



**US Army Corps  
of Engineers** ®  
New England District  
696 Virginia Road  
Concord, MA 01742-2751

# PUBLIC NOTICE

**Comment Period Begins: August 22, 2017**  
**Comment Period Ends: September 21, 2017**  
**File Number: NAE-2014-02247**  
**In Reply Refer To: Alan R. Anacheka-Nasemann, PWS**  
**Phone: (978) 318-8214**  
**E-mail: [alan.r.anacheka-nasemann@usace.army.mil](mailto:alan.r.anacheka-nasemann@usace.army.mil)**

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The District Engineer has received a permit application to conduct work in waters of the United States, from the Town of Plymouth Department of Public Works, 159 Camelot Drive, Plymouth MA 02360. This work is proposed in Plymouth Harbor at Water Street and the Town Wharf, Plymouth, Massachusetts. The site coordinates are: Latitude: 41.96028; Longitude: -70.66502.

The work involves (1) "Segment A:" dredging of approximately 1500 cubic yards of material to approximately 5' – 6' below/waterward of the mean high water (MHW) elevation, the discharge of fill material into approximately 5400 square feet (0.12) acre of tidal waters of the United States in order to facilitate expansion (relocation) of an existing 235-foot portion of a seawall approximately 15 feet seaward (NNE) of the existing high tide line, and the additional discharge of approximately 600 s.f. of material (new riprap) for shoreline protection and stormwater improvements including relocation of an existing outfall; (2) "Segment B:" installation of a pile-supported overlook of which approximately 675 square feet is placed over (a maximum of 15' waterward of) MHW; (3) "Segment E:" installation of a 90' x 18' boardwalk of which approximately a 90' x 15' section is placed waterward of MHW; and (4) "Segment F:" dredging approximately 220 CY of material from an area of 3600 square feet, replacement of an existing, previously authorized floating dock system (consisting of a 35' x 14' floating dock, a 40' x 6' floating dock and a 80' x 6' floating dock) with a new pile-supported dock system consisting of a new 40' x 16' dock, a 45' x 6' dock and a 45' x 2' dock.

All dredged material will either be reused onsite as fill material (to the extent practicable and permissible) or disposed of at a suitable upland site well removed from waters of the United States. Additional work includes installation of additional boardwalks, overlooks, parapets and other infrastructure improvements ("Segments 'C' and 'D' "). Portions of this work is located landward of MHW and thus does not involve work and/or discharge of dredged or fill material into waters of the United States and therefore is not subject to Department of the Army jurisdiction.

The purpose of the proposed project is to address inadequate and outdated pedestrian facilities and related roadway infrastructure along an intensively used section of Water Street in the Town of Plymouth's historic waterfront district, immediately north of Pilgrim Memorial State Park. Particular aspects include creating sidewalk access compliant with the Americans with Disabilities Act (ADA), improving stormwater treatment, providing enhanced lighting, facilitating adaptation to expected future sea-level rise, and accommodate increased tourism.

The work is shown on the attached plans entitled "WATER STREET PROMENADE, NORTHERN SECTION," on 30 sheets, and dated "JULY 2017."

**CENAE-R**  
**FILE NO. NAE-2014-02247**

The applicant has taken appropriate and practicable steps to ensure that impacts associated with the proposed activity are to be avoided, minimized, and compensated for. The project as proposed avoids potential impacts of further expansion of seawalls, originally considered for segments B and D. The existing Segment B seawall was found adequate to accommodate expected pedestrian traffic and ADA-compliance, and an originally proposed bike lane was eliminated. Expanded seawalls in Segment D would eliminate the existing wetlands and the opportunity for expansion and rehabilitation of salt marsh habitat in this segment. The permittee has therefore minimized impacts to the area through use of boardwalks rather than expanded fill into the waterway.

As mitigation for the proposed permanent and unavoidable loss of 7488 square feet of tidal navigable waters of the United States, the applicant has proposed the rehabilitation of 6700 square feet (0.15 acre) of tidal salt marsh wetlands within Segment D (see above), and the re-establishment (restoration) of an additional 16,000 square feet (0.37 acre) of additional salt marsh located in Plymouth Bay at Long Beach, Plymouth, MA. Long Beach mitigation site coordinates are: Latitude: 41.954944; Longitude: -70.636336. The proposed mitigation work is shown on the attached plans entitled, "WATER STREET PROMENADE PROJECT – NORTH SECTION MITIGATION AND MONITORING PLAN," on 9 sheets, and dated, "July 2017."

**AUTHORITY**

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.



**ESSENTIAL FISH HABITAT**

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

This project will impact 0.12 acre of Essential Fish Habitat (EFH) due to the proposed expansion of the existing seawall at Segment A for the following species:

Species	Life Stages* with EFH Designated	Life Stages with EFH Temporarily Impacted	Life Stages with EFH Lost
Pollock ( <i>Pollachius virens</i> )	L, J, A	J	J
Winter Flounder ( <i>Pseudopleuronectes americanus</i> )	E, L, J, A	L, J	J
Windowpane Flounder ( <i>Scopthalmus aquosus</i> )	E, L, J, A	L, J	J
Ocean Pout ( <i>Macrozoarces americanus</i> )	E, L, J, A	J	J
Bluefish ( <i>Pomatomus saltatrix</i> )	J, A	J, A	
Atlantic Mackerel ( <i>Scomber scombrus</i> )	E, L, J, A	J, A	
Scup ( <i>Stenotomus chrysops</i> )	J, A	J, A	

\*E=Eggs, L=Larvae, J=Juvenile, A=Adults

This habitat consists of sand, coarse sand, and cobble. Loss of this habitat may adversely affect the above life stages of the species listed above, including loss of habitat for juvenile Pollock, winter flounder, windowpane flounder and ocean pout. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision. The proposed mitigation project is expected to offset at least some of the life stages impacted. The Corps of Engineers has adopted the EFH assessment provided by the permit applicant and will submit it to National Marine Fisheries Service, who in turn will provide conservation recommendations to the Corps. The Corps will coordinate with the applicant regarding implementation of these recommendations. The EFH consultation will be concluded prior to the final decision.

**NATIONAL HISTORIC PRESERVATION ACT**

Based on his initial review, the District Engineer has determined that the proposed work may affect, but is not likely to adversely affect, properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

**ENDANGERED SPECIES CONSULTATION**

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be

operated/used in such a manner that it is not likely to adversely affect any federally-listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

### **COASTAL ZONE MANAGEMENT**

The states of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable, the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

- Permit, License or Assent from State.
- Permit from Local Wetland Agency or Conservation Commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Alan R. Anacheke-Nasemann at (978) 318-8214, or via e-mail at: [alan.r.anacheke-nasemann@usace.army.mil](mailto:alan.r.anacheke-nasemann@usace.army.mil).

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

**THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.**



**Barbara H. Newman**  
**Chief, Permits and Enforcement Branch**  
**Regulatory Division**

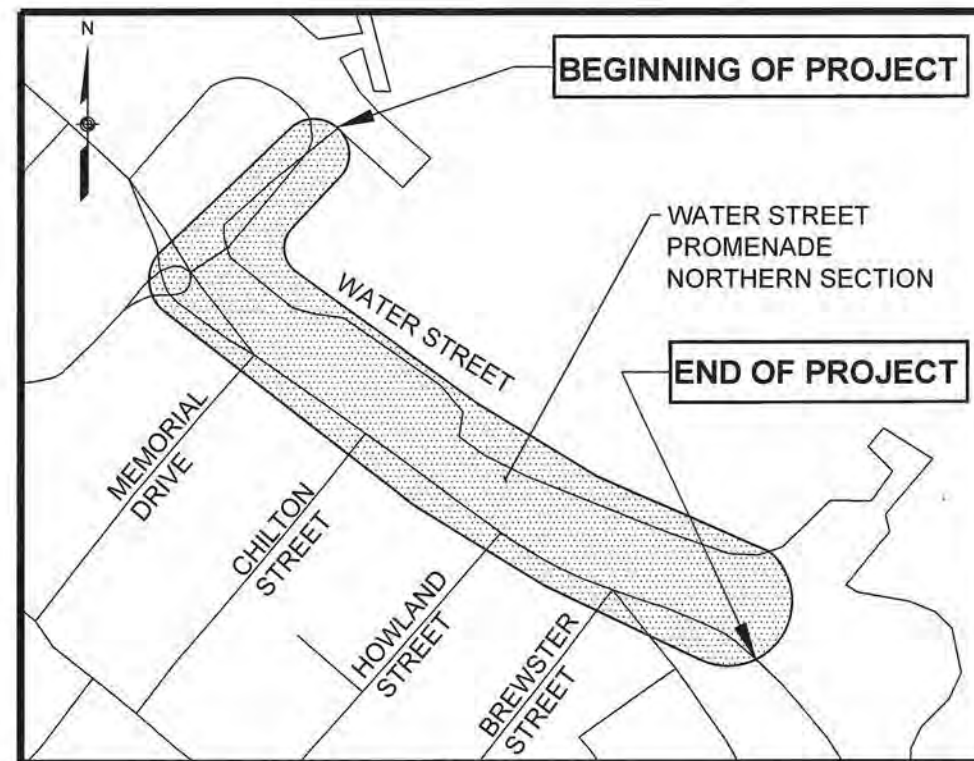


**CENAE-R**  
**FILE NO. NAE-2014-02247**

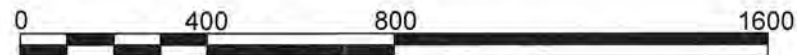
If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at [bettina.m.chaisson@usace.army.mil](mailto:bettina.m.chaisson@usace.army.mil). You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
PHONE: \_\_\_\_\_

# TOWN OF PLYMOUTH, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS WATER STREET PROMENADE, NORTHERN SECTION JULY 2017



● PROJECT LOCATION      LOCATION MAP



SCALE: 1" = 400'

WATER STREET  
LENGTH OF PROJECT = 1385 FEET = 0.26 MILES

PREPARED BY:



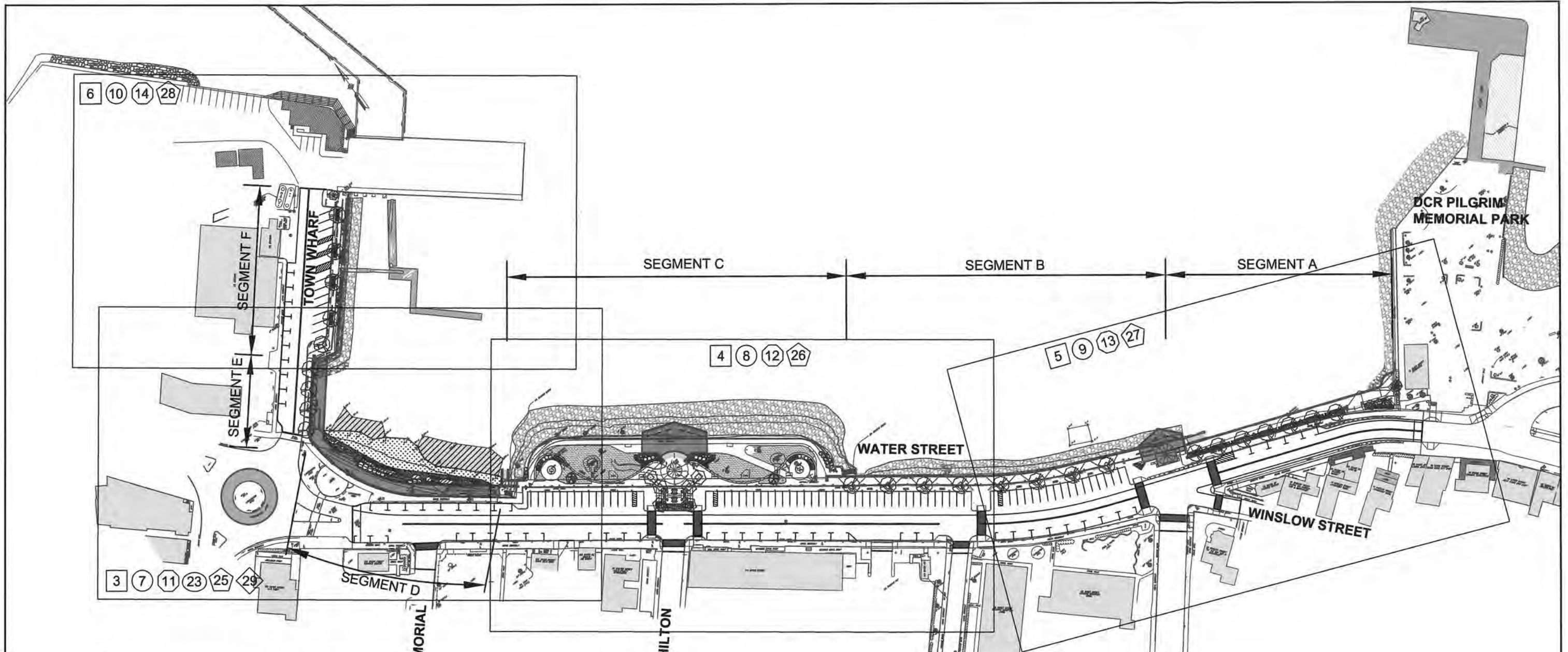
## PLAN INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET & INDEX
2	KEYPLAN
3-6	EXISTING CONDITIONS
7-10	CONSTRUCTION PLAN
11-14	DRAINAGE AND UTILITY PLAN
15-22	CRITICAL CROSS SECTIONS
23-24	PLANTING PLAN
25-28	CONSTRUCTION ACCESS PLAN
29-30	SUMMARY OF SHORELINE ACTIVITIES, IMPACTS, & MITIGATION



REGISTERED PROFESSIONAL ENGINEER      DATE





- XX EXISTING CONDITIONS PLANS
- ⊗ SITE PLANS
- ⊗ DRAINAGE & UTILITY PLANS
- ⊗ CONSTRUCTION ACCESS PLANS
- ⊗ PLANTING PLANS
- ⊗ SUMMARY OF ACTIVITIES, IMPACTS, AND MITIGATIONS

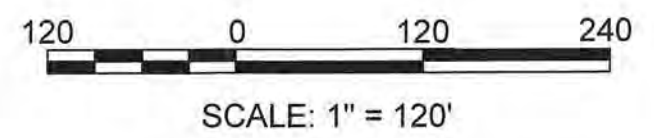
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WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**KEYPLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017



SHEET 2 OF 30

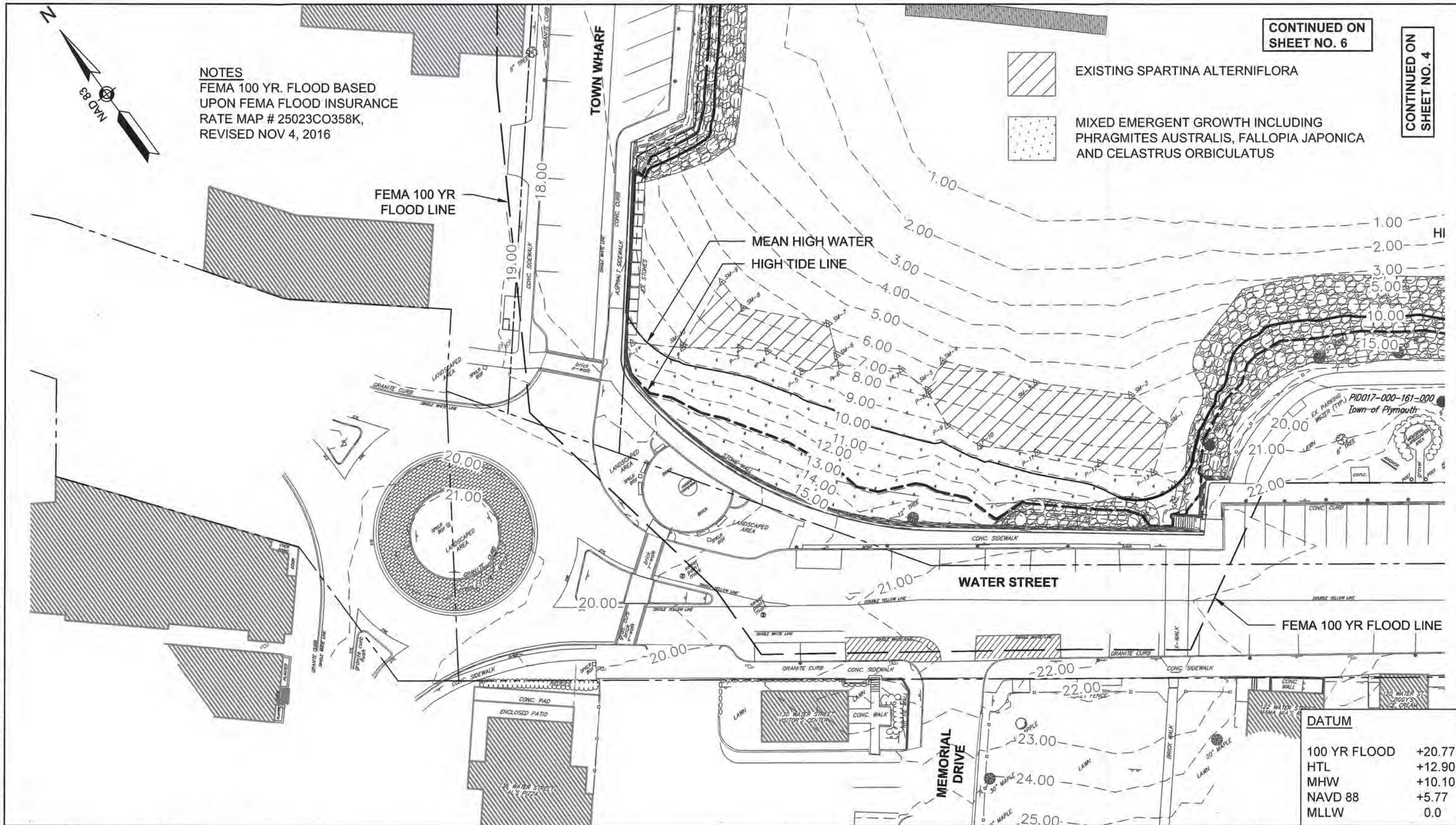


CONTINUED ON SHEET NO. 6

CONTINUED ON SHEET NO. 4

**NOTES**  
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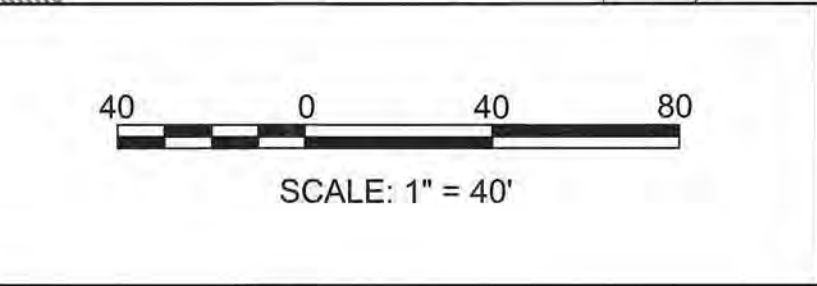
-  EXISTING SPARTINA ALTERNIFLORA
-  MIXED EMERGENT GROWTH INCLUDING PHRAGMITES AUSTRALIS, FALLOPIA JAPONICA AND CELASTRUS ORBICULATUS



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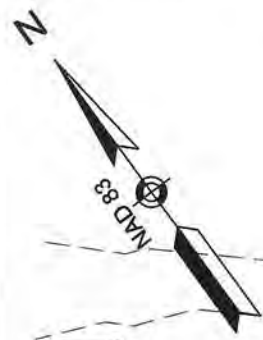


**WATER STREET PROMENADE  
 NORTHERN SECTION  
 SIDEWALK & ROADWAY IMPROVEMENTS  
 EXISTING CONDITIONS  
 PLYMOUTH, MASSACHUSETTS**

ISSUE DATE JULY 2017  
 SHEET 3 OF 30

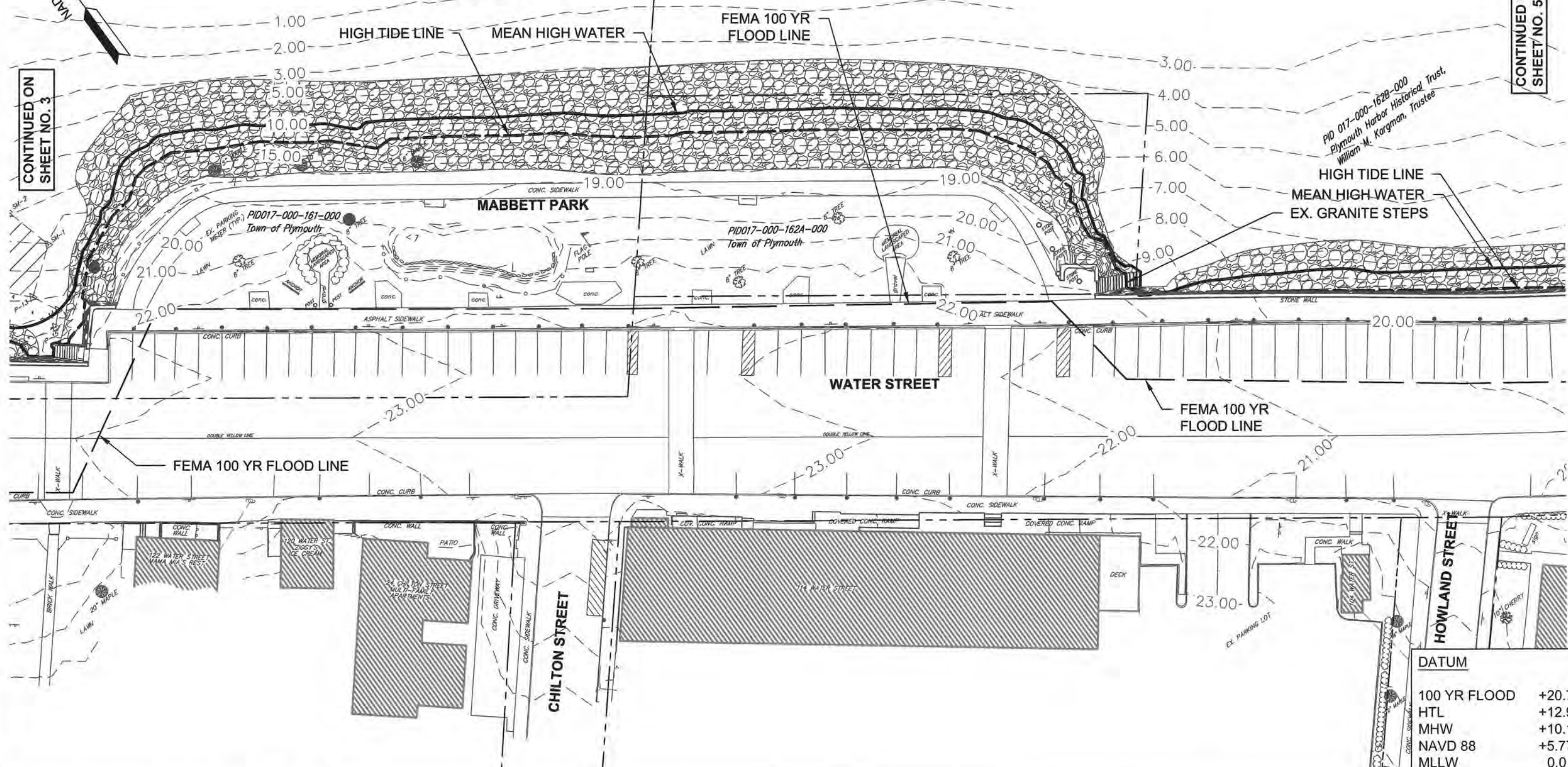


NOTES:  
1. SEE NOTE 1, SHEET 3.



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CONTINUED ON SHEET NO. 5



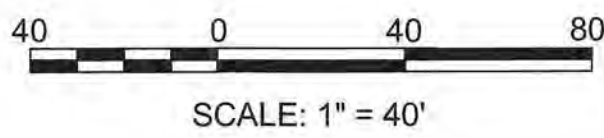
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**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
EXISTING CONDITIONS  
PLYMOUTH, MASSACHUSETTS**

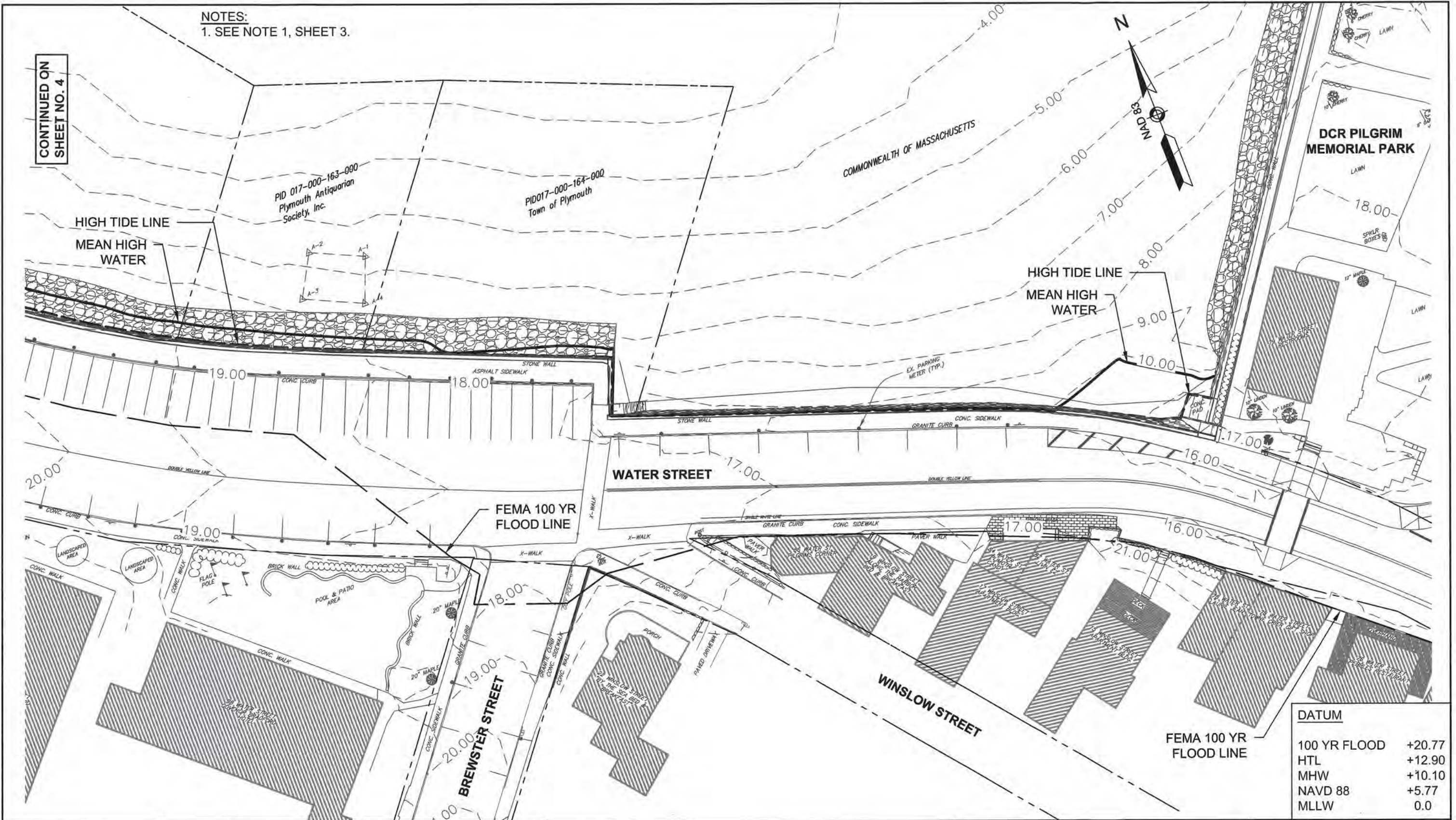
ISSUE DATE JULY 2017

SHEET 4 OF 30



NOTES:  
1. SEE NOTE 1, SHEET 3.

