
Abutters

## Tax Maps 111 & 112

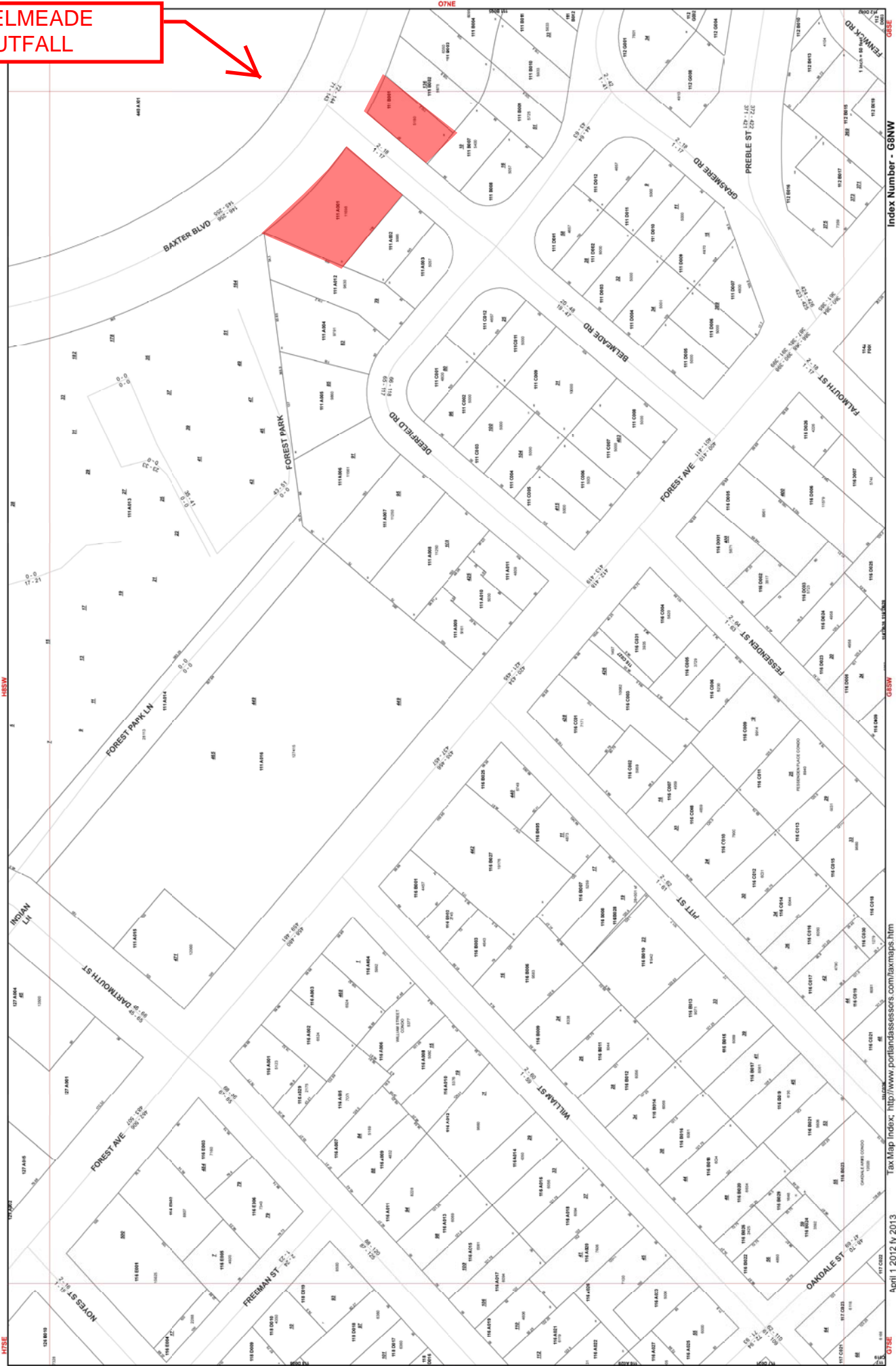
**Per ENG FORM 4345, Application Item No. 25**

### Owners of property abutting Outfalls

Map Lot – Number	Owner and mailing address
112-A-6-16-17 112-A-7-1492	Santiago Michelle R & Shawn C Agren JTS Baxter Blvd Portland ME 04101
111-A-1	City of Portland 389 Congress St Portland ME 04101
111-B-1	Vladimiroff Serge & Lynda M Vladimiroff JTS 4 Belmeade Rd Portland ME 04101



**BELMEADE  
OUTFALL**



Index Number - G8NW  
Tax Map Index: <http://www.portlandassessors.com/taxmaps.htm>  
April 1 2012 fy 2013

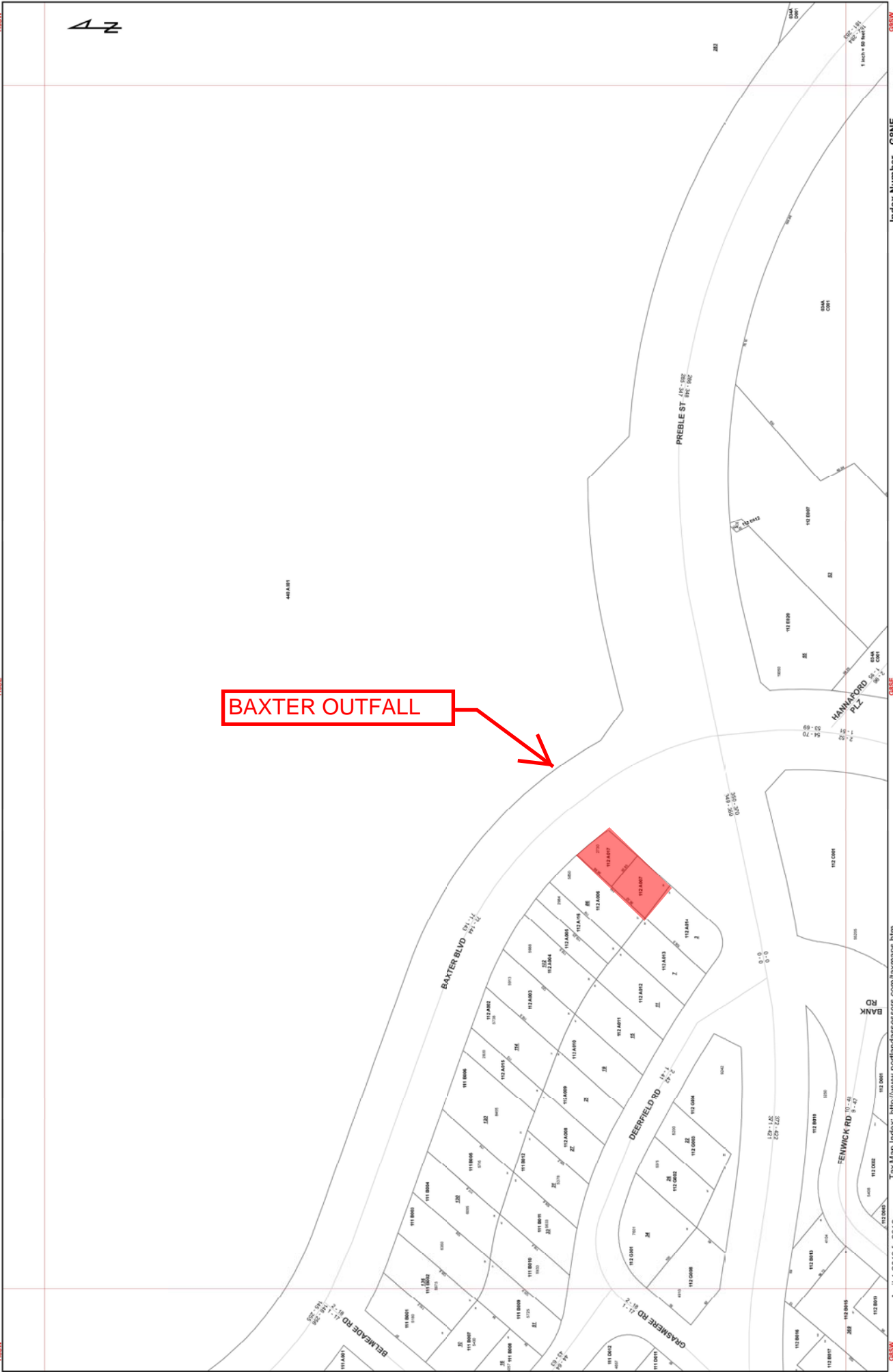
07NE

07SE

07SW



**BAXTER OUTFALL**



Index Number - G8NE

Tax Map Index: <http://www.portlandassessors.com/taxmaps.htm>

April 1 2012 fy 2013

07SW

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**Exhibit 4**  
Official Species List from the US  
Fish & Wildlife Service





# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588

<http://www.fws.gov/mainefieldoffice/index.html>

In Reply Refer To:

October 12, 2017

Consultation Code: 05E1ME00-2018-SLI-0030

Event Code: 05E1ME00-2018-E-00070

Project Name: Bedford-Baxter-Belmeade CSO Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: [http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html) Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines: <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm> and at:  
<http://www.towerkill.com>; and at:  
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Maine Ecological Services Field Office**

P. O. Box A

East Orland, ME 04431

(207) 469-7300

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## Project Summary

Consultation Code: 05E1ME00-2018-SLI-0030

Event Code: 05E1ME00-2018-E-00070

Project Name: Bedford-Baxter-Belmeade CSO Project

Project Type: \*\* OTHER \*\*

Project Description: Location: Bedford st, Baxter Blvd, Belmeade St. Portland, ME 04102  
Size: TBD  
Scope: CSO Sewer Separation  
Timing: TBD

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/43.66375821097843N70.2722521421627W>



Counties: Cumberland, ME

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## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

### Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species.  Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

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**Exhibit 5**  
National Wetland Inventory  
Map





U.S. Fish and Wildlife Service

# National Wetlands Inventory

# Wetlands



U.S. Fish and Wildlife Service National Standards and Support Team.  
wetlands\_team@fws.gov

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

December 12, 2017

### Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine



---

**Exhibit 6**  
FEMA FIRMette



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

CITY OF  
**PORTLAND, MAINE**  
CUMBERLAND COUNTY

PANEL 13 OF 17  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

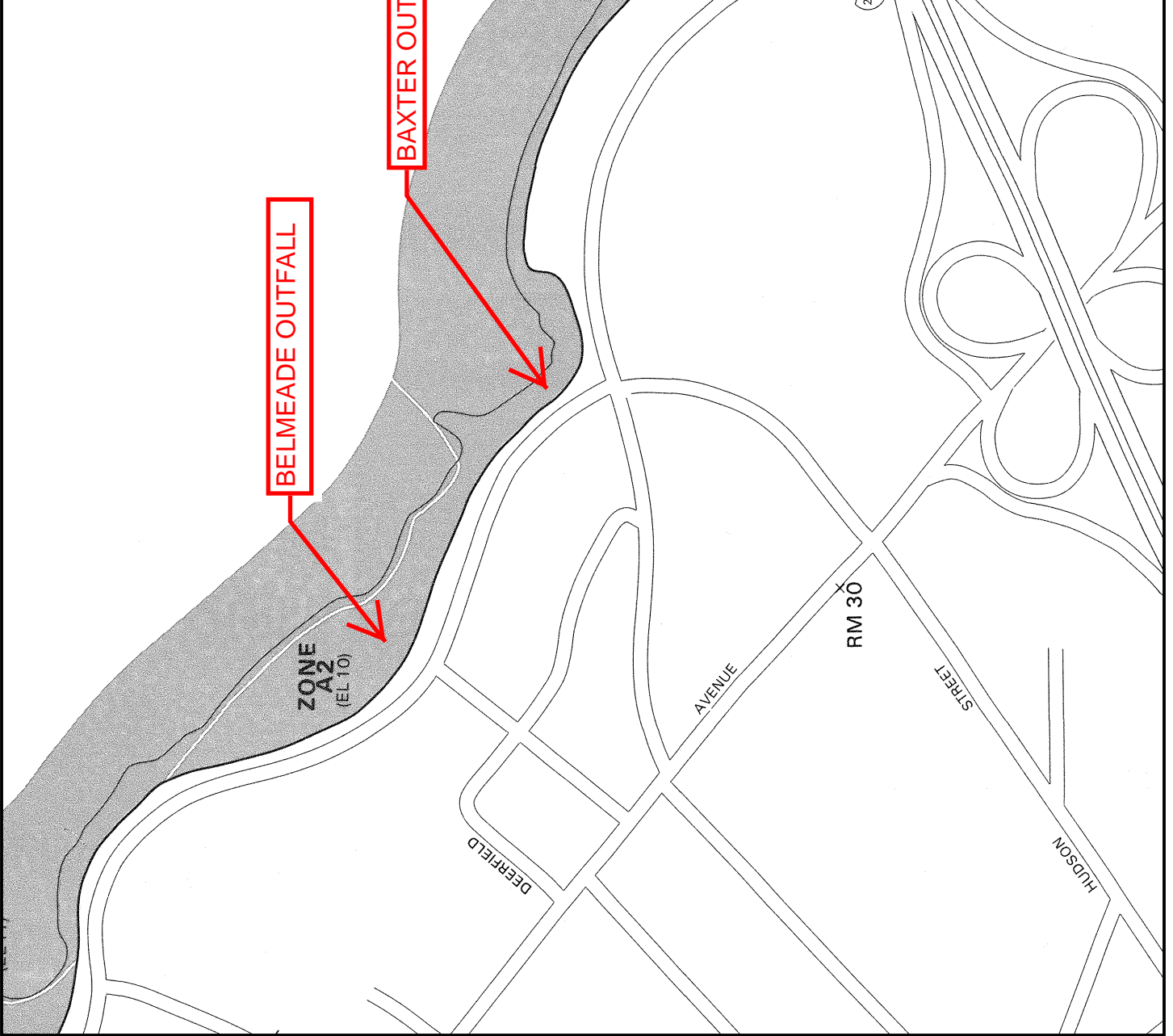
COMMUNITY-PANEL NUMBER  
230051 0013 B

EFFECTIVE DATE:  
JULY 17, 1986



Federal Emergency Management Agency

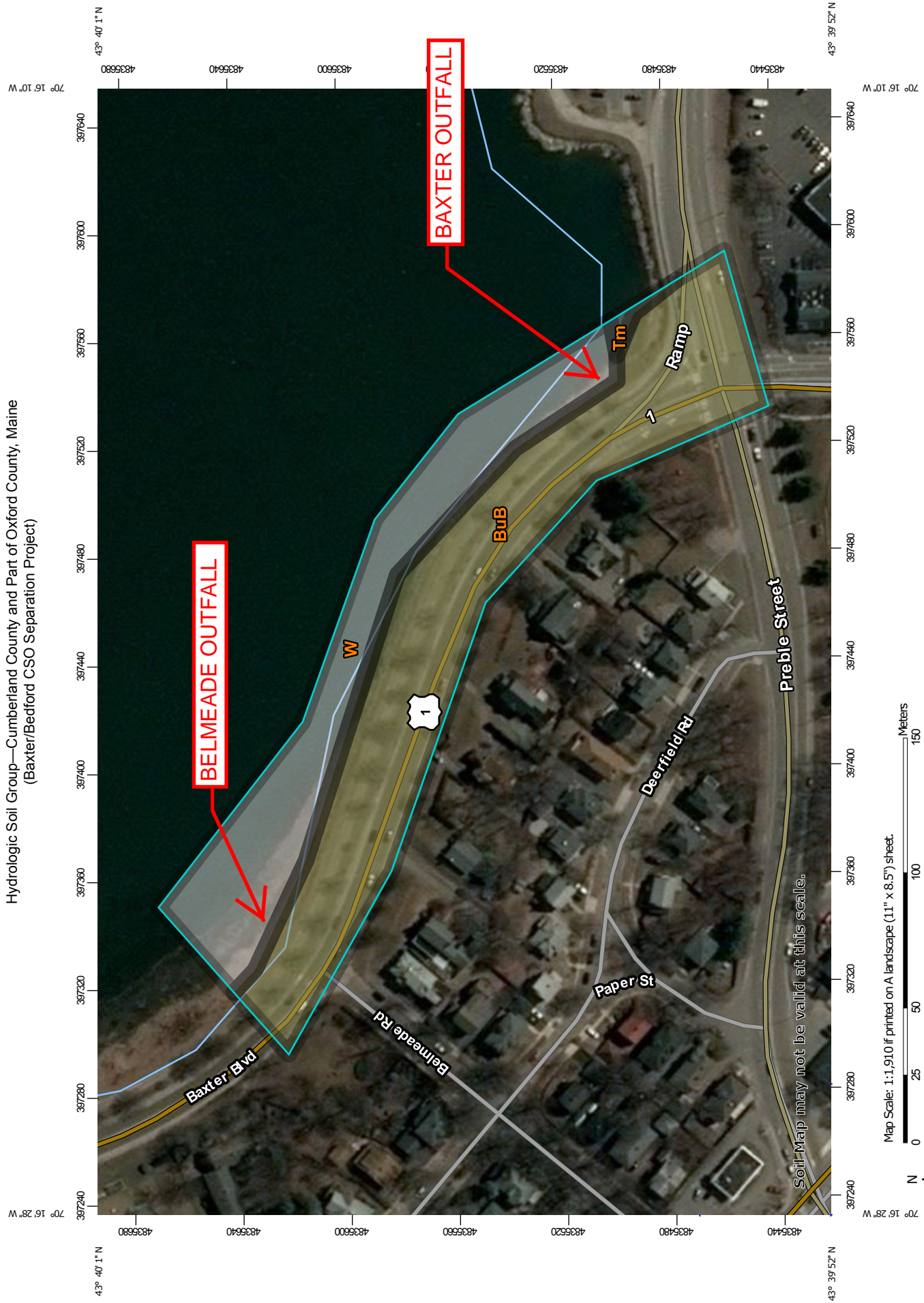
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



