



Fort Point Associates, Inc.

Urban Planning Environmental Consulting Project Permitting

A TETRA TECH COMPANY

February 6, 2019

Amelia Croteau
Executive Secretary
Boston Conservation Commission
1 City Hall Square, Room 709
Boston, MA 02201

Re: The Residences at Coleridge Coast; 181-183 Coleridge Street, East Boston, MA
Notice of Intent # 006-1606

Dear Ms. Croteau and Commissioners:

On behalf of Rock Development (the "Applicant"), we are submitting the following additional information requested at the January 9, 2019 hearing in regard to the updated Notice of Intent (NOI) that was filed on December 5, 2018 for the Residences at Coleridge Coast (the "Project") located at 181-183 Coleridge Street, East Boston, Massachusetts (the "Project Site").

1. Existing Top of Coastal Bank Delineation

We have modified the existing cross-sections to be to scale and have provided a graphical representation of the sections to match Wetlands Program Policy 92-1: Coastal Banks ("Policy 92-1"). The Coastal Bank location remains unchanged. Please note, all Coastal Bank delineations for existing conditions falls within the definition of "Figure 4" of Policy 92-1.

2. Does the proposed conditions create a "new" Coastal Bank?

We have further reviewed Policy 92-1 guidance on Coastal Bank delineations. We concur that the proposed conditions created may in fact create a topographic site condition that would fall under the definition of "Figure 6" and thus introduce a second Coastal Bank. We have shown the "Figure 6" condition on the proposed sections.

However, in our review of 310 CMR 10.30, the definition of Coastal Bank (310 CMR 10.30(2) Definitions) "Coastal Bank means the seaward face or side of any elevated landform other than coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland" and "when a coastal bank is determined to be significant to storm damage prevention or flood control because it supplies sediment to coastal beaches, coastal dunes, or barrier beaches, 310 CMR 10.30(3) through (5) shall apply". The Coastal Banks do not supply sediment to the coastal beaches, and therefore three these performance standards to not apply. The conditions further state: "When a coastal bank is determined to be significant to stormwater damage prevention of flood control because it is a vertical buffer to storm waters, 310 CMR 10.30(6) through (8) shall apply." In response to (6), the Project will not have any effect on the stability of the Coastal Bank. In response to (7), the seawall or other coastal engineering structure may be permitted on the Coastal Bank, except if it supplies sediment to the coastal beach. Therefore, the Project complies with the applicable performance standards.

We feel this condition is common in the City and will neither impact sedimentation accrual along the coastal beach, nor adversely affect storm damage control provided by the existing Coastal Bank. The existing Coastal Bank is comprised of rock and rubble and does not supply sediment to the coastal beach below, as would a sand dune or similar coastal wetland feature.

3. Erosion of area underneath Harborwalk and at base of seat wall

We have supplemented the proposed surface treatment under the Harborwalk to include the installation of a turf reinforcement mat product to provide additional soil stabilization and erosion control. Additionally, the Project team's coastal engineer reviewed the Harborwalk structure and, in his opinion, thought that the Harborwalk structure itself would provide erosion protection when wave crest height was at or above elevation 8.5 (NAVD88).

4. Provide revised cross-section

A revised cross-section that includes the addition of the turf reinforcement matting and accurately depicts the installation dimensions of the underground detention system is attached. Revisions to the cross-section also include the seasonal high elevation of groundwater witnessed during testing at elevation 2.5. We have provided a minimum of two (2) feet of separation from bottom of infiltration system to groundwater.

If you need additional information, please contact me at (617) 357-7044 x207.

Sincerely,



Cara Pattullo, AICP
Environmental Planner

Cc: Ryan Acone, Rock Development
Derek Redgate, PE, Highpoint Engineering
Theodore Touloukian, AIA, Touloukian Touloukian, Inc.
Encl: Wetland Program Policy 92-1: Coastal Banks
PRE-01: Coastal Bank Delineation Plan – PREDEV
POST-01: Coastal Bank Delineation Plan – POSTDEV
POST-02: Coastal Bank Delineation Plan – POSTDEV
SECTION: Site Section Details

Wetlands Program Policy 92-1: Coastal Banks

Coastal Banks: Definition and Delineation Criteria for Coastal Bank (DWW Policy 92-1) Issued: March 3, 1992

Purpose The purpose of this policy is to clarify the definition of coastal bank contained in the Wetlands Regulations, 310 CMR 10.00, by providing guidance for identifying 'top of coastal bank'. Regulatory Standards Coastal wetlands are defined in the Wetlands Protection Act (MGL c. 131, s.40) as:

"any bank, marsh, swamp, meadow, flat or other lowland subject to tidal action or coastal storm flowage".