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SHEET NO. 4



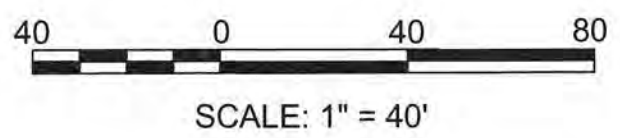
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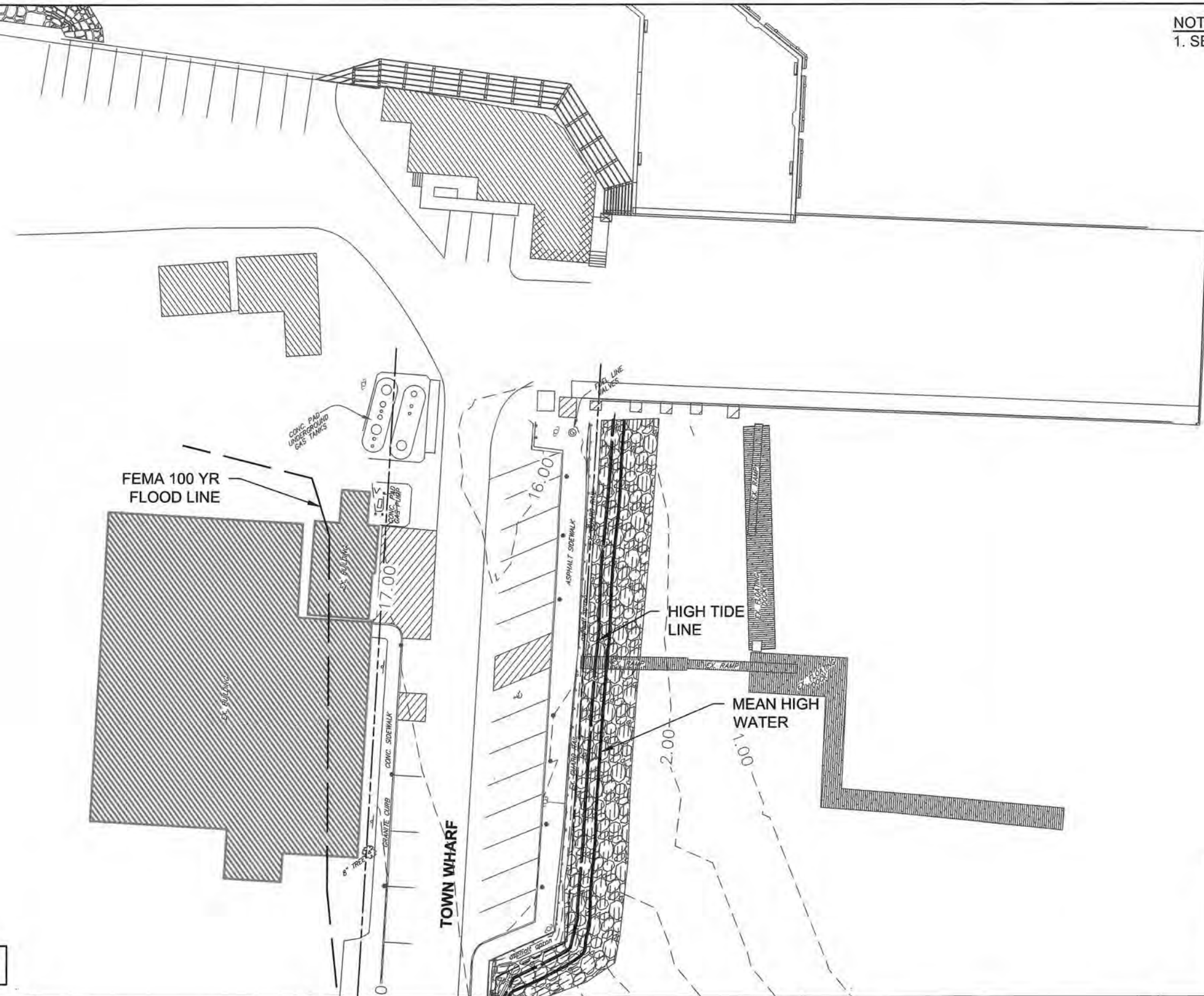
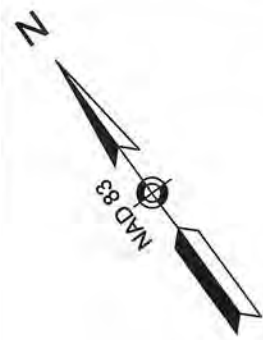
WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**EXISTING CONDITIONS**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 5 OF 30



NOTES:  
1. SEE NOTE 1, SHEET 3.



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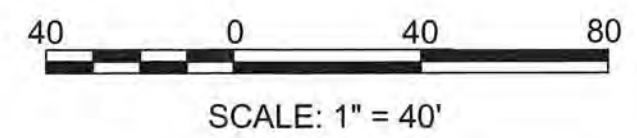
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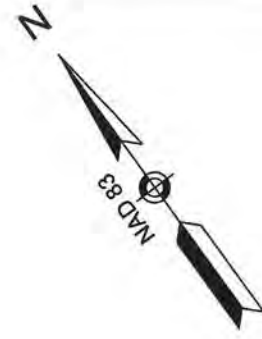


WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**EXISTING CONDITIONS**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE        JULY 2017

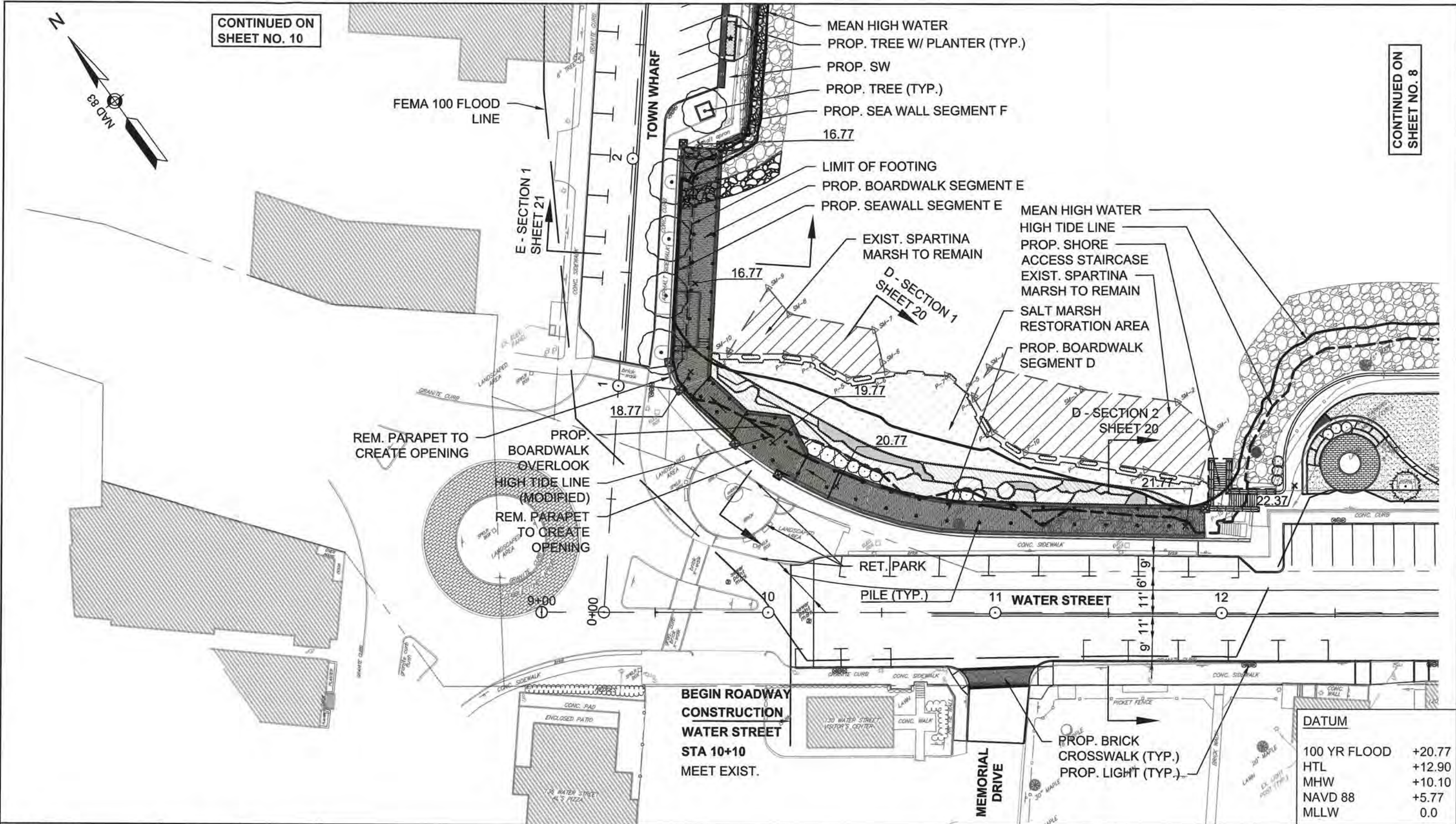
SHEET        6 OF 30





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SHEET NO. 10

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SHEET NO. 8



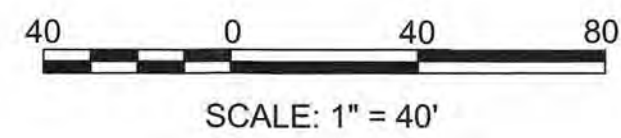
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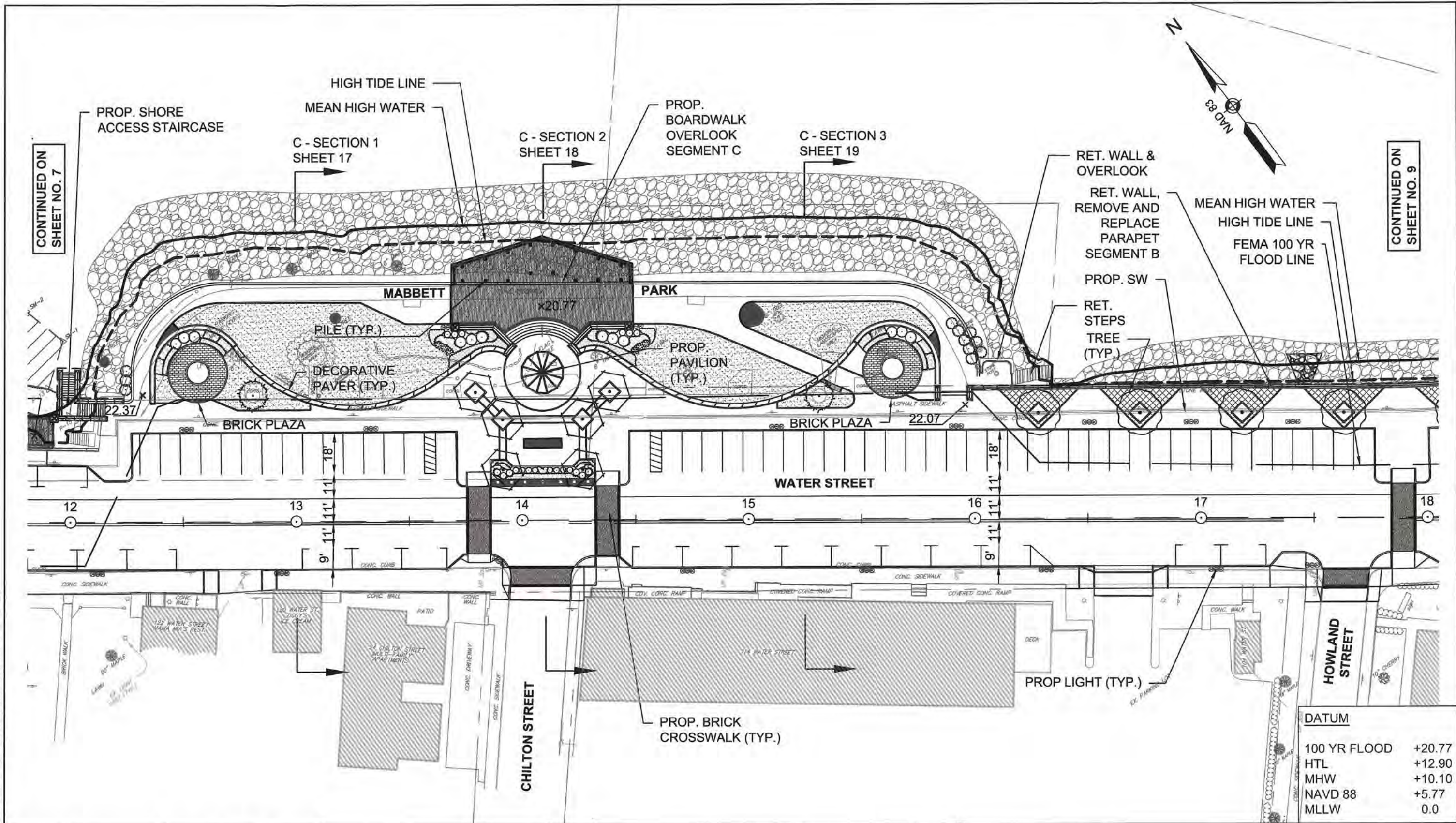
WATER STREET PROMENADE  
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SIDEWALK & ROADWAY IMPROVEMENTS  
**SITE PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 7 OF 30



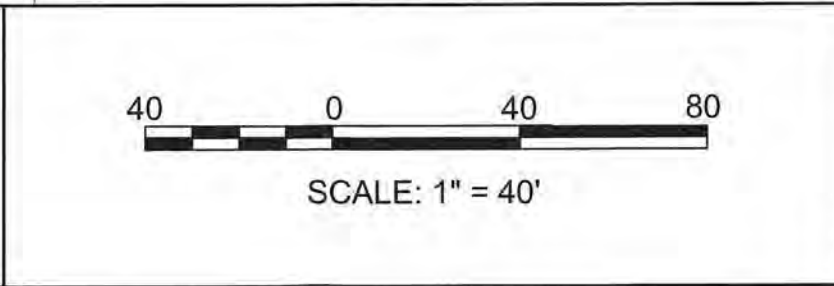
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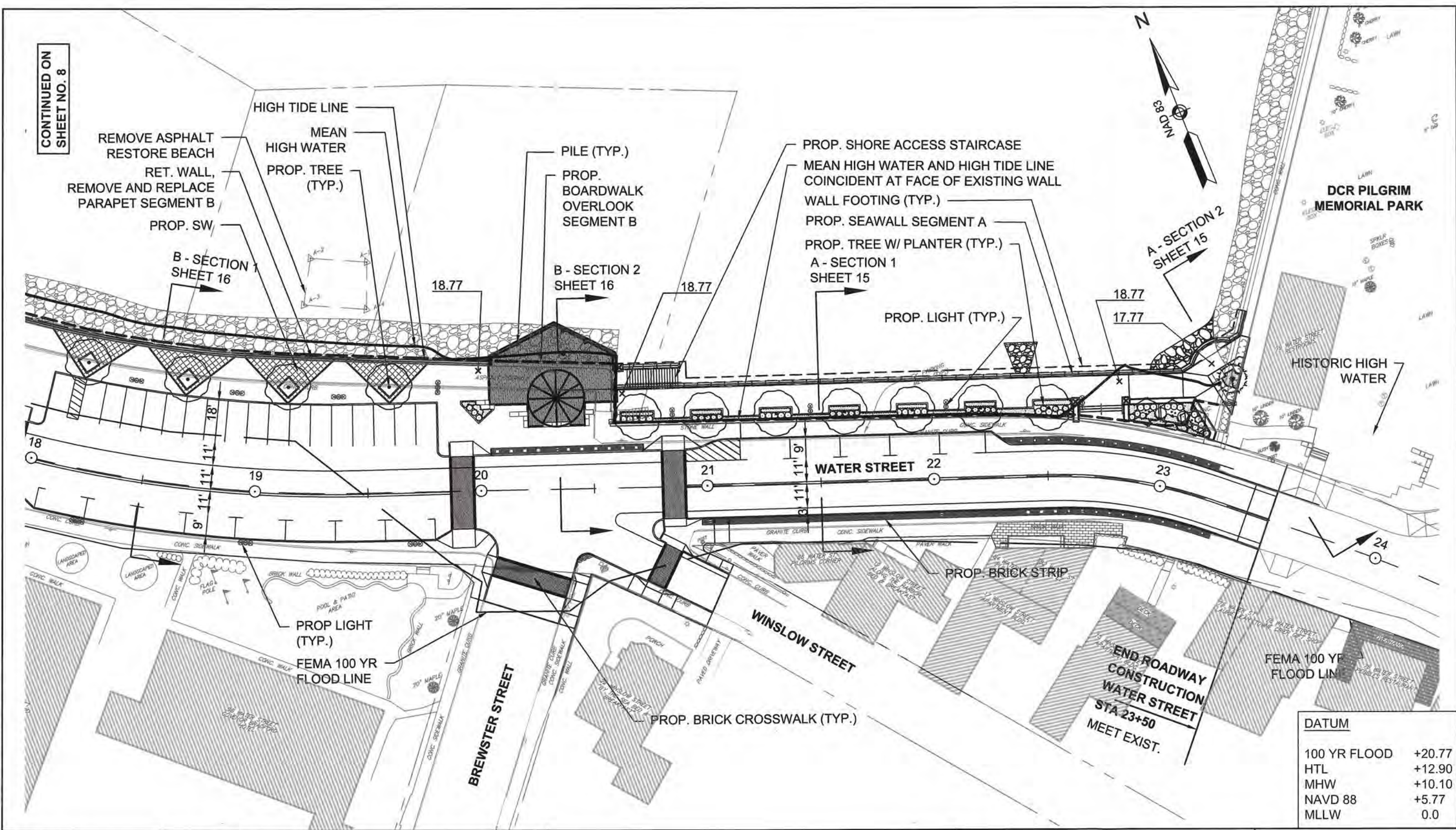
WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**SITE PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 8 OF 30



CONTINUED ON  
SHEET NO. 8



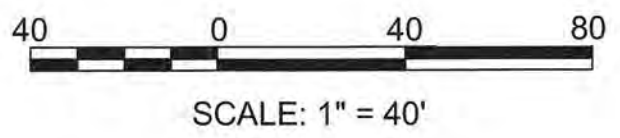
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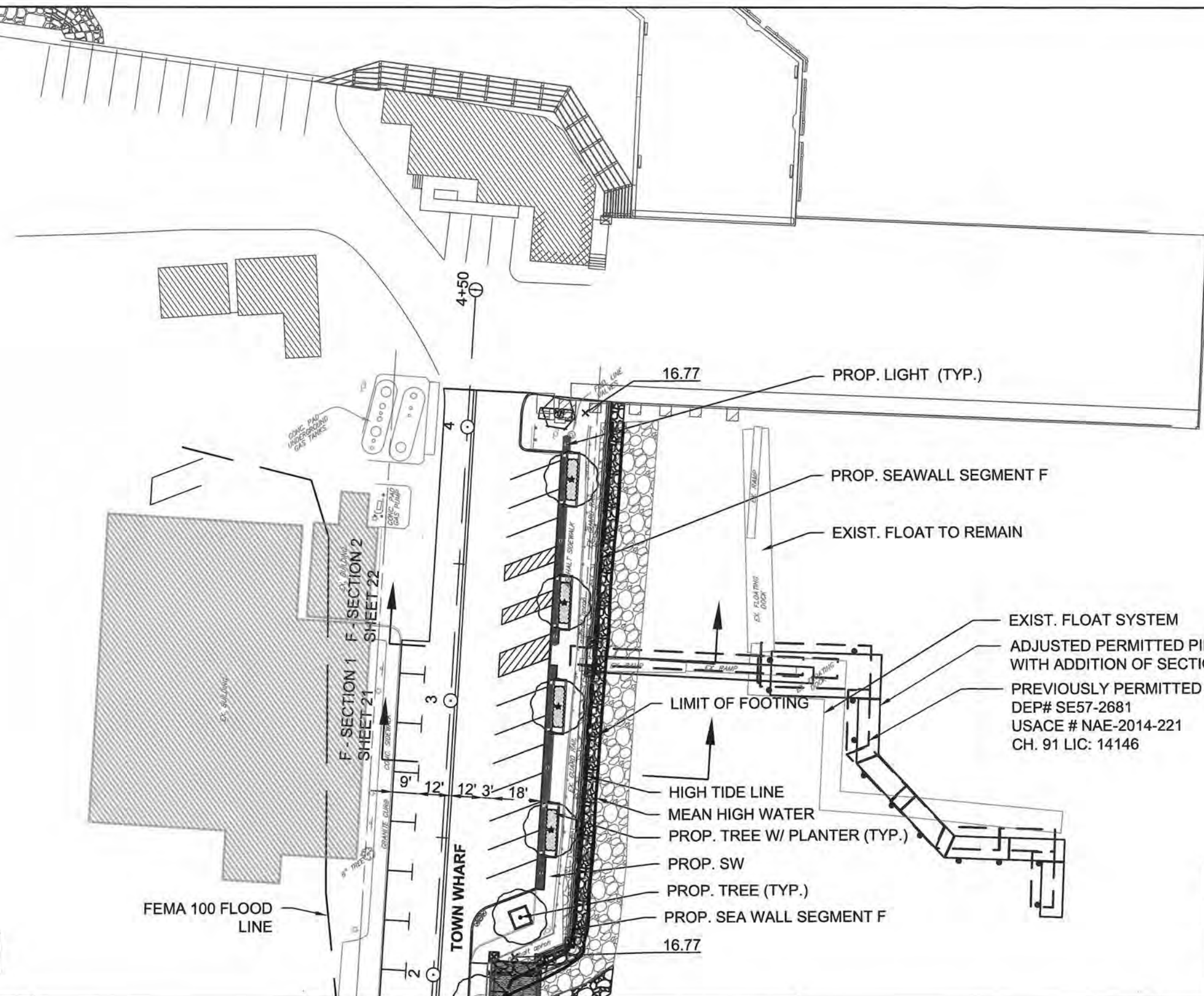
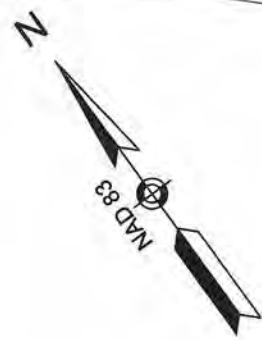


WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**SITE PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 9 OF 30



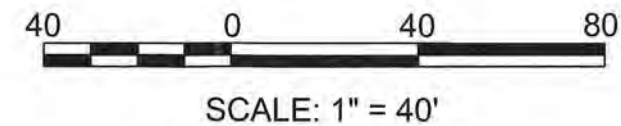


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WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**SITE PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017  
SHEET 10 OF 30



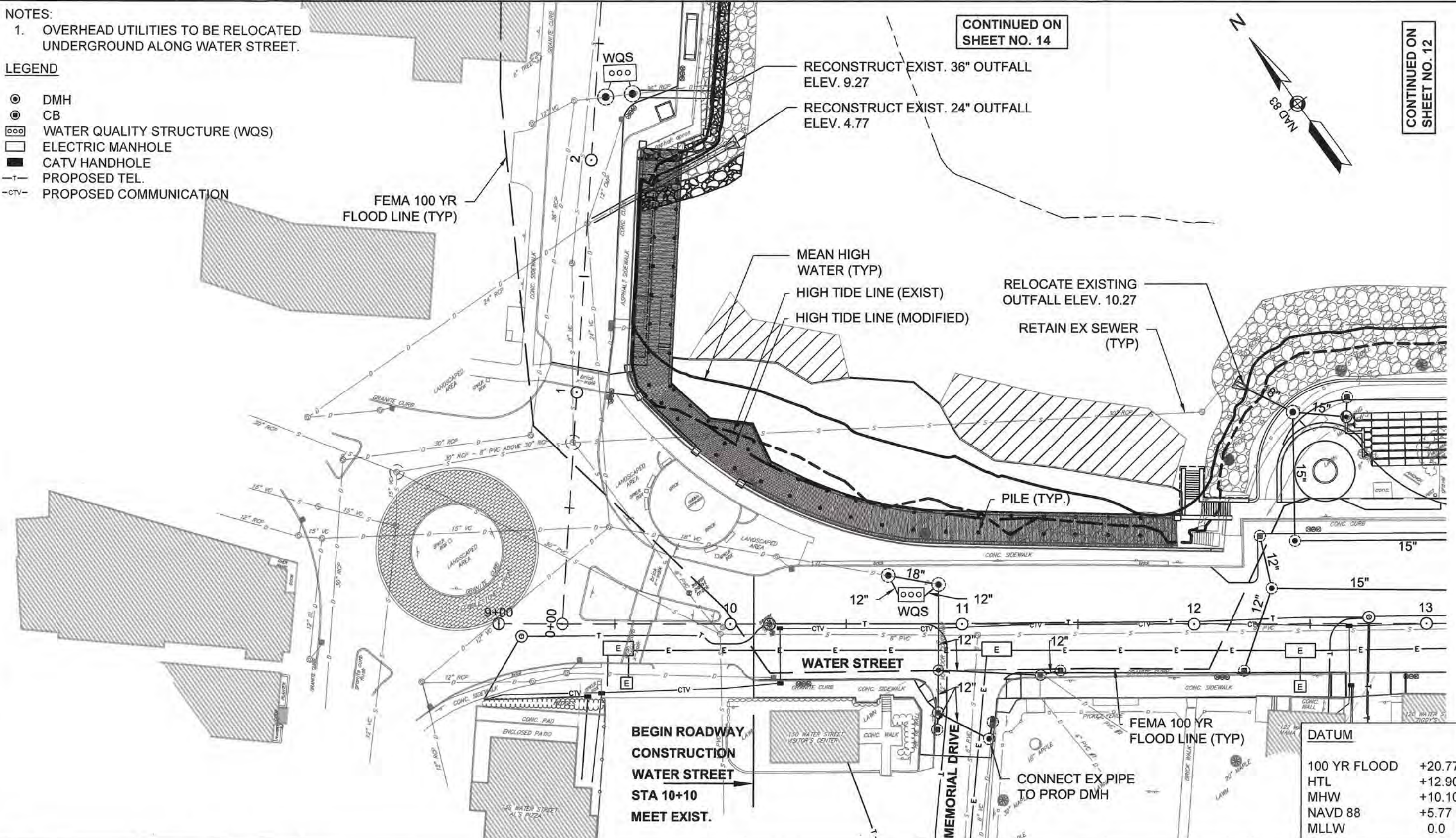
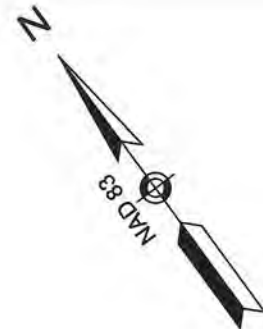
NOTES:  
 1. OVERHEAD UTILITIES TO BE RELOCATED UNDERGROUND ALONG WATER STREET.

