



March 20, 2019

Boston Conservation Commission 1 City Hall Square Room 709 Boston, Massachusetts 02201

Via: Hand Delivery and Email to <u>cc@boston.gov</u>

Reference: Notice of Intent Parking Lot Repaving Project William F. McClellan Highway <u>Boston, Massachusetts</u> B+T Project No. 2854.11

Dear Commissioners:

On behalf of the Applicant, Aptiv Properties Management Services (US), LLC, Beals and Thomas, Inc. (B+T) respectfully submits this Notice of Intent (NOI) for work within Land Subject to Coastal Storm Flowage (LSCSF) and the 100-foot buffer zone to Bordering Vegetated Wetlands (BVW). The proposed project will allow an interim site use, specifically low-speed vehicle testing. In order to accommodate this temporary use, proposed work includes repaving a portion of the existing parking area, installation of a chain-link fence, placement of up to 12 shipping containers that may be relocated from time to time, line striping, and installation of up to 10 pole-mounted traffic lights on a portion of the Suffolk Downs Redevelopment Site on William F. McClellan Highway in East Boston, Massachusetts. One of the shipping containers may be used as a temporary office trailer with a portable sanitary facility.

This filing is submitted in accordance with the Massachusetts Wetlands Protection Act, MGL, Chapter 131, Section 40 and associated Regulations at 310 CMR 10.00 (collectively referred to as the Act).

As required, enclosed are seven (7) copies plus the original of the NOI submission package as well as an electronic version sent via Email and two (2) copies of the Stormwater Management Memorandum. The following information is included for your review:

Section 1.0:	Notice of Intent Forms;
Section 2.0:	Project Narrative;
Section 3.0:	Abutter Information;
Section 4.0:	Stormwater Management Information; and
Section 5.0:	Plans.

Boston Conservation Commission March 20, 2019 Page 2

A copy of this filing has been provided to the Northeast Regional Office (NERO) of the Massachusetts Department of Environmental Protection (MassDEP). Pursuant to requirements of the Act, abutters within 100 feet of the Project Site have been notified via certified mail concurrent with the date of this submission that this NOI has been filed with the Boston Conservation Commission.

Enclosed is a check payable to the City of Boston in the amount of \$337.50 for the appropriate filing fee as required by the Act (\$262.50) and the City (\$75.00), as the proposed construction is anticipated to have costs exceeding \$50,000 but less than \$100,000. A separate check in the amount of \$237.50 has been forwarded to the MassDEP Lock Box to cover the state portion of the filing fee. We understand that the Conservation Commission will coordinate legal notification of the hearing for this NOI in the newspaper, at least seven (7) days prior to the public hearing, and that the representative indicated in the NOI form (B+T) will be billed by The Herald for this advertisement.

Should you have any questions regarding this matter or require additional information, please contact us at (508) 366-0560. We thank you for your consideration of this NOI and look forward to meeting with the Commission at the April 3, 2019 public hearing.

Very truly yours,

BEALS AND THOMAS, INC.

Hidry

Jeffrey A. Heidelberg, PE Manager, Urban Development

Stacy H. Minihane

Stacy H. Minihane, PWS Senior Associate

Enclosures

 cc: DEP Northeast Regional Office (1 copy via Certified Mail) Matthew Wansley, Aptiv Properties Management Services (US), LLC (1 copy via Email and FedEx) Andrew Townsend, The McClellan Highway Development Company, LLC, c/o the HYM Investment Group, LLC (1 copy via Email and FedEx) Douglas Manz, The HYM Investment Group, LLC (1 copy via Email)



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Section 1.0 Notice of Intent Forms

Notice of Intent (WPA Form 3)

Wetland Fee Transmittal Form





Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

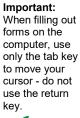
A. General Information

WPA Form 3 – Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number Boston City/Town





Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

William F. McClellan Highway	Boston	02151
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	42°23'38"N	71°00'13"W
Latitude and Longitude.	d. Latitude	e. Longitude
Parcel ID 0102524000		
f. Assessors Map/Plat Number	g. Parcel /Lot Number	
Applicant:		
Matthew	Wansley	
a. First Name	b. Last Name	
Aptiv Properties Management Services c. Organization 100 Northern Avenue, Suite 200	(US), LLC	
d. Street Address		
Boston	MA	02210
e. City/Town	f. State	g. Zip Code
	matt@nutonomy.com	0
h. Phone Number i. Fax Number	j. Email Address	
Property owner (required if different from	m applicant): 🛛 🗌 Check if n	nore than one owner
Thomas	O'Brien	
a. First Name	b. Last Name	
a. First Name The McClellan Highway Development (
The McClellan Highway Development C c. Organization c/o The HYM Investment Group, LLC, C	Company, LLC	-
The McClellan Highway Development C c. Organization	Company, LLC	
The McClellan Highway Development C c. Organization c/o The HYM Investment Group, LLC, C d. Street Address Boston	Company, LLC One Congress Street, 11th Floor MA	02114
The McClellan Highway Development C c. Organization c/o The HYM Investment Group, LLC, C d. Street Address Boston e. City/Town	Company, LLC Dne Congress Street, 11th Floor MA f. State	02114 g. Zip Code
The McClellan Highway Development C c. Organization c/o The HYM Investment Group, LLC, C d. Street Address Boston e. City/Town (617) 248 - 8905	Company, LLC Dne Congress Street, 11th Floor MA f. State tobrien@hyminvestme	02114 g. Zip Code
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The McClellan Highway Development O c. Organization c/o The HYM Investment Group, LLC, O d. Street Address Boston e. City/Town (617) 248 - 8905 h. Phone Number i. Fax Number Representative (if any): Jeffrey a. First Name Beals and Thomas, Inc. c. Company	Company, LLC Difference Congress Street, 11th Floor MA f. State tobrien@hyminvestme j. Email address Heidelberg, PE	02114 g. Zip Code
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The McClellan Highway Development O c. Organization c/o The HYM Investment Group, LLC, O d. Street Address Boston e. City/Town (617) 248 - 8905 h. Phone Number i. Fax Number Representative (if any): Jeffrey a. First Name Beals and Thomas, Inc. c. Company 144 Turnpike Road d. Street Address	Company, LLC Dne Congress Street, 11th Floor MA f. State tobrien@hyminvestme j. Email address Heidelberg, PE b. Last Name	02114 g. Zip Code ents.com
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Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Provided by MassDEP:

MassDEP File Number

Document Transaction Number Boston City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information (continued)

6. General Project Description:

Repaving an existing parking area, installation of a chain-link fence, placement of no more than 12 shipping containers that may be relocated from time to time and one may be used as an office trailer with portable sanitary facility, line striping, and installation of no more than 10 pole-mounted traffic lights within Land Subject to Coastal Storm Flowage (LSCSF) and the 100-foot buffer zone to Bordering Vegetated Wetland (BVW).

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1.	Single Family Home	2. 🗌 Residential Subdivision
3.	Commercial/Industrial	4. Dock/Pier
5.	Utilities	6. 🔲 Coastal engineering Structure
7.	Agriculture (e.g., cranberries, forestry)	8. Transportation
9.	Other	

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMP 10 24 (coastal) or 310 CMP 10 53 (inland)?

Restoration Limited Pro	bject) subject to 310 CMR 10.24 (coastal) of 310 CMR 10.53 (inland)?
1. 🗌 Yes 🛛 No	If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Suffolk	133905
a. County	b. Certificate # (if registered land)
c. Book	d. Page Number

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

- 1. Buffer Zone Only 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).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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WPA Form 3 – Notice of Intent

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

	<u>Resour</u>	<u>ce Area</u>	Size of Proposed Alteration	Proposed Replacement (if any)	
For all projects	a. 🗌	Bank	1. linear feet	2. linear feet	
affecting other Resource Areas, please attach a	b. 🗌	Bordering Vegetated Wetland	1. square feet	2. square feet	
narrative explaining how the resource	c. 🗌	Land Under Waterbodies and	1. square feet	2. square feet	
area was delineated.		Waterways	3. cubic yards dredged		
	<u>Resour</u>	<u>ce Area</u>	Size of Proposed Alteration	Proposed Replacement (if any)	
	d. 🗌	Bordering Land Subject to Flooding	1. square feet	2. square feet	
	e. 🗌	Isolated Land	3. cubic feet of flood storage lost	4. cubic feet replaced	
	J	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 available) - sp	ecify coastal or inland	
	2.	Width of Riverfront Area	(check one):		
		25 ft Designated I	Densely Developed Areas only		
		100 ft New agricul	ltural projects only		
		200 ft All other pro	ojects		
	3.	Total area of Riverfront Ar	rea on the site of the proposed proje	ect: square feet	
	4.	Proposed alteration of the	Riverfront Area:		
	a.1	total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.	
	5.	Has an alternatives analys	sis been done and is it attached to t	his NOI?	
	6.	Was the lot where the acti	ivity is proposed created prior to Au	gust 1, 1996? 🛛 Yes 🗌 No	
3	3. 🛛 Co	astal Resource Areas: (Se	ee 310 CMR 10.25-10.35)		
	Note:	for coastal riverfront areas	s, please complete Section B.2.f . a	bove.	



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

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document		<u>Resou</u>	rce Area	Size of Propose	d Alteration	Proposed Replacement (if any)
transaction number		a. 🗌	Designated Port Areas	Indicate size u	nder Land Unde	r the Ocean, below
(provided on your receipt page) with all		b. 🗌	Land Under the Ocean	1. square feet		
supplementary information you submit to the				2. cubic yards dredg	ed	
Department.		c. 🗌	Barrier Beach	Indicate size und	der Coastal Bea	ches and/or Coastal Dunes below
		d. 🗌	Coastal Beaches	1. square feet		2. cubic yards beach nourishment
		e. 🗌	Coastal Dunes	1. square feet		2. cubic yards dune nourishment
				Size of Propose	d Alteration	Proposed Replacement (if any)
		f. 🗌	Coastal Banks	1. linear feet		
		g. 🗌	Rocky Intertidal Shores	1. square feet		
		h. 🗌	Salt Marshes	1. square feet		2. sq ft restoration, rehab., creation
		i. 🗌	Land Under Salt Ponds	1. square feet		
			Folius			
		j. 🗌	Land Containing	2. cubic yards dredg	lea	
		_	Shellfish	1. square feet		
		k. 🗌	Fish Runs			ks, inland Bank, Land Under the er Waterbodies and Waterways,
		I. 🔀	Land Subject to	1. cubic yards dredg 210,600±	ed	
	4.		Coastal Storm Flowage estoration/Enhancement	1. square feet		
	ч.	If the p square	project is for the purpose of	5	•	resource area in addition to the ve, please enter the additional
		a. squar	e feet of BVW		b. square feet of S	Salt Marsh
	5.	🗌 Pr	oject Involves Stream Cros	sings		
		a. numb	er of new stream crossings		b. number of repla	acement stream crossings



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C. Other Applicable Standards and Requirements

This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

 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 and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

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
MassGIS; 3/11/19	1 Rabbit Hill Road Westborough, MA 01581
b. Date of map	Westborough, MA 01561

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).

- c. Submit Supplemental Information for Endangered Species Review*

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

- 2. Assessor's Map or right-of-way plan of site
- 2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands 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

^{*} Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

^{**} MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at <u>http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm</u>). Make check payable to "Commonwealth of Massachusetts - NHESP" 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
- (f) 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, <u>http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm;</u> 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.		
2.	Separate MESA review origoing.	a. NHESP Tracking #	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.
- 3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. 🗌 Not applicable – project is in inland resource area on	ly b. 🗌 Yes	🛛 No
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If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:	North Shore - Hull to New Hampshire border:
Division of Marine Fisheries -	Division of Marine Fisheries -

Southeast Marine Fisheries Station Attn: Environmental Reviewer 836 South Rodney French Blvd. New Bedford, MA 02744 Email: <u>DMF.EnvReview-South@state.ma.us</u> Division of Marine Fisheries -North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930 Email: DMF.EnvReview-North@state.ma.us

Also if yes, the project 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.

	Ви М а	Assachusetts Department of Environmental Protection Provided by MassDEP: Ireau of Resource Protection - Wetlands MassDEP File Number Image: Application of the protection of the provided by MassDEP: Image: Application of the provided by MassDEP: Image: Application of the protection of the protection of the provided by MassDEP: Image: Application of the provided by MassDEP: Image: Application of the protection of			
	C.	Other Applicable Standards and Requirements (cont'd)			
	4.	Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?			
Online Users: Include your document		a. Yes X No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). Note: electronic filers click on Website.			
transaction number		b. ACEC			
(provided on your receipt page) with all	5.	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?			
supplementary information you		a. 🗌 Yes 🖾 No			
submit to the Department.	 Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetland Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 				
		a. 🗌 Yes 🖾 No			
	7.	Is this project subject to provisions of the MassDEP Stormwater Management Standards?			
		 a. Xes. 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. Check why the project is exempt:			
		1. Single-family house			
		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			

This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

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.

- 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.



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D. Additional Information (cont'd)

- 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. \square List the titles and dates for all plans and other materials submitted with this NOI.

Parking Lot Repaving Project in East Bosto	on, Massachusetts (Suffolk County)
a. Plan Title	
Beals and Thomas, Inc.	Elizabeth Ennis, PE
b. Prepared By	c. Signed and Stamped by
03/20/2019	1" = 40'
d. Final Revision Date	e. Scale
Stormwater Management Information	03/20/2019
f. Additional Plan or Document Title	g. Date
If there is more than one property own	er, please attach a list of these property owners not

- 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. \square 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:

0006	03/18/2019
2. Municipal Check Number	3. Check date
0007	03/18/2019
4. State Check Number	5. Check date
	nuTonomy Inc.
6. Payor name on check: First Name	7. Payor name on check: Last Name



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

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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

•	ided by MassDEP:
	MassDEP File Number
	Document Transaction Number
	Boston
	City/Town

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.

Signature of Applican 2. Date 3. Signature erty Owner (if different) 4. Date 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 any part of Section C, Item 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 NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



nly the tab	1.	Location of Project:			
move your		William F. McClellan Hig	hway	Boston	
r - do not		a. Street Address	<u> </u>	b. City/Town	
e return		0007		\$237.50	
		c. Check number		d. Fee amount	t
<u>,</u>	2.	Applicant Mailing Addres	SS:		
		Matthew		Wansley	
		a. First Name		b. Last Name	
· · · · · ·		Aptiv Properties Manage	ement Services (US), LLC		
		c. Organization	· · ·		
		100 Northern Avenue, S	Suite 200		
		d. Mailing Address			
		Boston			MA
		e. City/Town			f. State
				matt@nutor	nomy.com
		h. Phone Number	i. Fax Number	j. Email Addre	ss
	3.	Property Owner (if differ	ent):		
		Thomas		O'Brien	
		a. First Name		b. Last Name	

nomas	O Brien	
a. First Name	b. Last Name	
The McClellan Highway Developme c. Organization	nt Company, LLC c/o The HYM Investme	nt Group, LLC
One Congress Street, 11th Floor		
d. Mailing Address		
Boston	MA	02114
e. City/Town	f. State	g. Zip Code
(617) 248 - 8905	tobrien@hyminvestments	s.com
h. Phone Number i. Fax Numb	er i. Email Address	

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

B. Fees

Fee should be calculated using the following process & worksheet. *Please see Instructions before filling out worksheet.*

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

02210

g. Zip Code



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
10.03(7)(c)2.b. Parking lot of any size	<u>1</u>	\$500	\$500
			·
	Step 5/To	tal Project Fee:	\$500.00
	Step 6/I	Fee Payments:	
	Total	Project Fee:	\$500.00 a. Total Fee from Step 5
	State share	of filing Fee:	\$237.50 b. 1/2 Total Fee less \$ 12.50
	City/Town share	of filling Fee:	\$262.50 c. 1/2 Total Fee plus \$12.50

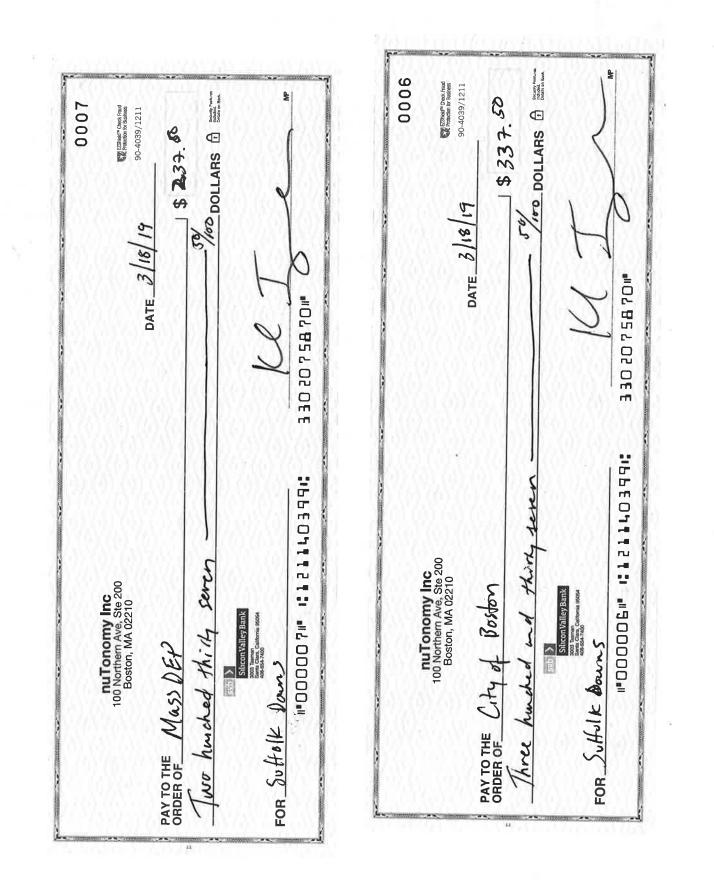
C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection Box 4062 Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



Section 2.0 Project Narrative



2.0 PROJECT NARRATIVE

2.1 Introduction

The Project Site is a portion of the Suffolk Downs racetrack facilities located in East Boston, Massachusetts. The proposed project will allow an interim site use, specifically low-speed vehicle testing, within a portion of the existing paved parking area located adjacent to Tomasello Way. In order to accommodate this temporary use, proposed work includes repaying the existing parking area, installation of a chain-link fence, placement of up to 12 shipping containers that may be relocated from time to time, line striping, and installation of up to 10 pole-mounted traffic lights. One of the shipping containers may be used as a temporary office trailer with a portable sanitary facility.

The Project Site can be further identified as the parking area in the southwestern portion of the overall Suffolk Downs facility, bounded by Tomasello Drive to the east and south, the Irving Oil tank facility to the west, and a parking area to the north. The Project Site lies within Boston Parcel ID 0102524000. Refer to the enclosed Locus Map and Aerial Map.

2.2 Existing Conditions

The Project Site is within a portion of the existing bituminous concrete parking area located adjacent to Tomasello Drive and the Irving Oil tank facility. The majority of the Site lies within the 100-year floodplain (Land Subject to Coastal Storm Flowage (LSCSF)) as depicted on the FEMA Flood Map and shown on the enclosed plans. The LSCSF within the Project Site consists almost entirely of bituminous concrete parking area. A Bordering Vegetated Wetland (BVW) is located west of the Project Site that borders on a drainage channel flowing northwest toward Chelsea Creek. Both LSCSF and BVW were confirmed through an Order of Resource Area Delineation (ORAD) dated September 20, 2017 (DEP Number 006-1546).

2.3 Proposed Conditions

Proposed work includes the repair and maintenance of the existing parking area through overlaying and/or patching existing pavement, installation of a chain-link fence, placement of up to 12 shipping containers that may be relocated from time to time, installation of up to 10 pole-mounted traffic lights, and line striping. One of the shipping containers may be used as a temporary office trailer with a portable sanitary facility. Sediment control barriers will be installed prior to commencing work as depicted on the enclosed plans. Repaving is proposed entirely within the existing paved parking area. The chain-link fence is proposed to be installed along the edge of the limit of work for security and to segregate the Project Site from adjacent uses. Landscaped islands located outside the limit of work will be maintained.

The proposed limit of work is anticipated to be approximately 442,750 square feet or $10.17\pm$ acres. Approximately 210,600 square feet of this work is located within LSCSF. Work will be performed with typical construction equipment used for paving or patching parking areas; this includes: dump trucks, asphalt pavers, excavators, concrete machinery,



and compactors/rollers. The proposed surface material will be bituminous concrete pavement. Portions of the bituminous concrete pavement will be excavated to install the metal support posts for the chain-link style fencing and pole-mounted traffic lights. The installation of the posts will require the posts to be set in the ground as depicted in the enclosed plans. All work is located within the existing limits of the bituminous concrete paved parking area.

Interim-Final Condition

The final condition of the work proposed in this NOI is an interim-final condition within the overall Property, as this area is anticipated to be redeveloped as part of the permanent and final Suffolk Downs Redevelopment in the future. The interim-final condition of the Project Site will be a low-speed vehicle testing area within the repaved parking area that includes up to 12 shipping containers placed in various configurations, up to 10 polemounted traffic lights, and line striping.