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**Exhibit 7**  
NRCS Soils Map

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine  
(Baxter/Bedford CSO Separation Project)



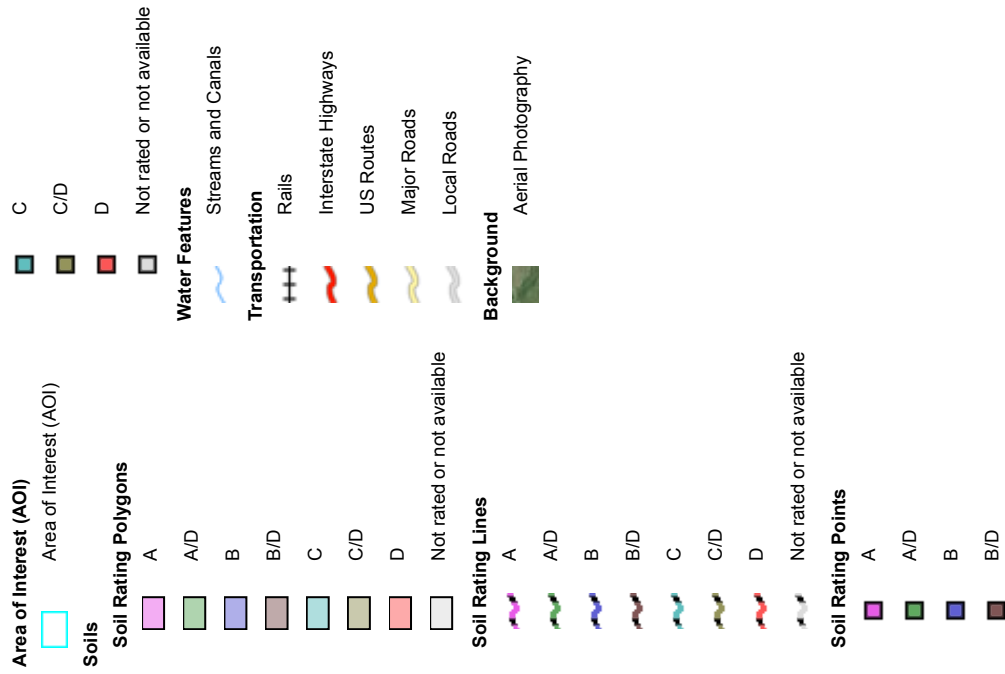
Soil Map may not be valid at this scale.

Map Scale: 1:1,910 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

## MAP LEGEND



## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine  
 Survey Area Data: Version 13, Sep 11, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BuB	Lamoine silt loam, 3 to 8 percent slopes	C/D	2.7	62.2%
Tm	Tidal marsh		0.0	0.5%
W	Water		1.6	37.3%
<b>Totals for Area of Interest</b>			<b>4.4</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



## Rating Options

*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

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**Exhibit 8**  
Historical & Tribal Notification  
Letters





October 12, 2017  
17112

Robin K. Reed  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, ME 04039-0065

**U.S. Army Corps of Engineers Permit Application**  
**Baxter-Belmeade-Bedford Combined Sewer Separation, Portland, Maine**

Dear Ms. Reed:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (USACE), a review of the proposed site by the Maine Historic Preservation Commission for any historic significance is needed. The project is a Combined Sewer Overflow separation project dealing with two outfall locations for Back Cove in Portland.

For your reference, I have enclosed a Locus map with the proposed project location. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at [rmcsorley@sebagotechnics.com](mailto:rmcsorley@sebagotechnics.com) or on my direct line at (207) 200-2074. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "R. McSorley", is written over a horizontal line.

Robert A. McSorley, P.E.  
Senior Project Manager



October 12, 2017  
17112

Indian Township Reservation  
Attn: Donald Soctomah, THPO  
Passamaquoddy Tribe of Indians  
P.O. Box 301  
Princeton, Maine 04668

**U.S. Army Corps of Engineers Permit Application**  
**Baxter-Belmeade-Bedford Combined Sewer Separation, Portland, Maine**

Dear Mr. Soctomah:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (USACE), a review of your files for any significance in the vicinity of the site is needed. The project is a Combined Sewer Overflow separation project dealing with two outfall locations for Back Cove in Portland.

For your reference, I have enclosed a Locus map with the proposed project location. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at [rmcsorley@sebagotechnics.com](mailto:rmcsorley@sebagotechnics.com) or on my direct line at (207) 200-2074. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "R. McSorley", is written over a horizontal line.

Robert A. McSorley, P.E.  
Senior Project Manager



October 12, 2017  
17112

Victoria Higgins, Chief  
Aroostook Band of Micmacs  
7 Northern Road  
Presque Isle, Maine 04769

**U.S. Army Corps of Engineers Permit Application**  
**Baxter-Belmeade-Bedford Combined Sewer Separation, Portland, Maine**

Dear Ms. Higgins:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (USACE), a review of your files for any significance in the vicinity of the site is needed. The project is a Combined Sewer Overflow separation project dealing with two outfall locations for Back Cove in Portland.

For your reference, I have enclosed a Locus map with the proposed project location. At your earliest convenience, please review and forward your findings. If you have any questions on this project, please do not hesitate to contact me at [rmcsorley@sebagotechnics.com](mailto:rmcsorley@sebagotechnics.com) or on my direct line at (207) 200-2074. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "R. McSorley", written over a horizontal line.

Robert A. McSorley, P.E.  
Senior Project Manager



PENOBSCOT NATION  
CULTURAL & HISTORIC PRESERVATION  
12 WABANAKI WAY, INDIAN ISLAND, ME 04468

CHRIS SOCKALEXIS – TRIBAL HISTORIC PRESERVATION OFFICER  
E-MAIL: [chris.sockalexis@penobscotnation.org](mailto:chris.sockalexis@penobscotnation.org)

NAME	Robert McSorley
ADDRESS	Sebago Technics 75 John Roberts Road, Suite 1A South Portland, ME 04106
OWNER'S NAME	City of Portland
TELEPHONE	(207) 200-2100
FAX	
EMAIL	<a href="mailto:rmcsorley@sebagotechnics.com">rmcsorley@sebagotechnics.com</a>
PROJECT NAME	Baxter-Belmeade-Bedford Combined Sewer Overflow Separation in the Back Cove area
PROJECT SITE	Portland, ME
DATE OF REQUEST	October 12, 2017
DATE REVIEWED	October 26, 2017

Thank you for the opportunity to comment on the above referenced project. This project appears to have no impact on a structure or site of historic, architectural or archaeological significance to the Penobscot Nation as defined by the National Historic Preservation Act of 1966, as amended.

