



ENGINEERING A BETTER TOMORROW

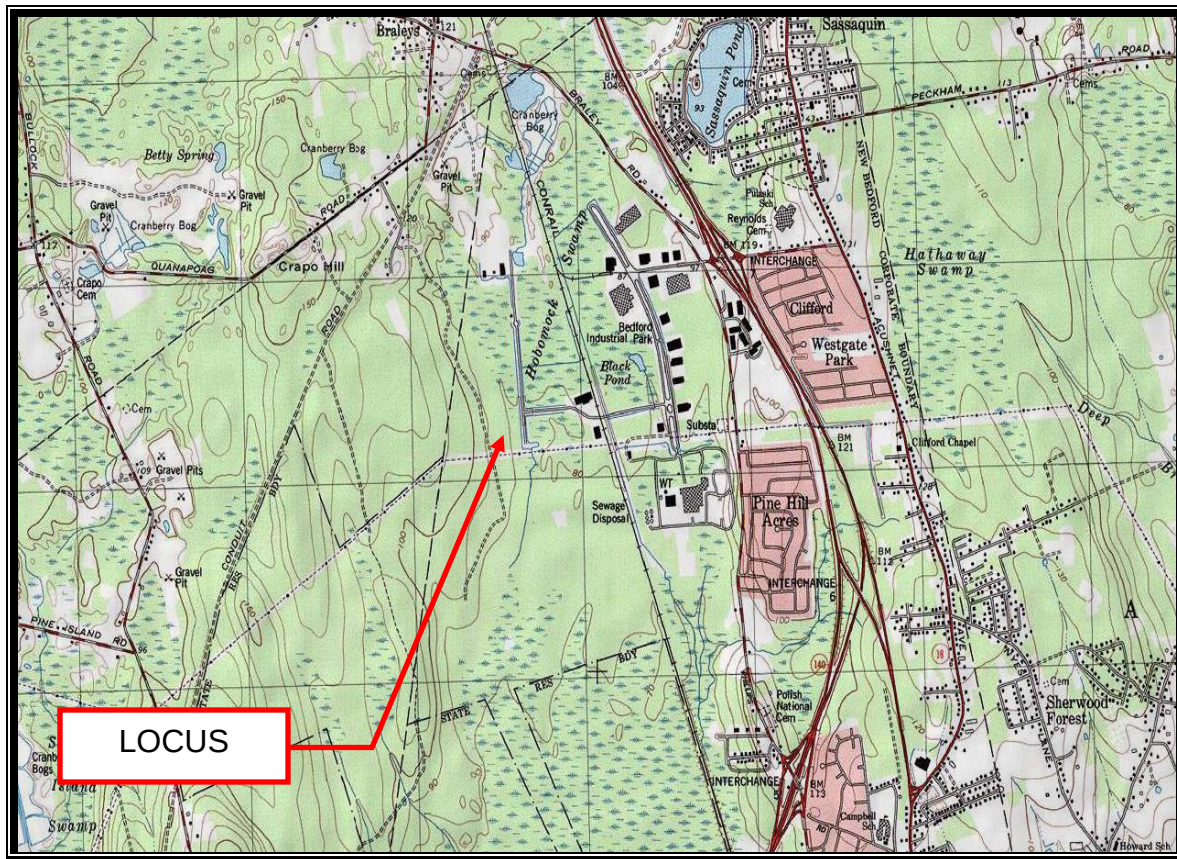
ENGINEERING | SITE WORK | LAND SURVEYING

NOTICE OF INTENT

August 10, 2017

SITE PLAN

ASSESSORS PLOT 133 LOT 47
61 JOHN VERTENTE BOULEVARD
NEW BEDFORD, MASSACHUSETTS



PREPARED FOR:

Parallel Products of New England
401 Industry Road
Louisville, KY 40208

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NOTICE OF INTENT (WPA FORM 3)



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 Number

Document Transaction Number

New Bedford

City/Town

Important:

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



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

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

61 John Vertente Boulevard

a. Street Address

New Bedford

b. City/Town

02745

c. Zip Code

Latitude and Longitude:

41° 43' 09 N

d. Latitude

70° 57' 53" W

e. Longitude

133

f. Assessors Map/Plat Number

47

g. Parcel /Lot Number

2. Applicant:

Tim

a. First Name

Cusson

b. Last Name

Parallel Products of New England

c. Organization

401 Industry Road

d. Street Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

(617) 908-0825

h. Phone Number

i. Fax Number

timc@parallelproducts.com

j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name

b. Last Name

Symmetry New Bedford Real Estate, LLC

c. Organization

61 John Vertente Boulevard

d. Street Address

New Bedford

e. City/Town

MA

f. State

02745

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Christian

a. First Name

Farland

b. Last Name

Farland Corp.

c. Company

401 County Street

d. Street Address

New Bedford

e. City/Town

MA

f. State

02740

g. Zip Code

(508) 717-3479

h. Phone Number

(508) 717-3481

i. Fax Number

cfarland@farlandcorp.com

j. Email address

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

\$2,950

a. Total Fee Paid

\$1,462.40

b. State Fee Paid

\$1,487.50

c. City/Town Fee Paid



WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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A. General Information (continued)

6. General Project Description:

The applicant is proposing to install 16 loading dock bays along the eastern wall of the existing building. Pavement is proposed between the building and the existing paved parking. A proposed gravel trailer parking area along the southern portion of the site within an existing utility easement area will require a wetland crossing to provide access.

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

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

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

1. ☐ Yes ☒ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Bristol (New Bedford)

a. County

8931

c. Book

b. Certificate # (if registered land)

199

d. Page Number

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

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

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



Massachusetts Department of Environmental Protection
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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☒ Bordering Vegetated Wetland	700 1. square feet	930 2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

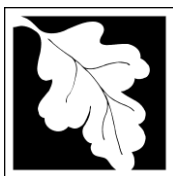
a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

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

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

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

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



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

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

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

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	
4. ☐ Restoration/Enhancement	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 enter the additional amount here.	
	a. square feet of BVW	b. square feet of Salt Marsh
5. ☐ Project Involves Stream Crossings		
	a. number of new stream crossings	b. number of replacement stream crossings



WPA Form 3 – Notice of Intent

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. ☐ Yes ☒ No

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

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

b. Date of map _____

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

- c. Submit Supplemental Information for Endangered Species Review*

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

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

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

(b) ☐ Photographs representative of the site

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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Provided by MassDEP:

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New Bedford

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

- (c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_fee_schedule.htm).
Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

- (d) ☐ Vegetation cover type map of site
- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following
1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
2. ☐ Separate MESA review ongoing. _____ a. NHESP Tracking # _____ b. Date submitted to NHESP
3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
- a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

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



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Provided by MassDEP:

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Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

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

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. ☐ Yes ☒ No
6. 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
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. ☐ A portion of the site constitutes redevelopment
 3. ☒ Proprietary BMPs are included in the Stormwater Management System.
- b. ☐ No. Check why the project is exempt:
1. ☐ Single-family house
 2. ☐ Emergency road repair
 3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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New Bedford

City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.
- | | |
|--|--------------------------|
| Site Plan – 61 John Vertente Boulevard – Assessors Map 133 Lot 47 – New Bedford, Massachusetts | |
| Farland Corp. | Christian A. Farland |
| b. Prepared By | c. Signed and Stamped by |
| 08-10-17 | 1"=50' |
| d. Final Revision Date | e. Scale |
| Stormwater Report | 08-10-17 |
| f. Additional Plan or Document Title | g. Date |
5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

5964

2. Municipal Check Number

5693

4. State Check Number

Farland Corp.

6. Payor name on check: First Name

08-10-17

3. Check date

08-10-17

5. Check date

7. Payor name on check: Last Name



WPA Form 3 – Notice of Intent

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

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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

2. Date

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

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

NOI FEE TRANSMITTAL FORM



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

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



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

A. Applicant Information

1. Location of Project:

61 John Vertente Boulevard

a. Street Address

5963

c. Check number

New Bedford

b. City/Town

\$1,462.50

d. Fee amount

2. Applicant Mailing Address:

a. First Name

Parallel Products of New England

c. Organization

401 Industry Road

d. Mailing Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

3. Property Owner (if different):

a. First Name

SM Real Estate, LLC

c. Organization

401 Industry Road

d. Mailing Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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



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NOI Wetland Fee Transmittal Form
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B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2) Parking Lot	2	\$500	\$1000
Category 2) Source Discharge	1	\$500	\$500
Category 4) Crossing	1	\$1,450	\$1,450

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee:	<u>\$2,950</u>
	a. Total Fee from Step 5
State share of filing Fee:	<u>\$1,462.50</u>
	b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:	<u>\$1,487.50</u>
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

AFFADAVIT OF SERVICE

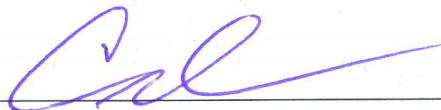
Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of
Environmental Protection and the Conservation Commission
when filing a Notice of Intent)

I, Christian Farland hereby certify under the pains and penalties of perjury
that on August 10, 2017, I gave notification to abutters in compliance with
the second paragraph of Massachusetts General Laws Chapter 131, Section
40, and the DEP Guide to Abutter Notification dated April 8, 1994, in
connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands
Protection Act by Parallel Products of New England with the
New Bedford Conservation Commission on August 10 for
property located at Assessor's Plot 133, Lot 47 (61 John Vetente
Boulevard).

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

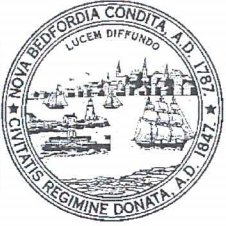


Name

8/10/17

Date

CERTIFIED ABUTTERS LIST



City of New Bedford REQUEST for a CERTIFIED ABUTTERS LIST

This information is needed so that an official abutters list as required by MA General Law may be created and used in notifying abutters. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

SUBJECT PROPERTY			
MAP #	133	LOT(S)#	47
ADDRESS: 61 John Vertente Boulevard			
OWNER INFORMATION			
NAME: Symmetry New Bedford Real Estate, LLC			
MAILING ADDRESS: 61 John Vertente Boulevard - New Bedford, MA 02745			
APPLICANT/CONTACT PERSON INFORMATION			
NAME (IF DIFFERENT): Matthew J. White, Farland Corp.			
MAILING ADDRESS (IF DIFFERENT): 401 County Street - New Bedford, MA 02740			
TELEPHONE #	(508) 717-3479		
EMAIL ADDRESS:	mwhite@farlandcorp.com		
REASON FOR THIS REQUEST: <i>Check appropriate</i>			
☐	ZONING BOARD OF APPEALS APPLICATION		
☒	PLANNING BOARD APPLICATION		
☐	CONSERVATION COMMISSION APPLICATION		
☐	LICENSING BOARD APPLICATION		
☐	OTHER (Please explain):		

Once obtained, the Certified List of Abutters must be attached to this Certification Letter.

Submit this form to the Planning Division Room 303 in City Hall, 133 William Street. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

Official Use Only:

As Administrative Assistant to the City of New Bedford's Board of Assessors, I do hereby certify that the names and addresses as identified on the attached "abutters list" are duly recorded and appear on the most recent tax.

