

*Proposed Site Improvements
Vertex Pharmaceuticals
1 Harbor Street, Boston*

Boston,
Massachusetts

Prepared for Vertex Pharmaceuticals, Inc.
Boston, MA

Prepared by



August 22, 2018

*Proposed Site Improvements
Vertex Pharmaceuticals
1 Harbor Street, Boston*

Boston,
Massachusetts

Prepared for Vertex Pharmaceuticals, Inc.
50 Northern Avenue
Boston, MA 02210
617-961-5144

Prepared by  **vhb** Engineers | Scientists | Planners | Designers
99 High Street, 10th Floor
Boston, MA 02110
617-724-7000

August 2018



Table of Contents

Notice of Intent Forms

WPA Form 3
MassDEP Fill Transmittal Form
City of Boston Filing Fee Calculation
Figures

Attachment A – NOI Narrative.....A-1

Introduction A-1
Wetland Resource Areas A-1
Proposed Improvements..... A-2
Mitigation Measures..... A-4
Regulatory Compliance..... A-6
Summary..... A-7

Attachment B – Abutter Information

Attachment C – Stormwater Memorandum

Attachment D – Project Plans





Notice of Intent

-
- WPA Form 3
 - NOI Wetland Fee Transmittal Form



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

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1041488
City/Town:BOSTON

A. General Information

1. Project Location:

a. Street Address	1 HARBOR STREET		
b. City/Town	BOSTON	c. Zip Code	02210
d. Latitude	42.34535N	e. Longitude	71.03603W
f. Map/Plat #	0	g. Parcel/Lot #	0602674120

2. Applicant:

Individual Organization

a. First Name		b. Last Name	
c. Organization	VERTEX PHARMACEUTICALS, INC.		
d. Mailing Address	50 NORTHERN AVENUE		
e. City/Town	BOSTON	f. State	MA
g. Zip Code			02210
h. Phone Number	617-961-5144	i. Fax	
		j. Email	

3. Property Owner:

more than one owner

a. First Name		b. Last Name	
c. Organization	ECONOMIC DEVELOPMENT AND INDUSTRIAL CORPORATION		
d. Mailing Address	1 CITY HALL SQUARE, 9TH FLOOR		
e. City/Town	BOSTON	f. State	MA
g. Zip Code			02210
h. Phone Number	617-573-1100	i. Fax	
		j. Email	

4. Representative:

a. First Name	DANIEL	b. Last Name	PADIEN
c. Organization	VHB, INC.		
d. Mailing Address	99 HIGH STREET, 10TH FLOOR		
e. City/Town	BOSTON	f. State	MA
g. Zip Code			02110-2354
h. Phone Number	617-607-2985	i. Fax	
		j. Email	dpadien@vhb.com

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

a. Total Fee Paid	1,050.00	b. State Fee Paid	512.50	c. City/Town Fee Paid	537.50
-------------------	----------	-------------------	--------	-----------------------	--------

6. General Project Description:

THE PROJECT IS THE RECONFIGURATION OF AN EXISTING PAVED PARKING, LOADING AND SERVICE AREA INCLUDING THE INSTALLATION OF NEW CONCRETE PADS, BUILDING EQUIPMENT (I.E. CHILLERS, EMERGENCY GENERATOR, ETC.) AND SITE CONTROLS (BOLLARDS AND K-RAIL BARRIERS) AND RELOCATION OF EXISTING LOADING DOCKS TO ACCOMMODATE INTERIOR MANUFACTURING MODIFICATIONS.

7a. Project Type:

- | | |
|---|--|
| 1. <input type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Limited Project Driveway Crossing | 4. <input checked="" type="checkbox"/> Commercial/Industrial |
| 5. <input type="checkbox"/> Dock/Pier | 6. <input type="checkbox"/> Utilities |

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

Provided by MassDEP:
 MassDEP File #:
 eDEP Transaction #:1041488
 City/Town:BOSTON

7. Coastal Engineering Structure
 9. Transportation
 8. Agriculture (eg., cranberries, forestry)
 10. Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

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

8. Property recorded at the Registry of Deeds for:

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
---------------	-----------------------------	-------------------------------

a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if any)	
2. Width of Riverfront Area (check one)	<input type="checkbox"/> 25 ft. - Designated Densely Developed Areas only <input type="checkbox"/> 100 ft. - New agricultural projects only <input type="checkbox"/> 200 ft. - All other projects	
3. Total area of Riverfront Area on the site of the proposed project		square feet
4. Proposed Alteration of the Riverfront Area:		

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

Provided by MassDEP:
 MassDEP File #:
 eDEP Transaction #:1041488
 City/Town:BOSTON

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

5. Has an alternatives analysis been done and is it attached to this NOI? Yes No
 6. Was the lot where the activity is proposed created prior to August 1, 1996? Yes No

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

Resource Area Size of Proposed Alteration Proposed Replacement (if any)

- | | | |
|--|---|------------------------------------|
| a. <input checked="" type="checkbox"/> Designated Port Areas | Indicate size under | Land under the ocean below, |
| b. <input type="checkbox"/> Land Under the Ocean | 1. square feet | |
| | 2. cubic yards dredged | |
| c. <input type="checkbox"/> Barrier Beaches | Indicate size under Coastal Beaches and/or Coastal Dunes, below | |
| d. <input type="checkbox"/> Coastal Beaches | 1. square feet | 2. cubic yards beach nourishment |
| e. <input type="checkbox"/> Coastal Dunes | 1. square feet | 2. cubic yards dune nourishment |
| f. <input type="checkbox"/> Coastal Banks | 1. linear feet | |
| g. <input type="checkbox"/> Rocky Intertidal Shores | 1. square feet | |
| h. <input type="checkbox"/> Salt Marshes | 1. square feet | 2. sq ft restoration, rehab, crea. |
| i. <input type="checkbox"/> Land Under Salt Ponds | 1. square feet | |
| | 2. cubic yards dredged | |
| j. <input type="checkbox"/> Land Containing Shellfish | 1. square feet | |
| k. <input type="checkbox"/> Fish Runs | Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above | |
| | 1. cubic yards dredged | |
| l. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage | 18000 | |
| | 1. square feet | |

4. Restoration/Enhancement

Restoration/Replacement

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

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

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

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1041488
City/Town:BOSTON

5. Projects Involves Stream Crossings

Project Involves Streams Crossings

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

a. number of new stream crossings

b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. Yes No

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

Natural Heritage and Endangered Species
Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

b. Date of map: FROM MAP VIEWER

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

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

1. Percentage/acreage of property to be altered:

(a) within Wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

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

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

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

b. Photographs representative of the site

c. MESA filing fee (fee information available at: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html>)

Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

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

d. Vegetation cover type map of site

e. Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

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

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

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1041488
City/Town:BOSTON

10.37 and 10.59.)

2. Separate MESA review ongoing.

a. NHESP Tracking Number

b. Date submitted to NHESP

3. Separate MESA review completed.

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

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

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?

a. Not applicable - project is in inland resource area only

b. Yes No

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

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

North Shore - Hull to
New Hampshire:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase street - 3rd floor
New Bedford, MA 02740-6694

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

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

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

Yes No

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

b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. Yes No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?

a. Yes No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)

2. A portion of the site constitutes redevelopment

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

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

Provided by MassDEP:

MassDEP File #:

eDEP Transaction #:1041488

City/Town:BOSTON

3. Proprietary BMPs are included in the Stormwater Management System

b. No, Explain why the project is exempt:

1. Single Family Home

2. Emergency Road Repair

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

D. Additional Information

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

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

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

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date:	e. Scale:
C-1 SITE PLAN	VHB, INC.	MARK JACKSON, P.E.	1 inch = 20 feet	8/17/2018
C-2 SITE DETAILS	VHB, INC.	MARK JACKSON, P.E.	1 inch = 20 feet	8/17/2018
SR-1 EXISTING CONDITIONS SURVEY	VHB, INC.	RUSSELL BOUQUET, P.E.	1 inch = 20 feet	8/21/2018

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

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

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1041488
City/Town:BOSTON

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.