LEGEND

- ⊙ DMH
- ⊙ CB
- ⊙ WQS
- ELECTRIC MANHOLE
- CATV HANDHOLE
- T- PROPOSED TEL.
- CTV- PROPOSED COMMUNICATION

CONTINUED ON SHEET NO. 14

CONTINUED ON SHEET NO. 12



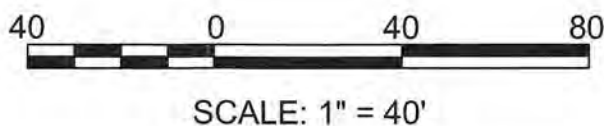
BEGIN ROADWAY CONSTRUCTION WATER STREET STA 10+10 MEET EXIST.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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WATER STREET PROMENADE  
 NORTHERN SECTION  
 SIDEWALK & ROADWAY IMPROVEMENTS  
**DRAINAGE AND UTILITY PLAN**  
 PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 11 OF 30

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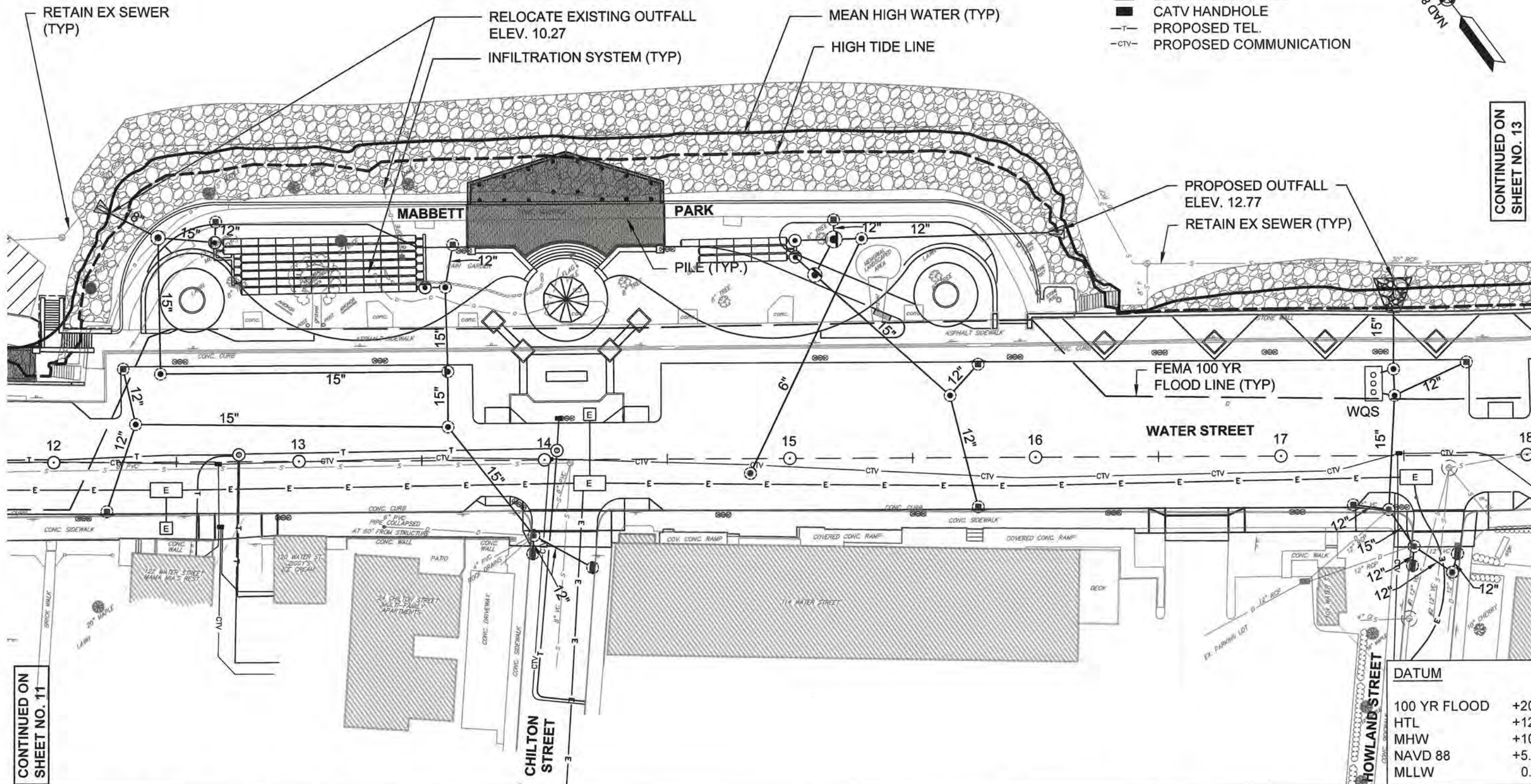
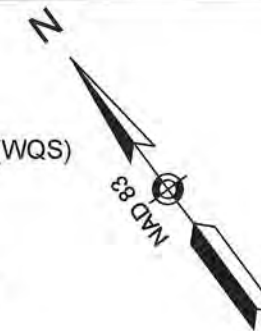


**NOTES:**

1. OVERHEAD UTILITIES TO BE RELOCATED UNDERGROUND ALONG WATER STREET.

**LEGEND**

- ⊙ DMH
- ⊙ CB
- ⊞ WATER QUALITY STRUCTURE (WQS)
- ELECTRIC MANHOLE
- CATV HANDHOLE
- T- PROPOSED TEL.
- CTV- PROPOSED COMMUNICATION



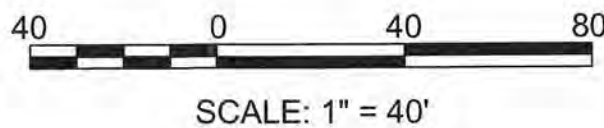
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CONTINUED ON SHEET NO. 11

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NAVD 88	+5.77
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CT  
DESIGNED BY:  
CT  
CHECKED BY:  
MT



**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
DRAINAGE AND UTILITY PLAN  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE       JULY 2017        
SHEET       12 OF 30

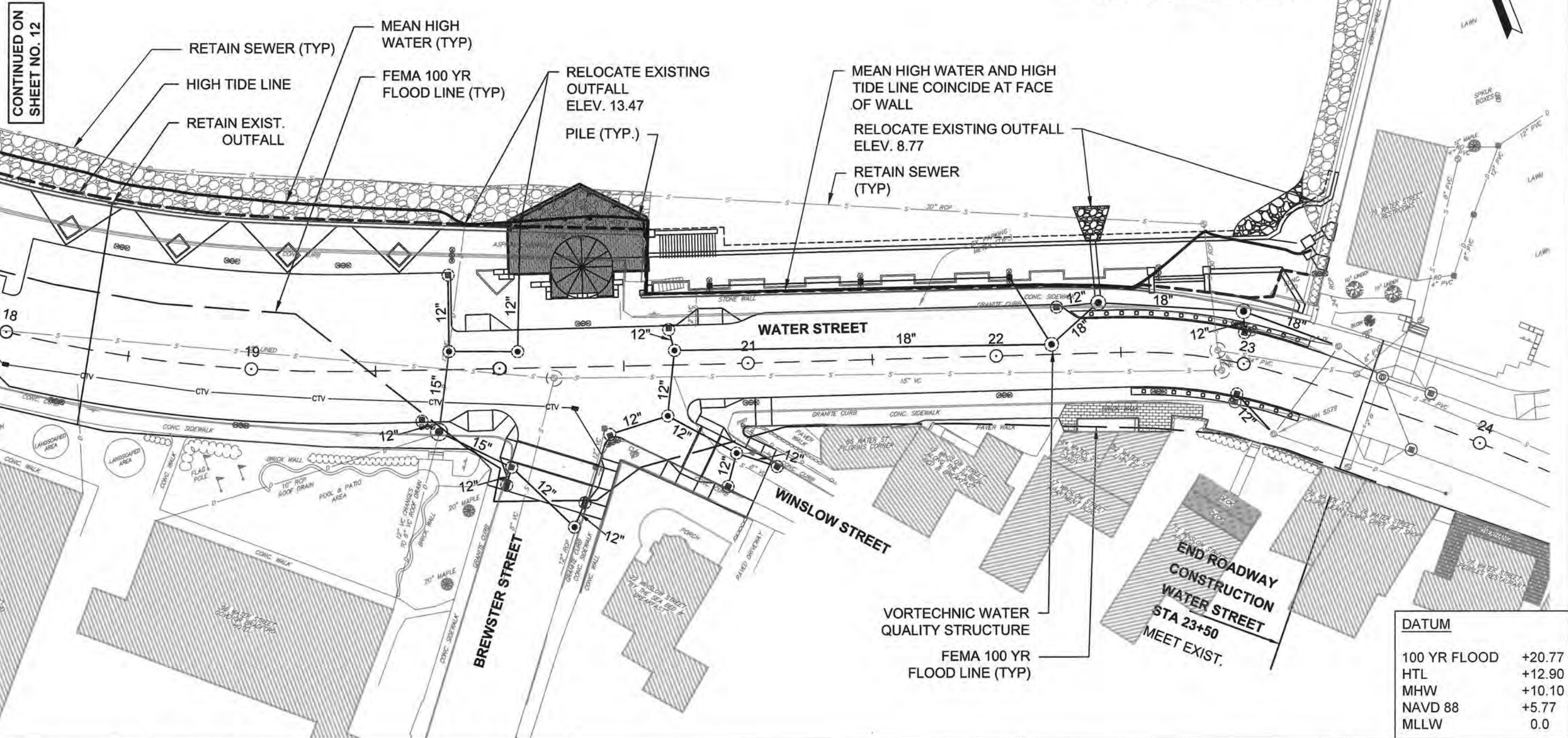


NOTES:

- OVERHEAD UTILITIES TO BE RELOCATED UNDERGROUND ALONG WATER STREET.

LEGEND

- ⊙ DMH
- ⊙ CB
- ◻ WATER QUALITY STRUCTURE (WQS)
- ◻ ELECTRIC MANHOLE
- ◻ CATV HANDHOLE
- T- PROPOSED TEL.
- CTV- PROPOSED COMMUNICATION



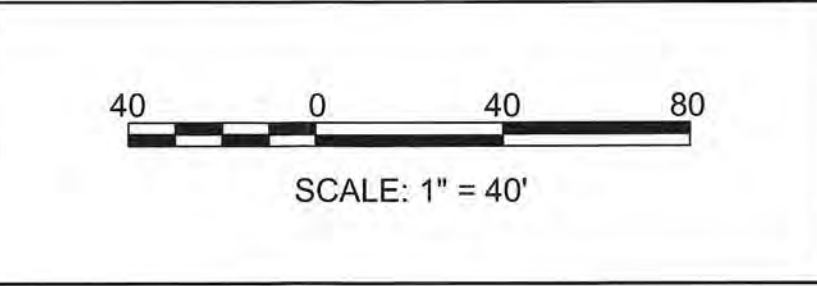
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CT

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MT



WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**DRAINAGE AND UTILITY PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 13 OF 30

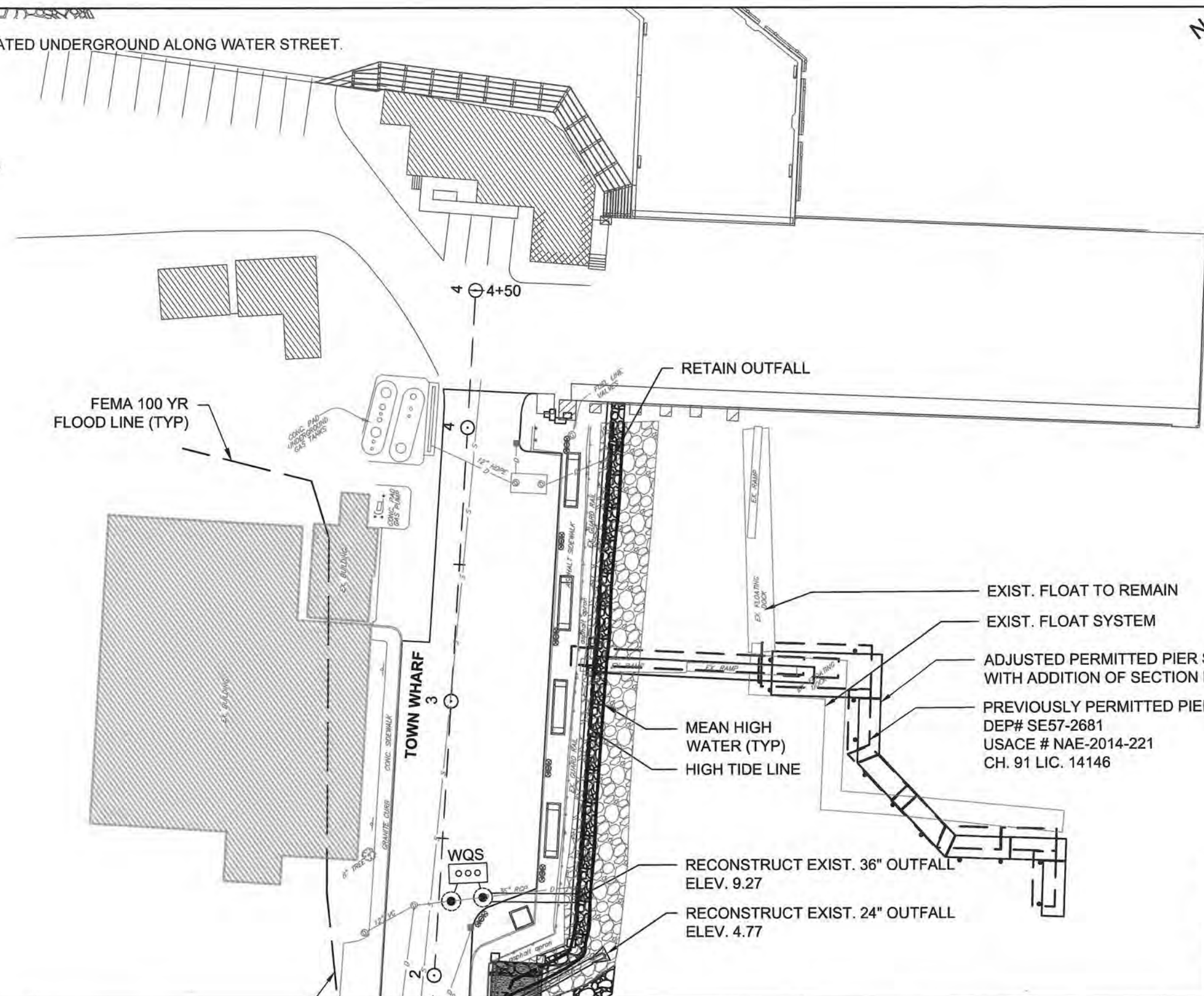
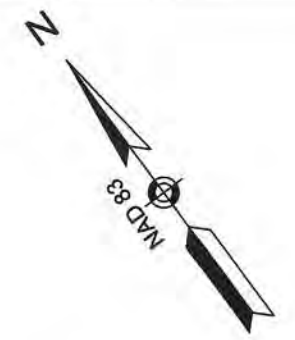


NOTES:

- 1. OVERHEAD UTILITIES TO BE RELOCATED UNDERGROUND ALONG WATER STREET.

LEGEND

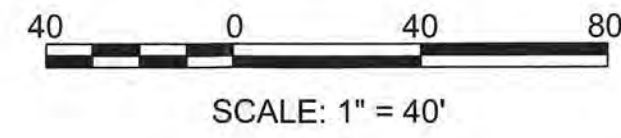
- ⊙ DMH
- ⊙ CB
- ⊞ WQS
- ELECTRIC MANHOLE
- CATV HANDHOLE
- T- PROPOSED TEL.
- CTV- PROPOSED COMMUNICATION



- EXIST. FLOAT TO REMAIN
- EXIST. FLOAT SYSTEM
- ADJUSTED PERMITTED PIER SYSTEM WITH ADDITION OF SECTION F
- PREVIOUSLY PERMITTED PIER SYSTEM  
DEP# SE57-2681  
USACE # NAE-2014-221  
CH. 91 LIC. 14146

DATUM	
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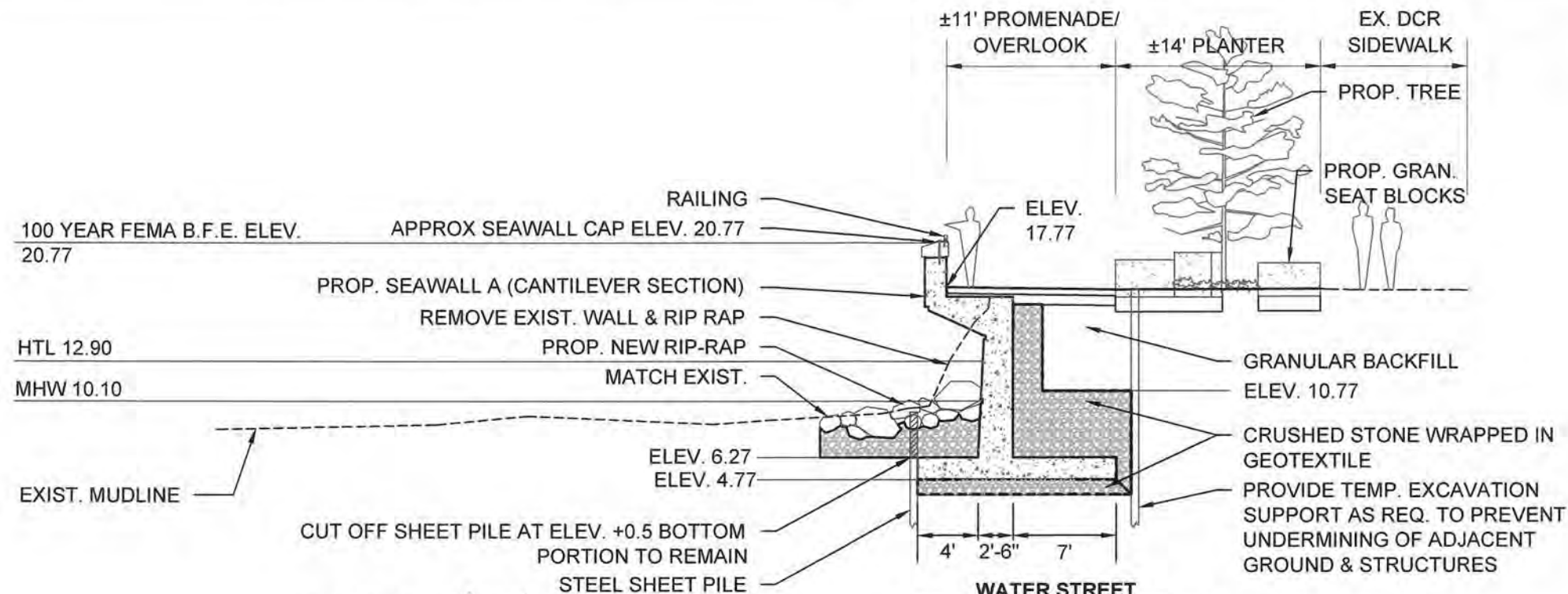
WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
DRAINAGE AND UTILITY PLAN  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

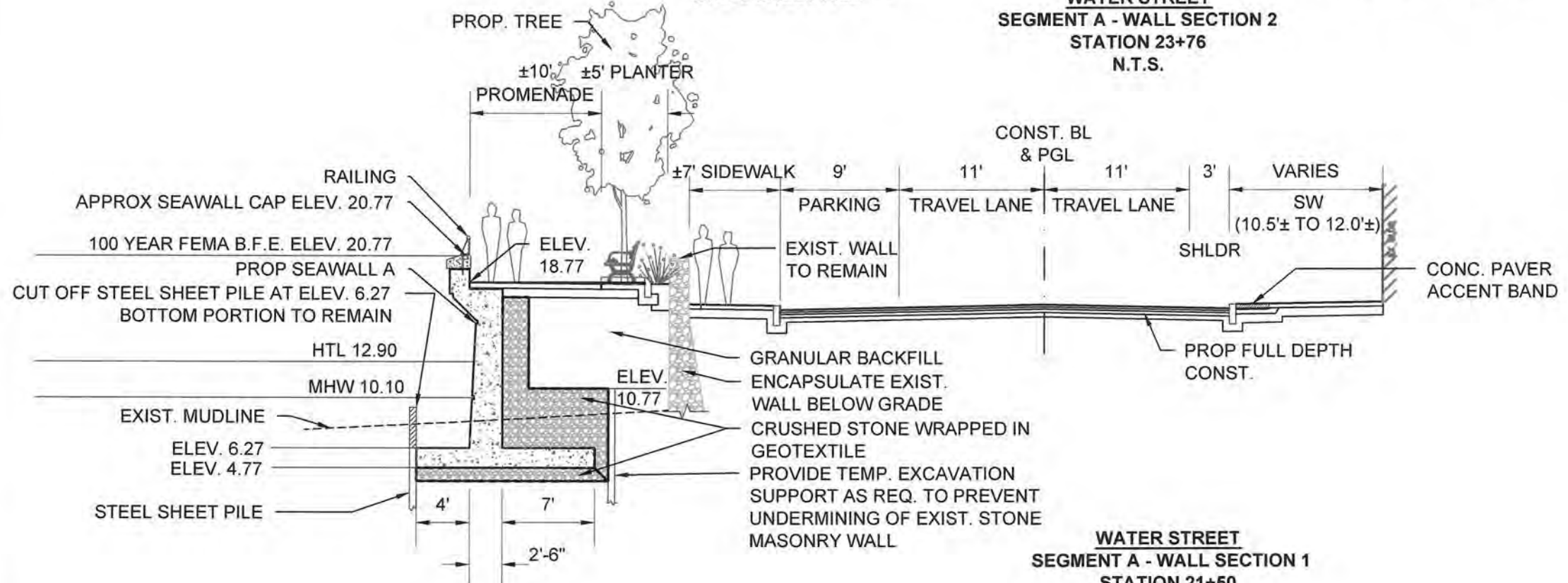
SHEET 14 OF 30

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**WATER STREET  
SEGMENT A - WALL SECTION 2  
STATION 23+76  
N.T.S.**



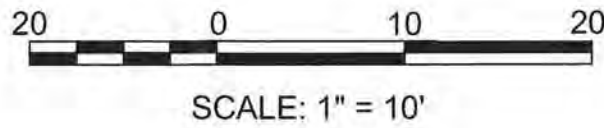
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STATION 21+50  
N.T.S.**

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SD

DESIGNED BY:  
SD

CHECKED BY:  
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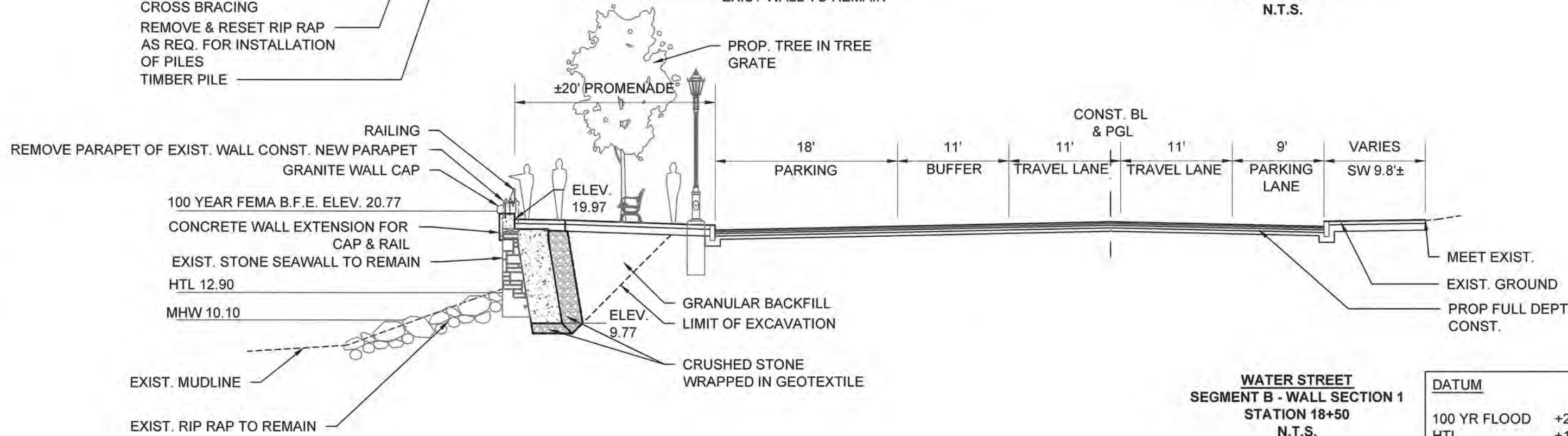
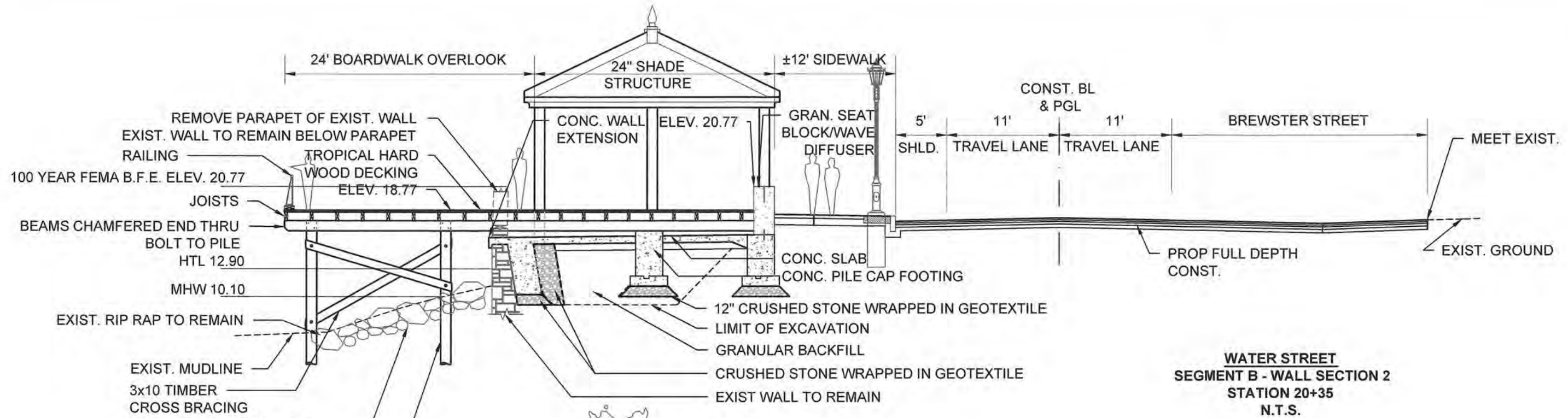
**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017

