Notice of Intent

South Station Tower 1 Interlocking Project

Boston, Massachusetts

PREPARED FOR

Massachusetts Bay Transportation Authority
10 Park Plaza, Suite 6720
Boston, MA 02116
617.222.1580

PREPARED BY

101 Walnut Street
P.O. Box 9151
Watertown, MA 02472
617.924.1770

June 2021

June 23, 2021

Ref: 14943.01
Boston Conservation Commission
Boston City Hall, Room 709
Boston, MA 02201

Re: South Station Tower 1 Interlocking Project
Notice of Intent
700 Atlantic Avenue
Boston, MA

Dear Commission Members,

The Massachusetts Bay Transportation Authority (MBTA) (the Applicant) is submitting the enclosed Notice of Intent (NOI) for proposed work at Tower 1 Interlocking within MBTA's railroad right-of-way (ROW) south of South Station Terminal at 700 Atlantic Avenue in Boston, MA. This application is being filed under the Massachusetts Wetlands Protection Act, MGL c.131, §40 (WPA) and its implementing regulations, 310 CMR 10.00. The MBTA recently received grant funding through the Federal Railroad Administration for state of good repair upgrades within the existing Tower 1 Interlocking, including a new signal system, signal house, heat switches, replacement and resurfacing of existing trackwork, upgraded communication systems, and other improvements (the Project). The proposed work is located in an area regulated under the WPA as the 100-foot Buffer Zone to Coastal Bank.

In compliance with the WPA, notification of this NOI to abutters within 100 feet of the Project has been made by certified return receipt mail. A copy of the abutter notification form and a certified list of abutters are enclosed as part of the NOI. As required under the WPA, a copy of the NOI package has been filed with the Massachusetts Department of Environmental Protection Northeast Regional Office.

This submittal includes a check made payable to the City of Boston in the amount of $737.50 as payment of the City's share of the NOI filing fees. In accordance with Massachusetts General Law (M.G.L.) Chapter 161A Section 3(i), the MBTA is not subject to local zoning regulations or bylaws. The Authority's enabling statute also exempts it from paying any filing fee or charge for any permit or license issued to the MBTA (M.G.L. Chapter 161A Section 24).

www.vhb.com

Engineers | Scientists | Planners | Designers

101 Walnut Street
PO Box 9151
Watertown, Massachusetts 02471
P 617.924.1770
F 617.924.2286

Please advertise this matter for public hearing at the Commission's next scheduled meeting. If you have any questions concerning this submittal or require any additional information, please feel free to contact me at 617-607-6112.

Regards,

Laura Laich
Senior Environmental Scientist

CC: Massachusetts Bay Transportation Authority
DEP Northeast Regional Office

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June 2021

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Notice of Intent Forms

- WPA Form 3
- Notice of Intent Filing Fee Transmittal Form

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1144757
City/Town:BOSTON

A.General Information

1. Project Location:

a. Street Address	700 ATLANTIC AVENUE		
b. City/Town	BOSTON	c. Zip Code	02111
d. Latitude	42.34834N	e. Longitude	71.05658W
f. Map/Plat #	0305366100, 0305364400	g.Parcel/Lot #	0305366100, 0305364400

2. Applicant:

☐ Individual ☑ Organization

a. First Name	TESS	b.Last Name	PAGANELLI		
c. Organization	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
d. Mailing Address	10 PARK PLAZA, SUITE 6720				
e. City/Town	BOSTON	f. State	MA	g. Zip Code	02116
h. Phone Number	617-222-1580	i. Fax		j. Email	tpaganelli@mbta.com

3.Property Owner:

☐ more than one owner

a. First Name	TESS	b. Last Name	PAGANELLI		
c. Organization	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
d. Mailing Address	10 PARK PLAZA, SUITE 6720				
e. City/Town	BOSTON	f.State	MA	g. Zip Code	02116
h. Phone Number	617-222-1580	i. Fax		j.Email	tpaganelli@mbta.com

4.Representative:

a. First Name	LAICH	b. Last Name	LAURA		
c. Organization	VANASSE HANGEN BRUSTLIN, INC.				
d. Mailing Address	101 WALNUT STREET				
e. City/Town	WATERTOWN	f. State	MA	g. Zip Code	02471
h.Phone Number	617-607-6112	i.Fax		j.Email	llaich@vhb.com

5.Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form):

a.Total Fee Paid	0.00	b.State Fee Paid	0.00	c.City/Town Fee Paid	0.00

6.General Project Description:

THE PROJECT WILL IMPROVE RELIABILITY AND RESILIENCY OF THE SOUTH STATION INTERLOCKING AND WILL INVOLVE TRACK REPLACEMENTS AND ADDITION OF BALLAST IN THE EXISTING RAIL BED.

7a.Project Type:

1. ☐ Single Family Home	2. ☐ Residential Subdivision
3. ☐ Limited Project Driveway Crossing	4. ☐ Commercial/Industrial
5. ☐ Dock/Pier	6. ☐ Utilities
7. ☐ Coastal Engineering Structure	8. ☐ Agriculture (eg., cranberries, forestry)
9. ☑ Transportation	10. ☐ Other

7b.Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310

CMR 10.53 (inland)?

1. ☐ Yes ☑ No If yes, describe which limited project applies to this project:
2. Limited Project

8.Property recorded at the Registry of Deeds for:

a.County: **b.Certificate:** **c.Book:** **d.Page:**

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1.Buffer Zone & Resource Area Impacts (temporary & permanent):

☑ This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2.Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a.☐ Bank	1. linear feet	2. linear feet
b.☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c.☐ Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	
d.☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e.☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f.☐ Riverfront Area

1. Name of Waterway (if any)

2. Width of Riverfront Area (check one)
☐ 25 ft. - Designated Densely Developed Areas only
☐ 100 ft. - New agricultural projects only
☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project
square feet

4. Proposed Alteration of the Riverfront Area:

a. total square feet b. square feet within 100 ft. c. square feet between 100 ft. and 200 ft.

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under	Land under the ocean below,
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beaches	Indicate size under Coastal Beaches and/or Coatstal Dunes, below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i. ☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4.Restoration/Enhancement

☐ Restoration/Replacement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please entered the additional amount here.

a. square feet of BVW b. square feet of Salt Marsh

5.Projects Involves Stream Crossings

☐ Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings

b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

a. ☐ Yes ☑ No

If yes, include proof of mailing or hand delivery of NOI to:
Natural Heritage and Endangered Species
Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

b. Date of map:FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)....

c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)

1.☐ Percentage/acreage of property to be altered:

(a) within Wetland Resource Area — percentage/acreage

(b) outside Resource Area — percentage/acreage

2.☐ Assessor's Map or right-of-way plan of site

3.☐ Project plans for entire project site, including wetland resource areas and areas outside of wetland jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

a.☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

b.☐ Photographs representative of the site

c.☐ MESA filing fee (fee information available at: http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html)
Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

*Projects altering **10 or more acres** of land, also submit:*

d.☐ Vegetation cover type map of site

e.☐ Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

1.☐ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2.☐ Separate MESA review ongoing.

a. NHESP Tracking Number

b. Date submitted to NHESP

3.☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?
   a. ☐ Not applicable - project is in inland resource area only
   b. ☐ Yes ☑ No

   If yes, include proof of mailing or hand delivery of NOI to either:

   South Shore - Cohasset to Rhode Island, and the Cape & Islands:

   Division of Marine Fisheries -
   Southeast Marine Fisheries Station
   Attn: Environmental Reviewer
   836 S. Rodney French Blvd
   New Bedford, MA 02744

   North Shore - Hull to New Hampshire:

   Division of Marine Fisheries -
   North Shore Office
   Attn: Environmental Reviewer
   30 Emerson Avenue
   Gloucester, MA 01930

   If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☑ No

   If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
   a. ☐ Yes ☑ No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?
   a. ☐ Yes ☑ No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
   a. ☑ Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)
      2. ☐ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System
   b. ☐ No, Explain why the project is exempt:
      1. ☐ Single Family Home
      2. ☐ Emergency Road Repair

3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s). Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date:	e. Scale:
SOUTH STATION TOWER 1 INTERLOCKING PROJECT	VHB	RICK CAREY	3-18-21	1:40

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. Attach NOI Wetland Fee Transmittal Form.
9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

366261	6-2-21
2. Municipal Check Number	3. Check date
4. State Check Number	5. Check date
Vanasse Hangen Brustlin, Inc	
6. Payer name on check: First Name	7. Payer name on check: Last Name

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Tess Paganelli	5/27/21
1. Signature of Applicant	2. Date
3. Signature of Property Owner(if different)	4. Date
	6/1/21
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Wetland FeeTransmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1144757
City/Town:BOSTON

A. Applicant Information

1. Applicant:

a. First Name	TESS	b.Last Name	PAGANELLI		
c. Organization	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
d. Mailing Address	10 PARK PLAZA, SUITE 6720				
e. City/Town	BOSTON	f. State	MA	g. Zip Code	02116
h. Phone Number	6172221580	i. Fax		j. Email	tpaganelli@mbta.com

2.Property Owner:(if different)

a. First Name	TESS	b. Last Name	PAGANELLI		
c. Organization	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
d. Mailing Address	10 PARK PLAZA, SUITE 6720				
e. City/Town	BOSTON	f.State	MA	g. Zip Code	02116
h. Phone Number	6172221580	i. Fax		j.Email	tpaganelli@mbta.com

3. Project Location:

a. Street Address	700 ATLANTIC AVENUE	b. City/Town	BOSTON

Are you exempted from Fee? ☐ (YOU HAVE SELECTED 'YES')

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than $100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total

City/Town share of filling fee	State share of filing fee	Total Project Fee
$0.00	$0.00	$0.00

Notice of Intent Figures

- Figure 1 – Site Locus
- Figure 2 – Aerial
- Figure 3 – NHESP Locus
- Figure 4 – FEMA Locus

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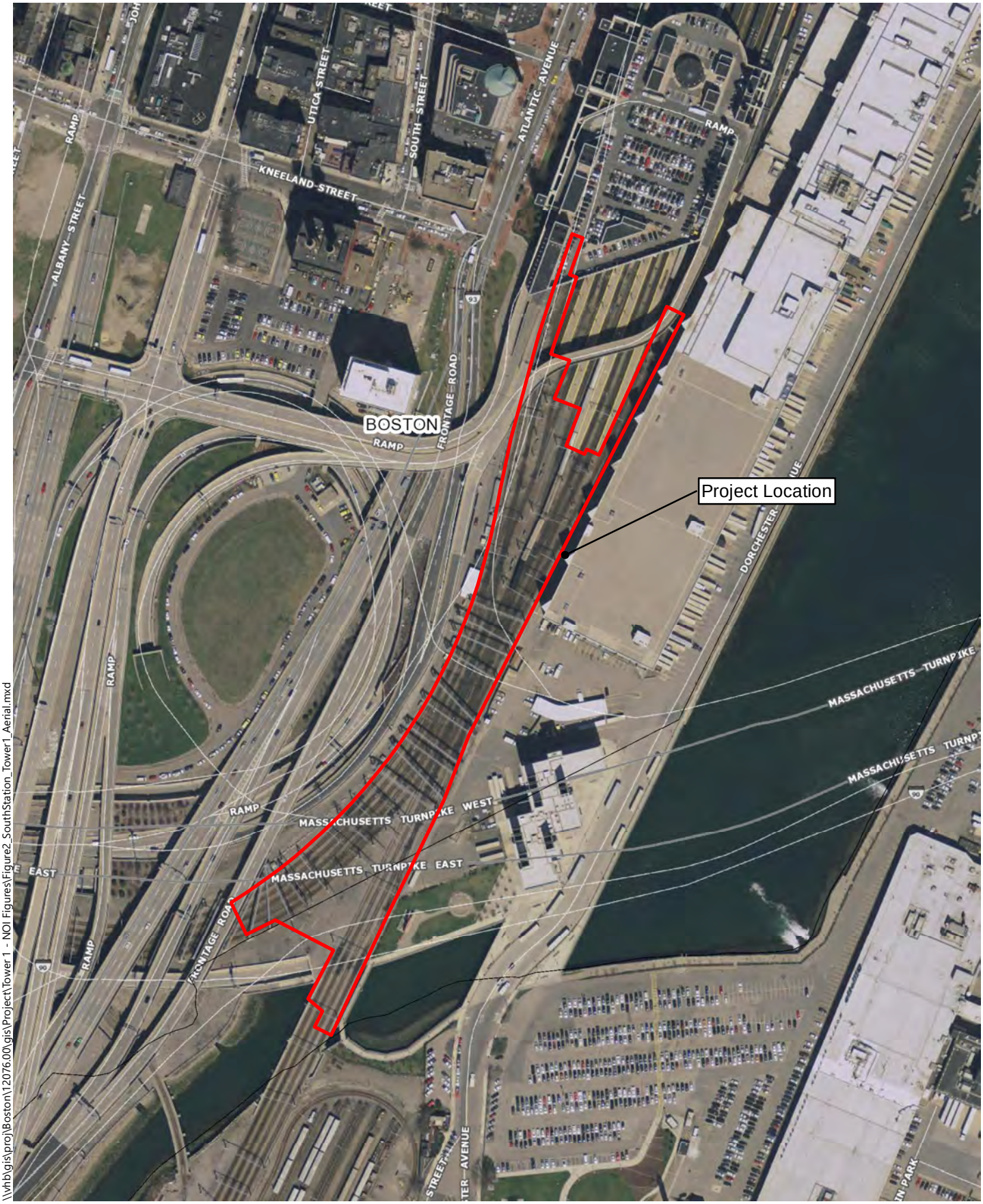
South Station Tower 1 Interlocking Project | Boston, MA

Figure 1 - Site Locus

Source Info: USGS, MassGIS, VHB



\\vhb\gis\proj\Boston\12076.00\gis\Project\Tower 1 - NOI Figures\Figure2_SouthStation_Tower1_Aerial.mxd

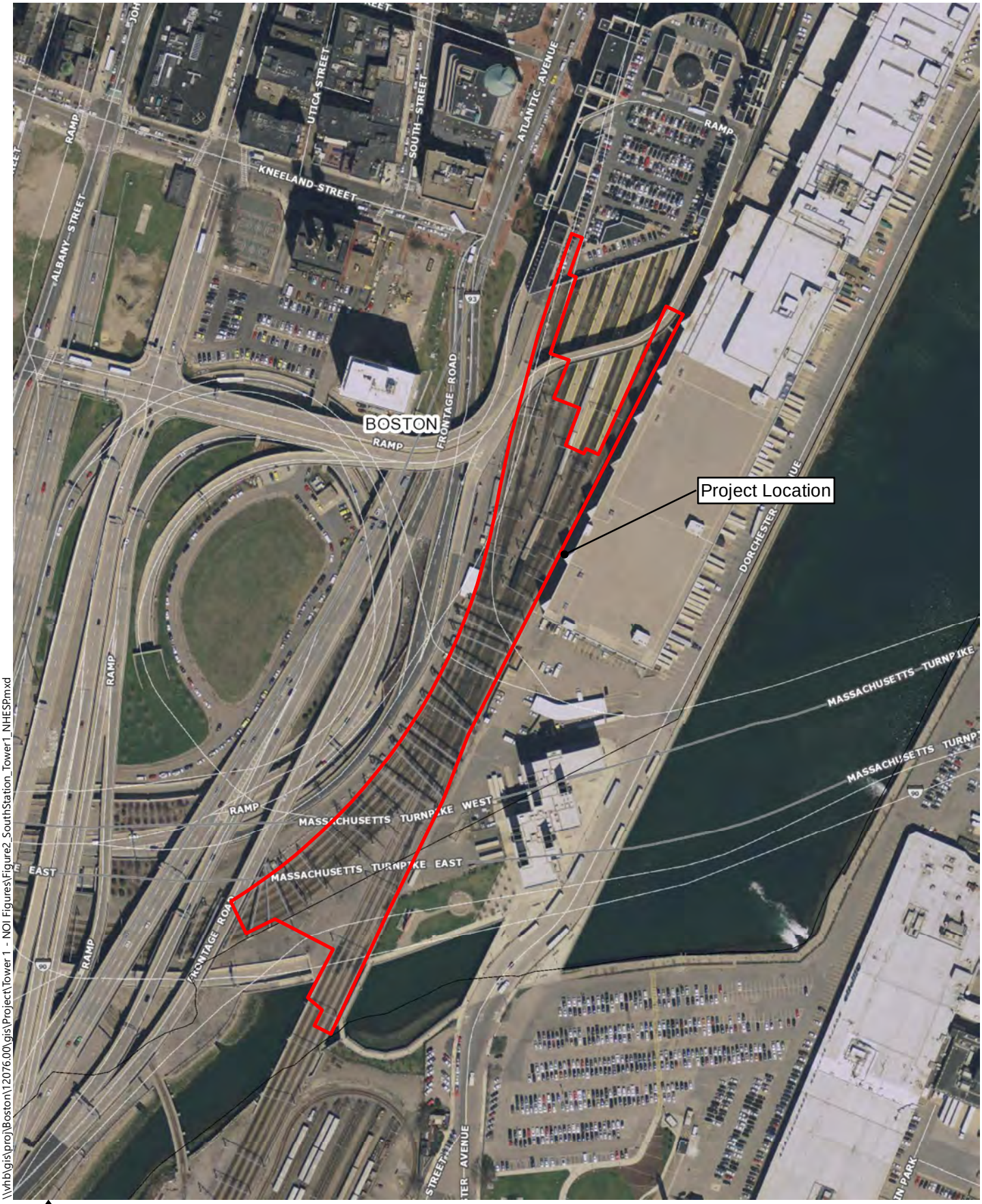
0 250 500 Feet

South Station Tower 1 Interlocking Project | Boston, MA

Legend

Project Area

Figure 2 - Aerial
Source Info: MassGIS, VHB



\\vhb\gis\proj\Boston\12076.00\gis\Project\Tower 1 - NOI Figures\Figure2_SouthStation_Tower1_NHESP.mxd

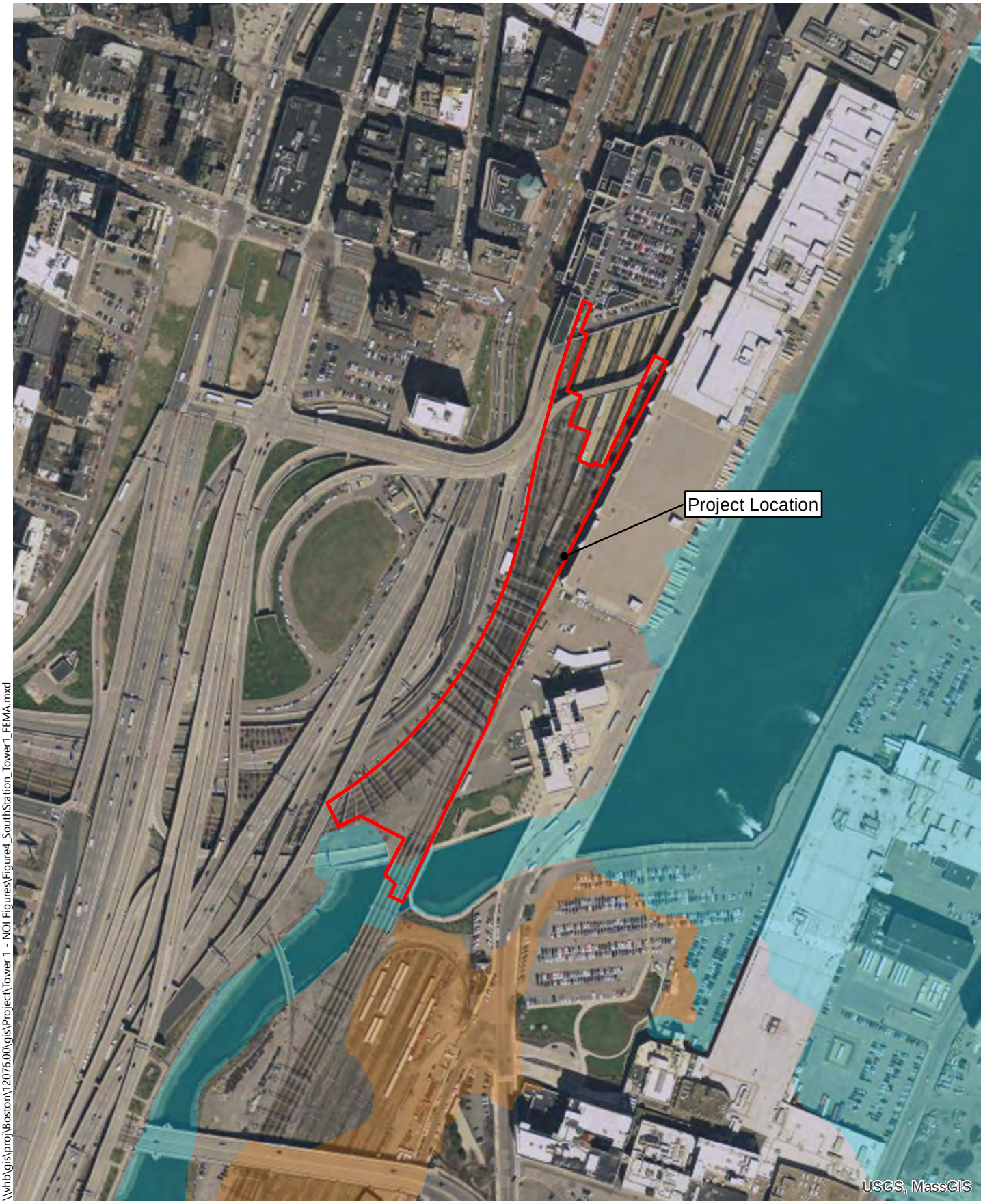
South Station Tower 1 Interlocking Project | Boston, MA

Legend

0 250 500 Feet

- NHESP Priority Habitats of Rare Species - None Present
- NHESP Estimated Habitats of Rare Wildlife - None Present
- NHESP Certified Vernal Pools - None Present
- NHESP Potential Vernal Pools - None Present

Figure 3 - NHESP Locus
Source Info: MassGIS, VHB



\\vhb\gis\proj\Boston\12076.00\gis\Project\Tower 1 - NOI Figures\Figure4_SouthStation_Tower1_FEMA.mxd

0 250 500 Feet

South Station Tower 1 Interlocking Project | Boson, MA

Legend

- AE: 1% Annual Chance of Flooding, with BFE
- X: 0.2% Annual Chance of Flooding

Figure 4 - FEMA Locus

Source Info: USGS, MassGIS, VHB, FEMA

Attachment A
Notice of Intent Narrative

Notice of Intent Narrative

This Notice of Intent (NOI) is being filed pursuant to the Massachusetts Wetlands Protection Act (WPA), (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00). This narrative describes the wetland resource areas associated with the Project Site, the proposed work, impacts to wetland resource areas, mitigation measures, and how the Project meets the performance standards of the WPA and its implementing regulations.

Introduction

The Applicant, the Massachusetts Bay Transportation Authority (MBTA), proposes to upgrade the existing Tower 1 Interlocking infrastructure (the Project) located within the railroad right-of-way (ROW) south of the South Station Terminal area in Boston, Massachusetts (the Project Site). Tower 1 Interlocking is a critical piece of railroad infrastructure providing operational flexibility for trains converging on South Station and distributing trains to and from the platforms at the station. The existing Tower 1 signal system is outdated and hinders service with reoccurring breakdowns. Due to the volume of trains moving through the Tower 1 Interlocking, a 5-minute shutdown in service during peak periods can create residual delays that affect thousands of passengers daily. Upgrades to the Tower 1 Interlocking are necessary to maintain current services, as well as to support future growth anticipated by both the MBTA and Amtrak. MassDOT and the MBTA were recently awarded with grant funding from the Federal Railroad Administration for these state-of-good-repair improvements.

The proposed upgrades to the Tower 1 Interlocking will occur within the current footprint of the existing ROW and will include a new signal system, signal house, heat switches, communication system upgrades, replacement and rehabilitation of trackwork, and other improvements. Portions of the Project Site may also be re-ballasted to address differential settlement at switch points.