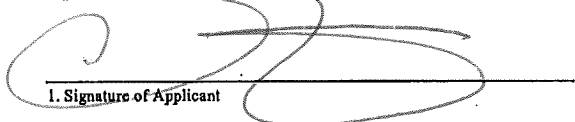

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

338186	8/21/2018
2. Municipal Check Number	3. Check date
1259	8/21/2018
4. State Check Number	5. Check date
Vanasse Hangen Brustlin, Inc. (VHB)	
6. Payer name on check: First Name	7. Payer name on check: Last Name

F. Signatures and Submittal Requirements

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

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

 1. Signature of Applicant	21 AUGUST 2018 2. Date
See attached letter. 3. Signature of Property Owner (if different)	4. Date
 5. Signature of Representative (if any)	8/22/2018 6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



August 20, 2018

Boston Conservation Commission
City Hall Plaza, Room 709
Boston, MA 02109

RE: Consent to File a Notice of Intent
1 Harbor Street, South Boston, MA

Dear Mr. Chairman and Commissioners,

The Economic Development Corporation of Boston (EDIC), d/b/a Boston Planning and Development Agency (BPDA) is the fee owner of the existing previously developed commercial/industrial property located at 1 Harbor Street, South Boston identified in the City of Boston's Assessor record as Parcel 0602674120, comprising of approximately 4.7 acres.

EDIC hereby authorizes Vertex Pharmaceuticals Inc., and its duly authorized agents - VHB, Inc, to file permit applications under the Massachusetts Wetlands Protection Act and related City of Boston Ordinances subject to the review and permit authority of the Boston Conservation Commission.

Please do not hesitate to call me at 617-722-4300 if you have any questions in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Polhemus", written over a light blue horizontal line.

Teresa Polhemus
Executive Director/Secretary
Boston Planning & Development Agency

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

Provided by MassDEP:
 MassDEP File #:
 eDEP Transaction #:1041488
 City/Town:BOSTON

A. Applicant Information

1. Applicant:

a. First Name		b. Last Name	
c. Organization	VERTEX PHARMACEUTICALS, INC.		
d. Mailing Address	50 NORTHERN AVENUE		
e. City/Town	BOSTON	f. State	MA
g. Zip Code			02210
h. Phone Number	6179615144	i. Fax	
		j. Email	

2. Property Owner:(if different)

a. First Name		b. Last Name	
c. Organization	ECONOMIC DEVELOPMENT AND INDUSTRIAL CORPORATION		
d. Mailing Address	1 CITY HALL SQUARE, 9TH FLOOR		
e. City/Town	BOSTON	f. State	MA
g. Zip Code			02210
h. Phone Number	6175731100	i. Fax	
		j. Email	

3. Project Location:

a. Street Address	1 HARBOR STREET	b. City/Town	BOSTON
-------------------	-----------------	--------------	--------

Are you exempted from Fee?

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

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

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

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
A.) SITE PREPARATION (FOR DEVELOPMENT) BEYOND NOTICE OF INTENT SCOPE;	1	1050.00		1050.00
		City/Town share of filing fee	State share of filing fee	Total Project Fee
		\$537.50	\$512.50	\$1,050.00

McBee® One-Writes
Security
Business
on back

5-7017/2110

1259

VHB
99 HIGH ST. 10TH FLOOR
BOSTON, MA 02110

Five hundred twelve dollars

50
100 DOLLARS

CHECK AMOUNT

\$ *512.50*

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NO.
<i>8/20/18</i>	<i>Commonwealth of Massachusetts</i>	<i>Fee</i>	<i>1259</i>

Richard L...

⌘ Citizens Bank®

⌘001259⌘ 1:2110701751: 1104090225⌘

Boston Conservation Commission
Notice of Intent Filing Fee

Proponent: Vertex Pharmaceuticals, Inc.

Address: 1 Harbor Street, Boston, MA 02210

Parcel: 0602674120

Project Description: Minor reconfiguration of an existing paved parking, loading and service area within an existing paved area within Land Subject to Coastal Storm Flowage and the South Boston Designated Port Area.

Estimated Cost: \$1,000,000

Filing Fee: \$750.00

Filing Date: August 22, 2018 (estimated)

VANASSE HANGEN BRUSTLIN, INC.
 101 WALNUT STREET • PO BOX 9151
 WATERTOWN, MASSACHUSETTS 02471

CITIZENS BANK
 MASSACHUSETTS
 5-7017/2110

338186

CHECK DATE

August 21, 2018

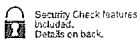
One Thousand Five Hundred and 00/100

AMOUNT

\$1,500.00

City of Boston
 1 City Hall Plaza
 Room 709
 Boston, MA 02201

Michael J. ...
 AP
 AUTHORIZED SIGNATURE



⑈ 338186 ⑈ ⑆ 211070175 ⑆ 1130161371 ⑈

VANASSE HANGEN BRUSTLIN, INC.
 101 WALNUT STREET • PO BOX 9151
 WATERTOWN, MASSACHUSETTS 02471

EMILY BUSINESS FORMS 800.392.6018 VISION
338186

Check Date: 8/21/2018

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
Daniel Padien 8/21	8/21/2018	0055130	\$1,500.00			\$1,500.00
City of Boston		TOTAL	\$1,500.00			\$1,500.00
Citizens	1	0003222				



\\vhb\proj\Boston\11655.03\GIS\Project\FAA\FAA_USGS.mxd



 Project Site

1 Harbor St

Boston, Massachusetts

Site Location Map



\\vhb\proj\Boston\11655.03\GIS\Project\FAA\FAA_Aerial.mxd



 Project Site

1 Harbor St

Boston, Massachusetts

Aerial Map

Source: VHB, MassGIS, FAA

National Flood Hazard Layer FIRMette



42°20'56.59"N



USGS The National Map: Orthoimagery. Data refreshed October 2017. Feet 1:6,000 42°20'30.00"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/12/2018 at 12:22:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

71°2'26.08"W

71°14'48.62"W





Attachment A

Notice of Intent Narrative

-
- Introduction
 - Wetland Resource Areas
 - Proposed Improvements
 - Mitigation Measures
 - Regulatory Compliance
 - Summary





Attachment A

NOI Narrative

On behalf of Vertex Pharmaceuticals, Inc. (the applicant), VHB, Inc. respectfully submits this Notice of Intent (NOI) pursuant to the Massachusetts Wetlands Protection Act (MGL Chapter 131, Section 40) seeking an Order of Conditions for work within Land Subject to Coastal Storm Flowage and the South Boston Designated Port Area.

Introduction

The Applicant, Vertex Pharmaceuticals, Inc., proposes to complete certain minor improvements to the existing paved parking, loading and service area at their existing manufacturing facility located at 1 Harbor Street in the South Boston Designated Port Area.

The project site consists of approximately 0.4 acres of previously developed entirely paved land adjacent to a one-story light-industrial building located at 1 Harbor Street in South Boston (See Figure 1 – Site Location and Figure 2 – Aerial Map).

The project site is approximately 1,300 feet from the waters of Boston Harbor and does not contain any vegetated wetland resource areas or buffer zone. However, the site is located within a FEMA-mapped coastal floodplain regulated as Land Subject to Coastal Storm Flowage and is also within the South Boston Designated Port Area.

The planned improvements include reconfiguration of the Project Site to accommodate operational changes, optimization of building system, installation of a new emergency generator and physical separation of loading docks from these reconfigured service areas.

Wetland Resource Areas

The Project Site contains the following state-regulated wetland resource areas and buffer zones.



Land Subject to Coastal Storm Flowage

Land Subject to Coastal Storm Flowage is defined at 310 CMR 10.04 (2) as land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater.