SHEET        15 OF 30

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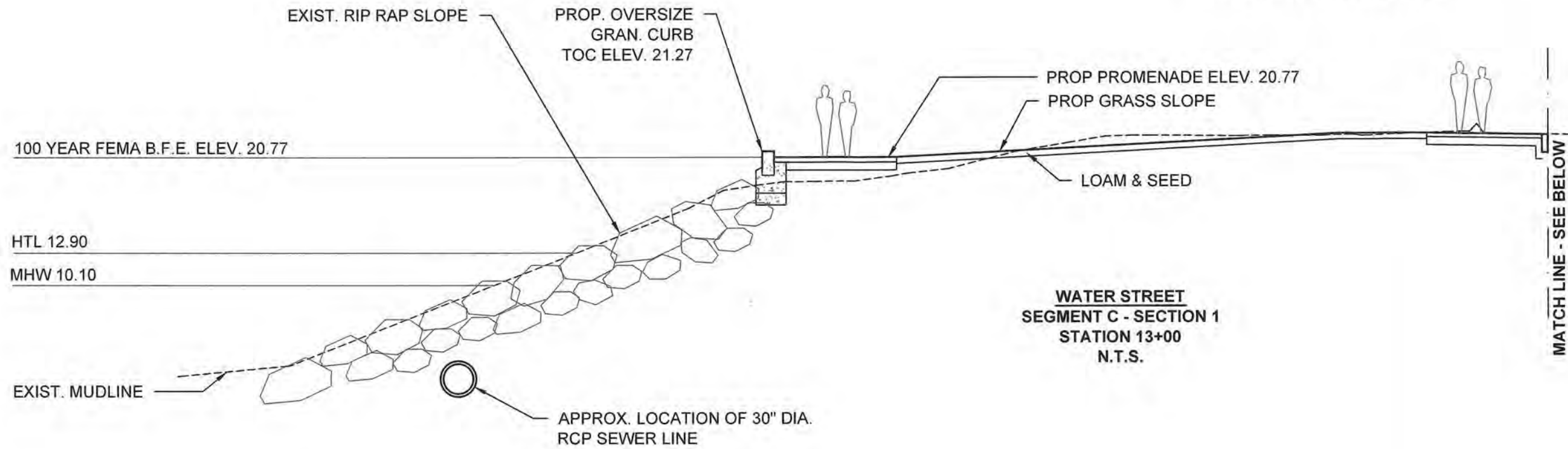
**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017

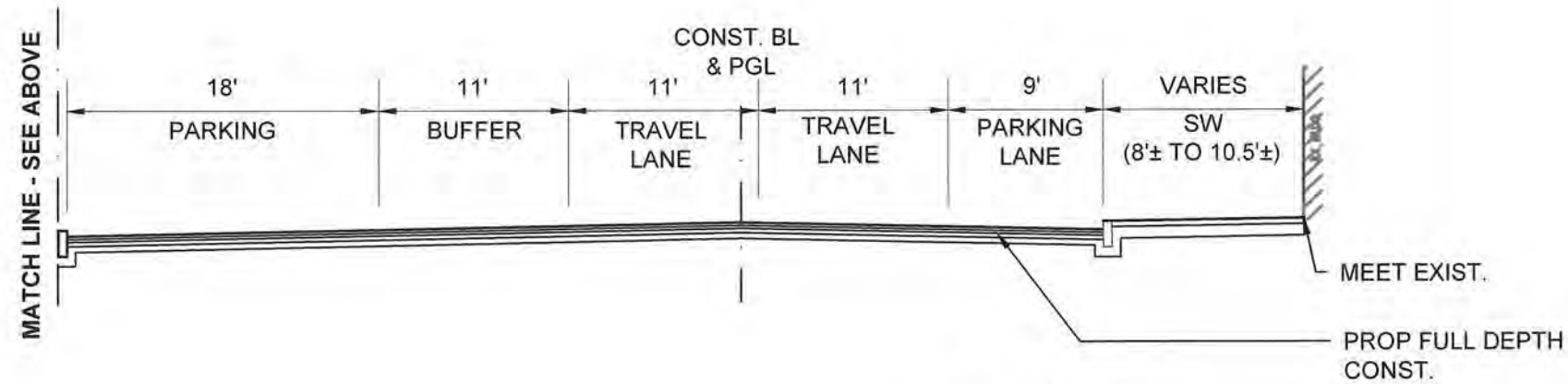
SHEET        16 OF 30



RENOVATED MABBETT PARK



**WATER STREET  
SEGMENT C - SECTION 1  
STATION 13+00  
N.T.S.**



**WATER STREET  
SEGMENT C - SECTION 1  
STATION 13+00  
N.T.S.**

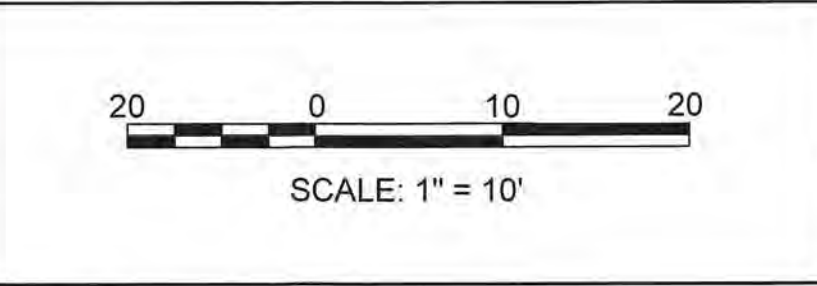
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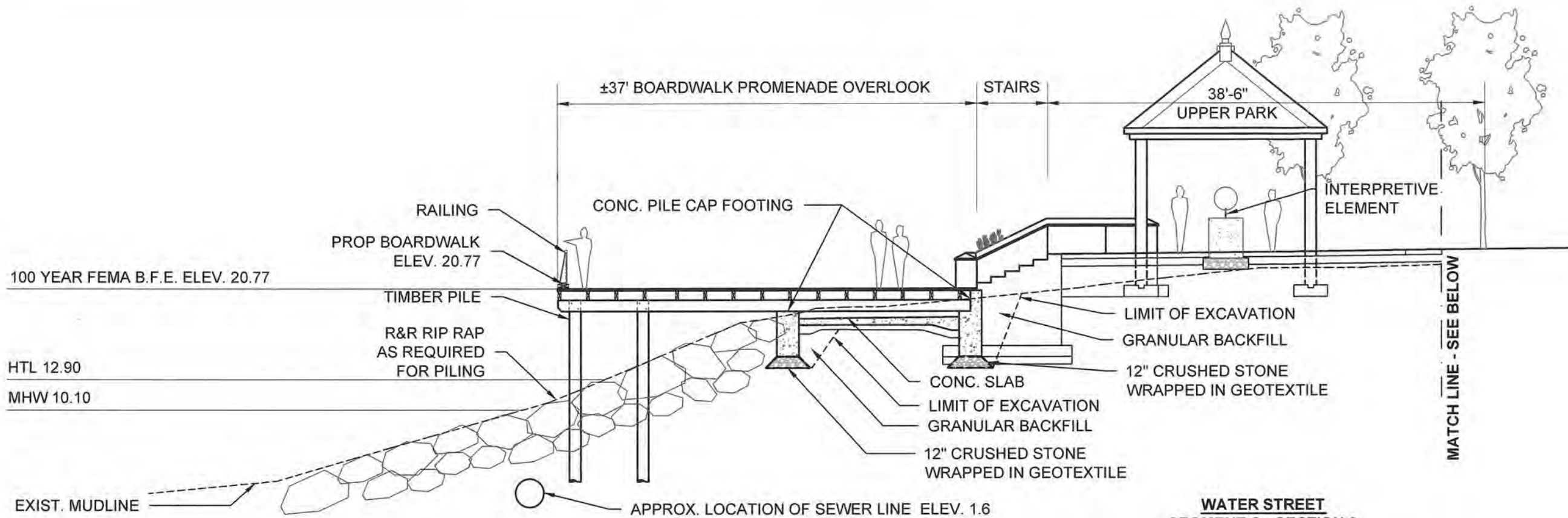


**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

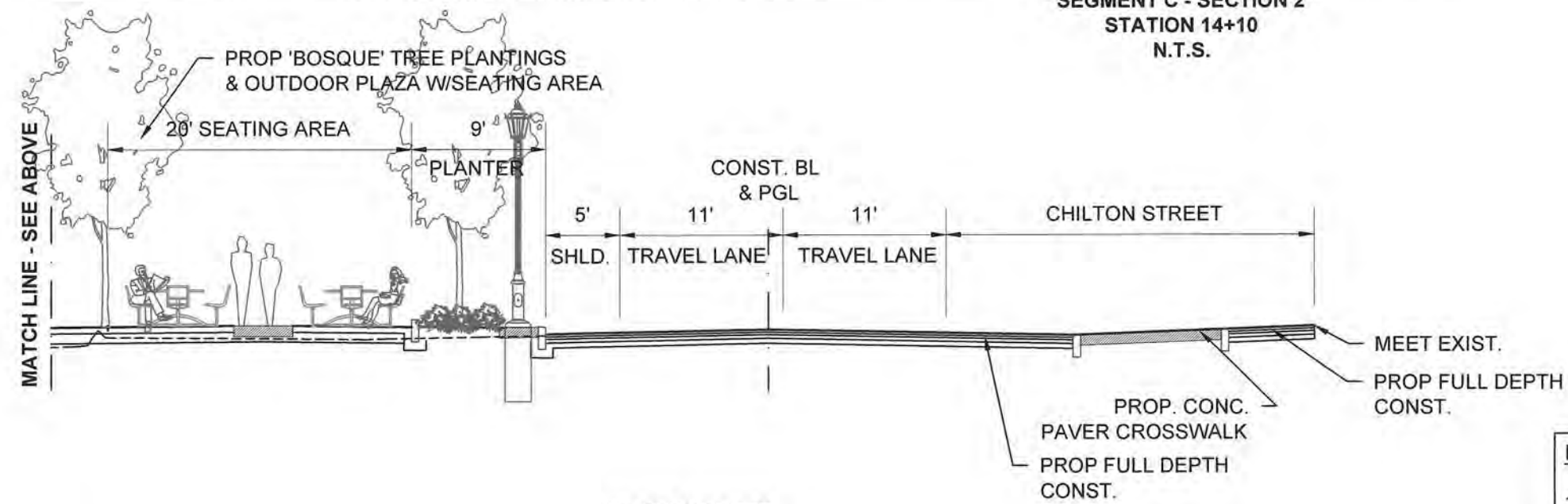
ISSUE DATE        JULY 2017

SHEET        17 OF 30





**WATER STREET  
SEGMENT C - SECTION 2  
STATION 14+10  
N.T.S.**



**WATER STREET  
SEGMENT C - SECTION 2  
STATION 14+10  
N.T.S.**

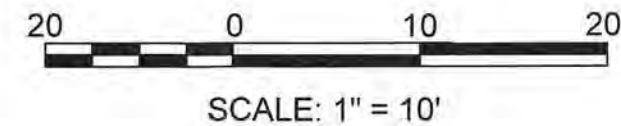
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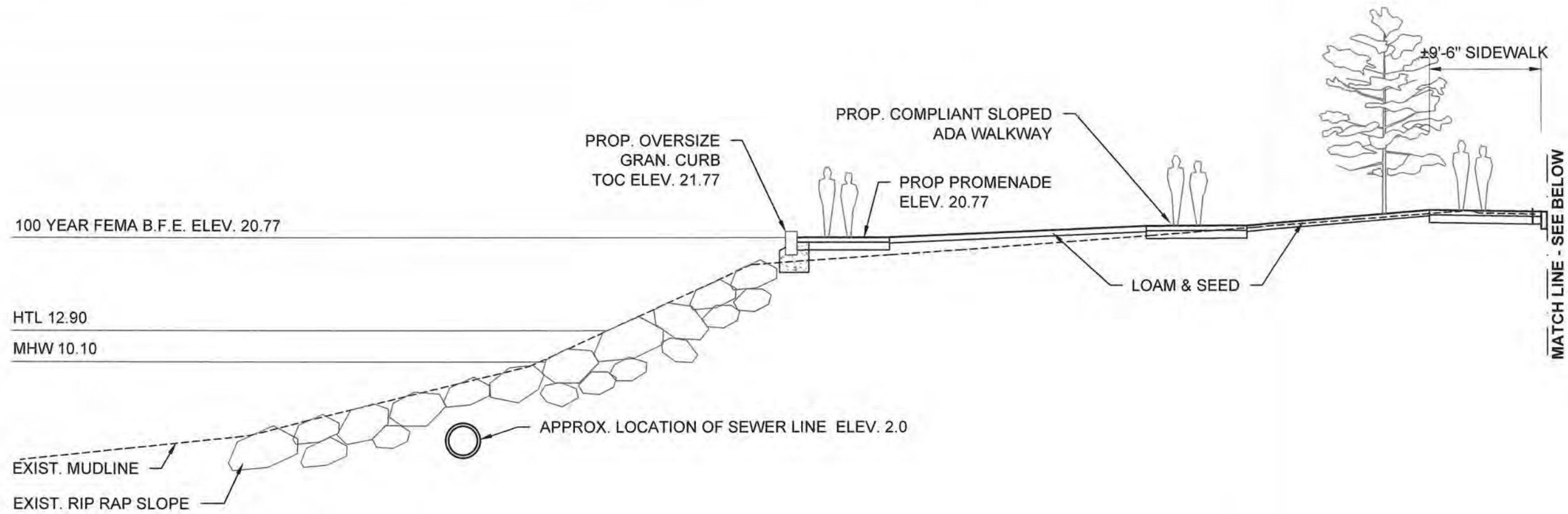


**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017

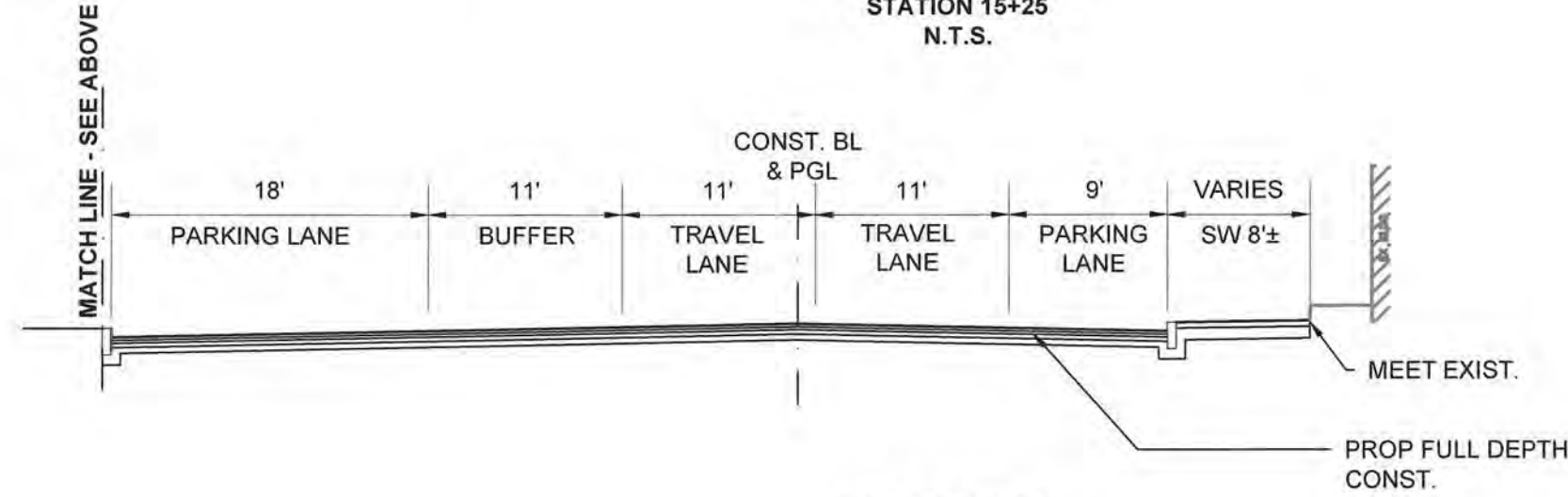
SHEET        18 OF 30





APPROX. LOCATION OF SEWER LINE ELEV. 2.0

**WATER STREET  
SEGMENT C - SECTION 3  
STATION 15+25  
N.T.S.**



**WATER STREET  
SEGMENT C - SECTION 3  
STATION 15+25  
N.T.S.**

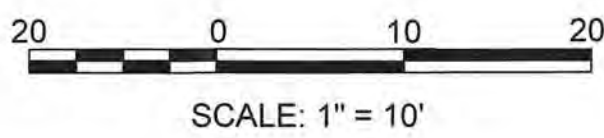
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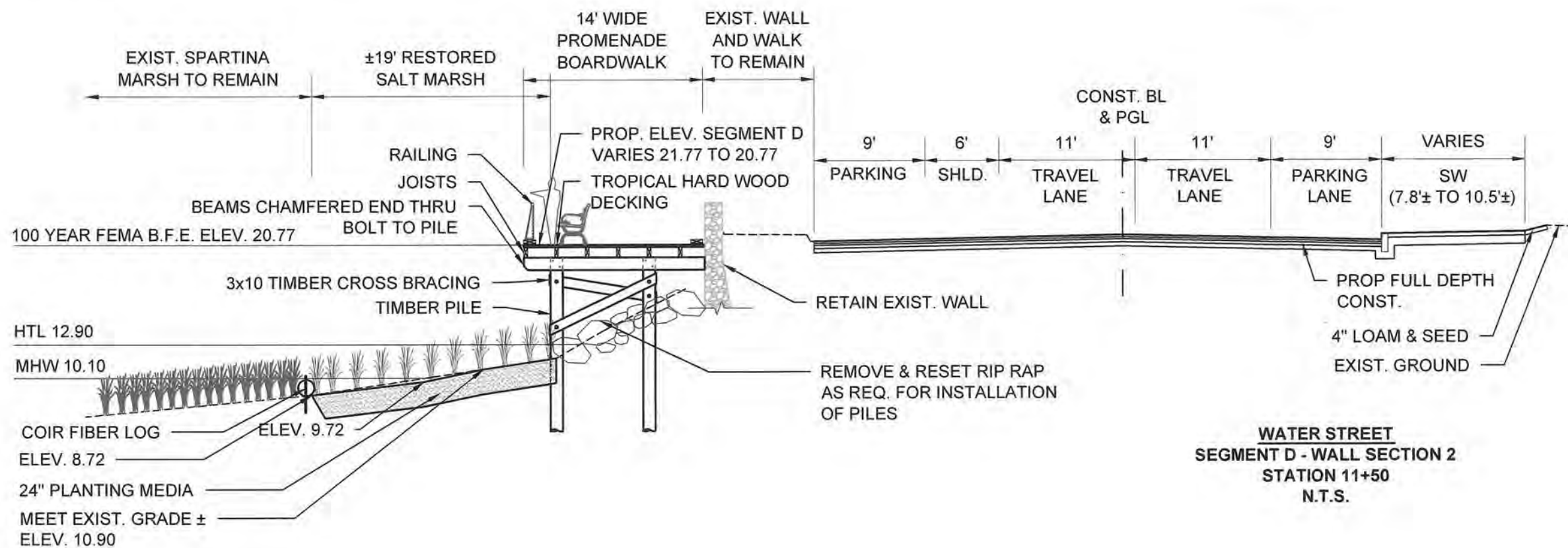


**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

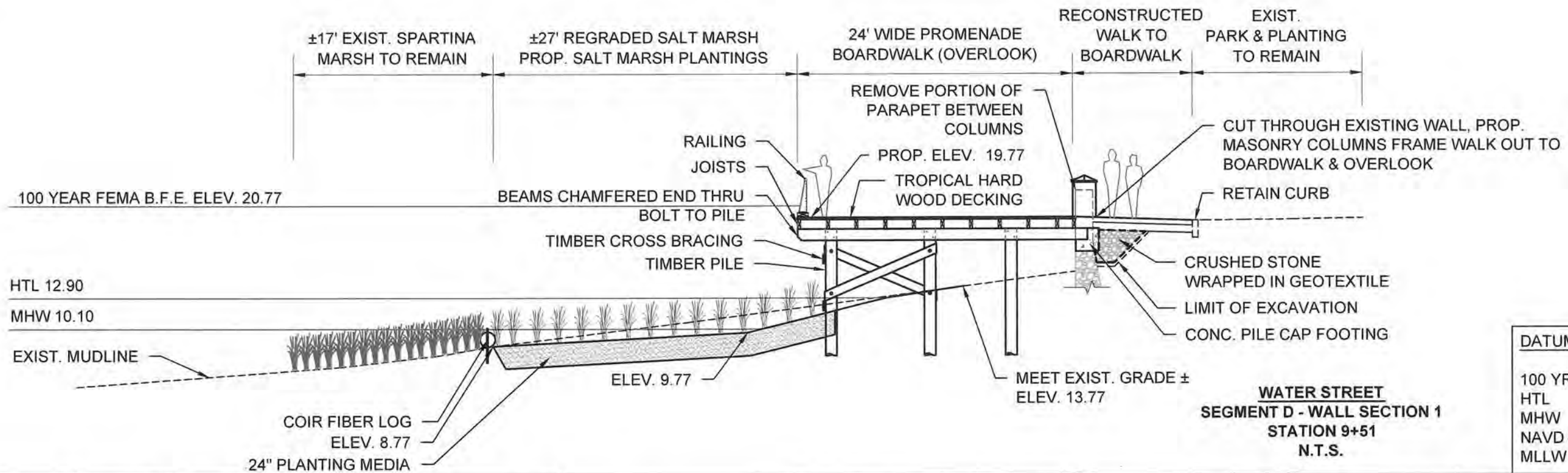
ISSUE DATE       JULY 2017      

SHEET       19 OF 30





**WATER STREET  
SEGMENT D - WALL SECTION 2  
STATION 11+50  
N.T.S.**



**WATER STREET  
SEGMENT D - WALL SECTION 1  
STATION 9+51  
N.T.S.**

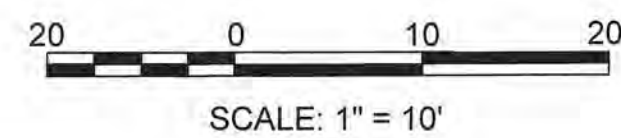
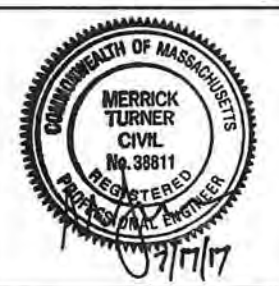
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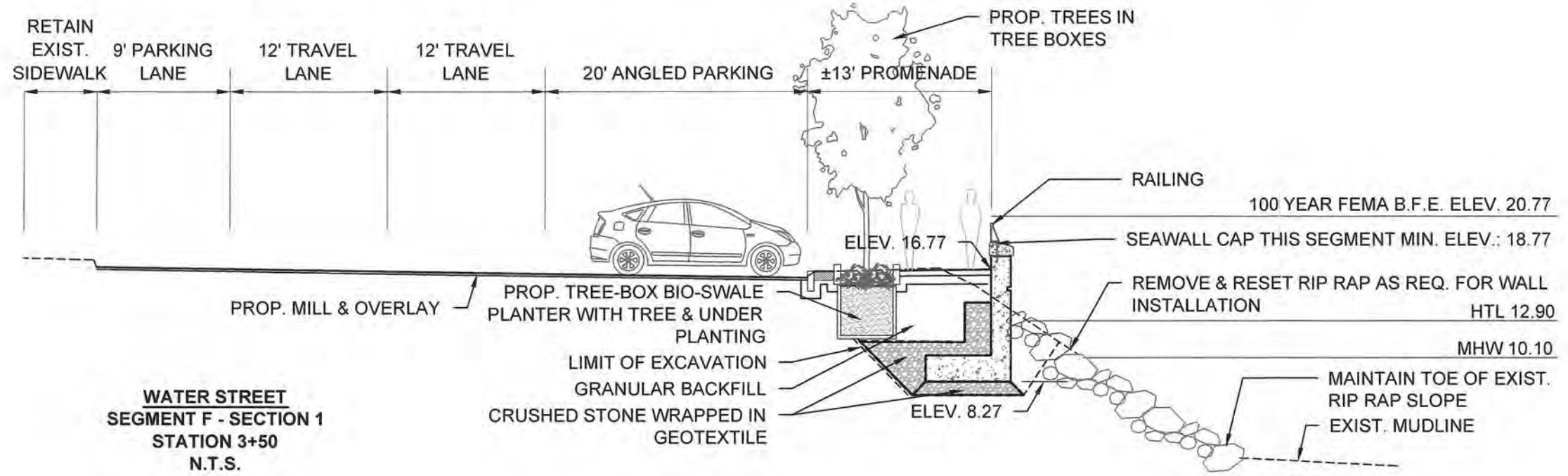


**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

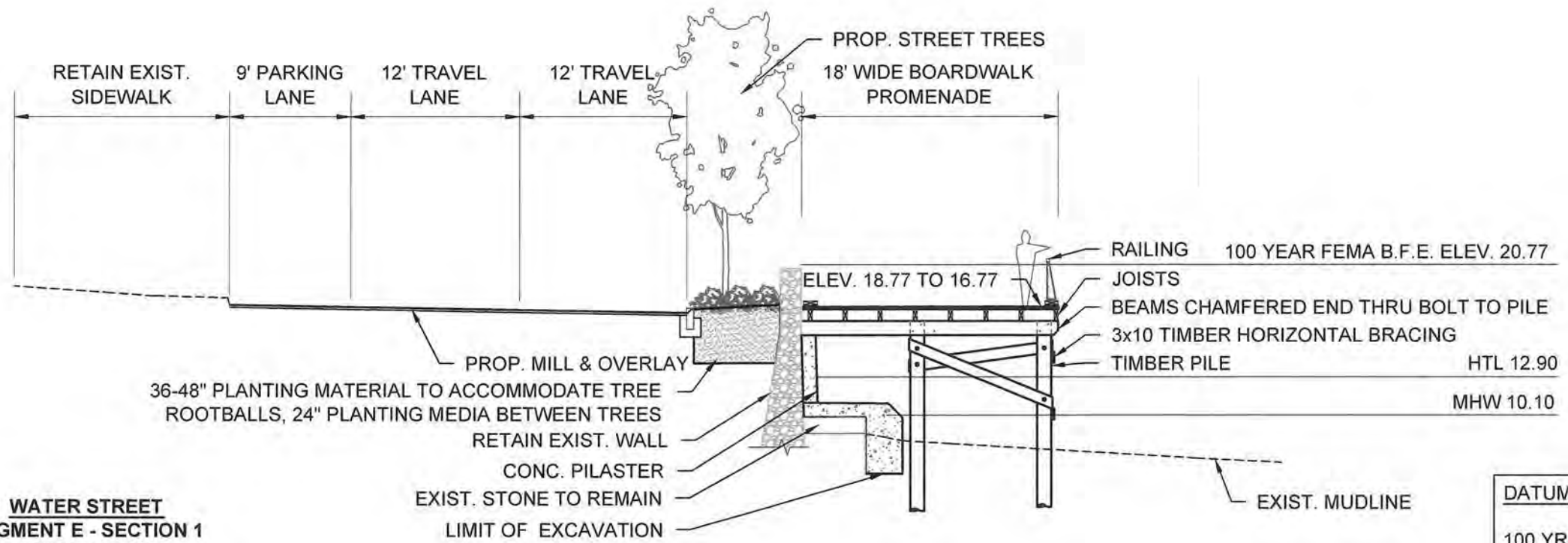
ISSUE DATE       JULY 2017      

SHEET       20 OF 30





**WATER STREET  
SEGMENT F - SECTION 1  
STATION 3+50  
N.T.S.**



**WATER STREET  
SEGMENT E - SECTION 1  
STATION 1+90  
N.T.S.**

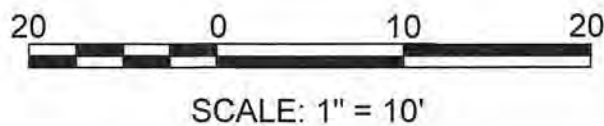
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**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