Proposed construction activities will be limited to the 100-foot Buffer Zone to Coastal Bank as regulated by the WPA. The entirety of the Project Site is previously developed with existing tracks and ballast. Resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the Project Site by installing structural controls. The Project will not change any drainage patterns or flow of stormwater off the Project Site.

Site Description

The Project Site is located within the railroad ROW south of the South Station Terminal and consists entirely of existing railroad infrastructure within a heavily developed area. The Project Site is bounded by Interstate 93 to the west, the ROW and South Station Terminal headhouse to the north, government buildings and Fort Point Channel to the east, and ROW and Fort Point Channel to the south. Refer to Figures 1 and 2 for a site location map and an aerial map of the Project Site and surrounding area.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program[1] (NHESP), no Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife have been mapped in the vicinity of the Project Site. No certified or potential vernal pools are located near the Project (Figure 3). The Project Site is not located within or near an Area of Critical Environmental Concern (ACEC). According to the Massachusetts Department of Environmental Protection (DEP), the Project Site is not located within an Outstanding Resource Water[2] area, or an area designated as a Zone II Wellhead Protection Area[3]. The Natural Resources Conservation Service (NRCS)[4] soil survey has mapped the soils located on the Project Site as a combination of Urban Land and Udorthents, both with a wet substratum.

The most recently issued Flood Insurance Rate Map (FIRM)[5] for the area (FEMA Floodway Map Number 25025C0081J, effective March 16, 2016, produced by the Federal Emergency Management Agency (FEMA)), indicates the southern portion of the Project Site extends into Zone AE floodplain associated with Fort Point Channel, with a base flood elevation of 10 feet (NAVD 88) (Figure 4). VHB has provided an updated FEMA floodplain delineation on the accompanying plans (Attachment D), using the base flood elevation of 10 feet. Based on the existing topography, no portion of the Project Site is within the 100-year floodplain.

Wetland resource areas near the Project Site are described below.

Wetland Resource Areas

Wetland resource areas have been mapped using topographical information for the Project Site. Resource area determinations were made in accordance with guidance developed by the DEP[6]. The state-regulated wetland resource area identified near the Project Site is Coastal Bank associated with Fort Point Channel, as shown on the accompanying Project plans in Attachment D. Coastal Bank is defined under the WPA Regulations (310 CMR

[1] NHESP, 2017. Massachusetts Natural Heritage Atlas. 14th Edition. Accessed November 7, 2019.

[2] DEP, 2010. Designated Outstanding Resource Waters of Massachusetts. Accessed November 7, 2019.

[3] DEP, 2012. Approved Wellhead Protection Ares (Zone II). Accessed November 7, 2019.

[4] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Accessed November 7, 2019.

[5] Federal Emergency Management Agency, National Hazard Flood Layer. Digital Flood Insurance Rate Map (DFIRM). Accessed November 7, 2019.

[6] Commonwealth of Massachusetts, 2007. Applying the Massachusetts Coastal Wetlands Regulations: A practical Manual for Conservation Commissions to Protect the Storm Damage Prevention and Flood Control Functions of Coastal Resource Areas. Accessed November 7, 2019.

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."

The WPA also establishes a 100-foot Buffer Zone from the boundary of Coastal Bank.

Work Description

The Massachusetts Department of Transportation (MassDOT), in cooperation with the Massachusetts Bay Transportation Authority (MBTA) and National Railroad Passenger Corporation (Amtrak), proposes to undertake the Tower 1 Interlocking Project. The goal is to improve the reliability and resiliency of this critical interlocking, located south of South Station. The scope of work is limited to track, signal, overhead contact systems (OCS), communications, and power improvements. Specific elements of the project include:

- Replacing the existing signal system with a state-of-the-art microprocessor system;
- Replacing an existing signal house;
- Addressing differential settlement at switch points;
- Replacing track;
- Installing heat switches to prevent freezing during winter months;
- Providing trough systems to allow easier access to wires and cables;
- Evaluating the area's topography to develop strategies to make Tower 1 interlocking more resilient to the effects of climate change (such as flooding, extreme rain/snow events, heat stress);
- Providing proper grounding to the signals and OCS system;
- Providing a remote loading OCS operation system, and
- Upgrading the existing communications to the Centralized Electrification and Traffic Control (CETC).

Where track replacement is proposed, all track infrastructure, including rails ties and switches, will be removed. Excavation will be completed down to 12 inches below the bottom of existing ties, followed by placement of ballast stone and reconstruction of track elements. Other excavation within the track replacement area may include trenching for underground signal cables as well as foundation installation for wayside signal and cases.

All activities proposed under the Tower 1 Interlocking were generally presented and evaluated as part of the prior National Environmental Policy Act (NEPA) and Massachusetts Environmental Policy Act (MEPA) environmental review for the overall South Station Expansion Project. While there may be a few differences in track curvature and special trackwork, the proposed improvements are well within the previously studied footprint and will be substantially less impactful than the full South Station Expansion initiative. There is

no proposed increase of impervious area and the Project will maintain the existing drainage system to the maximum extent practicable. The existing subsurface perforated drainage and closed drainage system will be evaluated during construction and replaced in-kind as necessary. There will be no changes in the existing cover type, pipe sizes, or catchment devices.

Work in Wetland Resource Areas

No work is proposed in wetland resource areas. Work will be conducted within the 100-foot Buffer Zone to Coastal Bank.

Work in the Buffer Zone is limited to track resurfacing activities. Ballast will be distributed and tamped to support adjacent track replacement. No track replacement, trenching for underground signal cables, or foundation installations is proposed within the Buffer Zone.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short and long-term impacts to wetland resource areas. Mitigation measures proposed for this Project are described below.

Erosion and Sedimentation Controls

During construction, the Applicant will implement an erosion and sedimentation control program to minimize off-site transport of sediment during the construction phase of the Project. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP and the U.S. Environmental Protection Agency (EPA).

Proper implementation of the erosion and sedimentation control program will:

- Minimize exposed areas through sequencing and temporary stabilization;
- Place structures to manage stormwater runoff and erosion; and,
- Establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Prior to any ground disturbance, an approved erosion control barrier, primarily silt fence or compost filter tubes, will be installed at the downgradient limit of work as specified in the accompanying Project plans. As construction progresses, additional barriers may be installed around the base of stockpiles and other erosion prone areas as needed. The barriers will be entrenched into the substrate to the extent possible to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused in the Project area or disposed of at a suitable off-site location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Regulatory Compliance

Proposed construction activities will occur within the 100-foot Buffer Zone to Coastal Bank. As demonstrated below, work within the Buffer Zone is consistent with the requirements outlined the WPA.

Work within Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, *"the issuing authority should consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of existing vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act."*

The proposed Project has been designed to address these requirements. As identified in the Mitigation section of this attachment, an erosion control program will be implemented to prevent adverse impacts to resource areas during construction.

Measures have been incorporated into the Project design to ensure that construction operations on the site will be done in a manner that prevents impacts to downgradient wetland resources. A clear limit of work has been identified and erosion control areas have been proposed throughout the Project limits.

Stormwater Management

The Project will not change any drainage patterns or flow of stormwater off the Project Site. The accompanying Stormwater Memorandum (Attachment C) includes compliance with applicable stormwater management standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations.

Summary

The Applicant is proposing to upgrade the existing Tower 1 Interlocking infrastructure within the railroad ROW south of the South Station Terminal area. Tower 1 Interlocking is a critical piece of railroad infrastructure providing operational flexibility for trains converging on South Station and distributing trains to and from platforms at the station. Upgrades to the Tower 1 Interlocking are necessary to maintain current services, as well as to support future growth anticipated by both the MBTA and Amtrak.

Proposed construction activities will take place within the 100-foot Buffer Zone to Coastal Bank. All work will take place in previously disturbed areas.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion control program that includes provisions to minimize areas of disturbance through phasing and sequencing and limit erosion through stabilization and structural controls. The Project will not change any drainage patterns or flow of stormwater off the Project Site.

On behalf of the Applicant, we respectfully request that the Boston Conservation Commission find these measures adequately protective of the interests identified in the WPA and issue an Order of Conditions approving the work describe in this NOI and shown on the accompanying Project plans.

Attachment B – Abutter Information

AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION

Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance

I, Laura Laich, hereby certify under pains and penalties of perjury that that at least one week prior to the public hearing, I gave notice to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by Massachusetts Bay Transportation Authority for upgrades to the existing Tower 1 Interlocking infrastructure within the railroad right-of-way south of the South Station terminal located at 700 Atlantic Avenue.

The Abutter Notification For, the list of abutters to whom it was given, and their addresses are attached to this Affidavit of Service.

Laich, Laura Digitally signed by Laich, Laura Date: 2021.06.17 10:51:36 -04'00'
Name

6/24/21
Date

NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

In accordance with the Massachusetts Wetlands Protection Act, Massachusetts General Laws Chapter 131, Section 40, and the Boston Wetlands Ordinance, you are hereby notified as an abutter to a project filed with the Boston Conservation Commission.

A. **Massachusetts Bay Transportation Authority** has filed a Notice of Intent with the Boston Conservation Commissionseeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and Boston Wetlands Ordinance.

B. The address of the lot where the activity is proposed is **700 Atlantic Avenue**.

C. The project involves **upgrades to the existing Tower 1 Interlocking infrastructure within the railroad right-of-way south of the South Station Terminal**.

D. Copies of the Notice of Intent may be obtained by contacting the Boston Conservation Commission at **CC@boston.gov**.

E. Copies of the Notice of Intent may be obtained from **Laura Laich at VHB Inc. at 617-607-6112** between the hours of **9AM and 5PM, Monday through Friday**.

F. In accordance with the Commonwealth of Massachusetts Executive Order Suspending Certain Provisions of the Open Meeting Law, the public hearing will take place **virtually** at https://zoom.us/j/6864582044. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

G. Information regarding the date and time of the public hearing may be obtained from the **Boston Conservation Commission** by emailing **CC@boston.gov** or calling **(617) 635-3850** between the hours of **9 AM to 5 PM, Monday through Friday.**

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the **Boston Herald.**

NOTE: Notice of the public hearing, including its date, time, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance.

NOTE: If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

NOTE: You also may contact the Boston Conservation Commission or the Department of Environmental Protection Northeast Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: the Northeast Region: (978) 694-3200.

波士顿湿地保护委员会
项目邻近住户通知

根据《马萨诸塞州湿地保护法》、《马萨诸塞州普通法》第 131 章第 40 节以及《波士顿湿地条例》的规定，我们特此向您，即向波士顿湿地保护委员会提出申请的项目的邻近住户，发出以下通知。

A. **馬薩諸塞灣交通局 （MBTA）** 已向波士顿湿地保护委员会提出申请，请求批准改建一块受《湿地保护法》（《普通法》第 131 章第 40 节）和《波士顿湿地条例》保护的地块。

B. 拟开展改建活动的地块地址为：**700 Atlantic**。

C. 该项目涉及以下建设内容：**對南站以南鐵路範圍內現有的1號塔台的連鎖基礎設施進行升級**。

D. 可通過聯繫波士頓保護委員會取得意向通知書的副本 ， 電子郵件是 CC@boston.gov。

E. 您可于 週一至週五早上九點到下午五點之間撥打617-607-6112聯絡VHB公司的**Laura Laich** 处获取意向通知的副本。

F. 根據《馬薩諸塞州行政命令》（暫緩執行《公開會議法》聽證會將在網上 https://zoom.us/j/6864582044 進行。 如果無法上互聯網 (Internet)，則可致電 1-929-205-6099，輸入會議編號(ID) 686 458 2044＃，然後使用＃作為您參與的編號(ID.)

G. 您可于**周一至周五上午 9 点到下午 5 点**联系**波士顿湿地保护委员会**，咨询公开听证会举行的日期和时间，邮箱地址：**CC@boston.gov**，电话：**(617) 635-4416**。

注：公开听证会的通知（包括其举行日期、时间和地点）将提前至少五天在**《波士顿先驱报》**上予以公布。

注：公开听证会的通知（包括其举行日期、时间和地点）将提前至少四十八（48）小时发布在以下网页之 上以及波士顿市政厅内：www.boston.gov/public-notices。如果您想提出意见或建议，您可以参加该公 开听证会或将书面形式的意见或建议发送至 CC@boston.gov 或邮寄至以下地址：Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201。

注：您也可以联系波士顿湿地保护委员会或环境保护部东北地区办公室，咨询有关此项申请或《湿地保护 法》的更多信息。如要联系环境保护部，请致电：东北地区：（978）694-3200。

注：如果您准备参加该公开听证会并需要口译服务，则请在听证会举行前一天中午 12 点前通过以下电子邮箱地址告知工作人员：CC@boston.gov。

PID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPC	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
3.03E+08	MASSACHUSETTS DEPARTMENT OF	MASSACHUSETTS DEPARTMENT OF	KEELAND ST	BOSTON MA	2111	KNEELAND ST	BOSTON	2111
3.04E+08	DEWEY SQUARE TOWER ASSOC	DEWEY SQUARE TOWER ASSOC	1 FINANCIAL CENTER	BOSTON MA	2111	655 ATLANTIC AV	BOSTON	2111
3.04E+08	MASSACHUSETTS TURNPIKE	MASSACHUSETTS TURNPIKE	40 SOUTH ST	BOSTON MA	2111	40 SOUTH ST	BOSTON	2111
3.04E+08	SIXTY SOUTH STREET LIMITED	SIXTY SOUTH STREET LIMITED	60 SOUTH ST #1020	BOSTON MA	2111	60 SOUTH ST	BOSTON	2111
3.04E+08	SIX95 ATLANTIC AVENUE CO LLC	SIX95 ATLANTIC AVENUE CO LLC	PO BOX 7517 BILLBOX15-18876-	HICKSVILLE NY	11802	695 ATLANTIC AV	BOSTON	2111
3.04E+08	I&G DIRECT REAL ESTATE 39 LP	I&G DIRECT REAL ESTATE 39 LP	270 PARK AV 7TH FL	NEW YORK NY	10017	711 ATLANTIC AV	BOSTON	2111
3.04E+08	SEVEN 17 ATLANTIC AVENUE	SEVEN 17 ATLANTIC AVENUE	717 719 ATLANTIC AV	BOSTON MA	2111	717 719 ATLANTIC AV	BOSTON	2111
3.04E+08	GOULDING-FRAYER PROP I LLC	GOULDING-FRAYER PROP I LLC	717 ATLANTIC AV #1A	BOSTON MA	2111	717 ATLANTIC AV #1A	BOSTON	2111
3.04E+08	GREER RICHARD K TS	GREER RICHARD K TS	106 SOUTH ST	BOSTON MA	2111	717 ATLANTIC AV #1B	BOSTON	2111
3.04E+08	DONNELLAN JOHN M TS	DONNELLAN JOHN M TS	717 ATLANTIC AV #1C	BOSTON MA	2111	717 ATLANTIC AV #1C	BOSTON	2111
3.04E+08	TAU NGUYET	TAU NGUYET	717 ATLANTIC AV UNIT 1D	BOSTON MA	2111	717 ATLANTIC AV #1D	BOSTON	2111
3.04E+08	SUKHIEN MARLYNE	SUKHIEN MARLYNE	717 ATLANTIC AV #2A	BOSTON MA	2111	717 ATLANTIC AV #2A	BOSTON	2111
3.04E+08	SUKHTIAN DARAH	SUKHTIAN DARAH	717 ATLANTIC AV #2A	BOSTON MA	2111	717 ATLANTIC AV #2B	BOSTON	2111
3.04E+08	MCNICHOL DANIEL J	MCNICHOL DANIEL J	717 ATLANTIV AV #2C	BOSTON MA	2111	717 ATLANTIC AV #2C	BOSTON	2111
3.04E+08	BURKE WILLIAM H	BURKE WILLIAM H	717 ATLANTIC AV #2D	BOSTON MA	2111	717 ATLANTIC AV #2D	BOSTON	2111
3.04E+08	FINLEY JOHN H IV	FINLEY JOHN H IV	717 ATLANTIC AV #3A	BOSTON MA	2111	717 ATLANTIC AV #3A	BOSTON	2111
3.04E+08	FINLEY JOHN H IV	FINLEY JOHN H IV	717 ATLANTIC AV #3B	BOSTON MA	2111	717 ATLANTIC AV #3B	BOSTON	2111
3.04E+08	HEINES DEBORAH M	HEINES DEBORAH M	717 ATLANTIC AVE #3C	BOSTON MA	2111	717 ATLANTIC AV #3C	BOSTON	2111
3.04E+08	POULOS NICHOLAS J	POULOS NICHOLAS J	717 ATLANTIC AV #3D	BOSTON MA	2111	717 ATLANTIC AV #3D	BOSTON	2111
3.04E+08	CAROCART BENJAMIN J	CAROCART BENJAMIN J	717 ATLANTIC AV #4A	BOSTON MA	2111	717 ATLANTIC AV #4A	BOSTON	2111
3.04E+08	ONEILL CAREY SHAYNE	ONEILL CAREY SHAYNE	717 ATLANTIC AV #4B	BOSTON MA	2111	717 ATLANTIC AV #4B	BOSTON	2111
3.04E+08	ANNETTE W BRODIE REVOCABLE	ANNETTE W BRODIE REVOCABLE	717 ATLANTIC AV #4C	BOSTON MA	2111	717 ATLANTIC AV #4C	BOSTON	2111
3.04E+08	ANNETTE W BRODIE REVOCABLE	ANNETTE W BRODIE REVOCABLE	717 ATLANTIC AV #4-C	BOSTON MA	2111	717 ATLANTIC AV #4D	BOSTON	2111
3.04E+08	SAINI MOHAN	SAINI MOHAN	717 ATLANTIC AV #5A	BOSTON MA	2111	717 ATLANTIC AV #5A	BOSTON	2111
3.04E+08	PABS-MA LLC TS	PABS-MA LLC TS	52 FLINT DR	MARLBORO MA	1752	717 ATLANTIC AV #5B	BOSTON	2111
3.04E+08	TRIMARCHI MICHAEL E	TRIMARCHI MICHAEL E	8 HARVEST LANE	WILTON NY	12831	717 ATLANTIC AV #5C	BOSTON	2111
3.04E+08	WARD LISA	WARD LISA	717 ATLANTIC AV #5-D	BOSTON MA	2111	717 ATLANTIC AV #5-D	BOSTON	2111
3.04E+08	ACCARDI ANTHONY J	ACCARDI ANTHONY J	717 ATLANTIC AV #6A	BOSTON MA	2111	717 ATLANTIC AV #6A	BOSTON	2111
3.04E+08	KANNAIR JONATHAN A	KANNAIR JONATHAN A	717 ATLANTIC AV #6B	BOSTON MA	2111	717 ATLANTIC AV #6B	BOSTON	2111
3.04E+08	LEUNG ALBERT	LEUNG ALBERT	717 ATLANTIC AV APT 6C	BOSTON MA	2111	717 ATLANTIC AV #6C	BOSTON	2111
3.04E+08	ACHEAMPONG DANIEL	ACHEAMPONG DANIEL	717 ATLANTIC AV #6D	BOSTON MA	2111	717 ATLANTIC AV #6D	BOSTON	2111
3.04E+08	PABS-MA LLC TS	PABS-MA LLC TS	52 FLINT DRIVE	MARLBOROUGH MA	1752	717 ATLANTIC AV #7A	BOSTON	2111
3.04E+08	GUALTIERI MICHAEL N	GUALTIERI MICHAEL N	717 ATLANTIC AV #7B	BOSTON MA	2111	717 ATLANTIC AV #7B	BOSTON	2111
3.04E+08	WILLIAM AND JONNAE WURSTER	WILLIAM AND JONNAE WURSTER	717 ATLANTIC AVE #7C	BOSTON MA	2111	717 ATLANTIC AV #7C	BOSTON	2111
3.04E+08	SHI YING	SHI YING	717 ATLANTIC AV #7D	BOSTON MA	2111	717 ATLANTIC AV #7D	BOSTON	2111
3.04E+08	MAKELA NICOLE ELIZABETH	MAKELA NICOLE ELIZABETH	717 ATLANTIC AV # 8A	BOSTON MA	2111	717 ATLANTIC AV #8A	BOSTON	2111
3.04E+08	ASHE ANDREW D	ASHE ANDREW D	717 ATLANTIC AV UNIT 8D	BOSTON MA	2111	717 ATLANTIC AV #8B	BOSTON	2111
3.04E+08	SORGI KALEY ELIZABETH	SORGI KALEY ELIZABETH	110 BEVERLY ST #1120	BOSTON MA	2114	717 ATLANTIC AV #8C	BOSTON	2111
3.04E+08	GONZALEZ SEBASTIAN B	GONZALEZ SEBASTIAN B	111 DEVONSHIRE ST STE 741	BOSTON MA	2109	717 ATLANTIC AV #8D	BOSTON	2111
3.04E+08	ATLANTIC BOSTON CORP	ATLANTIC BOSTON CORP	715 BOYLSTON ST	BOSTON MA	2116	727 ATLANTIC AV	BOSTON	2111
3.04E+08	CITY OF BOSTON	CITY OF BOSTON	ATLANTIC AVE	BOSTON MA	2110	ATLANTIC AV	BOSTON	2111
3.04E+08	BEACH ST CONDO TR	BEACH ST CONDO TR	140 BEACH	BOSTON MA	2111	140 134 BEACH ST	BOSTON	2111
3.04E+08	BURWICK JERALD D TRST	BURWICK JERALD D TRST	134 BEACH	BOSTON MA	2111	134 BEACH ST #B	BOSTON	2111
3.04E+08	ZADE MOHAMMED	ZADE MOHAMMED	33 TALBOT RD	HINGHAM MA	2043	140 BEACH ST #1	BOSTON	2111
3.04E+08	HOWELL MATTHEW NEVILLE	HOWELL MATTHEW NEVILLE	134 BEACH ST #3A	BOSTON MA	2111	134 BEACH ST #3A	BOSTON	2111
3.04E+08	WISDOM REALTY TRUST	WISDOM REALTY TRUST	52 STARR RIDGE	NEEDHAM MA	2492	134 BEACH ST #3B	BOSTON	2111
3.04E+08	MAKOWSKI KONRAD	MAKOWSKI KONRAD	134 BEACH ST #4	BOSTON MA	2111	134 BEACH ST #4	BOSTON	2111
3.04E+08	HESER LLC	HESER LLC	134 BEACH ST #5	BOSTON MA	2111	134 BEACH ST #5	BOSTON	2111
3.04E+08	SEVICH JEFFREY S	SEVICH JEFFREY S	134 BEACH ST #6	BOSTON MA	2111	134 BEACH ST #6	BOSTON	2111