If Native American cultural materials are encountered during the course of the project, please contact my office at (207) 817-7471. Thank you for consulting with the Penobscot Nation Tribal Historic Preservation Office with this project.

Chris Sockalexis, THPO  
Penobscot Nation

**Tribal Historic Preservation Office**  
**Passamaquoddy Tribe**  
PO Box 159 Princeton, Me. 04668  
207-796-5533

November 1, 2017

Sebago  
75 John Roberts Rd  
South Portland, Me

Re: Portland - Baxter- Belmeade- Bedford Project  
Gorham – Olde Canal Way

Dear Owens & Robert;

The Passamaquoddy THPO has reviewed the following applications regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal Governments, and Executive Order 12898 Environmental Justice.

The Projects listed above will not have any impact on cultural and historical concerns of the Passamaquoddy Tribe.

Sincerely;

Donald Soctomah  
Soctomah@gmail.com  
THPO  
Passamaquoddy Tribe



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**Exhibit 9**  
Department of Marine  
Resources Timing Letter



**REQUEST FOR APPROVAL  
OF TIMING OF ACTIVITY  
(DMR)**

This form is for use in obtaining approval from the **Department of Marine Resources (DMR)** for the timing of certain projects in accordance with Chapter 305 Permit by Rule Standards.

**To be filled out by applicant:** (Instructions are on the back of this form)

1. **Applicant's name:** City of Portland  
**Address:** 55 Portland Street  
Portland, ME 04101  
**telephone:** 207-874-8828

2. I plan to perform the following activity (please check the appropriate box):
- Sec. 3 Intake pipes** (tidal waters only)
  - Sec. 4 Replacement of structures** (tidal waters only)
  - Sec. 7 Outfall pipes** (tidal waters only)
  - Sec. 9 Utility crossings** (any location if performed between Oct. 2 and July 14)
  - Sec. 12 Restoration of natural areas** (tidal waters only)
  - Sec. 15 Public boat ramps** (tidal waters only)
  - Sec. 18 Maintenance dredging** (tidal waters only)

3. Brief description of project: [please include the name of the stream or waterbody, if known]  
The project is a Combined Sewer Overflow Separation project dealing with two outfall locations to Back Cove in Portland.

4. I plan to perform this activity between the dates of December 2017 and May 2018.  
(start date) (end date)

5. I have included a map showing the location of my project.  
**\*[Please note that if no location map is provided, no approval will be granted by DMR]**

6. Send completed form to: DMR Environmental Coordinator  
P. O. Box 8, West Boothbay Harbor, ME 04575-008

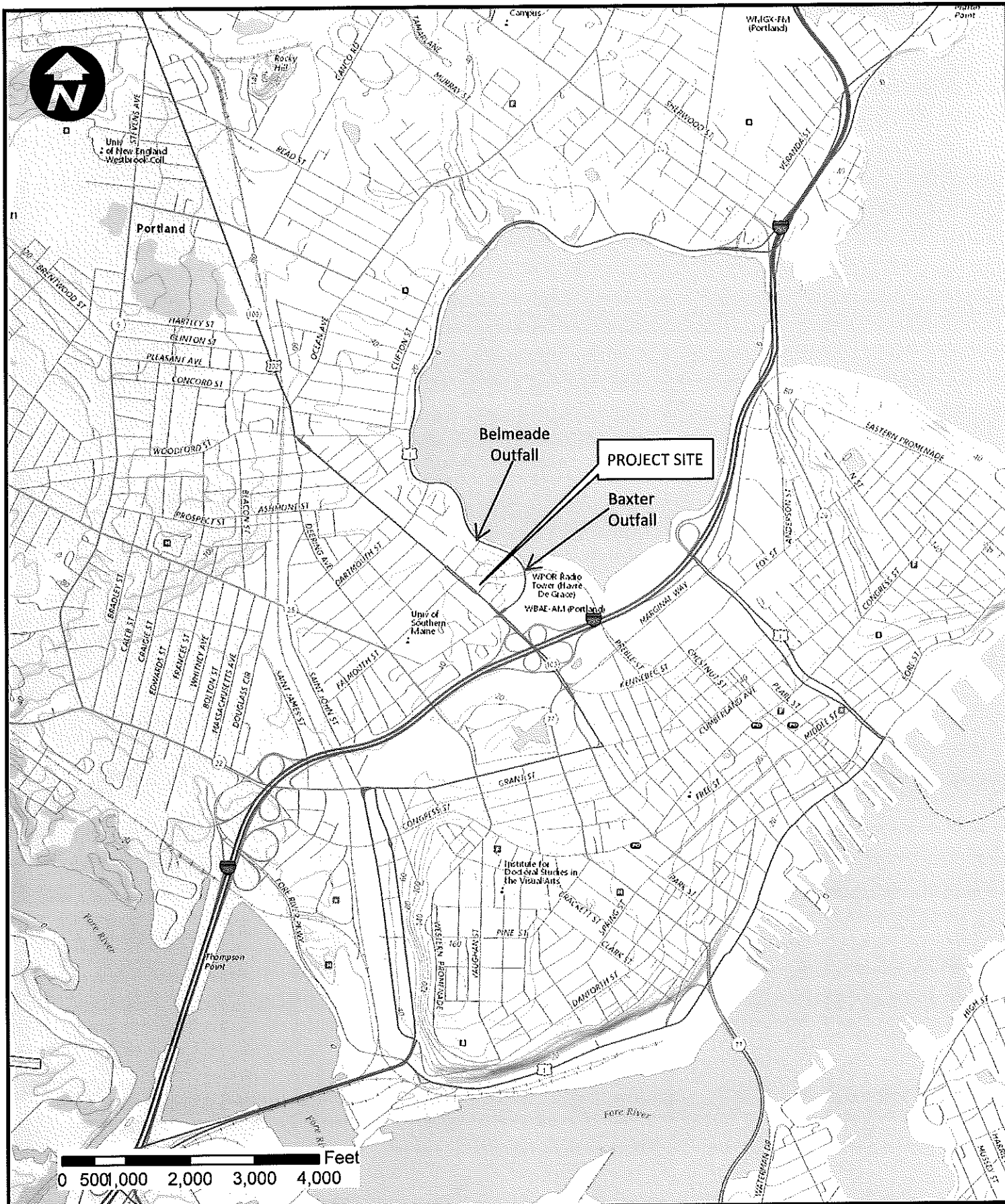
**For agency use only:**

The Department has reviewed the proposed timing of the activity identified above and:

- approves of the project's timing as proposed.
- requires that the project's timing be changed to occur between \_\_\_\_\_ and \_\_\_\_\_  
(start date) (end date)
- Other comments: \_\_\_\_\_

  
DMR Environmental Coordinator

7 Dec 2017  
Date



**SEBAGO**  
TECHNICS

WWW.SEBAGOTECHNICS.COM  
75 John Roberts Rd. - Suite 3A  
South Portland, ME 04106  
Tel. 207-200-2100

**TITLE** SITE LOCATION MAP  
**FOR:** CSO SEWER SEPARATION

**LOCATION:** BEDFORD, BELMEADE, BAXTER BLVD,  
FOREST, PREBLE, DEERFIELD,  
GRASMERE, AND DURHAM STREETS

**INFORMATION:** USGS Quadrangle: Portland West

**SCALE:** 1" = 2,000'  
**DATE:** 10/27/2017

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**Exhibit 10**  
Photographs



Photo 1: Looking Northwest from existing outfall at the intersection of Baxter Boulevard, Bedford St., and Preble St. Ext.



Photo 2: Looking to the South at the existing outfall pipe towards the intersections of Baxter Boulevard, Preble St. ext., and Bedford St.





Photo 3: Looking east at the existing outfall pipe at the intersection of Baxter Boulevard, Bedford St., and Preble St. Ext.



Photo 4: Looking North at the existing outfall location at the intersection of Belmeade Road and Baxter Boulevard





Photo 5: Picture of the existing outfall location at the intersection of Belmeade Road and Baxter Boulevard.