Coastal banks are defined at 310 CMR 10.30(2) as:

"the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland".

When these two definitions are read together, coastal banks can be inferred to be associated with lowlands subject to tidal action or subject to coastal storm flowage. Coastal banks, therefore, can occur around non-tidal ponds, lakes and streams provided that these elevated landforms confine water associated with coastal storm events, up to the 100-year storm elevation or storm of record. Land Subject to Coastal Storm Flowage, in turn, is defined at 310 CMR 10.04 as:

"land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater".

The Department uses the 100-year coastal flooding event as defined and mapped by the Federal Emergency Management Agency (FEMA) per the National Flood Insurance Program, as the maximum flood elevation associated with land subject to coastal storm flowage, unless recorded storm data reveals a higher flood elevation (which is the storm of record). Analysis Top of Coastal Bank Delineation The phrase "top of coastal bank" is used to establish the landward edge of the coastal bank (310 CMR 10.30). There is no definition for "top of coastal bank" provided in the Act or the Regulations. A Guide to the Coastal Wetlands Regulations, prepared by the Massachusetts Coastal Zone Management Office, upon which Conservation Commissions and the Department have relied for guidance, states that the landward boundary of a coastal bank is "the top of, or first major break in, the face of the coastal bank", and implies that it is easily identified using United States Geologic Survey topographic quadrangles. However, the scale of topographic quadrangle maps generally do not allow for parcel specific analysis. No further definition of "top of" and "major break" is provided. The following standards should be used to delineate the "top of coastal bank" [refer to figures 1-7 for a graphic presentation of the information below]:

A) The slope of a coastal bank must be greater than or equal to 10:1 (see [Figure 1](#)).

B) For a coastal bank with a slope greater than or equal to 4:1 the "top of coastal bank" is that point above the 100-year flood elevation where the slope becomes less than 4:1. (see [Figure 2](#)).

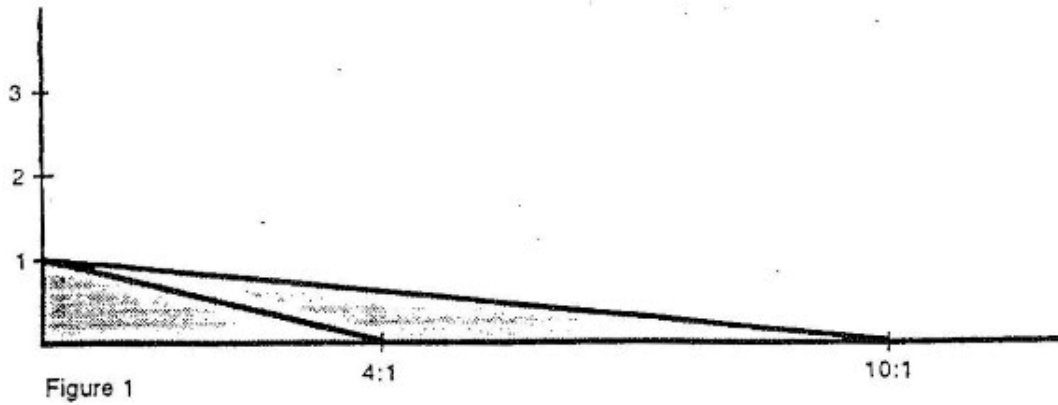
C) For a coastal bank with a slope greater than or equal to 10:1 but less than 4:1, the top of coastal bank is the 100-year flood elevation. (see [Figure 3](#)).

D) A "top of coastal bank" will fall below the 100-year flood elevation and is the point where the slope ceases to be greater than or equal to 10:1. (see [Figure 4](#)).

E) There can be multiple coastal banks within the same site. This can occur where the coastal banks are separated by land subject to coastal storm flowage [an area less than 10:1]. (See [Figures 5 and 6](#)).