2.3.1 Impacts to Wetland Resource Areas

A portion of the proposed work is located within LSCSF, which includes the repair and maintenance of the existing bituminous concrete parking area by repaving, installing a chain-link fence, placing up to 12 shipping containers that may be relocated from time to time, installing up to 10 pole-mounted traffic lights, and line striping. A portion of this work is proposed within buffer zone to BVW. LSCSF and buffer zone within the limit of work consists entirely of existing impervious bituminous concrete parking area. Wetland Resource Area impacts are described below:

Land Subject to Coastal Storm Flowage (310 CMR 10.04)

Approximately 210,600 square feet or $4.83\pm$ acres of the above-described work is proposed within LSCSF. It is not anticipated that the proposed activities within LSCSF will impact flooding, given both the nature of the work and because the area is a coastal, rather than inland, floodplain.

Buffer Zone

A portion of the work is proposed within buffer zone to BVW; specifically, installing the chain-link fence and repaying the existing paved surface. The 100-foot buffer zone within the limit of work consists entirely of the existing bituminous concrete parking area; therefore, proposed work is not anticipated to negatively impact the associated BVW.

2.3.2 Mitigation for Impacts to Wetland Resource Areas

Mitigation is not proposed, as adverse impacts to resource areas and buffer zones are not anticipated. Disturbed areas will be permanently stabilized by pavement, and Sediment Control Barriers (SCBs) will be installed prior to work and maintained during the course of construction, as depicted on the enclosed plans.



2.4 Interests of the Massachusetts Wetlands Protection Act

The following is a discussion of the relationship of the project Site to the interests of the Massachusetts Wetlands Protection Act (Act) as defined by 310 CMR 10.01(2).

2.4.1 Protection of Public and Private Water Supply and Ground Water Supply

The Site is not located within a surface water protection zone, nor within or adjacent to an aquifer. Therefore, the public and private water supply and groundwater supply protection interests of the Act will be upheld.

2.4.2 Flood Control and Storm Damage Prevention

Work is not anticipated to negatively impact the coastal floodplain, given both the nature of work and character of the floodplain. Therefore, the flood control and storm damage prevention interests of the Act will be maintained.

2.4.3 Prevention of Pollution

The Site will be in compliance with MassDEP Stormwater Management Standards. Construction period BMPs, including sedimentation control barriers, will be utilized as necessary to manage stormwater runoff during the repaying or patching of the parking lot, installation of the fencing, and installation of the traffic lights. Therefore, the pollution interests of the Act will be upheld.

2.4.4 Protection of Fisheries, Shellfisheries and Wildlife Habitat

The Site does not contain NHESP designated areas such as estimated or priority habitats or vernal pools. Potential fisheries within Chelsea Creek are not anticipated to be impacted by this work, as it lies over $1,900\pm$ feet away from the creek. Therefore, the fisheries, shellfisheries, and wildlife habitat interests of the Act will be protected.



Section 3.0 Abutter Information

Certified List of Abutters

Affidavit of Service

Notification to Abutters



Bran M. Arpad

Mayor

The City of REVERE, MASSACHUSETTS

Pail

BOARD OF ASSESSORS

Andrew A Lovanina Liobh J. Verrengia Liana E Brangitarte

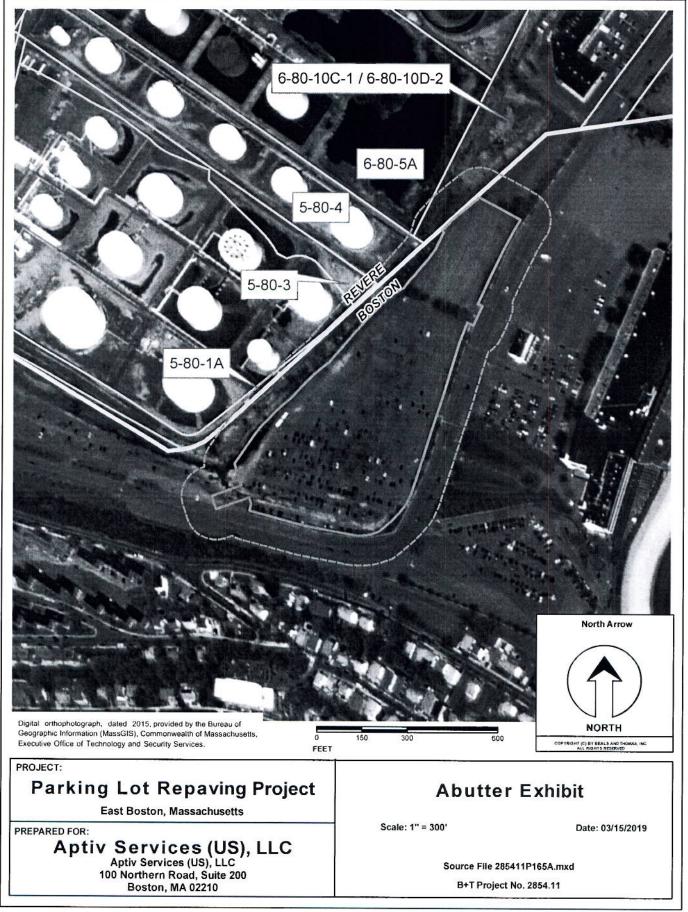
Request for Abutters List

Date: 03/15/2019			
Property Location: Boston - Portion of Suffolk Downs (See attached Exhibit)			
Map: Block: Parcel:			
Property Owner: HYM			
Is request for special permit or variance? YES NO NO			
If yes than 300Ft is required distance. If no, than please indicate requested distance below.			
Requested Distance:			
100 FT			
Fee: \$80.00			
Please make checks payable to City of Revere			
Requester Information:			
Name: Thaddeus Soule, Beals and Thomas, Inc.			
Address: 144 Turnpike Road, Southborough, MA 01772			

Telephone: 508-366-0560

281 Bioleana • Robert MA 02151 • 781 286 8170 • Feb 78 + 286 8388

1666, 1664, 1670, 1707, 15706, 15707.



Loc:	BELLE ISLE INLET	Parcel ID #: 5-80-1A

LUC: 420

IRVING OIL TERMINALS INC C/O IRVING OIL LTD P O BOX 868

CALAIS ME 04619

Loc: WESTERLY SIDE OF Parcel ID #: 5-80-3

LUC: 420

IRVING OIL TERMINALS INC C/O IRVING OIL LTD P O BOX 868

CALAIS ME 04619

Loc: 49 LEE BURBANK HWY Parcel ID #: 5-80-4

LUC: 420

GLOBAL COMPANIES LLC ATTN: TERMINAL OPERATIONS 800 SOUTH ST SUITE 500 WALTHAM MA 02454

Loc: 36-40 FURLONG DR 1 Parcel ID #: 6-80-10C-1

LUC: 344

TARGET CORPORATION T-1942 C/O PROPERTY TAX TPN-0950 P O BOX 9456

MINNEAPOLIS MN 55440-9456

Loc: 36-40 FURLONG DR 2 Parcel ID #: 6-80-10D-2

LUC: 344

CEDAR-REVERE LLC

44 SOUTH BAYLES AVE SUITE 304 PORT WASHINGTON NY 11050-3767 Loc: 51 LEE BURBANK HWY Parcel ID #: 6-80-5A

LUC: 420

GLOBAL COMPANIES LLC ATTN; TERMINAL OPERATIONS 800 SOUTH ST SUITE 500 WALTHAM MA 02454



AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

I, Thaddeus J. Soulé, hereby certify under the pains and penalties of perjury that on March 20, 2019, I gave notification 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 filed under the Massachusetts Wetlands Protection Act by Aptiv Properties Management Services (US), LLC with the Boston Conservation Commission on March 20, 2019 for property located at William F. McClellan Highway.

The form of the notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Thaddus Jords Mond 20, 2019 Date



Notification to Abutters Under the Massachusetts Wetlands Protection Act

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following.

- A. The name of the applicant is <u>Aptiv Properties Management Services (US), LLC</u>
- B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of <u>Boston</u> seeking permission to remove, fill, dredge, or alter an Area Subject to Protection Under the Wetlands Protection Act (General Laws Chapter 131, Section 40).
- C. The address of the lot where the activity is proposed is <u>William F. McClellan</u> Highway (Suffolk Downs) Boston Parcel ID 0102524000
- D. Copies of the Notice of Intent may be examined at <u>Boston Conservation Commission</u> between the hours of <u>8:30am</u> and <u>5:30pm</u> on the following days of the week: <u>Monday-Friday</u>. For more information call: (617) 635-3850.
 Check one: This is the applicant □, representative □, or other (specify): <u>Boston Conservation Commission</u>
- E. Copies of the Notice of Intent may be obtained from either (check one) the applicant \Box , or the applicant's representative \boxtimes , by calling this telephone number (508) 366-0560 between the hours of 8:00 and 5:00 on the following days of the week: Monday - Friday
- F. Information regarding the date, time, and place of the public hearing may be obtained from Boston City Hall, Conservation Commission by calling this telephone number <u>(617) 635-3850</u> between the hours of <u>8:30am</u> and <u>5:30pm</u> on the following days of the week: Monday-Friday. Check one: This is the applicant ___, representative ____, or other (specify): Boston Conservation Commission.

Note: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the <u>The Herald</u>

Note: Notice of the public hearing, including its date, time, and place, will be posted in the City or Town Hall not less than forty-eight (48) hours in advance.

Note: You may also contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call:

Northeast Region: 978-694-3200

JPG/285411NI001



Section 4.0 Stormwater Management Information

Checklist for Stormwater Report

The following is submitted under separate cover:

Stormwater Management Memorandum

Hydrologic Calculations

Draft Stormwater Pollution Prevention Plan





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 8²
- 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

B. Stormwater Checklist and Certification

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.



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.

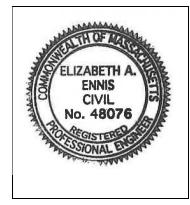
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the 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 Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Longterm 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



Elizabeth Ennis

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 (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:

\boxtimes	No disturbance to any Wetland Resource Areas
	Site Design Practices (e.g. clustered development, reduced frontage setbacks)
	Reduced Impervious Area (Redevelopment Only)
\boxtimes	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):

Standard 1: No New Untreated Discharges

\boxtimes	No new	untreated	discharges
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- 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 (continued)



Standard 2: Peak Rate Attenuation

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 predevelopment 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 24hour storm.

Standard 3: Recharge

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 <i>not</i> 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 <i>only</i> to the maximum extent practicable for the following reason:							
extent practicable for the following reason:							
extent practicable for the following reason: Site is comprised solely of C and D soils and/or bedrock at the land surface							
Site is comprised solely of C and D soils and/or bedrock at the land surface							
 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 							
 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 							

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 10year 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

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 Ir	nterim	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 (continued)



Standard 4: Water Quality (continued)						
The BMP is sized (and calculations provided) based on:						
The $\frac{1}{2}$ " or 1" Water Quality Volume or						
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 showin that the BMPs selected are consistent with the TMDL is provided.						
Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)						
 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 <i>pric</i> <i>to</i> the discharge of stormwater to the post-construction stormwater BMPs. 						
The NPDES Multi-Sector General Permit does <i>not</i> 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

- 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 Report.

Checklist (continued)



Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maxim	ium
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.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

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

- 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.

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.

Section 5.0 Plans

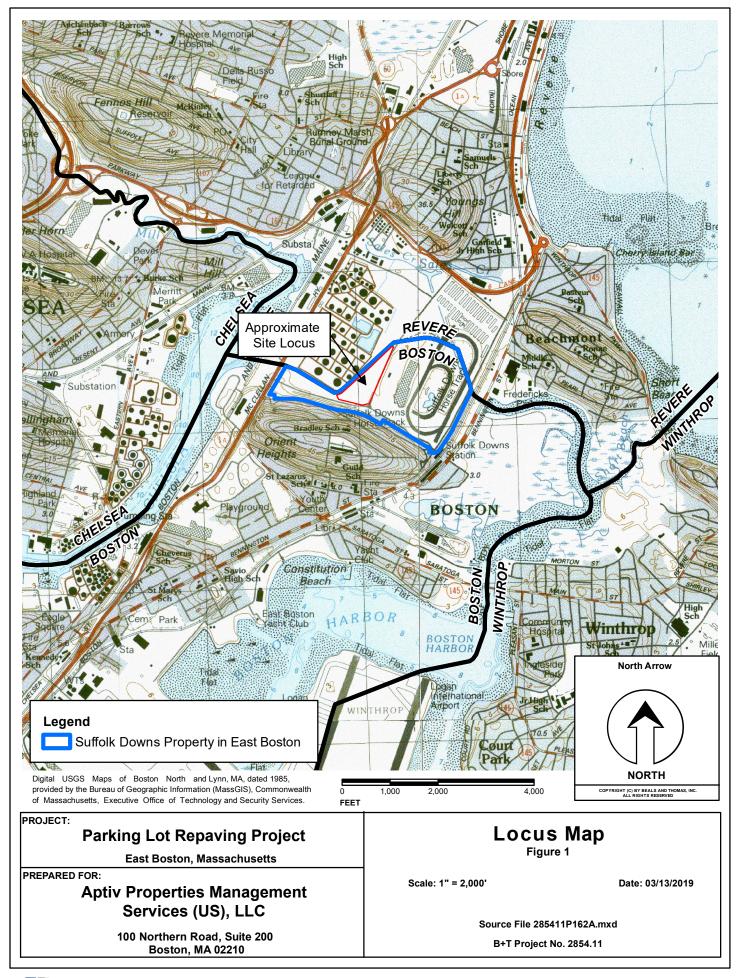
Locus Map

Aerial Map

FEMA Flood Map

Parking Lot Repaving Project in East Boston, Massachusetts Prepared by Beals and Thomas, Inc. In 5 Sheets Dated March 20, 2019







NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Sillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs are intended for flood insurance rating purposes only and should not be used as the solver of flood devation information. Accordingly, flood devation data presented in the FIS Report should be utilized in conjunction with the FIDM for company of the flood in the flood devation information. Accordingly, flood devation data presented in the FIS Report should be utilized in conjunction with the FIDM for company of coercities period flood induction areaments. the FIRM for purposes of construction and/or floodplain managemen

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vartical Datum of 1988 (NAVD 88). Lisers of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between crocs cections. The floodways were based on hydraulic conciderations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report ... or this jurisdiction

The AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LIMWA (or between the shoreline and the LIMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control** structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Massachusetts State Plan Maniand Zone (HPS zone 2001). The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in may features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <u>http://www.ngs.ncea.gov</u> or contact the National Geodetic Survey at the following address:

NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for **bench mark** shown on this map, please contact the Information Services Branch of the Nations Geodetic Survey at (**301) 713- 3242**, or visit its website at <u>http://www.ngs.noaa.gov</u>.

Base map information shown on this FIRM is derived from Massachusetts Geographic Information System (MassGIS) digital ortho-photography produced at 45 centimeter (2005) and 30 centimeter (2008) resolution. Aerial photography is dated Spring 2005 and Spring 2008.

The profile baselines depicted on this map represent the hydraulic modeling baseline: that match the flood profiles in the FIS report. As a result of improved topographic data the profile baseline, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date stream channel configurations and floodplain delineations than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profles and Floodway Data Tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located. is located

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at <u>http://msc/ema.gov</u>. Available products may include previously issued Laters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information exchange (FMN) at 1-877-FEMA-MAP (1-677-336-2627) or visit the FEMA website at <u>http://www.fema.gov/business/nfip</u>



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FLOODING EFFECTS FROM BOSTON INNER HARBOR

Only coastal structures that are certified to provide protection from the 1-percent annual chance flood are shown on this panel. However, all structures taken into consideration for the purpose of coastal flood hazard analysis and mapping are present in the DFIRM database in $\mathbb{S}_{_}$ Gen_Struct.

³34^{000m}E

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	se Flood Elevations determined.
	Flood Elevations determined.
ZONE AH Flood determ	depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations nined.
ZONE AO Flood depths	depths of 1 to 3 feet (usually sheet flow on sloping terrain); average s determined. For areas of alluvial fan flooding, velocities also determined.
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encroachment so that the flood heights.	el of a stream plus any adjacent floodplain areas that must be kept free of 1% annual chance flood can be carried without substantial increases in FLOOD AREAS
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mile; and OTHER	areas protected by levees from 1% annual chance flood. AREAS
	ermined to be outside the 0.2% annual chance floodplain. which flood hazards are undetermined, but possible.
COASTA	AL BARRIER RESOURCES SYSTEM (CBRS) AREAS
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	1% Annual Chance Floodplain Boundary 0.2% Annual Chance Floodplain Boundary
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	CBRS and OPA boundary
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(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*
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23 23	Transect line
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⁴⁹ 89 ^{000m} N	(FIPS Zone 2001), Lambert Conformal Conic projection 1000-meter Universal Transverse Mercator tick values, zone 19N
DX5510 🗙	Bench mark (see explanation in Notes to Users section of this FIRM panel)
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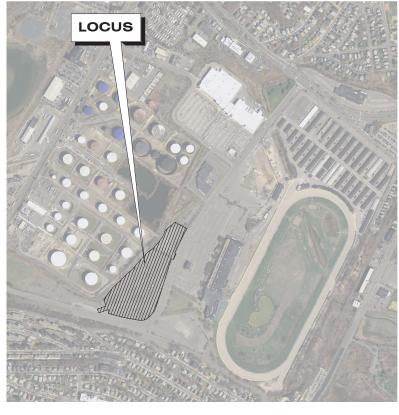
PARKING LOT REPAVING PROJECT IN EAST BOSTON, MASSACHUSETTS (Suffolk County)

APPLICANT

Aptiv Properties Management Services (US), LLC. 100 Northern Avenue, Suite 200 Boston, Massachusetts

CIVIL ENGINEER/SURVEYOR

Beals and Thomas, Inc. Reservoir Corporate Center 144 Turnpike Road Southborough, Massachusetts 01772





Issued for Permitting - March 20, 2019

NOTE: THIS PLAN IS A REDUCED VERSION OF THE ORIGINAL PLAN AND IS NOT TO SCALE.



SHEET INDEX

C1.1

C2.1

C2.2

C3.1

Cover Sheet Notes, References and Legend Layout and Materials Plan Layout and Materials Plan Site Details



Job No.: 2854.11 Plan No.: 285402P160A-001 Sheet 1 of 5

LEGEND AND ABBREVIATIONS EXISTING PROPOSED SEWER LINE/MANHOLE DRAIN LINE 008 008 CATCH BASIN FE/INV FLARED END/INVERT 66 GAS LINE/GATE _____WC_____WC WATER LINE/GATE -0^{HYD} HYDRANT TELEPHONE LINE/MANHOLE EMH ELECTRIC LINE/MANHOLE OVERHEAD WIRE LIGHT POLE UTILITY POLE GUY WIRE SIGN POST BOLLARD POST HAND HOLE CHAIN LINK FENCE GRANITE CURB BCB BITUMINOUS CONCRETE BERM TREE PROPOSED SHIPPING CONTAINER SEDIMENT CONTROL BARRIER MINOR CONTOUR --124---MAJOR CONTOUR 130x125.4 SPOT ELEVATION AREA DRAIN BITUMINOUS CONCRETE BIT CONC BITUMINOUS CONCRETE BERM BCB ВM BENCHMARK CABLE TELEVISION CEMENT LINED DUCTILE IRON CLD CONCRETE cow FOR EDGE OF PAVEMENT GAS METER HEAD WALL HW POLYVINYL CHLORIDE PVC RECORD INFORMATION (REC.) OR (R) REINFORCED CONCRETE PIPE RCP ROW RIGHT-OF-WAY BOSTON CITY BASE 500 всв SLOPED GRANITE CURB ELECTRIC TRANSFORMER TRANSF WATER QUALITY INLET STONE BOUND CE CONCRETE BOUND ⊛ DH DRILL HOLE oIP IRON PIN/IRON PIPE IRON ROD FND FOUND VES-BD-1 MONITORING WELLS (*) VES-R-4 CONSTRUCTION ENTRANCE LIMIT OF WORK 0

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FILTER BAG

TRAFFIC LIGHT

NOTES

UNDERGROUND UTILITIES ARE TAKEN IN PART FROM ELECTRONIC FILE 9180.1_TOPO1.dwg, RECORD PLANS OF MUNICIPAL AND PUBLIC UTILITY PROVIDERS AND SURFACE EVIDENCE, ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-344-7233 TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE.

ALL ELEVATIONS REFER TO BOSTON CITY BASE.

LIMIT OF WORK SHALL BE SEDIMENT CONTROL BARRIERS AND/OR AS INDICATED ON DRAWINGS.

THIS PLAN IS BASED IN PART FROM AN ELECTRONIC FILE ENTITLED 9180.1_TOP01.DWG AND DATED FEBRUARY 3, 2014 AND PREPARED BY NITSCH ENGINEERING, INC. AS WELL AS AN ON THE GROUND SURVEY PERFORMED BY BEALS AND THOMAS, INC. USING TOTAL STATION METHODS ON OR BETWEEN INVILLAVE 18, 2017, AND DECOMPORE 00, 2017 JANUARY 18 2017 AND DECEMBER 20 2017

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THIS PLAN WAS BASED IN PART FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS ON OR BETWEEN 03/01/2017 AND 12/13/2017.

THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL ALSO PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AS REQUIRED.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND

PORTIONS OF THE ROADWAY, SIDEWALK AND ROADSIDE AREA DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.

CONTRACTOR TO VERIFY UTILITY LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK. ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND COORDINATED WITH CONSERVATION COMMISSION.

ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.

EXCAVATION AND TRENCH SAFETY REGULATIONS ARE IN EFFECT AS OF MARCH 1, 2015. (REFER TO 520 CMR 14.00) ALL EXCAVATORS OR CONTRACTORS MUST OBTAIN A TRENCH PERMIT PRIOR TO ANY CONSTRUCTION RELATED TRENCHES ON SITE.

ALL EXISTING TREES, SHRUBS AND LANDSCAPING SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN ALL SEDIMENT AND EROSION CONTROL MEASURES DURING ENTIRE CONSTRUCTION PERIOD.

ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.

ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF SITE. SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.

ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO INSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE SEDIMENT AND EROSION CONTROL BARRIERS ARE INTACT.

CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.

DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.

SILT SACKS SHALL BE PLACED IN EXISTING DRAIN INLETS PRIOR TO CONSTRUCTION ACTIVITIES AND AROUND ALL PROPOSED DRAIN INLETS PRIOR TO CONSTRUCTION TO CONTROL SILTATION.

ADDITIONAL STRAW BALES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE

CLEAN AND MAINTAIN SEDIMENT AND EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY

EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE WETLAND SYSTEM.

PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.

CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER AND THE ENGINEER FOR RESOLUTION.

PROTECT EXISTING PROPERTY MONUMENTS AND ABUTTING PROPERTIES DURING CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE PLAN DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF SITE WORK WHICH MAY BE AFFECTED SO THAT PROPER ADJUSTMENTS TO THE SITE LAYOUT CAN BE MADE IF NECESSARY.

ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED WORK SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED WORK. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.

ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES, GRADES AND OTHER SPECIFIC REQUIREMENTS OR SPECIFICATIONS OF THE CITY OF BOSTON AND CITY OF BOSTON DPW.

AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW PAVEMENT, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS. PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN.

THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. 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 TO THE OWNER AND ENGINEER FOR RESOLUTION.

ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND SANITARY SEWER MANHOLES ARE APPROXIMATE.

CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION.

CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.

PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8' PER FOOT UNLESS SPECIFIED. ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.

THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUB-GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE THE CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUB-GRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.

A SEDIMENT CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF THE PROPOSED WORK AS SHOWN ON THE PLAN PRIOR TO COMMENCEMENT OF DEMOLITION AND CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS AFTER APPROVAL OF THE CONSERVATION COMMENCEMENT. COMMISSION

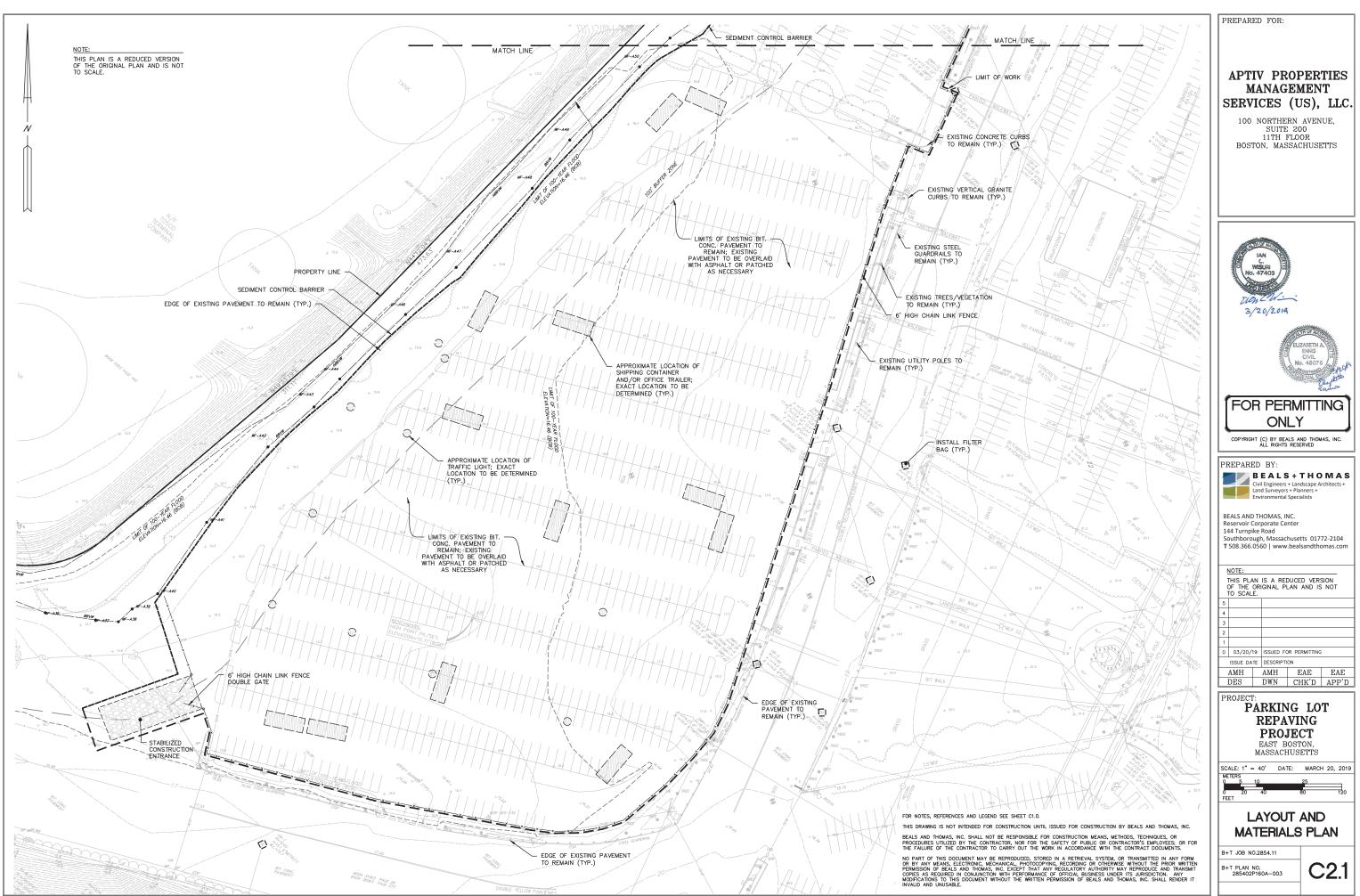
REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.

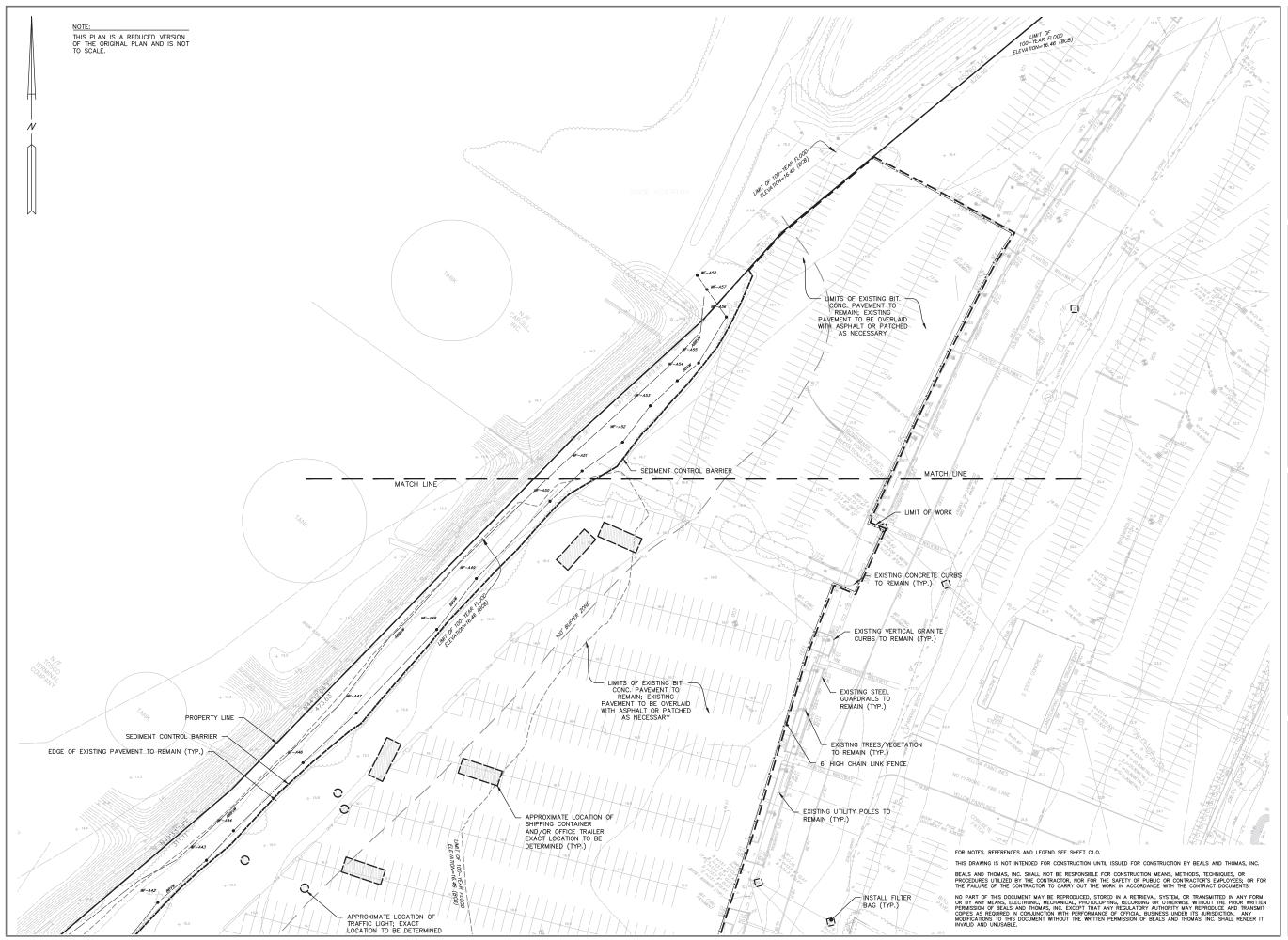
THE PROPOSED SHIPPING CONTAINERS ARE APPROXIMATE; THE EXACT LOCATION WILL BE DETERMINED IN FIELD. THE MAXIMUM NUMBER OF SHIPPING CONTAINERS ON SITE AT ANY GIVEN TIME SHALL NOT EXCEED TWELVE (12), ONE OF WHICH WILL BE UTILIZED AS A OFFICE TRAILER WITH PORTABLE SANITARY FACILITIES.

THE PROPOSED WORK INCLUDES THE INSTALLATION OF UP TO TEN (10) FREE STANDING TRAFFIC LIGHTS. THE TRAFFIC LIGHTS WILL BE MOUNTED ON POLES WHICH WILL BE ATTACHED TO CONCRETE BASES. THE TRAFFIC LIGHTS SHALL BE POWERED BY OVER HEAD WIRING OR SOLAR POWER. THE EXACT LOCATIONS AND QUANTITY OF TRAFFIC LIGHTS WILL BE DETERMINED IN THE FIELD BUT IN ALL INSTANCES WILL BE SITED WITHIN EXISTING PAVED AREAS.

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.0.



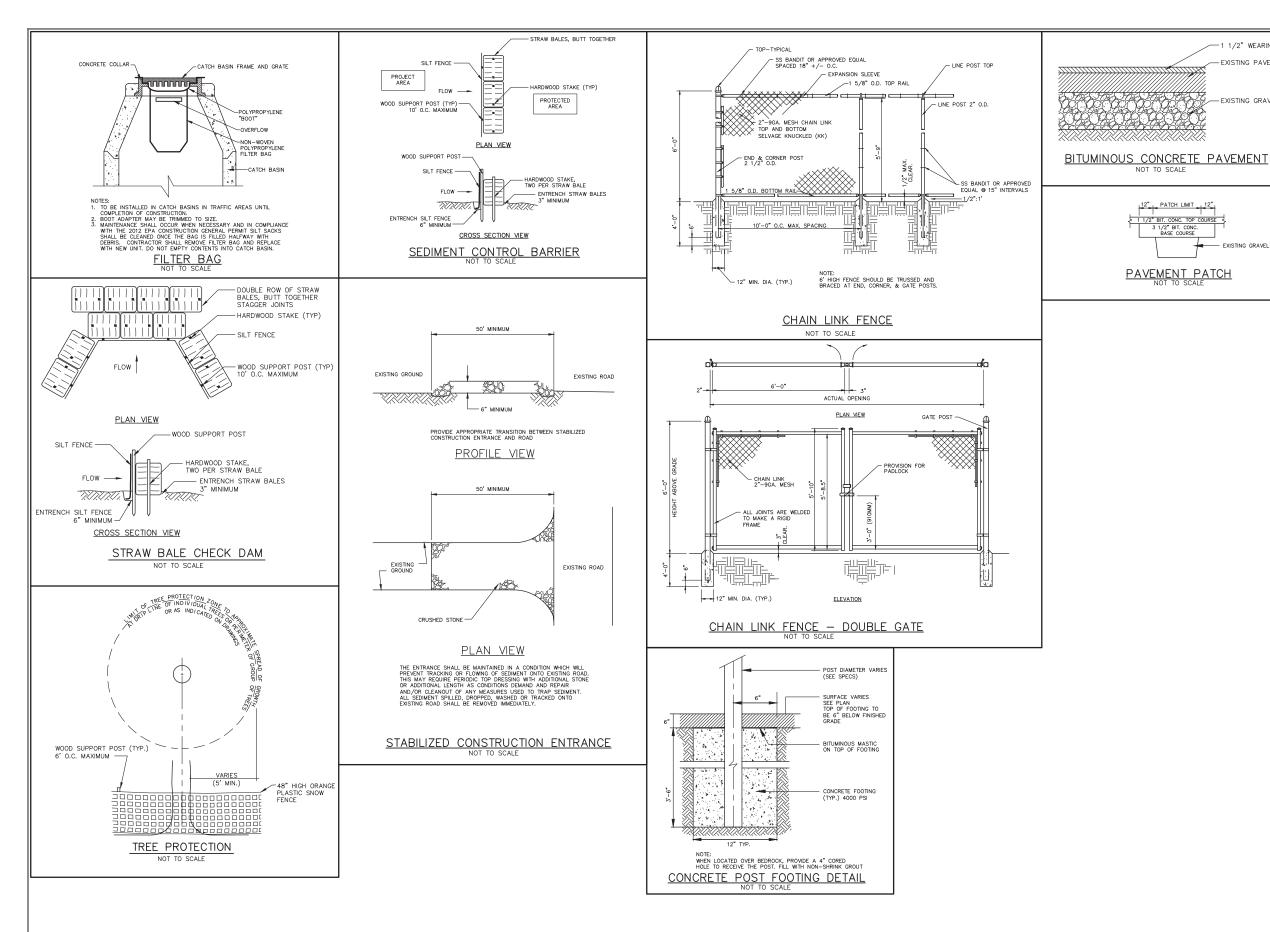


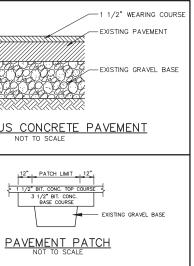


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PREPARED FOR:

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.0. BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.





	Civil Engineer	S + T H C s + Landscape A rs + Planners + Il Specialists	
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PREPARED FOR:

APTIV PROPERTIES

MANAGEMENT

SERVICES (US), LLC.

100 NORTHERN AVENUE,

SUITE 200 BOSTON, MASSACHUSETTS

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PREPARED BY

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PARKING LOT REPAVING PROJECT IN EAST BOSTON, MASSACHUSETTS (Suffolk County)

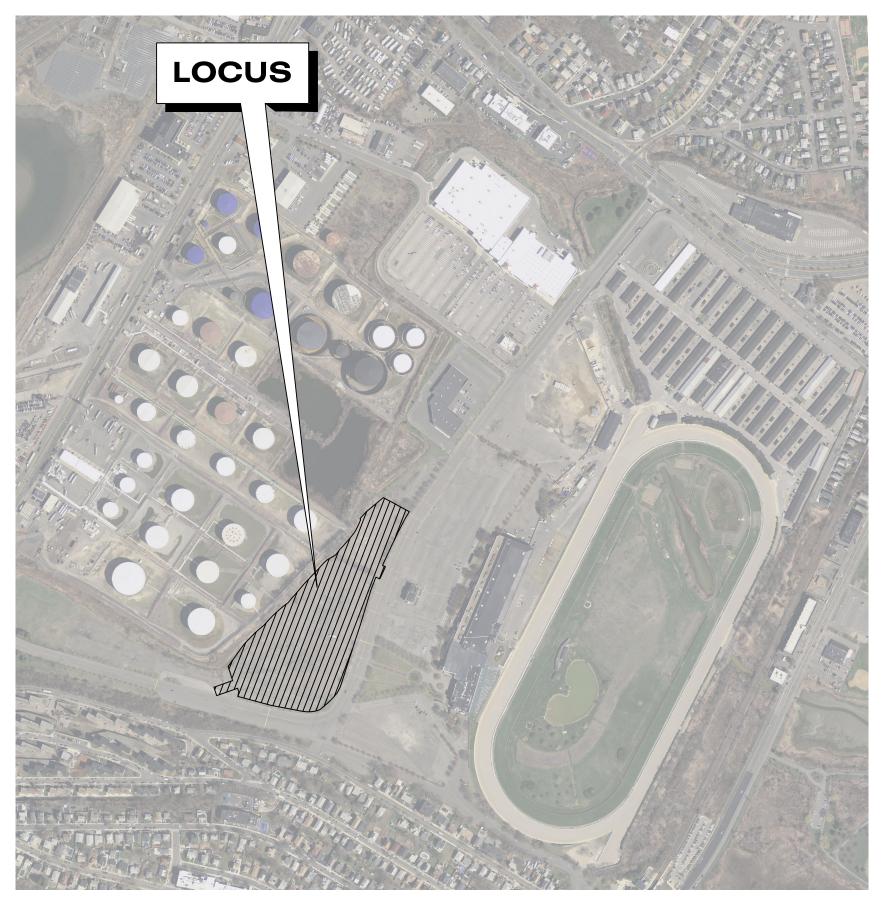
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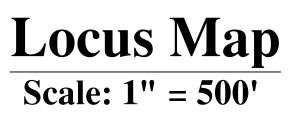
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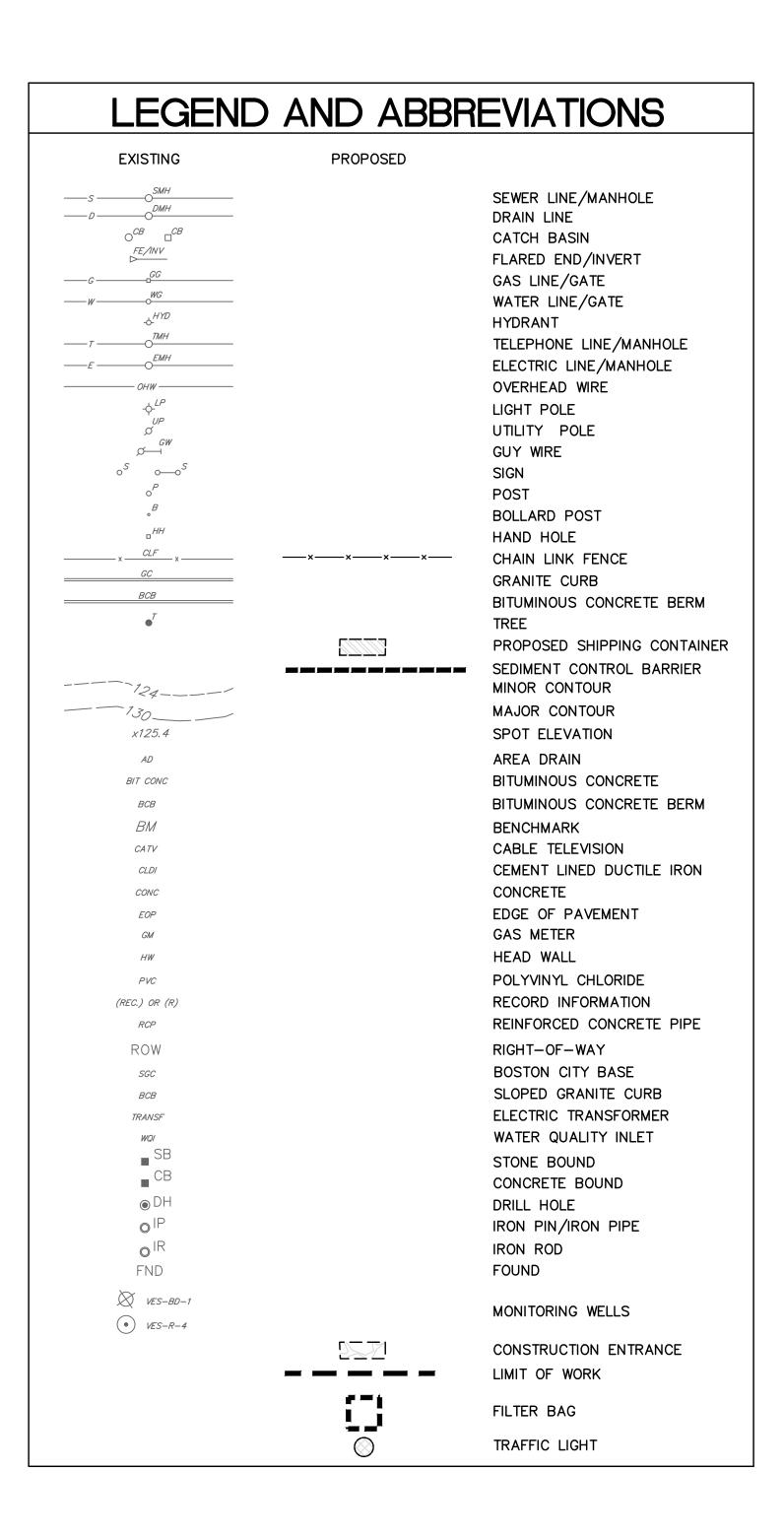
SHEET INDEX

Cover Sheet

- **C1.1** Notes, References and Legend
- Layout and Materials Plan **C2.1**
- **C2.2** Layout and Materials Plan
- **C3.1** Site Details



Job No.: 2854.11 Plan No.: 285402P160A-001 Sheet 1 of 5



NOTES

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A PORTION OF THE PREMISES AND THE LIMIT OF WORK IS LOCATED IN ZONE AE (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD; BASE FLOOD ELEVATIONS DETERMINED), AS SHOWN ON "FLOOD INSURANCE RATE MAP, SUFFOLK COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANELS 19 AND 38 OF 176", MAP NUMBERS 25025C0038J AND 25025C0019J, EFFECTIVE DATE MARCH 16, 2016.