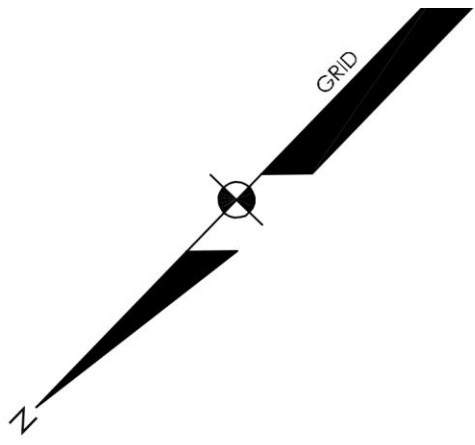


Photo 6: Facing South from the existing outfall location at the intersection of Baxter Boulevard and Belmeade Road.

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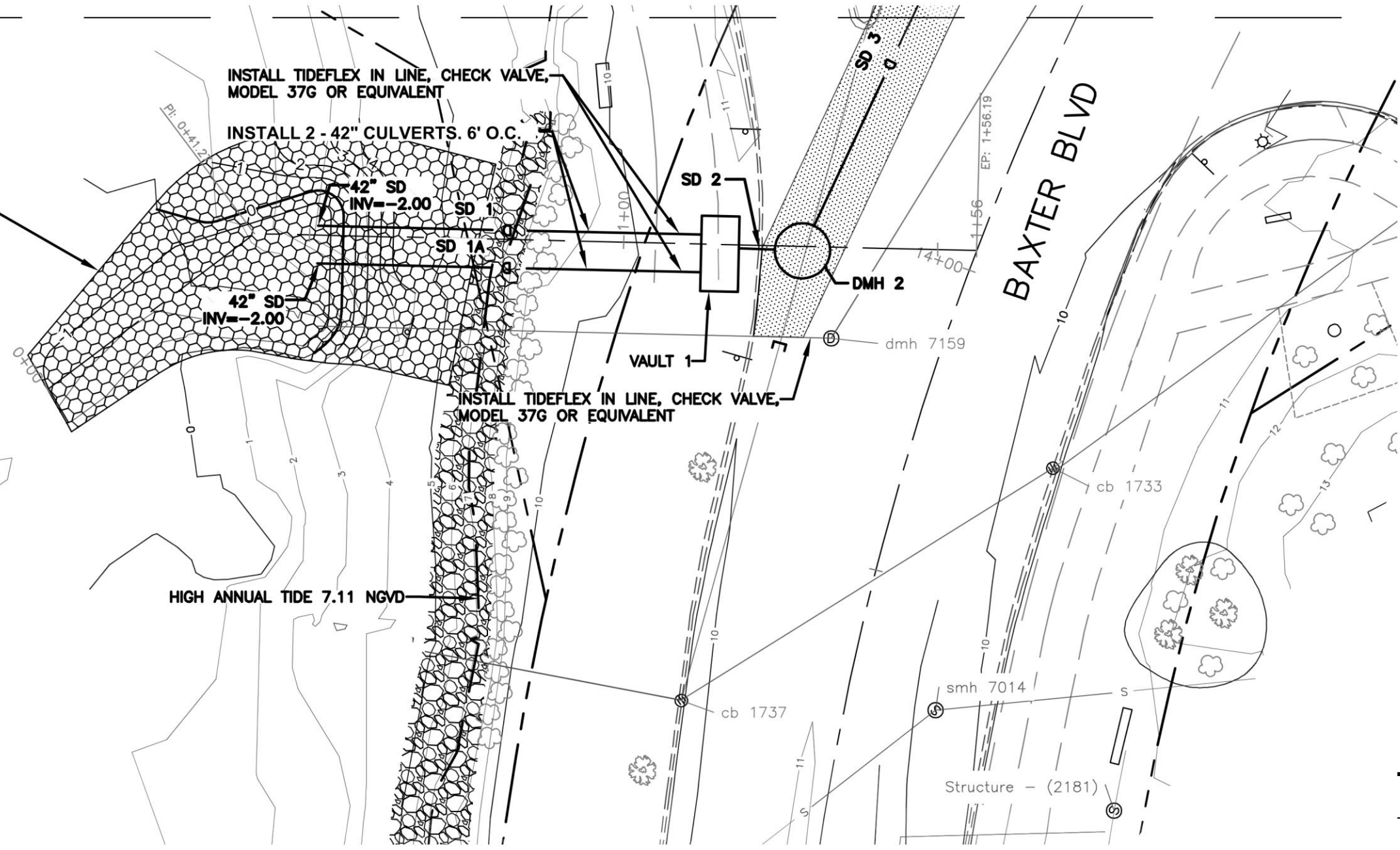
**Exhibit 11**  
Project Plans







MATCH LINE SEE SHEET 5

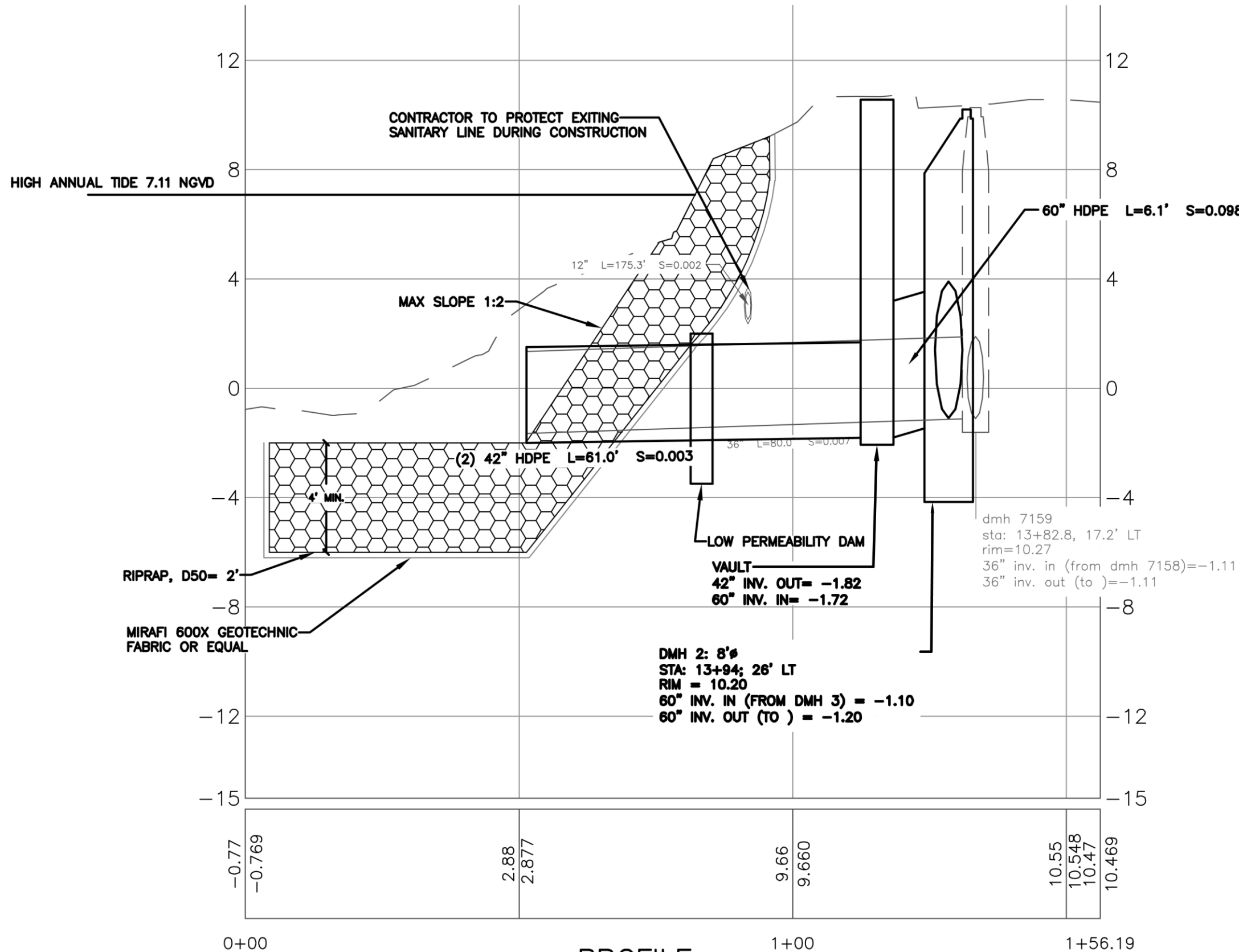
INSTALL RIPRAP APRON AT OUTLET,  
PROTECT EXISTING OUTLET & EXTEND  
RIPRAP TO LIMITS SHOWN, MINIMIZE  
DISTURBANCE TO EXISTING  
VEGETATION, REFER TO RIPRAP  
OUTLET CONSTRUCTION NOTES FOR  
DISTURBANCE OF COASTAL WETLAND  
VEGETATION OUTSIDE RIPRAP LIMITS