When a landform, other than a coastal dune, has a slope that is so gentle and continuous that it does not act as a vertical buffer and confine elevated storm waters, that landform does not qualify as a coastal bank. Rather, gently sloping landforms at or below the 100-year flood elevation which have a slope less than 10:1 shall be regulated as "land subject to coastal storm flowage" and not as coastal bank (see [Figure 7](#)). Land subject to coastal storm flowage may overlap other wetland resource areas such as coastal beaches and dunes. Information Requirements for Project Review Due to the complex topography associated with coastal banks, the following requirements are intended to promote consistent delineations. In order to accurately delineate a coastal bank, the following information should be submitted, at a minimum,, to the Conservation Commission and the Department of Environmental Protection: the coastal bank should be delineated and mapped on a plan(s) to a scale of not greater than 1 inch = 50 feet, including a plan view and a cross section(s) of the area being delineated showing the slope profile, the linear distance used to calculate the slope profile, and the location of this linear distance. In addition, there must be an indication which of the five diagrams mentioned above is (are) representative of the site. Averaging and/or interpolating contours on plans can result in inaccurate delineations. Therefore, it is strongly recommended that follow-up field observations be made to verify delineations made from engineering plan data and as shown on the submitted plans. The final approval of resource boundary delineations rests with the issuing authority (Conservation Commission or Department of Environmental Protection).

Figures 1, 2, and 3



Note that 4:1 slope is greater than (steeper than) 10:1 slope.
 - 4:1 is equivalent to 14 degrees or 25 percent.
 - 10:1 is equivalent to 6 degrees or 10 percent.

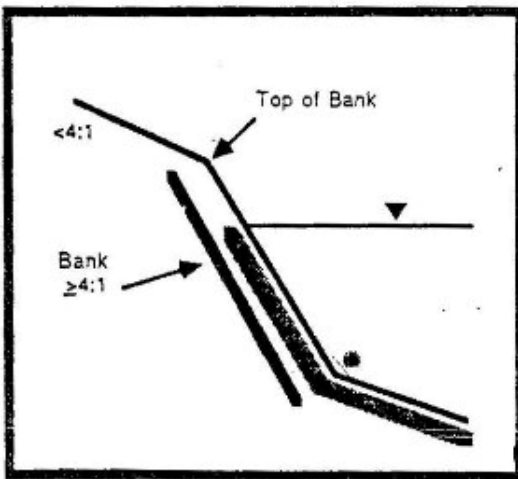


Figure 2

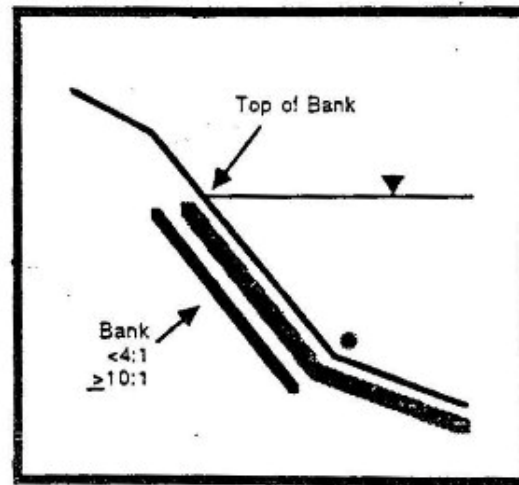


Figure 3

Legend - Figures 2 and 3 are not to scale

- ▼ 100 year flood elevation (as shown on community FIRM) or storm of record
- Land subject to coastal storm flowage (LSCSF)

- Coastal Bank
- Toe of bank which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland

Figures 4, 5, 6, and 7

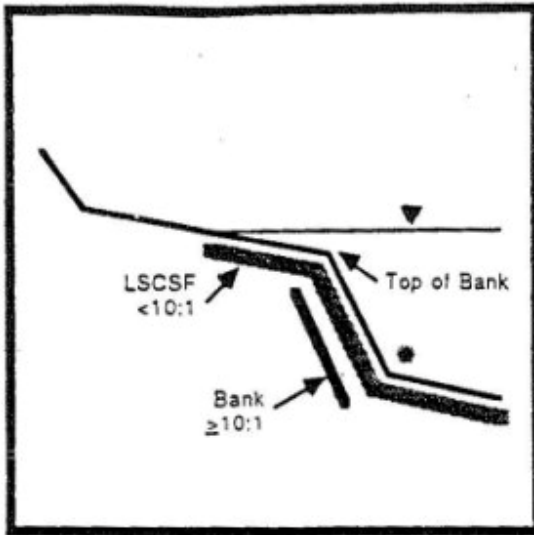


Figure 4

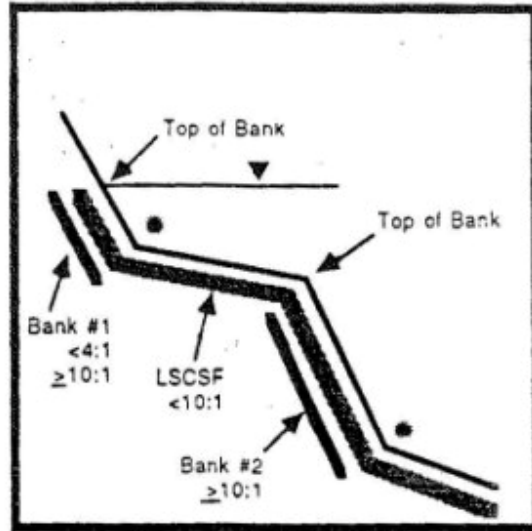


Figure 5

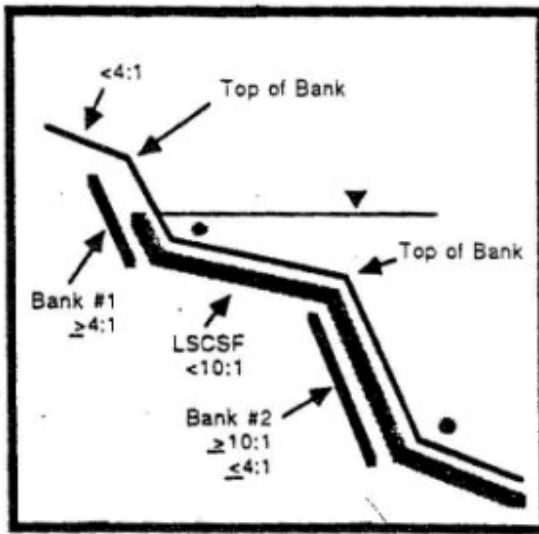


Figure 6

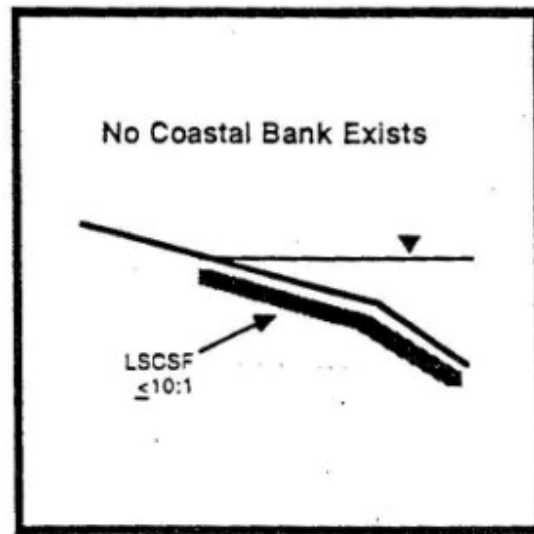
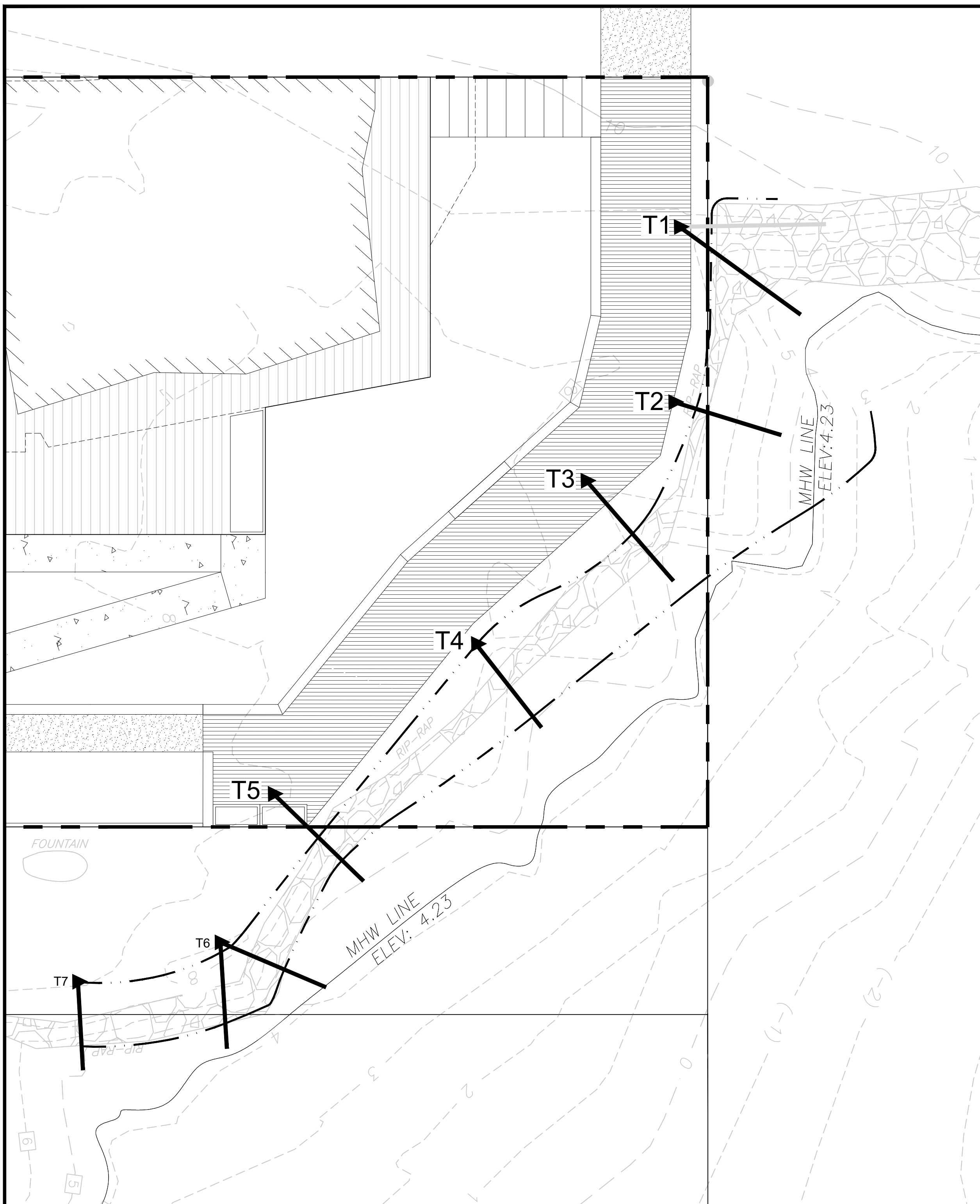


Figure 7

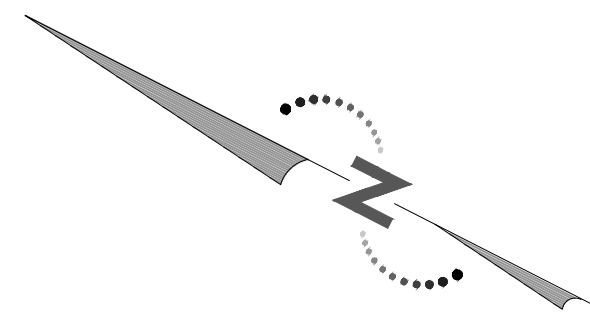
Legend - Figures 4, 5, 6, and 7 are not to scale

- ▼ 100 year flood elevation (as shown on community FIRM) or storm of record
- Land subject to coastal storm flowage (LSCSF)

- Coastal Bank
- Toe of bank which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland

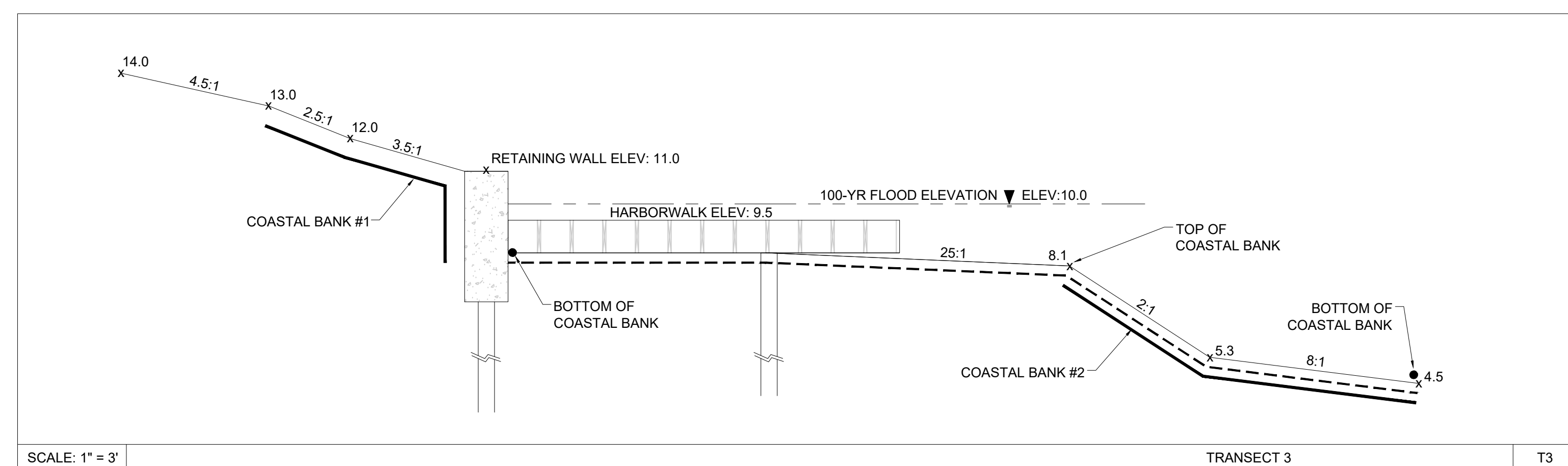
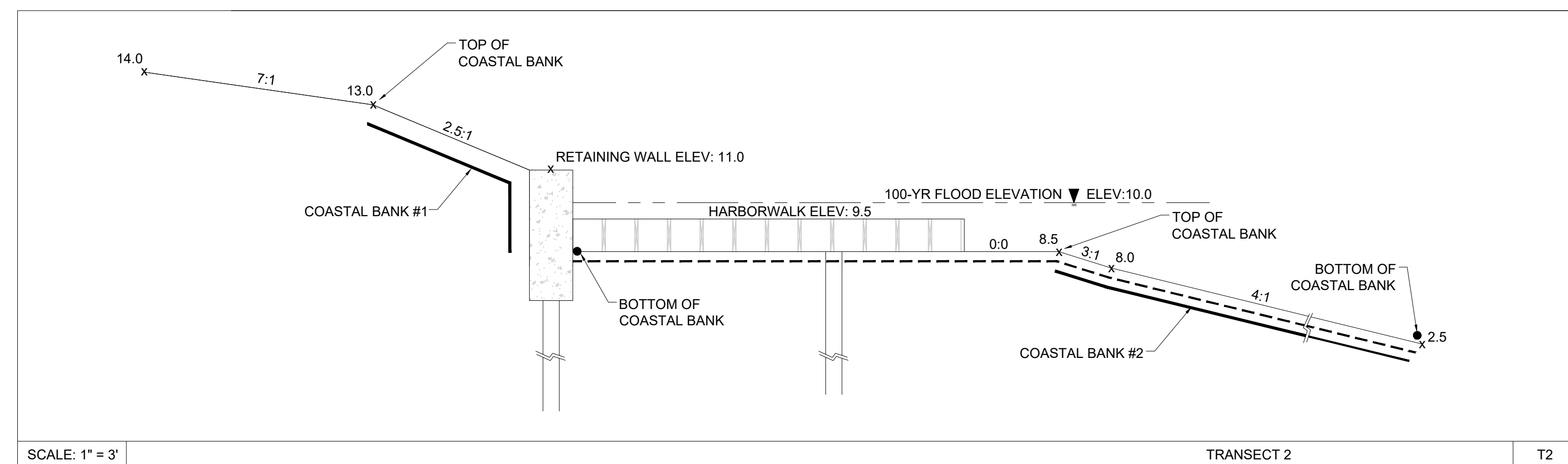
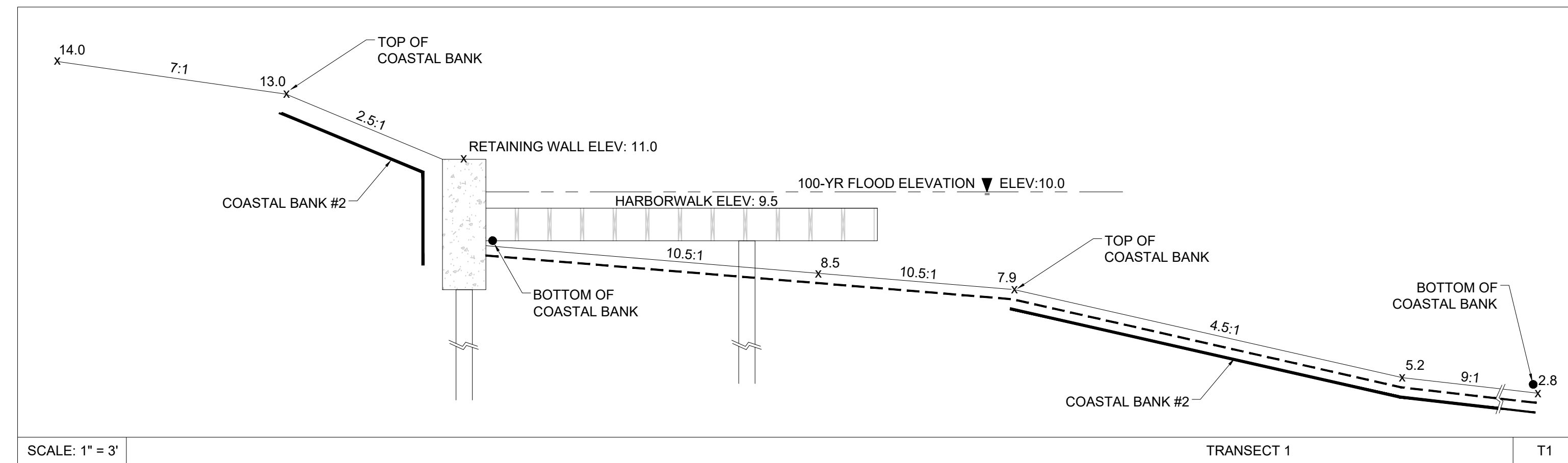
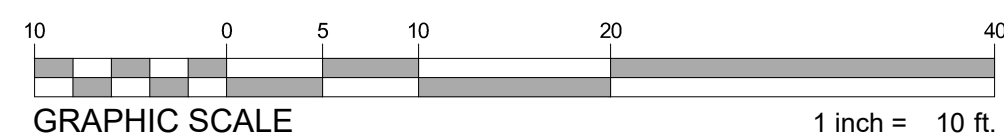