Carlos Amado

Printed Name

Carlos Amado

Signature

7/9/2017

Date

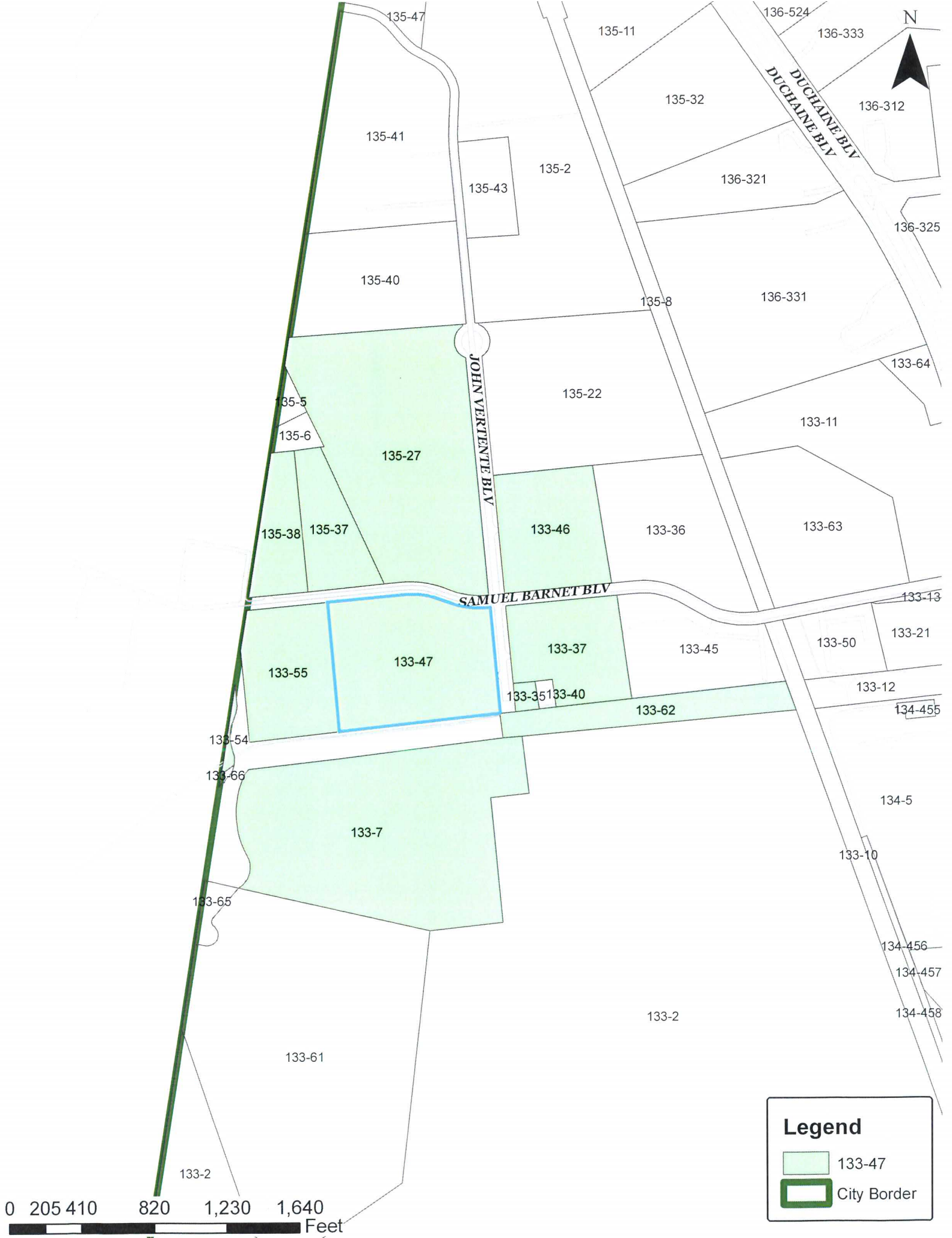
July 6, 2017

Dear Applicant,

Please find below the List of Abutters within 300 feet of the property known as 61 John Vertente Blvd (133-47). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates, and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
135-38	181 SAMUEL BARNETT BLVD	SAMUEL BARNET BOULEVARD CORP, P O BOX 51593 NEW BEDFORD, MA 02745
133-7	960 FLAHERTY DR	AFC CABLE SYSTEMS INC, 260 DUCHAINE BOULEVARD NEW BEDFORD, MA 02745
135-37	163 SAMUEL BARNETT BLVD	ZENITH VENTURES LLC, 163 SAMUEL BARNETT BLVD NEW BEDFORD, MA 02745
133-54 <i>SS</i>	JOHN VERTENTE BLVD	ACUSHNET COMPANY, C/O SUE BRENNER P O BOX 965 FAIRHAVEN, MA 02719-0965
133-62 <i>SS</i>	SAMUEL BARNETT BLVD	GNBIF/POLAROID LLC, C/O CORPORATE REAL ESTATE 227 UNION STREET <i>1213 Purchase St.</i> NEW BEDFORD, MA 02740
133-35 <i>WS</i>	RAILROAD	CITY OF NEW BEDFORD, INTERCEPTING SEWER 131 WILLIAM ST NEW BEDFORD, MA 02740
133-55	214 SAMUEL BARNETT BLVD	LONE OAK - NEW BEDFORD, LLC, C/O REYES HOLDINGS, LLC 6250 NORTH RIVER ROAD ROSEMONT, IL 60018
133-37	64 JOHN VERTENTE BLVD	H & M DARTMOUTH REALTY LLC, 861 PINE HILL DRIVE NEW BEDFORD, MA 02745
133-47	61 JOHN VERTENTE BLVD	SYMMETRY NEW BEDFORD REAL ESTATE LLC, 61 JOHN VERTENTE BLVD NEW BEDFORD, MA 02745-1202
135-27 <i>WS</i>	JOHN VERTENTE BLVD	GREATER NEW BEDFORD, INDUSTRIAL FOUNDATION 227 UNION STREET RM 607 <i>1213 Purchase St. Unit 2</i> NEW BEDFORD, MA 02740
133-46	125 SAMUEL BARNETT BLVD	POYANT REALTY LLC, 125 SAMUEL BARNET BLVD NEW BEDFORD, MA 02745



Legend

- 133-47
- City Border

0 205 410 820 1,230 1,640 Feet

July 6, 2017
Dear Applicant,

Please find below the List of Abutters within 300 feet of the property known as Rosa 61 John Vertente Boulevard (133-47). The current ownership listed herein must be checked and verified by the Town of Acushnet Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates, and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

<u>Parcel</u>	<u>Location</u>	<u>Owner and Mailing Address</u>
84-8-3	256 Samuel Barnet Blvd	ACUSHNET COMPANY 333 BRIDGE ST- PO BOX 965 FAIRHAVEN, MA 02719-0965

Official Use Only:

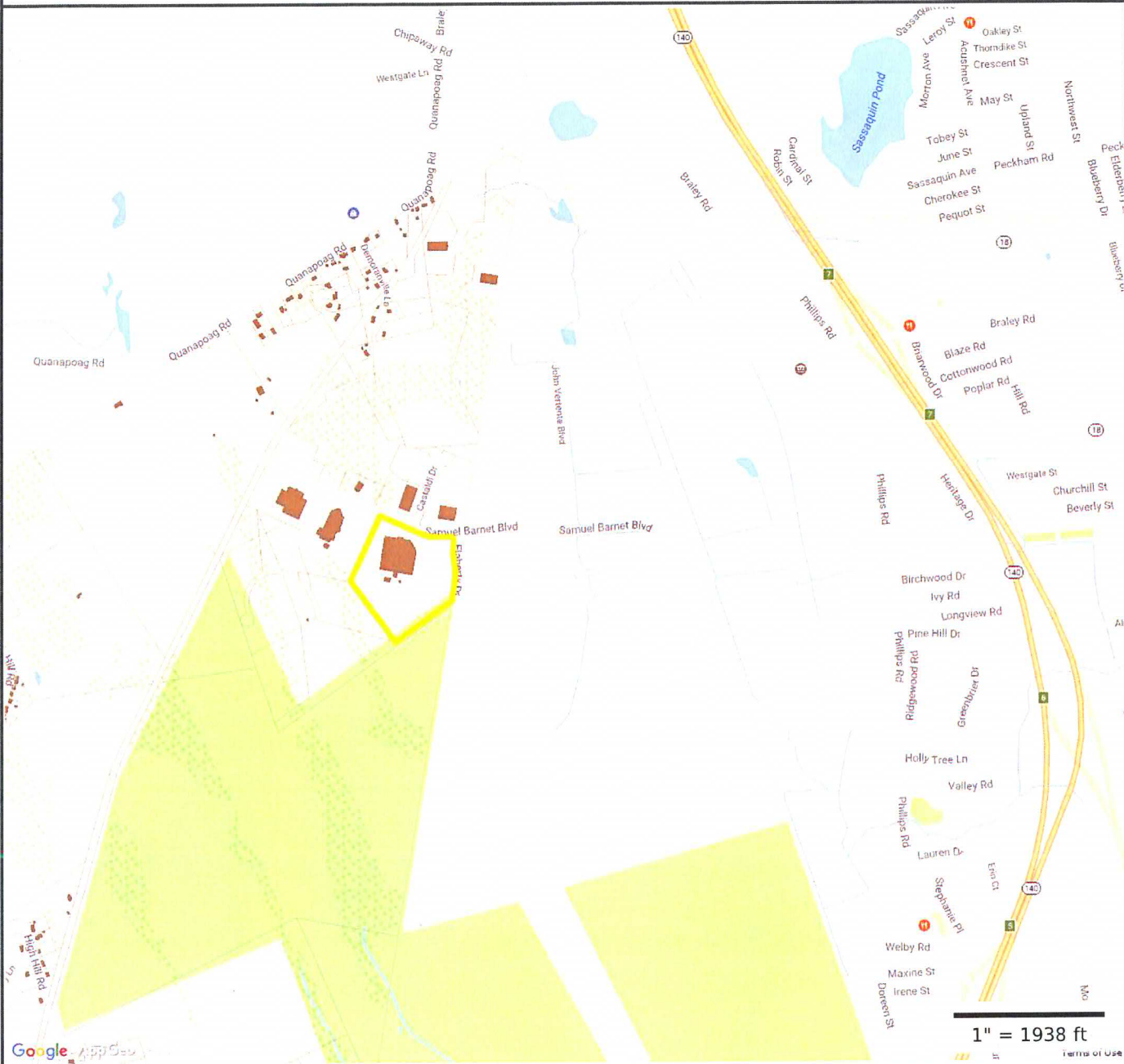
As Administrative Assistant to the Town of Dartmouth Assessors, I do hereby certify that the names and addresses as identified on the attached "abutters list" are duly recorded and appear on the most recent tax.

Printed Name

Signature

Date

Abutter's List



Property Information

Property ID 84_8_3
Location 256 SAMUEL BARNET BLVD
Owner ACUSHNET COMPANY



MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

Town of Dartmouth, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Parcels updated 1/1/2013
Properties updated 1/1/2013

ABUTTER NOTIFICATION

Notification to Abutters Under the Massachusetts Wetlands Protection Act

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

- A. The name of the applicant is Parallel Products of New England.
- B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of New Bedford seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act (General Laws Chapter 131, Section 40).
- C. The address of the lot where the activity is proposed is 61 John Vertente Boulevard (Assessor's Plot 133 Lot 47).
- D. Copies of the Notice of Intent may be examined at the New Bedford Conservation Commission office at 133 William Street, Room 304 (Office of Environmental Stewardship) – New Bedford, MA 02740 between the hours of 8:30 a.m. and 3:30 p.m. on Monday through Friday.
- E. Copies of the Notice of Intent may also be obtained from the applicant's representative FOR A REASONABLE FEE by calling: Farland Corp. at (508) 717-3479 between the hours of 8:00 am and 4:00 pm on Monday – Friday.
- F. Information regarding the date, time and place of the public hearing may be obtained from the NEW BEDFORD CONSERVATION COMMISSION by calling: (508)991-6188.

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in a publication with general circulation in the Community.

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

NOTE: You also may contact the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: (508) 946-2700

STORMWATER CHECKLIST



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.

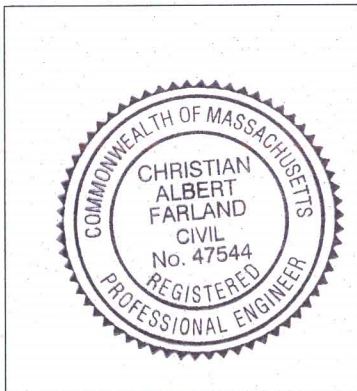
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

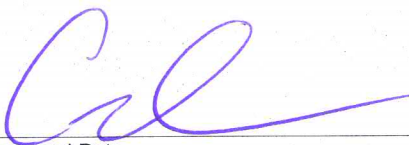
A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

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



 8/10/17
Signature and Date

Checklist

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

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.