This so-called 100-year storm, defined by Federal Emergency Management Agency (FEMA) storm with a 1 percent chance of occurring any year. The most recently Flood Insurance Rate Map (FIRM) indicates this modeled storm has a base flood elevation of 10 feet NAVD88 (15.65 feet Boston City Base).

The entire project site is located within this coastal floodplain and therefore within the state-regulated resource area Land Subject to Coastal Storm Flowage.

Designated Port Area

Designated Port Areas are defined at 310 CMR 10.26 as those areas designated in 301 CMR 25.00: Designation of Port Areas.

The Project Site is located within the South Boston Designated Port Area (DPA) delineated pursuant to 301 CMR 25.00 by the Massachusetts Office of Coastal Zone Management pursuant the Federal Coastal Zone Management Act. A copy of the most recently issued DPA boundary map depicting this area is attached to this Notice of Intent.

Natural Heritage Resources / Outstanding Resource Waters

The Project Site is located in a densely developed area of South Boston formerly part of the South Boston Naval Annex. No portion of the Site is located within a Zone II Interim Wellhead Protection Area¹. Furthermore, the Project Site does not contain any known occurrence of Estimated Habitat of Rare Wildlife or Priority Habitat of Endangered Species.²

Proposed Improvements

The proponent plans to implement a series of small changes to the existing paved loading and service area in two phases including:



¹ DEP, 2012. Approved Wellhead Protection Areas (Zone II).

² Massachusetts Natural Heritage and Endangered Species Program, MassGIS.



Phase 1

- Placement of concrete “Jersey” barriers and steel and concrete bollards to delineate loading and non-loading areas to protect existing and proposed equipment;
- Minor building modifications to accommodate the installation of three new loading bay doors and the removal of four existing roll-up doors;
- Installation of new steel stair and ladder on the existing building façade;
- Installation of new ground-mounted steel dunnage and an above-grade Air-Cooled Chiller;

Future Phase

- Installation of a new pad-mounted, emergency generator at grade level;
- Installation of a lab waste storage;
- Installation of a new ground-level trash compactor;

The proposed improvements are depicted on the attached project plans. The Exterior Building Elevation Plan (Sheet 003-1-A20-01) indicates the proposed elevations for each piece of mechanical equipment proposed to be installed at the site

Table 1 provides a summary of the existing and proposed site grades and the elevation for each piece of mechanical equipment to be reinstalled at the site.

Table 1 Site and Equipment Elevations

Project Element	Existing Site Grade	Proposed Site Grade	Equipment Elevation Bottom of Framing
Steel Frame Stairs	15.1	15.1	15.1
Concrete K-Rail Barrier	15.1 – 15.3	15.1 – 15.3	15.1 – 15.3
Trask Compactor	15.1	15.1	15.1
Chiller	15.3 – 19.1	15.3 – 16.0	19.4
Waste Water Holding Tank	16.6	16.6	19.4
Emergency Generator	16.1 – 16.6		19.4
Parking Space Re-striping	15.5	15.5	NA

1. All elevations in feet, Boston City Base (BCB).
2. Existing elevations based on actual Field Survey, August 2018.

The applicant will protect wetland resource areas from impacts during construction through the implementation of an erosion and sedimentation control program. This



program includes provisions to minimize areas of disturbance through phasing and sequencing, to limit erosion through stabilization of disturbed surfaces, and to prevent sediment from leaving the site by installing structural controls. The stormwater runoff generated from the project will be collected and treated in accordance with design guidelines³ developed by Department of Environmental Protection (DEP) and standards contained in the WPA Regulations. Construction-phase mitigation measures are described below.

Resource Area Impacts

The Project Site is located entirely within a previously developed area located in a FEMA-mapped coastal floodplain associated with Boston Harbor, regulated as Land Subject to Coastal Storm Flowage (LSCSF), and located within the South Boston Designated Port Area. As described above, work proposed within LSCSF includes the minor construction of minor site improvements within approximately 23,700 square feet of an existing paved parking, loading and service area.

There are no general performance standards for work in LSCSF formalized under the Massachusetts Wetlands Protection Act (MWPA) and no applicable performance standards for work within a Designated Port Area that is outside other state-regulated resource areas.

Mitigation Measures

The applicant proposes to implement a series of mitigation measures to prevent short- and long-term impacts to Land Subject to Coastal Storm Flowage and the downgradient waters of Boston Harbor. Proposed mitigation measures include sediment and erosion controls, structural practices and non-structural practices as described below.

Erosion and Sediment Control

An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the Project. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP⁴ and the U.S. Environmental Protection Agency (EPA)⁵.



³ DEP, 2008. *Massachusetts Stormwater Handbook*.

⁴ DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials*.

⁵ EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.



Proper implementation of the erosion and sedimentation control program will:

- minimize exposed soil areas through sequencing and temporary stabilization;
- place structures to manage stormwater runoff and erosion; and,
- establish a permanent stabilized cover as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Site Control

Prior to any excavation, the contractor will establish a limit of work and perimeter control (fence) to avoid unnecessary vehicle traffic. No temporary soil stockpile areas are anticipated but if small stockpiles are necessary, they will be surrounded by erosion controls of covered by plastic sheeting as appropriate to avoid or minimize potential to water quality or downstream wetlands or waterways.

Pavement Sweeping

The paved areas within, or adjacent to the Project Site will be mechanically swept on an as-needed basis to avoid tracking of dirt or sediment from the Project Site onto city streets.

Catch Basin Protection

The Project does not include the construction of any new or reconfigured catch basins or stormwater inlets. Stormwater flow will be directed to the existing closed stormwater management system in the surrounding paved areas. All catch basins collecting stormwater runoff from the Project Site will be protected by non-woven catch basin inlet filter inserts at (i.e. Siltsac or acceptable substitute). Catch basin inlet protection measures will be inspected on a daily basis and replaced as necessary throughout construction. Accumulated sediment in catch basin sumps will be removed at project completion.

Maintenance

- The contractor or subcontractor will be responsible for implementing each control described above.



- The on-site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor.
- Damaged or deteriorated items will be repaired immediately after identification.
- Sediment that is collected in structures shall be disposed of properly and covered if stored on-site.
- Erosion control structures shall remain in place, at a minimum, while on-site areas are disturbed. If the planned improvements are completed in two or phases, erosion controls may be removed and re-installed to accommodate operational needs.

Regulatory Compliance

The Project includes work within Land Subject to Coastal Storm Flowage (LSCSF) and a Designated Port Area (DPA), jurisdictional areas subject to the Massachusetts Wetlands Protection Act necessitating the filing of this Notice of Intent and receipt of an Order of Conditions from the Boston Conservation Commission.

Compliance with the Massachusetts Wetlands Protection Act (M.G.L. c. 131 § 40) and its implementing regulations (310 CMR 10.00) is outlined below.

Land Subject to Coastal Storm Flowage

The planned improvements will not appreciably alter the Land Subject to Coastal Storm Flowage at the Project Site. The planned improvements are limited to temporary construction-phase impacts and the installation of equipment and site control measures. No gross changes in site elevation are proposed and no alterations that could affect the elevation of floodwaters during a 1 percent annual storm.

The Massachusetts Wetland Regulations (310 CMR 10.00) do not impose any performance standards for work in Land Subject to Coastal Storm Flowage, in part because the placement of fill within the coastal floodplain does not alter the predicted flood elevations during coastal storms.

Designated Port Areas

The planned improvements are located in the South Boston Designated Port Area (DPA). The regulations at 310 CMR 10.26(1) establish presumptions for Land Under the Ocean when it is located within a DPA. Additionally, presumptions of non-significance are stipulated for the following resource areas:

- salt marshes
- coastal dunes



- land under salt ponds
- coastal beaches
- tidal flats
- barrier beaches
- rocky intertidal shores and
- land containing shellfish

However, no presumptions of significance are stipulated for Land Subject to Coastal Storm Flowage.

Consistent with the lack of performance standards for work in Land Subject to Coastal Storm Flowage, there are no performance standards or presumptions of significance for work within a Designated Port Area that is also within Land Subject to Coastal Storm Flowage.