THE CITY LINE BETWEEN BOSTON AND REVERE IS THE FORMER CENTERLINE OF BELLE ISLE INLET. THE DIVISION LINE SHOWN IS TAKEN FROM PLAN ENTITLED "CITY OF BOSTON BOUNDARY LINE BETWEEN BOSTON AND REVERE" DATED JANUARY 6, 1936 AND IS ON FILE WITH THE CITY OF BOSTON ENGINEERING DEPARTMENT AS PLAN L-7388.

THIS PLAN WAS BASED IN PART FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS ON OR BETWEEN 03/01/2017 AND 12/13/2017.

THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL ALSO PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AS REQUIRED.

METHODS.

PORTIONS OF THE ROADWAY, SIDEWALK AND ROADSIDE AREA DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.

ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND COORDINATED WITH CONSERVATION COMMISSION.

ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER. EXCAVATION AND TRENCH SAFETY REGULATIONS ARE IN EFFECT AS OF MARCH 1, 2015. (REFER TO 520 CMR 14.00) ALL EXCAVATORS OR CONTRACTORS MUST OBTAIN A TRENCH PERMIT PRIOR TO ANY CONSTRUCTION RELATED TRENCHES ON SITE. ALL EXISTING TREES, SHRUBS AND LANDSCAPING SHALL BE PROTECTED DURING CONSTRUCTION.

CONTRACTOR SHALL MAINTAIN ALL SEDIMENT AND EROSION CONTROL MEASURES DURING ENTIRE CONSTRUCTION PERIOD. ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEPT AT THE END OF EACH WORKING

DAY.

ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF SITE. SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.

ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

FLOWING OF SEDIMENT ONTO PUBLIC ROADS.

DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. SILT SACKS SHALL BE PLACED IN EXISTING DRAIN INLETS PRIOR TO CONSTRUCTION ACTIVITIES AND AROUND ALL PROPOSED DRAIN INLETS PRIOR TO CONSTRUCTION TO CONTROL SILTATION.

ADDITIONAL STRAW BALES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.

CLEAN AND MAINTAIN SEDIMENT AND EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE WETLAND SYSTEM.

PROTECT EXISTING PROPERTY MONUMENTS AND ABUTTING PROPERTIES DURING CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE PLAN DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF SITE WORK WHICH MAY BE AFFECTED SO THAT PROPER ADJUSTMENTS TO THE SITE LAYOUT CAN BE MADE IF NECESSARY.

ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED WORK SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED WORK. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.

ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES, GRADES AND OTHER SPECIFIC REQUIREMENTS OR SPECIFICATIONS OF THE CITY OF BOSTON AND CITY OF BOSTON DPW.

LIMIT OF WORK SHALL BE SEDIMENT CONTROL BARRIERS AND/OR AS INDICATED ON DRAWINGS.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND

CONTRACTOR TO VERIFY UTILITY LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.

ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO INSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE SEDIMENT AND EROSION CONTROL BARRIERS ARE INTACT.

CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS

PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.

CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER AND THE ENGINEER FOR RESOLUTION.

AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW PAVEMENT, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS. PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN.

THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. 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 TO THE OWNER AND ENGINEER FOR RESOLUTION.

ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND SANITARY SEWER MANHOLES ARE APPROXIMATE.

CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION.

CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.

PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8" PER FOOT UNLESS SPECIFIED. ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.

THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUB-GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE THE CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUB-GRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.

A SEDIMENT CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF THE PROPOSED WORK AS SHOWN ON THE PLAN PRIOR TO COMMENCEMENT OF DEMOLITION AND CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS AFTER APPROVAL OF THE CONSERVATION COMMISSION.

REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.

THE PROPOSED SHIPPING CONTAINERS ARE APPROXIMATE; THE EXACT LOCATION WILL BE DETERMINED IN FIELD. THE MAXIMUM NUMBER OF SHIPPING CONTAINERS ON SITE AT ANY GIVEN TIME SHALL NOT EXCEED TWELVE (12), ONE OF WHICH WILL BE UTILIZED AS A OFFICE TRAILER WITH PORTABLE SANITARY FACILITIES.

THE PROPOSED WORK INCLUDES THE INSTALLATION OF UP TO TEN (10) FREE STANDING TRAFFIC LIGHTS. THE TRAFFIC LIGHTS WILL BE MOUNTED ON POLES WHICH WILL BE ATTACHED TO CONCRETE BASES. THE TRAFFIC LIGHTS SHALL BE POWERED BY OVER HEAD WIRING OR SOLAR POWER. THE EXACT LOCATIONS AND QUANTITY OF TRAFFIC LIGHTS WILL BE DETERMINED IN THE FIELD BUT IN ALL INSTANCES WILL BE SITED WITHIN EXISTING PAVED AREAS.

> FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.0. THIS DRAWING IS NO

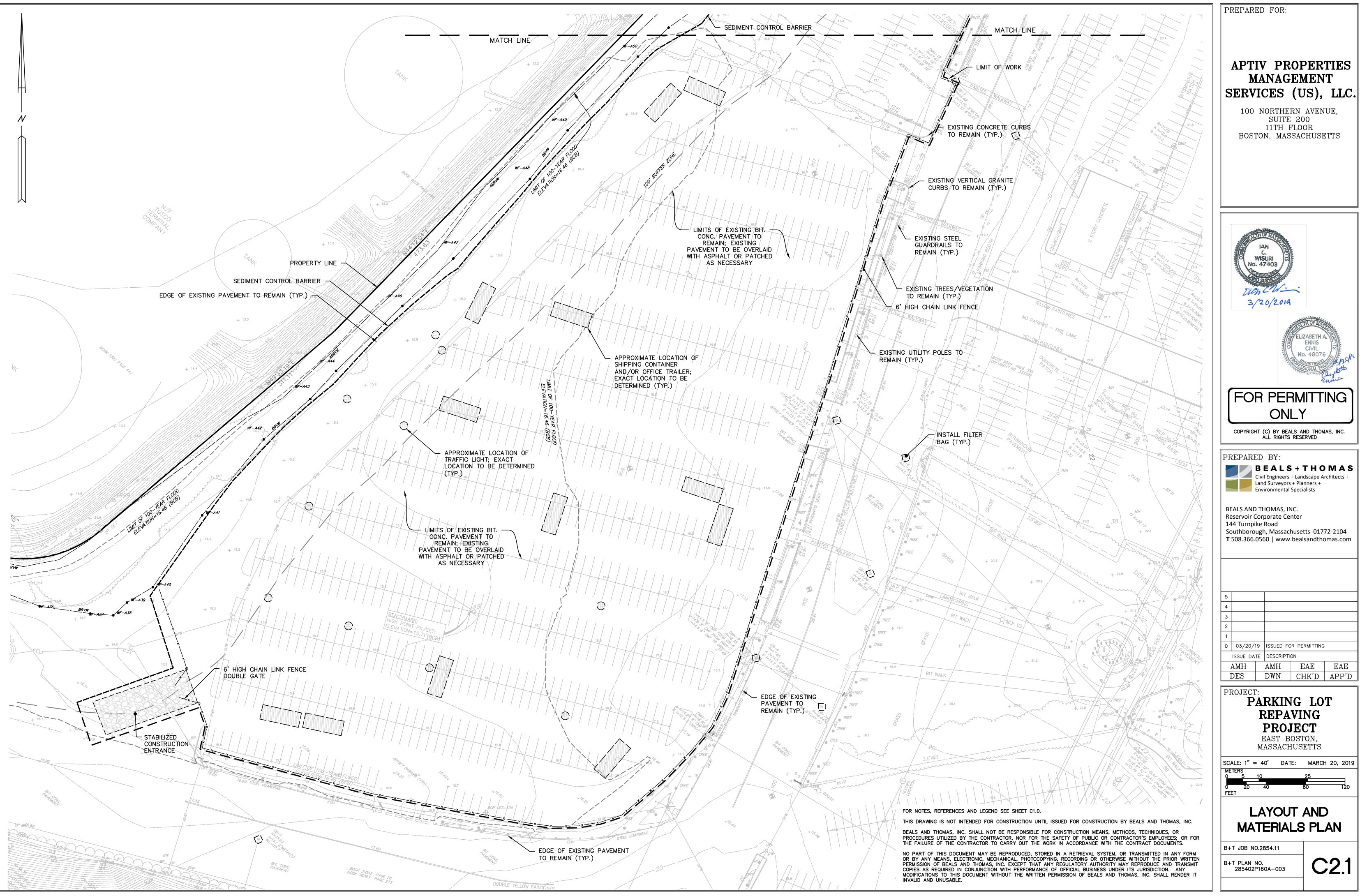
NO PART OF THIS DOCUMENT MAY BE REPRODUCED. STORED IN A RETRIEVAL SYSTEM. OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS. INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

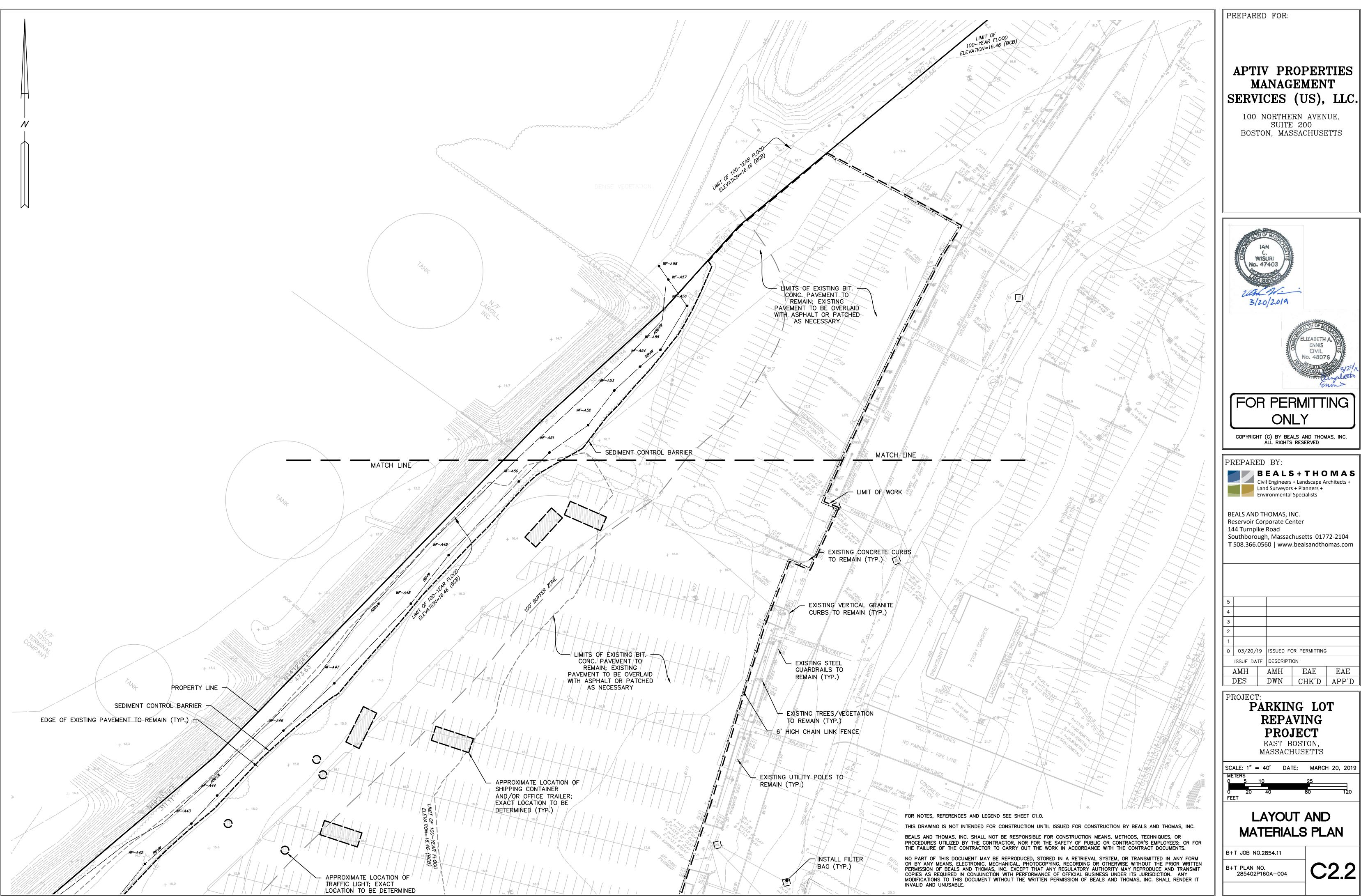
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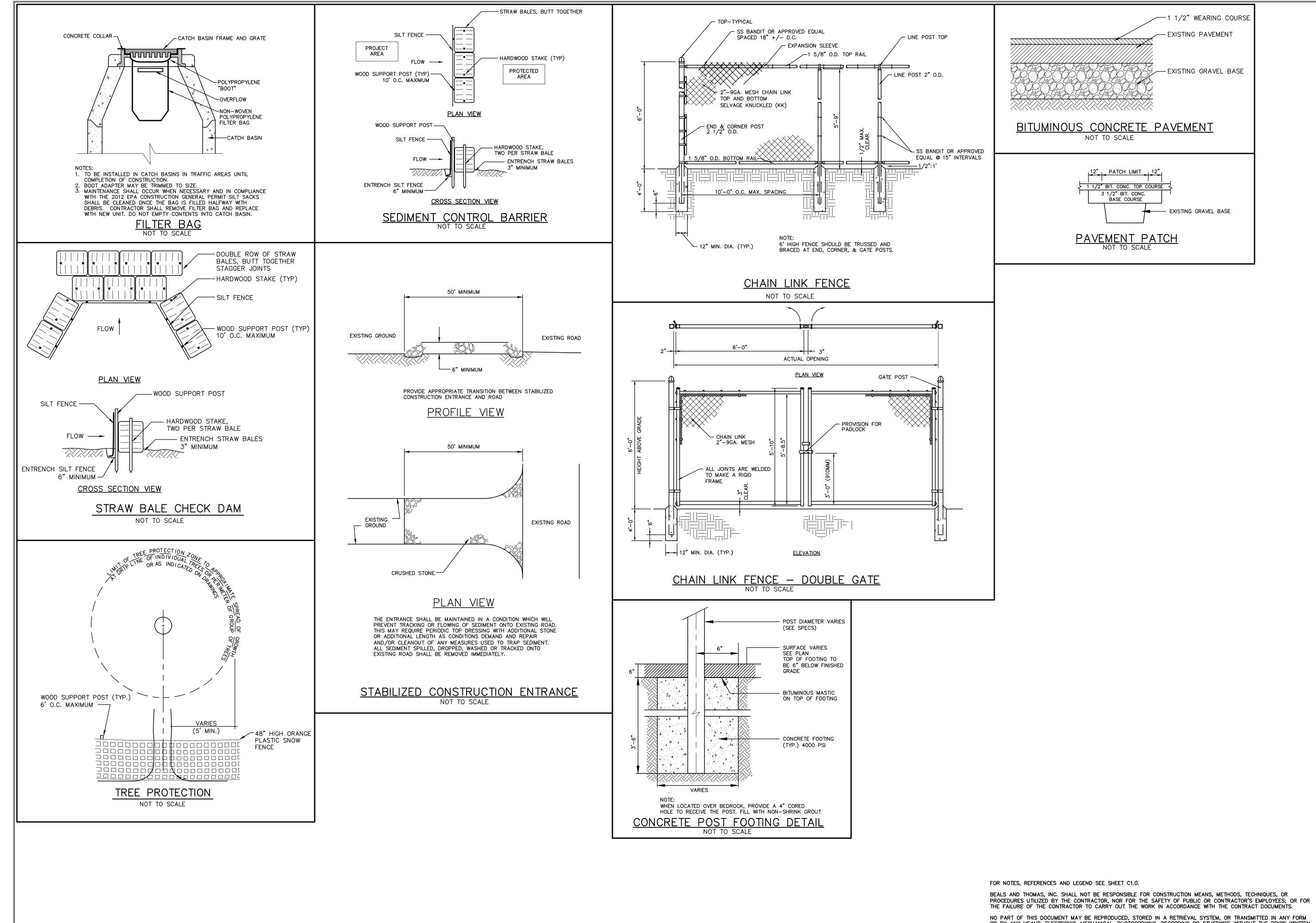
BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

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B+T PLAN NO. 285402P160A-002	C1.1

PREPARED FOR:





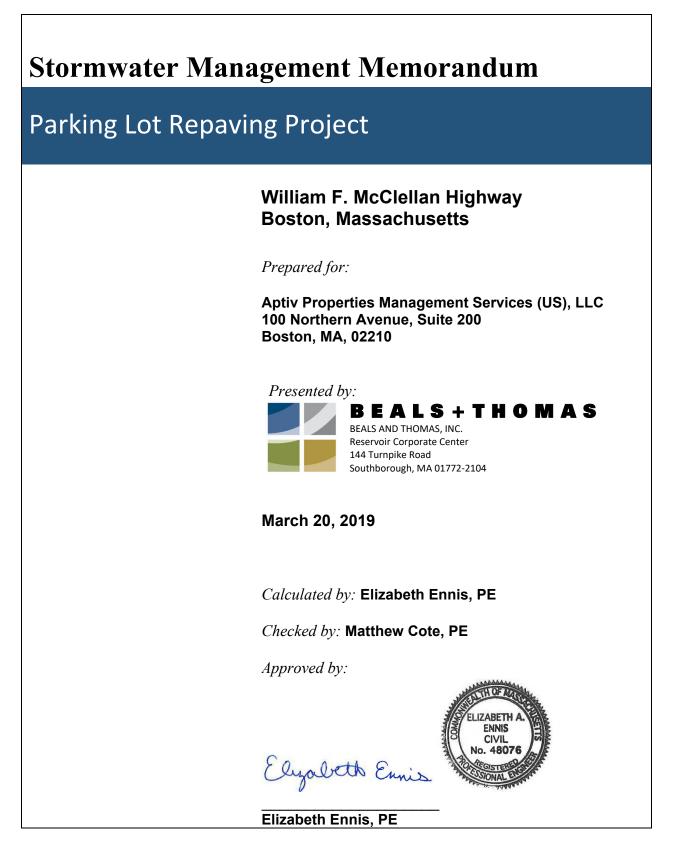


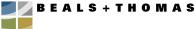
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PREPARED FOR:
APTIV PROPERTIES MANAGEMENT SERVICES (US), LLC. 100 NORTHERN AVENUE, SUITE 200 BOSTON, MASSACHUSETTS
FOR PERMITTING ONLY COPYRIGHT (C) BY BEALS AND THOMAS, INC. ALL RIGHTS RESERVED
PREPARED BY:
BEALS + THOMAS Civil Engineers + Landscape Architects + Land Surveyors + Planners + Environmental Specialists
BEALS AND THOMAS, INC. Reservoir Corporate Center 144 Turnpike Road Southborough, Massachusetts 01772-2104 T 508.366.0560 www.bealsandthomas.com
NOTE: THIS PLAN IS A REDUCED VERSION OF THE ORIGINAL PLAN AND IS NOT TO SCALE. 5 4 3
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DES DWN CHK'D APP'D PROJECT:
PARKING LOT PARKING LOT REPAVING PROJECT EAST BOSTON, MASSACHUSETTS SCALE: AS NOTED DATE: MARCH 20, 2019
SITE DETAILS
B+T JOB NO.2854.11 B+T PLAN NO. 285402P160A-005







TO:	Boston Conservation Commission
FROM:	Elizabeth Ennis, PE, Beals and Thomas, Inc.
DATE:	March 20, 2019
REFERENCE:	Notice of Intent- Stormwater Management for Parking Lot Repaving Project <u>East Boston, Massachusetts</u> B+T Project No. 2854.11

Aptiv Properties Management Services (US), LLC (the Applicant) proposes to repave portions of the existing parking lot within the Suffolk Downs property in East Boston. This memorandum is being presented to the Boston Conservation Commission (the Commission) to describe the existing conditions, proposed work, and address how the project complies with the Massachusetts Department of Environment Protection (MassDEP) Ten Stormwater Standards

Existing Conditions

The Site is located on the southwestern portion of the Suffolk Downs property and is bounded by Tomasello Drive on the south and east, and by a Bordering Vegetated Wetlands to the north and west. The Site contains existing paved parking lots and resource areas. Specifically, the Site is within Land Subject to Coastal Storm Flowage and the 100-foot buffer zone to Bordering Vegetated Wetlands. The pavement on the existing parking lots is in poor condition and is in need of repair. Historically (early 1900's), the Site contained marshlands that were subsequently filled.