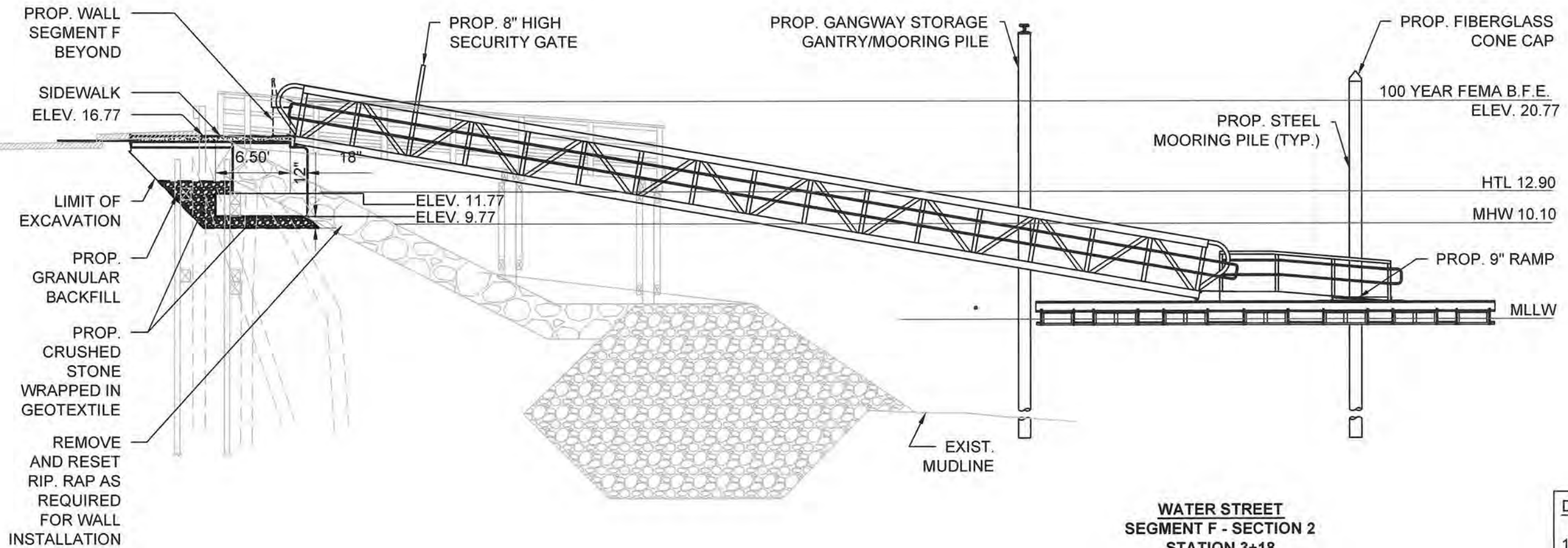
ISSUE DATE        JULY 2017

SHEET        21 OF 30



**NOTES:**

1. FLOAT SYSTEM AND GANGWAY  
PREVIOUSLY PERMITTED AS FOLLOWS:  
DEP # SE57-2681  
USACE #NAE 2014-221  
CH. 91 LIC. 14146



**WATER STREET  
SEGMENT F - SECTION 2  
STATION 3+18  
N.T.S.**

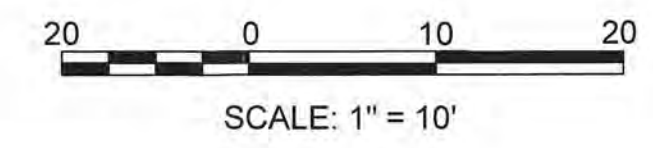
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**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
CRITICAL CROSS SECTIONS  
PLYMOUTH, MASSACHUSETTS**

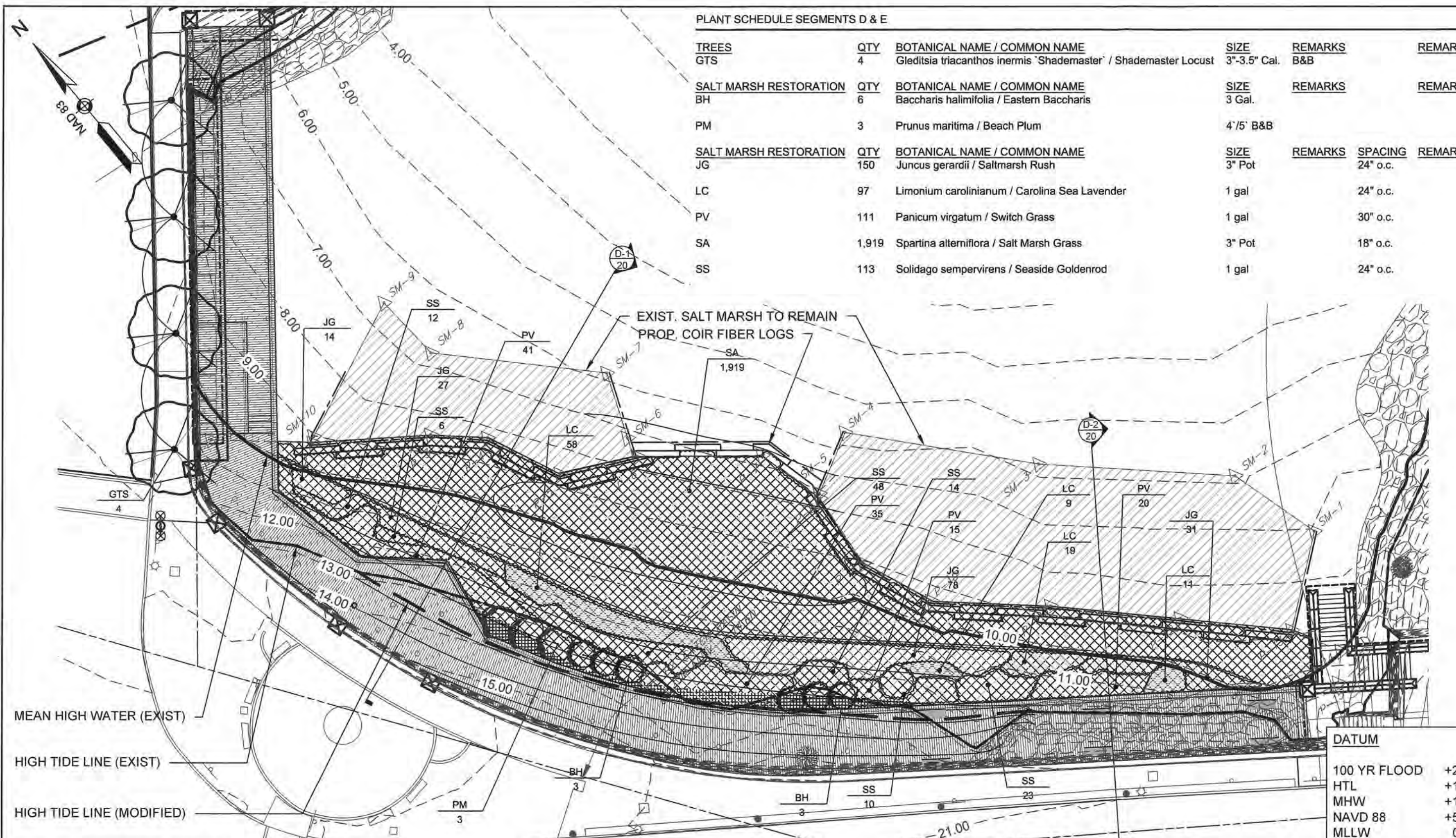
ISSUE DATE       JULY 2017      

SHEET       22 OF 30



PLANT SCHEDULE SEGMENTS D & E

TREES	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS	REMARKS
GTS	4	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Locust	3"-3.5" Cal.	B&B	
<b>SALT MARSH RESTORATION</b>					
BH	6	Baccharis halimifolia / Eastern Baccharis	3 Gal.		
PM	3	Prunus maritima / Beach Plum	4'/5' B&B		
<b>SALT MARSH RESTORATION</b>					
JG	150	Juncus gerardii / Saltmarsh Rush	3" Pot		24" o.c.
LC	97	Limonium carolinianum / Carolina Sea Lavender	1 gal		24" o.c.
PV	111	Panicum virgatum / Switch Grass	1 gal		30" o.c.
SA	1,919	Spartina alterniflora / Salt Marsh Grass	3" Pot		18" o.c.
SS	113	Solidago sempervirens / Seaside Goldenrod	1 gal		24" o.c.



EXIST. SALT MARSH TO REMAIN  
PROP. COIR FIBER LOGS

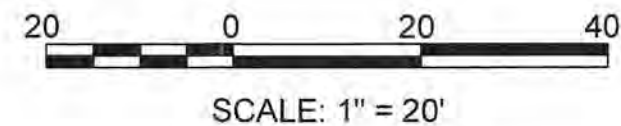
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CC/SD

DESIGNED BY:  
AG/SD

CHECKED BY:  
AG

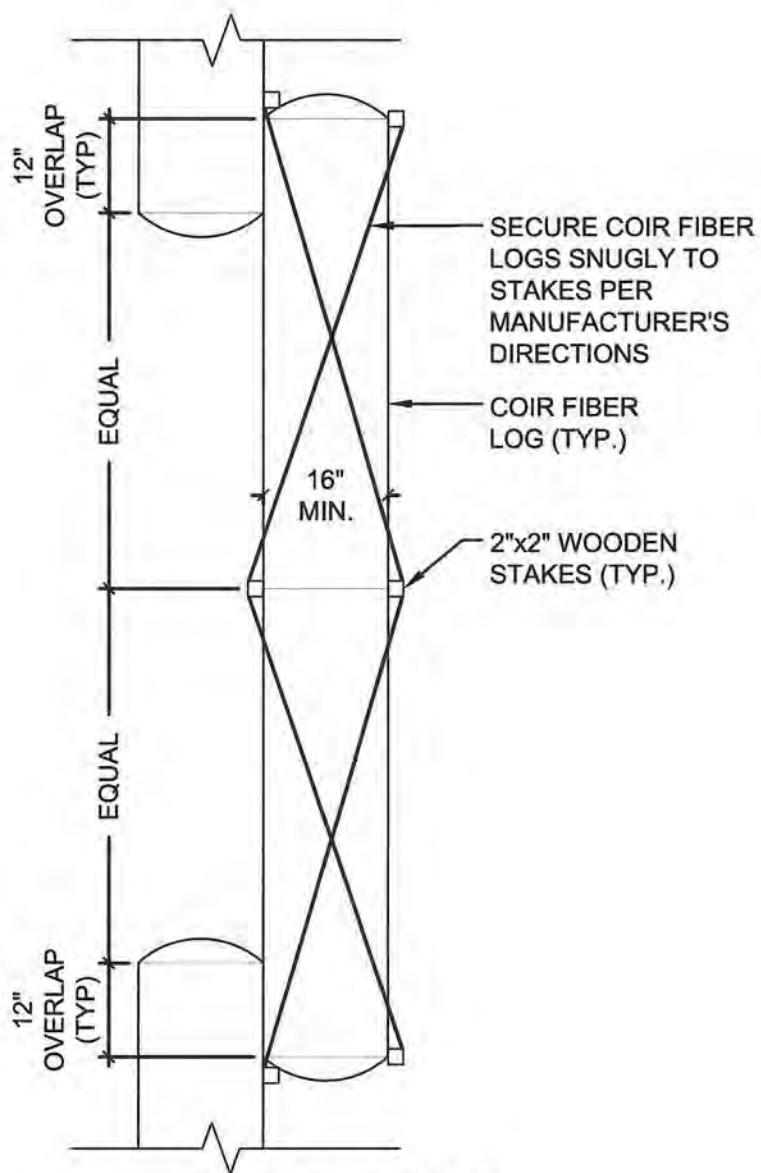


WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**PLANTING PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 23 OF 30

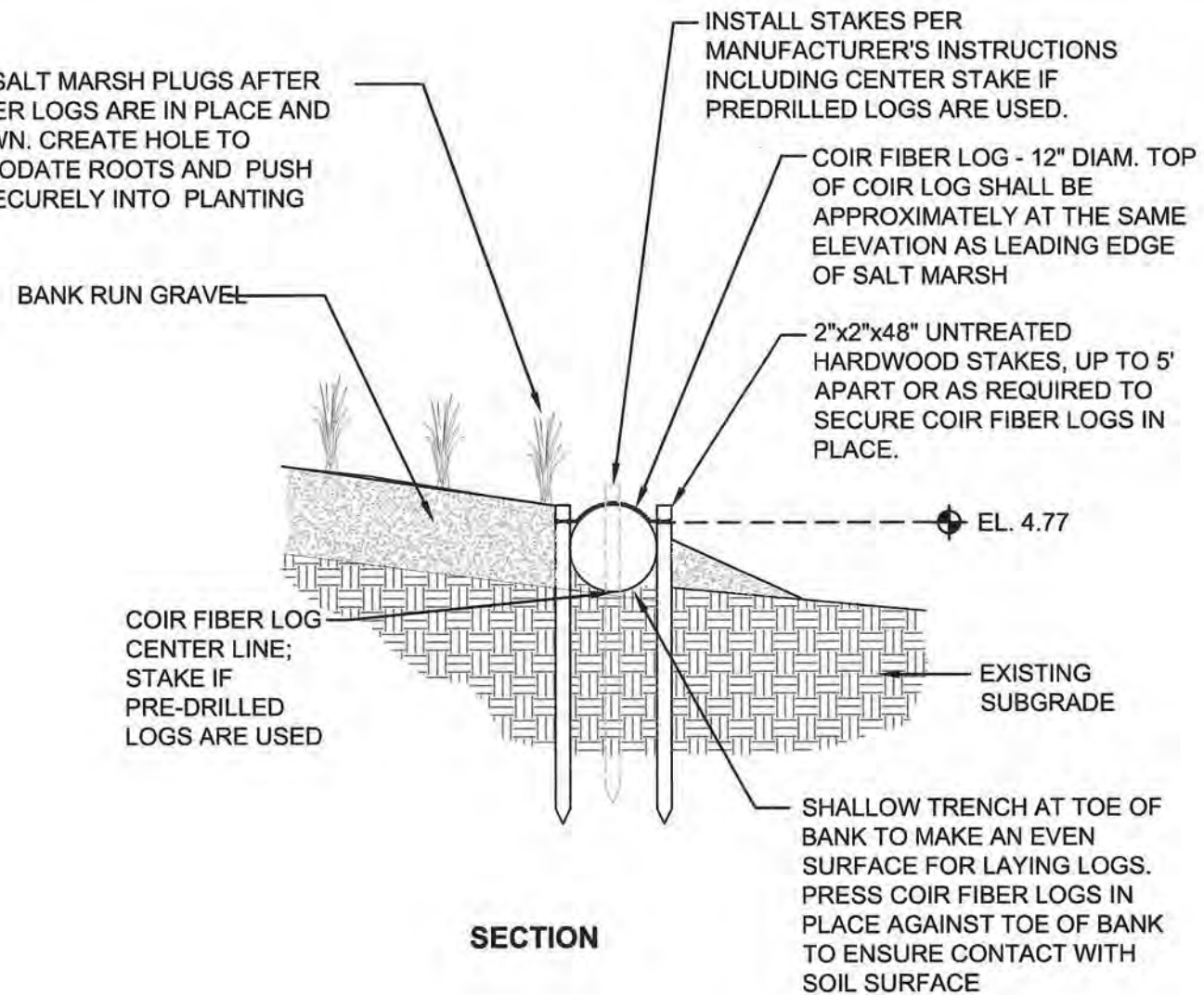




**COIR FIBER LOG  
PLAN VIEW STAKING**

**COIR FIBER STABILIZATION DETAIL**  
SCALE: 1/2" = 1'-0"

INSTALL SALT MARSH PLUGS AFTER COIR FIBER LOGS ARE IN PLACE AND TIED DOWN. CREATE HOLE TO ACCOMMODATE ROOTS AND PUSH PLUGS SECURELY INTO PLANTING MEDIUM.



**SECTION**

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DESIGNED BY:	AG/SD
CHECKED BY:	AG



SCALE: AS NOTED

WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**PLANTING DETAILS**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 24 OF 30



**GENERAL NOTES**

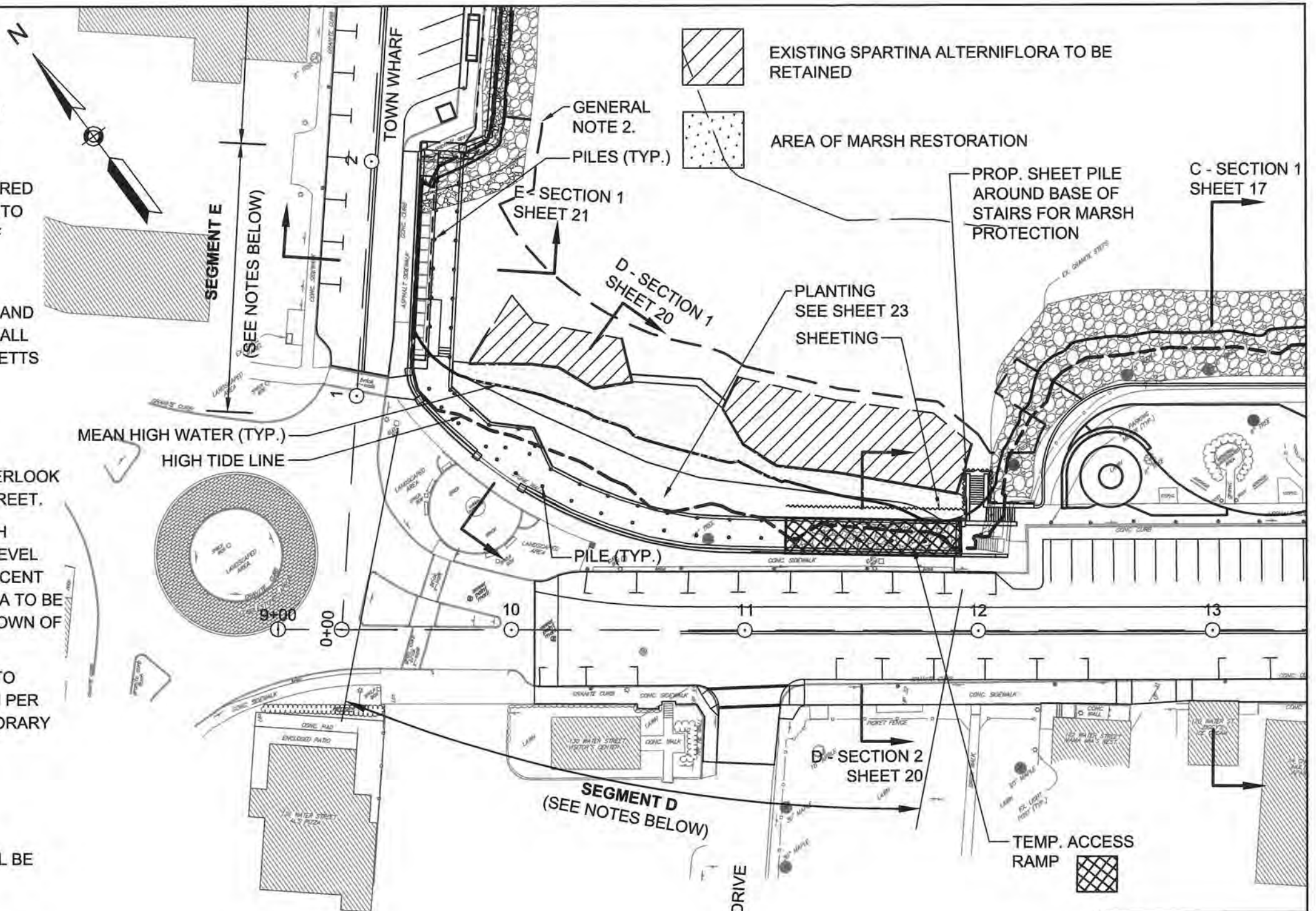
1. ALL CONSTRUCTION SHALL BE PROTECTED BY SUITABLE EROSION CONTROL DEVICES PLACED IN ACCORDANCE WITH ORDER OF CONDITIONS TO BE ISSUED BY THE TOWN OF PLYMOUTH CONSERVATION COMMISSION.
2. IT IS ANTICIPATED THAT PERSONNEL ACCESS MAY BE REQUIRED ALONG THE PERIMETER OF THE PROJECT. LIMIT OF ACCESS TO BE MARKED WITH STAKES/FENCE AS REQUIRED BY TOWN OF PLYMOUTH CONSERVATION COMMISSION.
3. DISPOSAL OF EXCAVATED MATERIAL SHALL BE OFFSITE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF LOCAL AND STATE REGULATION. DRYING OF MATERIAL AS REQUIRED SHALL BE PERFORMED IN A TEMPORARY STOCKPILE AREA IN MABBETTS PARK.

**CONSTRUCTION NOTES (SEGMENT D)**

1. PILING OPERATIONS FOR BOARDWALK AND BOARDWALK OVERLOOK SHALL BE PERFORMED FROM A STAGING AREA IN WATER STREET.
2. MARSH RESTORATION INCLUDING RE-GRADING AND SMOOTH CORDGRASS PLANTINGS SHALL BE PERFORMED AT BEACH LEVEL WITH ACCESS VIA A TEMPORARY RAMP CONSTRUCTED ADJACENT TO THE WALL. PROTECT AREAS OF SPARTINA ALTERNIFLORA TO BE RETAINED WITH SUITABLE FENCING IN ACCORDANCE WITH TOWN OF PLYMOUTH CONSERVATION COMMISSION REQUIREMENTS
3. THE TEMPORARY RAMP SHALL BE REMOVED AND SUBJECT TO MARSH RESTORATION, PLANTING OR RIP RAP RESTORATION PER PLANTING PLAN ON SHEET 23 UPON REMOVAL OF THE TEMPORARY RAMP.

**CONSTRUCTION NOTES (SEGMENT E)**

1. PILING OPERATIONS FOR BOARDWALK CONSTRUCTION SHALL BE PERFORMED FROM STAGING AREA ON TOWN WHARF.
2. GENERAL OPERATIONS FOR CONSTRUCTION OF WALL STRENGTHENING AND TOE PROTECTION INCLUDING CONCRETE PLACEMENT AND FORM HANDLING SHALL BE PERFORMED FROM STAGING AREA ON THE TOWN WHARF. MANPOWER ACCESS AS NEEDED TO SUPPORT WHARF LEVEL OPERATIONS SHALL ACCESS THE AREA VIA THE TEMPORARY RAMP ACCESS IN SEGMENT D.