Stormwater Management

The Project has been designed in accordance with the Massachusetts Stormwater Handbook, and meets all applicable stormwater management standards for a redevelopment project located in a coastal floodplain.

The planned improvements will have no appreciable effect on the volume or peak velocity of runoff from the site because the entire site is presently and will be paved under proposed conditions.

A stormwater management analysis and compliance documentation is provided as an attachment to this Notice of Intent including the following required elements:

- Project description;
- Site description;
- Summary of existing drainage conditions;
- Summary of proposed drainage conditions;
- Regulatory compliance narrative documenting compliance with all applicable stormwater management standards, and
- Complete DEP Stormwater Management Form.

Summary

Vertex Pharmaceuticals, Inc. proposes certain minor improvements to their existing facility at 1 Harbor Street in South Boston, located within Land Subject to Coastal Storm Flowage and the South Boston Designated Port Area. The Project Site is located approximately 1,300 feet from the waters of Boston Harbor, contains no open water, vegetated wetlands or buffer zone.



The planned improvements are limited to changes to the existing paved areas and include installation of mechanical building systems such as an emergency generator, air handling equipment, relocation and reconfiguration of loading dock and installation of site management controls (bollards and concrete k-rails).

The Project will not have any adverse effects of any protected wetland resource area and fully complies with all applicable provisions of the Massachusetts Wetlands Regulations.



Attachment B

Abutter Information

-
- Notice to Abutters
 - Abutters List





NOTIFICATION TO ABUTTERS UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, section 40, and the Massachusetts Wetland Regulations at 310 CMR 10.00, you are hereby notified of the following:

The Applicant, Vertex Pharmaceuticals, Incorporated, has filed a Notice of Intent with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection Under the Wetlands Protection Act.

This work is proposed at 1 Harbor Street in South Boston. Work proposed under this Notice of Intent is limited to minor alterations to the existing paved parking, loading and service areas between the building and Harbor Street. Proposed improvements include the installation of new mechanical equipment, reconfiguration and relocation of exterior loading areas and site control elements (bollards and concrete K-rails).

Copies of the Notice of Intent may be examined at the Boston Conservation Commission office located in Boston City Hall at One City Hall Plaza, Room 709, Boston, MA appointment. For more information, please call the Boston Conservation Commission at (617) 635-3850

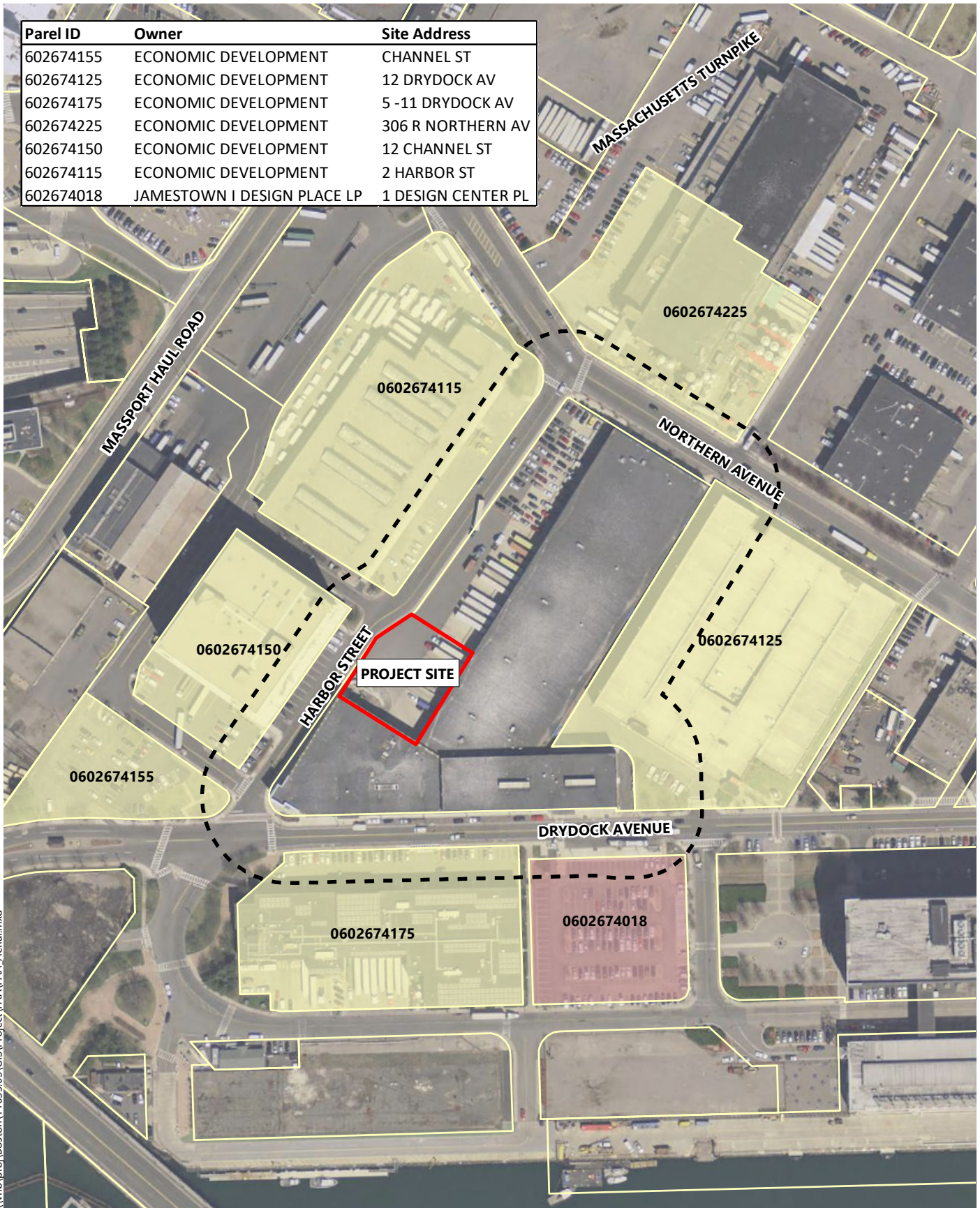
The Notice of Intent may also be examined at the offices of Vanasse Hangen Brustlin, Inc. by appointment. For more information call Daniel Padien at (617) 607-2985.

Copies of the Notice of Intent may be obtained from the Boston Conservation Commission or by calling Daniel Padien at Vanasse Hangen Brustlin, Inc. at (617) 607-2985. You may be charged for the cost of the copy.

Notice of the Public Hearing, including its date, time and place, will be published in the Boston Herald at least 5 days in advance, and will be posted in Boston City Hall not less than 48 hours in advance of the Hearing.

You may also contact the Department of Environmental Protection Metro Boston/Northeast Regional Office at (617) 654-6500 for more information about this application or the Wetlands Protection Act.