Surficial stormwater within the existing parking lots drains to Chelsea Creek and an existing stormwater basin on an abutting property. The existing stormwater basin ultimately discharges to Sales Creek.

Soil Description

The Natural Resources Conservation Service (NRCS) Web Soil Survey indicates that the existing parking areas and stables consist of Urban land with wet substratum. These soils are typical of developed areas and consist of Udorthents, wet substratum. No hydrologic soil class is assigned to these soil types, but permeability is typically low. These soils are located in areas that were previously tidal marshes, river flood plains, bays, harbors, and swamps. The fill consists of rubble, refuse, and mixed soil material, typically sand, gravel, and channel dredging. The soils along the southern boundary of the Site consist of Newport Silt loam, which is typically a well draining soil type. It is listed as hydrologic soil class B.

Test pits performed on the Site in 2012 by Haley & Aldrich, Inc. generally indicated consistent fill material throughout the Site. The soils are classified as either poorly graded sand-gravel silty sand, or unclassified fill. Groundwater was found on an average of 2-feet below existing grade.

Proposed Work

The Project consists of the repaving of the existing park lots to provide a smooth pavement surface for the purposes of performing low speed vehicle testing. The Applicant is proposing to either overlay the existing pavement with asphalt or patch the parking lot as necessary. The Applicant is also proposing to install a chain-link fence, line striping, up to twelve (12) storage containers/office trailers on the Site and up to ten (10) traffic lights. It should be noted that the proposed work under this Notice of Intent (NOI) filing does not include the construction of any buildings, change in impervious area, change to the existing drainage system or patterns, or change to the existing landscaping.

It is anticipated that the stormwater management system currently in place will perform the same pre- and post-construction. No negative impacts to the stormwater system are expected since there is no change in impervious areas.

Stormwater Management Standards

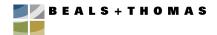
The Project is considered a redevelopment project in terms of the MassDEP Stormwater Management Standards. As such, strict adherence with the MassDEP Stormwater Management Handbook is limited to Standard 8, 9 and 10. With regard to Construction Period Pollution Prevention and Long-Term Operation Maintenance (Standards 8 and 9, respectively) a Stormwater Pollution Prevention Plan (SWPPP) as well as standard construction protection and typical sediment and erosion control measures will be implemented to mitigate the potential runoff resulting from the work. No new illicit discharges are proposed as part of this Project; therefore, it will comply with Standard 10. A MassDEP Stormwater Management Checklist and draft SWPPP are included with the NOI.

The Project is a redevelopment project and is located on Hydrologic Soil Groups C and D soils. As such the Project is required to comply with Standards 3 and 4 of the Stormwater Management Handbook to the maximum extent practicable. See the Pre-Development Hydrology Map for a delineation of the hydrologic soil groups.

STANDARD 1: No new stormwater conveyance (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

There will be no new direct discharge of untreated stormwater to nearby wetlands or waters of the Commonwealth, a result of this project. A new stormwater conveyance system is not proposed as part of this Project.

STANDARD 2: Stormwater management systems shall be designed so that postdevelopment peak discharge rates do not exceed pre-development peak discharge rates.



The following table summarizes the peak runoff rates for the pre- and post-development conditions at the main design points.

	2 Y	ear	10 \	Year	100	Year
	Pre	Post	Pre	Post	Pre	Post
Design Point 1: Chelsea Creek (cfs)	29	29	58	58	85	85
Design Point 2: Existing	7	7	14	14	21	21
Stormwater Basin (cfs)						

Calculations to support these peak runoff rates are included with this NOI.

STANDARD 3: Loss of annual recharge to groundwater shall be eliminated or minimized through the use of environmentally sensitive site design, low impact development techniques, stormwater management practices and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil types. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

The Project is considered a redevelopment project and the Site is located on Hydrologic Soil Groups C and D soils. As such the Stormwater Management Handbook requires that the Project meet this Standard to the maximum extent practicable. Since we are not increasing the impervious area on the Site, we are maintaining the existing recharge to groundwater.

STANDARD 4: Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).

The Project is considered a redevelopment project, as such the Stormwater Management Handbook requires that the Project meet this Standard to the maximum extent practicable. The work will not increase the impervious area on the Site, cause any changes to the existing stormwater being discharged to the design points or result in any changes to the Site's grading. Therefore, we are maintaining the existing TSS removal provided at the Site. The Applicant proposes to sweep the parking lots periodically; manage the snow, salt and deicing chemicals onsite; and manage fertilizer, herbicide and pesticide usage on the Site (see the descriptions below).

Management of Fertilizers, Herbicides and Pesticides



While the majority of the Site is paved, there may be a time when some types of fertilizers, herbicides, and pesticides are needed (on the landscape islands within the parking lot). If needed, all fertilizers, herbicides, and pesticides shall be stored in accordance with local, state, and federal regulations. The application rate and use of fertilizers, herbicides, and pesticides on the site shall at no time exceed local, state, or federal specifications.

Management of Snow and Deicing Chemicals

Snow removal and use of deicing chemicals at the Site shall comply with the following requirements:

- Plowed snow shall be placed in the areas outside of wetland boundaries. The following maintenance measures shall be undertaken at all snow disposal sites:
 - Debris shall be cleared from an area prior to using it for snow disposal.
 - Debris and accumulated sediments shall be cleared from the site and properly disposed of at the end of the snow season and no later than May 15.
- In accordance with the Massachusetts General Laws, Chapter 85, Section 7A, salt and other de-icing chemicals will be stored at an indoor location.
- Sand piles shall be contained and stabilized to prevent the discharge of sand to wetlands or water bodies, and, where feasible, covered.
- Salt storage piles shall be located outside of the 100-year floodplain.
- The application of salt on the proposed parking areas shall at no time exceed state or local requirements.

Street Sweeping

- The TSS removal credit is dependent on the type of street sweeper used and the frequency that sweeping occurs. Street sweeping shall occur primarily in spring and fall.
- Once removed from paved surfaces, the sweepings shall be handled and disposed of properly, and in compliance with applicable local, state and federal guidelines and regulations.

STANDARD 5: For land uses with higher potential pollutant loads (LUHPPLs), source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.

The proposed Project is not associated with stormwater discharges from land uses with higher potential pollutant loads.

STANDARD 6: Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas. Critical areas are Outstanding Resource Waters, shellfish beds, swimming



beaches, coldwater fisheries and recharge areas for public water supplies.

There are no stormwater discharges to critical areas associated with this project.

STANDARD 7: Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable. However, if it is not practicable to meet all the Standards, new (retrofitted or expanded) stormwater management systems must be designed to improve existing conditions.

The proposed Project qualifies as a redevelopment project. It fully complies with all standards of the Stormwater Management Handbook, with the exception of Standard 3, *Recharge*, and Standard 4, *Water Quality*, which have been met to the maximum extent practicable as outlined in the summary above.

STANDARD 8: A plan to control construction-related impacts during erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

A draft Stormwater Pollution Prevention Plan (SWPPP) has been developed to comply with Section 3 of the NPDES Construction General Permit for Stormwater Discharges; therefore, the requirements of Standard 8 are fulfilled.

STANDARD 9: A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

The SWPPP will meet the requirements of the 2008 MassDEP Stormwater Management Standards. The SWPPP outlines source control and pollution prevention measures and maintenance requirements associated with the Project.

The following bullet points outline the long-term operation and maintenance associated with the proposed street sweeping, management of snow and deicing chemicals, and management of fertilizer, herbicide, and pesticides:



- Street Sweeping Street sweeping shall occur primarily in spring and fall. Once removed from paved surfaces, the sweepings shall be handled and disposed of properly, and in compliance with applicable local, state and federal guidelines and regulations.
- Snow and Deicing Chemical Management Plowed snow shall be placed in the areas outside of wetland boundaries. Debris shall be cleared from an area prior to using it for snow disposal. Debris and accumulated sediments shall be cleared from the site and properly disposed of at the end of the snow season and no later than May 15. In accordance with the Massachusetts General Laws, Chapter 85, Section 7A, salt and other de-icing chemicals will be stored at an indoor location. Sand piles shall be contained and stabilized to prevent the discharge of sand to wetlands or water bodies, and, where feasible, covered. Salt storage piles shall be located outside of the 100-year floodplain. The application of salt on the proposed parking areas shall at no time exceed state or local requirements.
- Management of Fertilizers, Herbicides, and Pesticides All fertilizers, herbicides, and pesticides shall be stored in accordance with local, state, and federal regulations. The application rate and use of fertilizers, herbicides, and pesticides on the site shall at no time exceed local, state, or federal specifications.

STANDARD 10: All illicit discharges to the stormwater management system are prohibited.

There are no proposed illicit discharges to the stormwater management system associated with the proposed project.

EAE/mc/285411MR001





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 8²
- 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

B. Stormwater Checklist and Certification

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.



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.

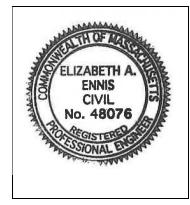
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the 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 Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Longterm 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



Elizabeth Ennis

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 (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:

\boxtimes	No disturbance to any Wetland Resource Areas
	Site Design Practices (e.g. clustered development, reduced frontage setbacks)
	Reduced Impervious Area (Redevelopment Only)
\boxtimes	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):

Standard 1: No New Untreated Discharges

\boxtimes	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 (continued)



Standard 2: Peak Rate Attenuation

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 predevelopment 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 24hour storm.

Standard 3: Recharge

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 <i>not</i> 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:
extent practicable for the following reason: Site is comprised solely of C and D soils and/or bedrock at the land surface
Site is comprised solely of C and D soils and/or bedrock at the land surface
 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
 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

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 10year 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

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 Ir	nterim	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 (continued)



Standard 4: Water Quality (continued)							
The BMP is sized (and calculations provided) based on:							
The ½" or 1" Water Quality Volume or							
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 propriet BMP and proposed TSS removal rate is provided. This documentation may be in the form of th propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handb and submitting copies of the TARP Report, STEP Report, and/or other third party studies verify performance of the proprietary BMPs.	e ook						
A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation sh that the BMPs selected are consistent with the TMDL is provided.	owing						
Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)							
 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 to the discharge of stormwater to the post-construction stormwater BMPs. 	prior						
☐ The NPDES Multi-Sector General Permit does <i>not</i> 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, melt and runoff, and been included in the long term Pollution Prevention Plan.	snow						
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

- 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 Report.

Checklist (continued)



Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maxim	านm
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.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

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

- 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.

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.



JOB NO./LOCATION:
2854.11 East Boston, Massachusetts
CLIENT/PROJECT: Aptiv Services (US), LLC Parking Lot Repaving Project
SUBJECT/TITLE: Existing Conditions Hydrology Analysis
 OBJECTIVE OF CALCULATION: To determine the pre-development peak rates of runoff from the site for the 2, 10 and 100 year storm events.
 CALCULATION METHOD(S): CN and Tc determined based on TR-55 methodology. Runoff rates computed using HydroCAD version 10.0
 ASSUMPTIONS: Surface cover types and boundaries have been estimated based upon MassGIS, USGS Color Ortho Imagery 2016, aerial photography viewed on Google Earth, and AutoCAD file 285402B004G.dwg Upgradient tributary area was based upon data obtained from the MassGIS Oliver program. Surface cover was based on aerial photography viewed on Google Earth. Wetland areas modeled as hydrologic soil class "D" soils. Urban Land, Udorthents, and Ipswich Mucky Peat Model as Hydrologic soil class "C" soils. Rainfall depth for 10-year storm event and 100-year storm event based on BWSC Climate Change Risk Assessment, Findings and Mitigation/Adaptation Strategies for Wastewater and Storm Drainage dated 01/28/2015.
 SOURCES OF DATA/EQUATIONS: Alta/NSPS Land Title Survey, Suffolk Downs, Boston/Revere, Massachusetts, prepared by Beals and Thomas, Inc., dated 05/23/17. Pre-Development Conditions Hydrology Map, dated 03/14/2019 prepared by Beals and Thomas, Inc. TR-55 Urban Hydrology for Small Watersheds, SCS, 1986. NRCS Soil Survey for Middlesex Country downloaded from Web Soil Survey 2.0 on 05/04/2017.

REV	CALC. BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
	Lenns	3/14/19	MC	- 3/14/m	LEnnes	3/15/19

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CONCLUSIONS:

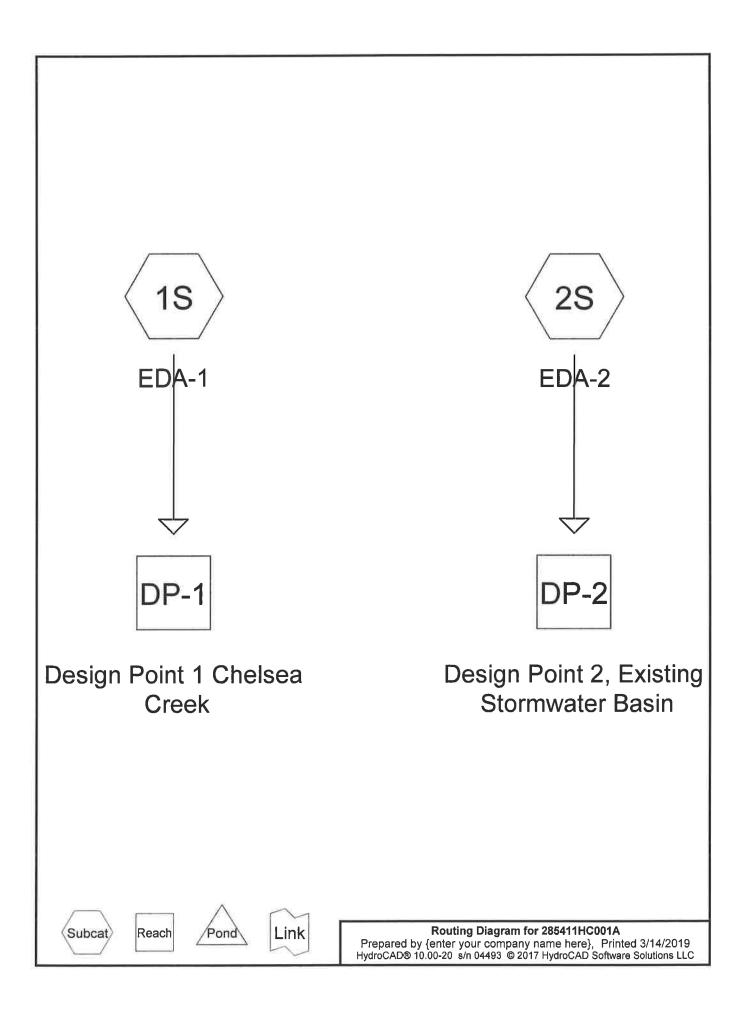
Peak Runoff Rates

The following numbers represent the peak rates of runoff from the site under existing conditions:

Storm Event	Design Point 1: Chelsea Creek (cfs)	Design Point 2: Existing Stormwater Basin (cfs)
2-year	29	7
BWSC 10-year	58	14
BWSC 100-year	85	21

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	REUMO	3/14/19	MC	3/14/19	LEnnis	3/15/14
		/ 1				

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)	
0.967	74	>75% Grass cover, Good, HSG C (1S, 2S)	
0.724	73	Brush, Good, HSG D (Wetland) (1S, 2S)	
12.150	98	Paved roads w/curbs & sewers, HSG C (1S, 2S)	
13.841	95	TOTAL AREA	

Prepared by {enter your company name here}

Summary for Subcatchment 1S: EDA-1

Runoff 29.22 cfs @ 12.13 hrs, Volume= 2.504 af, Depth= 2.64" =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs Type III 24-hr BWSC-002yr Rainfall=3.20"

Area	(ac) C	N Desc	cription					
			etland)					
	9.949 98 Paved roads w/curbs & sewers, HSG C 0.695 74 >75% Grass cover, Good, HSG C							
					, HSG C			
		•	phted Aver	-				
	410		1% Pervio					
9.	949	C.10	9% imperv	/ious Area				
Тс	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.6	43	0.0233	1.24		Sheet Flow,			
					Smooth surfaces n= 0.011 P2= 3.20"			
0.1	7	0.0312	0.97		Sheet Flow,			
					Smooth surfaces n= 0.011 P2= 3.20"			
0.1	25	0.0312	3.59		Shallow Concentrated Flow,			
1 0	106	0.0070	1 90		Paved Kv= 20.3 fps Shallow Concentrated Flow,			
1.2	126	0.0079	1.80		Paved Kv= 20.3 fps			
5.8	366	0.0027	1.05		Shallow Concentrated Flow,			
0.0	000	0.0021	1.00		Paved $Kv= 20.3$ fps			
1.6	156	0.0064	1.62		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
9.4	723	Total						

Summary for Subcatchment 2S: EDA-2

7.11 cfs @ 12.09 hrs, Volume= 0.547 af, Depth= 2.64" Runoff =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs Type III 24-hr BWSC-002yr Rainfall=3.20"

_	Area (ac)	CN	Description
*	0.009	73	Brush, Good, HSG D (Wetland)
	2.201	98	Paved roads w/curbs & sewers, HSG C
	0.272	74	>75% Grass cover, Good, HSG C
	2.482	95	Weighted Average
	0.281		11.32% Pervious Area
	2.201		88.68% Impervious Area

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Prepared by {enter your company name here}
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Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0					Direct Entry, direct enty

Summary for Reach DP-1: Design Point 1 Chelsea Creek

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	11.359 ac, 87.59% Impervious, Inflow Depth = 2.64" for BWSC-002yr even	t
Inflow	=	29.22 cfs @ 12.13 hrs, Volume= 2.504 af	
Outflow	=	29.22 cfs @ 12.13 hrs, Volume= 2.504 af, Atten= 0%, Lag= 0.0 min	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach DP-2: Design Point 2, Existing Stormwater Basin

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area	a =	2.482 ac, 88.68% Impervious, Inflow Depth = 2.64" for BWSC-002yr event
Inflow	=	7.11 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow	=	7.11 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: EDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=2.64" Flow Length=723' Tc=9.4 min CN=95 Runoff=29.22 cfs 2.504 af	
Subcatchment 2S: EDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=2.64" Tc=6.0 min CN=95 Runoff=7.11 cfs 0.547 af	
Reach DP-1: Design Point 1 Chelsea Cro	eek Inflow=29.22 cfs 2.504 af Outflow=29.22 cfs 2.504 af	
Reach DP-2: Design Point 2, Existing Stormwater BasinInflow=7.11 cfsOutflow=7.11 cfs0		