181 COLERIDGE STREET, EAST BOSTON



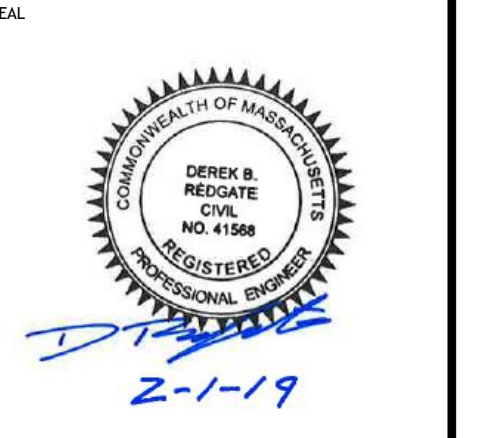
SYMBOL LEGEND	
	TRANSECT
	LAND SUBJECT TO COASTAL STORM FLOWAGE (LSCSF)
	LIMITS OF COASTAL BANK
	100 YEAR FLOOD ELEVATION
	TOE OF BANK

NOTE: TOE OF BANK LIES AT THE LANDWARD EDGE OF A COASTAL BEACH, LAND SUBJECT TO TIDAL ACTION, OR OTHER WETLAND



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181-183 COLERIDGE STREET
 RESIDENTIAL DEVELOPMENT
 181-183 COLERIDGE STREET
 EAST BOSTON, MA
 OWNER/APPLICANT: ROCK DEVELOPMENT

REV	DATE	DESCRIPTION

ISSUE TYPE:
 NOTICE OF INTENT
 ISSUE DATE:
 02.01.2019
 PROJECT NUMBER:
 16038

DRAWN BY: MKM
 CHECKED BY: DBR
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SHEET TITLE:
**COASTAL BANK
 DELINEATION
 PLAN - POSTDEV**

SHEET NUMBER:
POST-01