Parel ID	Owner	Site Address
602674155	ECONOMIC DEVELOPMENT	CHANNEL ST
602674125	ECONOMIC DEVELOPMENT	12 DRYDOCK AV
602674175	ECONOMIC DEVELOPMENT	5 -11 DRYDOCK AV
602674225	ECONOMIC DEVELOPMENT	306 R NORTHERN AV
602674150	ECONOMIC DEVELOPMENT	12 CHANNEL ST
602674115	ECONOMIC DEVELOPMENT	2 HARBOR ST
602674018	JAMESTOWN I DESIGN PLACE LP	1 DESIGN CENTER PL



\\vhb\proj\Boston\11655\03\GIS\Project\FAA\FAA_Aerial.mxd



1 Harbor St

Boston, Massachusetts

Project Site

Abutting Economic Development Parcel

Property Ownership

100-ft Project Parcel Buffer

Abutting Private Parcel

Parcel Boundary

Source: VHB, MassGIS, FAA

Abutters Names and Addresses

The following ownership data taken from City of Boston Assessor Database, 8/17,2018

Parcel ID	Site Address	Owner Name and Address
602674155	CHANNEL ST	ECONOMIC AND INDUSTRIAL CORPORATION OF BOSTON ONE CITY HALL SQUARE BOSTON, MA 02201
602674125	12 DRYDOCK AV	
602674175	5 -11 DRYDOCK AV	
602674225	306 R NORTHERN AV	
602674150	12 CHANNEL ST	
602674115	2 HARBOR ST	
602674018	1 DESIGN CENTER	JAMESTOWN I DESIGN PLACE LP 1 DESIGN CENTER PL BOSTON MA 02210



Attachment C

Stormwater Memorandum





Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

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

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

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



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

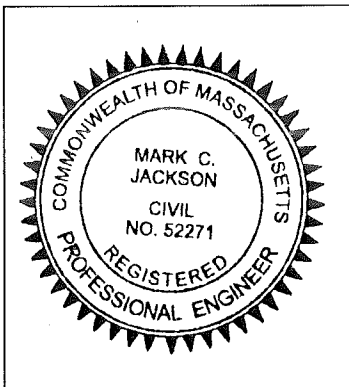
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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


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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature




Signature and Date 8/21/18

Checklist

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

- New development
- Redevelopment
- Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- 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 Field¹
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - Site is comprised solely of C and D soils and/or bedrock at the land surface
 - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - Solid Waste Landfill pursuant to 310 CMR 19.000
 - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

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

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - is within the Zone II or Interim Wellhead Protection Area
 - is near or to other critical areas
 - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - involves runoff from land uses with higher potential pollutant loads.
 - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
 - The ½" or 1" Water Quality Volume or
 - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

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

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does **not** cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- 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 for Stormwater Report

Checklist (continued)

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

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - Limited Project
 - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - Bike Path and/or Foot Path
 - Redevelopment Project
 - Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

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



Stormwater Management Narrative

This Stormwater Management Narrative has been prepared to demonstrate compliance with the Massachusetts Stormwater Management Standards in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and Water Quality Certification Regulations (314 CMR 9.00) for a redevelopment project.

1.1 Project Description

Vertex Pharmaceuticals, Inc. ("Vertex" or the "Proponent") plans to implement a series of small changes to the existing paved loading and service area at the site in two phases.

Proposed Actions (Phase 1)

- Placement of concrete "Jersey" barriers and steel and concrete bollards to delineate loading and non-loading areas to protect existing and proposed equipment;
- Minor building modifications to accommodate the installation of three new loading bay doors and the removal of four existing roll-up doors;
- Installation of new steel stair and ladder on the existing building façade;
- Installation of new ground-mounted steel dunnage and an above-grade Air-Cooled Chiller;

Future Actions (Phase 2)

- Installation of a new pad-mounted, emergency generator at grade level and a combined footprint of approximately 190 SF;
- Installation of a lab waste storage tank with secondary concrete containment with a combined footprint of approximately 625 SF;
- Installation of a new ground-level trash compactor;

While these changes are important to site operations, they are de minimis with respect to the Wetlands Protection Act and its protection of the public interests in regulated wetland resource areas because they will not alter an area subject to protection, as defined at 310 CMR 10.04. The proposed modifications are:

1. Limited to minor alterations to existing paved and developed areas within Land Subject to Coastal Storm Flowage, for which there are no performance standards;
2. Located approximately 1,300 feet from the waters of Boston Harbor and does not contain any open water, vegetated wetlands or buffer zones;

3. Will not confine, restrict or redirect any floodwaters that may reach the site during a large storm event;

1.2 Site Description

The project site consists of approximately 0.4 acres of previously developed entirely paved land adjacent to a one-story light-industrial building located at 1 Harbor Street in South Boston.

The project site is approximately 1,300 feet from the waters of Boston Harbor. It does not contain any vegetated wetland resource areas or buffer zone. However, the site is located within a FEMA-mapped coastal floodplain in a designated Zone AE with a base flood elevation of 10 feet NAVD88 (see attached Firm excerpt). We understand the site is subject to the jurisdiction of the Massachusetts Wetlands Protection Act.

The National Resources Conservation Service (NRCS) has classified surface soils on the site as urban fill (see attached soil map).

1.3 Existing Drainage Conditions

Under existing conditions, the Project Site is fully developed. The paved area adjacent to the 1-story building ranges in elevation from 16.5-feet to 15-feet. Stormwater is collected on site via a large trench drain and piped through a water quality unit before overflowing to a 12-inch drain in Harbor Street. Stormwater ultimately discharges into the Boston Harbor through SDO 225.

For the existing conditions hydrologic analysis, the site was considered as one area that eventually contributed to 1 design point, where peak discharge rates were evaluated (see **Figure 1**). The HydroCAD model is based on the NRCS Technical Release 20 (TR-20) Model for Project Formulation Hydrology. **Tables 1 and 2** present a summary of the existing conditions peak discharge rates and volumes.

Table 1
Peak Discharge Rates (cfs*)

<u>Design Point</u>	<u>2- year</u>	<u>10- year</u>	<u>25- year</u>	<u>100- year</u>
Design Point 1: Existing	1.67	2.66	3.28	4.75

* Expressed in cubic feet per second

Table 2
Peak Discharge Volumes (ac-ft*)

Design Point	2- year	10- year	25- year	100- year
Design Points 1: Existing	0.123	0.199	0.247	0.358

* Expressed in acre-feet

1.4 Proposed Drainage Conditions

The proposed project will maintain existing drainage conditions and patterns. As a result, the proposed work will not increase run-off volume or rate. **Tables 3 and 4** present a summary of the proposed conditions peak discharge rates and volumes.

Table 3
Peak Discharge Rates (cfs*)

Design Point	2- year	10- year	25- year	100- year
Design Point 1: Proposed	1.67	2.66	3.28	4.75

* Expressed in cubic feet per second

Table 4
Peak Discharge Volumes (ac-ft*)

Design Point	2- year	10- year	25- year	100- year
Design Points 1: Proposed	0.123	0.199	0.247	0.358

* Expressed in acre-feet

1.5 Regulatory Compliance

The proposed project meets the regulatory criteria for a redevelopment project as it includes modifications to the existing paved loading and service area.

1.5.1 Massachusetts Department of Environmental Protection (DEP) - Stormwater Management Standards

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

Standard 1: No New Untreated Discharges or Erosion to Wetlands

The Project is matching existing drainage conditions and will not introduce new discharges to the city system.

Standard 2: Peak Rate Attenuation

The project is matching existing peak runoff rates under the proposed condition.

Standard 3: Stormwater Recharge

The Project will match existing recharge under proposed conditions.

Standard 4: Water Quality

The Project will maintain the existing water quality unit and match existing conditions.

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

The Project is not considered a LUHPPL.

Standard 6: Critical Areas

The Project is designed to comply with Standard 6. The Project will not discharge storm water to a Zone II or Interim Wellhead Protection Area of a public water supply.

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

Standards 2, 3, 4, 5, and 6 have been met to the maximum extent practicable.

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

The Project is designed to comply with Standard 8. Prior to the commencement of work in the Project area, appropriate erosion controls will be erected downgradient work area in order to prevent any loose soil and material from migrating into the surrounding wetland. All sedimentation barriers will be maintained in good repair until all disturbed areas have been fully stabilized. At no time will sediments be deposited in a wetland or water body. During work the contractor will inspect the erosion controls on a daily basis and will remove accumulated sediments as needed.

Standard 9: Operation and Maintenance Plan

The Project is designed to comply with Standard 9. A draft operations and maintenance plan is attached herein.

Standard 10: Prohibition of Illicit Discharges

The Project is designed to comply with Standard 10. There are no illicit discharges to the stormwater management system. There are no sources of water discharges other than rainfall.

Long Term Stormwater Maintenance Measures

The following maintenance program is proposed to ensure the continued effectiveness of the water quality controls previously described.