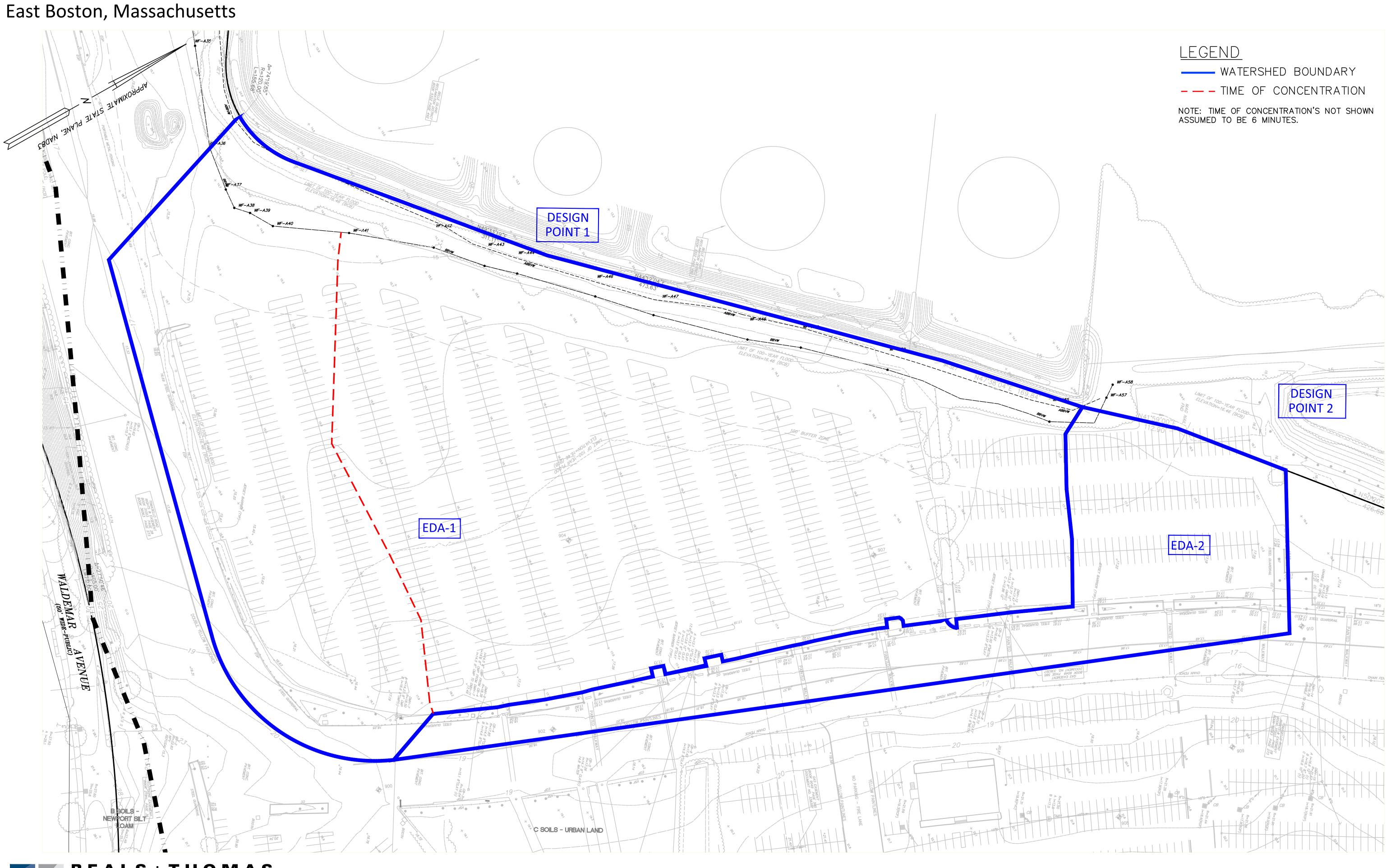
Total Runoff Area = 13.841 ac Runoff Volume = 3.051 af Average Runoff Depth = 2.64" 12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Subcatchment 1S: EDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=5.41" Flow Length=723' Tc=9.4 min CN=95 Runoff=57.46 cfs 5.122 af
Subcatchment 2S: EDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=5.41" Tc=6.0 min CN=95 Runoff=13.97 cfs 1.119 af
Reach DP-1: Design Point 1 Chelsea Cr	eek Inflow=57.46 cfs 5.122 af Outflow=57.46 cfs 5.122 af
Reach DP-2: Design Point 2, Existing St	tormwater Basin Inflow=13.97 cfs 1.119 af Outflow=13.97 cfs 1.119 af
Total Runoff Area = 13.84	11 ac Runoff Volume = 6.242 af Average Runoff Depth = 5.41"

12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Subcatchment 1S: EDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=8.18" Flow Length=723' Tc=9.4 min CN=95 Runoff=85.13 cfs 7.742 af
Subcatchment 2S: EDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=8.18" Tc=6.0 min CN=95 Runoff=20.69 cfs 1.692 af
Reach DP-1: Design Point 1 Chelsea Cr	eek Inflow=85.13 cfs 7.742 af Outflow=85.13 cfs 7.742 af
Reach DP-2: Design Point 2, Existing St	cormwater BasinInflow=20.69 cfs1.692 afOutflow=20.69 cfs1.692 af
Total Runoff Area = 13.84	1 ac Runoff Volume = 9.433 af Average Runoff Depth = 8.18" 12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Parking Lot Repaving Project

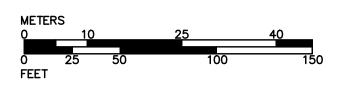




BEALS + THOMAS Civil Engineers + Landscape Architects +

Land Surveyors + Planners + Environmental Specialists

B+T Drawing No. 285411P164A-001 Date: 03/14/2019 Scale: 1" =50'





Pre Development Hydrology Map



LOD M	O./LOCATION:
JOB N	2854.11
	East Boston, Massachusetts
CLIEN	T/PROJECT:
	Aptiv Services (US), LLC
	Parking Lot Repaving Project
SUBJE	CCT/TITLE:
	Proposed Conditions Hydrology Analysis
OBJEC	CTIVE OF CALCULATION:
٠	To determine the post-development peak rates of runoff from the site for the 2, 10 and 100 year storm events.
CALC	ULATION METHOD(S):
•	CN and Tc determined based on TR-55 methodology.
٠	Runoff rates computed using HydroCAD version 10.0
ASSUN	APTIONS:
•	Surface cover types and boundaries have been estimated based upon MassGIS, USGS Color Ortho Imagery
	2016, aerial photography viewed on Google Earth, and AutoCAD file 285402B004G.dwg
•	Upgradient tributary area was based upon data obtained from the MassGIS Oliver program. Surface cover was based on aerial photography viewed on Google Earth.
•	Wetland areas modeled as hydrologic soil class "D" soils. Urban Land, Udorthents, and Ipswich Mucky Peat Model as Hydrologic soil class "C" soils.
•	Rainfall depth for 10-year storm event and 100-year storm event based on BWSC Climate Change Risk Assessment, Findings and Mitigation/Adaptation Strategies for Wastewater and Storm Drainage dated 01/28/2015.
SOUR	CES OF DATA/EQUATIONS:
•	Alta/NSPS Land Title Survey, Suffolk Downs, Boston/Revere, Massachusetts, prepared by Beals and Thomas, Inc., dated 05/23/17.
•	Post-Development Conditions Hydrology Map, dated 03/14/2019 prepared by Beals and Thomas, Inc.
•	TR-55 Urban Hydrology for Small Watersheds, SCS, 1986.
•	NRCS Soil Survey for Middlesex Country downloaded from Web Soil Survey 2.0 on 05/04/2017.

REV	CALC. BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
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				-		

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CONCLUSIONS:

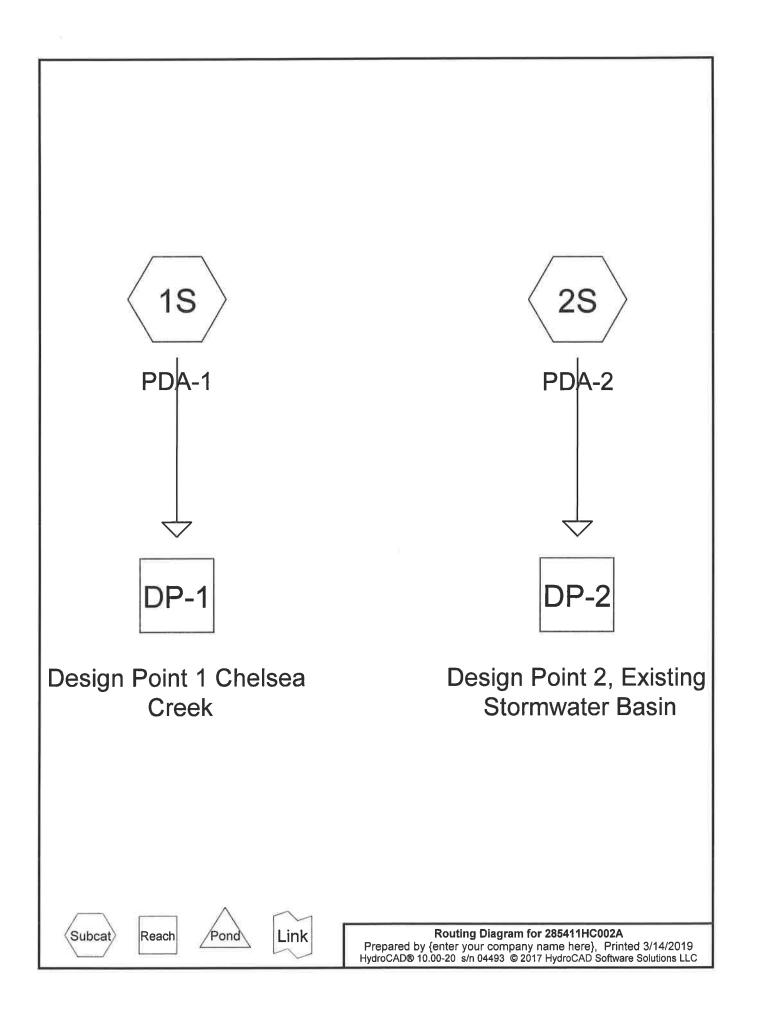
Peak Runoff Rates

The following numbers represent the peak rates of runoff from the site under proposed conditions:

Storm Event	Design Point 1: Chelsea Creek (cfs)	Design Point 2: Existing Stormwater Basin (cfs)
2-year	29	7
BWSC 10-year	58	14
BWSC 100-year	85	21

REV	CALC. BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
	LEnnes	3/4/19	MCa	3/14/19	LEnnes	3/15/19

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.967	74	>75% Grass cover, Good, HSG C (1S, 2S)
0.724	73	Brush, Good, HSG D (Wetland) (1S, 2S)
12.150	98	Paved roads w/curbs & sewers, HSG C (1S, 2S)
13.841	95	TOTAL AREA

Summary for Subcatchment 1S: PDA-1

Runoff = 29.22 cfs @ 12.13 hrs, Volume= 2.504 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs Type III 24-hr BWSC-002yr Rainfall=3.20"

	Area	(ac) C	N Desc	cription		
*	0.	715 7	'3 Brus	h, Good, H	HSG D (We	etland)
	9.	949 9	8 Pave	ed roads w	/curbs & se	ewers, HSG C
	0.	695 7	4 >75%	% Grass c	over, Good	, HSG C
	11.	359 9	5 Weig	ghted Avei	rage	
	1.	410	12.4	1% Pervio	us Area	
	9.	949	87.5	9% Imperv	∕ious Area	
					•	
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.6	43	0.0233	1.24		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 3.20"
	0.1	7	0.0312	0.97		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 3.20"
	0.1	25	0.0312	3.59		Shallow Concentrated Flow,
	4.0	400	0 0070	4 00		Paved Kv= 20.3 fps
	1.2	126	0.0079	1.80		Shallow Concentrated Flow,
	E O	200	0.0007	1 05		Paved Kv= 20.3 fps Shallow Concentrated Flow,
	5.8	366	0.0027	1.05		Paved Kv= 20.3 fps
	1.6	156	0.0064	1.62		Shallow Concentrated Flow,
	1.0	100	0.0004	1.02		Paved Kv= 20.3 fps
	0.4	703	Total			

9.4 723 Total

Summary for Subcatchment 2S: PDA-2

Runoff = 7.11 cfs @ 12.09 hrs, Volume= 0.547 af, Depth= 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs Type III 24-hr BWSC-002yr Rainfall=3.20"

	Area (ac)	CN	Description
*	0.009	73	Brush, Good, HSG D (Wetland)
	2.201	98	Paved roads w/curbs & sewers, HSG C
	0.272	74	>75% Grass cover, Good, HSG C
2 <u></u>	2.482	95	Weighted Average
	0.281		11.32% Pervious Area
	2.201		88.68% Impervious Area

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Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0					Direct Entry, direct enty

Summary for Reach DP-1: Design Point 1 Chelsea Creek

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	11.359 ac, 87.59% Impervious, Inflow Depth = 2.64" for BWSC-002yr event
Inflow	=	29.22 cfs @ 12.13 hrs, Volume= 2.504 af
Outflow	=	29.22 cfs @ 12.13 hrs, Volume= 2.504 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Reach DP-2: Design Point 2, Existing Stormwater Basin

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area	a =	2.482 ac, 88.68% Impervious, Inflow Depth = 2.64" for BWSC-002yr event
Inflow	=	7.11 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow	=	7.11 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

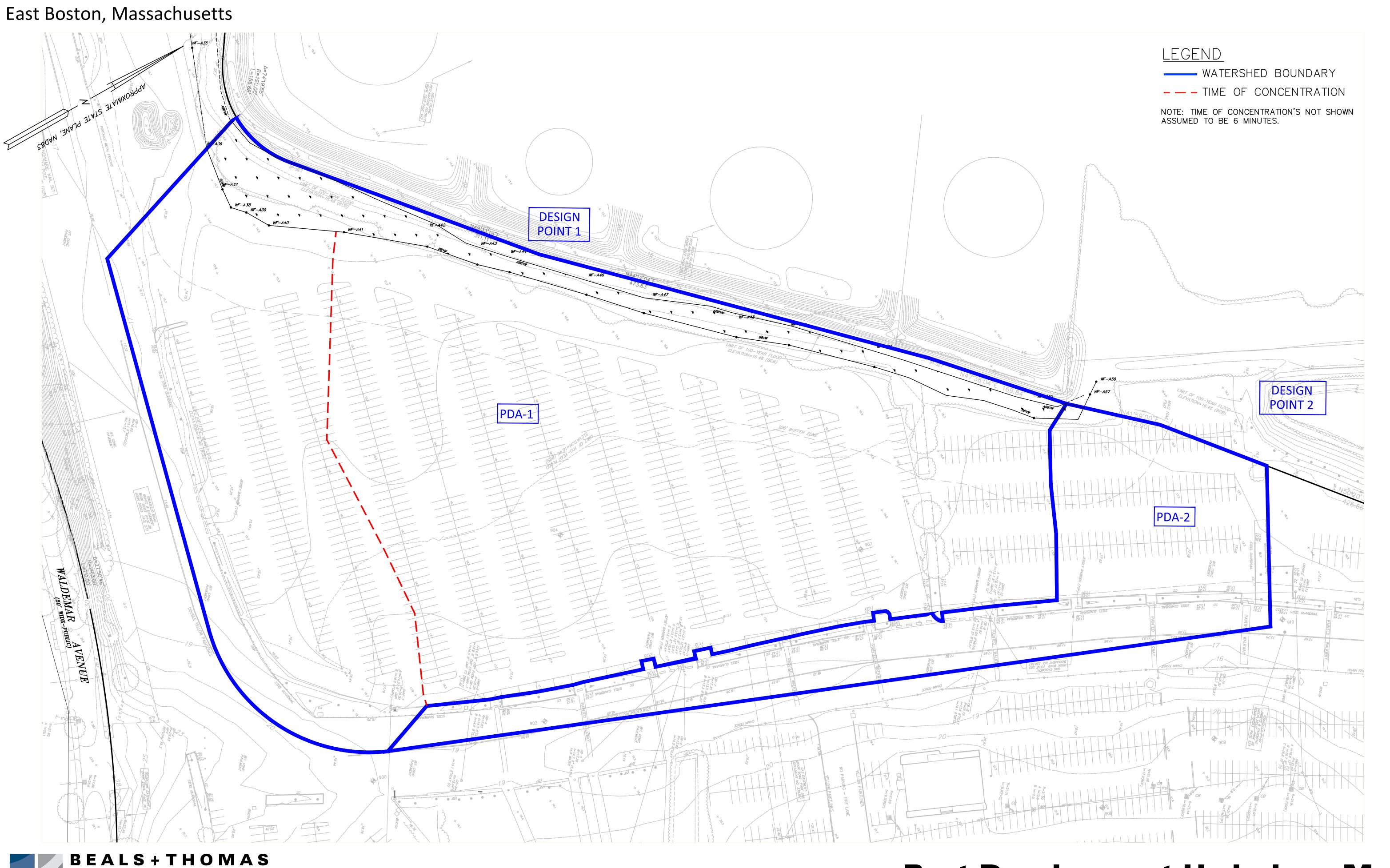
Subcatchment 1S: PDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=2.64" Flow Length=723' Tc=9.4 min CN=95 Runoff=29.22 cfs 2.504 af
Subcatchment 2S: PDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=2.64" Tc=6.0 min CN=95 Runoff=7.11 cfs 0.547 af
Reach DP-1: Design Point 1 Chelsea Cr	eek Inflow=29.22 cfs 2.504 af Outflow=29.22 cfs 2.504 af
Reach DP-2: Design Point 2, Existing St	cormwater BasinInflow=7.11 cfs0.547 afOutflow=7.11 cfs0.547 af
Total Dupoff Area = 12.94	14 as $Pupoff Volume = 3.051 af Average Pupoff Donth = 2.64"$

Total Runoff Area = 13.841 ac Runoff Volume = 3.051 af Average Runoff Depth = 2.64" 12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Subcatchment 1S: PDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=5.41" Flow Length=723' Tc=9.4 min CN=95 Runoff=57.46 cfs 5.122 af
Subcatchment 2S: PDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=5.41" Tc=6.0 min CN=95 Runoff=13.97 cfs 1.119 af
Reach DP-1: Design Point 1 Chelsea Cre	eek Inflow=57.46 cfs 5.122 af Outflow=57.46 cfs 5.122 af
Reach DP-2: Design Point 2, Existing St	ormwater Basin Inflow=13.97 cfs 1.119 af Outflow=13.97 cfs 1.119 af
Total Runoff Area = 13.84	1 ac Runoff Volume = 6.242 af Average Runoff Depth = 5.41" 12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Subcatchment 1S: PDA-1	Runoff Area=11.359 ac 87.59% Impervious Runoff Depth=8.18" Flow Length=723' Tc=9.4 min CN=95 Runoff=85.13 cfs 7.742 af
Subcatchment 2S: PDA-2	Runoff Area=2.482 ac 88.68% Impervious Runoff Depth=8.18" Tc=6.0 min CN=95 Runoff=20.69 cfs 1.692 af
Reach DP-1: Design Point 1 Chelsea Cre	eek Inflow=85.13 cfs 7.742 af Outflow=85.13 cfs 7.742 af
Reach DP-2: Design Point 2, Existing St	cormwater BasinInflow=20.69 cfs1.692 afOutflow=20.69 cfs1.692 af
Total Runoff Area = 13.84	1 ac Runoff Volume = 9.433 af Average Runoff Depth = 8.18" 12.22% Pervious = 1.691 ac 87.78% Impervious = 12.150 ac

Parking Lot Repaving Project

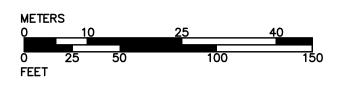




Civil Engineers + Landscape Architects + Land Surveyors + Planners +

Environmental Specialists

B+T Drawing No. 285411P164A-002 Date: 03/14/2019 Scale: 1" =50'





Post Development Hydrology Map

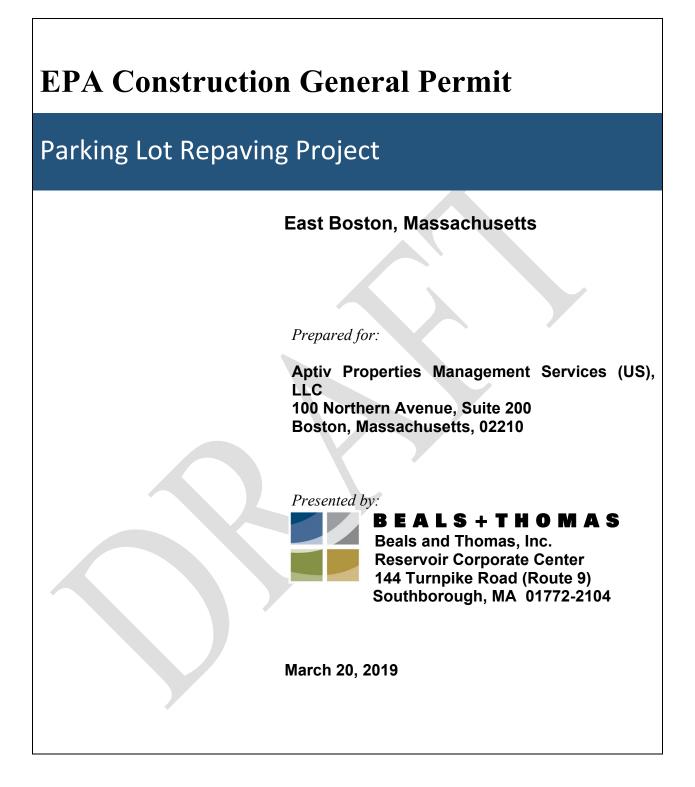


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1.0 CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 OPERATOR(S)/ SUBCONTRACTORS

Operator(s)

Company:	Aptiv Properties Management Services (US), LLC				
Name:					
Address:	100 Northern Avenue, Suite 200				
City:	Boston State: MA ZIP Code: 02210				
Telephone:	Email: matt@nutonomy.com				

Company:	TBD			
Name:				
Address:				
City:		State:	ZIP Code:	
Telephone:		Email:		

Subcontractor(s)

Company:	TBD				
Name:					
Address:					
City:		State:		ZIP Code:	
Telephone:		Email:			
Area of Control: Site Work Contractor					

24-Hour Emergency Contact

Company:	TBD
Name:	
Telephone:	



1.2 STORMWATER TEAM

SWPPP Preparer

Company:	Beals and Thomas, Inc.				
Name:	Elizabeth Ennis				
Address:	144 Turnpike Road				
City:	Southborough	State:	MA	ZIP Code:	01772
Telephone:	508-366-0560	Email:	eenni	s@bealsandtho	mas.com

Personnel Responsible for Installation & Maintenance of Stormwater BMPs

Company:	TBD			
Name:				
Address:				
City:		State:	ZIP Code:	
Telephone:		Email:		

Inspection Personnel

	Company:	TBD			
	Name:				
	Address:				
*	City:		State:	ZIP Code:	
	Telephone:		Email:		



Company:	TBD			
Name:				
Address:				
City:		State:	ZIP Code:	
Telephone:		Email:		

Personnel Responsible for Taking Corrective Actions



2.0 SITE EVALUATION, ASSESSMENT AND PLANNING

2.1 PROJECT/SITE INFORMATION

Project/Site Name:		Parking Lot Repaving Project				
Project Street/Location:		525 McClellan Highway				
City:	Boston		State:	MA	ZIP Code:	02128
County or Similar Subdivision:		Suffolk				

Latitude:	Text	L	ongitude:	Text			
Method for Determining Latitude/Longitude: 42° 23' 39"N, 71° 0' 15"W USGS Topographic Map (specify scale:) EPA Website GPS Other (please specify): <u>Google Earth</u>							
Horizontal Reference Datum: NAD 27 UWGS 84 NAD 83 Unknown							

Is the project located on Indian country lands, or located on a property of religious of cultural significance to an Indian tribe?