3.04E+08	TIPPET JOHN	TIPPET JOHN	134 BEACH ST #7	BOSTON MA	2111	134	BEACH ST #7	BOSTON	2111
3.04E+08	MONAGHAN MATTHEW	MONAGHAN MATTHEW	134 BEACH ST #2A	BOSTON MA	2111	134	BEACH ST #2A	BOSTON	2111
3.04E+08	MCTIGHE STEPHANIE M	MCTIGHE STEPHANIE M	134 BEACH ST #2B	BOSTON MA	2111	134	BEACH ST #2B	BOSTON	2111
3.04E+08	DYER CYNTHIA L	DYER CYNTHIA L	134 BEACH ST #2C	BOSTON MA	2111	134	BEACH ST #2C	BOSTON	2111
3.04E+08	SOUTH BEACH CONDO TR	SOUTH BEACH CONDO TR	130 BEACH ST	BOSTON MA	2111	130	BEACH ST	BOSTON	2111
3.04E+08	BSG COLLABORATIVE LLC	BSG COLLABORATIVE LLC	122 SOUTH ST	BOSTON MA	2111	118	SOUTH ST #B-1	BOSTON	2111
3.04E+08	CHOO ARTHUR C.S. TS	CHOO ARTHUR C.S. TS	1 BILLINGS RD	QUINCY MA	2171	116	SOUTH ST #B-2	BOSTON	2111
3.04E+08	BSG COLLABORATIVE LLC	BSG COLLABORATIVE LLC	122 SOUTH STREET	BOSTON MA	2111	122	SOUTH ST #1A	BOSTON	2111
3.04E+08	CHOO ARTHUR C.S. TS	CHOO ARTHUR C.S. TS	ONE BILLINGS RD	QUINCY MA	2171	116	SOUTH ST #1B	BOSTON	2111
3.04E+08	CHAN ALVIN BERNARD	CHAN ALVIN BERNARD	118 SOUTH ST #2A	BOSTON MA	2111	118	SOUTH ST #2A	BOSTON	2111
3.04E+08	WOOD SARAH K	WOOD SARAH K	118 SOUTH ST #2-B	BOSTON MA	2111	118	SOUTH ST #2B	BOSTON	2111
3.04E+08	FIERING SOUTH ST NOMINEE TR	FIERING SOUTH ST NOMINEE TR	2766 PUESTA DEL SOL	SANTA BARBARA CA	93105	118	SOUTH ST #3A	BOSTON	2111
3.04E+08	GOTFREDSON CHRISTIAN	GOTFREDSON CHRISTIAN	118 SOUTH ST #4A	BOSTON MA	2111	118	SOUTH ST #4A	BOSTON	2111
3.04E+08	GOTFREDSON CHRISTIAN	GOTFREDSON CHRISTIAN	118 SOUTH ST #4-B	BOSTON MA	2111	118	SOUTH ST #4-B	BOSTON	2111
3.04E+08	ROSENBLUM LAWRENCE B	ROSENBLUM LAWRENCE B	118 SOUTH ST #5A	BOSTON MA	2111	118	SOUTH ST	BOSTON	2111
3.04E+08	ONE 12 SOUTH ST CONDO TR	ONE 12 SOUTH ST CONDO TR	27 DRY DOCK AV #701	BOSTON MA	2210	108	112 SOUTH ST	BOSTON	2111
3.04E+08	LEE CHI C	LEE CHI C	289 WEBSTER ST UNIT 2	AUBURNDALE MA	2466	112	SOUTH ST #G	BOSTON	2111
3.04E+08	WANG QINZHONG	WANG QINZHONG	112 SOUTH ST #1	BOSTON MA	2111	112	SOUTH ST #1	BOSTON	2111
3.04E+08	SOLARIS I INC	SOLARIS I INC	27 DRYDOCK AVE	BOSTON MA	2210	112	SOUTH ST #2	BOSTON	2111
3.04E+08	SOUTH ST CONDO TR NO 2	SOUTH ST CONDO TR NO 2	106 SOUTH	BOSTON MA	2111	102	106 SOUTH ST	BOSTON	2111
3.04E+08	GREER RICHARD K TS	GREER RICHARD K TS	106 SOUTH ST #B	BOSTON MA	2111	102	SOUTH ST #B	BOSTON	2111
3.04E+08	MUSTO DONNA M	MUSTO DONNA M	35 COMO RD	READVILLE MA	2136	102	SOUTH ST #1	BOSTON	2111
3.04E+08	FIORE GREGORY	FIORE GREGORY	102 SOUTH ST #2	BOSTON MA	2111	102	SOUTH ST #2	BOSTON	2111
3.04E+08	RICHARDS KAREN F ETAL	RICHARDS KAREN F ETAL	75 ARLINGTON ST	BOSTON MA	2116	102	SOUTH ST #3	BOSTON	2111
3.04E+08	SEELEY DAVID ROBYN	SEELEY DAVID ROBYN	102 SOUTH ST #4	BOSTON MA	2111	102	SOUTH ST #4	BOSTON	2111
3.04E+08	CARMINE BRIAN J	CARMINE BRIAN J	102 SOUTH ST #5	BOSTON MA	2111	102	SOUTH ST #5	BOSTON	2111
3.04E+08	96-100 SOUTH STREET	96-100 SOUTH STREET	96-100 SOUTH ST	BOSTON MA	2111	96	-100 SOUTH ST	BOSTON	2111
3.04E+08	ONE HUNDRED SOUTH ST RLT LLC	ONE HUNDRED SOUTH ST RLT LLC	100 SOUTH ST #100-1	BOSTON MA	2111	100	SOUTH ST #100-1	BOSTON	2111
3.04E+08	STODDARD DOUGLAS	STODDARD DOUGLAS	100 SOUTH ST #100-2	BOSTON MA	2111	100	SOUTH ST #100-2	BOSTON	2111
3.04E+08	MOSELEY STEVEN GEORGE	MOSELEY STEVEN GEORGE	96 SOUTH ST #96-1	BOSTON MA	2111	96	SOUTH ST #96-1	BOSTON	2111
3.04E+08	WU JIANXIN	WU JIANXIN	96 SOUTH ST # 2	BOSTON MA	2111	96	SOUTH ST #96-2	BOSTON	2111
3.04E+08	GRANT PAUL	GRANT PAUL	96 SOUTH ST 96-3	BOSTON MA	2111	96	SOUTH ST #96-3	BOSTON	2111
3.04E+08	RICH BRODIE	RICH BRODIE	96 SOUTH ST #4	BOSTON MA	2111	96	SOUTH ST #96-4	BOSTON	2111
3.04E+08	SOUTH ST CONDO TR NO 1	SOUTH ST CONDO TR NO 1	94 SOUTH	BOSTON MA	2111	90	94 SOUTH ST	BOSTON	2111
3.04E+08	TRIANTOS PETER TS	TRIANTOS PETER TS	8 LEDGEWOOD RD	SAUGUS MA	1906	90	SOUTH ST #B	BOSTON	2111
3.04E+08	TULLOCH ORAL M	TULLOCH ORAL M	92 SOUTH ST	BOSTON MA	2111	90	SOUTH ST	BOSTON	2111
3.04E+08	MARSTON REBECCA A	MARSTON REBECCA A	90 SOUTH ST	BOSTON MA	2111	90	SOUTH ST #2	BOSTON	2111
3.04E+08	MALYSZKO MICHAEL	MALYSZKO MICHAEL	90 SOUTH ST #3	BOSTON MA	2111	90	SOUTH ST #3	BOSTON	2111
3.04E+08	STEIN PASCAL A	STEIN PASCAL A	90 SOUTH ST #4	BOSTON MA	2111	90	SOUTH ST #4	BOSTON	2111
3.04E+08	CASSIDY JEFFREY W	CASSIDY JEFFREY W	90 SOUTH ST #5	BOSTON MA	2111	90	SOUTH ST #5	BOSTON	2111
3.04E+08	SEVENTY SIX-86 SOUTH ST	SEVENTY SIX-86 SOUTH ST	86 SOUTH	BOSTON MA	2111	76	86 SOUTH ST	BOSTON	2111
3.04E+08	JMS SOUTH ST LLC	JMS SOUTH ST LLC	76 SOUTH ST UNIT 1	BOSTON MA	2111	76	SOUTH ST #1	BOSTON	2111
3.04E+08	WIDOFF SHELLEY G	WIDOFF SHELLEY G	1731 BEACON ST #1410	BROOKLINE MA	2445	86	SOUTH ST #2A	BOSTON	2111
3.04E+08	SCHECHNER SYLVIA	SCHECHNER SYLVIA	86 SOUTH ST #2B	BOSTON MA	2111	86	SOUTH ST #2B	BOSTON	2111
3.04E+08	HAYNES JOSEPH R	HAYNES JOSEPH R	86 SOUTH ST #3-A	BOSTON MA	2111	86	SOUTH ST #3A	BOSTON	2111
3.04E+08	QUINN-DUPONT MAUREEN	QUINN-DUPONT MAUREEN	86 SOUTH ST # 3B	BOSTON MA	2111	86	SOUTH ST #3B	BOSTON	2111
3.04E+08	CANALES JIMENA	CANALES JIMENA	86 SOUTH ST #4A	BOSTON MA	2111	86	SOUTH ST #4A	BOSTON	2111
3.04E+08	CHRISTENSEN RITA A	CHRISTENSEN RITA A	1200 WASHINGTON ST #305	BOSTON MA	2118	86	SOUTH ST #4B	BOSTON	2111
3.04E+08	CANALES JIMENA	CANALES JIMENA	86 SOUTH ST #5A	BOSTON MA	2111	86	SOUTH ST #5A	BOSTON	2111
3.04E+08	CANALES JIMENA	CANALES JIMENA	86 SOUTH ST #5B	BOSTON MA	2111	86	SOUTH ST #5B	BOSTON	2111

3.04E+08	HRT EAST LLC	HRT EAST LLC	88 BLACK FALCON AV STE 340	BOSTON MA	2210	9	EAST ST	BOSTON	2111
3.04E+08	FEDERAL RESRVE BNK OF BOSTON	FEDERAL RESRVE BNK OF BOSTON	600 ATLANTIC AVE	BOSTON MA	2210	556 624	ATLANTIC AV	BOSTON	2210
3.04E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	ATLANTIC AV	BOSTON MA	2210		ATLANTIC AV	BOSTON	2210
3.04E+08	MASSACHUSETTS TURNPIKE	MASSACHUSETTS TURNPIKE	SUMMER ST	BOSTON MA	2110		SUMMER ST	BOSTON	2110
3.04E+08	MASSACHUSETTS TURNPIKE	MASSACHUSETTS TURNPIKE	CONGRESS ST	BOSTON MA	2110		CONGRESS ST	BOSTON	2110
3.04E+08	MASSACHUSETTS TURNPIKE	MASSACHUSETTS TURNPIKE	ATLANTIC AV	BOSTON MA	2110		ATLANTIC AV	BOSTON	2110
3.04E+08	MASSACHUSETTS TURNPIKE	MASSACHUSETTS TURNPIKE	SUMMER ST	BOSTON MA	2110		SUMMER ST	BOSTON	2110
3.05E+08	MASS DEPT OF TRANSPORTATION	MASS DEPT OF TRANSPORTATION	10 PARK PLAZA RM 6160	BOSTON MA	2116		HARRISON AV	BOSTON	2111
3.05E+08	MASS BAY TRANSPORTATION AUTH	MASS BAY TRANSPORTATION AUTH	ALBANY ST	BOSTON MA	2111		ALBANY ST	BOSTON	2111
3.05E+08	BERMAN ROGER	BERMAN ROGER	179 SOUTH ST 3RD FLOOR	BOSTON MA	2111	179 193	SOUTH ST	BOSTON	2111
3.05E+08	201 SOUTH STREET OWNER LLC	201 SOUTH STREET OWNER LLC	1221 AVE OF THE AMERICAS	NEW YORK NY	10020	195 201	SOUTH ST	BOSTON	2111
3.05E+08	201 SOUTH STREET OWNER LLC	201 SOUTH STREET OWNER LLC	1221 AVE OF THE AMERICAS	NEW YORK NY	10020	207 209	SOUTH ST	BOSTON	2111
3.05E+08	VARDAKOSTAS DEMETRIOS TS	VARDAKOSTAS DEMETRIOS TS	325 WASHINGTON ST	QUINCY MA	2169	215	SOUTH ST	BOSTON	2111
3.05E+08	OPG 745 ATLANTIC OWNER	OPG 745 ATLANTIC OWNER	125 SUMMER STREET	BOSTON MA	2110	745	ATLANTIC AV	BOSTON	2111
3.05E+08	RESIDENCES AT 210 SOUTH ST	RESIDENCES AT 210 SOUTH ST	75 ST ALPHONSUS ST #D	BOSTON MA	2120	208 -212	SOUTH ST	BOSTON	2111
3.05E+08	KARMA TRIYANA	KARMA TRIYANA	335 MEADS MOUNTAIN RD	WOODSTOCK NY	12498	210	SOUTH ST	BOSTON	2111
3.05E+08	RESIDENCES AT 210 SOUTH ST	RESIDENCES AT 210 SOUTH ST	208 SOUTH ST	BOSTON MA	2111	208 -212	SOUTH ST	BOSTON	2111
3.05E+08	NGUYEN LONG N	NGUYEN LONG N	210 SOUTH ST #2-1	BOSTON MA	2111	210	SOUTH ST #2-1	BOSTON	2111
3.05E+08	KULLMANN BERND	KULLMANN BERND	210 SOUTH ST #2-2	BOSTON MA	2111	210	SOUTH ST #2-2	BOSTON	2111
3.05E+08	DYER DAVID J	DYER DAVID J	210 SOUTH ST #2-3	BOSTON MA	2111	210	SOUTH ST #2-3	BOSTON	2111
3.05E+08	DIAMOND DEIDRE	DIAMOND DEIDRE	19 MAGGIE LANE	NEW DURHAM NH	3855	210	SOUTH ST #2-4	BOSTON	2111
3.05E+08	WU JANSON	WU JANSON	210 SOUTH ST #2-5	BOSTON MA	2111	210	SOUTH ST #2-5	BOSTON	2111
3.05E+08	ILETO ANDREW L	ILETO ANDREW L	210 SOUTH ST #3-1	BOSTON MA	2111	210	SOUTH ST #3-1	BOSTON	2111
3.05E+08	FIORE KATHLEEN A	FIORE KATHLEEN A	210 SOUTH ST #3- 2	BOSTON MA	2111	210	SOUTH ST #3-2	BOSTON	2111
3.05E+08	TSE MARIO	TSE MARIO	210 SOUTH ST #3- 3	BOSTON MA	2111	210	SOUTH ST #3-3	BOSTON	2111
3.05E+08	WONG EUGENE	WONG EUGENE	210 SOUTH ST #3-4	BOSTON MA	2111	210	SOUTH ST #3-4	BOSTON	2111
3.05E+08	CHEN JAMES L	CHEN JAMES L	210 SOUTH ST #3- 5	BOSTON MA	2111	210	SOUTH ST #3-5	BOSTON	2111
3.05E+08	SMITH DAVID ROBERT	SMITH DAVID ROBERT	210 SOUTH ST #4-1	BOSTON MA	2111	210	SOUTH ST #4-1	BOSTON	2111
3.05E+08	WINKLER JOHN	WINKLER JOHN	210 SOUTH ST #4- 2	BOSTON MA	2111	210	SOUTH ST #4-2	BOSTON	2111
3.05E+08	WILL ALEXANDER A	WILL ALEXANDER A	210 SOUTH ST #4-3	BOSTON MA	2111	210	SOUTH ST #4-3	BOSTON	2111
3.05E+08	RHEE SHIN W TS	RHEE SHIN W TS	12129 VIVACITE WALK	ST LOUIS MO	63146	210	SOUTH ST #4- 4	BOSTON	2111
3.05E+08	PAMUK MUJDE	PAMUK MUJDE	210 SOUTH ST #4- 5	BOSTON MA	2111	210	SOUTH ST #4- 5	BOSTON	2111
3.05E+08	BARRY ANTHONY MILLS LIVING	BARRY ANTHONY MILLS LIVING	210 SOUTH ST #5- 1	BOSTON MA	2111	210	SOUTH ST #5 -1	BOSTON	2111
3.05E+08	KARIMPOUR MEHDI	KARIMPOUR MEHDI	210 SOUTH ST #5- 2	BOSTON MA	2111	210	SOUTH ST #5- 2	BOSTON	2111
3.05E+08	AMSALEM ANNIE M	AMSALEM ANNIE M	10 HAMLET ST	NEWTON MA	2459	210	SOUTH ST #5- 3	BOSTON	2111
3.05E+08	KILEY RICHARD	KILEY RICHARD	1 NASSAU ST #1606	BOSTON MA	2111	210	SOUTH ST #5- 4	BOSTON	2111
3.05E+08	RANGWALA ABIZER	RANGWALA ABIZER	210 SOUTH ST #5-5	BOSTON MA	2111	210	SOUTH ST #5- 5	BOSTON	2111
3.05E+08	RAMAN BALU	RAMAN BALU	210 SOUTH ST #6- 1	BOSTON MA	2111	210	SOUTH ST #6-1	BOSTON	2111
3.05E+08	GIANNANGELO JULIA C	GIANNANGELO JULIA C	210 SOUTH ST #6-2	BOSTON MA	2111	210	SOUTH ST #6- 2	BOSTON	2111
3.05E+08	JAMALI BEHNAM	JAMALI BEHNAM	210 SOUTH ST #6- 3	BOSTON MA	2111	210	SOUTH ST #6-3	BOSTON	2111
3.05E+08	CARREIRO EDWARD JR	CARREIRO EDWARD JR	210 SOUTH ST #6-4	BOSTON MA	2111	210	SOUTH ST #6- 4	BOSTON	2111
3.05E+08	LANG EDMUND R	LANG EDMUND R	210 SOUTH ST UNIT 6-5	BOSTON MA	2111	210	SOUTH ST #6- 5	BOSTON	2111
3.05E+08	WOLD BARRY L	WOLD BARRY L	210 SOUTH ST #7- 1	BOSTON MA	2111	210	SOUTH ST #7- 1	BOSTON	2111
3.05E+08	CHEN ALICE	CHEN ALICE	210 SOUTH ST UNIT 7-2	BOSTON MA	2111	210	SOUTH ST #7- 2	BOSTON	2111
3.05E+08	EGUALE GADA	EGUALE GADA	210 SOUTH ST #7-3	BOSTON MA	2111	210	SOUTH ST #7- 3	BOSTON	2111
3.05E+08	GINNIS SANDRA	GINNIS SANDRA	210 SOUTH ST #7-4	BOSTON MA	2111	210	SOUTH ST #7- 4	BOSTON	2111
3.05E+08	LAGP REALTY LLC	LAGP REALTY LLC	38 DEVON RD	NEWTON MA	2459	210	SOUTH ST #7- 5	BOSTON	2111
3.05E+08	COLEMAN KEVIN P	COLEMAN KEVIN P	210 SOUTH ST #8-1	BOSTON MA	2111	210	SOUTH ST #8- 1	BOSTON	2111
3.05E+08	YAZBAK DARLENE	YAZBAK DARLENE	1640 PALISADES DR	APPLETON WI	54915	210	SOUTH ST #8- 2	BOSTON	2111
3.05E+08	ANDERSEN PHYLLIS SUTTON	ANDERSEN PHYLLIS SUTTON	210 SOUTH ST #8- 3	BOSTON MA	2111	210	SOUTH ST #8- 3	BOSTON	2111

3.05E+08	CHEN CATHERINE K	CHEN CATHERINE K	210 SOUTH ST #8-4	BOSTON MA	2111	210	SOUTH ST #8- 4	BOSTON	2111
3.05E+08	POWERS RYAN	POWERS RYAN	210 SOUTH ST #8- 5	BOSTON MA	2111	210	SOUTH ST #8- 5	BOSTON	2111
3.05E+08	MOROI HIDETADA	MOROI HIDETADA	210 SOUTH ST #8- 6	BOSTON MA	2111	210	SOUTH ST #8- 6	BOSTON	2111
3.05E+08	MILLER METTA M	MILLER METTA M	210 SOUTH ST #9-1	BOSTON MA	2111	210	SOUTH ST #9- 1	BOSTON	2111
3.05E+08	MARTIN MICHAEL	MARTIN MICHAEL	210 SOUTH ST #9-2	BOSTON MA	2111	210	SOUTH ST #9-2	BOSTON	2111
3.05E+08	YU KAR FOOK	YU KAR FOOK	210 SOUTH ST APT 9-3	BOSTON MA	2111	210	SOUTH ST #9- 3	BOSTON	2111
3.05E+08	JOHNSON CORTLANDT II	JOHNSON CORTLANDT II	210 SOUTH ST #9-4	BOSTON MA	2111	210	SOUTH ST #9- 4	BOSTON	2111
3.05E+08	PIRONE ANTONELLA	PIRONE ANTONELLA	210 SOUTH ST #9-5	BOSTON MA	2111	210	SOUTH ST #9- 5	BOSTON	2111
3.05E+08	KELLY SHEA M	KELLY SHEA M	210 SOUTH ST #9-6	BOSTON MA	2111	210	SOUTH ST #9- 6	BOSTON	2111
3.05E+08	BEWICK JOANNA	BEWICK JOANNA	210 SOUTH ST #10-1	BOSTON MA	2111	210	SOUTH ST #10- 1	BOSTON	2111
3.05E+08	BORBOROGLU STEPHEN	BORBOROGLU STEPHEN	210 SOUTH ST #10- 2	BOSTON MA	2111	210	SOUTH ST #10- 2	BOSTON	2111
3.05E+08	HARVEY-ROLFE EILEEN V	HARVEY-ROLFE EILEEN V	210 SOUTH ST #10-3	BOSTON MA	2111	210	SOUTH ST #10- 3	BOSTON	2111
3.05E+08	MEHTA MANISH BE	MEHTA MANISH BE	834 RIVERA PL	PALOS VERDES CA	90274	210	SOUTH ST #10- 4	BOSTON	2111
3.05E+08	BURKE FENTON J	BURKE FENTON J	P O BOX 2279	OAK BLUFFS MA	2557	210	SOUTH ST #10- 5	BOSTON	2111
3.05E+08	WILLIAMS PATRICIA J	WILLIAMS PATRICIA J	210 SOUTH ST #10-6	BOSTON MA	2111	210	SOUTH ST #10- 6	BOSTON	2111
3.05E+08	LIU YUCHENG	LIU YUCHENG	210 SOUTH ST #11- 1	BOSTON MA	2111	210	SOUTH ST #11- 1	BOSTON	2111
3.05E+08	ETUDE TWO LLC	ETUDE TWO LLC	17 GLOUCESTER ST #1	BOSTON MA	2115	210	SOUTH ST #11- 2	BOSTON	2111
3.05E+08	LENEHAN JOHN JOSEPH	LENEHAN JOHN JOSEPH	210 SOUTH ST #11-3	BOSTON MA	2111	210	SOUTH ST #11- 3	BOSTON	2111
3.05E+08	POWERS RYAN	POWERS RYAN	210 SOUTH ST # 11-4	BOSTON MA	2111	210	SOUTH ST #11- 4	BOSTON	2111
3.05E+08	BOWERS RICHARD G	BOWERS RICHARD G	210 SOUTH ST #11- 5	BOSTON MA	2111	210	SOUTH ST #11- 5	BOSTON	2111
3.05E+08	IMBRIE EDWARD C JR TS	IMBRIE EDWARD C JR TS	210 SOUTH ST #11-6	BOSTON MA	2111	210	SOUTH ST #11- 6	BOSTON	2111
3.05E+08	KAP INVESTMENT ASSOCIATS INC	KAP INVESTMENT ASSOCIATS INC	192 SOUTH ST SUITE 150	BOSTON MA	2111	194	192 SOUTH ST	BOSTON	2111
3.05E+08	BERMAN ROGER TS	BERMAN ROGER TS	179 SOUTH ST #300	BOSTON MA	2111	190	184 SOUTH ST	BOSTON	2111
3.05E+08	MASS DEPT OF TRANSPORTATION	MASS DEPT OF TRANSPORTATION	KNEELAND ST	BOSTON MA	2111	KNEELAND ST		BOSTON	2111
3.05E+08	BOSTON THERMAL CORP	BOSTON THERMAL CORP	99 SUMMER ST	BOSTON MA	2109	153	173 KNEELAND ST	BOSTON	2111
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	10 PARK PLZ #6160	BOSTON MA	2116	185	KNEELAND ST	BOSTON	2111
3.05E+08	MASS BAY TRANSPORT AUTHY	MASS BAY TRANSPORT AUTHY	2727 LBJ FREEWAY STE 806	DALLAS TX	75234	640	-720 ATLANTIC AV	BOSTON	2111
3.05E+08	VAN WAGNER COMMUNICATIONS	VAN WAGNER COMMUNICATIONS	P.O. BOX 404 (FAIRFIELD NJ)	BROADWAY NJ	8808	640	-720 ATLANTIC AV	BOSTON	2111
3.05E+08	AAC SOUTH STATION PROPERTY	AAC SOUTH STATION PROPERTY	2727 LBJ FREEWAY STE 806	DALLAS TX	75234	195	SUMMER ST	BOSTON	2110
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	ATLANTIC AV	BOSTON MA	2210	ATLANTIC AV		BOSTON	2210
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	ATLANTIC AV	BOSTON MA	2210	ATLANTIC AV		BOSTON	2210
3.05E+08	BDC SUMMER ST 121A LP	BDC SUMMER ST 121A LP	245 SUMMER STREET Z1N	BOSTON MA	2210	245	SUMMER ST	BOSTON	2210
3.05E+08	BDC SUMMER ST 121A LP	BDC SUMMER ST 121A LP	245 SUMMER STREET Z1N	BOSTON MA	2210	SUMMER ST		BOSTON	2110
3.05E+08	UNITED STATES POSTAL SERVICE	UNITED STATES POSTAL SERVICE	25-45 DORCHESTER AV	BOSTON MA	2210	25 - 45	DORCHESTER AV	BOSTON	2111
3.05E+08	UNITED STATES POSTAL SERVICE	UNITED STATES POSTAL SERVICE	25-45 DORCHESTER AV	BOSTON MA	2210	NEW	DORCHESTER AV BF	BOSTON	2111
3.05E+08	MASSACHUSETTS BAY TRANS AUTH	MASSACHUSETTS BAY TRANS AUTH	10 PARK PLZ	BOSTON MA	2116	DORCHESTER AV		BOSTON	2111
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	DORCHESTER AV	BOSTON MA	2111	DORCHESTER AV		BOSTON	2111
3.05E+08	MASSACHUSETTS BAY TRANS AUTH	MASSACHUSETTS BAY TRANS AUTH	10 PARK PLZ	BOSTON MA	2116	DORCHESTER AV		BOSTON	2111
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	DORCHESTER AV	BOSTON MA	2111	DORCHESTER AV		BOSTON	2111
3.05E+08	MASSACHUSETTS BAY	MASSACHUSETTS BAY	BROADWAY	BOSTON MA	2116	BROADWAY ST		BOSTON	2111
3.05E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	FORT POINT CHANNEL	SOUTH BOSTON MA	2127	FORT POINT CHANNEL		SOUTH BC	2127
3.07E+08	INK BLOCK II PHASE 1 LLC	INK BLOCK II PHASE 1 LLC	2310 WASHINGTON ST	NEWTON LOWER FALL	2462	300	HARRISON AV	BOSTON	2118
3.07E+08	COMMWLTH OF MASS	COMMWLTH OF MASS	BROADWAY	BOSTON MA	2118	BROADWAY ST		BOSTON	2118
6E+08	MASS BAY TRANSP AUTH	MASS BAY TRANSP AUTH	DORCHESTER AVE	SOUTH BOSTON MA	2127	FOUNDRY ST		SOUTH BC	2127
6E+08	UNITED STATES POSTAL SERVICE	UNITED STATES POSTAL SERVICE	4301 WILSON BLVD SUITE #300	ARLINGTON VA	22203	DORCHESTER AV		SOUTH BC	2127
6E+08	MASS BAY TRANSPORTATION AUTH	MASS BAY TRANSPORTATION AUTH	BROADWAY	SOUTH BOSTON MA	2127	W FOURTH ST		SOUTH BC	2127
8.01E+08	COMMONWEALTH OF MASS.	COMMONWEALTH OF MASS.	373 375 BROADWAY ST	CAMBRIDGE MA	2139	373	375 BROADWAY ST	BOSTON	2118
8.01E+08	COMMONWEALTH OF	COMMONWEALTH OF	BROADWAY	BOSTON MA	2111	BROADWAY ST		BOSTON	2118
8.01E+08	LOT 5 PARKING LLC (LESSEE)	LOT 5 PARKING LLC (LESSEE)	2310 WASHINGTON ST	NEWTON FALLS MA	2462	BROADWAY ST		BOSTON	2118
8.01E+08	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	FORT POINT CHANNEL	SOUTH BOSTON MA	2127	FORT POINT CHANNEL		SOUTH BC	2127

AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION

Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance

I, Laura Laich, hereby certify under pains and penalties of perjury that that at least one week prior to the public hearing, I gave notice to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by Massachusetts Bay Transportation Authority for upgrades to the existing Tower 1 Interlocking infrastructure within the railroad right-of-way south of the South Station terminal located at 700 Atlantic Avenue.

The Abutter Notification For, the list of abutters to whom it was given, and their addresses are attached to this Affidavit of Service.

Laich, Laura Digitally signed by Laich, Laura Date: 2021.06.17 10:51:36 -04'00'
Name

6/23/21
Date

Attachment C – Stormwater Memorandum

To: Boston Conservation Commission

Date: May 18, 2021

Project #: 14943.00

From: Mark Costa, PE
Jill Baumbach, PE

Re: South Station – Tower 1 Interlocking
Stormwater Management Memorandum

The Stormwater Management Memorandum has been prepared to detail compliance with the Massachusetts Stormwater Management Standards in accordance with the Massachusetts Wetland Protection Act Regulations (310 CMR 10.00).

Project Description

The Massachusetts Bay Transportation Authority (MBTA) proposes to upgrade the existing Tower 1 Interlocking infrastructure (the Project) within the railroad right-of-way (ROW) south of the South Station Terminal Area in Boston, Massachusetts.

The proposed upgrades to the Tower 1 interlocking infrastructure will occur within the footprint of the existing ROW and will include a new signal system, signal house, heat switches, communication system upgrades, replacement and rehabilitation of trackwork, and other improvements. Portions of the site may also be re-ballasted to address differential settlement.

There is no change in cover type and no new impervious area added as a result of the Project. The Project intends to investigate and evaluate existing subsurface drainage within the site during construction. If necessary, existing subsurface drainage components will be replaced in-kind, otherwise, there are no proposed changes to the on-site stormwater management system.

Existing Drainage Conditions

The Project area's cover type is a combination of crushed stone ballast and impervious area. The majority of the project area is stone ballast where stormwater is naturally stored within the void space of the crushed stone and collected by a perforated subsurface drainage system, which discharges to an on-site closed drainage system. On-site catch basins collect stormwater from the impervious area, which then flows to the same closed drainage system. Stormwater collected in the drainage system is conveyed and discharged to Fort Point Channel via outfalls in the existing seawall at Dorchester Avenue. These outfalls contain tide gates to restrict tidal flows from moving upstream into the closed drainage system.

Proposed Drainage Conditions

The Project will maintain the existing drainage system to the maximum extent practicable. The existing subsurface perforated drainage and closed drainage system will be evaluated during construction and replaced in-kind as necessary. There will be no changes in the existing cover type, pipe sizes, or catchment devices.

Memorandum

The Project coordinated with Boston Water and Sewer Commission (BWSC) Engineering Department prior to submission of the Notice of Intent (NOI). BWSC noted that the Project should ensure that all existing perforated underdrains should be maintained within the project area. BWSC provided no other comments.

Massachusetts Department of Environmental Protection (MassDEP) – Stormwater Management Standards

As demonstrated below, the proposed Project complies with the MassDEP Stormwater Management Standards.

Standard 1: No New Untreated Discharges

The Project is designed to comply with Standard 1. No new untreated discharges are proposed as part of the Project.

Standard 2: Peak Rate Attenuation

The Project proposes no changes in the cover type and therefore will result in no changes in the peak flow rates as a result of the project. As a result, the Project complies with Standard 2.

Standard 3: Stormwater Recharge

The Project proposes no changes in the cover type and therefore will result in no changes in stormwater recharge as a result of the project. As a result, the Project complies with Standard 3.

Standard 4: Water Quality

The Project proposes no changes in the cover type and therefore will result in no changes in stormwater quality as a result of the project. As a result, the Project complies with Standard 4.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

The Project site is considered to be a LUHPPL because it is regulated by the National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) Program as a transportation facility. However, the Project changes are limited to replacement in-kind with no changes to cover types, therefore there will be no changes in stormwater flows as a result of the project. As a result, the Project complies with Standard 5.

Standard 6: Critical Areas

The Project is not located within a critical area, but the Project site does discharge to Fort Point Channel which is defined as a "Shellfish Growing Area – Prohibited". However, the Project changes are limited to replacement in-kind with no changes to cover types. As a result, the Project complies with Standard 6.

Memorandum

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the Maximum Extent Practicable:

The project is a rehabilitation of the existing track system and does not propose to increase in impervious area and therefore is a redevelopment. As a result, the Project complies with Standard 7.

Standard 8: Construction Period Pollution and Prevention and Erosion and Sediment Controls

The project will disturb greater than 1 acre of land and is required to obtain coverage under the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit and submit to Stormwater Pollution Prevention Plan (SWPPP). Erosion and sedimentation controls are proposed as shown on the accompanying Notice of Intent Project plans. A SWPPP will be developed before land disturbance begins.

Standard 9: Operation and Maintenance Plan

The Project site and stormwater management system is operated and maintained in accordance with the MBTA Track Maintenance Standards. Portions of these standards relating to stormwater management are included as an attachment to this report. As a result, the Project complies with Standard 9.

Standard 10: Prohibition of Illicit Discharges

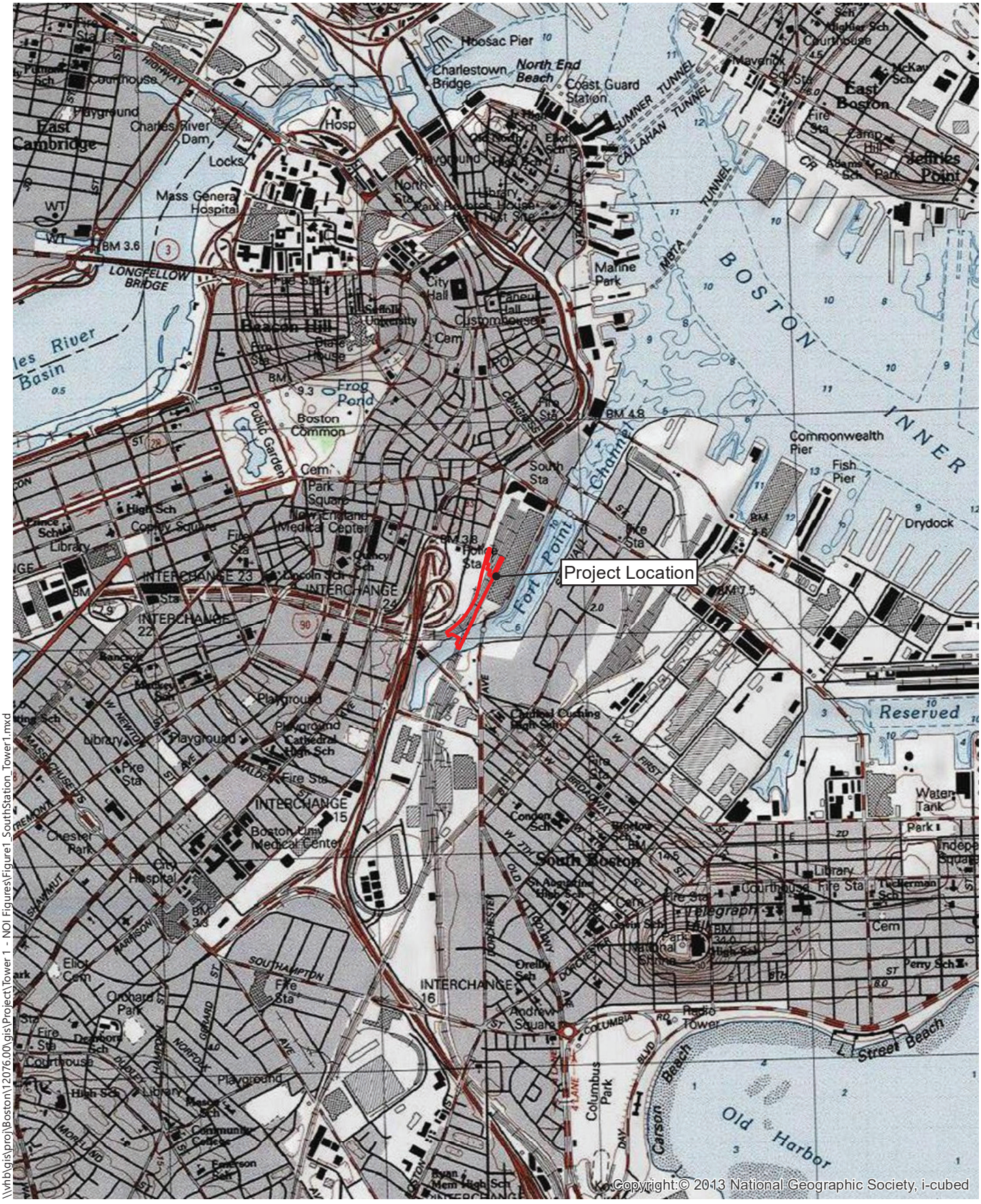
Any combined sanitary sewer and storm drainage structures that are detected within the Project area from the previous development will be removed or will be incorporated into separate sanitary sewer and stormwater systems. No statement is made concerning the drainage system in portions of the site not being redeveloped. Additionally, if any other types of illicit discharges are found during construction, they will be remediated.

The Project complies with Standard 10.

Attachments: Appendix A: Stormwater Checklist

Appendix B: MBTA – Track Maintenance Standards (Portion related to stormwater management)

Figure 1 – Locus Map



\\vhb\gis\proj\Boston\12076.00\gis\Project\Tower 1 - NOI Figures\Figure1_SouthStation_Tower1.mxd

0 1000 2000 4000 Feet

South Station Tower 1 Early Action Project | Boston, MA

Figure 1 - Site Locus

Source Info: USGS, MassGIS, VHB

Appendix A

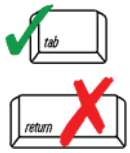
Stormwater Checklist

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

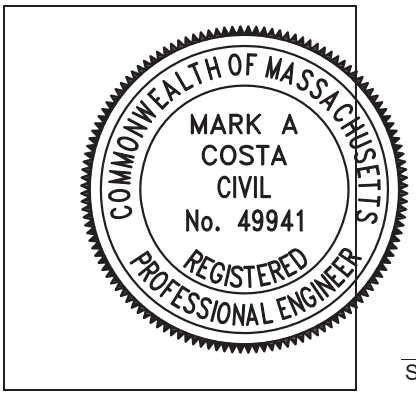
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Memorandum ~~Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included),~~ the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and ~~that the information presented in the Stormwater Report~~ accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Digitally signed by
Mark A. Costa, PE
Date: 2021.05.18
09:00:52 -04'00'

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☒ Other (describe): No proposed impervious area

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation – *N.A. No increase in impervious area is proposed.*

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge - *N.A. No increase in impervious area is proposed.*

☐ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

Checklist for Stormwater Report

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality - *N.A. No increase in impervious area is proposed.*

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

☐ The ½" or 1" Water Quality Volume or Maximum Extent Practicable

☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) ***N.A. Although the project site is covered by NPDES MSGP, there will be no changes in stormwater management as a result of the project.***

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☒ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas – ***N.A. No changes to cover types or stormwater management as a result of the project therefore there will be no impact to critical areas.***

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Memorandum & NOI.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

Checklist for Stormwater Report

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the ~~Stormwater Report~~ **Notice of Intent**.

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan- ***N.A.*** **No structural stormwater features are proposed and therefore no Operation and Maintenance plan is necessary.**

☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

☐ The project area is owned by MassDOT and will be maintained in accordance with MassDOT's standard Operation and Maintenance Plan for roadway maintenance.

Checklist for Stormwater Report

Checklist (continued)

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Appendix B

MBTA – Track Maintenance Standards

(Portion related to stormwater management)

roadbed. It plays an important part in preparing the roadbed to carry the wide, deep ballast sections required for continuous welded rail area and more frequent traffic.

3. Roadway Drainage - Surface and Subsurface

a. Drainage is of primary importance for economical maintenance of track. Water mixing with materials of the roadbed tends to make the entire track structure unstable in varying degrees depending upon the kind of material and the quantity and flow of water.

To ensure proper drainage, track roadbed, embankment and cut area shall be constructed and maintained in accordance with the respective standard track cross section so that water falling upon the roadway will be quickly drained.

It is important to understand that water accumulating in a subgrade or ballast section is similar to the action of a sponge. During warm weather, it is soft and unstable. During freezing weather, this same material freezes into ice that expands and heaves the track. In both cases, the result is irregular track geometry.

b. To prevent water from mixing with materials of the roadbed and subsequently weakening the stability of the track structure, the following practices shall be adhered to:

(1) Water seeping or flowing toward the track shall be intercepted and diverted before it reaches the roadbed or conducted across the roadbed.

(2) The track roadbed is to be kept clean of any debris that may hinder the proper drainage of track.

(3) Each drainage facility under, or immediately adjacent to, the roadbed must be maintained and kept free of obstructions to accommodate the expected flow of water. Pipes and manholes should be periodically inspected and accumulations of sediment removed.

(4) Waterways leading to and from bridges and culverts should be kept clear within the limits of the right-of-way. Accumulated drift and obstructions should be removed from culverts and bridges as soon as possible after each storm.

(5) Adequate cross and longitudinal drainage systems shall be maintained as required, particularly where bridge, road crossings and low points interfere with natural drainage. Often, a little shovel work at public crossings can accomplish much to keep the drainage situation under control.

(6) Become acquainted with local conditions and note any change of pattern in drainage adjacent to or near the right of way that could increase the amount of water runoff toward the track. Street construction, new highways, housing and sub-division developments, etc., often bring on a change in water runoff. The Maintenance of Way Engineer must be notified of any change in drainage conditions affecting Authority property.

(7) Within tunnels and subway structures, defects in the roof, walls or floor system that allow water to either fall on the track or drain to the track shall be reported to the Structures Department immediately and until corrected, every effort must be made to divert the water to a drainage system, keep the ballast clean, and maintain the surface and cross level of the track structure. Water must not be allowed to get in the track structure and remain there.

c. Ditch Maintenance

(1) Ditching is important in providing drainage of the roadbed. Although a ditching program is usually beyond the foreman's authority, he shall observe conditions and report locations of poor drainage, such as:

- Cuts with ditches filled, allowing mud to foul ballast.
- Soft subgrade in cuts.
- Water standing in cut or against fill.
- Channels blocked with silt or debris at bridges and culverts, so water cannot flow away from the roadbed.

(2) All types of ditches require periodic maintenance to preserve their function. Excess vegetation and sediment shall be removed. Particular attention is required in side ditches, constructed on flat grades and in long ducts, where eroded slope material raises the ditch grade.

Excessive scour must be corrected. An annual inspection of all ditches and preparation of programs to schedule cleaning operations at regular intervals is required to maintain ditch efficiency.

Material excavated from ditches in cuts shall be carried out of the cut, rather than placed on the cut slope where it will again be washed down into the ditch. The material may be wasted along the slope of an adjacent embankment below the roadbed shoulder.

d. Drainage at Specified Locations:

(1) Poor drainage at insulated joints may cause signal failures. If mud, ballast or other materials accumulate under or around the bars or insulation and "bridge" across rail ends, the joint could become ineffective. An insulated joint must be free of contact with anything except the plates under the joint. The area is to be well drained to get away from fouled ballast. Excess material that has accumulated beneath or at the end of the joint should be cut away. Ties are to be kept tamped on good ballast in order to get good service life. Shovel work at the right time eliminates a lot of trouble.

(2) Poor drainage at turnouts, track crossings and public crossings is a cause of rough track. Foremen shall do what they can to improve drainage. Also, ties shall be kept tamped. Work required, such as ditching with dirt handling equipment, installing pipe for drainage, complete undercutting and reworking is beyond the foreman's authority. However, he shall observe drainage conditions, report those requiring attention, and handle for the safe movement of trains.

Drainage is essential at grade crossings where it can present more problems than at other places on the railroad. Subgrade on both sides of the crossing should be below the ballast line and sloped so the water will drain away from the track. It is necessary, at some locations, to install catch basins, perforated pipes parallel to the track or culverts across the track at the edge of the crossing in order to provide adequate drainage.

4. Vegetation Control - Reference: AREA Manual, Chapter 1, Part 9

a. General

Vegetation on track and right-of-way can be a deterrent to drainage; constitute a fire hazard; and, in addition, present an unsightly appearance. Burning of weeds, shrubs, underbrush, etc., is prohibited in some areas. Hand and machine cutting are costly and do not result in a satisfactory job.

The most economical method of vegetation control is an application of chemicals, either wet or dry. Chemical application must comply with existing local and Federal regulations.

b. Terminology

Acre - along transit right-of-way, approximately 8 feet wide by 1 mile long. (Actually 8 feet, 3 inches wide.)

Absorption - penetration and retention of herbicide through foliage or stems.

Attachment D – Project Plans

(Bound Separately)

2000 0 2000 4000

SCALE IN FEET

PREPARED BY:

HNTB The HNTB Companies
Engineers Architects Planners

300 Apollo Drive
Chelmsford, MA 01824

IN ASSOCIATION WITH:

Vanasse Hangen Brustlin, Inc
99 High Street,10th Floor
Boston, MA 02110

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1
INTERLOCKING PROJECT

SOUTH STATION TOWER 1 INTERLOCKING PROJECT

CONTRACT NO. XXXCNXX
BOSTON, MA

NOTICE OF INTENT PLANS

JUNE 17, 2021

COMMONWEALTH OF MASSACHUSETTS
RICHARD N. CAREY
CIVIL
No. 38963
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MBTA APPROVALS:

CHIEF OF CAPITAL DELIVERY - KATIE CHOE _____ DATE _____

SHEET: TW1-G-0001 PLAN NO: XXXXXX

PLOTTED: 06/17/21 9:02PM BY:SKRAUSE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CVYN0\G-0001_COVER.DWG [G-COVER] 06/17/21 4:36PM

GENERAL SYMBOLS

EXISTING	PROPOSED	
CB (OR GI, LB)	CB	CATCH BASIN (OR GUTTER INLET, OR LEACHING BASIN)
CBCI (OR GICI)	CBCI (OR GICI)	CATCH BASIN (OR GUTTER INLET) WITH CURB INLET
		VERTICAL GRANITE CURB
		EDGE OF PAVEMENT (OR BERM) -TYPE NOTED
EHH	EHH	ELECTRIC HANDHOLE
EMH	EMH	ELECTRIC MANHOLE
TMH	TMH	TELEPHONE MANHOLE
WMH	WMH	WATER MANHOLE
SMH	SMH	SEWER MANHOLE
DMH	DMH	DRAINAGE MANHOLE
GG	GG	GAS GATE
WG	WG	WATER GATE
CS	CS	CURB STOP
Hyd		HYDRANT / YARD HYDRANT
		BOLLARD
FA	FA	FIRE ALARM BOX
PM	PM	PARKING METER
LP		STREET LIGHT
UP		WOOD POLE WITH LIGHT
GUY		GUY POLE
OHW	OHW	OVERHEAD WIRE
68'-8"PVC	68'-8"PVC	DRAIN PIPE
		FLOW ARROW
	20'-12"RCP	FLARED END SECTION
8"VCP S	270'-8"VCP	SEWER MAIN
E	E	ELECTRIC DUCT
4"HP G	G 8"GAS	GAS MAIN
8"C.I. W	W 12"DI	WATER MAIN
T	T	TELEPHONE DUCT
		TELEPHONE BOX
L	L	LIGHTING DUCT
MB	MB	MAIL BOX
		HIGHWAY GUARD (TYPE NOTED)
x x		FENCE (SIZE AND TYPE NOTED)
MHB, SB, CB	MHB, SB, CB	HIGHWAY/PROPERTY BOUND (TYPE NOTED)
LABEL/DATE	LABEL/DATE	CITY, TOWN, OR COUNTY LAYOUT
		STATE HIGHWAY LAYOUT (S.H.L.O.)
		EASEMENT LINE
		PROPERTY LINE (R.O.W.)
NAME		CITY, TOWN, OR COUNTY BOUNDARY
NAME		STATE BOUNDARY
10 N00° 00' 00"E +57.59	P.C. 10 N00° 00' 00"E +57.59	BASE OR SURVEY LINE
		CONSTRUCTION BASELINE
		WHEELCHAIR RAMP (WCR)
16"D		TREE (SIZE AND TYPE NOTED)
	B-1	BORINGS, PAVEMENT CORES
	TP-1	TEST PIT
	BEN.	PLATFORM BENCH
	TR	TRASH RECEPTACLE
		TREE GRATE
	DITCH	DITCH
	STONE	STONE HEADWALL
	CONC.	CONCRETE HEADWALL
	B.O.S. (T.O.S.)	LIMIT OF GRADING
H1052		AERIAL HORIZONTAL CONTROL POINT
V1052a 80.61		AERIAL VERTICAL CONTROL POINT
H1052a 80.61		AERIAL HORIZONTAL AND VERTICAL CONTROL POINT
		POINT OF VERTICAL INTERSECTION