ENGINEERING A BETTER TOMORROW

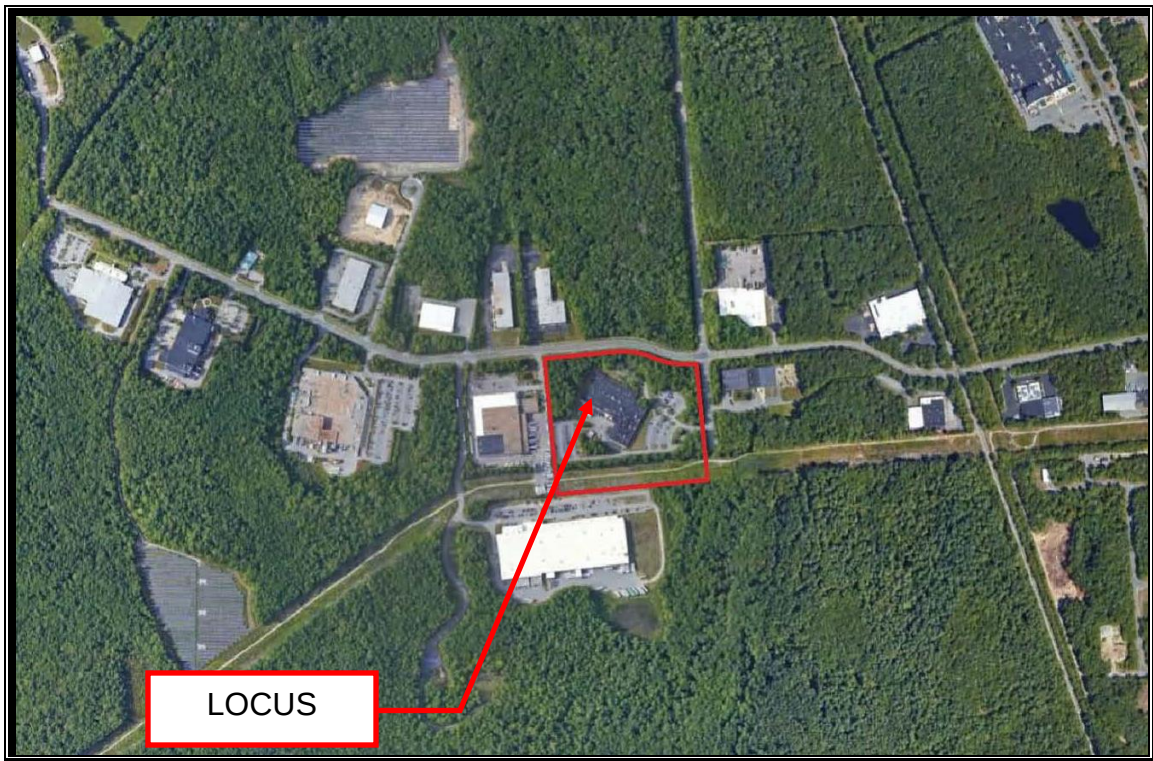
ENGINEERING | SITE WORK | LAND SURVEYING

STORMWATER REPORT

August 10, 2017

SITE PLAN

ASSESSORS PLOT 133 LOT 47
61 JOHN VERTENTE BOULEVARD
NEW BEDFORD, MASSACHUSETTS



PREPARED FOR:

Parallel Products of New England
401 Industry Road
Louisville, KY 40208

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2. METHODOLOGY
3. EXISTING CONDITIONS
4. STORMWATER MANAGEMENT OVERVIEW
5. STORMWATER MANAGEMENT STANDARDS

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- EXHIBIT "B" – FIRM MAP
- EXHIBIT "C" – NHESP PRIORITY AND ESTIMATED HABITAT MAP 2008
- EXHIBIT "D" – NRCS SOIL MAP
- EXHIBIT "E" – HYDROLOGIC CALCULATIONS (STANDARD 2)
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- EXHIBIT "G" – DRAWDOWN CALCULATIONS (STANDARD 3)
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- EXHIBIT "H" – LONG TERM POLLUTION PREVENTION PLAN (STANDARD 4)
- EXHIBIT "I" – OPERATION & MAINTENANCE PLAN & LOGS (STANDARD 9)
- EXHIBIT "J" – ILLICIT DISCHARGE STATEMENT (STANDARD 10)
- EXHIBIT "K" – WATERSHED PLANS

STORMWATER MANAGEMENT REPORT AND HYDROLOGIC ANALYSIS

SECTION 1: Project Summary

The project area associated with this proposed development is located at the southwest quadrant of the intersection of Samuel Barnett Boulevard and John Vertente Boulevard in the New Bedford Business Park. The site is comprised of one existing parcel, identified as Assessors Plot 133, Lot 47 which consists of approximately 16.4 acres. The site is located entirely within the Industrial C Zoning District.

The site is partially developed, and consists of an 82,000+/- square foot manufacturing building, with associated parking areas to the north, east, and west of the building, and loading areas at the southwest corner of the building. Access to the site is gained from a single site entrance driveway off of John Vertente Boulevard. A bordering vegetated wetland is located along the eastern portion of the site, along the parcel's frontage on John Vertente Boulevard and along the eastern portion of the parcel's frontage on Samuel Barnett Boulevard. An electric easement runs along the parcel's southern boundary. The site is located entirely in Zone X, areas determined to be outside the 0.2% annual chance floodplain. The site is not located within an area identified by the Natural Heritage and Endangered Species Program as a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife.

The applicant is seeking permission to change the use of the structure, install loading dock bays along the structure's eastern wall, expand the paved parking area to the east of the building to allow for access to the loading docks, and to create additional gravel surfaced trailer storage parking spaces within the proposed easement area south of the existing building. This will require alteration of approximately 700 square feet of existing bordering vegetated wetland in order to construct an access to the easement area. The disturbed resource area, located along a finger-like ditch running along the existing site driveway, will be replicated on-site.

In order to attenuate the increased stormwater runoff generated by the proposed impervious site coverage and to provide the appropriate level of water quality treatment, stormwater management practices have been proposed. Proposed structural BMP's include proprietary separators and a detention basin.

SECTION 2: Methodology

Drainage computations were performed using the Natural Resources Conservation Services (NRCS) TR-20 method and HydroCAD[®] Drainage Calculation Software to

determine the change in the existing and post-development runoff rates from each drainage area for the 2-, 10-, and 100-year 24 hour storm events. The limits of the work proposed to complete the project fall within an area subject to protection by the Wetlands Protection Act, therefore, compliance with DEP Stormwater Management Standards is required. Sketches of the existing and proposed watershed areas, HydroCAD® Report, and copies of the calculation sheets are included as appendices to this report.

SECTION 3: Existing Conditions

The soils underlying the proposed development site are identified in the Natural Resources Conservation Service (NRCS) Soil Survey of Bristol County, Southern Part(**see Exhibit D**). The site soils are classified as 306B (Paxton fine sandy loam, Hydrologic Soils Group [HSG "C"]), 311B (Woodbridge fine sandy loam, [HSG "C/D"]), and 73A (Whitman fine sandy loam, HSG "D").

SECTION 4: Stormwater Management Overview

Existing Conditions:

One design point has been chosen for this project: (1) the limit of the bordering vegetated wetlands along the eastern portion of the site. One subcatchment area which sheds runoff toward the design point has been analyzed for the purposes of this report. Areas which will not be altered as a result of the proposed construction have not been included in this analysis.

Stormwater runoff from that portion of the site located within the proposed limit of work sheds toward the bordering vegetated wetland at the southeast corner of the site, including the finger-like extension along the ditch. Much of the area consists of the existing easement area, where runoff sheds directly toward the wetland. The area along the eastern edge of the building sheds runoff toward existing catch basins within the paved area, which discharge directly into the wetland.

Proposed Conditions:

Under proposed conditions, two subcatchment areas have been included in the drainage model for the same design point. One subcatchment area sheds runoff toward the Bordering Vegetated Wetland without any BMP's designed to attenuate flow. The second subcatchment area, which captures a portion of the proposed gravel trailer parking storage area, will shed runoff toward a proposed Stormwater Detention Basin, which will discharge via a v-notch weir outlet towards the BVW. The proposed basin is not designed to provide water quality treatment. It is solely designed to attenuate peak runoff. However, in order to document maximum feasible compliance with groundwater recharge requirements, a rate of exfiltration appropriate for "D" soils has been assigned to the basin, understanding that the basin will not function as a fully compliant infiltration basin.

SECTION 5: Stormwater Management Standards

Standard 1:

- Under proposed conditions, there will be no new untreated discharges or erosion in wetland areas. The drainage outfall from the detention basin which discharges toward the existing BVW design point is provided with rip-rap outlet protection (12" max. graded rock size) to help control velocity and erosion at the outlet. Maximum velocity Detention Basin #1 is 6.85 feet per second.

Table A-3.3: Permissible Velocities for Rock Lined Channels

NSA No.	Graded Rock Size (In.)			Permissible Velocity* (fps)
	Max.	D ₅₀	Min.	
R-1	1.5	0.75	No. 8	2.5
R-2	3	1.5	1	4.5
R-3	6	3	2	6.5
R-4	12	6	3	9
R-5	18	9	5	11.5
R-6	24	12	7	13
R-7	30	15	12	14.5

*Permissible velocities based on rock at 165 lbs. per cubic foot. Adjust velocities for other rock weights used.

Source: Pa DER Bureau of Soil and Water Conservation, April 1990. Erosion and Sedimentation Control Program Manual. Please refer to this document for additional information and stipulations.

Stormwater discharges have been held below erodible velocities. This standard has been met.

Standard 2:

- The design of the stormwater system was designed for the post-development conditions to handle all storms' peak discharges and runoff volume to include the 2, 10, and 100-year storm events. The site drainage system was designed in consideration of the structural standards and techniques of the Best Management Practices (BMP) and Low Impact Development (LID) outlined in the "Stormwater Management Handbook".

The results of site drainage calculations are presented in the following Table. The results are based upon evaluation of Pre-development conditions and the design of proposed surface drainage systems for the Post-development condition. These results show the Post-Development offsite runoff rates are reduced to less than the Pre-development conditions, thus meeting the BMP guidelines for this site development. This standard has been met.

**Table 1 - Comparison of
Pre- versus Post-Development Offsite Runoff**

	Pre-Development		Post-Development	
Storm Frequency	Rate (cfs)	Volume (af)	Rate (cfs)	Volume (af)
2-Year Storm				
To B.V.W.	12.58	1.079	12.04	1.215
10-Year Storm				
To B.V.W.	19.57	1.714	18.59	1.891
100-Year Storm				
To B.V.W.	30.48	2.737	29.98	2.974

Standard 3:

- The site is comprised entirely of soils belonging to Hydrologic Soils Groups "C" and "D", and is therefore required to meet the recharge requirements of Standard 3 to the maximum extent practicable. Due to the elevation of the existing building and parking areas to the east of the building, providing recharge of the proposed impervious areas is not feasible, however, an exfiltration rate appropriate for "D" soils was modeled for the proposed detention basin to demonstrate that the required volume of water to be recharged is provided within the basin.

Standard 4:

- The proposed stormwater management systems for this project have been designed to remove 80% of the average annual post construction load of Total Suspended Solids in accordance with this standard, as shown in calculations provided in **Exhibit J**. Suitable practices for source control and pollution prevention have been identified in a long-term pollution prevention plan in **Exhibit K**. Structural BMPs have been designed to capture the required water quality volume (**Exhibit I**) determined in accordance with the Stormwater Handbook. This standard has been met.

Standard 5:

- The use associated with this project is classified as a Land Use with Higher Potential Pollutant Load (LUHPPL); therefore, Standard 5 is applicable to this project. Stormwater runoff from the parking areas have been designed to flow through proprietary separator units prior to discharge to underground infiltration chambers and a surface infiltration basin, exceeding the 44% pretreatment requirement. This standard has been met.

Standard 6:

- The site does not discharge within the Zone II or IWPA of a public water supply, nor does it discharge near or to any critical areas. This standard does not apply.

Standard 7:

- Although a portion of the site may qualify as redevelopment, the project has not been designed as a redevelopment project. This standard does not apply.

Standard 8:

- Where there will be over one acre of disturbance, an EPA Construction General Permit must be obtained and a Storm Water Pollution Prevention Plan (SWPPP) is required. A construction period sedimentation and erosion control plan has been incorporated in the Site Plans. Safeguards have been incorporated into the construction period sedimentation and erosion control plans to ensure proper operation and maintenance and to prevent negative impacts to the on-site wetland resource areas. Additional erosion controls and pollutant source controls will be provided in the Stormwater Pollution Prevention Plan that will be completed prior to land disturbance. This standard will be met upon submittal of the final SWPPP and Construction General Permit filing.