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

Is this project considered a federal facility?

🗌 Yes

🛛 No

Are you applying for permit coverage as a '	'federal operator" a	as defined i	n Appendix A of
the 2017 CGP?		Yes	No

NPDES project or permit tracking number: TBD



2.1.1 Emergency-Related Projects

Is this project in response to a public emergency? \Box Yes \boxtimes No

If yes, document the cause of the public emergency (*e.g., natural disaster, extreme flooding conditions*), information substantiating its occurrence (*e.g., state disaster declaration*), and a description of the construction necessary to reestablish effective public services:

2.2 NATURE AND SEQUENCE OF CONSTRUCTION ACTIVITY

2.2.1 Function of the Construction Activity

Function of the construction activity:

Single-Family Residential	
Multi-Family Residential	Industrial
Institutional	Highway or Road Construction
Utility	Other (please specify): <u>Parking lot</u> Repaying

2.2.2 Building Demolition

Will there be	demolition	of any	structure	built or	renovated	before	January 1	,
1980?				🗌 Yes	\bowtie	No		

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space?

2.2.3 Agricultural Land

Was the pre-development land use used for agriculture? \Box Yes \boxtimes No

2.2.4 Estimated Project Dates

Estimated Project Start Date: Spring/Summer 2019 Estimated Project Completion Date: Spring/Summer 2019



Estimated Timeline of	Construction Activity and BMP Descriptions
Activity	
TBD	 Before any site grading activities begin Stake Limit of Construction. Workers shall be informed that no construction activity is to occur beyond this limit at any time. Delineate the limit of the natural buffer to be maintained with flags, tape or other similar device. Grub the areas where silt fence is required, removing stumps and roots as necessary. The existing ground surface shall be disturbed as little as possible prior to the start of construction. Install silt fence and straw bales as shown on the plans. An adequate stockpile of erosion control materials shall be on site at all times for emergency or routine replacement and shall include materials to repair silt fences, straw bales, or any other devices planned for use during construction. Install storm drain inlet protection. Construct staging and materials storage area. Install temporary sanitary facilities and dumpsters.
TBD	 <i>Infrastructure (utilities, parking lot, etc.)</i> 1. Construct temporary concrete washout area. 2. Prepare pavement subgrade.
TBD	 Construction Parking lot paved Remove temporary concrete washout area. Implement winter stabilization procedures.
TBD	 Final stabilization and landscaping 1. Finalize pavement activities. 2. Remove all temporary control BMPs and stabilize any areas disturbed by their removal with erosion controls

*Dates listed as TBD will be added once known.

2.3 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

Soil type(s):

The Natural Resources Conservation Service (NRCS) Web Soil Survey indicates that the existing parking areas and stables consist of Urban land with wet substratum. These soils are typical of developed areas and consist of Udorthents, wet substratum. No hydrologic soil class is assigned to these soil types, but permeability is typically low. These soils are located in areas that were previously tidal marshes, river flood plains, bays, harbors, and swamps. The fill consists of rubble, refuse, and mixed soil material, typically sand, gravel,



and channel dredging. The soils along the southern boundary of the Site consist of Newport Silt loam, which is typically a well draining soil type. It is listed as hydrologic soil class B.

Test pits performed on the Site in 2012 by Haley & Aldrich, Inc. generally indicated consistent fill material throughout the Site. The soils are classified as either poorly graded sand-gravel, silty sand, or unclassified fill. Groundwater was found on an average of 2-feet below existing grade.

Slopes: The topography of the Site is generally flat, ranging in elevation from 14 feet to 18 feet Boston City Base (BCB), and slopes gradually from the from the east to the west.

Drainage Patterns: Currently the stormwater within the Site drains to two primary locations. The majority of the Site drains to the adjacent wetland which discharges to Chelsea Creek. A portion of the existing parking lot on the northern side of the Site drains to an existing stormwater basin on an adjacent property.

Vegetation: The existing vegetation on the Site consists of the landscape islands and overgrown brush.

2.4 CONSTRUCTION SITE ESTIMATES

Total property area:	161 acres
Total construction site area to be disturbed:	10 acres
Maximum area to be disturbed at one time:	10 acres
Percentage impervious area before construction:	88 %
Runoff coefficient before construction:	95
Percentage impervious area after construction:	88 %
Runoff coefficient after construction:	95

2.5 DISCHARGE INFORMATION

2.5.1 Description of Receiving Storm Sewer Systems

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?



2.5.2 Receiving Waters

List the name of the first surface water of the United States that receives runoff from your site. If your site discharges to more than one surface water of the United States list all applicable surface waters. For discharges that enter a storm sewer system prior to discharge, the first surface water is the water body that receives the stormwater discharge from the storm sewer system.

The stormwater runoff ultimately flows to Sales Creek which ultimately discharges to Boston Harbor.

2.5.3 Impaired Waters/ TMDLs

Has the surface water been listed as "impaired?"	Yes No
--	--------

If yes, list the pollutant(s) causing the impairment: Pathogens

Describe the method(s) used to determine whether or not your project site discharges to an impaired water:

Has a TMDL been completed?

Yes	No

 \bigvee No

If yes, list the title of the TMDL document: Draft Pathogen TMDL for the Boston Harbor Watershed (excluding the Neponset River sub-basin)

List the pollutant(s) for which there is a TMDL: Pathogens

2.5.4 Tier 2, 2.5, or 3 Waters

Is this surface water designated as a Tier 2, 2.5 or 3 water? \boxtimes Yes \square No

If yes specify which Tier the surface water is designated as: Tier 2 **Tier 2.5** \boxtimes Tier 3

2.6 UNIQUE SITE FEATURES AND SENSITIVE AREAS

Portions of the stormwater runoff discharge to an existing stormwater basin which ultimately discharges to Sales Creek.

The Massachusetts Surface Water Quality Standards (314 CMR 4.00) list Sales Creek as a Class SA Outstanding Resource Water (ORW). These waters are designated as an excellent habitat for fish, other aquatic life, wildlife and shall have an excellent aesthetic value.



Belle Isle Inlet is hydrologically connected to Belle Isle Marsh, which consists of approximately 241-acres and is part of the larger Rumney Marsh Area of Critical Environmental Concern (ACEC). Belle Isle Marsh is designated as a shellfish growing area by the Division of Marine Fisheries but is currently listed as an area where shellfish growing is prohibited.

2.7 CONSTRUCTION SUPPORT ACTIVITIES

Construction support activities are not required for the project.

2.8 POTENTIAL SOURCES OF POLLUTION

2.8.1 Potential Sources of Sediment

• Vehicle tracking

2.8.2 Potential Sources of Non-Sediment Pollutants

- Combined Staging Area small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area —paving materials, aggregates, trash, etc.
- Construction Activity paving
- Concrete Washout Area

Material/ Chemical	Physical Description	Stormwater Pollutants	Location ^[1]
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets, and parking areas
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	betroleum Benzene, etnyl benzene,	
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/staging area
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment/staging area



Antifreeze/ coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area

[1] Area where material/chemical is used on-site.

2.9 SITE PLANS

The Site Plans show the developed site.

These Site Plans include:

- Delineation of construction phasing, if applicable
- Areas of soil disturbance and areas that will not be disturbed
- Direction(s) of stormwater flow and approximate slopes before and after major grading activities
- Natural features to be preserved
- Locations of major structural and non-structural BMPs identified in the SWPPP
- Location(s) of sediment, soil or other construction materials will be stockpiled
- Locations [and timing] of stabilization measures
- Locations of off-site material, waste, borrow, or equipment storage areas
- Location of all waters of the U.S., including wetlands on or near the site. Indicate if water bodies are listed as impaired, or are identified as Tier 2, 2.5 or 3 waters.
- Boundary lines of any natural buffers,
- Locations of stormwater discharges and/ or authorized non-stormwater will be discharged to surface water(s)
- Locations of storm drain inlets and stormwater control measures on the site and in the immediate vicinity of the site
- Locations of all pollutant-generating activities
- Locations where polymers, flocculants, or other treatment chemicals will be used and stored
- Areas of federally listed critical habitat for endangered or threatened species

See Appendix B: Site Plan



3.0 COMPLIANCE WITH APPLICABLE FEDERAL & STATE REQUIREMENTS

3.1 ENDANGERED SPECIES CERTIFICATION

Are endangered or threatened species and critical habitats on or near the project area? \Box Yes \Box No

Describe how this determination was made:

According to the Information for Planning and Conservation tool published by the U.S. Fish & Wildlife Service (USFWS), there are no federally-jurisdictional endangered species expected to occur on the Subject Property.

According to Massachusetts Bureau of Geographic Information (MassGIS) information accessed on October 31, 2017, the Site is not located within Natural Heritage and Endangered Species Program (NHESP)-designated Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife. There are no mapped potential or certified vernal pools on the Site.

The USFWS listed the Northern Long-eared Bat (*Myotis septentrionalis*) as a Threatened species under the Endangered Species Act (ESA, 50 CFR 17.11) on April 2, 2015 and mapped the full state of Massachusetts as habitat. The Northern Long-Eared Bat is also listed as Endangered under the Massachusetts Endangered Species Act (MESA, M.G.L. c. 131 A).

The NHESP Northern Long-eared Bat Locations in Massachusetts map, last updated November 30, 2016 was reviewed. It was determined that the Project does not occur within 0.25 miles of a known winter hibernacula or within a 150-foot radius of a known maternity roost tree. Therefore, no further review of potential impacts to Northern Long-eared Bat is required pursuant to the MESA.

If yes, describe the species and/or critical habitat:

If yes, describe or refer to documentation that determines the likelihood of an impact on the identified species and/or habitat and the steps taken to address that impact.



3.2 HISTORIC PRESERVATION

Step 1

Will stormwater controls that require subsurface earth disturbance b	e installed	on the site?
-	Yes	No

Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties?

Step 3

If you answered no in Step 2, has it been determined that the installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties?

Yes	No
-----	----

No

Yes

If yes, provide documentation of the basis for your determination.

Step 4

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative (whichever applies) respond within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties?

Yes	No
-----	----

If no, no further documentation is required. If yes, describe the nature of their response and include documentation in the Appendix:

Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.

No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.

Other:



3.3 SAFE DRINKING WATER ACT UNDERGROUND INJECTION CONTROL REQUIREMENTS

Do you plan to install any of the following controls?

- Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)
- Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow
- Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

If yes, attach documentation of contact between you and the applicable state agency or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR Parts 144-147.

3.4 APPLICABLE STATE OR LOCAL PROGRAMS

This SWPPP complies with the requirements of Standard 8 of the Massachusetts Department of Environmental Protection Stormwater Handbook, which states:

A plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plans) shall be developed and implemented.



4.0 EROSION AND SEDIMENT CONTROL BMPS

This SWPPP contains a listing of the erosion and sediment control best management practices (BMPs) that will be implemented to control pollutants in stormwater discharges. The BMPs are categorized under one of the areas of BMP activity as described below:

- Natural Buffers or Equivalent Sediment Controls
- Minimize disturbed area and protect natural features and soil
- Phased construction activity
- Control stormwater flowing onto and through the project
- Stabilize soils
- Protect slopes
- Protect storm drain inlets
- Establish perimeter controls and sediment barriers
- Retain sediment on-site and control dewatering practices
- Establish stabilized construction exits

4.1 NATURAL BUFFERS OR EQUIVALENT SEDIMENT CONTROLS

Are there any surface waters located within 50 feet of your construction disturbances that receive stormwater discharges from the site? \square Yes \square No

If yes, check the compliance alternative that applies:

The project qualifies for one of the exceptions in Part G.2.2 of Appendix G of the 2017 Construction General Permit. Specifically:

Due to preexisting disturbances that were constructed prior to the initiation of planning for this Project the Site currently has a natural buffer of 10-feet. The Project will not disturb the preexisting natural buffer; therefore the Project is in compliance with the requirement to provide and maintain a natural buffer if since it will retain and protect from construction activities the natural buffer that existed prior to the commencement of construction. Prior to commencing earth-disturbing activities the limits of work along the natural buffer will be delineated with an erosion control barrier.

4.2 PHASED CONSTRUCTION ACTIVITY

The proposed site is too small for phased grading to be practical. To minimize erosion the work shall be conducted after snowmelt and during periods of predicted dry weather. The areas of the site that will remain vegetated after construction shall be graded first and stabilized with hydromulch or seeding immediately after grading activities are completed. All other areas of the construction site shall be stabilized if site work is not planned for



more than 7 days. To minimize potential erosion from the site, only the area necessary to construct the construction entrances/exits shall be disturbed initially. The area shall be cleared, grubbed, and graded and the above measures shall be installed. The area shall be stabilized immediately after construction but no later than 7 days after construction ceases. Overall grubbing, and clearing shall be conducted over a 2-week period to limit erosion from the site. Areas graded during this time period shall be stabilized with hydromulch immediately after construction but no later than 7 days after construction ceases.

For a timeline of construction activity, see the Estimated Project Dates section of this report (Section 2.2.4).

4.3 STABILIZE SOIL

Description:	Initiation of temporary vegetative cover shall occur
	immediately where construction will cease for more that 7
	days. It shall be established using hydroseeding for areas
	of exposed soil (including stockpiles).
Installation Schedule:	Temporary stabilization measures shall be initiated
	immediately where construction activities will temporarily
	cease for more than 14 days. Stabilization will be
	completed as soon as practicable, but no later than 7
	calendar days after stabilization has been initiated.
Maintenance and	Stabilized areas shall be inspected weekly and after storm
Inspection:	events until a dense cover of vegetation has become
	established. If failure is noticed at the seeded area, the area
	shall be reseeded, fertilized, and mulched immediately.

4.3.1 Temporary Stabilization

4.3.2 Dust Control

Description:	Dust from the site shall be controlled by using a mobile
	pressure-type distributor truck to apply water to disturbed
	areas. The mobile unit shall apply water at a rate of 300
	gallons per acre and minimized as necessary to prevent
	runoff and ponding.
Installation Schedule:	Dust control shall be implemented as needed once site
	grading has been initiated and during windy conditions
	(forecasted or actual wind conditions of 20 mph or greater)
	while site grading is occurring. Spraying of water shall be
	performed no more than three times a day during the
	months of May-September and once per day during the
	months of October-April or whenever the dryness of the
	soil warrants it.



Maintenance and	At least one mobile unit shall be available at all times to
Inspection:	distribute water to control dust on the project area. Each
	mobile unit shall be equipped with a positive shutoff valve
	to prevent over watering of the disturbed area.

4.4 PROTECT STORM DRAIN INLETS

4.4.1 Filter Bags

Permanent	Temporary
Description:	Filter bag manufactured specifically for controlling
	sediment flow into all storm drain inlets to prevent coarse
	sediment from entering drainage systems prior to
	permanent stabilization of the disturbed area.
Installation Schedule:	Filter Bags shall be installed prior to clearing and
	grubbing.
Maintenance and	Storm drain inlet protection shall be inspected weekly and
Inspection:	following storms. Clogged filter bags shall be cleaned or
	replaced. Where there is evidence of sediment
	accumulation adjacent to the inlet protection measure, you
	must remove the deposited sediment by the end of the same
	work day it is found or by the following work day if
	removal the same day is not feasible. Collected sediments
	shall NOT be washed into storm drains.



4.5 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS

4.5.1 Sediment Control Barrier

Permanent	Temporary
Description:	An erosion control barrier, consisting of entrenched straw bales, straw wattles, compost socks and siltation fencing, shall be installed along the downgradient side of the proposed project to decrease the velocity of sheet flows and intercept and detain small amounts of sediment from disturbed areas.
Installation Schedule:	Erosion Control Barrier shall be installed prior to clearing and grubbing.
Maintenance and Inspection:	Erosion Control Barrier shall be inspected weekly, following storms, and daily during rainy periods. Damaged fencing shall be replaced. Concentrated flows shall be intercepted and rerouted. Sediment accumulations shall be removed when reaching a depth of 6-inches, or one-half of the above ground height of the barrier, whichever is less. Deteriorated fencing material shall be replaced. Used fencing shall be properly disposed of.

4.5.2 Silt Fence

Permanent	☐ Temporary
Description:	Entrenched silt fence shall be installed to decrease the
	velocity of sheet flows and intercept and detain small
	amounts of sediment from disturbed areas.
Installation Schedule:	Silt fence shall be installed prior to clearing and grubbing.
Maintenance and	Silt fence shall be inspected weekly, following storms, and
Inspection:	daily during rainy periods. Damaged fencing shall be
	replaced. Concentrated flows shall be intercepted and
	rerouted. Sediment accumulations shall be removed when
	reaching a depth of 6-inches. Deteriorated fencing
	material shall be replaced. Used fencing shall be properly
	disposed of.



4.6 ESTABLISH STABILIZED CONSTRUCTION ENTRANCE/EXIT

Permanent	Temporary
Description:	Temporary gravel or crushed stone construction entrances/exits or other means shall be used to minimize off-site movement of soil with vehicles. Construction access points shall be maintained to minimize tracking of soil onto public roads and existing parking lots to remain. If the rock entrance is not working to keep streets clean, then install wheel wash, sweep streets, or wash streets if wash water can be collected.
Installation Schedule:	Stabilized construction entrance shall be installed prior to clearing and grubbing.
Maintenance and Inspection:	Stabilized construction entrances shall be inspected daily. Gravel or crushed stone shall be added if the pad is no longer in accordance with the specifications. If the rock entrance is not working to keep streets clean, then install wheel wash, sweep streets, or wash streets if wash water can be collected. When sediment has been tracked off of the site, it shall be removed by the end of the same working day, or by the end of the next working day if track-out occurs on a non work day. Remove sediment by sweeping, shoveling or vacuuming roadways were sediment has been tracked-out.

5.0 GOOD HOUSEKEEPING BMPS

This SWPPP contains a listing of the good housekeeping best management practices (BMPs) that shall be implemented to control pollutants in stormwater discharges during construction-related work. The BMPs are categorized below:

- Material Handling and Waste Management
- Establish Proper Building Material Staging Areas
- Designate Washout Areas
- Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
- Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing
- Spill Prevention and Control Plan

5.1 MATERIAL HANDLING AND WASTE MANAGEMENT

Several management procedures and practices are proposed to prevent and/or reduce the discharge of pollutants to stormwater from solid or liquid wastes that will be generated at



the site. These measures are grouped into the following categories: (1) solid or construction waste disposal, (2) recycling, (3) sanitary and septic waste, and (4) hazardous materials.