- Paved areas will be swept semi-annually.

Routinely pick up and remove litter from the Project Site in addition to regular pavement sweeping.

Structural Stormwater Management Devices

The project does not include any structural stormwater management devices.

Responsible Party

Vertex Pharmaceutical, Inc.'s property manager shall be responsible for inspection and maintenance procedures described herein.

Spill Response Procedure

Initial Notification

In the event of a spill the facility and/or construction manager or supervisor will be notified immediately.

Facility Manager (name) _____
Facility Manager (phone) _____
Construction Manager (name) _____
Construction Manager (phone) _____

Assessment - Initial Containment

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. The supervisor will first contact the Fire Department and then notify the Police Department, Board of Health and Conservation Commission. The fire department is ultimately responsible for matters of public health and safety and should be notified immediately.

Fire Department Phone: 911 _____
Police Department: 911 _____
Board of Health Phone: _____
Conservation Commission Phone: _____

Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Massachusetts Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the main construction/facility office and readily accessible to all employees.

HAZARDOUS WASTE / OIL SPILL REPORT

Date ____ / ____ / ____

Time _____ AM / PM

Exact location (Transformer #) _____

Type of equipment _____ Make _____ Size _____

S / N _____ Weather Conditions _____

On or near water Yes If yes, name of body of water _____
 No

Type of chemical / oil spilled _____

Amount of chemical / oil spilled _____

Cause of spill _____

Measures taken to contain or clean up spill _____

Amount of chemical / oil recovered _____ Method _____

Material collected as a result of clean up

_____ drums containing _____

_____ drums containing _____

_____ drums containing _____

Location and method of debris disposal _____

Name and address of any person, firm, or corporation suffering damages _____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring _____

Spill reported to General Office by _____ Time _____ AM / PM

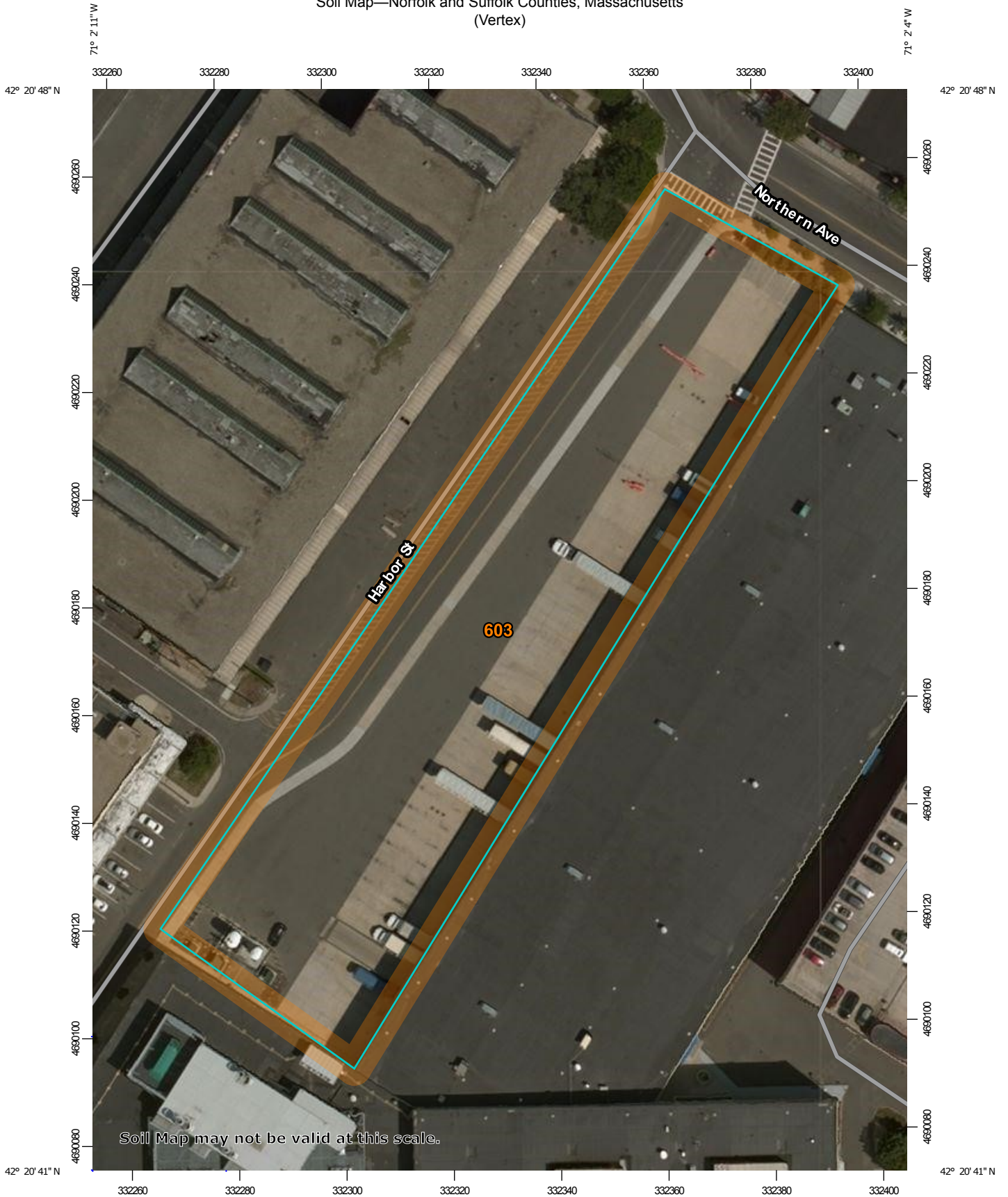
Spill reported to DEP / National Response Center by _____

DEP Date ____ / ____ / ____ Time _____ AM / PM Inspector _____

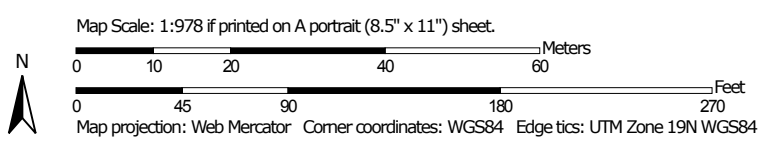
NRC Date ____ / ____ / ____ Time _____ AM / PM Inspector _____

Additional comments _____

Soil Map—Norfolk and Suffolk Counties, Massachusetts
(Vertex)




Soil Map may not be valid at this scale.



Soil Map—Norfolk and Suffolk Counties, Massachusetts
(Vertex)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