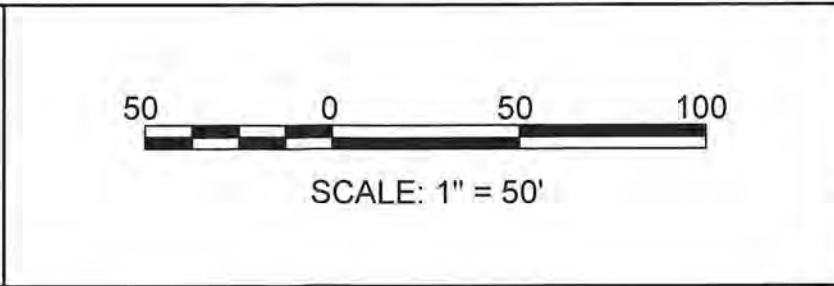
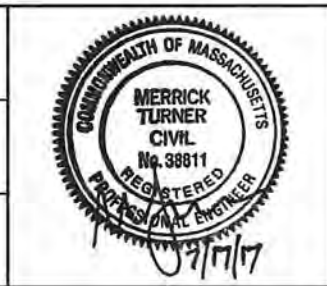
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CT

DESIGNED BY:  
MT

CHECKED BY:  
MT

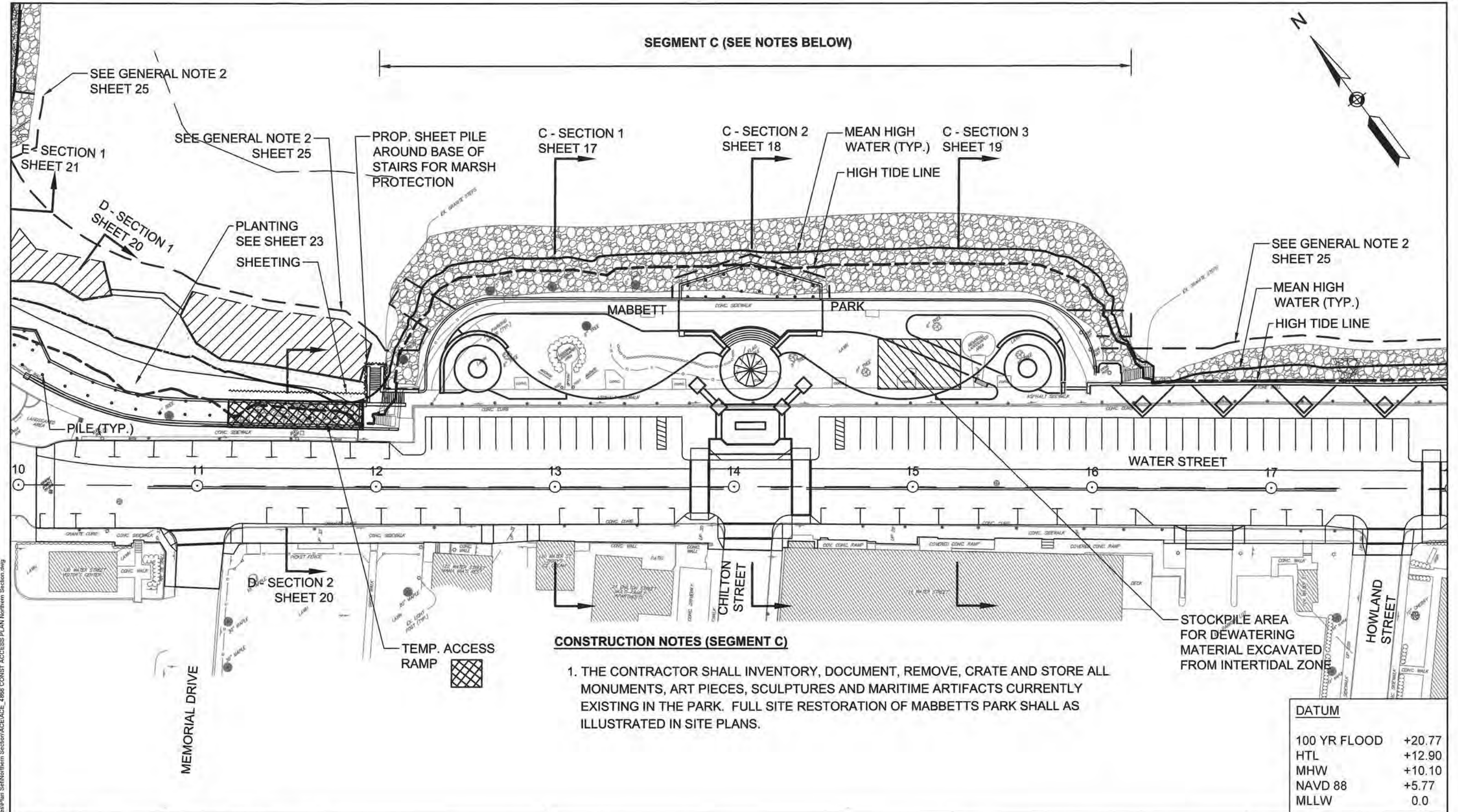


WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**CONSTRUCTION ACCESS PLAN**  
PLYMOUTH, MASSACHUSETTS

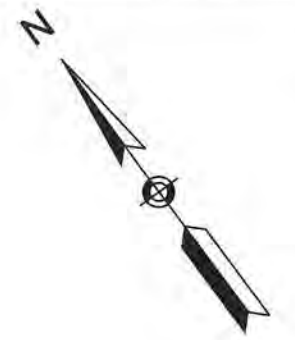
ISSUE DATE JULY 2017

SHEET 25 OF 30





SEGMENT C (SEE NOTES BELOW)



**CONSTRUCTION NOTES (SEGMENT C)**

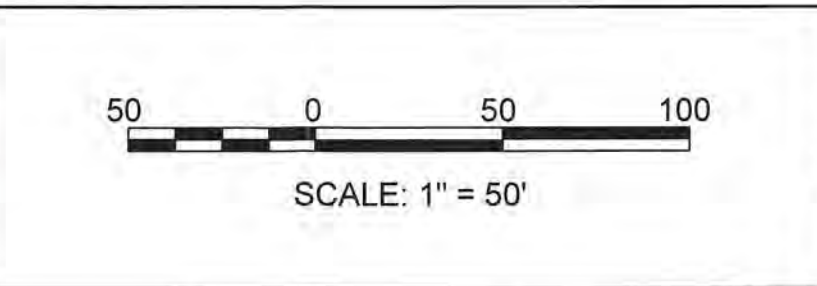
1. THE CONTRACTOR SHALL INVENTORY, DOCUMENT, REMOVE, CRATE AND STORE ALL MONUMENTS, ART PIECES, SCULPTURES AND MARITIME ARTIFACTS CURRENTLY EXISTING IN THE PARK. FULL SITE RESTORATION OF MABBETTS PARK SHALL AS ILLUSTRATED IN SITE PLANS.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

DRAWN BY:  
CT

DESIGNED BY:  
MT

CHECKED BY:  
MT



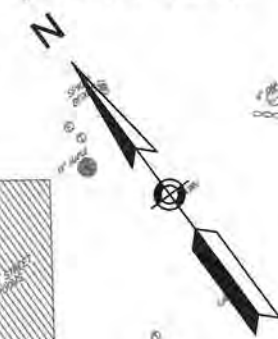
WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**CONSTRUCTION ACCESS PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 26 OF 30

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SEGMENT B (SEE NOTES BELOW)

SEGMENT A (SEE NOTES BELOW)

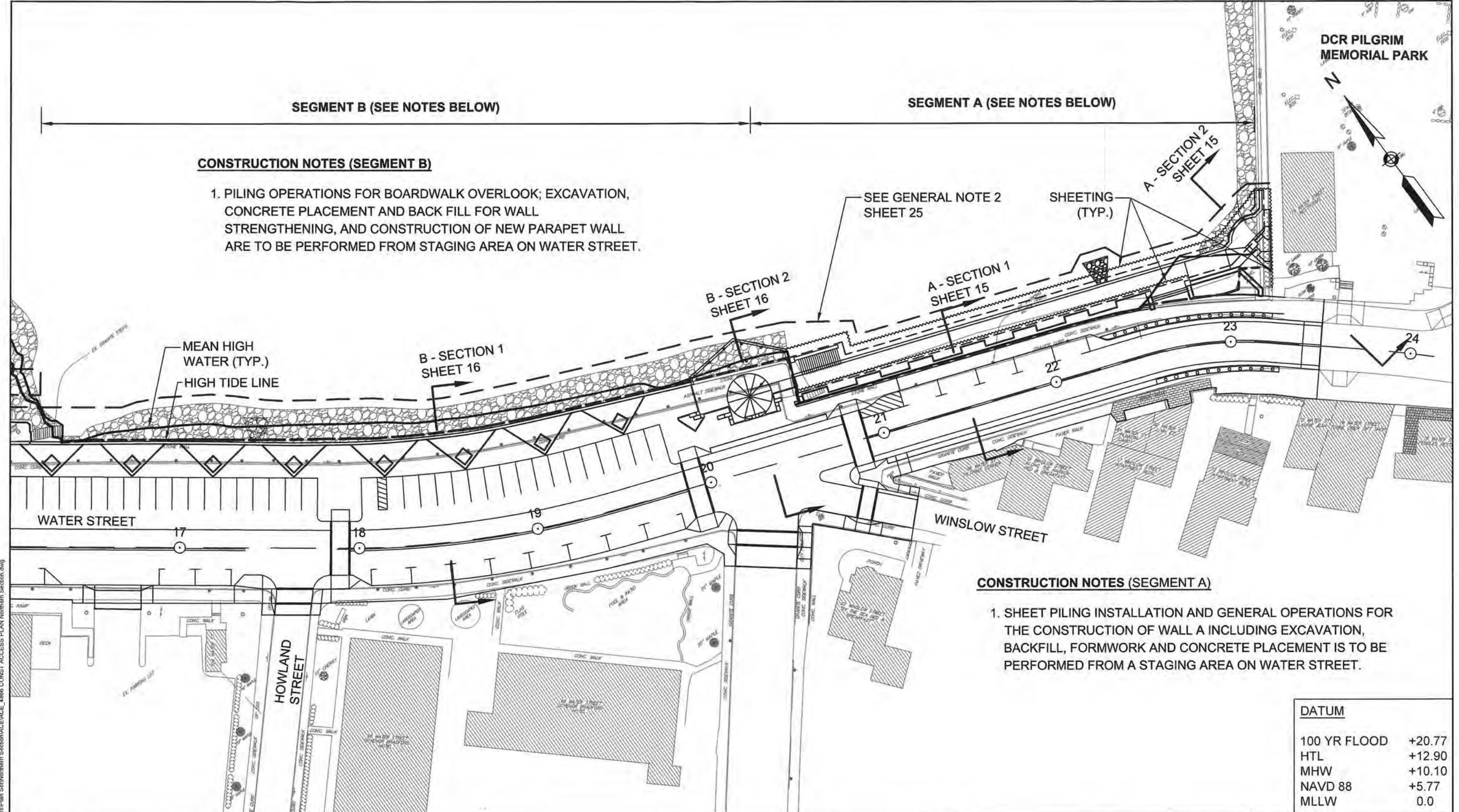
**CONSTRUCTION NOTES (SEGMENT B)**

1. PILING OPERATIONS FOR BOARDWALK OVERLOOK; EXCAVATION, CONCRETE PLACEMENT AND BACK FILL FOR WALL STRENGTHENING, AND CONSTRUCTION OF NEW PARAPET WALL ARE TO BE PERFORMED FROM STAGING AREA ON WATER STREET.

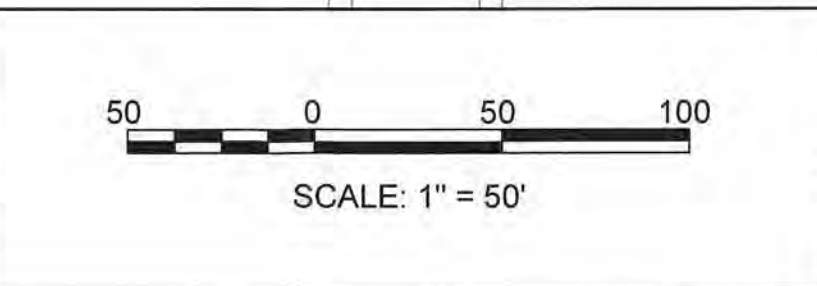
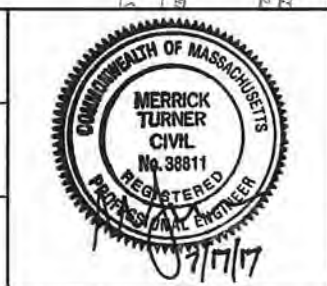
**CONSTRUCTION NOTES (SEGMENT A)**

1. SHEET PILING INSTALLATION AND GENERAL OPERATIONS FOR THE CONSTRUCTION OF WALL A INCLUDING EXCAVATION, BACKFILL, FORMWORK AND CONCRETE PLACEMENT IS TO BE PERFORMED FROM A STAGING AREA ON WATER STREET.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0



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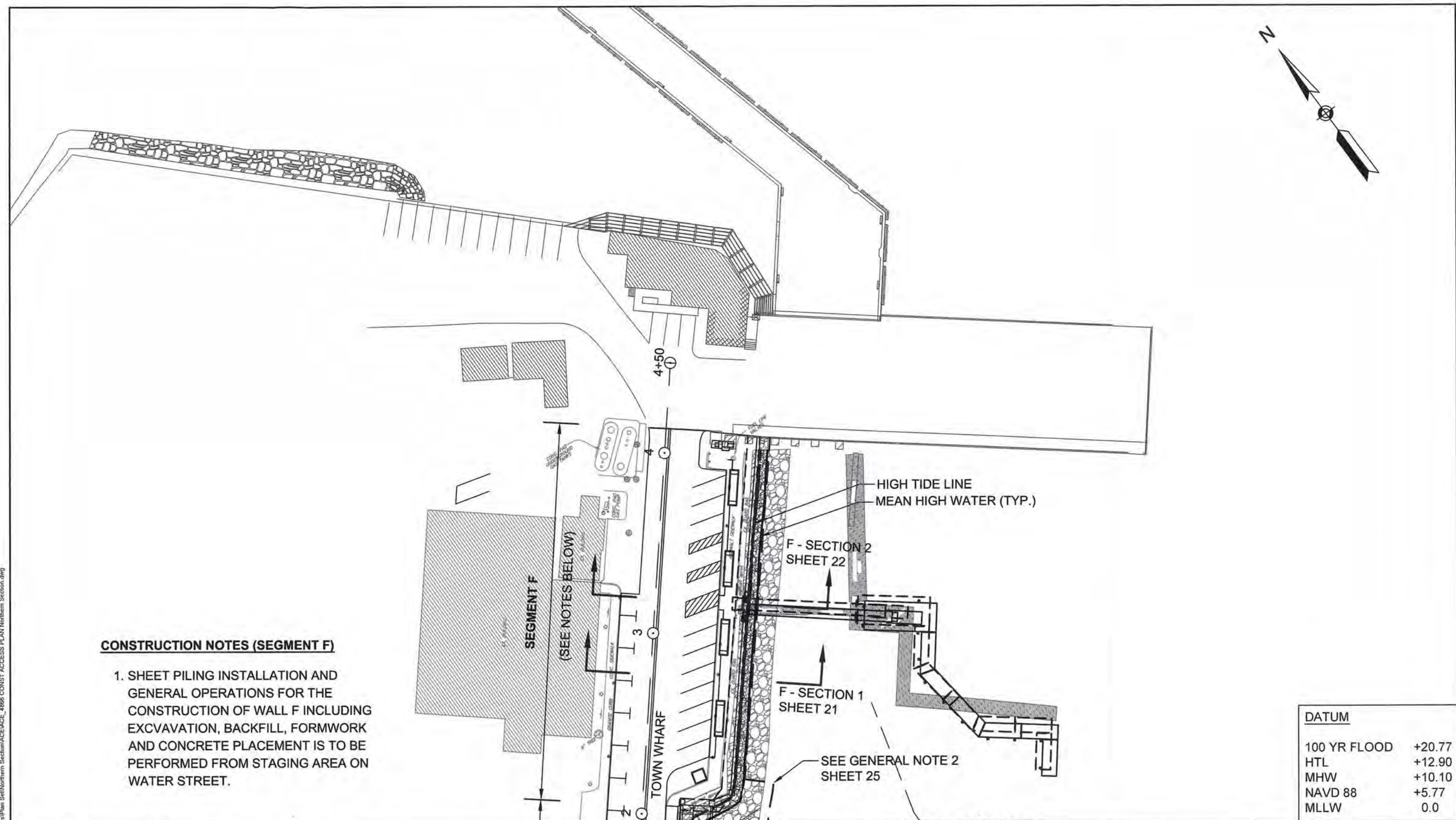
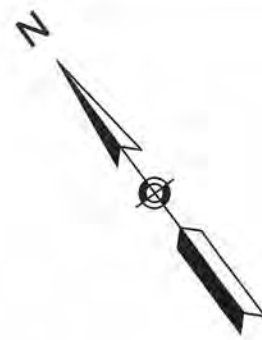


WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**CONSTRUCTION ACCESS PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE	JULY 2017
SHEET	27 OF 30

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**CONSTRUCTION NOTES (SEGMENT F)**

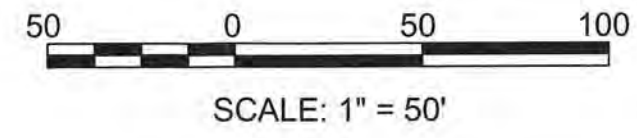
1. SHEET PILING INSTALLATION AND GENERAL OPERATIONS FOR THE CONSTRUCTION OF WALL F INCLUDING EXCAVATION, BACKFILL, FORMWORK AND CONCRETE PLACEMENT IS TO BE PERFORMED FROM STAGING AREA ON WATER STREET.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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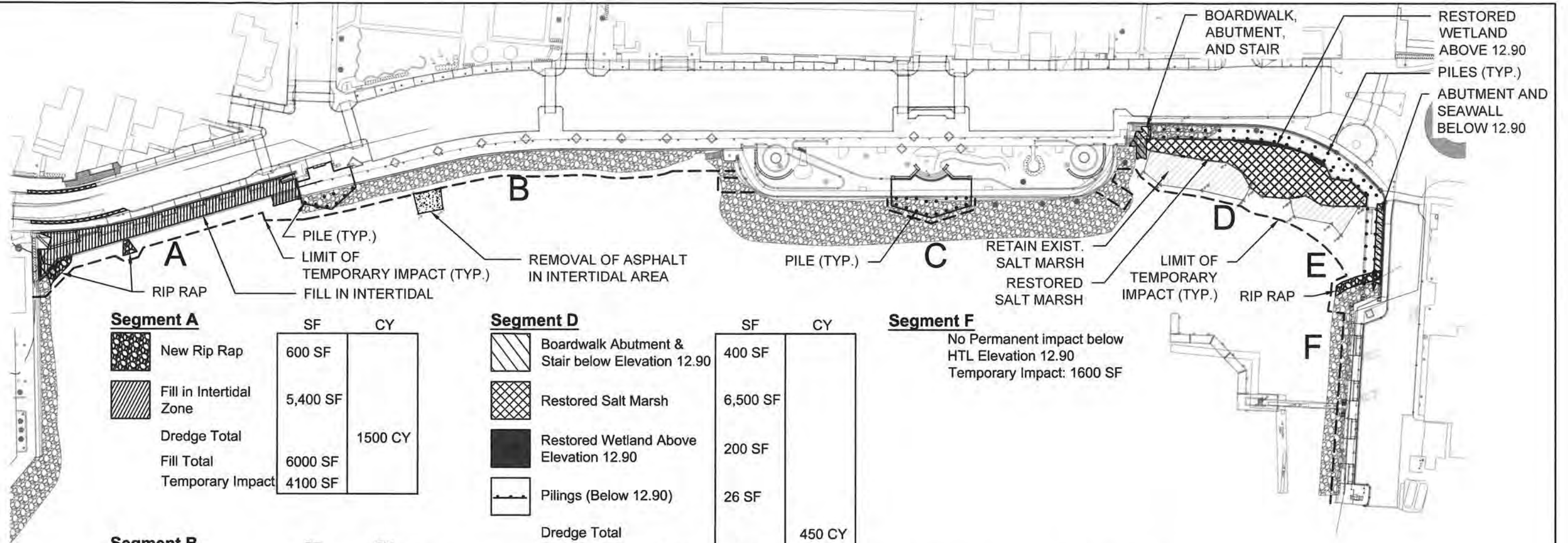
WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
**CONSTRUCTION ACCESS PLAN**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 28 OF 30

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**Segment A**

	SF	CY
New Rip Rap	600 SF	
Fill in Intertidal Zone	5,400 SF	
Dredge Total		1500 CY
Fill Total	6000 SF	
Temporary Impact	4100 SF	

**Segment B**

	SF	CY
Pilings (Below 12.90)	16 SF	
Restored Intertidal Area (removal of asphalt)	500 SF	
Dredge Total		30 CY
Fill Total	16 SF	
Temporary Impact	8800 SF	

**Segment C**

	SF	CY
Pilings (Below 12.90)	16 SF	
Dredge Total		0 CY
Fill Total	16 SF	
Temporary Impact	1800 SF	

**Segment D**

	SF	CY
Boardwalk Abutment & Stair below Elevation 12.90	400 SF	
Restored Salt Marsh	6,500 SF	
Restored Wetland Above Elevation 12.90	200 SF	
Pilings (Below 12.90)	26 SF	
Dredge Total		450 CY
Fill Total (Excluding Marsh Restoration)	426 SF	
Temporary Impact	1700 SF	

**Segment E**

	SF	CY
Abutment & Seawall Area below Elevation 12.90	600 SF	
New Rip Rap	400 SF	
Pilings (Below 12.90)	30 SF	
Dredge Total		60 CY
Fill Total	1030 SF	
Temporary Impact	2800 SF	

**Segment F**  
 No Permanent impact below HTL Elevation 12.90  
 Temporary Impact: 1600 SF

**Off-Site Mitigation - Long Beach**

Approximately 16,000 sf of salt marsh restoration & creation

**PROJECT TOTALS**

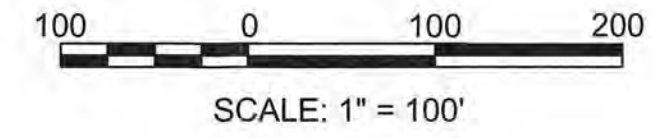
Dredge	2040 CY
Fill	7488 SF
Temporary Impacts	20,800 SF

**DATUM**

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HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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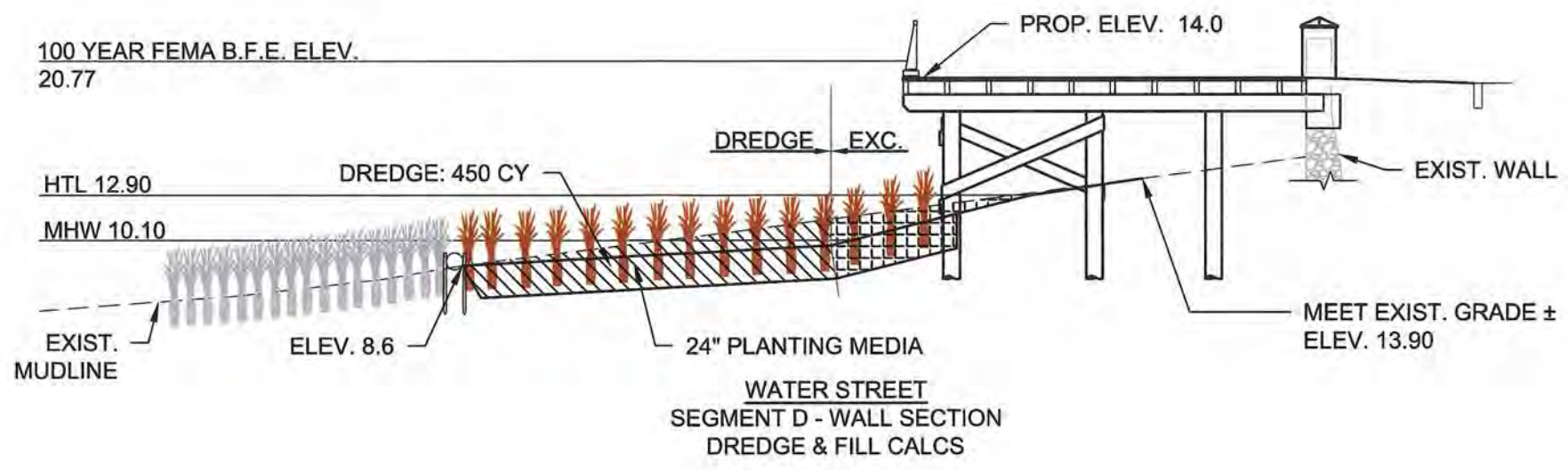
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WATER STREET PROMENADE  
 NORTHERN SECTION  
 SIDEWALK & ROADWAY IMPROVEMENTS  
 SUMMARY OF SHORELINE ACTIVITIES,  
 IMPACTS, & MITIGATION  
 PLYMOUTH, MASSACHUSETTS

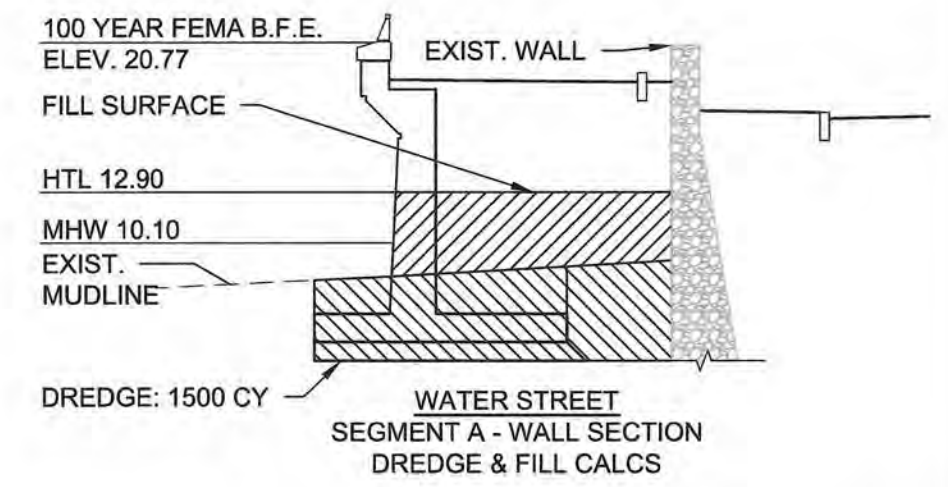
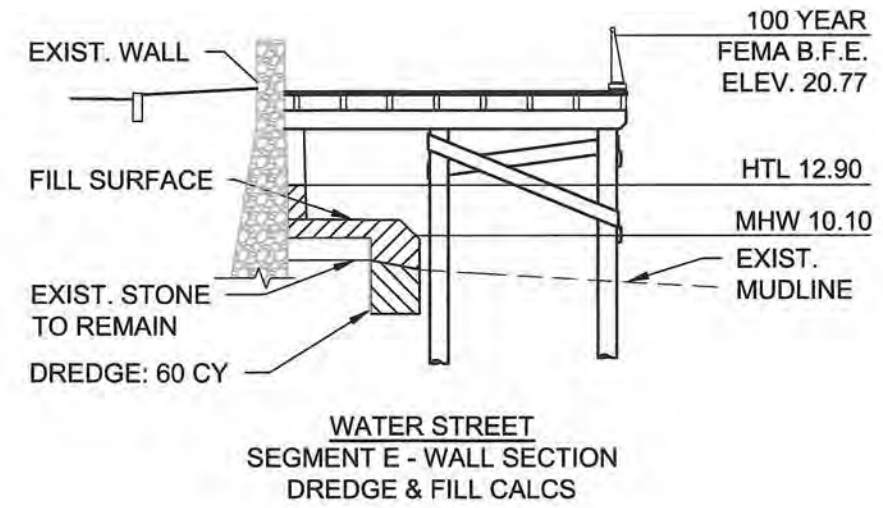
ISSUE DATE JULY 2017  
 SHEET 29 OF 30





**LEGEND**

-  DREDGE
-  FILL
-  EXCAVATION



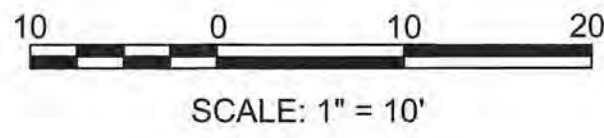
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MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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CT

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**WATER STREET PROMENADE  
NORTHERN SECTION  
SIDEWALK & ROADWAY IMPROVEMENTS  
SUMMARY OF SHORELINE ACTIVITIES,  
IMPACTS, & MITIGATION  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017

SHEET        30 OF 30



# Town of Plymouth, Department of Public Works Water Street Promenade Project - North Section Mitigation & Monitoring Plan

JULY 2017

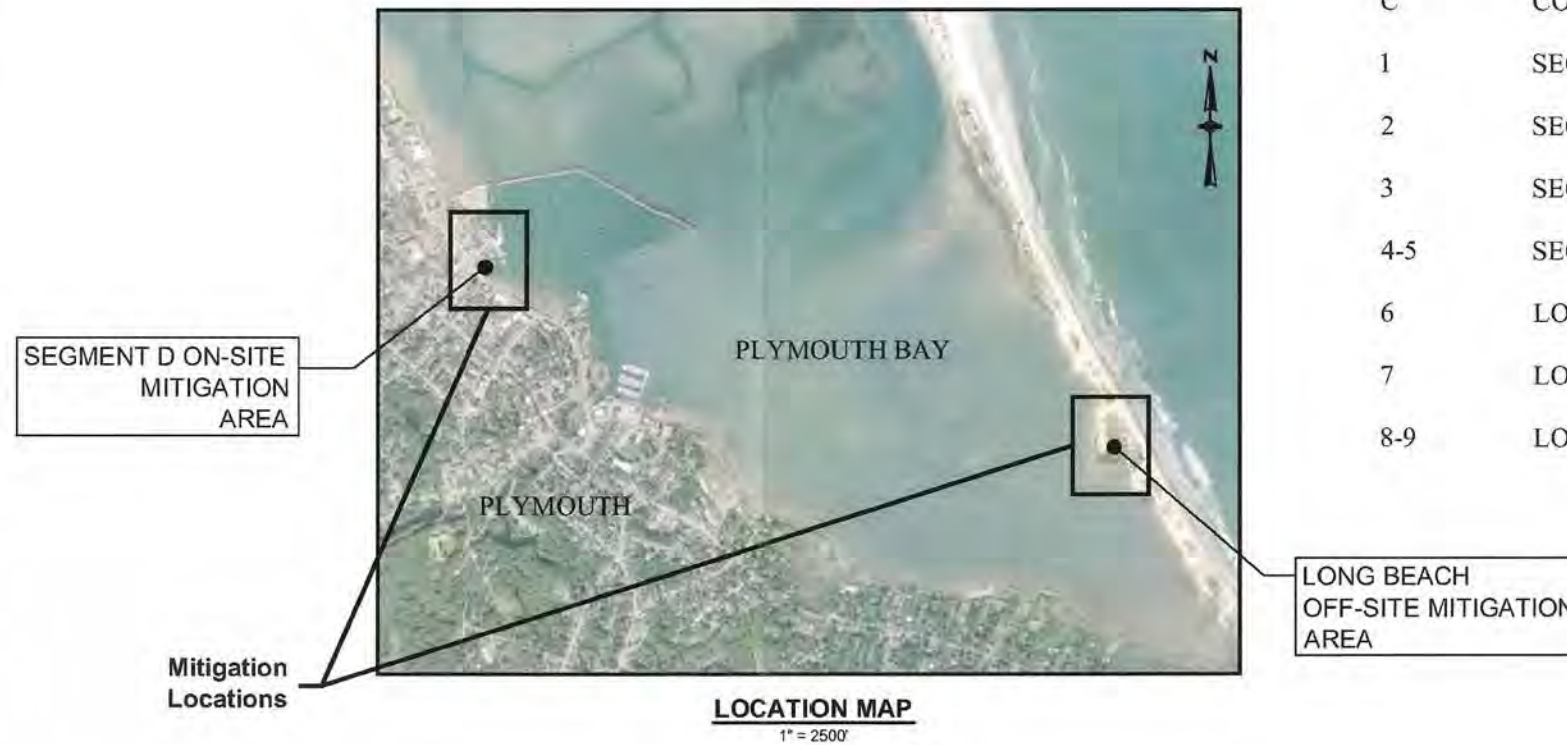


Applicant:

Town of Plymouth  
Department of Public Works  
159 Camelot Drive  
Plymouth, MA 02360

Submitted to:

U.S. Army Corps of Engineers  
N.E. District, Regulatory Division  
696 Virginia Road  
Concord, MA 01742



## PLAN INDEX

SHEET NO.	DESCRIPTION
C	COVER SHEET
1	SEGMENT D ON-SITE MITIGATION AREA LOCUS MAP
2	SEGMENT D ON-SITE MITIGATION AREA PLANTING PLAN
3	SEGMENT D ON-SITE MITIGATION AREA SECTIONS
4-5	SEGMENT D ON-SITE MITIGATION AREA DETAILS
6	LONG BEACH OFF-SITE MITIGATION AREA LOCUS MAP
7	LONG BEACH OFF-SITE MITIGATION AREA PLAN
8-9	LONG BEACH OFF-SITE MITIGATION AREA DETAILS

### PROJECT DATUM

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

## Segment D On-Site Mitigation & Long Beach Off-Site Mitigation

PREPARED BY:



Note:

See accompanying Mitigation & Monitoring Plan Narrative for proposed monitoring requirements.