5.1.1 Solid or Construction Waste Disposal

D · ·	
Description:	All waste materials shall be collected and disposed of into metal
	trash dumpsters in the materials storage area. Dumpsters shall have
	a secure watertight lid, be placed away from stormwater
	conveyances and drains, and meet all federal, state, and municipal
	regulations. Only trash and construction debris from the site shall be
	deposited in the dumpster. No construction materials shall be buried
	on-site unless authorized by a program for recycling/beneficial use.
	All personnel shall be instructed regarding the correct disposal of
	trash and construction debris. Notices that state these practices shall
	be posted in the office trailer and the individual who manages day-
	today site operations shall be responsible for seeing that these
	practices are followed.
Installation	Trash dumpsters shall be installed once the materials storage area
Schedule:	has been established.
Maintenance	The dumpsters shall be inspected weekly and immediately after
and	storm events. The dumpsters shall be emptied weekly and taken to
Inspection:	an approved landfill or recycling facility. If trash and construction
	debris are exceeding the dumpsters' capacity, the dumpsters shall be
	emptied more frequently. Waste container lids shall be closed when
	not in use and at the end of the business day. For waste containers
	that do not have lids, provide cover or a similarly effective means to
	minimize the discharge of pollutants.

5.1.2 Sanitary and Septic Waste

_		
	Description:	Temporary sanitary facilities (portable toilets) shall be provided at
		the site throughout the construction phase. The portable toilets shall
		be located in the staging area, away from concentrated flow paths
		and traffic flow.
	Installation	The portable toilets shall be brought to the site once the staging area
	Schedule:	has been established.
	Maintenance	All sanitary waste shall be collected from the portable facilities on
	and	a regular basis. The portable toilets shall be inspected weekly for
	Inspection:	evidence of leaking holding tanks. Toilets with leaking holding
	-	tanks shall be removed from the site and replaced with new portable
		toilets.



5.1.3 Hazardous Materials and Waste

Description:	All hazardous waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids shall be stored in structurally sound and sealed shipping containers, within the hazardous materials storage area. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment shall be provided for all waste materials in the hazardous materials storage area and shall consist of commercially available spill pallets. Additionally, all hazardous waste materials shall be disposed of in accordance with federal, state, and municipal regulations. Hazardous waste materials shall not be disposed of into the on-site dumpsters. All personnel shall be instructed regarding proper procedures for hazardous waste disposal. Notices that state these procedures shall be posted in the office trailer and the individual who manages day-to-day site operations shall be responsible for seeing that these procedures are followed.
Installation	Shipping containers used to store hazardous waste materials shall
Schedule:	be installed once the site materials storage area has been installed.
Maintenance	The hazardous waste material storage areas shall be inspected
and	weekly and after storm events. The storage areas shall be kept
Inspection:	clean, well organized, and equipped with ample cleanup supplies
	as appropriate for the materials being stored. Material safety data
	sheets, material inventory, and emergency contact numbers shall be
	maintained in the office trailer.

5.2 ESTABLISH PROPER BUILDING MATERIAL STAGING AREAS

Description: Construction equipment and maintenance materials shall be stored at the combined staging area and materials storage areas. A watertight shipping container shall be used to store hand tools, small parts, and other construction materials. Nonhazardous building materials such as packaging material (wood, plastic, and glass), and construction scrap material (brick, wood, steel, metal scraps, and pipe cuttings) shall be stored in a separate covered storage facility adjacent to the shipping container.

All hazardous-waste materials such as oil filters, petroleum products, paint, and equipment maintenance fluids shall be stored in structurally sound and sealed containers under cover within the storage area.

All fertilizers, herbicides, insecticides and pesticides shall be stored in accordance with local, state, and federal regulations. At a minimum these



	materials shall be covered with plastic sheeting or a temporary roof to prevent contact with rainwater.
	Very large items, such as framing materials and stockpiled lumber, shall be stored in the open in the materials storage area. Such materials shall be elevated on wood blocks to minimize contact with runoff.
Installation	The materials storage area shall be installed after grading and before any
Schedule:	infrastructure is constructed at the site.
Maintenance	The storage area shall be inspected weekly and after storm events. The
and	storage area shall be kept clean, well organized, and equipped with ample
Inspection:	cleanup supplies as appropriate for the materials being stored. Perimeter
	controls, containment structures, covers, and liners shall be repaired or
	replaced as needed to maintain proper function.

5.3 DESIGNATE WASHOUT AREAS

5.3.1 Concrete Washout

Description:A designated temporary, above-grade concrete washout area shall be constructed. The temporary concrete washout area shall be constructed with a recommended minimum length and minimum width of 10 feet, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area shall be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Signs shall be posted marking the location of the washout area to ensure that concrete equipment operators use the proper facility.Concrete pours shall not be conducted during or before an anticipated storm event. Concrete mixer trucks and chutes shall be washed in the designated area or concrete wastes shall be properly disposed of off-site. When the temporary washout area is no longer needed for the construct the area shall be removed and disposed of according to the maintenance section below, and the area shall be stabilized.Installation Schedule:The washout area shall be constructed before concrete pours occur at the site.		
 anticipated storm event. Concrete mixer trucks and chutes shall be washed in the designated area or concrete wastes shall be properly disposed of off-site. When the temporary washout area is no longer needed for the construction project, the hardened concrete and materials used to construct the area shall be removed and disposed of according to the maintenance section below, and the area shall be stabilized. Installation The washout area shall be constructed before concrete pours occur 	Description:	be constructed. The temporary concrete washout area shall be constructed with a recommended minimum length and minimum width of 10 feet, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area shall be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Signs shall be posted marking the location of the washout area to ensure that concrete equipment
1		anticipated storm event. Concrete mixer trucks and chutes shall be washed in the designated area or concrete wastes shall be properly disposed of off-site. When the temporary washout area is no longer needed for the construction project, the hardened concrete and materials used to construct the area shall be removed and disposed of according to the maintenance section below, and the area shall
Schedule: at the site.		1
	Schedule:	at the site.



Maintenance and	The washout areas shall be inspected daily to ensure that all concrete washing is being discharged into the washout area, no
Inspection:	leaks or tears are present, and to identify when concrete wastes need to be removed. The washout areas shall be cleaned out once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes shall be allowed to harden; the concrete shall be broken up, removed, and taken to an approved landfill for disposal or recycled on-site or off- site in accordance with applicable laws. The plastic sheeting shall be replaced if tears occur during removal of concrete wastes from the washout area.

Design Specifications:

- 1. Temporary concrete washout type Above Grade shall be constructed as shown above, with a recommended minimum length and minimum width of 10 feet.
- 2. The washout shall be a minimum of 50 feet from storm drain inlets.
- 3. Plastic lining shall be free of holes, tears, or other defects that compromise the impermeability of the material.

5.4 ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES

Description:	Several types of vehicles and equipment will likely be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. All					
	major equipment/vehicle fueling and maintenance shall be performed					
	outside of wetland buffer zones. When vehicle fueling must occur on-site, the fueling activity shall occur in the staging area. Only minor equipment					
	maintenance shall occur on-site. All equipment fluids generated from					
	maintenance activities shall be disposed of into designated drums stored on					
	spill pallets in accordance with the Material Handling and Waste					
	Management Section. Absorbent, spill-cleanup materials and spill kits shall					
	be available at the combined staging and materials storage area. Drip pans					
	shall be placed under all equipment receiving maintenance and vehicles and					
	equipment parked overnight.					
Installation	BMPs implemented for equipment and vehicle maintenance and fueling					
Schedule:	activities shall begin at the start of the project.					
Maintenance	Inspect equipment/vehicle storage areas weekly and after storm events.					
and	Vehicles and equipment shall be inspected on each day of use. Leaks shall					
Inspection:	be repaired immediately, using dry cleanup measures where possible and					
	eliminating the source of the discharge. Problem vehicle(s) or equipment					
	shall be removed from the project site. Keep ample supply of spill-cleanup					



materials on-site and immediately clean up spills and dispose of materials properly. Do not clean surfaces by hosing-down the area

5.5 ALLOWABLE NON-STORMWATER DISCHARGES AND CONTROL EQUIPMENT / VEHICLE WASHING

Description:	All equipment and vehicle washing shall be performed off-site, except as required for wheel washes and concrete washout areas.				
Installation Schedule:	N/A				
Maintenance	N/A				
and					
Inspection:					

5.6 SPILL PREVENTION AND CONTROL PROCEDURES

Description:	i.	Employee Training: All employees shall be trained as detailed in
		the Inspection and Maintenance section of this report.
	ii.	Vehicle Maintenance: Vehicles and equipment shall be maintained
		off-site. All vehicles and equipment including subcontractor
		vehicles shall be checked for leaking oil and fluids. Vehicles leaking
		fluids shall not be allowed on-site.
	iii.	Hazardous Material Storage: Hazardous materials shall be stored in
		accordance with this report and federal and municipal regulations.
	iv.	Spill Kits: Spill kits shall be kept within the materials storage area.
		Spills: All spills shall be cleaned up immediately upon discovery.
		Spent absorbent materials and rags shall be hauled off-site
		immediately after the spill is cleaned up for disposal at an approved
		landfill. Spills large enough to discharge to surface water shall be
		reported to the National Response Center at 1-800-424-8802 and
		MA DEP at 617-792-7653.
	v.	Material safety data sheets: A material inventory and emergency
		contact information shall be maintained at the on-site project trailer.
Installation	The s	pill prevention and control procedures shall be implemented once
Schedule:	constr	ruction begins on-site.
Maintenance	All pe	ersonnel shall be instructed the correct procedures for spill prevention
and	and c	ontrol. Notices that state these practices shall be posted in the office
Inspection:	trailer	, and the individual who manages day-to-day site operations shall be
	respo	nsible for seeing that these procedures are followed.



5.7 ALLOWABLE NON-STORMWATER DISCHARGE MANAGEMENT

Any changes in construction activities that produce other allowable non-stormwater discharges shall be identified, and the SWPPP shall be amended and the appropriate erosion and sediment control shall be implemented.

The following is a list of allowable non-stormwater discharges:

- Water Used to Control Dust
- Uncontaminated Excavation Dewatering
- Firefighting
- Potable Water including uncontaminated waterline flushing
- Pavement Wash-Down provided spills or leaks of toxic substances have not occurred and where soaps, solvents and detergents are not used.
- Non-Detergent Laden Vehicle Wash Water

Except for water used to control dust, the above discharges shall not be routed to areas of exposed soil



6.0 FINAL STABILIZATION

In compliance with the Construction General Permit, soil stabilization measures must be implemented immediately whenever earth-disturbing activities are temporarily or permanently ceased on any portion of the site. Earth-disturbing activities are temporarily ceased when clearing, grading, and excavation within any area of a site that will not include a permanent structure will not resume for a period of 7 or more calendar days, but such activities will resume in the future.

In the context of this provision, "immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. The following activities constitute the initiation of stabilization:

- Preparing the soil for vegetative or non-vegetative stabilization;
- starting any of the activities in listed above on a portion of the area to be stabilized, but not on the entire area; and
- finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization.

As soon as practicable, but no later than 7 calendar days after the initiation of soil stabilization measures the following activities are required to be completed:

• For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

The following sections detail the management practices proposed to achieve final stabilization of the site.



7.0 INSPECTIONS AND MAINTENANCE

7.1 INSPECTIONS

7.1.1 Inspection Schedule and Procedures

Inspections of the site will be performed once every 7 days and within 24 hours of the end of a storm event of 0.25-inch or greater unless otherwise specified. The inspections will verify that all BMPs required are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials.

To determine if a storm event of 0.25 inches or greater has occurred on the site, either a properly maintained rain gauge will be kept on the site or the storm event information will be obtained from a weather station that is representative of the location. If an inspection is conducted because of rainfall measuring 0.25 inches or greater, the applicable rain gauge or weather station readings that triggered the inspection will be included in the inspection report.

Inspections shall include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors shall look for evidence of, or the potential for, pollutants entering the storm water conveyance system. Sedimentation and erosion control measures identified in the SWPPP shall be observed to ensure proper operation. Discharge locations shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations shall be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may limit the access of inspection personnel to the areas described in the above paragraph. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls shall be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel shall inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described above. The conditions of the controls along each inspected 0.25 mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile segment to



either the end of the next 0.25 mile inspected segment, or to the end of the project, whichever occurs first.

For detailed inspection procedures, see Sections 4 and 5.

All inspections shall be coordinated with a representative from Aptiv Properties Management Services, LLC. An Aptiv Properties Management Services, LLC representative shall accompany Name of inspector , when possible, during inspections.

Inspection reports are required to be completed within 24-hours of an inspection. If corrective actions are identified by the Inspector during the inspection, he/she shall notify and submit a copy of the inspection report to the Operator(s). For corrective actions identified, the project managers shall be responsible for initiating the corrective action within 24 hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, the project manager shall notify Owner, as soon as possible, before initiating the corrective action.

The business days for the project are 9:00 am to 5:00 pm, Monday through Friday.

For a copy of the inspection report template, see Appendix E.

7.2 REDUCTIONS IN INSPECTION FREQUENCY

Once an area is stabilized, inspections may be reduced to twice per month for the first month, no more than 14 calendar days apart, then once per month. If construction resumes at the stabilized area the inspection frequency shall increase as outlined in section 8.1.

If earth-disturbing activities are suspended due to frozen conditions inspections can be temporarily suspended until a thaw occurs.

7.3 CORRECTIVE ACTION LOG

The corrective action log describes repairs, replacements, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures. Additionally, remedies of permit violations and clean and proper disposal of spills, releases other deposits should be recorded.

If it is determined the stormwater controls have not been installed as required, or that they are not functioning adequately corrective action is required within 7 calendar days.

The operator will document the completion of the corrective action within 24 hours.



See Appendix $\ensuremath{\mathsf{F}}-\ensuremath{\mathsf{Corrective}}$ Action Log.



8.0 RECORDKEEPING AND TRAINING

8.1 RECORDKEEPING

A copy of the SWPPP, along with all inspection reports and corrective action logs are required to be stored at an accessible location at the site, and shall be made available upon request of the EPA, or state or local agency approving stormwater management plans.

The following records shall be kept at the project site and shall be available for inspectors to review. These records shall be retained for a minimum period of at least 3 years after the permit is terminated.

Date(s) when major grading activities occur:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when construction activities temporarily or permanently cease on a portion of the site:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when an area is either temporarily or permanently stabilized: See Appendix I – Grading and Stabilization Activities Log

8.2 LOG OF CHANGES TO THE SWPPP

The log of changes to the SWPPP is maintained in Appendix G and includes additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures and update to site plans.

8.3 TRAINING

Prior to the commencement of earth-disturbing activities or pollutant-generating activities, whichever occurs first, training on the pollution prevention measures outlined in this SWPPP shall be provided to staff and subcontractors.

8.3.1 Individual(s) Responsible for Training

Company/Organization: TBD

Name: TBD



8.3.2 Description of Training Conducted

Informal training shall be conducted for all staff, including subcontractors, on the site. The training shall be conducted primarily via tailgate sessions and shall focus on avoiding damage to stormwater BMPs and preventing illicit discharges. The tailgate sessions shall be conducted biweekly and shall address the following topics: Erosion Control BMPs, Sediment Control BMPs, Non-Stormwater BMPs, Waste Management and Materials Storage BMPs, and Emergency Procedures specific to the construction site. (See Appendix J – Training Log)

Formal training shall be provided to all staff and subcontractors with specific stormwater responsibilities, such as installing and maintaining BMPs. The formal training shall cover all design and construction specifications for installing the BMPs and proper procedures for maintaining each BMP. Training shall also cover inspection schedules and procedures for personnel whose job duties are related to inspections. Formal training shall occur before any BMPs are installed on the site. (See Appendix J – Training Log)



9.0 CERTIFICATION AND NOTIFICATION

9.1 SIGNATURE, PLAN REVIEW, AND MAKING PLANS AVAILABLE

A copy of the SWPPP (including a copy of the Construction General Permit, NOI, and acknowledgement letter from EPA shall be retained at the construction site (or other location easily accessible during normal business hours to EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization. A copy of the SWPPP shall be available at a central location on-site for the use of all those identified as having responsibilities under the SWPPP. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location shall be posted near the main entrance at the construction site.

9.2 NOTICE OF PERMIT COVERAGE

A sign must be posted at a safe, publicly accessible location in close proximity to the construction site detailing the permit coverage. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way. At a minimum, the notice must include:

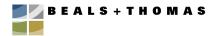
- The NPDES Permit Tracking Number,
- A contact name and phone number for obtaining additional construction site information,
- The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional 1 Office at (617) 918-1038,
- The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: https://www.epa.gov/enforcement/report-environmental-violations."



9.3 OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Title:
Signature:	Date:



9.4 OPERATOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Title:	
Signature:	Date:	1







Appendix A

General Location Map



Appendix B

Site Plans



Appendix C

Construction General Permit

https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_permit_508.pdf



Appendix D

NOI and Acknowledgement Letter from EPA



Appendix E

Inspection Reports

Inspections under this SWPPP shall be conducted in accordance with each installed BMPs recommended maintenance requirements. This inspection frequency may be reduced to at least once every month if: a) the entire site is temporarily stabilized, b) runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or the ground is frozen), or c) construction is occurring during seasonal arid periods in arid areas and semi-arid areas. If an inspection report is filed according to this modified schedule it shall be noted at the end of the report under the "NOTES" section.

The following four pages should be copied and completed for each inspection. All inspection forms should be compiled in a binder to prove compliance with this SWPPP.



Stormwater Pollution Prevention Plan: Inspection Checklist

General Information				
Project Name				
NPDES Tracking No.	Location			
Date of Inspection	Start/End Time			
Inspector's Name(s)				
Inspector's Title(s)				
Inspector's Contact Information				
Inspector's Qualifications				
Describe present phase of construction				
Type of Inspection: Regular Pre-storm ev	nt During storm event Post-storm event			
	Weather Information			
Has there been a storm event since the last inspection? □Yes □NoIf yes, provide:Storm Start Date & Time:Storm Duration (hrs):				
Approx. Amount of Precipitation (in):				
Weather at time of this inspection? Clear Cloudy Rain Sleet Fog Snowing High Winds Other: Temperature:				
Have any discharges occurred since the last inspection? Yes No If yes, describe:				
Are there any discharges at the time of inspection ? □Yes □No If yes, describe:				

Site-specific BMPs

- Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.
- Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.

BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	
	QYes QNo	□Yes □No	
	U Yes U No	□Yes □No	
	□Yes □No	□Yes □No	
	□Yes □No	□Yes □No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
Are all slopes and disturbed areas not actively being worked properly stabilized?	□Yes □No	□Yes □No	
Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	□Yes □No	□Yes □No	
Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	□Yes □No	□Yes □No	
Are discharge points and receiving waters free of any sediment deposits?	□Yes □No	□Yes □No	
Are storm drain inlets properly protected?	□Yes □No	□Yes □No	
Is the construction exit preventing sediment from being tracked into the street?	□Yes □No	□Yes □No	
Is trash/litter from work areas collected and placed in covered dumpsters?	□Yes □No	□Yes □No	
Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	□Yes □No	□Yes □No	
Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	□Yes □No	□Yes □No	

BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
Are materials that are potential stormwater contaminants stored inside or under cover?	□Yes □No	□Yes □No	
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	□Yes □No	□Yes □No	
(Other)	□Yes □No	□Yes □No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title:

Signature:

Date:_____

Appendix F

Corrective Action Log



Corrective Action Log

Use this form to note the date and activity for accurate record keeping (make additional copies as necessary). Examples include the restaking or reinforcement of the erosion control barrier, site watering to prevent dust erosion, street sweeping, equipment and machinery repair, etc.

Date	Activity Description	Additional Action Items
		*

Appendix G

SWPPP Amendment Log

The SWPPP, including the site plans, shall be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP.

The SWPPP shall be amended if during inspections or investigations by site staff, or by local, state, tribal or federal officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site.

Based on the results of an inspection, the SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) calendar days following the inspection. Implementation of these additional or modified BMPs shall be accomplished as described in Subpart 3.6B of the Construction General Permit (located in Appendix C).



SWPPP Amendment Log

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name(s) and Title)

Appendix H

Subcontractor Certifications/Agreements



Sample Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION STORMWATER POLLUTION PREVENTION PLAN

Project Number:	
Project Title:	
Operator(s):	

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company:		*	
Address:			
Telephone Number:			
Type of construction service	to be provided:		
Signature:		_	
Title:		_	
Date:		_	



Appendix I

Grading and Stabilization Activities Log

Site Plans in Appendix B should be annotated to indicate areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.



The following records are to be kept by each Site Operator throughout the construction period and maintained in the SWPPP. Insert additional documentation for record keeping as necessary.

Date	Location on Pro	perty	1	Descript	ion

Grading and Stabilization Activities Log

Appendix J

Training Log



Training Log

Date	Training Topic	Attendee	Signature of Training Coordinator
	1		

Appendix K

Delegation of Authority



Sample Delegation of Authority Form

Delegation of Authority

I, ______ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _______ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

(name of person or position)
 (company)
(address)
(city, state, zip)
 (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:		
Company: _		
Title:		
Signature:		
Date:		

Appendix L

Endangered Species Documentation



Appendix M

Historic Preservation Documentation

The Site consists of former marsh land that was filled for a never-built residential development, and has been used only as a horse-racing track. It contains no protected historical resources (i.e., properties or buildings listed in the National or State Registries of Historic Places) and there are no previously identified archaeological resources located within the Site or immediate vicinity.