Standard 9:

- A long-term operation and maintenance plan has been prepared to ensure that stormwater management systems function as designed. (**Exhibit L**)

Standard 10:

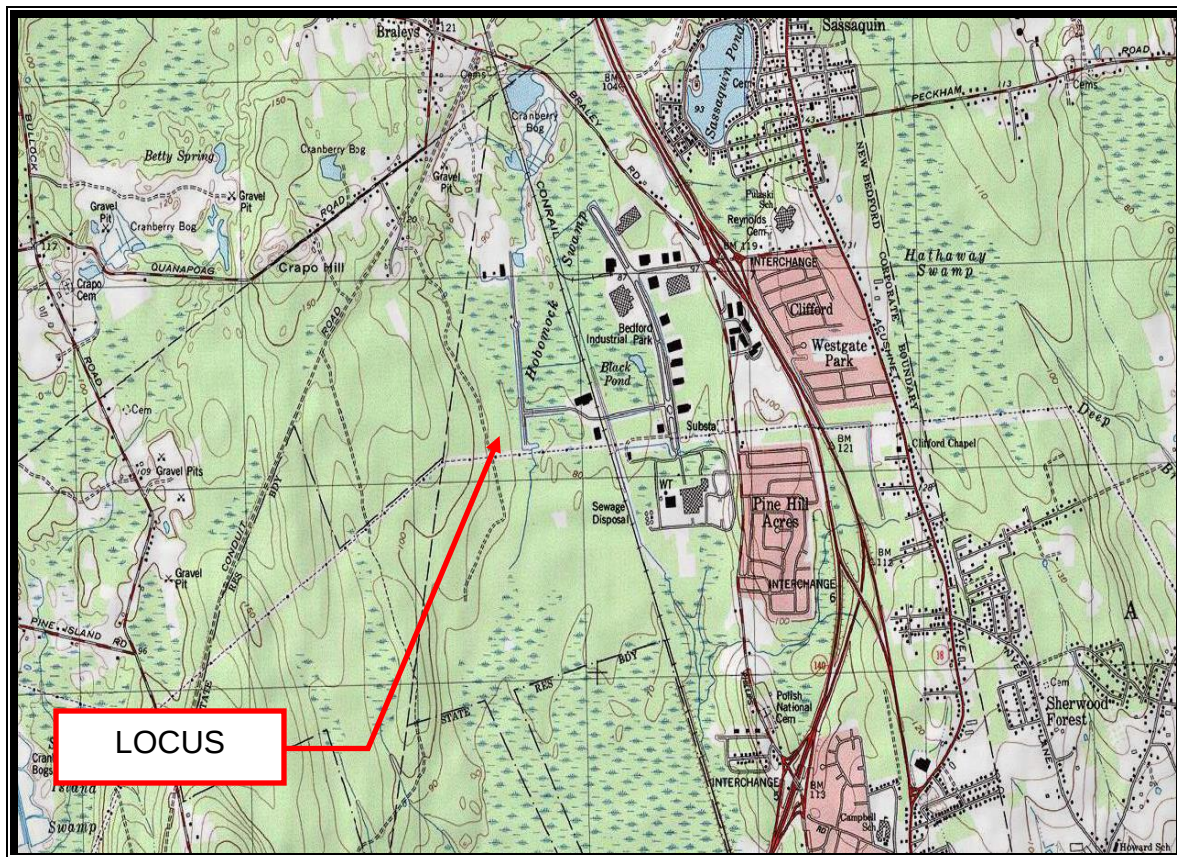
- We are not proposing any illicit discharges as defined in the Stormwater Management Regulations. See attached letter in **Exhibit M**



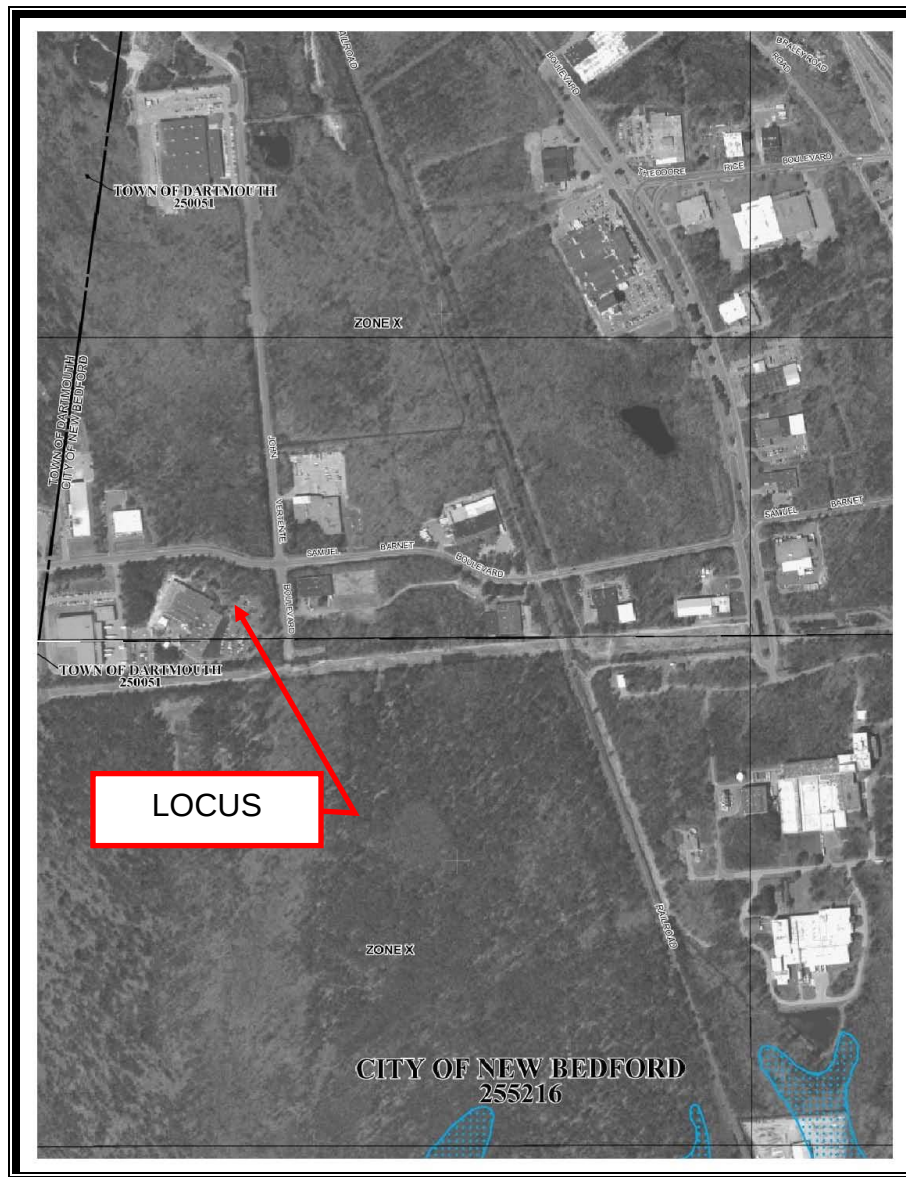
ENGINEERING A BETTER TOMORROW

ENGINEERING | SITE WORK | LAND SURVEYING

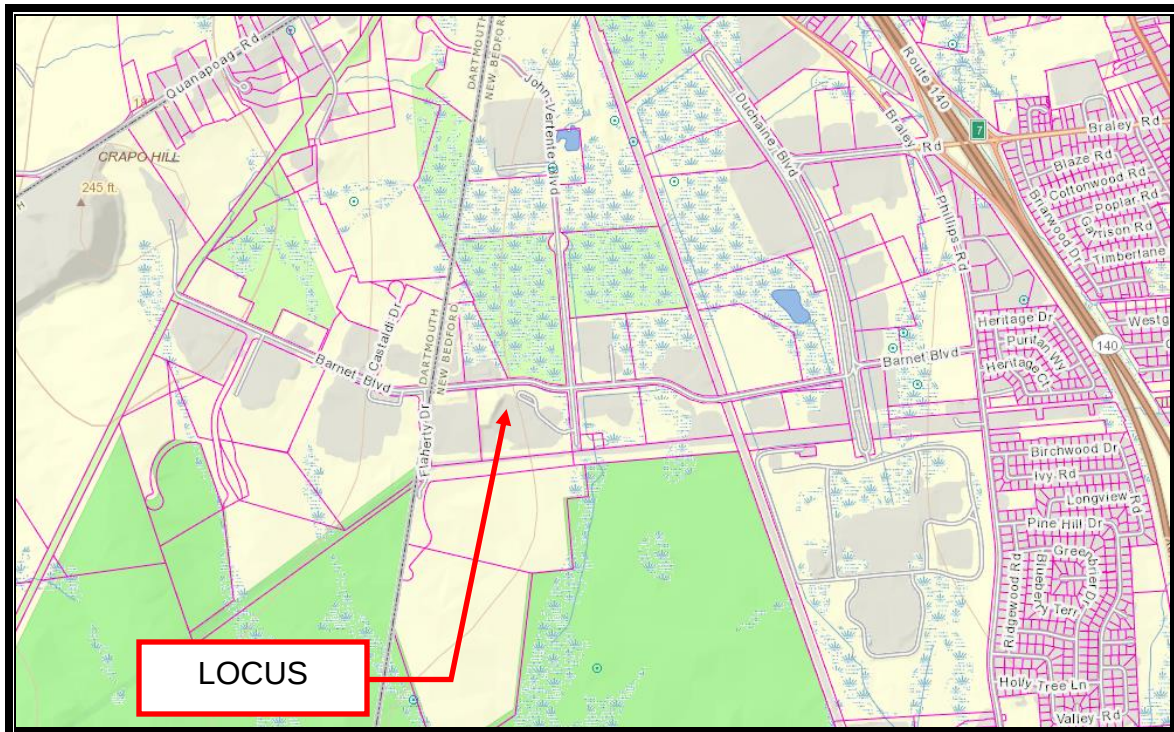
USGS MAP TOPO! VERSION 2.1.0



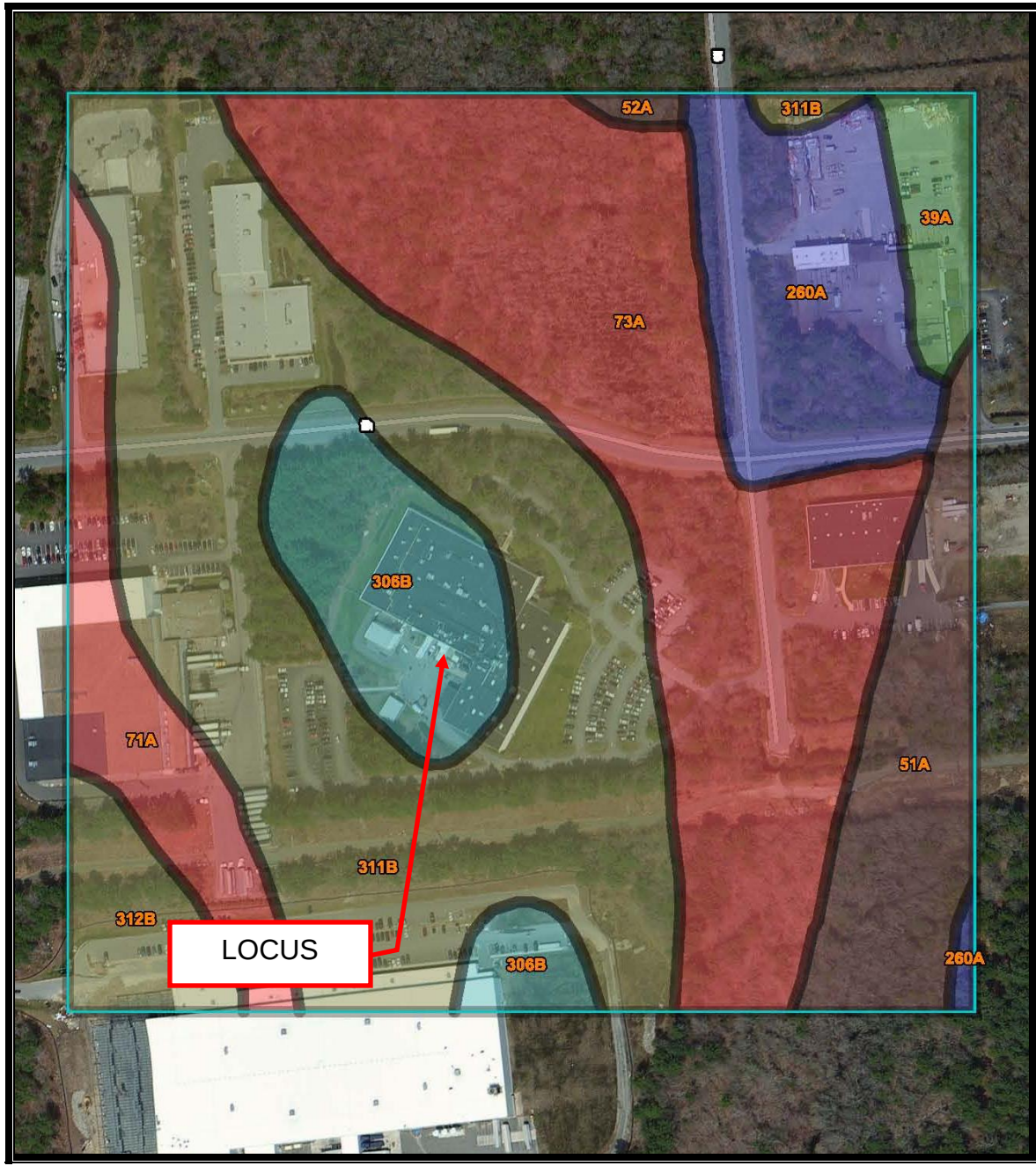
FIRM MAP
PANELS #25005C0377F
& 25005C0379F