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

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

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

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

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 13, Oct 6, 2017

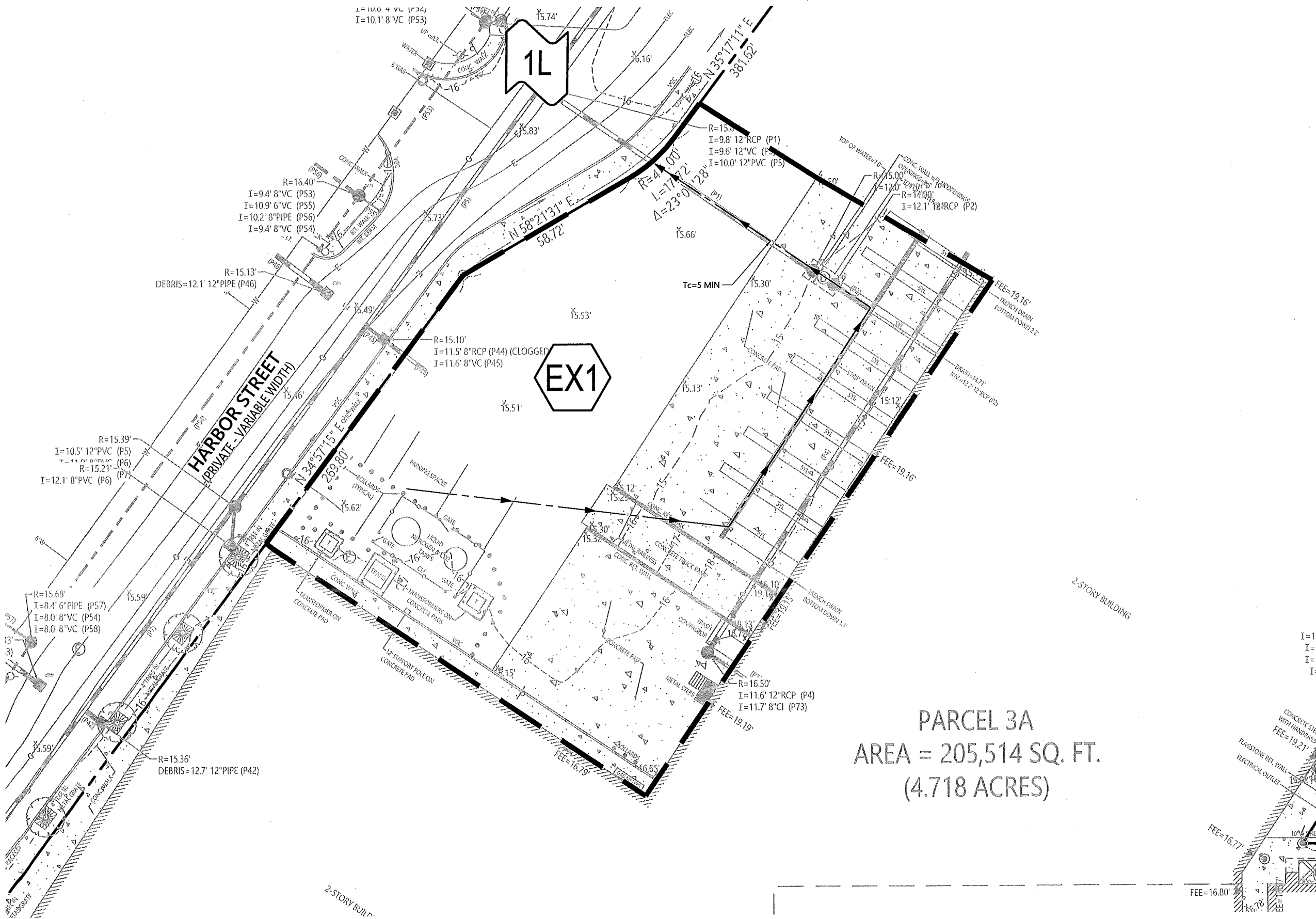
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 10, 2014—Aug 11, 2014

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

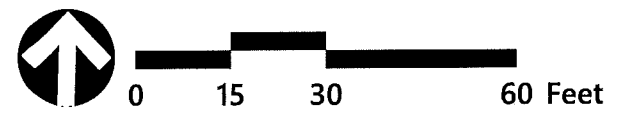
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	1.7	100.0%
Totals for Area of Interest		1.7	100.0%

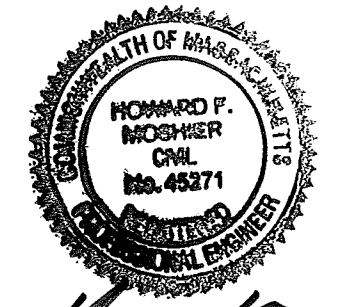


PARCEL 3A
 AREA = 205,514 SQ. FT.
 (4.718 ACRES)

LEGEND	
	POND
	DESIGN POINT
	REACH
	DRAINAGE AREA DESIGNATION
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION FLOW LINE



vhb Existing Drainage Conditions
 Vertex Pharmaceuticals
 Boston, MA



Howard F. Mosher
 8-24-18

Figure 1
 July 31, 2018



Stormwater Management System Operations and
Maintenance Plan

1 Harbor Street

Boston,
Massachusetts





Table of Contents

Project Information	5
A. Maintenance of Stormwater Management Systems.....	9
A.1 Structural Stormwater Management Devices	9
A.1.1 Trench Drains	9
B. Operations & Maintenance Plan Summary	13
B.1 Routine Maintenance Checklists.....	13
B.2 Reporting and Documentation	13
B.3 Long Term Maintenance/ Evaluation Checklist.....	14
B.4 Maintenance Checklists and Device Location Maps.....	15

Attachment A – Long-Term Pollution Prevention Plan





Project Information

Site Location

1 Harbor Street, Boston, Massachusetts 02210

Property Owner

City of Boston
Economic Development and Industrial Corporation

Tenant

Vertex Pharmaceuticals

Contact:
Stan Glushik

Telephone: 617-961-5144





Section A

Maintenance of Stormwater Management Systems





A. Maintenance of Stormwater Management Systems

A.1 Structural Stormwater Management Devices

A.1.1 Trench Drains

The site contains a landowner owned and maintained trench drain. The tenant, Vertex, will inspect the portion of the trench drain located within the lease boundaries quarterly and remove sediments as necessary.

Inspections and Cleaning

- All catch basins, area drains, and drain manholes shall be inspected at least four times per year and cleaned at least once per year.
- Sediment (if more than six inches deep) and/or floatable pollutants shall be removed from the trench drain and disposed of at an approved offsite facility in accordance with all applicable regulations.
- Any structural damage or other indication of malfunction will be reported to the site manager and repaired as necessary.
- During colder periods, the trench drain grates must be kept free of snow and ice.
- During warmer periods, the catch basin and area drain grates must be kept free of leaves, litter, sand, and debris.





Section B

Operations and Maintenance Summary





B. Operations & Maintenance Plan Summary

This Operation and Maintenance Plan has been prepared in accordance with the Stormwater Management Policy developed by the DEP and CZM. It specifies operational practices and drainage system maintenance requirements for the project.

B.1 Routine Maintenance Checklists

Routine required maintenance is described in Section A. The following checklists are to be used by the property manager to implement and document the required maintenance and inspection tasks.

B.2 Reporting and Documentation

The site supervisor shall be responsible for ensuring that the scheduled tasks as described in this plan are appropriately completed and recorded in the Maintenance Log. Accurate records of all inspections, routine maintenance and repairs shall be documented and these records shall be available for inspection upon request.

The Maintenance Log shall:

- Document the completion of required maintenance tasks.
- Identify the person responsible for the completion of tasks.
- Identify any outstanding problems, malfunctions or inconsistencies identified during the course of routine maintenance.
- Document specific repairs or replacements.

B.3 Long Term Maintenance/ Evaluation Checklist

Best Management Practice	Minimum Maintenance and Key Items to Check	Inspection Frequency	Date Inspected	Inspector Initials	Cleaning Frequency	Cleaning or Repair Needed Yes/No <input type="checkbox"/>	Date of Cleaning or Repair	Performed by:
Trench Drain	Remove sediment 2X per year or if >6 inches	4X per year	/ /		1X per year		/ /	

Stormwater Control Manager _____

B.4 Maintenance Checklists and Device Location Maps

These checklists are provided for the maintenance crew to photocopy and use when conducting inspections and cleaning activities to the stormwater management systems.



Trench Drain– Inspect 4 times per year

Unit	Inspected (Y/N)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Sediment, Damage)
Trench Drain			/ /	





Maintenance Checklists

- Owner must keep 7 years
- Keep a blank checklist and photocopy as necessary



Long-Term Pollution Prevention Plan



Long-Term Pollution Prevention Plan

This Long-Term Pollution Prevention Plan has been developed to establish site management practices that improve the quality of stormwater discharges from the Project.

Potential Sources of Pollution

Construction Site Pollutant

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (that could be discharged if exposed to stormwater)	Location on Site (or reference logistics plans where this is shown)
Paving Operations	Concrete constituents	
Painting	Paint	
Vehicles	Petroleum-based products	
Cleared & Graded Areas	Soil erosion	
Portable Toilets (if used)	Sewage	
Fuel Tanks	Fuel oil, gasoline, other fuels	
Storage Areas	Soil erosion, fuel oil, gasoline, asphalt, concrete, vehicle fluids, paints, solvents, pesticides, fertilizer	

Add information as necessary.