REGISTERED PROFESSIONAL DATE





**ON-SITE MITIGATION AREA AT SEGMENT D  
LOCUS MAP | 1" = 500'**

Latitude: 41 57.671  
Longitude: -70 40.034

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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AP

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AG

CHECKED BY:

AG



SCALE: 1" = 500'

WATER STREET PROMENADE  
NORTHERN SECTION  
SEGMENT D ON-SITE MITIGATION AREA  
**LOCUS MAP**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 1 OF 9



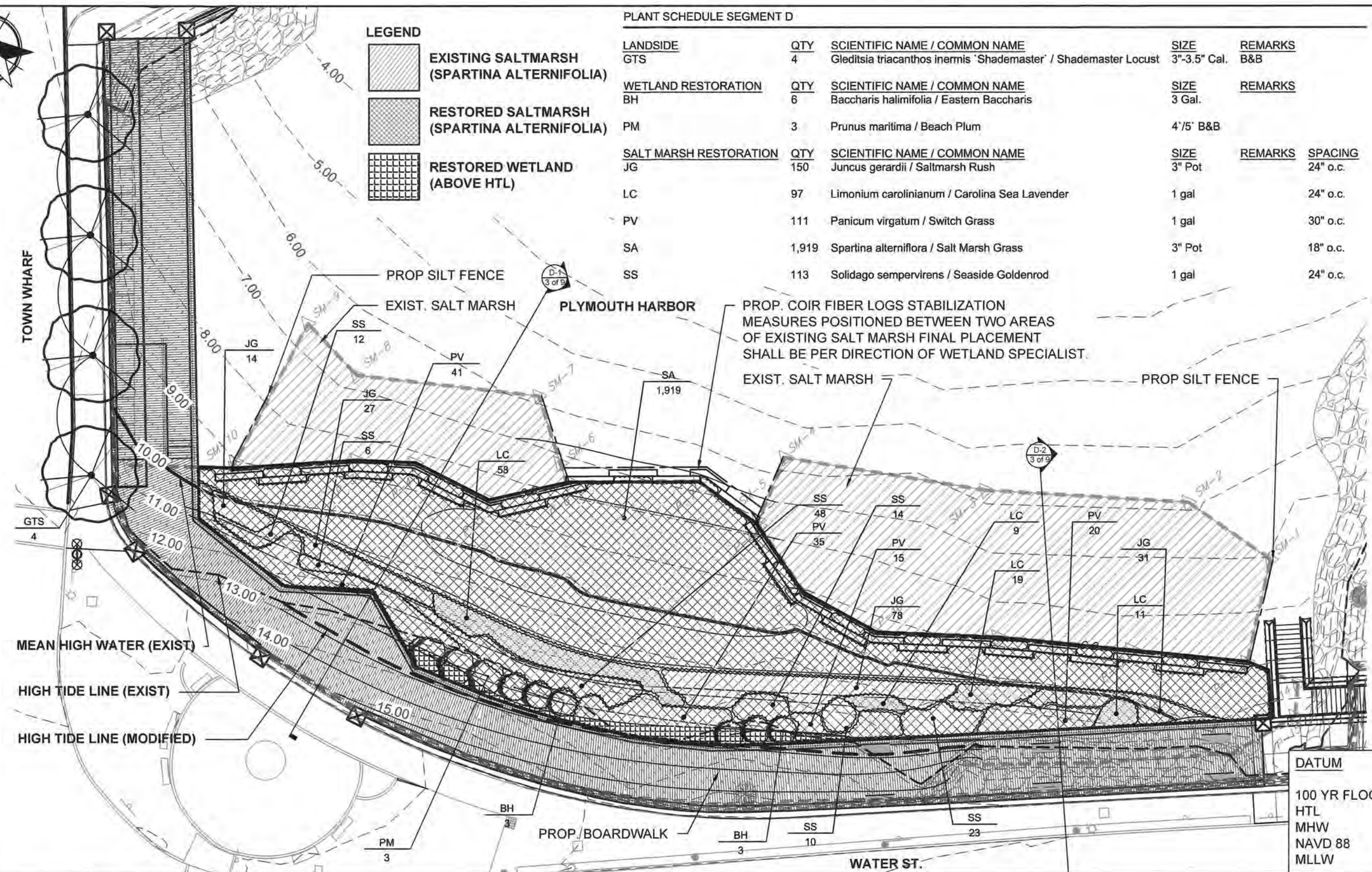


**LEGEND**

	EXISTING SALTMARSH (SPARTINA ALTERNIFOLIA)
	RESTORED SALTMARSH (SPARTINA ALTERNIFOLIA)
	RESTORED WETLAND (ABOVE HTL)

**PLANT SCHEDULE SEGMENT D**

LANDSIDE	QTY	SCIENTIFIC NAME / COMMON NAME	SIZE	REMARKS	
GTS	4	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Locust	3"-3.5" Cal.	B&B	
WETLAND RESTORATION	QTY	SCIENTIFIC NAME / COMMON NAME	SIZE	REMARKS	
BH	6	Baccharis halimifolia / Eastern Baccharis	3 Gal.		
PM	3	Prunus maritima / Beach Plum	4'/5' B&B		
SALT MARSH RESTORATION	QTY	SCIENTIFIC NAME / COMMON NAME	SIZE	REMARKS	SPACING
JG	150	Juncus gerardii / Saltmarsh Rush	3" Pot		24" o.c.
LC	97	Limonium carolinianum / Carolina Sea Lavender	1 gal		24" o.c.
PV	111	Panicum virgatum / Switch Grass	1 gal		30" o.c.
SA	1,919	Spartina alterniflora / Salt Marsh Grass	3" Pot		18" o.c.
SS	113	Solidago sempervirens / Seaside Goldenrod	1 gal		24" o.c.



**DATUM**

100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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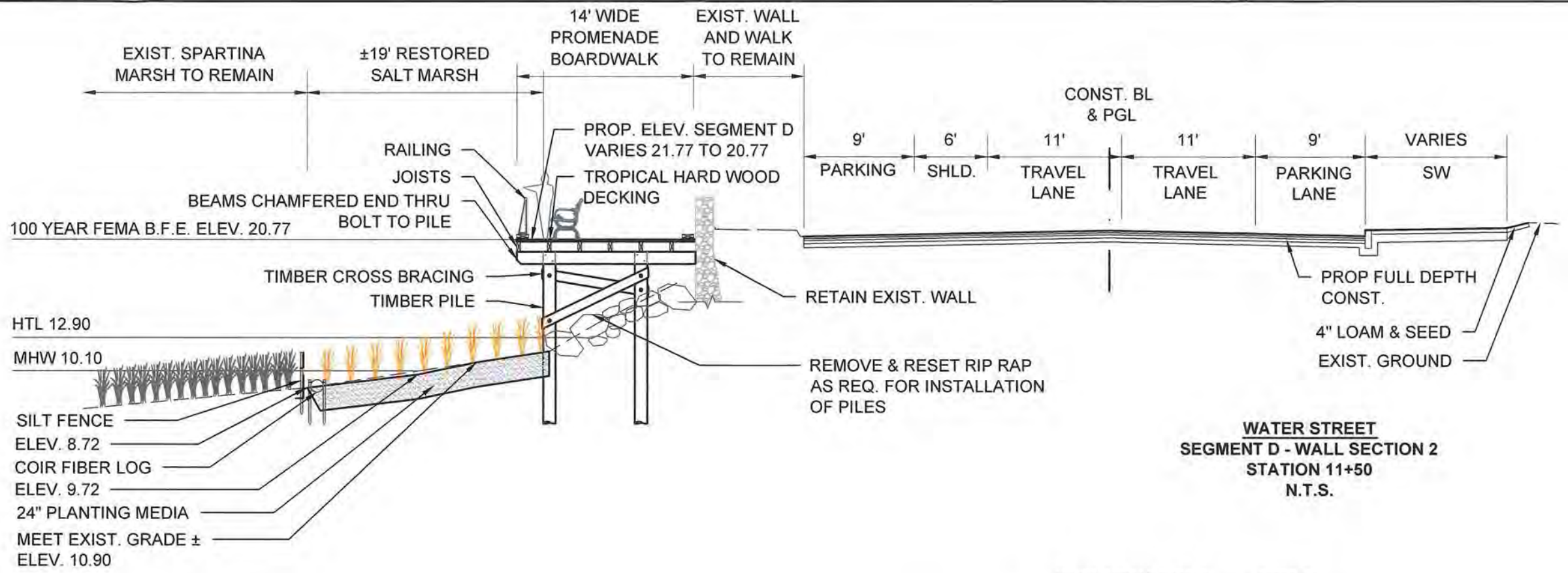
**WATER STREET PROMENADE  
NORTHERN SECTION  
SEGMENT D ON-SITE MITIGATION AREA  
PLAN  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE       JULY 2017      

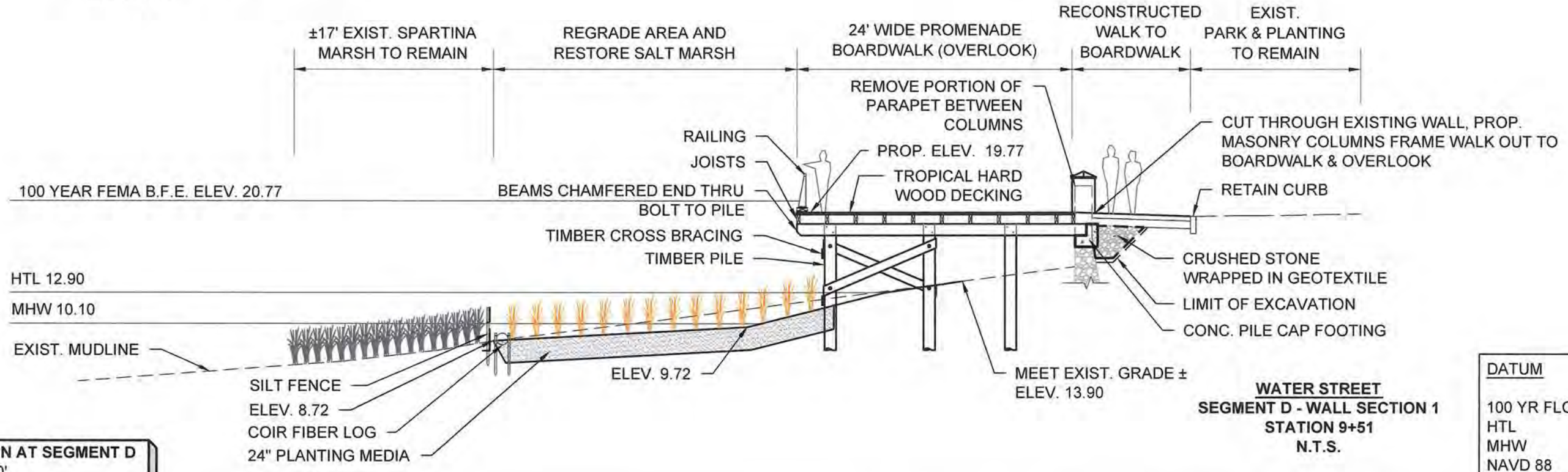
SHEET       2 OF 9      

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**WATER STREET  
SEGMENT D - WALL SECTION 2  
STATION 11+50  
N.T.S.**



**WATER STREET  
SEGMENT D - WALL SECTION 1  
STATION 9+51  
N.T.S.**

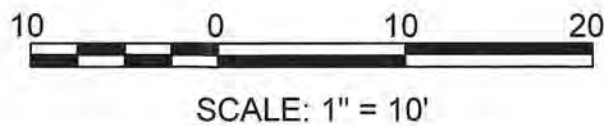
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HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

**ON-SITE MITIGATION AT SEGMENT D  
SECTIONS | 1" = 10'**

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AP

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AG



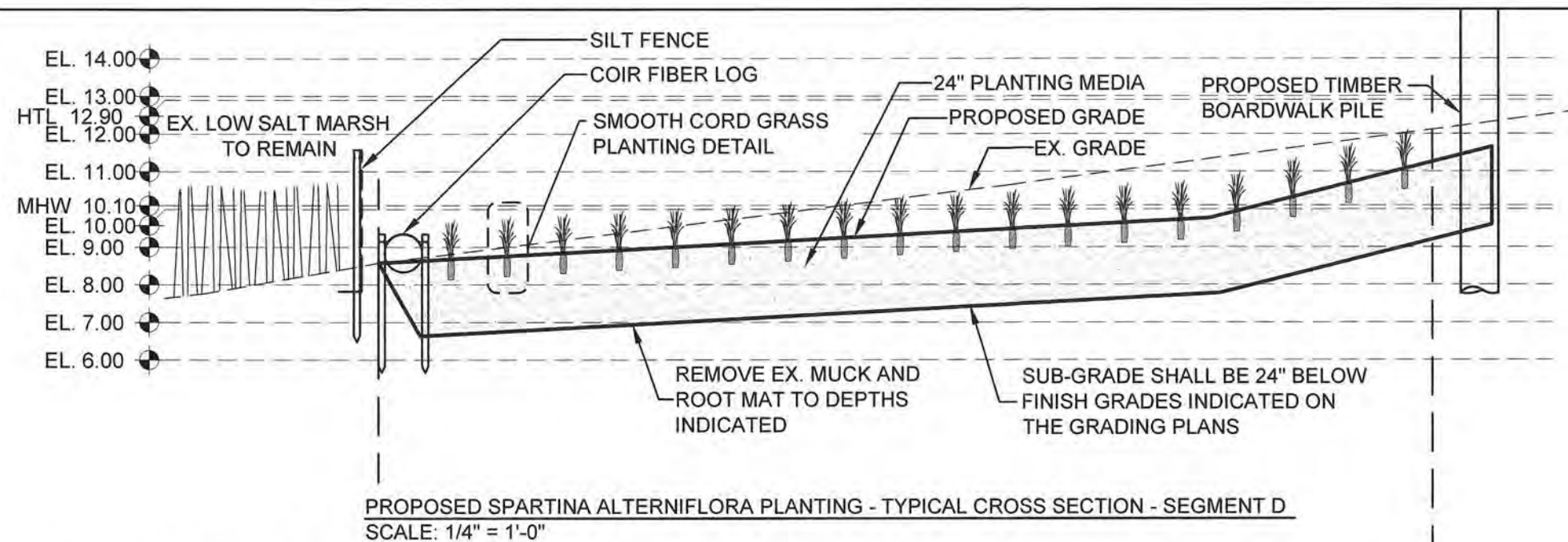
**WATER STREET PROMENADE  
NORTHERN SECTION  
SEGMENT D ON-SITE MITIGATION AREA  
SECTIONS  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017

SHEET        3 OF 9

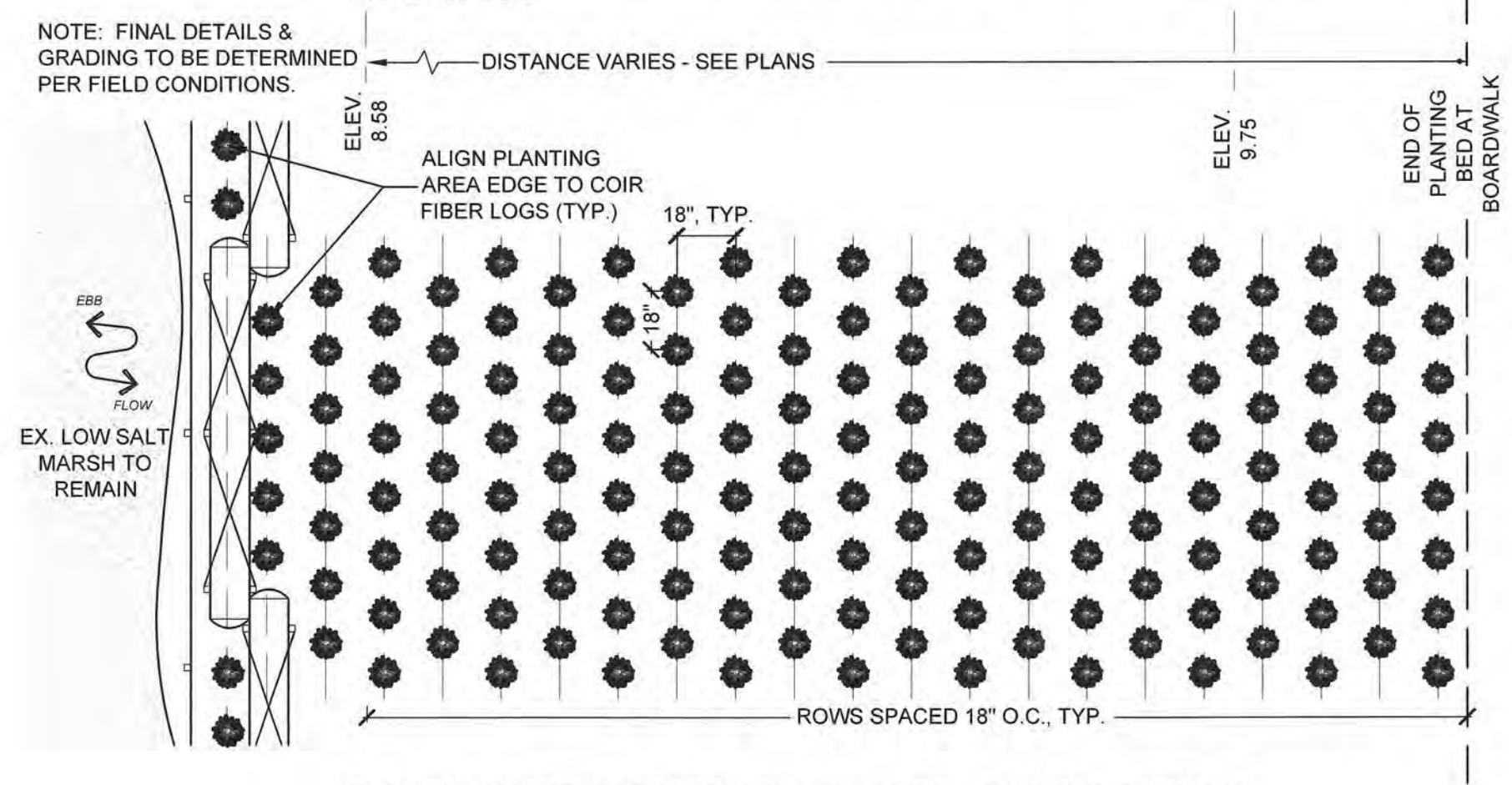
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PROPOSED SPARTINA ALTERNIFLORA PLANTING - TYPICAL CROSS SECTION - SEGMENT D  
SCALE: 1/4" = 1'-0"

NOTE: FINAL DETAILS & GRADING TO BE DETERMINED PER FIELD CONDITIONS.



PROPOSED SPARTINA ALTERNIFLORA PLANTING - TYPICAL PLAN VIEW - SEGMENT D  
SCALE: 1/4" = 1'-0"

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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CHECKED BY:  
AG



SCALE: AS SHOWN

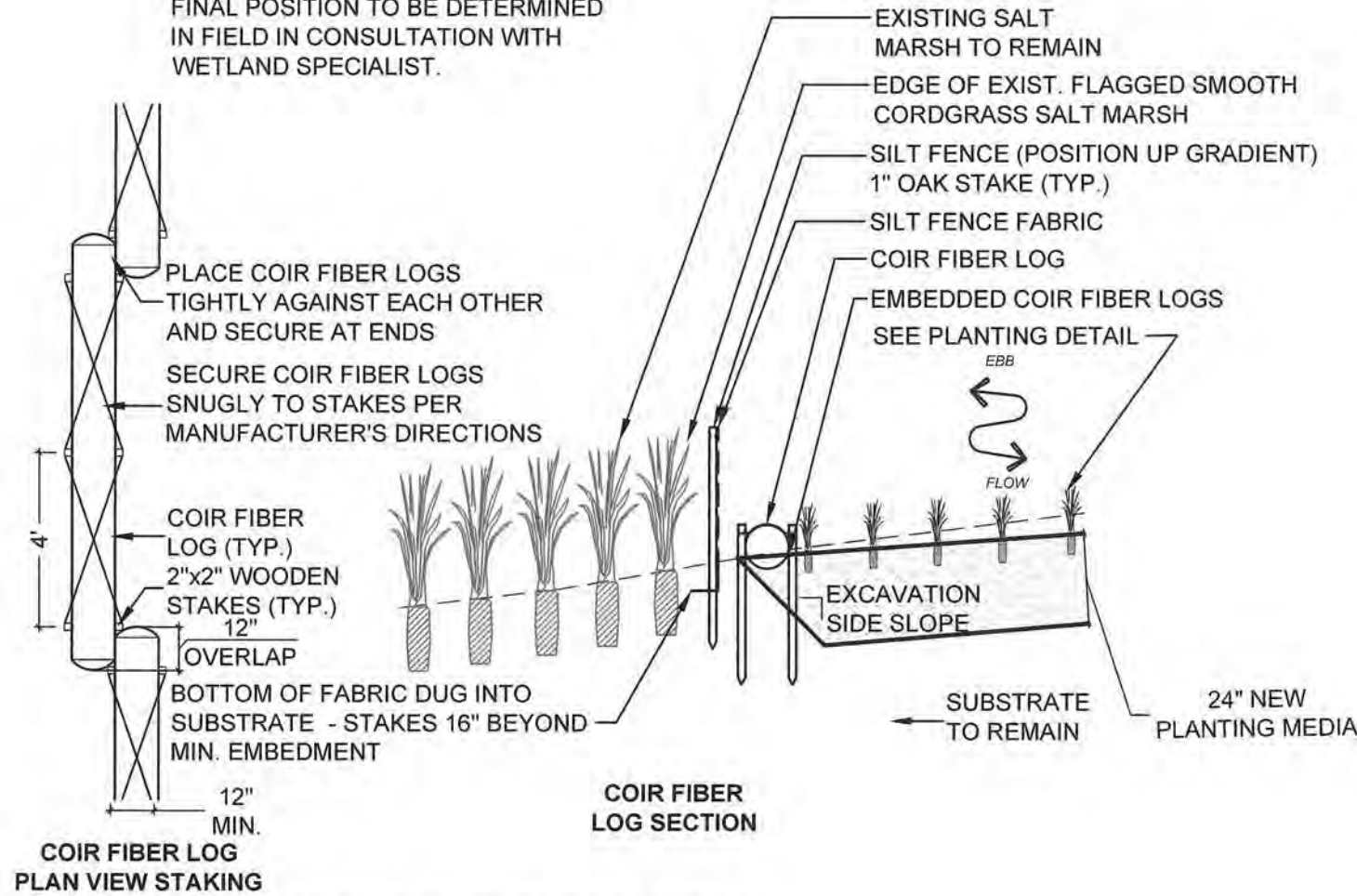
WATER STREET PROMENADE  
NORTHERN SECTION  
SEGMENT D ON-SITE MITIGATION AREA  
**DETAILS**  
PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

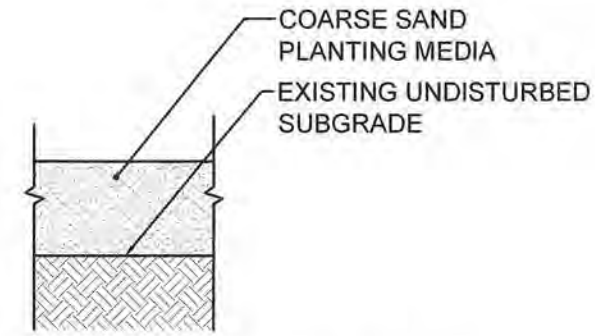
SHEET 4 OF 9



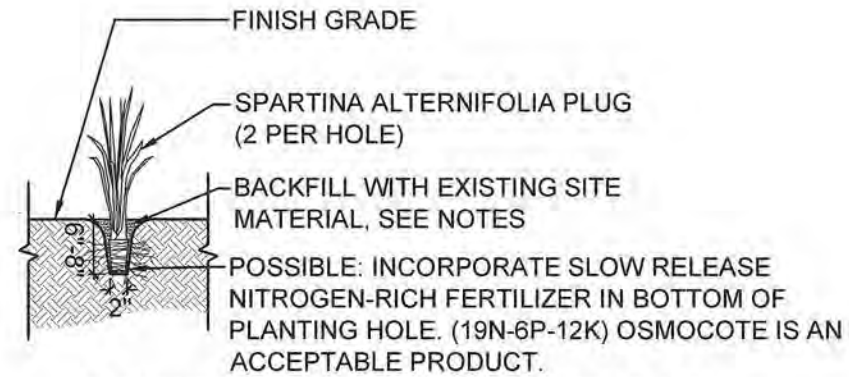
NOTE:  
FINAL POSITION TO BE DETERMINED  
IN FIELD IN CONSULTATION WITH  
WETLAND SPECIALIST.