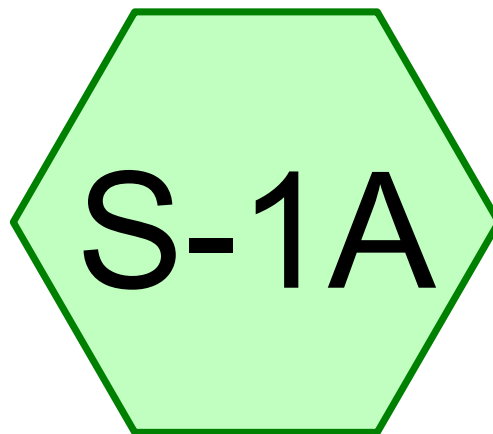
NHESP PRIORITY & ESTIMATED HABITAT MAP, 2008



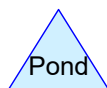
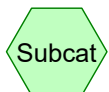
NRCS SOIL MAP



HYDROLOGIC CALCULATIONS (STANDARD #2)



Uncontrolled to BVW



Drainage Diagram for 17-413 PRE

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17-413 PRE

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Type III 24-hr 2-Year Rainfall=3.40"

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Page 2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Uncontrolled to BVW Runoff Area=265,576 sf 36.18% Impervious Runoff Depth>2.12"
Flow Length=700' Tc=13.4 min CN=89 Runoff=12.58 cfs 1.079 af

Total Runoff Area = 6.097 ac Runoff Volume = 1.079 af Average Runoff Depth = 2.12"
63.82% Pervious = 3.891 ac 36.18% Impervious = 2.206 ac

17-413 PRE

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Type III 24-hr 2-Year Rainfall=3.40"

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Summary for Subcatchment S-1A: Uncontrolled to BVW

Runoff = 12.58 cfs @ 12.18 hrs, Volume= 1.079 af, Depth> 2.12"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
27,950	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
43,322	80	>75% Grass cover, Good, HSG D
69,757	98	Paved parking
* 24,684	98	Roof
* 385	98	Concrete
9,781	91	Gravel roads, HSG D
86,670	89	<50% Grass cover, Poor, HSG D
* 1,257	98	BVW Area
265,576	89	Weighted Average
169,493		Pervious Area
96,083		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB
					Woods: Light underbrush n= 0.400 P2= 3.40"
4.3	650	0.0250	2.55		Shallow Concentrated Flow, BC
					Unpaved Kv= 16.1 fps
13.4	700	Total			

17-413 PRE

Type III 24-hr 10-Year Rainfall=4.80"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Uncontrolled to BVW Runoff Area=265,576 sf 36.18% Impervious Runoff Depth>3.37"
Flow Length=700' Tc=13.4 min CN=89 Runoff=19.57 cfs 1.714 af

Total Runoff Area = 6.097 ac Runoff Volume = 1.714 af Average Runoff Depth = 3.37"
63.82% Pervious = 3.891 ac 36.18% Impervious = 2.206 ac

17-413 PRE

Type III 24-hr 10-Year Rainfall=4.80"

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Summary for Subcatchment S-1A: Uncontrolled to BVW

Runoff = 19.57 cfs @ 12.18 hrs, Volume= 1.714 af, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
27,950	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
43,322	80	>75% Grass cover, Good, HSG D
69,757	98	Paved parking
* 24,684	98	Roof
* 385	98	Concrete
9,781	91	Gravel roads, HSG D
86,670	89	<50% Grass cover, Poor, HSG D
* 1,257	98	BVW Area
265,576	89	Weighted Average
169,493		Pervious Area
96,083		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB
					Woods: Light underbrush n= 0.400 P2= 3.40"
4.3	650	0.0250	2.55		Shallow Concentrated Flow, BC
					Unpaved Kv= 16.1 fps
13.4	700	Total			

17-413 PRE

Type III 24-hr 100-Year Rainfall=7.00"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Uncontrolled to BVW Runoff Area=265,576 sf 36.18% Impervious Runoff Depth>5.39"
Flow Length=700' Tc=13.4 min CN=89 Runoff=30.48 cfs 2.737 af

Total Runoff Area = 6.097 ac Runoff Volume = 2.737 af Average Runoff Depth = 5.39"
63.82% Pervious = 3.891 ac 36.18% Impervious = 2.206 ac

17-413 PRE

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment S-1A: Uncontrolled to BVW

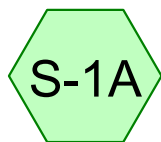
Runoff = 30.48 cfs @ 12.18 hrs, Volume= 2.737 af, Depth> 5.39"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

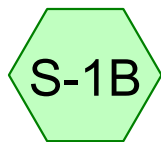
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
27,950	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
43,322	80	>75% Grass cover, Good, HSG D
69,757	98	Paved parking
* 24,684	98	Roof
* 385	98	Concrete
9,781	91	Gravel roads, HSG D
86,670	89	<50% Grass cover, Poor, HSG D
* 1,257	98	BVW Area
265,576	89	Weighted Average
169,493		Pervious Area
96,083		Impervious Area

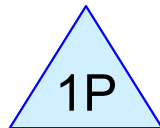
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB
					Woods: Light underbrush n= 0.400 P2= 3.40"
4.3	650	0.0250	2.55		Shallow Concentrated Flow, BC
					Unpaved Kv= 16.1 fps
13.4	700	Total			



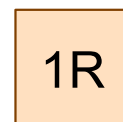
Unattenuated flow
toward BVW



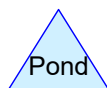
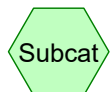
Flow toward proposed
Basin-1



Basin-1



Combined Flow to BVW



Drainage Diagram for 17-413 POST

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17-413 POST*Type III 24-hr 2-Year Rainfall=3.40"*

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Unattenuated flow Runoff Area=213,201 sf 54.36% Impervious Runoff Depth=2.54"
Flow Length=417' Tc=11.0 min CN=92 Runoff=11.96 cfs 1.036 af

Subcatchment S-1B: Flow toward proposed Runoff Area=52,063 sf 0.00% Impervious Runoff Depth=2.18"
Flow Length=309' Tc=11.0 min CN=88 Runoff=2.55 cfs 0.217 af

Reach 1R: Combined Flow to BVW

Inflow=12.04 cfs 1.215 af

Outflow=12.04 cfs 1.215 af

Pond 1P: Basin-1

Peak Elev=83.78' Storage=4,769 cf Inflow=2.55 cfs 0.217 af

Discarded=0.01 cfs 0.011 af Primary=0.53 cfs 0.179 af Outflow=0.54 cfs 0.190 af

Total Runoff Area = 6.090 ac Runoff Volume = 1.253 af Average Runoff Depth = 2.47"
56.31% Pervious = 3.429 ac 43.69% Impervious = 2.661 ac

17-413 POST

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Type III 24-hr 2-Year Rainfall=3.40"

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Summary for Subcatchment S-1A: Unattenuated flow toward BVW

Runoff = 11.96 cfs @ 12.15 hrs, Volume= 1.036 af, Depth= 2.54"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
12,859	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
24,779	80	>75% Grass cover, Good, HSG D
86,531	98	Paved parking
* 24,684	98	Roof
* 2,300	98	Concrete
40,938	91	Gravel roads, HSG D
16,956	89	<50% Grass cover, Poor, HSG D
* 2,384	98	BVW Area
213,201	92	Weighted Average
97,302		Pervious Area
115,899		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.1	17	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
1.1	210	0.0260	3.27		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.4	75	0.0350	3.01		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.2	55	0.0090	4.30	3.38	Circular Channel (pipe), EF Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
0.1	10	0.0150	1.97		Shallow Concentrated Flow, FG Unpaved Kv= 16.1 fps
11.0	417	Total			

Summary for Subcatchment S-1B: Flow toward proposed Basin-1

Runoff = 2.55 cfs @ 12.15 hrs, Volume= 0.217 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Year Rainfall=3.40"

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Type III 24-hr 2-Year Rainfall=3.40"

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Area (sf)	CN	Description
2,570	77	Woods, Good, HSG D
9,283	80	>75% Grass cover, Good, HSG D
26,312	91	Gravel roads, HSG D
13,898	89	<50% Grass cover, Poor, HSG D
52,063	88	Weighted Average
52,063		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.2	35	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.0	9	0.3300	9.25		Shallow Concentrated Flow, CD Unpaved Kv= 16.1 fps
1.7	215	0.0170	2.10		Shallow Concentrated Flow, DE Unpaved Kv= 16.1 fps
11.0	309	Total			

Summary for Reach 1R: Combined Flow to BVW

Inflow Area = 6.090 ac, 43.69% Impervious, Inflow Depth > 2.39" for 2-Year event
 Inflow = 12.04 cfs @ 12.15 hrs, Volume= 1.215 af
 Outflow = 12.04 cfs @ 12.15 hrs, Volume= 1.215 af, Atten= 0%, Lag= 0.0 min

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

Summary for Pond 1P: Basin-1

Inflow Area = 1.195 ac, 0.00% Impervious, Inflow Depth = 2.18" for 2-Year event
 Inflow = 2.55 cfs @ 12.15 hrs, Volume= 0.217 af
 Outflow = 0.54 cfs @ 12.65 hrs, Volume= 0.190 af, Atten= 79%, Lag= 29.8 min
 Discarded = 0.01 cfs @ 12.65 hrs, Volume= 0.011 af
 Primary = 0.53 cfs @ 12.65 hrs, Volume= 0.179 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 83.78' @ 12.65 hrs Surf.Area= 3,875 sf Storage= 4,769 cf

Plug-Flow detention time= 313.7 min calculated for 0.190 af (87% of inflow)
 Center-of-Mass det. time= 257.7 min (1,074.9 - 817.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	82.00'	10,584 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
82.00	1,574	406.0	0	0	1,574
83.00	2,825	426.0	2,169	2,169	2,962
84.00	4,202	461.0	3,491	5,660	5,472
85.00	5,684	495.0	4,924	10,584	8,102

17-413 POST*Type III 24-hr 2-Year Rainfall=3.40"*

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Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	0.090 in/hr Exfiltration over Surface area
#2	Primary	83.50'	33.0 deg x 0.8' long Sharp-Crested Vee/Trap Weir C= 2.60
#3	Primary	82.45'	2.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 12.65 hrs HW=83.78' (Free Discharge)└─**1=Exfiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=0.53 cfs @ 12.65 hrs HW=83.78' (Free Discharge)└─**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.42 cfs @ 1.69 fps)└─**3=Orifice/Grate** (Orifice Controls 0.12 cfs @ 5.37 fps)

17-413 POST*Type III 24-hr 10-Year Rainfall=4.80"*

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Unattenuated flow Runoff Area=213,201 sf 54.36% Impervious Runoff Depth=3.89"
Flow Length=417' Tc=11.0 min CN=92 Runoff=17.93 cfs 1.588 af

Subcatchment S-1B: Flow toward proposed Runoff Area=52,063 sf 0.00% Impervious Runoff Depth=3.48"
Flow Length=309' Tc=11.0 min CN=88 Runoff=4.02 cfs 0.347 af

Reach 1R: Combined Flow to BVW

Inflow=18.59 cfs 1.891 af

Outflow=18.59 cfs 1.891 af

Pond 1P: Basin-1

Peak Elev=84.15' Storage=6,307 cf Inflow=4.02 cfs 0.347 af

Discarded=0.01 cfs 0.012 af Primary=1.76 cfs 0.302 af Outflow=1.77 cfs 0.314 af

Total Runoff Area = 6.090 ac Runoff Volume = 1.935 af Average Runoff Depth = 3.81"
56.31% Pervious = 3.429 ac 43.69% Impervious = 2.661 ac

17-413 POST

Type III 24-hr 10-Year Rainfall=4.80"