GENERAL SYMBOLS CONTINUED

EXISTING	PROPOSED	
	EC EC	COMPOST FILTER TUBE AND SILT FENCE
		RETAINING WALL
		NOISE BARRIER
		ABANDONED UTILITIES
		CONSTRUCTION FENCE
	#	DRAINAGE STRUCTURE LABEL
		BUILDING ENTRANCE
		UNDERDRAIN CLEANOUT
		AIR COMPRESSOR
		UTILITY CUT AND CAP
		LIGHT POLE
		CCTV POLE
ANC		ANCHOR
MH		MANHOLE
		GAS VALVE
		JUNCTION BOX
		SWITCH MOTOR
		SIGN

RAILROAD TRACK / SIGNAL SYMBOLS

EXISTING	PROPOSED	
	#10	POWERED SWITCH
	100	DOUBLE SLIP SWITCH
		RAILROAD TRACK CENTERLINE
		RAILROAD SIGNAL LIGHT
		CENTRAL INSTRUMENT HOUSE
		SIGNAL LOCATIONS
		BUMPING POST
		TRACK LIMITS - SURFACE AND ALIGN
		TRACK LIMITS - TRACK REPLACEMENT
		TOP OF RAIL
		SNOW MELTER CASE

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GENEREAL LEGEND

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	1"=20'	DESIGN BY	DRAWN BY	CHECK BY
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-1002

ISSUE

vhb

PLOTTED: 06/17/21 9:02PM BY:SKRAUSE
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ABBREVIATIONS

A.A.S.H.T.O.	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
@	AT
&	AND
AB	ANCHOR BOLT
ABAN	ABANDONED
ABUT	ABUTMENT
A.C.I.	AMERICAN CONCRETE INSTITUTE
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
A.D.	ALGEBRAIC DIFFERENCE
ADD	ADDITIONAL
ADJ	ADJUST
A.I.S.C.	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
AMTRAK	NATIONAL RAILROAD PASSENGER CORPORATION
ANC	ANCHOR
AP or ∠	ANGLE POINT
APPROX	APPROXIMATE
A.R.E.M.A.	AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
A.W.S.	AMERICAN WELDING SOCIETY
B	BLUE
BAL	BALANCE
BC	BOTTOM OF CURB
BFV	BUTTERFLY VALVE
BIT	BITUMINOUS
BL	BASELINE
BM	BEAM
BMP	BEST MANAGEMENT PRACTICE
BO	BY OTHERS
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF SLOPE
BOT	BOTTOM
BOW	BOTTOM OF WALL
BP	BUMPING POST
BR	BOTTOM OF RAMP
BRG	BEARING
CANT	CANTILEVER
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CPB	CONCRETE PAD W/ UTILITY BOX
CC	CENTER OF CURVE
C/C	CENTER TO CENTER
CEM CONC	CEMENT CONCRETE
CG	CENTER OF GRAVITY
CI	CAST IRON
CIH	CENTRAL INSTRUMENT HOUSE
CIP	CAST IN PLACE
CIT	CHANGE IN TYPE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION GROOVE WELD
℄	CENTERLINE
CLR	CLEAR or CLEARANCE
CLF	CHAIN LINK FENCE
CL. I	CLASS I
CL. III	CLASS III
CL. V	CLASS V
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTION
CONST	CONSTRUCT
CONT	CONTINUOUS, CONTINUATION
CONTD	CONTINUED
CONTR	CONTRACTOR
CPB	CONCRETE PAD W/UTILITY BOX
CR	COMMUTER RAIL
CS	CURVE TO SPIRAL
CSMH	COMBINED SEWER MANHOLE
CSX	CSX CORPORATION INC.
CTE	CONNECT TO EXISTING
CTRD	CENTERED
CWR	CONTINUOUSLY WELDED RAIL
CY	CUBIC YARD
D	DERAIL
DB	DORCHESTER BRANCH
Dc	DEGREE OF CURVE
DET	DETAIL
DIA or Ø	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIP-MJ	DUCTILE IRON PIPE - MECHANICAL JOINT
DMH	DRAIN MANHOLE
DN	DOWN
DWG	DRAWING
E	EXTERNAL ORDINATE OF HORIZONTAL CURVE
Ea	ACTUAL SUPERELEVATION
Ee	EQUILIBRIUM SUPERELEVATION
Eu	UNBALANCED SUPERELEVATION
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV / EL	ELEVATION
ELT	END OF LONG TIES
EOW	ELECTRICAL OVERHEAD WIRE
EQ	EQUAL or EQUILATERAL
EW	EACH WAY
EWEF	EACH WAY EACH FACE
EXC	EXCAVATION
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD / PS	FUEL DROPOFF / PUMP STATION
FEN	FENCE
FND	FOUNDATION
FF	FAR FACE
FIN	FINISH
FLG	FLANGE
FT	FOOT
FTG	FOOTING
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FRE	FIBER REINFORCED EPOXY
GA	GAUGE
GALV	GALVANIZED
GC	GRANITE CURB
GE	GRANITE EDGING
GICI	GUTTER INLET WITH CURB INLET
GPS	GLOBAL POSITIONING SYSTEMS
GR	GRADE
GRAN	GRANITE
GRS	GALVANIZED RIGID STEEL
H	HEIGHT
HB	HOT MIX ASPHALT BERM
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HEP	HEAD END POWER
HF	HEEL OF FROG
HORIZ	HORIZONTAL
HLP	HIGH LEVEL PLATFORM
HMA	HOT MIX ASPHALT
HP	HIGH POINT
HQ	HEADQUATERS
HYD	HYDRANT
IB	INBOUND
ID	INSIDE DIAMETER
IFT	INTERIM FREIGHT TRACK
IJ	INSULATED JOINT
INV	INVERT ELEVATION
ISO	ISOLATION
JT	JOINT
JWP	JOINT WORKING POINT
K	K VALUE
KCS	KEOLIS COMMUTER SERVICES LLC
KIP	THOUSAND POUNDS
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	TOTAL CURVE LENGTH
L&S	LOAM AND SEED
LB	POUND
Lc	TOTAL HORIZONTAL CURVE LENGTH
LEV	LEVEL
LF	LINEAR FOOT
LG	LONG
LH	LEFTHAND
LLT	LAST LONG TIE
LOC	LOCATION
LOG	LIMITS OF GRADING
LO	LEFT OFFSET
LP	LOW POINT
Ls	LENGTH OF SPIRAL
Lt	TANGENT LENGTH
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
M	MIDDLE ORDINATE OF HORIZONTAL CURVE
MAS	MAXIMUM AUTHORIZED SPEED
MASSDOT	MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
MAX	MAXIMUM
MB	MAIL BOX
MBTA	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
M.D.C.	METROPOLITAN DISTRICT COMMISSION
MDOT	MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
MELBCT	MODIFIED ECCENTRIC LOADER BREAKAWAY CABLE TERMINAL
MEMB	MEMBRANE
MH	MANHOLE
M.H.D.	MASSACHUSETTS HIGHWAY DEPARTMENT
MIN	MINIMUM
MISC.	MISCELLANEOUS
MP	MILE POST
MPH	MILES PER HOUR
MSE	MECHANICALLY STABILIZED EARTH
MSL	MEAN SEA LEVEL
MSRY	MASONRY
N	NORTHING
NA	NOT APPLICABLE
N/F	NOW OR FORMERLY
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
NEC	NORTHEAST CORRIDOR
NF	NEAR FACE
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
NO, NO. or #	NUMBER or POUNDS
## - NN	SPEED (MPH) FOR SPEED RESTRICTION SIGN
NTS OR N.T.S.	NOT TO SCALE
OB	OUTBOUND
OC	ON CENTER
OCR	OLD COLONY RAILROAD
OCS	OVERHEAD CONTACT SYSTEM
OH	OPPOSITE HAND
OPP	OPPOSITE
PACCMP	PERFORATED ASPHALT COATED CORRUGATED METAL PIPE
PAV'T or PVMT	PAVEMENT
PC	POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE
PCC	POINT OF COMPOUND CURVE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PCF	POUNDS PER CUBIC FOOT
P.C.I.	PRESTRESSED CONCRETE INSTITUTE
PED	PEDESTRIAN
PERF	PERFORATED
PFa	1/2" POINT OF FROG (ACTUAL)
PFt	POINT OF FROG THEORETICAL
PGL	PROFILE GRADE LINE
PI	POINT OF HORIZONTAL INTERSECTION
PITO	POINT OF INTERSECTION OF TURNOUT TANGENTS
ℙ	PROPERTY LINE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PM	PARKING METER
PNT	POINT
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF END
POG	POINT ON GRADE
POL	POINT ON LINE
POT	POINT ON TANGENT
POVT	POINT OF VERTICAL TANGENT
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PS	POINT OF SWITCH
PSB	PLANTABLE SOIL BORROW
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT
PTH	PLANIMETER TO HERE
PVC	POINT OF VERTICAL CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
PVRC	POINT OF VERTICAL REVERSE CURVE
PVC PIPE	POLYVINYLCHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PWW	PAVED WATER WAY
r	RATE OF CHANGE
R	RADIUS OF CURVATURE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPE	REINFORCED CONCRETE PIPE END
RE	AREMA
RECONST	RECONSTRUCT(ION)
REHAB	REHABILITATE
REINF	REINFORCING
RELOC	RELOCATED
REM	REMOVE
REMOD	REMODEL
REQD	REQUIRED
RET	RETAIN
RH	RIGHTHAND
RO	RIGHT OFFSET
ROW	RIGHT OF WAY
RR	RAILROAD
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
RTE	ROUTE
RW	REPEAT WHISTLE POST
S or SS	SANITARY SEWER
SBC	STONE BOX CULVERT
SC	SPIRAL TO CURVE
SD	SUB-DRAIN
SW	SIDEWALK
SE	SUPERELEVATION
SECT	SECTION
SF	SQUARE FEET
SHLO	STATE HIGHWAY LAYOUT
SHT	SHEET
SIH	SIGNAL INSTRUMENT HOUSE
SIM	SIMILAR
SMC	SNOW MELTER CASE
SMH	SEWER MANHOLE
SMU	SNOW MELTER UNIT
SMUS	SNOW MELTER UNIT SYSTEM
SP	SPACE
SPIG	SPIGOT
SQ	SQUARE
ST	STREET
ST	SPIRAL TO TANGENT
STA	STATION
STD	STANDARD
STRUC	STRUCTURAL
SWP	SEGMENT WORKING POINT
SYMM	SYMMETRICAL
T	TANGENT LENGTH
TBM	TEMPORARY BENCH MARK
T&B	TOP AND BOTTOM
TC	TOP OF CURB
TEMP	TEMPORARY
T/O	TURNOUT
TOC	TOP OF CONCRETE
TOS	TOP OF SLOPE
TOW	TOP OF WALL
T/R	TOP OF RAIL
TRK	TRACK
TS	TANGENT TO SPIRAL
TSV & B	TAPPING SLEEVE, VALVE AND BOX
TYP	TYPICAL
UD	UNDERDRAIN
UNO	UNLESS NOTED OTHERWISE
UP	UTILITY POLE
V	DESIGN SPEED
VAR	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vf	FREIGHT SPEED
Vp	PASSENGER SPEED
VSP	VERTICAL SEGMENT POINT
VERT	VERTICAL
W	WHITE OR WHISTLE POST
W/	WITH
WCR	WHEELCHAIR RAMP
WD	WOOD
WK	WALKWAY
WP	WORK POINT
WPFG	WATERPROOFING
WS	WATER STOP
WTM	WATERPROOFING MEMBRANE
WF	WIDEFLANGE
WF	WETLAND FLAG (DELINEATION)
WWF	WELDED WIRE FABRIC
X/O	CROSSOVER

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GENERAL ABBREVIATIONS

ISSUE	DATE	DESCRIPTION	BY	CHKD	APP.

vhb

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	1"=20'	DESIGN BY	DRAWN BY	CHECK BY
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-1003

ISSUE

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GENERAL

1. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
2. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
3. WORK IMPACTING RAILROAD PROPERTY AND / OR RIGHT-OF-WAY SHALL BE COORDINATED WITH MBTA, KCS, AMTRAK AND / OR CSX AS APPLICABLE.
4. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH MASSDOT, MBTA, AMTRAK, OSHA STANDARDS AND LOCAL REQUIREMENTS.
5. THE CONTRACTOR SHALL PROVIDE 72 HOURS NOTICE TO ALL PRIVATE PROPERTY OWNERS ABUTTING CONSTRUCTION AREAS PRIOR TO COMMENCEMENT OF WORK.
6. ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO APPLICABLE MUNICIPAL AND / OR STATE HIGHWAY STANDARDS.
7. ALL SIGNAGE AND PAVEMENT MARKINGS WITH MUNICIPAL AND STATE HIGHWAY LAYOUT SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND ALL APPLICABLE REVISIONS.
8. ALL PROPOSED GRANITE BOUNDS AND ANY EXISTING MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS.
9. ALL EXISTING U.S.G.S. DISKS, HIGHWAY BOUNDS, RAILROAD MONUMENTS, PROPERTY BOUNDS, AND CITY BOUNDS SHALL BE PROTECTED AND RAISED TO FINISHED GRADE AS REQUIRED. ANY DAMAGE TO U.S.G.S. DISKS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND THE U.S. GEOLOGICAL SURVEY AND SHALL BE REPAIRED AT NO COST TO THE AUTHORITY. ANY DAMAGE TO TOWN BOUNDS SHALL BE IMMEDIATELY REPORTED TO THE MBTA AND MASSDOT AND SHALL BE REPAIRED AT NO COST TO THE AUTHORITY. THE CONTRACTOR SHALL INVENTORY ALL SUCH BOUNDS, DISKS, AND MONUMENTS PRIOR TO THE START OF ANY WORK.
10. ALL EXISTING ROADWAY SIGNS WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND STACKED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
11. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION.EROSION CONTROL SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
12. TEMPORARY CONSTRUCTION EASEMENT AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITIONS UNLESS OTHERWISE NOTED AT NO ADDITIONAL COST TO THE PROJECT.
13. AREAS OUTSIDE THE LIMIT OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
14. JOINTS BETWEEN NEW ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HOT POURED RUBBERIZED ASPHALT SEALER AND BACKSANDED.
15. ALL AREAS DISTURBED DURING CONSTRUCTION EXCEPT PAVEMENT AND STRUCTURES SHALL RECEIVE LOAM AND SEEDING PER THE SPECIFICATIONS UNLESS OTHERWISE NOTED.
16. TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
17. THE PROJECT AREA HOSTS KCS OPERATED REVENUE AND NON-REVENUE MBTA COMMUTER RAIL TRAINS, AMTRAK INTERCITY REVENUE AND NON-REVENUE TRAINS, AND INTERMITTENT FREIGHT SERVICE OPERATED BY CSX. THE TOWER 1 AREA IS DISPATCHED BY AMTRAK.
18. ALL WORK PERFORMED WITHIN THE RIGHT OF WAY (ROW) MUST BE IN ACCORDANCE WITH THE AMTRAK EP3014 MAINTENANCE AND PROTECTION OF RAIL TRAFFIC DURING CONTRACTOR OPERATIONS.

EXISTING CONDITIONS

1. THE HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND DETERMINED WITH RESPECT TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
2. ELEVATIONS ARE REFERENCED TO THE NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
3. TOPOGRAPHIC INFORMATION AND PHYSICAL FEATURES AS SHOWN ON THE CONTRACT DRAWINGS ARE A COMPOSITE OF SUPPLEMENTAL INFORMATION FOR TOPOGRAPHY AND CONTOURS AS SHOWN ON A PLAN ENTITLED "PLAN OF LAND IN BOSTON, MASSACHUSETTS" BY BRYANT ASSOCIATES, INC. DATED OCTOBER 14, 2016 (PROGRESS PRINT), MASSDOT SURVEY 212068 DATED 4/8/2015, 2016 ADJUSTMENTS, AND FIELD EDITS.
4. WETLAND BOUNDARIES WILL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL CONFIRM EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS TO THE ENGINEER.
6. UNLESS OTHERWISE NOTED, EXISTING RAILROAD RIGHT-OF-WAY LINES ARE APPROXIMATE AND SHALL BE DETERMINED BY THE CONTRACTOR AND STAKED IN THE FIELD PRIOR TO THE START OF WORK UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PLACE STAKES ALONG THE RAILROAD RIGHT-OF-WAY AT NO GREATER THAN 50' INTERVALS AND AT EACH CHANGE IN DIRECTION. STAKES SHALL BE MAINTAINED BY THE CONTRACTOR AND REPLACED IF DAMAGED OR REMOVED. ALL PROPERTY LINE DATA HAS BEEN COMPILED FROM AVAILABLE RECORD DRAWINGS AND ASSESSORS INFORMATION AND IS NOT WARRANTED TO BE CORRECT.

UTILITIES

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS PRIOR TO ANY EXCAVATION PERFORMED ON OR OFF SITE AT 1-888-344-7233 AND SHALL COORDINATE LOCATION OF NON "DIG SAFE" MEMBER UTILITIES WITHIN THE TIME FRAME SPECIFIED BY THE UTILITY OWNER. ALL EXCAVATION WORK IN THE GENERAL VICINITY OF UTILITIES SHALL BE PERFORMED WITH EXTREME CARE.
2. THE CONTRACTOR SHALL MAKE ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR ANY POLE RELOCATION AND FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANY.
3. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS, AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.
4. ALL EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE AND KEPT OPERATIONAL DURING CONSTRUCTION EXCEPT AS NOTED ON THE CONTRACT DRAWINGS. ANY NECESSARY DISRUPTION TO OR ABANDONMENT OF EXISTING UTILITIES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS. MAINTENANCE OF EXISTING UTILITIES SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE CONTRACT.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES AND CITIES/TOWNS THAT MAY BE AFFECTED BY ANY PORTION OF THIS CONSTRUCTION AND TO COORDINATE ALL WORK INVOLVING UTILITY COMPANIES OR CITY/TOWN FACILITIES, WHETHER THOSE FACILITIES ARE EXISTING OR PROPOSED. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPORT AND PROTECT EXISTING UTILITIES IN AND AROUND EXCAVATIONS. PROTECTION AND OR SUPPORT SHALL BE CONSIDERED INCIDENTAL WORK AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM BEING INSTALLED.
6. EXISTING UTILITIES CALLED FOR TO BE RELOCATED SHALL BE VERIFIED WITH RESPECTIVE CONTROLLING AUTHORITY AS TO THEIR FINAL DISPOSITION.
7. ALL ABOVE GRADE STRUCTURES, POLES, TRANSFORMERS, ETC. TO BE RELOCATED SHALL BE PLACED AT THE REQUIRED MBTA AND AMTRAK STANDARD CLEARANCE FROM THE CENTERLINE OF ANY EXISTING AND FUTURE TRACK.
8. ALL UTILITY SURFACE CASTINGS (COVERS, GRATES, GATE BOXES, ETC.) TO REMAIN SHALL BE ADJUSTED TO THE NEW SURFACE GRADE AS REQUIRED, WHETHER OR NOT CALLED FOR ON THE PLANS.
9. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2 OF THE MASSDOT HIGHWAY STANDARD SPECIFICATIONS.
10. CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER, AND UTILITY FACILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES WILL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
11. FIELD VERIFY EXISTING DRAINAGE MH AND CB INVERTS AND REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS TO ENGINEER PRIOR TO START OF ANY DRAINAGE INSTALLATION.
12. ALL UTILITIES SHOWN ON PLANS SHALL BE RETAINED UNLESS OTHERWISE INDICATED.
13. CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL, MAINTAIN, AND REMOVE CATCH BASIN SEDIMENT TRAPS AND CATCH BASIN INLET PROTECTION TO PREVENT RUNOFF SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.
14. ALL PROPOSED CROSS SECTION EMBANKMENT SLOPES ARE 2:1, UNLESS SPECIFICALLY DENOTED OTHERWISE.
15. ALL UNDERGROUND UTILITIES, CABLE, AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY EXCAVATING, DRILLING, BORING/DIRECTIONAL DRILLING, DESTRUCTIVE GROUND PENETRATING ACTIVITIES, OR CONSTRUCTION TAKES PLACE. THIS INCLUDES RAILROAD AND COMMERCIAL UTILITIES, CABLES, DUCT LINES, AND FACILITIES. THESE ACTIVITIES WILL NOT BE PERFORMED WITHIN 15 FEET TO THE AMTRAK DUCT LINES UNLESS MONITORED BY ON-SITE AMTRAK COMMUNICATIONS AND SIGNAL (C&S) DEPARTMENT PERSONNEL. AMTRAK MAINTAINS THE RIGHT TO ACCESS ALL EXISTING CABLES AND CONDUITS THROUGHOUT CONSTRUCTION. AMTRAK ALSO RESERVES THE RIGHT TO UPGRADE AND INSTALL NEW CABLES AND CONDUITS IN THE AFFECTED AREA. THE "ONE-CALL" PROCESS MUST BE FOLLOWED. BE AWARE THAT AMTRAK IS NOT A PART OF THE ONE-CALL PROCESS; CONTACT AMTRAK.

TRACK AND RAILROAD

1. THE CONTRACTOR SHALL NOT ENTER ONTO RAILROAD RIGHT-OF-WAY WITHOUT PERMISSION OF OPERATING RAILROADS AND AN APPOINTED RAILROAD FLAGGER ON DUTY.
2. LIMITS OF TIE-IN POINTS INTO EXISTING TRACKWORK ARE APPROXIMATE. ACTUAL LIMITS SHALL BE DETERMINED IN THE FIELD AND SHALL CONSIST OF A WELD CONNECTION.
3. EXISTING TRACK CONSISTS OF VARIOUS SIZES OF WELDED AND JOINTED RAIL, SINGLE AND DOUBLE SHOULDER TIE PLATES, RAIL ANCHORS OF VARIOUS TYPES, TIMBER AND CONCRETE TIES, AND SOME GAUGE RODS.
4. PROPOSED TRACK MATERIALS SHALL CONSIST OF 136 RE CWR ON NEW 8'-6" x 7" x 9" TIMBER CROSSTIES WITH RESILIENT FASTENERS.
5. TIES ON PROPOSED TRACK CONSTRUCTION SHALL BE AT 19.5" CENTER TO CENTER SPACING EXCEPT IN AREAS OF SPECIAL TRACKWORK.
6. LINE SIDE OF THE TRACK SHALL BE THE RIGHT SIDE LOOKING INBOUND TO SOUTH STATION (NORTHERLY).
7. LEFT AND RIGHT SHALL BE THE LEFT AND RIGHT SIDES OF THE TRACK LOOKING INBOUND TO SOUTH STATION (NORTHERLY).
8. RAILROAD PROFILE GRADE LINE OF TRACK IS THE TOP OF LOW RAIL IN ALL CASES.
9. THE CONTRACTOR MUST PERFORM TRACK MONITORING ON THE EXISTING TRACK DURING CONSTRUCTION AND PROVIDE A MONITORING PLAN TO BE APPROVED BY AMTRAK PRIOR TO THE START OF ANY WORK.
10. TRACK GAUGE SHALL BE 4'-8 1/2" WHEN MEASURED BETWEEN THE RUNNING EDGES, 5/8" BELOW THE TOP OF RAIL FOR THE COMMUTER RAIL.
11. THE CONTRACTOR SHALL REFER TO AND COMPLY WITH THE CURRENT ISSUE OF AMTRAK BOOK OF STANDARD PLANS FOR TRACK DETAILS RELATED TO THE FOLLOWING ELEMENTS: TIES, TIE SPACING AND SPIKING, SPIKES, TIE PLATES, FASTENERS, RAIL, AND ALL TURNOUT LAYOUTS AND DETAILS CORRESPONDING TO THE TURNOUTS PROPOSED IN THESE PLANS.
12. PROJECT ENGINEER TO HAVE ALL AMTRAK UNDERGROUND UTILITIES AND ASSETS LOCATED. PRECAUTIONS MUST BE TAKEN TO PREVENT ANY INTERRUPTION TO AMTRAK'S OPERATION.
13. GROUNDING: PLATFORMS MUST BE PROPERLY BONDED TO TRACK TO PROTECT AGAINST STEP AND TOUCH POTENTIAL OF ELECTRIC SHOCK.
14. THE INSTALLER SHALL CONTACT THE AMTRAK SIGNAL DESIGN AND STANDARDS MANAGER FOR ENGINEERING SUPPORT DURING THE WORK PLANNING PHASE.
15. SIGNAL PREVIEW MUST NOT BE OBSTRUCTED. THE DESIGNER HAS COORDINATED WITH AMTRAK TO DEMONSTRATE THAT THERE IS ADEQUATE SIGNAL PREVIEW. IT SHOULD BE NOTED THAT ALL TEMPORARY STRUCTURES, FORMWORK, EQUIPMENT, ETC INSTALLED BY THE CONTRACTOR MUST COMPLY WITH THIS DURING CONSTRUCTION.
16. THE INSTALLER SHALL SUBMIT WORK PROCEDURES FOR REVIEW AND APPROVAL, INCLUDING CUT SHEETS FOR ANY HEAVY TRUCKS OR EQUIPMENT ALONG THE RIGHT-OF-WAY. THE INSTALLER SHALL MAKE NECESSARY PROVISIONS TO AVOID DAMAGE TO EXISTING DUCT LINES, PULL BOXES, AND OTHER EQUIPMENT AND MATERIALS IN THE RIGHT-OF-WAY.