HIGH ANNUAL TIDE 7.11 NGVD

**PLAN**  
SCALE: 1"=20'

	 <small>WWW.SEBAGOTECHNICS.COM</small> 75 John Roberts Rd. - Suite 1A South Portland, ME 04106 (207) 200-2100 250 Goddard Rd. - Suite B Lewiston, ME 04240 (207) 783-5656	<b>SITE LOCATION MAP</b> OF BAXTER OUTFALL - BAXTER/BEDFORD CSO SEPARATIONN PROJECT Project No. 17112		SCALE: 1"=20'
		LOCATION: BAXTER BOULEVARD PORTLAND, ME	FOR: CITY OF PORTLAND	DATE: 12/11/17



**PROFILE**

SCALE: HORZ. 1"=20'  
VERT 1"=4'

1+00

1+56.19



WWW.SEBAGOTECHNICS.COM  
75 John Roberts Rd. - Suite 1A South Portland, ME 04106 (207) 200-2100  
250 Goddard Rd. - Suite B Lewiston, ME 04240 (207) 783-5656

**PROFILE**

OF BAXTER OUTFALL - BAXTER/BEDFORD CSO SEPARATIONN PROJECT

Project No. 17112

LOCATION:

BAXTER BOULEVARD  
PORTLAND, ME

FOR:

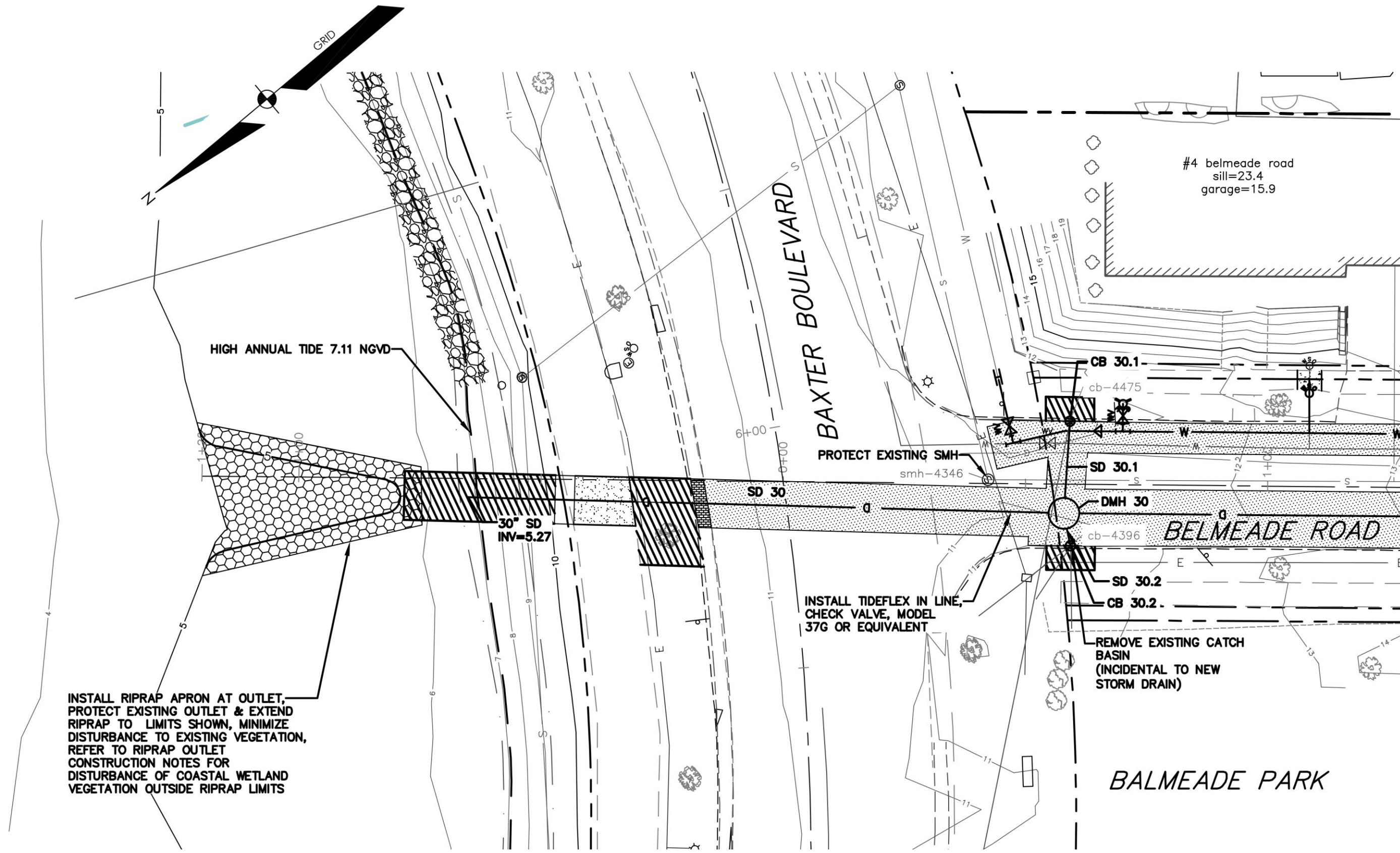
CITY OF PORTLAND

SCALE: 1"=20'