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Summary for Subcatchment S-1A: Unattenuated flow toward BVW

Runoff = 17.93 cfs @ 12.15 hrs, Volume= 1.588 af, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
12,859	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
24,779	80	>75% Grass cover, Good, HSG D
86,531	98	Paved parking
* 24,684	98	Roof
* 2,300	98	Concrete
40,938	91	Gravel roads, HSG D
16,956	89	<50% Grass cover, Poor, HSG D
* 2,384	98	BVW Area
213,201	92	Weighted Average
97,302		Pervious Area
115,899		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.1	17	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
1.1	210	0.0260	3.27		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.4	75	0.0350	3.01		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.2	55	0.0090	4.30	3.38	Circular Channel (pipe), EF Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
0.1	10	0.0150	1.97		Shallow Concentrated Flow, FG Unpaved Kv= 16.1 fps
11.0	417	Total			

Summary for Subcatchment S-1B: Flow toward proposed Basin-1

Runoff = 4.02 cfs @ 12.15 hrs, Volume= 0.347 af, Depth= 3.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.80"

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Type III 24-hr 10-Year Rainfall=4.80"

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Area (sf)	CN	Description
2,570	77	Woods, Good, HSG D
9,283	80	>75% Grass cover, Good, HSG D
26,312	91	Gravel roads, HSG D
13,898	89	<50% Grass cover, Poor, HSG D
52,063	88	Weighted Average
52,063		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.2	35	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.0	9	0.3300	9.25		Shallow Concentrated Flow, CD Unpaved Kv= 16.1 fps
1.7	215	0.0170	2.10		Shallow Concentrated Flow, DE Unpaved Kv= 16.1 fps
11.0	309	Total			

Summary for Reach 1R: Combined Flow to BVW

Inflow Area = 6.090 ac, 43.69% Impervious, Inflow Depth > 3.73" for 10-Year event
 Inflow = 18.59 cfs @ 12.16 hrs, Volume= 1.891 af
 Outflow = 18.59 cfs @ 12.16 hrs, Volume= 1.891 af, Atten= 0%, Lag= 0.0 min

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

Summary for Pond 1P: Basin-1

Inflow Area = 1.195 ac, 0.00% Impervious, Inflow Depth = 3.48" for 10-Year event
 Inflow = 4.02 cfs @ 12.15 hrs, Volume= 0.347 af
 Outflow = 1.77 cfs @ 12.43 hrs, Volume= 0.314 af, Atten= 56%, Lag= 16.7 min
 Discarded = 0.01 cfs @ 12.43 hrs, Volume= 0.012 af
 Primary = 1.76 cfs @ 12.43 hrs, Volume= 0.302 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 84.15' @ 12.43 hrs Surf.Area= 4,410 sf Storage= 6,307 cf

Plug-Flow detention time= 224.9 min calculated for 0.314 af (91% of inflow)
 Center-of-Mass det. time= 178.9 min (982.9 - 804.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	82.00'	10,584 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
82.00	1,574	406.0	0	0	1,574
83.00	2,825	426.0	2,169	2,169	2,962
84.00	4,202	461.0	3,491	5,660	5,472
85.00	5,684	495.0	4,924	10,584	8,102

17-413 POST*Type III 24-hr 10-Year Rainfall=4.80"*

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Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	0.090 in/hr Exfiltration over Surface area
#2	Primary	83.50'	33.0 deg x 0.8' long Sharp-Crested Vee/Trap Weir C= 2.60
#3	Primary	82.45'	2.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 12.43 hrs HW=84.15' (Free Discharge)└─**1=Exfiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=1.75 cfs @ 12.43 hrs HW=84.15' (Free Discharge)└─**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.62 cfs @ 2.52 fps)└─**3=Orifice/Grate** (Orifice Controls 0.13 cfs @ 6.12 fps)

17-413 POST*Type III 24-hr 100-Year Rainfall=7.00"*

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S-1A: Unattenuated flow Runoff Area=213,201 sf 54.36% Impervious Runoff Depth=6.05"
Flow Length=417' Tc=11.0 min CN=92 Runoff=27.21 cfs 2.470 af

Subcatchment S-1B: Flow toward proposed Runoff Area=52,063 sf 0.00% Impervious Runoff Depth=5.59"
Flow Length=309' Tc=11.0 min CN=88 Runoff=6.32 cfs 0.557 af

Reach 1R: Combined Flow to BVW

Inflow=29.98 cfs 2.974 af

Outflow=29.98 cfs 2.974 af

Pond 1P: Basin-1

Peak Elev=84.56' Storage=8,224 cf Inflow=6.32 cfs 0.557 af

Discarded=0.01 cfs 0.014 af Primary=3.86 cfs 0.505 af Outflow=3.88 cfs 0.518 af

Total Runoff Area = 6.090 ac Runoff Volume = 3.027 af Average Runoff Depth = 5.96"
56.31% Pervious = 3.429 ac 43.69% Impervious = 2.661 ac

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment S-1A: Unattenuated flow toward BVW

Runoff = 27.21 cfs @ 12.15 hrs, Volume= 2.470 af, Depth= 6.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
256	70	Woods, Good, HSG C
12,859	77	Woods, Good, HSG D
1,514	74	>75% Grass cover, Good, HSG C
24,779	80	>75% Grass cover, Good, HSG D
86,531	98	Paved parking
* 24,684	98	Roof
* 2,300	98	Concrete
40,938	91	Gravel roads, HSG D
16,956	89	<50% Grass cover, Poor, HSG D
* 2,384	98	BVW Area
213,201	92	Weighted Average
97,302		Pervious Area
115,899		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.1	17	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
1.1	210	0.0260	3.27		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.4	75	0.0350	3.01		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.2	55	0.0090	4.30	3.38	Circular Channel (pipe), EF Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, bends & connections
0.1	10	0.0150	1.97		Shallow Concentrated Flow, FG Unpaved Kv= 16.1 fps
11.0	417	Total			

Summary for Subcatchment S-1B: Flow toward proposed Basin-1

Runoff = 6.32 cfs @ 12.15 hrs, Volume= 0.557 af, Depth= 5.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Type III 24-hr 100-Year Rainfall=7.00"

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Type III 24-hr 100-Year Rainfall=7.00"

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Area (sf)	CN	Description
2,570	77	Woods, Good, HSG D
9,283	80	>75% Grass cover, Good, HSG D
26,312	91	Gravel roads, HSG D
13,898	89	<50% Grass cover, Poor, HSG D
52,063	88	Weighted Average
52,063		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	50	0.0400	0.09		Sheet Flow, AB Woods: Light underbrush n= 0.400 P2= 3.40"
0.2	35	0.0400	3.22		Shallow Concentrated Flow, BC Unpaved Kv= 16.1 fps
0.0	9	0.3300	9.25		Shallow Concentrated Flow, CD Unpaved Kv= 16.1 fps
1.7	215	0.0170	2.10		Shallow Concentrated Flow, DE Unpaved Kv= 16.1 fps
11.0	309	Total			

Summary for Reach 1R: Combined Flow to BVW

Inflow Area = 6.090 ac, 43.69% Impervious, Inflow Depth > 5.86" for 100-Year event
Inflow = 29.98 cfs @ 12.16 hrs, Volume= 2.974 af
Outflow = 29.98 cfs @ 12.16 hrs, Volume= 2.974 af, Atten= 0%, Lag= 0.0 min

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

Summary for Pond 1P: Basin-1

Inflow Area = 1.195 ac, 0.00% Impervious, Inflow Depth = 5.59" for 100-Year event
Inflow = 6.32 cfs @ 12.15 hrs, Volume= 0.557 af
Outflow = 3.88 cfs @ 12.32 hrs, Volume= 0.518 af, Atten= 39%, Lag= 9.9 min
Discarded = 0.01 cfs @ 12.32 hrs, Volume= 0.014 af
Primary = 3.86 cfs @ 12.32 hrs, Volume= 0.505 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 84.56' @ 12.32 hrs Surf.Area= 5,001 sf Storage= 8,224 cf

Plug-Flow detention time= 162.8 min calculated for 0.518 af (93% of inflow)
Center-of-Mass det. time= 125.7 min (916.7 - 791.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	82.00'	10,584 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
82.00	1,574	406.0	0	0	1,574
83.00	2,825	426.0	2,169	2,169	2,962
84.00	4,202	461.0	3,491	5,660	5,472
85.00	5,684	495.0	4,924	10,584	8,102

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Type III 24-hr 100-Year Rainfall=7.00"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	0.090 in/hr Exfiltration over Surface area
#2	Primary	83.50'	33.0 deg x 0.8' long Sharp-Crested Vee/Trap Weir C= 2.60
#3	Primary	82.45'	2.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 12.32 hrs HW=84.55' (Free Discharge)└─**1=Exfiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=3.85 cfs @ 12.32 hrs HW=84.56' (Free Discharge)└─**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.70 cfs @ 3.15 fps)└─**3=Orifice/Grate** (Orifice Controls 0.15 cfs @ 6.85 fps)

RECHARGE CALCULATIONS (STANDARD #3)



STANDARD 3: RECHARGE CALCULATIONS

Note:

Required Recharge Volume calculations are based on new impervious areas only. Existing impervious areas have not been included.

REQUIRED:

Recharge Volume Required ("A" Soils)	= [Impervious Area x (Recharge Depth inches/12)] = [0 sf x (0.60"/12)] = <u>0 cf</u> (Required Volume)
Recharge Volume Required ("B" Soils)	= [Impervious Area x (Recharge Depth inches/12)] = [0 sf x (0.35"/12)] = <u>0 cf</u> (Required Volume)
Recharge Volume Required ("C" Soils)	= [Impervious Area x (Recharge Depth inches/12)] = [0 sf x (0.25"/12)] = <u>0 cf</u> (Required Volume)
Recharge Volume Required ("D" Soils)	= [Impervious Area x (Recharge Depth inches/12)] = [16,774 sf x (0.10"/12)] = <u>140 cf</u> (Required Volume)
Total Required Recharge Volume	= <u>140 cf</u>

CAPTURE AREA ADJUSTMENT:

It is noted that the site is comprised of solely of C and D soils and that groundwater recharge has been achieved to the maximum extent practicable. Due to the location and elevation of the proposed pavement, runoff from all new impervious area could not be captured by infiltrating BMP's.

STATIC METHOD:

- Assume the entire Required Recharge Volume is discharged into the infiltration device before infiltration begins.

PROVIDED:**Infiltration Basin #1:**

- Cumulative Volume below the lowest outlet (Elev.=82.45) = 824 c.f.

Total Recharge Volume Provided = 824 c.f. (0.019 acre-feet)

DRAWDOWN CALCULATIONS (STANDARD #3)



STANDARD 3: DRAWDOWN CALCULATIONS

$$Time_{drawdown} = \frac{R_v}{(K)(Bottom\ Area)}$$

Where:

R_v = Required Storage Volume = (F)(impervious area)

K = Saturated Hydraulic Conductivity

For "Static" and "Simple Dynamic" Methods, use Rawls Rate (see Table 2.3.3).

For "Dynamic Field" Method, use 50% of the in-situ saturated hydraulic conductivity.

INFILTRATION BASIN #1

$$Time_{drawdown} = \frac{R_v}{(K)(Bottom\ Area)} = 69.80 \text{ hours}$$

R_v = 824 C.F. (Recharge Volume Provided)

K = 0.09 inch/hr.

BA = 1,574 S.F. (Total Bottom Area)

TABLE 2.3.3

Texture Class	NRCS Hydrologic Soil Group (HSG)	Infiltration Rate Inches/Hour
Sand	A	8.27
Loamy Sand	A	2.41
Sandy Loam	B	1.02
Loam	B	0.52
Silt Loam	C	0.27
Sandy Clay	C	0.17
Clay Loam	D	0.09
Silty Clay Loam	D	0.06
Sandy Clay	D	0.05
Silty Clay	D	0.04
Clay	D	0.02

WATER QUALITY VOLUME CALCULATIONS (STANDARD #4)



ENGINEERING A BETTER TOMORROW
ENGINEERING | SITE WORK | LAND SURVEYING

LOCATION: 61 John Vertente Boulevard - New Bedford, MA

PROJECT #: 17-413

DATE: 8/10/17

REV:

STANDARD 4: WATER QUALITY VOLUME:

Note:

Water Quality Volume calculations are based on new impervious areas only. Existing impervious areas have not been included.