SITE PREPARATION

1. MAINTAIN EXISTING DRAINAGE SYSTEM TO THE GREATEST POSSIBLE EXTENT DURING ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH CONTRACT PLANS AND SPECIFICATIONS.
2. DEMOLITION TO BE PERFORMED IN ACCORDANCE WITH MASSACHUSETTS STATE BUILDING CODE.
3. DISCONNECT ALL UTILITIES AND CAP EXISTING FIELD LINES SUCH AS GAS, WATER MAINS, AND ELECTRICAL BEFORE STARTING DEMOLITION. COORDINATE THE UTILITY DISCONNECTS WITH THE APPLICABLE UTILITY COMPANY.
4. PROTECT ANY ADJOINING STRUCTURES AND SAFEGUARD THE NEIGHBORING AREAS FROM DUST AND DEBRIS.
5. ALL EXISTING RETAINING WALL FOUNDATIONS, COLUMNS, GRADE BEAMS, GRADE SLABS, ETC. SHALL BE DEMOLISHED UP TO 3' BELOW THE PROPOSED FINISHED GRADE UNLESS OTHERWISE NOTED.
6. ALL DEMOLISHED MATERIALS, RUBBISH, EXCAVATED MATERIALS AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
7. DISPOSAL OF HAZARDOUS WASTE SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, REGULATIONS,AND PROJECT SPECIFICATIONS. ALL DEMOLISHED MATERIALS SHALL BE DISPOSED OF LEGALLY AS PER PROJECT SPECIFICATIONS.
8. REFER TO THE SPECIFICATIONS FOR DEMOLITION AND SITE PREPARATION REQUIREMENTS.
9. WHERE PRESENT, EROSION CONTROL (EC) LINES SHALL BE INTERPRETED AS LIMIT OF WORK WITH THE EXCEPTION OF INSTALLATION OF FENCES AND GATES, OR WHERE NOTED OTHERWISE ON THE PLANS.

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GENERAL NOTES

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

vhb

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ: 1"=20'	DESIGN BY	DRAWN BY	CHECK BY	PLAN NO.
VERT: NONE				ISSUE
DATE: 06/17/2021				SHEET: TW1-C-1004

PLOTTED: 06/17/21 9:03PM BY:SKRAUSE
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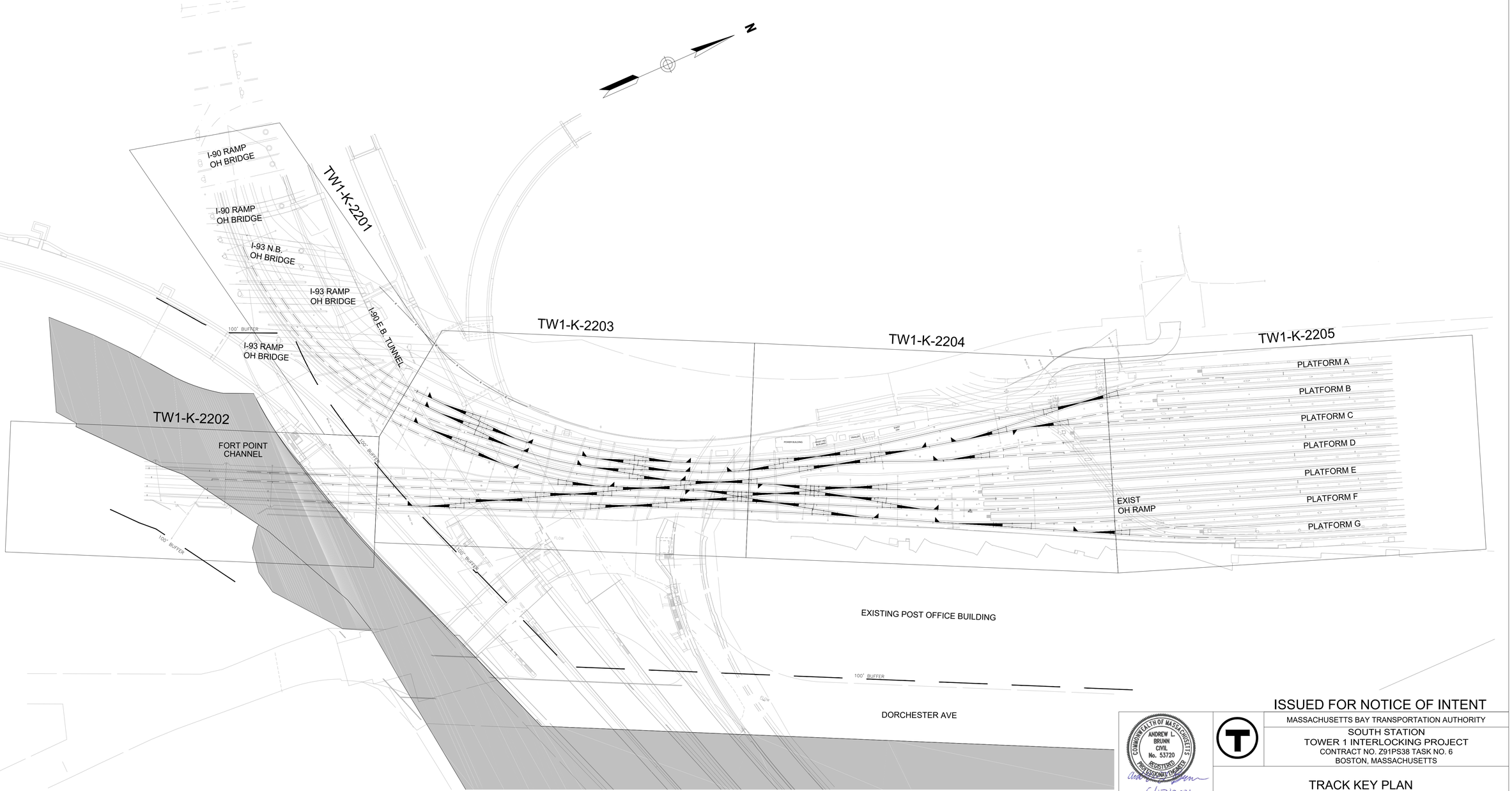

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK KEY PLAN

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	AS NOTED	DESIGN BY	DRAWN BY	CHECK BY
VERT:	NO SCALE	DJK	PJN	DAC
DATE:	06/17/21			

PLAN NO.

SHEET: TW1-K-1000

ISSUE

PLOTTED: 06/17/21 4:16PM BY:PNOLAN
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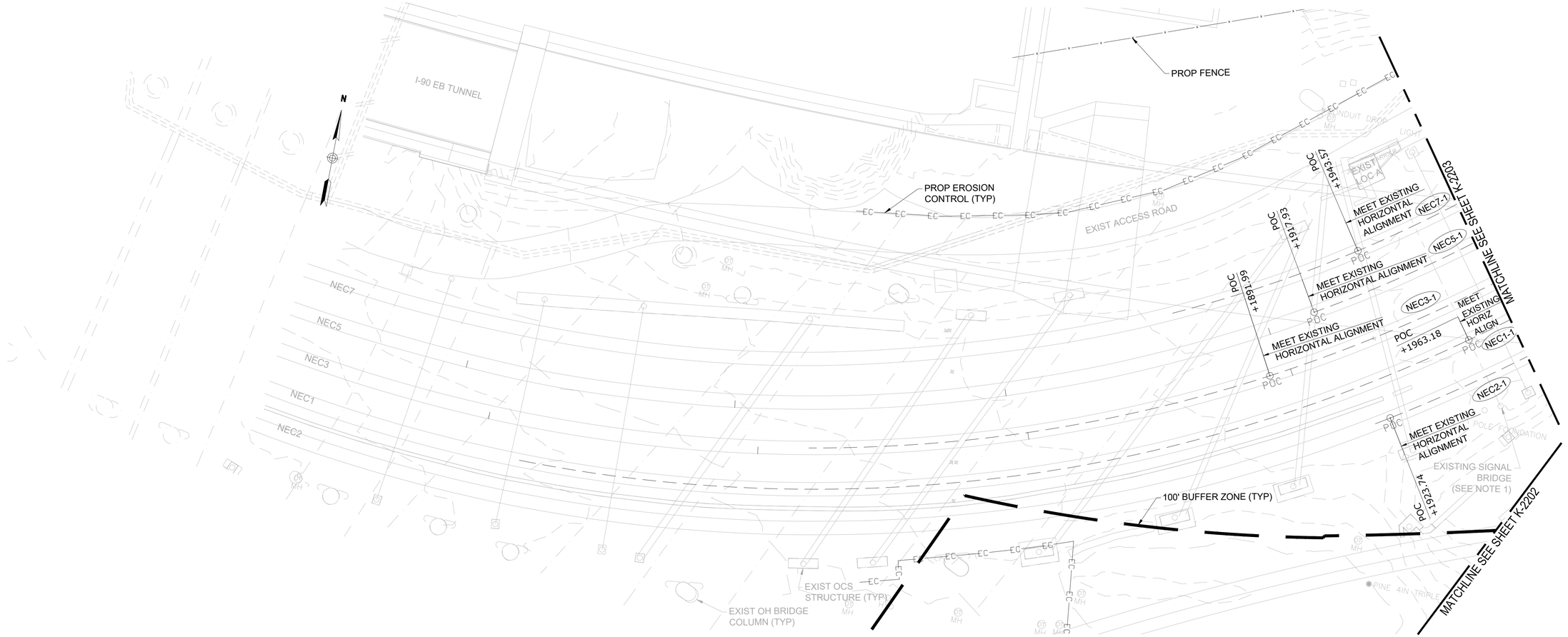

NOTES:

1. REPLACE EXISTING BONDED INSULATED JOINTS WITH NEW BONDED INSULATED JOINTS AT TOWER 1 HOME SIGNALS ON NEC1, NEC2, NEC3, NEC5, AND NEC7.

20 0 20 40
SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK PLANS
SHEET 1 OF 5

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	AS NOTED	ELW	PJN	ALB
VERT:	NO SCALE			
DATE:	06/17/21			

PLAN NO.

SHEET: TW1-K-2201

ISSUE

PLOTTED: 06/17/21 4:19PM BY:PNOLAN
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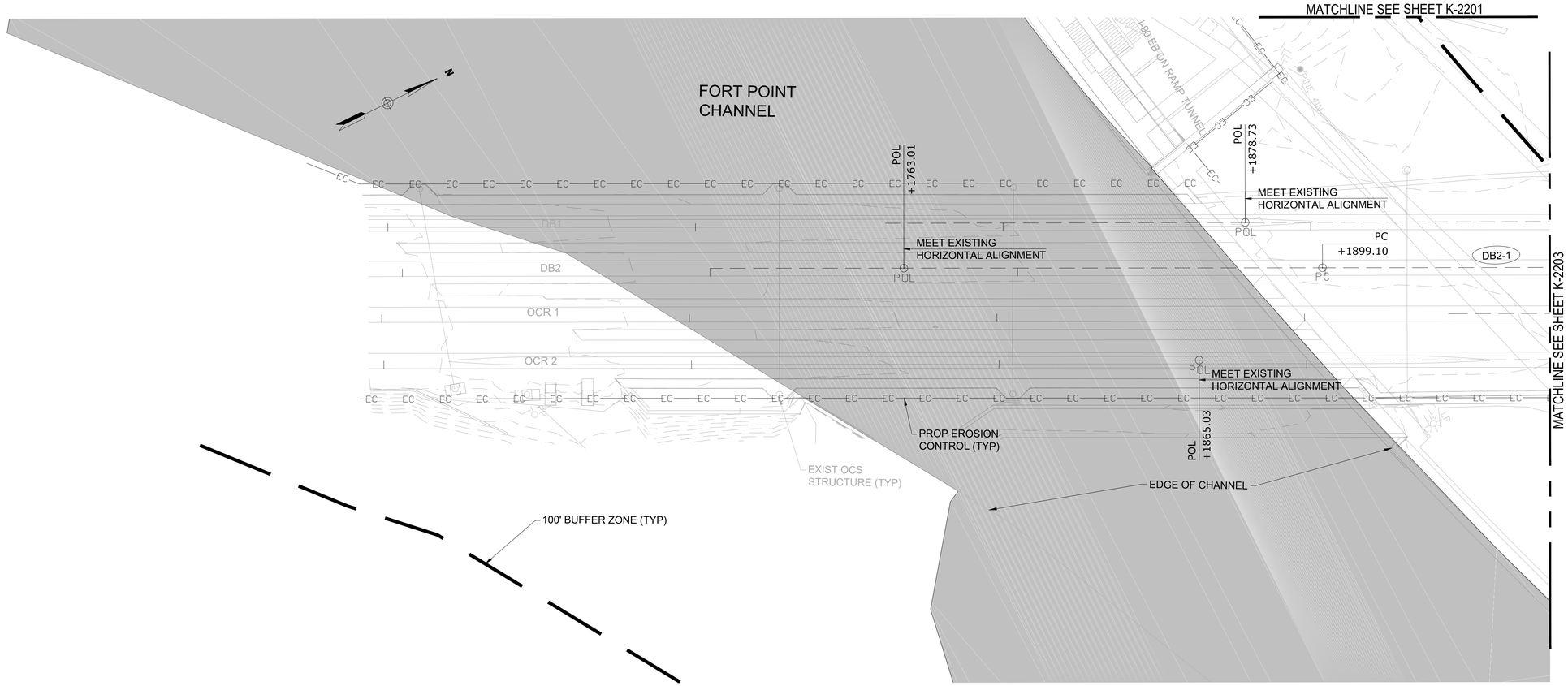

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK PLANS
SHEET 2 OF 5

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY	
HORIZ:	AS NOTED	ELW	PJN	ALB	PLAN NO.
VERT:	NO SCALE				
DATE:	06/17/21				SHEET: TW1-K-2202

ISSUE

PLOTTED: 06/17/21 3:54PM BY:PNOLAN
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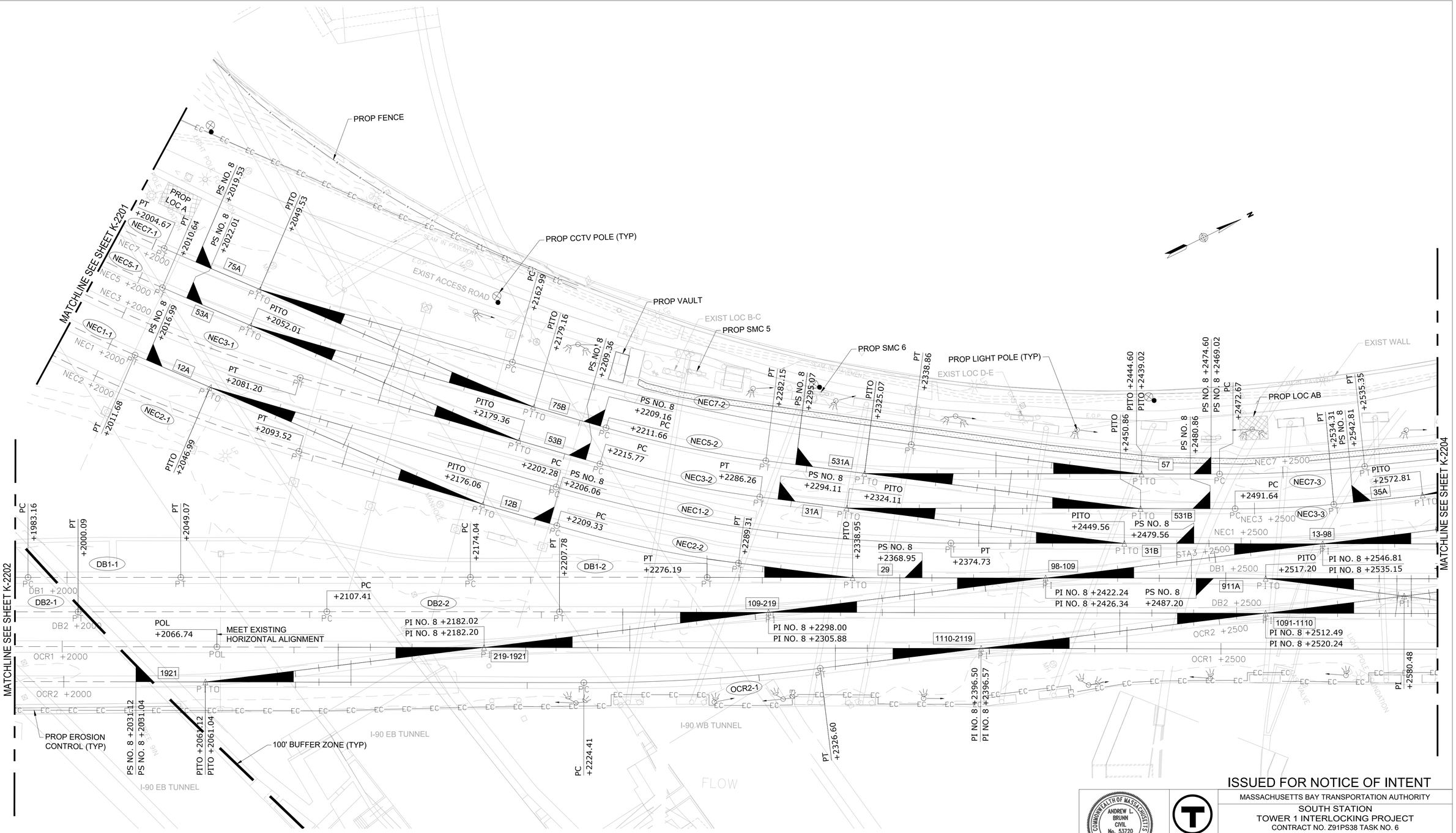

NOTES:

1. REPLACE EXISTING BONDED INSULATED JOINTS WITH NEW BONDED INSULATED JOINTS AT TOWER 1 HOME SIGNALS ON DB1, DB2, OCR1, AND OCR2.
2. SUPERELEVATION TO BE RUNOFF AT A CONSTANT RATE OF $\frac{1}{2}$" PER 31'
3. UNLESS OTHERWISE NOTED, REPLACE ALL INSULATED JOINTS WITH POLYETHYLENE INSULATED JOINT KITS AT LOCATIONS DESIGNATED ON THE SIGNAL DRAWINGS.
4. EXISTING RAIL LUBRICATOR APPLICATORS, AND ASSOCIATED APPURTENANCES TO BE REMOVED AND RESET BY OTHERS. CONTRACTOR SHALL COORDINATE WITH AMTRAK.

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK PLANS
SHEET 3 OF 5

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:
Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY	
HORIZ:	AS NOTED	ELW	PJN	ALB	PLAN NO.
VERT:	NO SCALE				SHEET: TW1-K-2203
DATE:	06/17/21				ISSUE

PLOTTED: 06/17/21 4:50PM BY:PNOLAN
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NOTES:

1. SUPERELEVATION TO BE RUNOFF AT A CONSTANT RATE OF $\frac{1}{2}$" PER 31'
2. UNLESS OTHERWISE NOTED, REPLACE ALL INSULATED JOINTS WITH POLYETHYLENE INSULATED JOINT KITS AT LOCATIONS DESIGNATED ON THE SIGNAL DRAWINGS.
3. EXISTING RAIL LUBRICATOR APPLICATORS, AND ASSOCIATED APPURTENANCES TO BE REMOVED AND RESET BY OTHERS. CONTRACTOR SHALL COORDINATE WITH AMTRAK.

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK PLANS
SHEET 4 OF 5

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY	
HORIZ:	AS NOTED	ELW	PJN	ALB	PLAN NO.
VERT:	NO SCALE				SHEET: TW1-K-2204
DATE:	06/17/21				ISSUE

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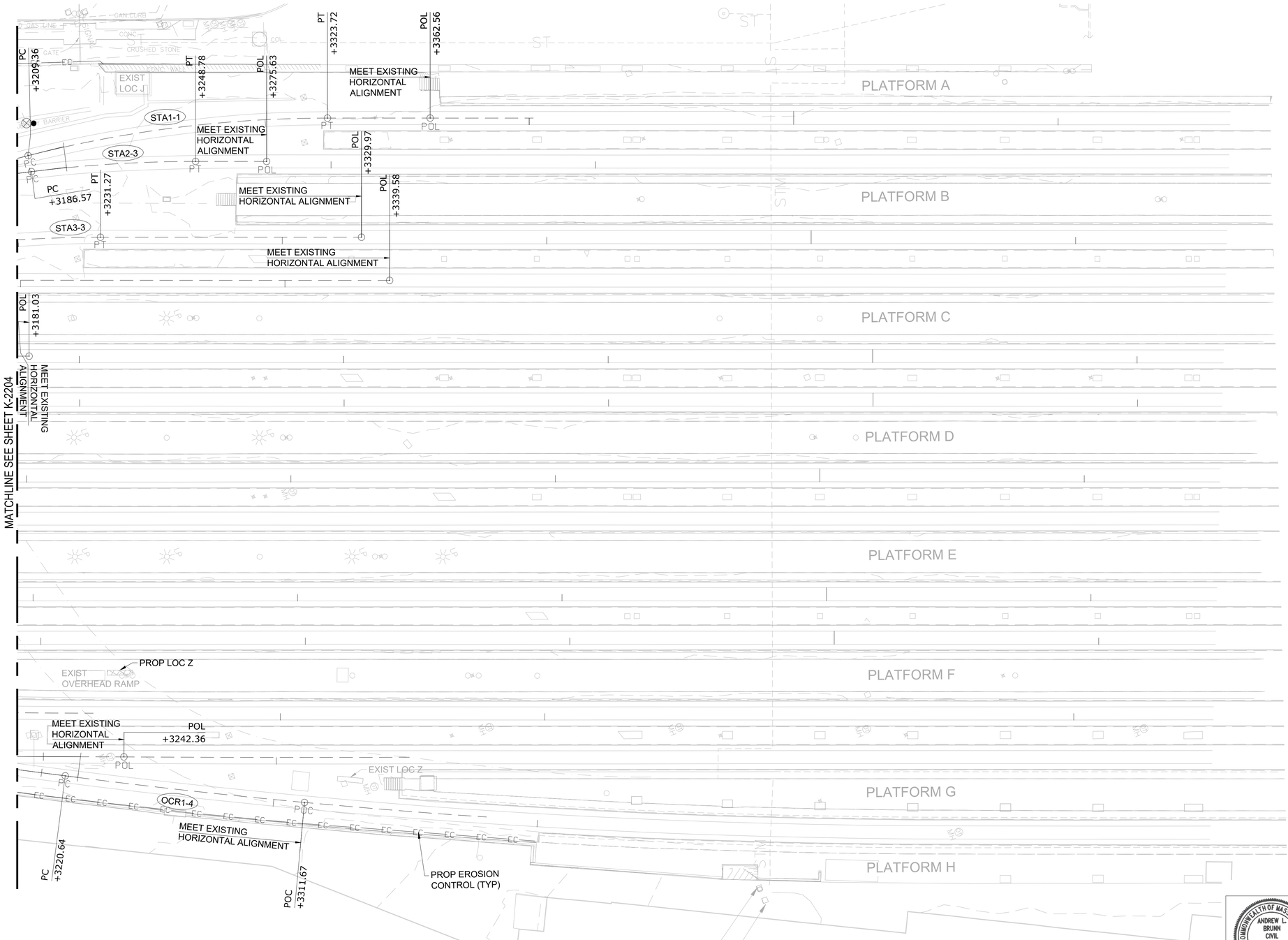

NOTES:

1. UNLESS OTHERWISE NOTED, REPLACE ALL INSULATED JOINTS WITH POLYETHYLENE INSULATED JOINT KITS AT LOCATIONS DESIGNATED ON THE SIGNAL DRAWINGS.
2. EXISTING RAIL LUBRICATOR APPLICATORS, AND ASSOCIATED APPURTENANCES TO BE REMOVED AND RESET BY OTHERS. CONTRACTOR SHALL COORDINATE WITH AMTRAK.