**COIR FIBER LOG STABILIZATION DETAILS**  
SCALE: 1/4" = 1'-0"



**24" PLANTING MEDIA BACKFILL**  
SCALE: 1/4" = 1'-0"



**PLANTING DETAIL - SMOOTH CORDGRASS PLUG**  
SCALE: 1/4" = 1'-0"

**NOTES:**

1. MEDIA SHALL BE FREE OF SEED AND FOREIGN MATTER INCLUDING VEGETATION.
2. BACKFILL MINIMUM OF TWO (2) WEEKS PRIOR TO INSTALLATION OF PLANTS IS SCHEDULED.
3. SURVEYOR SHALL VERIFY FINAL GRADES AND CONFIRM ELEVATIONS HAVE BEEN MET. FILL AND SHIM IF NECESSARY.
4. PLANTING SHALL OCCUR AT SURFACE OF IMPORTED PLANTING MEDIA (COARSE SAND) AS DETERMINED BY WETLAND SPECIALIST.

NOTE:  
TEMPORARY DEVICES & STRUCTURES TO CONTROL EROSION & SEDIMENTATION IN & AROUND MITIGATION SITES SHALL BE PROPERLY MAINTAINED AT ALL TIMES. THE DEVICES & STRUCTURES SHALL BE DISASSEMBLED & PROPERLY DISPOSED AS SOON AS THE SITE IS STABLE BUT NO LATER THAN NOVEMBER 1ST OF THE THIRD FULL GROWING PERIOD AFTER PLANTING. SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED & PLACED UPLAND IN A MANNER THAT PREVENTS ITS EROSION & TRANSPORT TO A WATERWAY OR WETLAND.

TO REDUCE THE IMMEDIATE THREAT & MINIMIZE THE LONG-TERM POTENTIAL OF DEGRADATION, THE SPECIES INCLUDED ON THE "INVASIVE & OTHER UNACCEPTABLE PLANT SPECIES" LIST IN APPENDIX K OF THE NEW ENGLAND DISTRICT COMPENSATORY MITIGATION GUIDANCE SHALL NOT BE INCLUDED AS PLANTING STOCK IN THE OVERALL PROJECT. ONLY PLANT MATERIALS NATIVE & INDIGENOUS TO THE REGION SHALL BE USED. SPECIES NOT SPECIFIED IN THE MITIGATION PLAN SHALL NOT BE USED WITHOUT PRIOR WRITTEN APPROVAL FROM THE CORPS.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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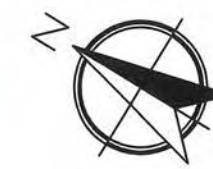


SCALE: AS SHOWN

**WATER STREET PROMENADE  
NORTHERN SECTION  
SEGMENT D ON-SITE MITIGATION AREA  
DETAILS  
PLYMOUTH, MASSACHUSETTS**

ISSUE DATE        JULY 2017  
SHEET        5 OF 9





**ACCESS LEGEND**

- 1. PREFERRED ACCESS (REQUIRES EASEMENT FROM ABUTTING LANDOWNER)
- 2. ALTERNATE ACCESS VIA FISHERMAN'S PARKING LOT
- 3. ALTERNATE ACCESS VIA BOAT FROM PLYMOUTH HARBOR

**OFF-SITE MITIGATION AT LONG BEACH**  
 LOCUS MAP | 1" = 500'

Latitude: 41 57.289  
 Longitude: -70 38.208

**DATUM**

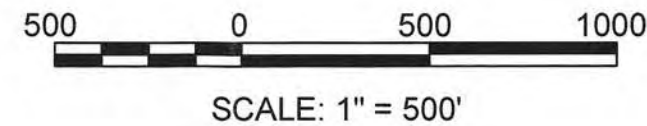
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NAVD 88	+5.77
MLLW	0.0

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WATER STREET PROMENADE  
 NORTHERN SECTION  
 LONG BEACH OFF-SITE MITIGATION AREA

**LOCUS MAP**

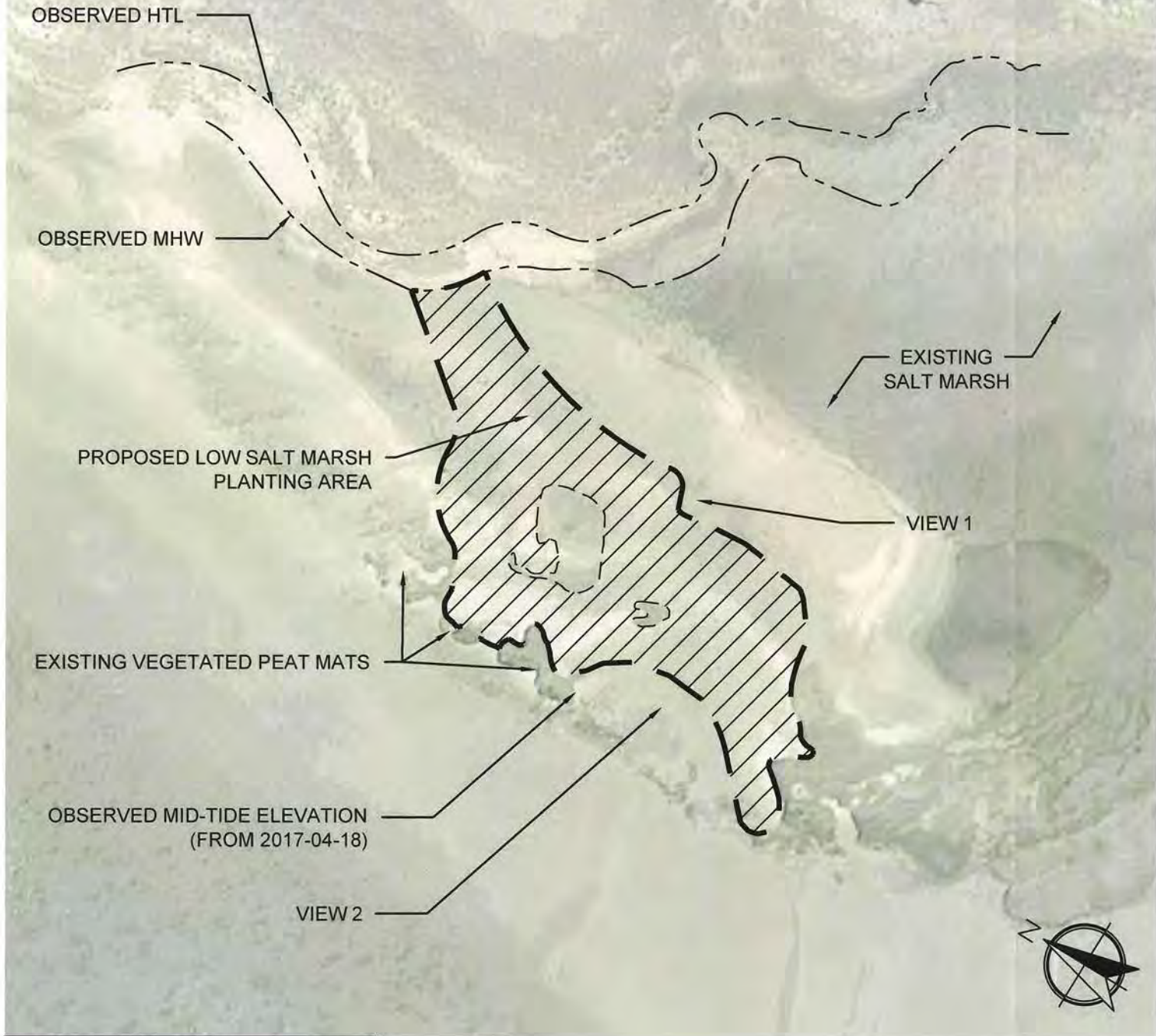
PLYMOUTH, MASSACHUSETTS

ISSUE DATE        JULY 2017

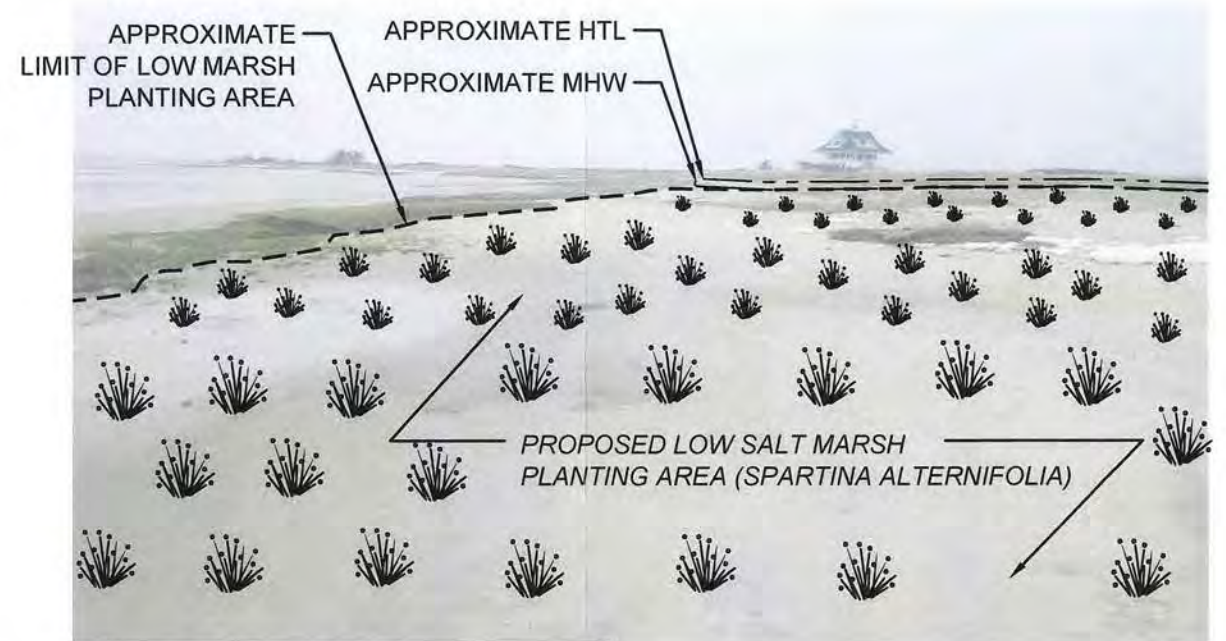
SHEET        6 OF 9



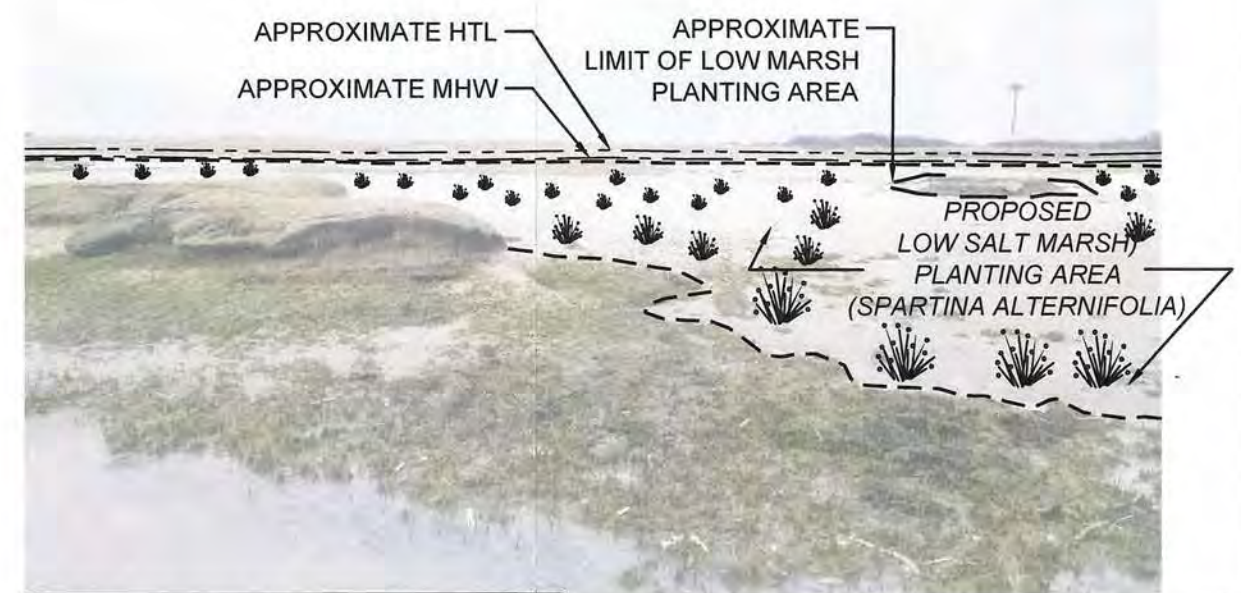
**LONG BEACH MITIGATION AREA**  
MITIGATION TOTAL AREA - 16,000 SF



**ENLARGEMENT | SCALE: 1" = 60'-0"**



**EXISTING CONDITIONS | LONG BEACH MITIGATION AREA VIEW 1**



**EXISTING CONDITIONS | LONG BEACH MITIGATION AREA VIEW 2**

NOTE: GRAPHIC SYMBOLS DO NOT REPRESENT ACTUAL PLANT PLACEMENT. REFER TO SHEET 8.

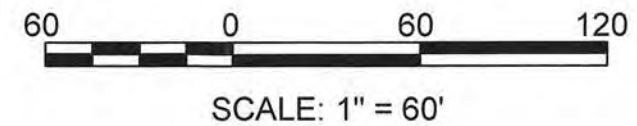
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WATER STREET PROMENADE  
NORTHERN SECTION  
LONG BEACH OFF-SITE MITIGATION AREA

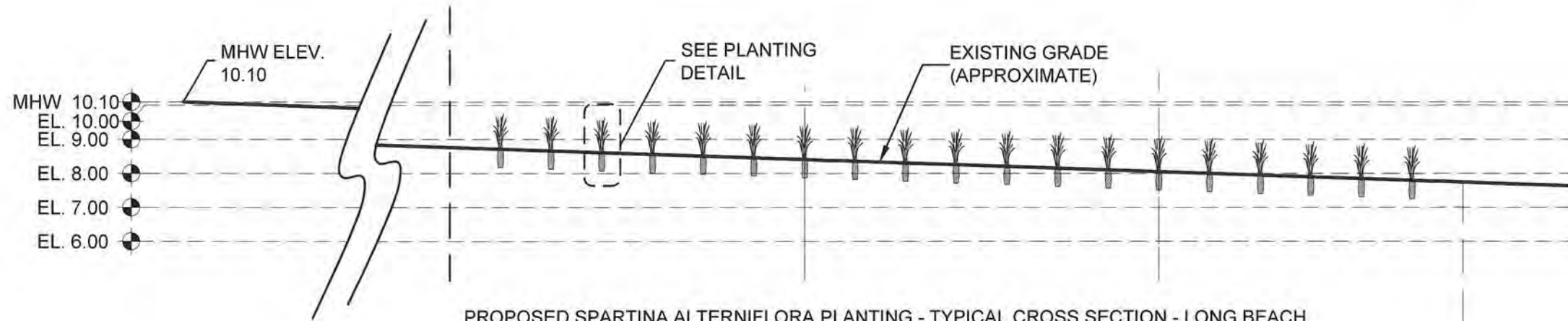
**PLAN**

PLYMOUTH, MASSACHUSETTS

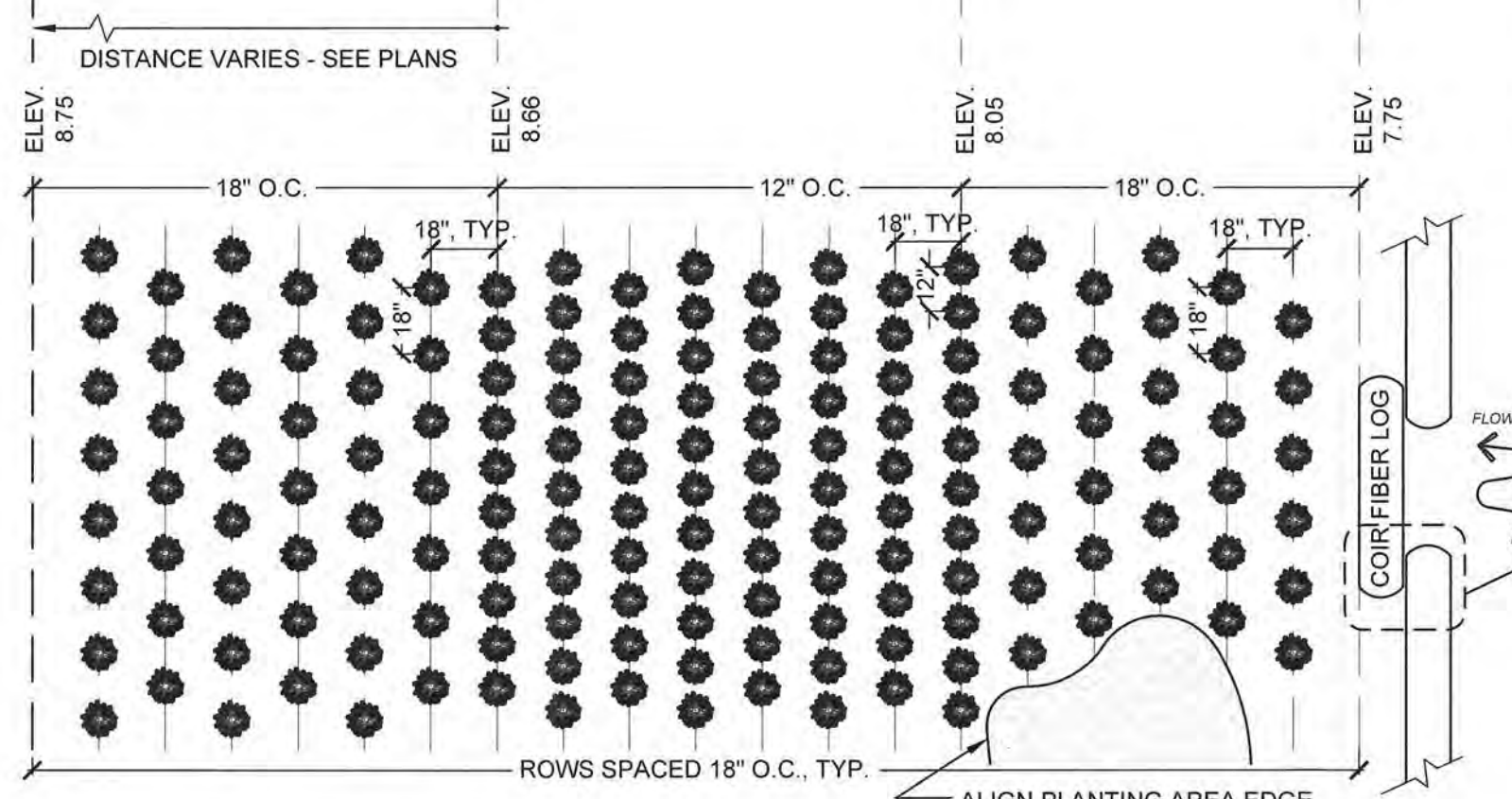
ISSUE DATE JULY 2017

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PROPOSED SPARTINA ALTERNIFLORA PLANTING - TYPICAL CROSS SECTION - LONG BEACH  
SCALE: 1/4" = 1'-0"



PROPOSED SPARTINA ALTERNIFLORA PLANTING - TYPICAL PLAN VIEW - LONG BEACH  
SCALE: 1/4" = 1'-0"

NOTE: FINAL DETAILS AND GRADING TO BE DETERMINED PER FIELD CONDITIONS.

COIR FIBER LOGS POSITIONED ON NW SHORELINE TO ALTERNATE WAVE ACTION. FINAL POSITIONS OF COIR FIBER LOGS TO BE DETERMINED IN FIELD BY WETLAND SPECIALIST

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

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DRAWN BY:  
AP  
DESIGNED BY:  
AG  
CHECKED BY:  
AG



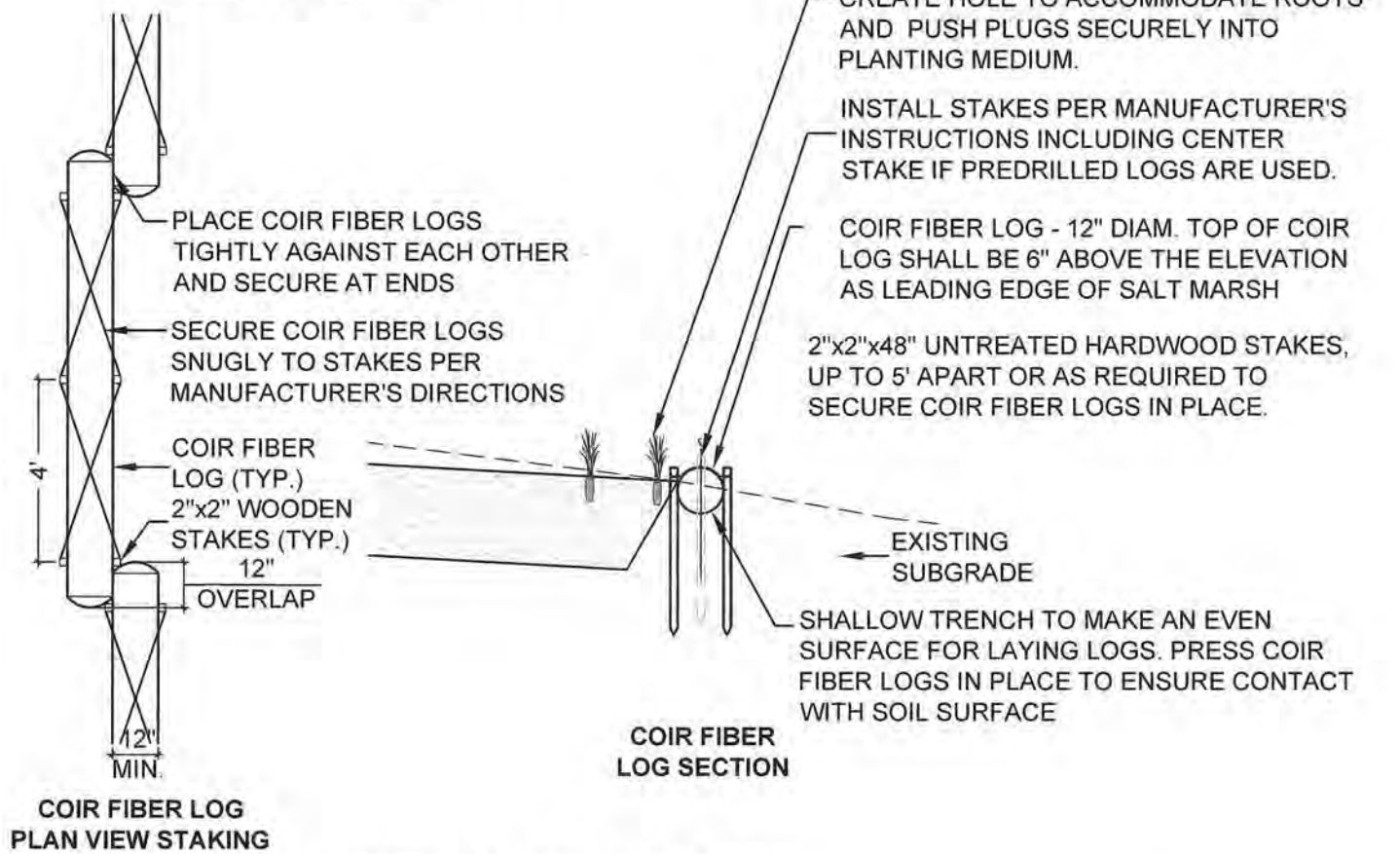
SCALE: AS SHOWN

WATER STREET PROMENADE  
NORTHERN SECTION  
LONG BEACH OFF-SITE MITIGATION AREA  
**DETAILS**  
PLYMOUTH, MASSACHUSETTS

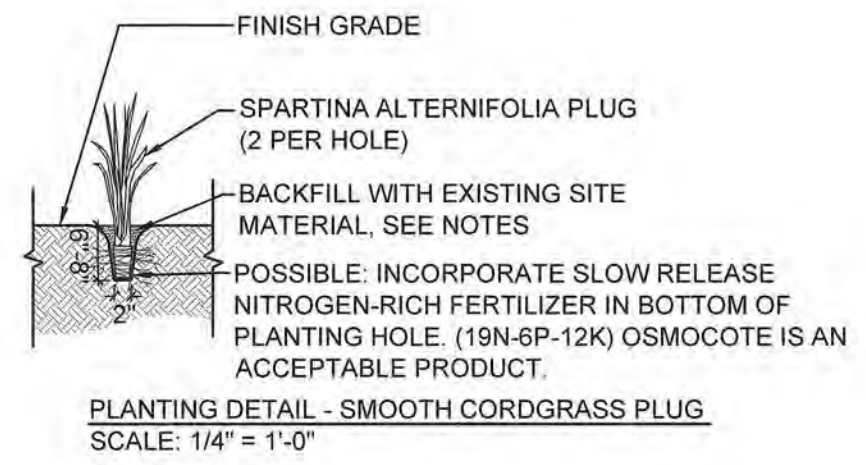
ISSUE DATE JULY 2017  
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NOTE:  
FINAL POSITION TO BE DETERMINED  
IN FIELD IN CONSULTATION WITH  
WETLAND SPECIALIST.



COIR FIBER LOG STABILIZATION DETAILS  
SCALE: 1/4" = 1'-0"



NOTE:  
TEMPORARY DEVICES & STRUCTURES TO CONTROL EROSION & SEDIMENTATION IN & AROUND MITIGATION SITES SHALL BE PROPERLY MAINTAINED AT ALL TIMES. THE DEVICES & STRUCTURES SHALL BE DISASSEMBLED & PROPERLY DISPOSED AS SOON AS THE SITE IS STABLE BUT NO LATER THAN NOVEMBER 1ST OF THE THIRD FULL GROWING PERIOD AFTER PLANTING. SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED & PLACED UPLAND IN A MANNER THAT PREVENTS ITS EROSION & TRANSPORT TO A WATERWAY OR WETLAND.

TO REDUCE THE IMMEDIATE THREAT & MINIMIZE THE LONG-TERM POTENTIAL OF DEGRADATION, THE SPECIES INCLUDED ON THE "INVASIVE & OTHER UNACCEPTABLE PLANT SPECIES" LIST IN APPENDIX K OF THE NEW ENGLAND DISTRICT COMPENSATORY MITIGATION GUIDANCE SHALL NOT BE INCLUDED AS PLANTING STOCK IN THE OVERALL PROJECT. ONLY PLANT MATERIALS NATIVE & INDIGENOUS TO THE REGION SHALL BE USED. SPECIES NOT SPECIFIED IN THE MITIGATION PLAN SHALL NOT BE USED WITHOUT PRIOR WRITTEN APPROVAL FROM THE CORPS.

DATUM	
100 YR FLOOD	+20.77
HTL	+12.90
MHW	+10.10
NAVD 88	+5.77
MLLW	0.0

DRAWN BY:  
AP

DESIGNED BY:  
AG

CHECKED BY:  
AG



SCALE: AS SHOWN

WATER STREET PROMENADE  
NORTHERN SECTION  
LONG BEACH OFF-SITE MITIGATION AREA

**DETAILS**

PLYMOUTH, MASSACHUSETTS

ISSUE DATE JULY 2017

SHEET 9 OF 9

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