DATE: 12/11/17

SHEET: 2 OF 5







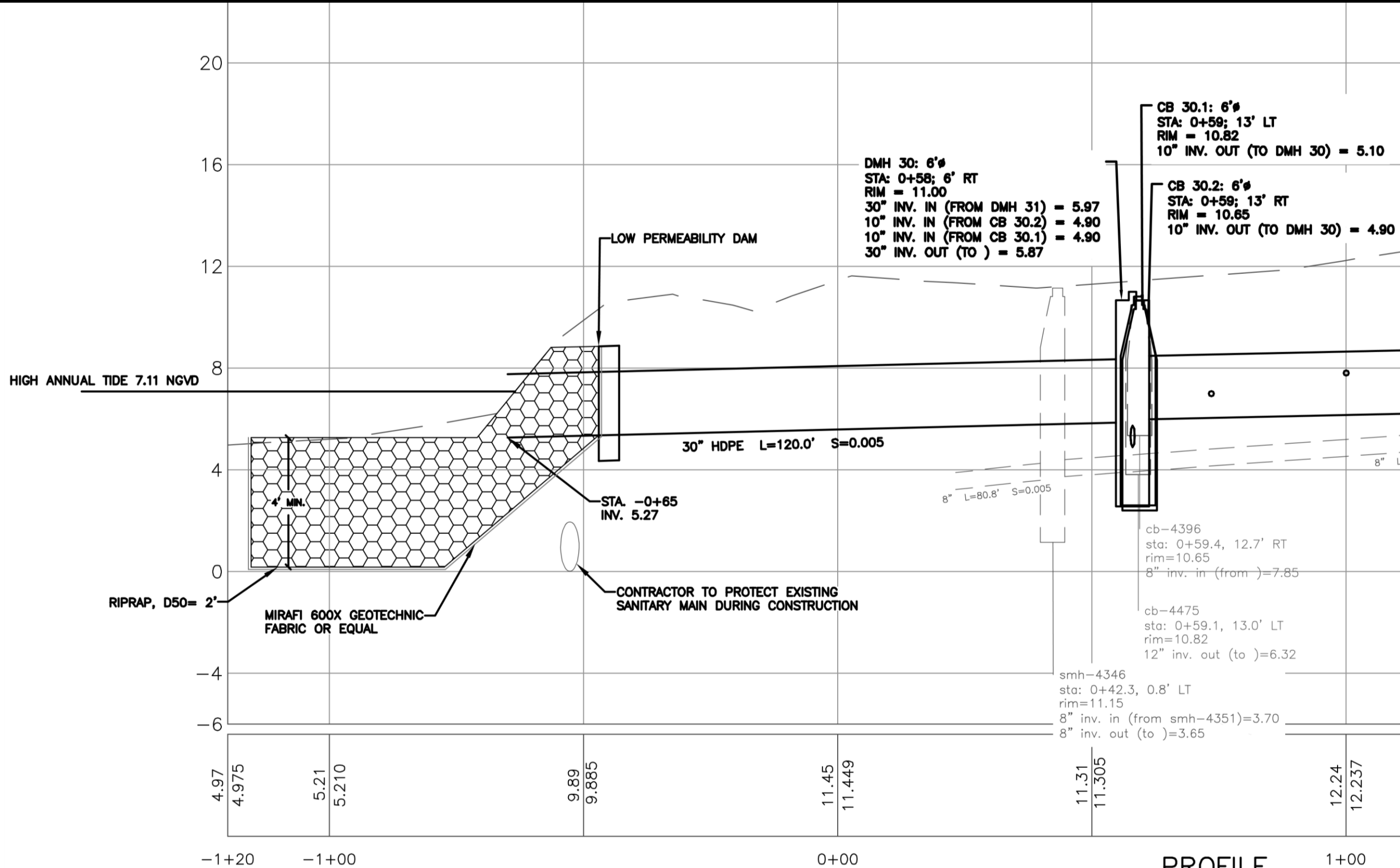
INSTALL RIPRAP APRON AT OUTLET, PROTECT EXISTING OUTLET & EXTEND RIPRAP TO LIMITS SHOWN, MINIMIZE DISTURBANCE TO EXISTING VEGETATION, REFER TO RIPRAP OUTLET CONSTRUCTION NOTES FOR DISTURBANCE OF COASTAL WETLAND VEGETATION OUTSIDE RIPRAP LIMITS

INSTALL TIDEFLEX IN LINE, CHECK VALVE, MODEL 37G OR EQUIVALENT

REMOVE EXISTING CATCH BASIN (INCIDENTAL TO NEW STORM DRAIN)

**PLAN**  
SCALE: 1"=20'

	 <small>WWW.SEBAGOTECHNICS.COM</small> 75 John Roberts Rd. - Suite 1A South Portland, ME 04106 (207) 200-2100 250 Goddard Rd. - Suite B Lewiston, ME 04240 (207) 783-5656	<b>SITE LOCATION MAP</b> OF BELMEADE OUTFALL - BAXTER/BEDFORD CSO SEPARATIONN PROJECT Project No. 17112		SCALE: 1"=20'
		LOCATION: BAXTER BOULEVARD PORTLAND, ME	FOR: CITY OF PORTLAND	DATE: 12/11/17



**PROFILE**  
SCALE: HORZ. 1"=20'  
VERT. 1"=4'



WWW.SEBAGOTECHNICS.COM  
75 John Roberts Rd. - Suite 1A South Portland, ME 04106 (207) 200-2100  
250 Goddard Rd. - Suite B Lewiston, ME 04240 (207) 783-5656

**PROFILE**  
OF BELMEADE OUTFALL - BAXTER/BEDFORD CSO  
SEPARATIONN PROJECT Project No. 17112

LOCATION:  
BAXTER BOULEVARD  
PORTLAND, ME

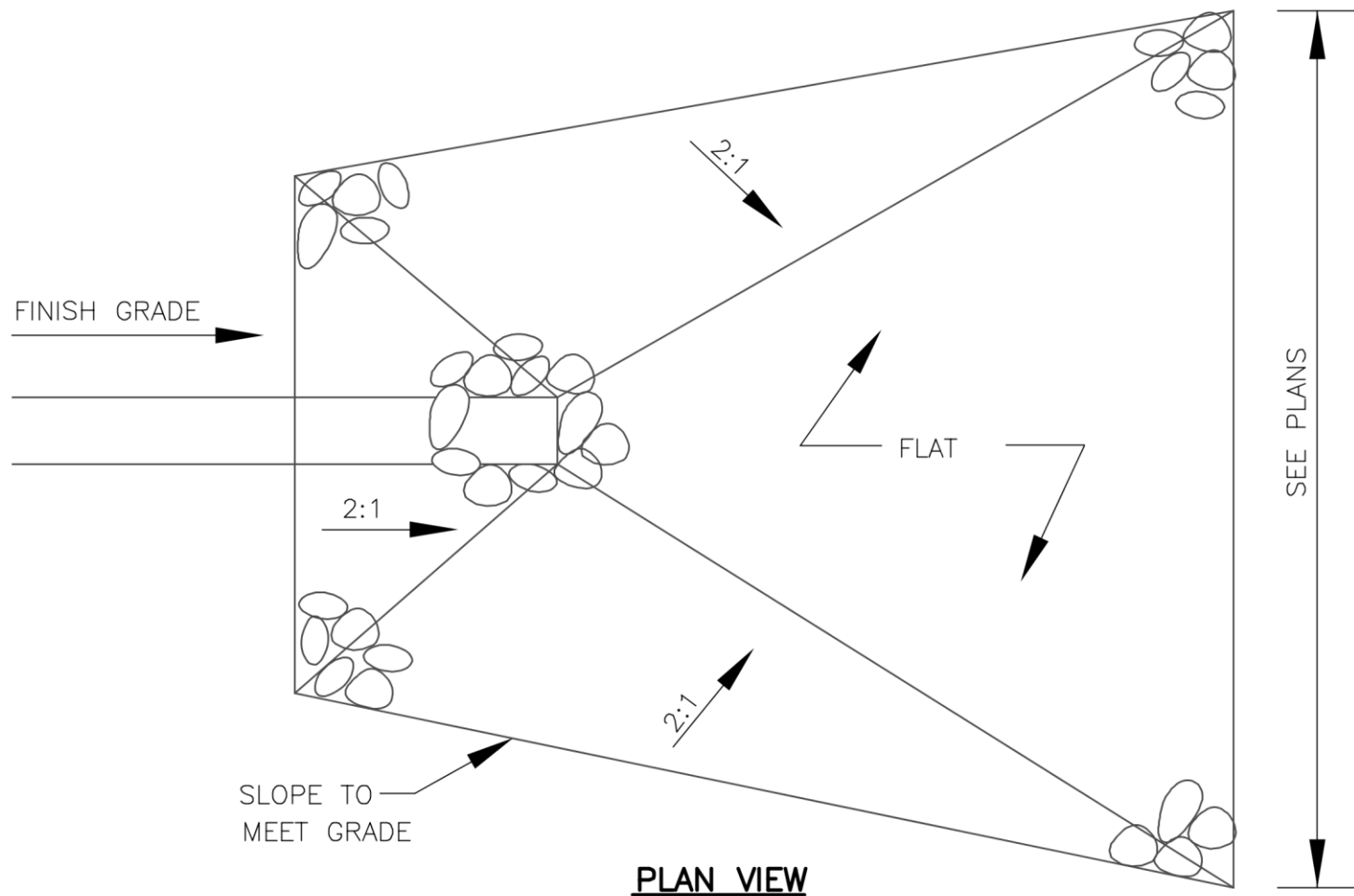
FOR:  
CITY OF PORTLAND

SCALE: 1"=20'