Pollutant Control Approach

Maintenance of Pavement Systems

Standard Asphalt Pavement

Regular maintenance of pavement surfaces will prevent pollutants such as oil and grease, trash, and sediments from entering the stormwater management system. The following practices should be performed:

- Inspect pavement areas monthly. Sweep or vacuum pavement areas as necessary with a commercial cleaning unit and dispose of removed material.
- Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary
- Routinely pick up and remove litter from the parking areas, islands, and perimeter landscaping.

Management of Snow and Ice

Storage and Disposal

Snow shall be managed on pavement surfaces, so sand and salt may be swept in the spring or removed as snow melts and drains through the stormwater management system. Key practices for the safe storage and disposal of snow include:

- Under no circumstances shall snow be disposed or stored in stormwater basins, ponds, rain gardens, swales, channels, or trenches.
- Monitor application rates of deicing materials on pavement areas and reduce application rate accordingly.

Salt and Deicing Chemicals

The amount of salt and deicing chemicals to be used on the site shall be reduced to the minimum amount needed to provide safe pedestrian and vehicle travel. The following practices should be followed to control the amount of salt and deicing materials that come into contact with stormwater runoff:

- Devices used for spreading salt and deicing chemicals should be capable of varying the rate of application based on the site specific conditions.
- Specific environmentally sensitive areas should be designated as no and/or reduced salt areas.
- Alternate materials should be used in place of standard salt and deicing chemicals in specific environmentally sensitive areas where possible.



- Sand and salt should be stockpiled under covered storage facilities that prevent precipitation and adjacent runoff from coming in contact with the deicing materials

Management of Vehicle Operations

Fueling and Maintenance of Equipment or Vehicles

When fueling or maintaining equipment or vehicles, the contractor will adhere to the following requirements (CGP 2.3.3.1):

- If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR 112 and Section 311 of the CWA;
- Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
- Use drip pans and absorbents under or around leaky vehicles;
- Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements;
- Clean up spills or contaminated surfaces immediately, using dry clean up measures where possible, and eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
- Do not clean surfaces by hosing the area down.

Vehicle Washing

As listed in CGP 2.3.3.2, the contractor must provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of washing. Effective controls include, but are not restricted to, locating activities away from surface waters and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediments trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls. For compliance with Part 2.3.1.4, for storage of soaps, detergents, or solvents, the contractor must provide either cover (e.g., plastic sheeting or temporary roofs) to prevent these detergents from coming into contact with rainwater, or a similarly effective means designed to prevent the discharge of pollutants from these areas.

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site without controls that contain all surplus concrete and washwater.



Storage of Hazardous Materials

- Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;
- Store all containers that will be stored outside within appropriately sized secondary containment (e.g., spill berms, decks, spill containment pallets) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., storing chemicals in covered area or having a spill kit available on site); and
- Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.
- Hosing will not be utilized as a method to clean surfaces or spills.
- Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

All hazardous waste materials (e.g., petroleum products, solvents) will be disposed in the manner specified by local and state regulation, or by the manufacturer. Site personnel will be instructed in these practices, and the site construction supervisor will be responsible for seeing that these procedures are followed.



Spill Prevention and Response Plan

The following practices will be followed for spill control, notification and cleanup:

- The construction superintendent responsible for the daily operations will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel to receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of the responsible spill personnel will be posted in the material storage area and in the on-site office trailer.
- Spills of toxic or hazardous material in excess of reportable quantities, as established in the CGP, will be reported to the Massachusetts Department of Environmental Protection Division of Hazardous Waste (617) 292-5851 and the National Response Center (800) 424-8802.
- All spills will be cleaned up immediately after discovery;
- The spill area will be kept well ventilated and personnel will wear protective clothing to prevent injury from contact with a hazardous substance; and
- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be informed of the procedures and the location of the information and cleanup supplies;
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on-site. Equipment and materials will include, but will not be limited to the emergency response equipment listed herein;

The following text is excerpted from the Project Stormwater Management System Operations and Maintenance Manual.

A comprehensive Spill Prevention Control and Countermeasure (SPCC) plan will be developed and implemented by the Project Owner and Tenant. At a minimum the SPCC, will discuss:

- Spill prevention equipment;
- Spill prevention supplies provided on-site; and



- Spill prevention training to be provided by the Owner and/or Tenant to designated employees.

Initial Notification

In the event of a spill the facility and/or construction manager or supervisor will be notified immediately.

Facility Manager (name): Stan Glushik

Facility Manager (phone): 617-293-4700

Construction Manager (name): Sergio Tejada

Construction Manager (phone): 617-445-3500

The supervisor will first contact the Fire Department and then notify the Police Department, the Board of Health and the Conservation Commission.

Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Massachusetts Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the main construction/facility office and readily accessible to all employees. A hazardous waste spill report shall be completed as necessary using the attached form.



Emergency Notification Phone Numbers

1. FACILITY MANAGER

Name: Stan Glushik Mobile Phone: 617.293.4700

Phone: _____ E-mail: Stan_glushik@vrtx.com

ALTERNATE

Name: _____ Mobile Phone: _____

Phone: _____ E-mail: _____

2. FIRE DEPARTMENT

Emergency: 911

Business: (781) 270-1925

POLICE DEPARTMENT

Emergency: 911

Business: _____

3. CLEANUP CONTRACTOR:

Name: tbd

Phone: _____

4. MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

Emergency: (800) 340-1133

5. NATIONAL RESPONSE CENTER

Phone: (800) 424-8802

ALTERNATE: U.S. ENVIRONMENTAL PROTECTION AGENCY

Emergency: _____

Business: _____

6. BOSTON CONSERVATION COMMISSION

Contact: _____

Phone: 617-635-3850

7. BOSTON HEALTH DEPARTMENT

Contact: _____

Phone: (617) 534-5395



Hazardous Waste / Oil Spill Report

Date _____ Time _____ AM / PM

Exact location (Transformer #) _____

Type of equipment _____ Make _____ Size _____

S / N _____ Weather Conditions _____

On or near Water Yes If Yes, name of body of Water _____

No

Type of chemical/oil spilled _____

Amount of chemical/oil spilled _____

Cause of Spill _____

Measures taken to contain or clean up spill _____

Amount of chemical/oil recovered _____ Method _____

Material collected as a result of cleanup:

_____ Drums containing _____

_____ Drums containing _____

_____ Drums containing _____

Location and method of debris disposal

Name and address of any person, firm, or corporation suffering damages:

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring:

Spill reported to General Office by _____ Time _____ AM / PM

Spill reported to DEP / National Response Center by _____

DEP Date _____ Time _____ AM / PM Inspector _____

NRC Date _____ Time _____ AM / PM Inspector _____

Additional comments: _____



Assessment - Initial Containment

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. A list of recommended spill equipment to be kept on site is included on the following page.

Fire / Police Department	911
Boston Health Department	617.534.5395
Boston Conservation Commission:	617.635.3850



Emergency Response Equipment

The following equipment and materials shall be maintained at all times and stored in a secure area for long-term emergency response need.

Supplies		Recommended Suppliers
SORBENT PILLOWS/"PIGS"	2	http://www.newpig.com
SORBENT BOOM/SOCK	25 FEET	Item # KIT276 — mobile container with two pigs,
SORBENT PADS	50	26 feet of sock, 50 pads, and five pounds of
LITE-DRI® ABSORBENT	5	absorbent (or equivalent)
POUNDS		http://www.forestry-suppliers.com
SHOVEL	1	Item # 43210 — Manhole cover pick (or
PRY BAR	1	equivalent)
GOGGLES	1 PAIR	Item # 33934 — Shovel (or equivalent)
GLOVES – HEAVY	1 PAIR	Item # 90926 — Gloves (or equivalent)
		Item # 23334 — Goggles (or equivalent)



Attachment D Project Plans