Water Quality Treatment Volume Formula:

$$V_{WQ} = D_{WQ} \times (1 \text{ ft.} / 12 \text{ in.}) \times A_{IMP}$$

Where,

V_{WQ} = Required Water Quality Volume (in cubic feet)

D_{WQ} = Water Quality Depth: one-inch for discharges within a Zone II or IWPA, to or near another critical area, runoff from a LUHPPL, or exfiltration to soils with infiltration rate greater than 2.4 inches/hour; 1/2 -inch for discharges near or to other areas

A_{IMP} = Impervious Area (in cubic feet)

STORM WATER OUTFALL: CDS 2025 unit

CONTRIBUTING IMPERVIOUS AREA (A_{IMP}) = 16,774 S.F.

$$V_{WQ} = \underline{1.0} \text{ inch} \times 1 \text{ ft} / 12 \text{ in.} \times 16,774 \text{ s.f.} = \underline{1,398} \text{ c.f.}$$

STRUCTURAL BMP TREATMENT TRAIN:

CDS-2025

*Refer to attached WQV conversion calculation & CDS report = 1,398 c.f.

TOTAL WATER QUALITY VOLUME PROVIDED IN BMP TREATMENT TRAIN = 1,398 c.f.



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LOCATION: 61 John Vertente Boulevard

PROJECT #: 17-413

DATE: 8/10/17

WATER QUALITY VOLUME CONVERSION TO FLOW RATE:

Note: The following conversion performed according to methods described in "Standard Method to Convert Required Water Quality Volume to a Discharge Rate for Sizing Flow Based Manufactured Proprietary Stormwater Treatment Practices"

FLOW CONVERSION FOR WATER QUALITY VOLUME FROM CDS-2025-5 OUTLET

$$Q_1 = (q_U) \times (V_{WQ}) \times (A_{IMP})$$

Where,

q_U = Unit peak discharge, in csm/in (From Figure 4 of conversion guidance document described above, based on 0.1 hour Time of Concentration)

V_{WQ} = Water Quality Depth: one-inch for discharges within a Zone II or IWPA, to or near another critical area, runoff from a LUHPPL, or exfiltration to soils with infiltration rate greater than 2.4 inches/hour; 1/2 -inch for discharges near or to other areas

A_{IMP} = Impervious Area (in square miles)

$$Q_1 = 774 \text{ csm/in} \times 1.398 \text{ s.f.} \times 3.587 \text{ e}^{-9} \text{ mi}^2 / \text{s.f.} \times 1.0 \text{ inch} = 0.04 \text{ cfs}$$

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

TSS REMOVAL CALCULATIONS (STANDARD #4)



ENGINEERING A BETTER TOMORROW

ENGINEERING | SITE WORK | LAND SURVEYING

LOCATION: 61 John Vertente Boulevard - New Bedford, MA

PROJECT #: 17-413

DATE: 8/10/17

REV:

STANDARD 4: TSS REMOVAL CALCULATIONS:

STORM WATER OUTFALL: OUTLET FROM CDS 2025 UNIT

TREATMENT

A BMP	B TSS Removal Rate	C Starting TSS Load*	D Amount Removed (BXC)	E Remaining Load (C-D)
Proprietary Separator	82%	1.00	0.82	0.18
Total TSS Removal=			0.82	

LONG TERM POLLUTION PREVENTION
PLAN
(STANDARD #4)



ENGINEERING A BETTER TOMORROW
ENGINEERING | SITE WORK | LAND SURVEYING

Long Term Pollution Prevention Plan

Site Plan 61 John Vertente Boulevard New Bedford, MA 02745

Record Owner:

Assessor's Map 133 Lot 47:
Symmetry New Bedford Real Estate, LLC
61 John Vertente Boulevard
New Bedford, MA 02745

Prepared For:

Parallel Products of New England
401 Industry Road
Louisville, KY 40208

Prepared By:

Christian Farland, P.E.
Farland Corp.
Project No. 17-413

Long Term Pollution Prevention Plan

This Long Term Pollution Prevention Plan serves to outline good housekeeping practices in order to prevent pollution of the wetland resource areas and surrounding environment. The Long Term Operation & Maintenance Plan shall be taken as part of this document as it is a critical part of this plan and shall be adhered to. Proper operation and maintenance records shall be kept on file at all times.

Snow disposal shall be carried out by the owner. The owner should follow DEP guideline #BWR G2015-01 for all snow removal requirements. For this site, it is anticipated that snow will be plowed from the impervious parking and driveway areas and piled along the shoulders of the driveway and parking areas. Snow along the building is anticipated to be removed by shovel or snow blower.

Snow disposal in the following areas are prohibited:

- Dumping snow in the bordering vegetated wetlands is prohibited.
- Dumping of snow on top of storm drain catch basins, grassed swale, or in stormwater drainage basin is prohibited. Snow combined with sand and debris may block a storm drainage system, causing localized flooding. A high volume of sand, sediment, and litter released from melting snow also may be quickly transported through the system into surface water.

Illicit discharges to the stormwater management system are prohibited. Illicit discharges are those that are not entirely comprised of stormwater. Notwithstanding the foregoing, an illicit discharge does not include discharges from the following activities or facilities; firefighting, water line flushing, landscape irrigation, uncontaminated groundwater, potable water sources, foundation drains, air conditioning condensation, footing drains, individual residence car washing, flows from riparian habitats and wetlands, de-chlorinated water from swimming pools, water used for street washing, and water used to clean residential buildings without detergents. Measures are provided below to prevent illicit discharges to the stormwater management system.

In order to prevent or minimize the potential for a spill of hazardous substances or oils to contaminate stormwater, a spill control and containment kit, including spill berm, absorbent materials, rags, gloves, and trash containers, shall be readily available. All product manufacturers recommended spill cleanup methods shall be known by maintenance personnel, who shall be trained regarding these procedures and the location of the cleanup procedure information and supplies. In the event of oil, gasoline or other hazardous waste spill on-site, the New Bedford Fire Department, DEP and the Conservation Agent shall be notified immediately. For spills of less than ¼ gallon, clean-up with absorbent materials or other appropriate means, unless circumstances dictate that the spill should be treated by a professional emergency response contractor. Spills which exceed the reportable quantities of substances mentioned in 40 CFR 110, 40 CFR 117, or 40 CFR 302 must be immediately reported to the EPA National Response Center (800) 242-8802. Any drainage inlet that may be affected by the spill shall be

covered immediately with a spill protector drain cover or similar product, or a spill berm placed around the perimeter of the opening to prevent any contamination into the drainage system. Proper cleanup and disposal of hazardous wastes must follow all applicable local and state regulations and must be carried out by a qualified contractor.

The maintenance of all lawns, gardens and landscaped areas shall be performed by the owner. Good housekeeping practices should include proper storage and minimal use of cleaning products and fertilizers. Facility owner should consult with a professional landscaper for proper maintenance of lawns and landscaped areas.

OPERATION & MAINTENANCE PLAN &
LOGS
(STANDARD #9)



ENGINEERING A BETTER TOMORROW
ENGINEERING | SITE WORK | LAND SURVEYING

Long Term Operation and Maintenance Plan

Site Plan 61 John Vertente Boulevard New Bedford, MA 02745

August 10, 2017

Record Owner(s):

Assessor's Map 133 Lot 47:
Symmetry New Bedford Real Estate, LLC
61 John Vertente Boulevard
New Bedford, MA 02745

Prepared For:

Parallel Products of New England
401 Industry Road
Louisville, KY 40208

Prepared By:

Christian Farland, P.E.
Farland Corp.
Project No. 17-413

The Operator, Owner, and Party Responsible for Operation and Maintenance of the Stormwater BMP's will be the landowner of the property on which the BMP is located.

The responsible party shall:

- a) Maintain an operation and maintenance log for at least three years, including inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and disposal location);
- b) Make this log available to MassDEP and the Conservation Commission upon request during normal business hours; and
- c) Allow members and agents of the MassDEP and the Conservation Commission to enter and inspect the premises to evaluate and ensure that the responsible party complies with the Operation and Maintenance Plan requirements for each BMP.

Street Sweeping

It shall be the responsibility of the owner to:

Inspections:

Inspect sediment deposit accumulations on the parking lots quarterly.

Maintenance:

Sweep parking lots at least annually, during March or April before spring rains wash residual sand from winter applications into stormwater systems.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

Stone/ Rip Rap Areas

The rip rap areas are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect the rip rapped areas quarterly.

Maintenance:

Remove accumulated sediment, trash, leaves and debris at least annually. Check for signs of erosion and repair as need. Replace any damaged areas with new rip rap of the same size.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

Deep Sump Catch Basins / Drain Manholes

The catch basins, trench grate, and manholes are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect the catch basins and manholes quarterly.

Maintenance:

Remove accumulated sediment, trash, leaves and debris when the depth of deposits is greater than or equal to one half the depth from the bottom invert of the lowest pipe in the basin and/or manhole to the bottom elevation of the basin or manhole.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

CDS® Units

The units are to be inspected and maintained by the owner.

CDS Units are proprietary products and must comply with manufacturer's inspection and maintenance requirements. Refer to the attached CDS Inspection and Maintenance Guide.

It shall be the responsibility of the owner to:

Inspections:

Inspect the units quarterly.

Prepare inspection reports as part of each inspection and include the following information:

1. Date of inspection
2. Maintenance personnel
3. Location of unit (GPS coordinates if possible)
4. Time since last rainfall
5. Installation deficiencies (missing parts, incorrect installation of parts)
6. Structural Deficiencies (concrete cracks, broken parts)
7. Operational deficiencies (leaks, blockages)
8. Presence of oil sheen or depth of oil layer
9. Estimate of depth/ volume of floatables (trash, leaves) captured
10. Sediment depth measured
11. Recommendations for any repairs and/ or maintenance for the units
12. Estimation of time before maintenance is required if not required at time of inspection.

Maintenance:

Cleaning should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method for removing pollutants from the system. The screen should be power washed to ensure it is free of trash and debris.

The CDS® Unit shall be cleaned once the sediment depth reaches 75% of the storage capacity.

If upon inspection, evidence of hydrocarbons is observed, such material shall be immediately removed and disposed of in accordance with local, state, and federal guidelines and regulations.

To remove oil and other hydrocarbons that accumulate, it may be preferable to use adsorbent pads.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

Stormwater Detention Basin

The basin is to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect to basins quarterly and after major storms (>3.2" of rain in 24 hours)

Inspect basins for settlement, subsidence, erosion, cracking or tree growth on the embankment, condition of stone; sediment accumulation around the outlet or within the basin; and erosion within the basin and banks.

Inspect vee-notch weir outlet for evidence of clogging, sediment deposits or signs of erosion around the structure.

Ensure that the basins are operating as designed. If inspection shows that a basin fails to fully drain within 72 hours following a storm event, then the responsible party shall retain a Registered Professional Civil Engineer licensed in the state of Massachusetts to assess the reason for infiltration/detention failure and recommend corrective action for restoring the intended functions.

Maintenance:

When mowing the basin and forebay, mow the buffer area, side slopes, and basin bottom. Remove grass clippings and accumulated debris. Mow three times per year in May, July and September.

Remove accumulated trash, leaves, debris in basin and forebay every month between April and November of each year. Inspect areas in February of each year, if possible, to determine whether the aforementioned services are required.

If the basin is ponding in areas or not functioning as designed, use deep tilling to break up clogged surfaces, and re-vegetate immediately.

Do not store snow in basin area.

Remove sediment from the basin as necessary and at least once every 5 years but wait until the floor of the basin is thoroughly dry. After removing sediment, replace any vegetation damaged during clean-out by either re-seeding or re-sodding.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

Drain Lines

After construction, the drain lines shall be inspected after every major storm for the first few months to ensure proper functions. Presence of accumulated sand and silt would indicate more frequent maintenance of the pre-treatment devices is required. Thereafter, the drain lines shall be inspected at least once per year. Accumulated silt shall be removed by a vactor truck or other method preferred.