20 0 20 40
SCALE IN FEET

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

ISSUED FOR NOTICE OF INTENT

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK PLANS
SHEET 5 OF 5

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:
Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY		
HORIZ:	AS NOTED	ELW	PJN	ALB	PLAN NO.	ISSUE
VERT:	NO SCALE					
DATE:	06/17/21				SHEET: TW1-K-2205	

PLOTTED: 06/17/21 4:51PM BY:PNOLAN
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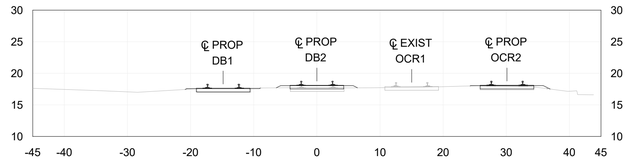

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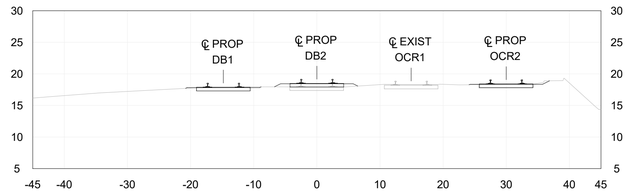

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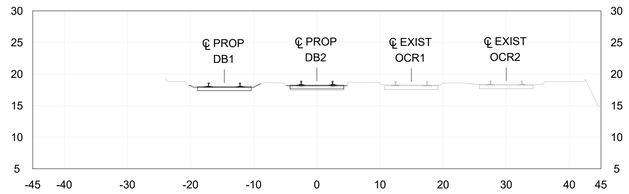

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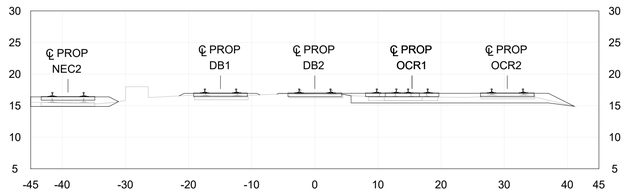

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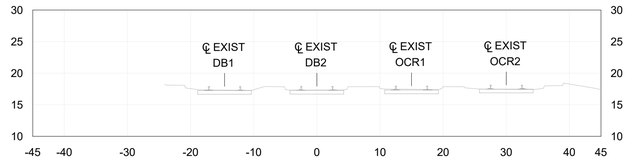

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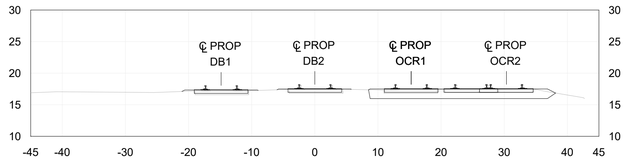


228+2100

NOTE:

1. CROSS SECTIONS SHOWN LOOKING UPSTATION.
2. SECTIONS +1700 ARE ON THE FORT CHANNEL BRIDGE, SECTIONS +1600, +1900 AND +2000 ARE WITHIN THE BUFFER ZONE. EROSION CONTROL TO BE PLACED A MAXIMUM OF 48' FROM THE CENTERLINE OF DB1 AND 92' FROM NEC2.

HOR. SCALE IN FEET
10 0 10 20
VER. SCALE IN FEET
10 0 10 20

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK CROSS SECTIONS 228+1700 TO 228+2200

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

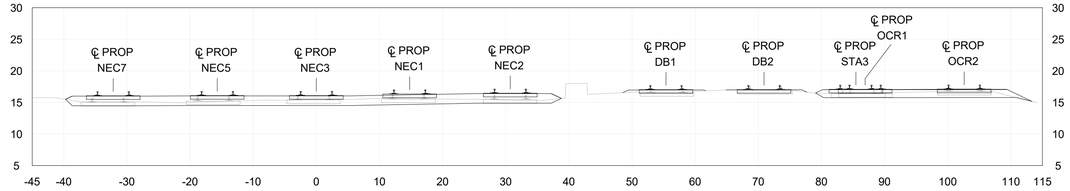
		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	AS NOTED	SS	PJN	ALB
VERT:	AS NOTED			
DATE:	06/17/21			

PLAN NO.

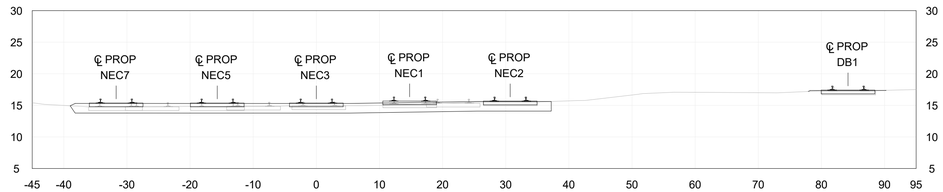
SHEET: TW1-K-4001

ISSUE

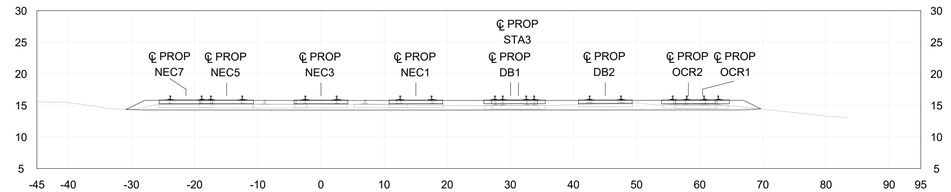
PLOTTED: 06/17/21 4:13PM BY:PNOLAN
DRAWING: O:\JOBS\72245 - MBTA CAP DEL GEC\CONTRACT_(Z91PS38)\TASK ORDER 6 - TOWER 1 DESIGN AND CPS\TECHPROD\CADD\TRACK\SHEET\TW1-K-4001-4009.DWG [K-4001] 06/17/21 8:37AM



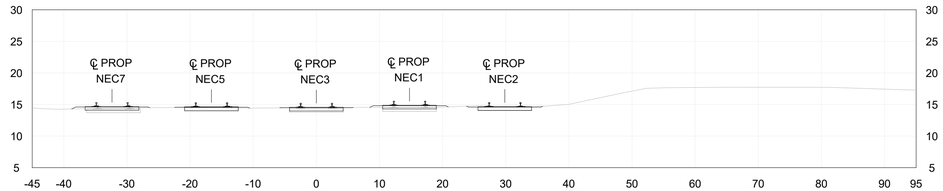
228+2200



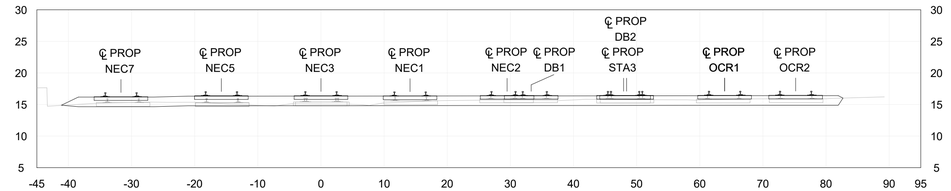
228+2100



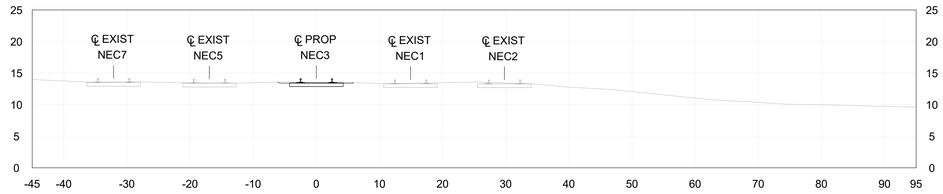
228+2400



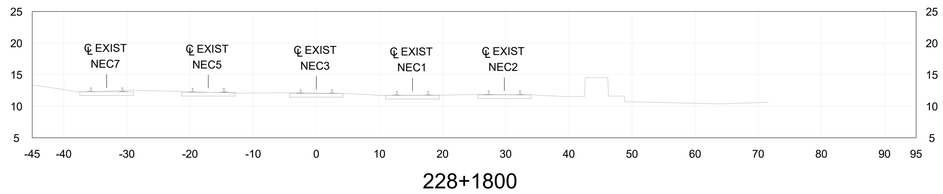
228+2000



228+2300



228+1900



228+1800

NOTE:

1. CROSS SECTIONS SHOWN LOOKING UPSTATION.
2. SECTIONS +1700 ARE ON THE FORT CHANNEL BRIDGE, SECTIONS +1600, +1900 AND +2000 ARE WITHIN THE BUFFER ZONE. EROSION CONTROL TO BE PLACED A MAXIMUM OF 48' FROM THE CENTERLINE OF DB1 AND 92' FROM NEC2.

HOR. SCALE IN FEET
10 0 10 20
VER. SCALE IN FEET
10 0 10 20

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
ANDREW L. BRUNN
CIVIL
No. 53720
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

TRACK CROSS SECTIONS
228+1900 TO 228+2400

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

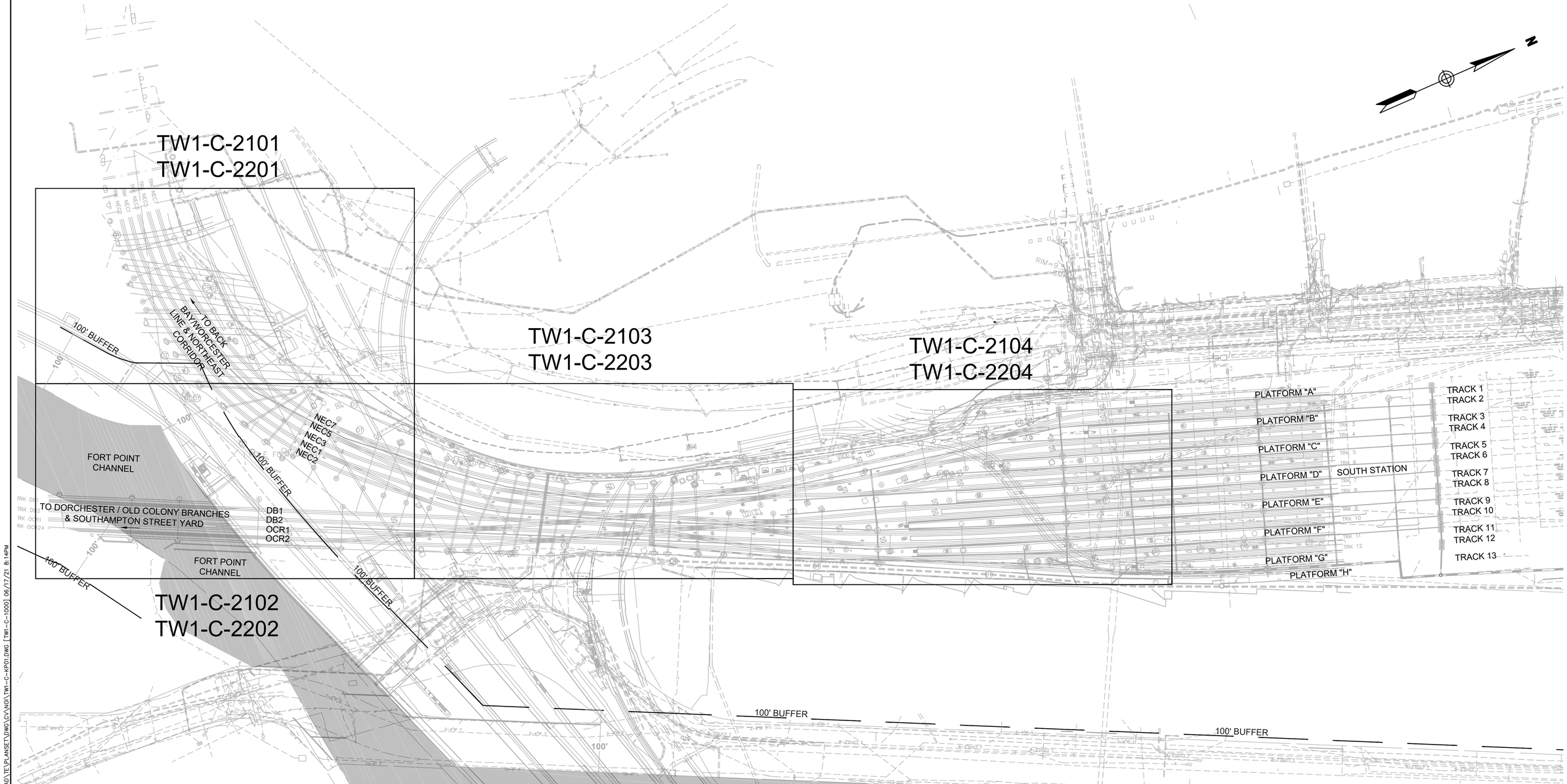
APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	AS NOTED	DESIGN BY	DRAWN BY	CHECK BY
VERT:	AS NOTED	SS	PJN	ALB
DATE:	06/17/21			

PLAN NO.
SHEET: TW1-K-4002
ISSUE



ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38963
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

CIVIL KEY PLAN

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

0 80 200 300
SCALE: 1" = 80'

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	1"=80'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

ISSUE

SHEET: TW1-C-1000

PLOTTED: 06/17/21 9:05PM BY:SKRAUSE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CV\NOI\TW1-C-KP01.DWG [TW1-C-1000] 06/17/21 8:14PM

SEE SHEET TW1-C-2102 FOR CONTINUATION

LEGEND

MILL AND OVERLAY

20 0 20 40

SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

CIVIL SITE PLAN
SHEET 1 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	1"=20'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-2101

ISSUE

vhb

PLOTTED: 06/25/21 11:10AM BY: PCARBONE
DRAWING: \\vhb\GBL\PRO\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CVXNO\TW1-C-CV02.DWG [TW1-C-2101] 06/25/21 11:06AM

SEE SHEET TW1-C-2101 FOR CONTINUATION

SEE SHEET TW1-C-2103 FOR CONTINUATION

FORT POINT CHANNEL

EDGE OF CHANNEL

EDGE OF CHANNEL

BEGIN COMPOST FILTER TUBE STA 22816+89±
(SEE SHEET 6001)

BEGIN COMPOST FILTER TUBE STA 22817+30±
(SEE SHEET 6001)

100'

100'

100' BUFFER

228+1800

228+1900

228+2000

228+

PROP CONDUIT BANK (TYP)

EXIST NEC1 BASELINE

NEC7

NEC5

NEC3

NEC2

SIGNAL BRIDGE

EXIST LOC A

PROP LOC A

EXIST CABLE TROUGH

PROP MILL AND OVERLAY OF EXIST ACCESS ROAD

PROP 6' CLF

PROP LIGHTING

MBTA ROW

EXIST CABLE TROUGH

PROP LOC AA

MANHOLE

MH

PINE 4IN

TREE 9IN

DB1

DB2

OCR1

OCR2

EDGE OF CHANNEL

FORT POINT CHANNEL

LEGEND

MILL AND OVERLAY

20 0 20 40

SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

CIVIL SITE PLAN
SHEET 2 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

vhb

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	1"=20'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-2102

ISSUE

PLOTTED: 06/25/21 11:10AM BY:PCARBONE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CV\NO\TW1-C-CV02.DWG [TW1-C-2102] 06/25/21 11:06AM

PROP 6' CLF STA 22821+18±
OFFSET: 86.96' LT

END COMPOST FILTER
TUBE STA 22821+18±
(SEE SHEET 6001)

END OF EXISTING
RET WALL

PROP SIGNAL VAULT

PROP CONDUIT BANK
(TYP)

EXIST LOC B-C

PROP SMC 5

EXIST SMC 5

PROP SMC 6

EXIST SMC 6

EXIST SMC 7

PROP SMC 7

EXIST CABLE
TROUGH

PROP MILL AND OVERLAY
OF EXIST ACCESS ROAD

EXIST
LOC D-E

PROP LIGHTING

PROP SMC 4

PROP SMC 4

PROP LOC AB

EXIST CABLE
TROUGH

EXIST A.S.T.

EXIST
GENERATOR

EXIST TERMINAL HOUSE 1

MBTA ROW

N

SEE SHEET TW1-C-2102 FOR CONTINUATION

SEE SHEET TW1-C-2104 FOR CONTINUATION

228+2100

228+2200

228+2300

228+2400

228+2500

228+2600

228+2700

EXIST NEC1 BASELINE

EXIST CABLE
TROUGH

POWER BUILDING

MH

EXIST HQ
BUILDING

TRAILER

PROP SMC 2

PROP LOC F

PROP SMC 3

EXIST SMC 3

EXIST LOC F

MH

MH

MBTA ROW

MBTA ROW

PROP EROSION
CONTROL

EC

LEGEND

MILL AND OVERLAY

20 0 20 40

SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED
PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

CIVIL SITE PLAN
SHEET 3 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	1"=20'	DESIGN BY	DRAWN BY	CHECK BY
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

ISSUE

SHEET: TW1-C-2103

PLOTTED: 06/25/21 11:10AM BY:PCARBONE
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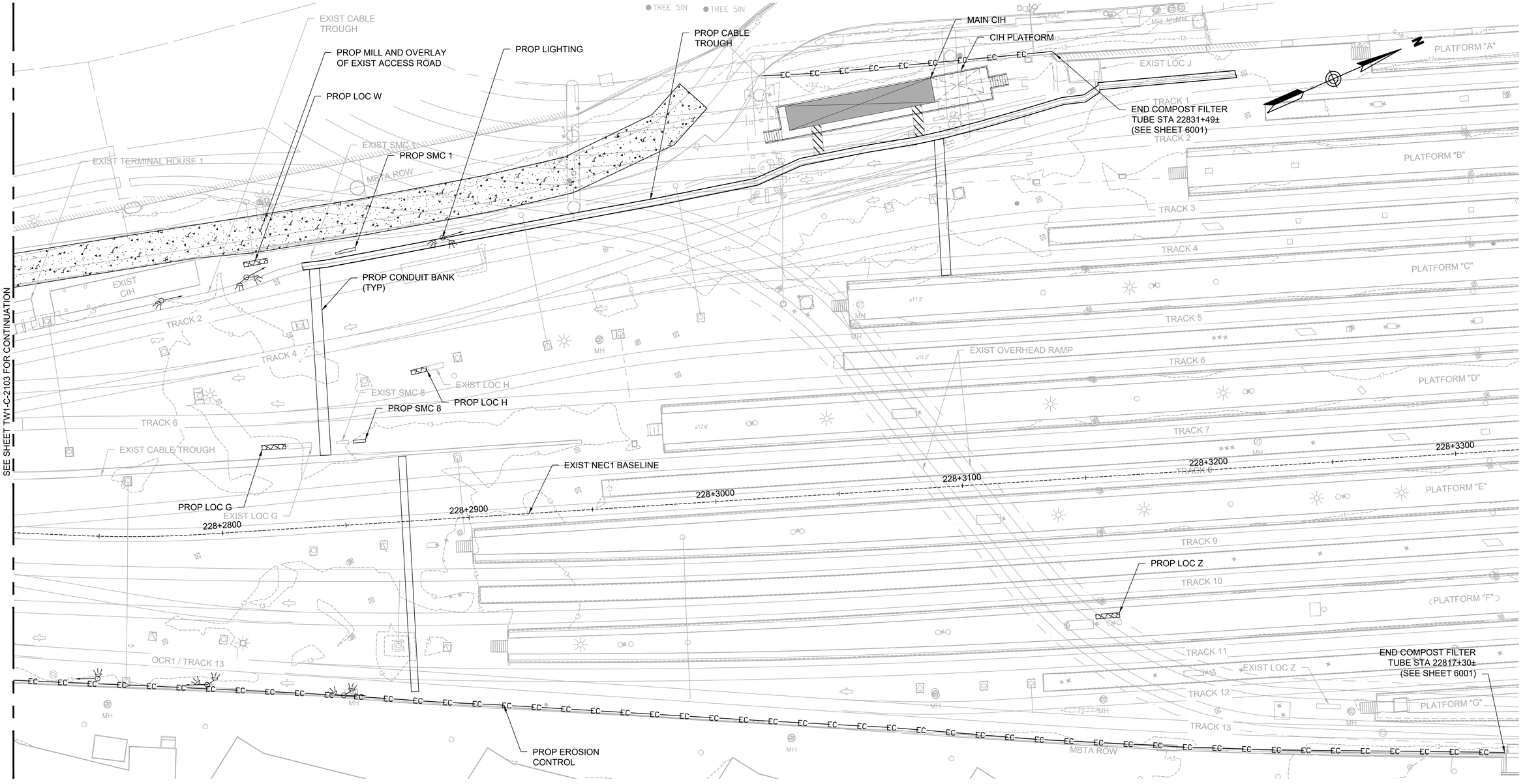

LEGEND

MILL AND OVERLAY

20 0 20 40

SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

CIVIL SITE PLAN
SHEET 4 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	1"=20'	DESIGN BY	DRAWN BY	CHECK BY
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-2104

ISSUE

vhb

PLOTTED: 06/25/21 11:10AM BY:PCARBONE
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ISSUED FOR NOTICE OF INTENT

NOTES:

1. CONTRACTOR SHALL GRADE AREAS IN ADVANCE OF INSTALLING ALL SIGNAL EQUIPMENT. EXISTING SIGNAL EQUIPMENT AND OTHER FEATURES SHALL BE MAINTAINED DURING SITE GRADING AND INSTALLATION OF PROPOSED EQUIPMENT.
2. FOR LIMITS OF ACCESS ROAD MILL AND OVERLAY, SEE CIVIL SITE PLANS

20 0 20 40
SCALE IN FEET

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GRADING AND DRAINAGE PLAN
SHEET 1 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

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HORIZ:	1"=20'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO. ISSUE
SHEET: TW1-C-2201

PLOTTED: 06/25/21 11:11AM BY: PCARBONE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CVX\N0\TW1-C-G001.DWG [TW1-C-2201] 06/25/21 11:08AM

SEE SHEET TW1-C-2201 FOR CONTINUATION

SEE SHEET TW1-C-2203 FOR CONTINUATION

FORT POINT CHANNEL

EDGE OF CHANNEL

EDGE OF CHANNEL

BEGIN COMPOST FILTER TUBE STA 22816+89± (SEE SHEET 6001)

BEGIN COMPOST FILTER TUBE STA 22817+30± (SEE SHEET 6001)

DB1

DB2

OCR1

OCR2

100' BUFFER

228+1800

228+1900

228+2000

PROP CONDUIT BANK (TYP)

NEC7

NEC5

NEC3

NEC1

NEC2

PROP LOC A

EXIST CABLE TROUGH

PROP MILL AND OVERLAY GRADE TO DRAIN

PROP 6" CLF

PROP LIGHTING

PROP CLEANOUT (TYP)

REMOVE AND REPLACE WITH 8" PERF HDPE PIPE (TYP)

EXIST LOC A

MBTA ROW

12"MDOT

8"D

2%6

NOTES:

1. CONTRACTOR SHALL GRADE AREAS IN ADVANCE OF INSTALLING ALL SIGNAL EQUIPMENT. EXISTING SIGNAL EQUIPMENT AND OTHER FEATURES SHALL BE MAINTAINED DURING SITE GRADING AND INSTALLATION OF PROPOSED EQUIPMENT.
2. FOR LIMITS OF ACCESS ROAD MILL AND OVERLAY, SEE CIVIL SITE PLANS.