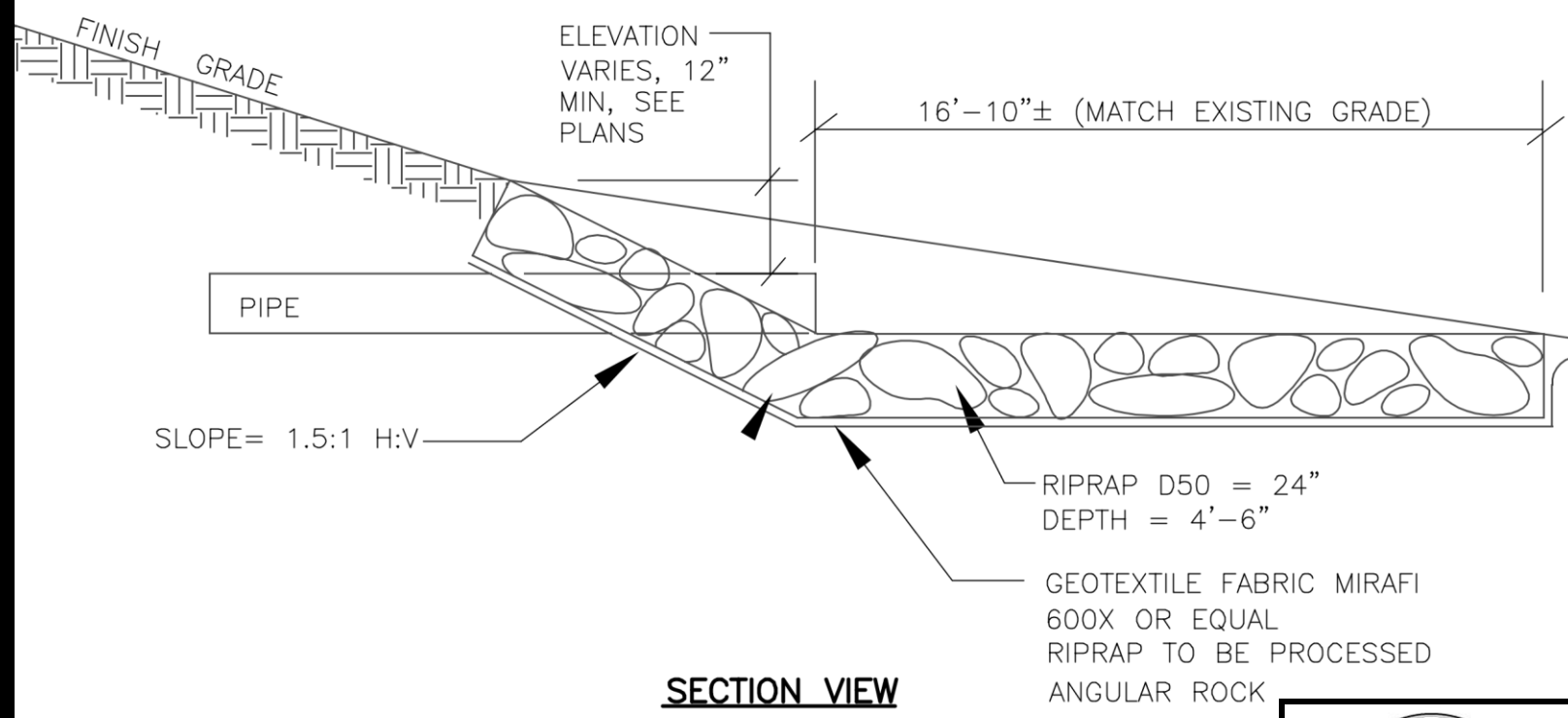
DATE: 12/11/17

SHEET:  
4 OF 5





**PLAN VIEW**



**SECTION VIEW**

**RIPRAP APRON**  
NOT TO SCALE



RIPRAP OUTLET CONSTRUCTION NOTES (REFER TO RIPRAP APRON DETAIL ON DETAIL SHEET)

PRE-CONSTRUCTION

1. MEET ON SITE WITH OWNER, SITE CONTRACTOR, AND THE DESIGN ENGINEER TO DISCUSS SCOPE OF WORK AND EXPECTATIONS. DETERMINE LIMITS OF TIDAL "SPARTINA" GRASS.
2. CONTRACTOR SHALL HAVE ALL MATERIALS APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION.

CONSTRUCTION PHASE

1. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION. SEE THE EROSION & SEDIMENT CONTROL NOTES AND PLAN FOR ADDITIONAL REQUIREMENTS. PROTECT NEARBY TREES, WHICH ARE PROPOSED TO REMAIN. TO THE EXTENT PRACTICAL, PROTECT THE ROOT ZONE OF THESE TREES.
2. THE CONTRACTOR SHALL CONSIDER THE TIDE SCHEDULE CAREFULLY; AND SHALL SCHEDULE WORK TO AVOID INTERRUPTIONS OF DAYLIGHT WORKING HOURS WITH HIGH TIDES. WORKING WITHIN TIDAL WATERS IS NOT PERMITTED.
3. THE CONTRACTOR SHALL ONLY WORK IN AREAS THAT CAN BE COMPLETED DURING EACH CONSTRUCTION DAY. NO AREAS SHALL BE EXCAVATED BY THE CONTRACTOR AND LEFT EXPOSED, AS THESE AREAS WILL BE SUBJECT TO EROSION FROM TIDAL SURGES OR STORM EVENTS.
4. WITHIN VEGETATIVE AREA PROPOSED TO BE DISTURBED, CAREFULLY REMOVE THE TOP ORGANIC LAYER (12"±) BELOW ELEVATION DETERMINED AT PRECONSTRUCTION MEETING. REMOVE USING METHOD THAT WILL KEEP THE VEGETATION SYSTEM INTACT. STOCKPILE THE ORGANIC LAYER IN A MANNER SO THAT MATERIAL CAN BE REUSED. REMOVE ONLY ENOUGH VEGETATION NEEDED TO INSTALL THE TIDE GATE VAULT AND SEWERPIPE IN ACCORDANCE WITH THE CROSS-SECTION. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
5. PIPE INSTALLATION: LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 1 FOOT BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4 OR TOP OF FINISHED GRADE. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS. COSTS OF LOW PERMEABILITY DAMS SHALL BE INCIDENTAL TO THE CONTRACT.
6. INSTALL RIPRAP APRON IN ACCORDANCE WITH THE DETAILS. ONCE THE RIPRAP SLOPE IS COMPLETELY INSTALLED, THE CONTRACTOR SHALL GRADE THE DISTURBED AREAS UNIFORMLY TO MATCH EXISTING TOPOGRAPHY (U.N.O.) AND THE NEW RIPRAP EDGE.
7. PLACE EXISTING ORGANIC MATERIAL IN DISTURBED VEGETATIVE AREAS BELOW ELEVATION 10, WORKING FROM THE OUTFALL TO THE VAULT. DISTURBED VEGETATIVE AREAS ABOVE ELEVATION 10 SHALL HAVE LOAM AND SEED. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
8. INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION. REPAIR ERODED AREAS AND REPLANT VEGETATION TO ESTABLISH 75% VEGETATION CATCH, AS REQUIRED.
9. IN AREAS REQUIRING REPLANTING, INSTALL NORTH AMERICAN GREEN C125BN EROSION CONTROL FABRIC OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (PAY ITEM 613.319).
10. USING RAZOR BLADE, CAREFULLY CUT HOLES 1 FOOT O.C. AND IN ROWS SPACED 1 FOOT APART. LOOSELY OFFSET HOLES BETWEEN ROWS FOR APPROXIMATELY 6-8 HOLES PER SQUARE YARD. PLANT CORD GRASS SPARTINA PATENS (SALT MEADOW GRASS) AND SPARTINA ALTERNIFLORA (SMOOTH CORDGRASS) PLUGS IN ALTERNATING FASHION. COSTS ASSOCIATED WITH CUTTING FABRIC AND PLANTING GRASS PLUGS WILL BE PAID THROUGH THE BID ITEM 615.072.

	 <small>WWW.SEBAGOTECHNICS.COM</small> <small>75 John Roberts Rd. - Suite 1A South Portland, ME 04106 (207) 200-2100</small> <small>250 Goddard Rd. - Suite B Lewiston, ME 04240 (207) 783-5656</small>	<b>OUTFALL DETAILS/NOTES</b>		SCALE: 1"=20'
		OF BAXTER/BEDFORD CSO SEPARATIONNN PROJECT Project No. 17112		DATE: 12/11/17
		LOCATION: BAXTER BOULEVARD PORTLAND, ME	FOR: CITY OF PORTLAND	SHEET: 5 OF 5