LEGEND:

- PROPOSED CONDUIT BANK RUN
- PROPOSED SIGNAL CABLE DIRECT BURIAL

20 0 20 40
SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GRADING AND DRAINAGE PLAN
SHEET 2 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

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DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-2202

ISSUE

PLOTTED: 06/25/21 11:11AM BY:PCARBONE
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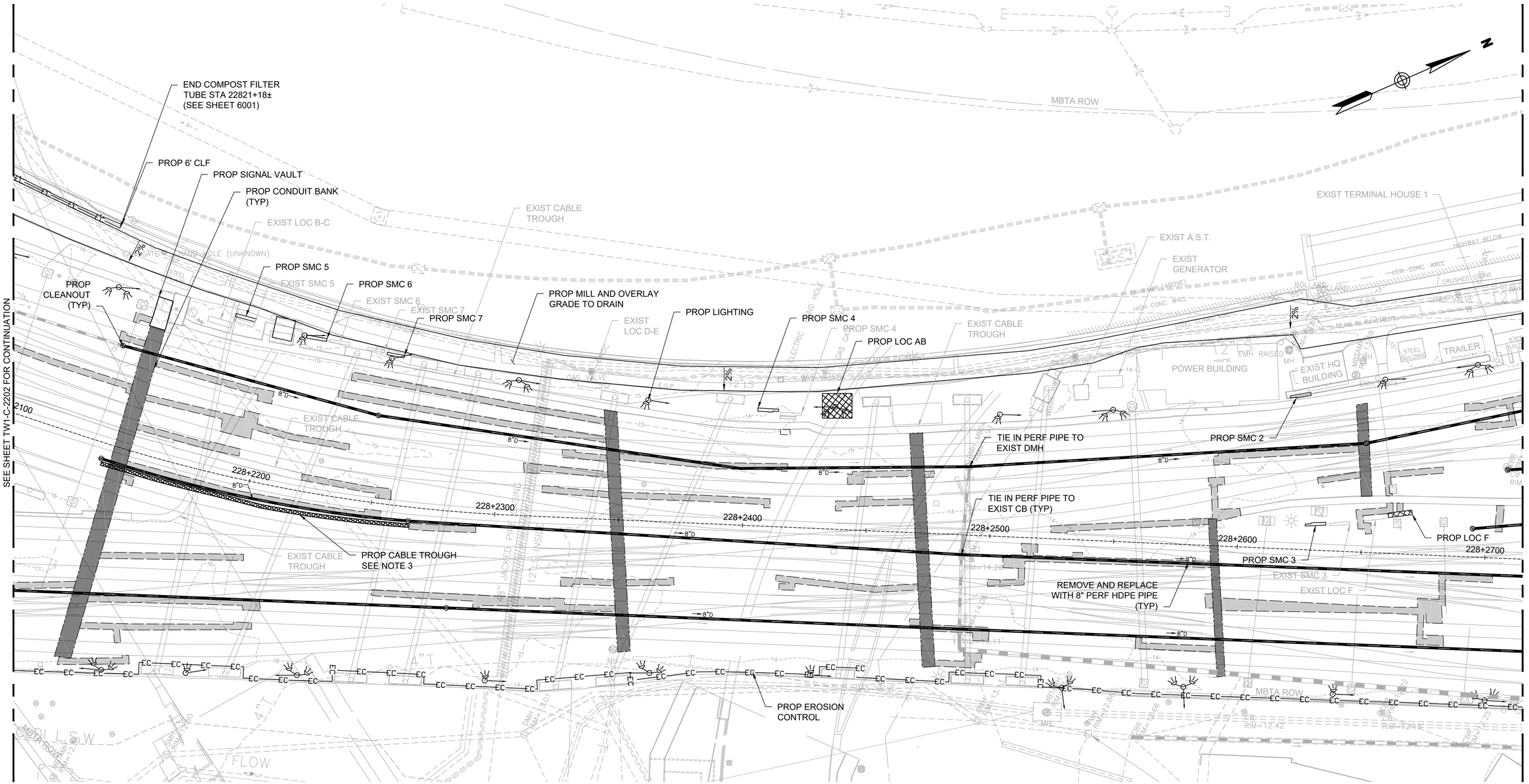


NOTES:

1. CONTRACTOR SHALL GRADE AREAS IN ADVANCE OF INSTALLING ALL SIGNAL EQUIPMENT. EXISTING SIGNAL EQUIPMENT AND OTHER FEATURES SHALL BE MAINTAINED DURING SITE GRADING AND INSTALLATION OF PROPOSED EQUIPMENT.
2. FOR LIMITS OF ACCESS ROAD MILL AND OVERLAY, SEE CIVIL SITE PLANS.
3. REMOVE AND REPLACE CABLE TROUGH. COORDINATE WITH PHASED SIGNAL CABLE REPLACEMENT.

LEGEND:

- PROPOSED CONDUIT BANK RUN
- PROPOSED SIGNAL CABLE DIRECT BURIAL
- REMOVE AND REPLACE EXISTING CABLE TROUGH

20 0 20 40
SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GRADING AND DRAINAGE PLAN SHEET 3 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

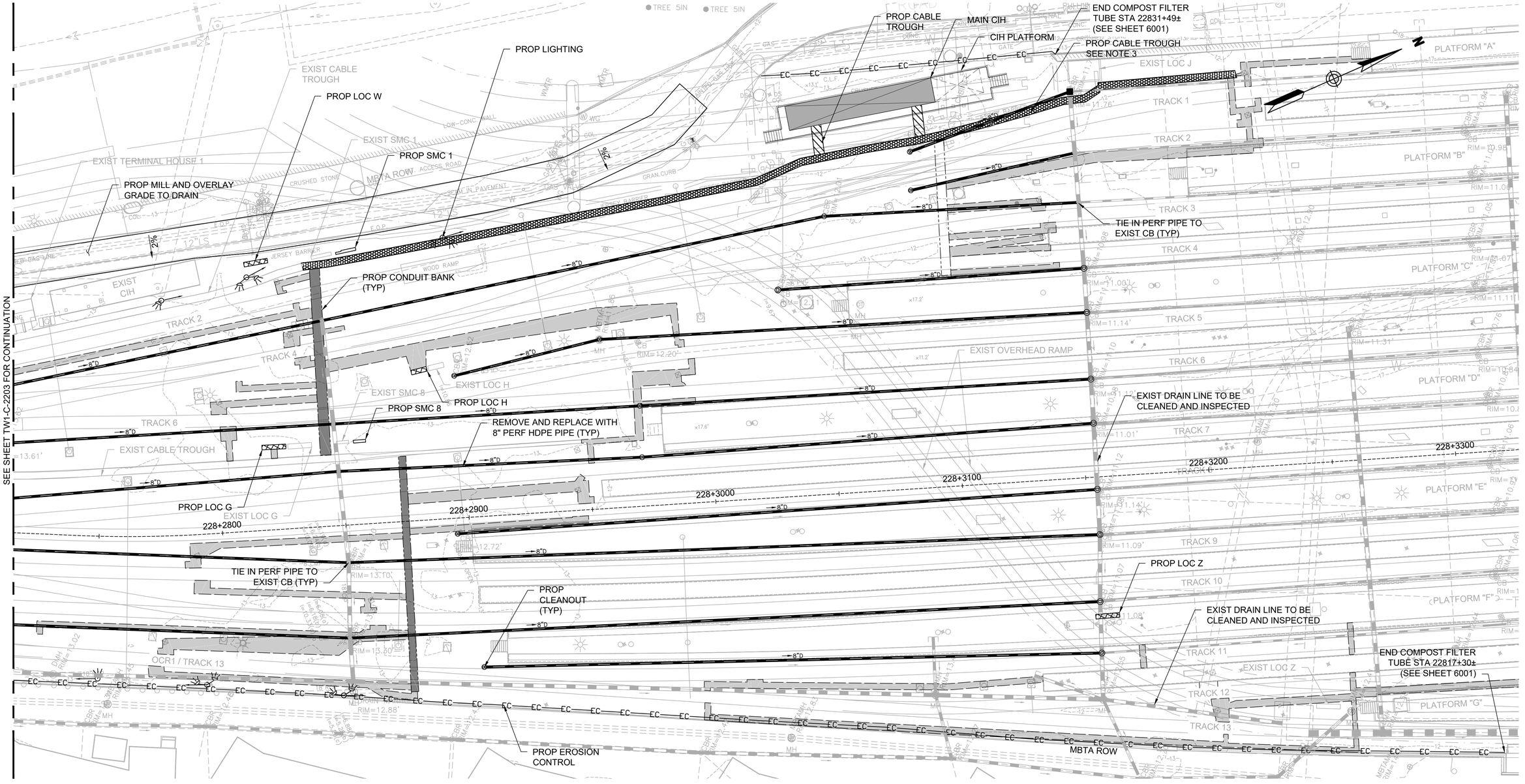
		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	1"=20'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-2203

ISSUE

PLOTTED: 06/25/21 11:11AM BY: PCARBONE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CVXNG\TW1-C-G001.DWG [TW1-C-2203] 06/25/21 11:08AM



NOTES:

1. CONTRACTOR SHALL GRADE AREAS IN ADVANCE OF INSTALLING ALL SIGNAL EQUIPMENT. EXISTING SIGNAL EQUIPMENT AND OTHER FEATURES SHALL BE MAINTAINED DURING SITE GRADING AND INSTALLATION OF PROPOSED EQUIPMENT.
2. FOR LIMITS OF ACCESS ROAD MILL AND OVERLAY, SEE CIVIL SITE PLANS.
3. REMOVE AND REPLACE CABLE TROUGH. COORDINATE WITH PHASED SIGNAL CABLE REPLACEMENT.

LEGEND:

- PROPOSED CONDUIT DUCT BANK RUN
- PROPOSED SIGNAL CABLE DIRECT BURIAL
- REMOVE AND REPLACE EXISTING CABLE TROUGH
- PROPOSED CABLE TROUGH

20 0 20 40
SCALE IN FEET

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD H. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

GRADING AND DRAINAGE PLAN
SHEET 4 OF 4

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

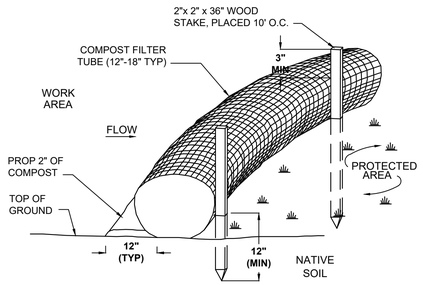
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	1"=20'			
VERT:	NONE			
DATE:	06/17/2021			

PLAN NO. ISSUE

SHEET: TW1-C-2204

PLOTTED: 06/25/21 11:12AM BY: PCARBONE
DRAWING: \\VHB\GBL\PRO\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CV\N01\TW1-C-GD01.DWG [TW1-C-2204] 06/25/21 11:08AM

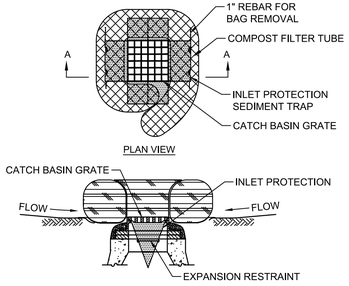


NOTES:

1. FILTER TUBE SHALL BE FILLED BY BLOWN IN ORGANIC COMPOST AND PLACED AS ILLUSTRATED ON THE PROJECT PLANS.
2. COMPOST FILTER TUBES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIRED OR REPLACED AS NEEDED.
3. AT COMPLETION OF PROJECT, COMPOST FILTER TUBES SHALL BE CUT OPEN AND COMPOST MATERIAL SHALL BE REMOVED AND DISPOSED OFF-SITE.
4. THE EMPTY FILTER TUBE FABRIC SHALL BE COLLECTED AND DISPOSED OF PROPERLY.

LINEAR SEDIMENTATION AND EROSION CONTROL

SCALE: N.T.S.

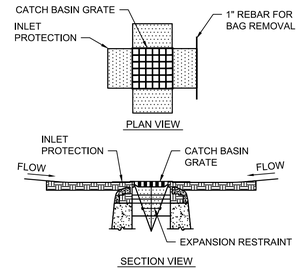


NOTES:

1. ENCLOSE STRUCTURE WITH COMPOST FILTER TUBES IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION. MAINTAIN UNTIL PAVING INTERMEDIATE COURSE IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. IF GRADE IS AGAINST EXISTING CURB THEN TUBE IS TO BE PLACED AROUND THREE SIDES OF GRATE ONLY.
3. COMPOST TUBES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. COMPOST FILTER TUBES NOT TO BE USED WITHIN CITY OF NEW BEDFORD RIGHT OF WAY.

CATCH BASIN SEDIMENT TRAP

SCALE: N.T.S.



NOTES:

1. INSTALL INLET PROTECTION IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER INLET PROTECTION.
3. CATCH BASIN INLET PROTECTION SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED.
4. WHERE CATCH BASINS HAVE GUTTER INLETS, COMPOST FILTER TUBES SHALL BE PLACED ACROSS THE LENGTH OF THE OPENING.

CATCH BASIN INLET PROTECTION

SCALE: N.T.S.

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD R. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

STANDARD DETAILS
SHEET 1 OF 3

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

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HORIZ:	AS SHOWN			
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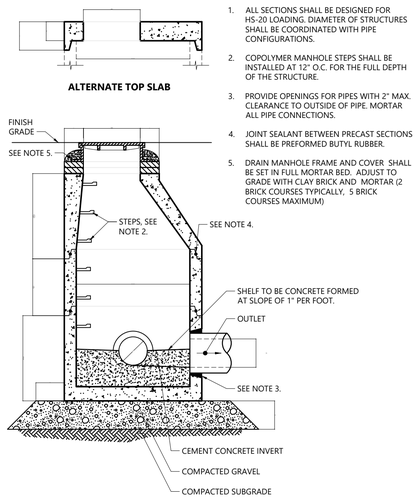
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-6001

ISSUE

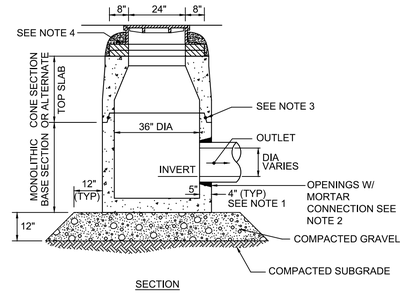


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

DRAINAGE MANHOLE (DMH)

SCALE: N.T.S.



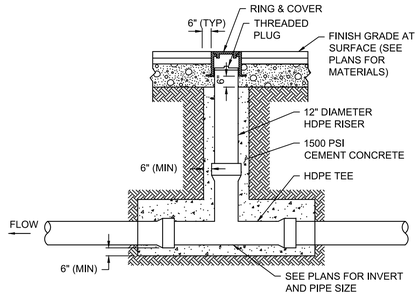
SECTION

NOTES:

1. ALL SECTIONS SHALL BE DESIGNED FOR COOPER E-80 LOADING IF LOCATED WITHIN THE RAILROAD TRACK 1:1 ZONE OF INFLUENCE LINE AND DESIGNED FOR HS-20 LOADING ELSEWHERE.
2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CLEANOUT FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

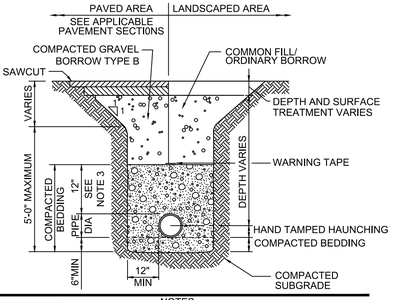
UNDERDRAIN (UD) PORTAL

SCALE: N.T.S.



CLEANOUT (CO) - HDPE

SCALE: N.T.S.

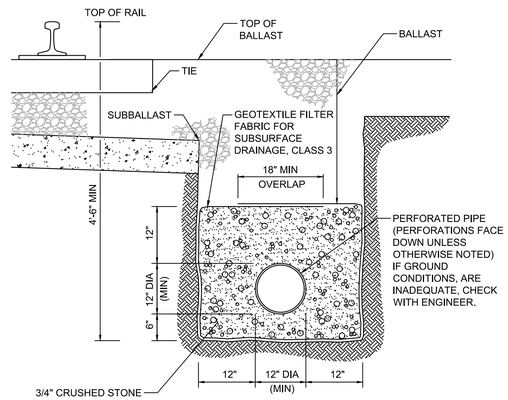


NOTES:

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. FOR HDPE PIPE, DIMENSION IS 24 INCHES.
4. UTILITY TRENCH FOR GAS PIPING SHALL COMPLY WITH GAS COMPANY REQUIREMENTS INCLUDING BUT NOT LIMITED TO THE USE OF SAND BEDDING AND WARNING TAPE PLACEMENT.
5. REFER TO SPECIFICATION SECTION 02300-EARTHWORK FOR MORE DETAILS.
6. WHERE TRENCHING OCCURS IN EXISTING PAVED SURFACES, SAWCUT JOINTS SHALL BE STAGGERED IN ACCORDANCE WITH MASSDOT SPECIFICATIONS.
7. JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAWCUT OF EXISTING PAVEMENT SHALL BE SEALED WITH HOT POURED RUBBERIZED ASPHALT SEALER AND BACKSANDED.

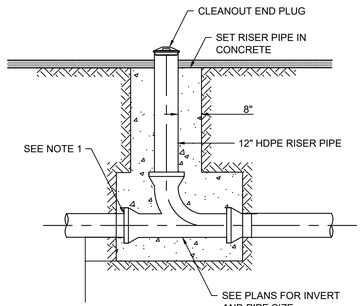
UTILITY TRENCH

SCALE: N.T.S.



UNDERDRAIN (UD)

SCALE: N.T.S.



NOTES:

1. WHEN USED AT THE BEGINNING OF AN UNDERDRAIN NETWORK, THE END OF THE WYE SHALL BE CAPPED AND SEALED TO ALLOW POTENTIAL FUTURE EXPANSION OF THE NETWORK.

CLEANOUT WYE - HDPE

SCALE: N.T.S.

ISSUED FOR NOTICE OF INTENT

COMMONWEALTH OF MASSACHUSETTS
RICHARD N. CAREY
CIVIL
No. 38983
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

STANDARD DETAILS
SHEET 2 OF 3

ISSUE	DATE	DESCRIPTION	BY	CHKD	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

HORIZ:	AS SHOWN	DESIGN BY	DRAWN BY	CHECK BY
VERT:	AS SHOWN			
DATE:	06/17/2021			

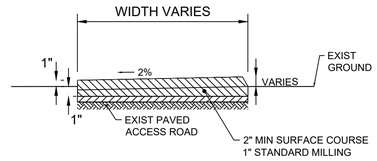
PLAN NO.

SHEET: TW1-C-6002

ISSUE

vhb

PLOTTED: 06/17/21 9:10PM BY:SKRAUSE
DRAWING: \\VHB\GBL\PROJ\BOSTON\14943.00 HNTB TASK 9 TOWER 1\CAD\TE\PLANSET\DWG\CV\NOI\TW1-C-SD01.DWG [TW1-C-6002] 06/17/21 8:52PM

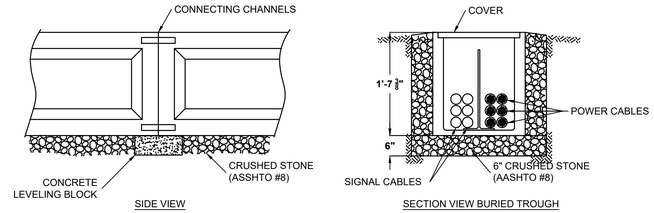


NOTES:

1. MILLED ASPHALT TO BE REMOVED AND DISPOSED OF ACCORDING TO ALL STATE AND LOCAL REGULATIONS, AS APPLICABLE.
2. PROPOSED PAVEMENT SHALL BE WARM MIX ASPHALT.
3. ALL MILLED SURFACES SHALL RECEIVE A TACK COAT APPLIED AT 0.07 GALLONS PER SQUARE YARD PRIOR TO PAVING.

PAVEMENT MILLING AND OVERLAY

SCALE: N.T.S.

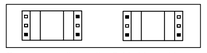


POLYMER CONCRETE CABLE TROUGH
(PLASTIBETON OR ENGINEER APPROVED EQUAL)

TYPICAL CABLE TROUGH

SCALE: N.T.S.

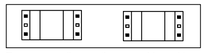
SPIKING PATTERN "A"



▫ = NO TRACK SPIKE
■ = TRACK SPIKE

One screw spike on the field side and two screw spike on the gage side of each tie plate on each tie must be installed on tangents and curves up to or equal to one degree.

SPIKING PATTERN "B"



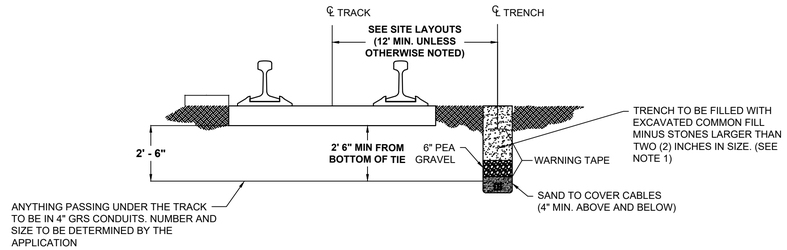
Two screw spikes on the gage side and two screw spikes on the field side of each plate on each tie must be installed in curves over one degree and up.

NOTES:

1. THE SPIKING PATTERN ON CURVES WILL BEGIN AT THE POINT OF CURVATURE AND END AT THE POINT OF TANGENCY.
2. THE SPIKING PATTERN ON COMPOUND CURVES WILL BE BASED ON THE HIGHEST DEGREE OF CURVATURE IN THE CURVE AND WILL BE USED FOR THE ENTIRE CURVE.

SPIKING PATTERN

SCALE: N.T.S.

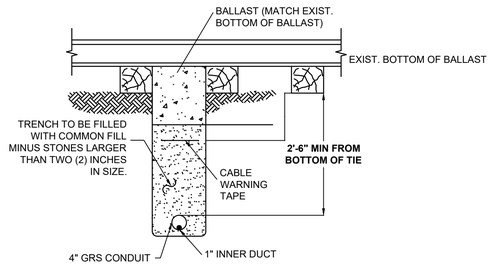


NOTES:

1. IF CABLE IS WITHIN BALLAST, SUBSTITUTE BALLAST FOR COMMON FILL TO EXIST. BOTTOM OF BALLAST.
2. MARKER TAPE SHALL BE 3" RED TRACEABLE TAPE WITH "CAUTION: RAILROAD CABLES BELOW" PRINTED IN 1" MIN HEIGHT BLACK LETTERS CONTINUOUSLY ON THE TOP SIDE OF THE TAPE.
3. SEE UTILITY TRENCH DETAIL FOR WIDTH OF TRENCH.

SIGNAL DIRECT BURIAL ALONG TRACK

SCALE: N.T.S.



NOT LESS THAN 2'-6" BELOW BOTTOM OF TIE

CABLE RUN CROSSING UNDER TRACK

SCALE: N.T.S.

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COMMONWEALTH OF MASSACHUSETTS
RICHARD N. CAREY
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No. 38963
REGISTERED PROFESSIONAL ENGINEER
6/17/2021

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

SOUTH STATION
TOWER 1 INTERLOCKING PROJECT
CONTRACT NO. Z91PS38 TASK NO. 6
BOSTON, MASSACHUSETTS

STANDARD DETAILS
SHEET 3 OF 3

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB Corporation
300 Apollo Drive
Chelmsford, MA 01824

APPROVED BY:

Project Manager Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

		DESIGN BY	DRAWN BY	CHECK BY
HORIZ:	AS SHOWN			
VERT:	AS SHOWN			
DATE:	06/17/2021			

PLAN NO.

SHEET: TW1-C-6003

ISSUE

vhb

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