Access Ways & Parking Areas

Inspections:

- Inspect Daily
- Clear any debris daily
- Sweep bi-annually
- Repair cracks and potholes as needed
- Maintain painted lines as necessary for visibility

Fences/Walls

Inspections:

- Inspect Monthly
- Remove debris and litter daily
- Repair as necessary

Landscaping

Inspections:

- Inspect weekly
- Remove debris and litter as necessary
- Prune and fertilize bi-annually
- Mow lawn as necessary
- Fertilize quarterly

**“61 John Vertente Boulevard”
Operation & Maintenance Log Form**

STRUCTURAL SEDIMENT CONTROL BMPS

BMP	DATE INSPECTED	SEDIMENT BUILDUP (YES/NO)	IF SEDIMENT BUILDUP, DATE CLEANED
CDS-2025			
Stormwater Detention Basin #1			
OTHER:			

Maintenance Notes:

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

ILLICIT DISCHARGE STATEMENT (STANDARD #10)



ENGINEERING A BETTER TOMORROW

ENGINEERING | SITE WORK | LAND SURVEYING

Illicit Discharge Compliance Statement (IDCS)

This Illicit Discharge Compliance Statement is intended to verify that no illicit discharges exist on the site or are proposed. We have included, in the pollution prevention plan, measures to prevent illicit discharges to the stormwater management system, including wastewater discharges and discharges of stormwater contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, oil, or grease.

The site plan identifies the location of any systems for conveying wastewater and/or groundwater on the site and show that there are no connections between the stormwater and wastewater management systems and the location of any measures taken to prevent the entry of illicit discharges into the stormwater management system.

Farland Corp.

Christian A. Farland, P.E., LEED AP
Principal Engineer and President

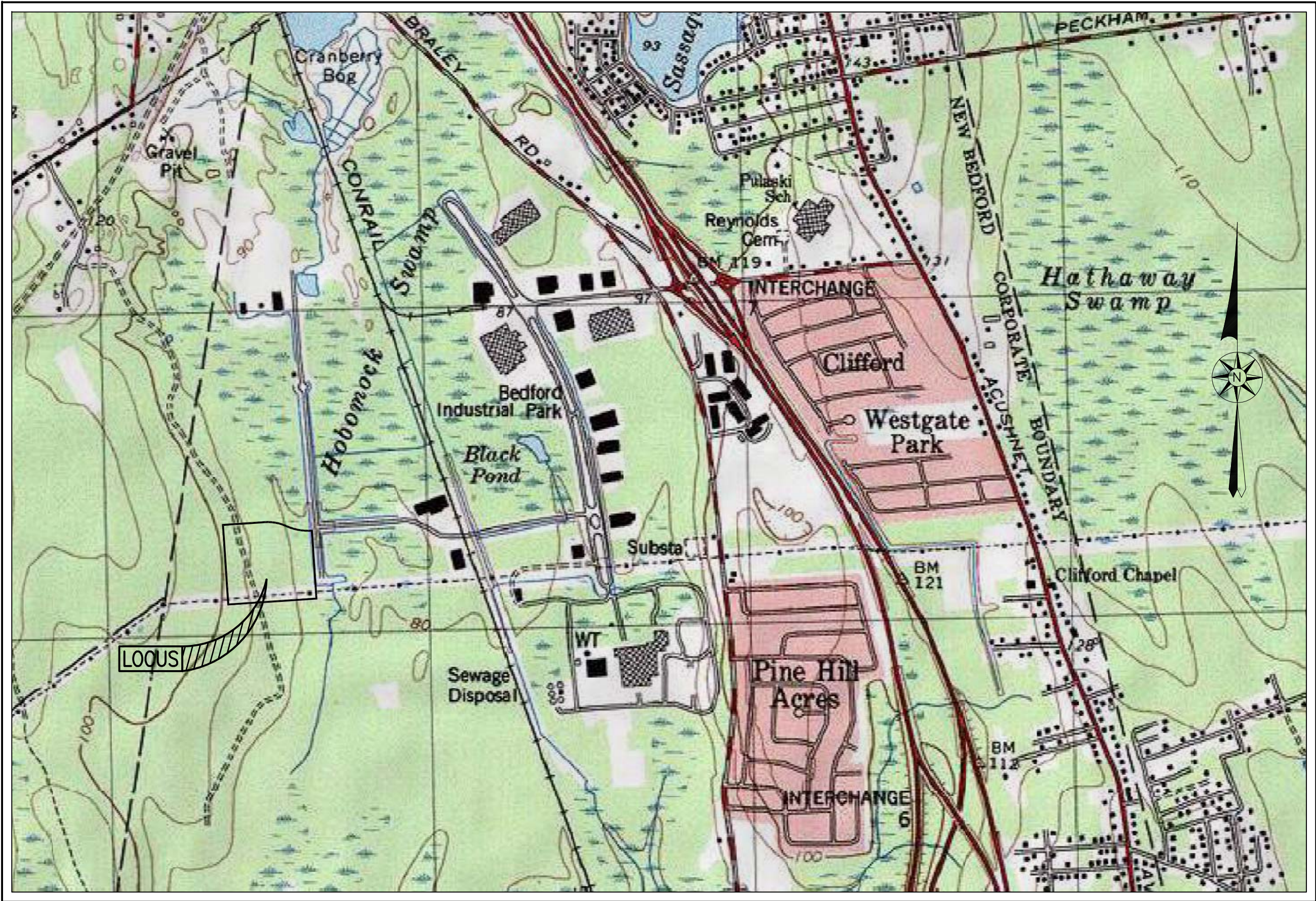
WATERSHED PLANS

S I T E P L A N

61 JOHN VERTENTE BOULEVARD

ASSESSORS MAP #133 LOT #47

NEW BEDFORD, MASSACHUSETTS



— AREA MAP —

SCALE: 1"=1,000'±

— ZONING DATA —

DISTRICT: INDUSTRIAL C

DESCRIPTION	REQUIRED	EXISTING	PROVIDED
LOT AREA	0 S.F.	16.43 AC	16.43 AC
UPLAND AREA	0 S.F.	13.5± AC	13.5± AC
UPLAND AREA PERCENTAGE	0 %	82.2± %	82.2± %
LOT FRONTAGE	0 FT	1478.82 FT	1478.82 FT
FRONT SETBACK	25 FT	107.3 FT	107.3 FT
SIDE SETBACK	25 FT	203.3 FT	203.3 FT
REAR SETBACK	25 FT	241.3 FT	241.3 FT
BUILDING HEIGHT (MAXIMUM)	100 FT	24.7± FT	24.7± FT
BUILDING COVERAGE (MAXIMUM)	50 %	11.7 %	11.7 %
LOT COVERAGE (MAXIMUM)	80 %	33.6 %	36.4 %

— PARKING & LOADING REQUIREMENTS —

PRINCIPAL USE: FOOD PACKAGING & DISTRIBUTION

(FOR PARKING REGULATION PURPOSES: BUSINESS ENGAGED IN WAREHOUSING & DISTRIBUTION)

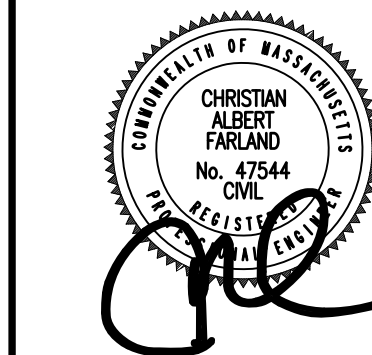
REQUIREMENT	REQUIRED	PROVIDED
1 SPACE PER 1,500 S.F. OF G.F.A. UP TO 15,000 S.F. THEREAFTER, ONE ADDITIONAL SPACE FOR EACH 5,000 S.F. OR PORTION THEREOF IN EXCESS OF 15,000 S.F., PLUS ONE SPACE FOR EACH VEHICLE UTILIZED IN THE BUSINESS.	25 SPACES	153 SPACES
WHEN 151–200 TOTAL PARKING SPACES ARE PROVIDED, 6 MUST BE ACCESSIBLE SPACES. ONE IN EVERY EIGHT ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, SHALL BE VAN ACCESSIBLE	6 ACCESSIBLE, 1 VAN ACCESSIBLE	6 ACCESSIBLE, 2 VAN ACCESSIBLE
TWO (2) LOADING SPACES FOR EACH BUILDING CONTAINING 10,000 S.F. OF GROSS FLOOR AREA. THEREAFTER, ONE (1) ADDITIONAL LOADING SPACE SHALL BE REQUIRED FOR EACH FIFTEEN (15) FEET OF DOCK, PLATFORM, OR OPENING IN THE BUILDING WHERE THE LOADING OR UNLOADING OF COMMODITIES IS INTENDED TO OCCUR.	11 LOADING SPACES	18 LOADING SPACES

— INDEX —

SHEET	DESCRIPTION
1	COVER
2	EXISTING CONDITIONS
3	DEMOLITION
4	LAYOUT
5	UTILITIES & GRADING
6	EROSION & SEDIMENT CONTROL
7	NOTES
8–9	DETAILS

RECORD OWNER:
ASSESSORS MAP 133 LOT 47
SYMMETRY NEW BEDFORD REAL ESTATE, LLC
61 JOHN VERTENTE BOULEVARD
NEW BEDFORD, MA 02745
DEED BOOK 8931 PAGE 199

REVISIONS



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401 COUNTY STREET
NEW BEDFORD, MA 02740
P.508.717.3479
OFFICES IN:
•TAUNTON
•MARLBOROUGH
•WARWICK, RI

DRAWN BY: JKM
DESIGNED BY: CAF
CHECKED BY: CAF

SITE PLAN
— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS
PREPARED FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40208

DATE: AUGUST 10, 2017

SCALE: AS NOTED

JOB NO. 17–413

LATEST REVISION:

COVER SHEET

SHEET 1 OF 9

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N84°30'50"E 1121.62'

SAMUEL BARNET ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

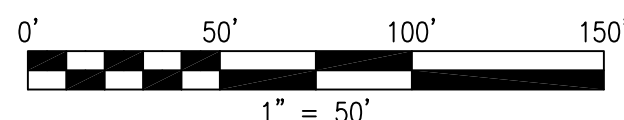
#61 JOHN VERTENTE
BOULEVARD
(MAP 133 LOT 47)
AREA=715,712 S.F. +/-
16.43 ACRES +/-

MAP 133
LOT 55
N/F
LONE OAK - NEW
BEDFORD, LLC

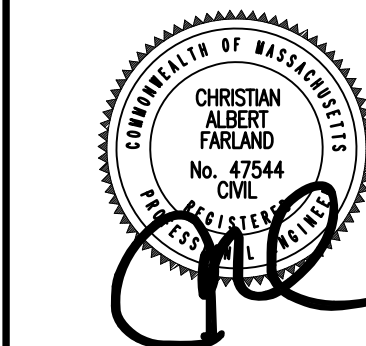
MAP 133
LOT 7
N/F
AFC CABLE SYSTEMS INC.

MAP 133
LOT 62
N/F
GNBIF/POLAROID LLC

MAP 133
LOT 37
N/F
H & M DARTMOUTH
REALTY LLC



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- WARWICK, RI

DRAWN BY: JKM

DESIGNED BY: CAF

CHECKED BY: CAF

SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40208

DATE: AUGUST 10, 2017

SCALE:

JOB NO. 17-413

LATEST REVISION:

EXISTING CONDITIONS

SHEET 2 OF 9

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N84°30'50"E 1121.62'

SAMUEL BARNET ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

#61 JOHN VERTENTE
BOULEVARD
(MAP 133 LOT 47)
AREA=715,712 S.F. +/-
16.43 ACRES +/-

MAP 133
LOT 55
N/F
LONE OAK - NEW
BEDFORD, LLC

MAP 133
LOT 7
N/F
AFC CABLE SYSTEMS INC.

0' 50' 100' 150'
1" = 50'

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CHECKED BY: CAF

SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40208

DATE: AUGUST 10, 2017

SCALE:

JOB NO. 17-413

LATEST REVISION:

DEMOLITION PLAN

SHEET 3 OF 9

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N84°30'50"E 1121.62'

SAMUEL BARNET ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

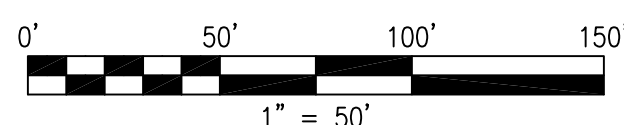
#61 JOHN VERTENTE
BOULEVARD
(MAP 133 LOT 47)
AREA=715,712 S.F. +/-
16.43 ACRES +/-

MAP 133
LOT 55
N/F
LONE OAK - NEW
BEDFORD, LLC

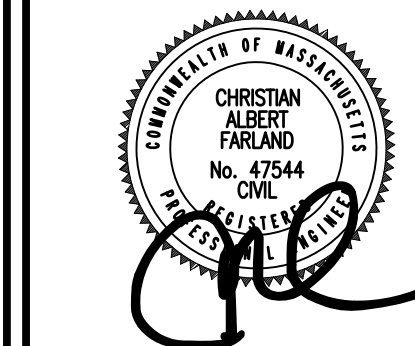
MAP 133
LOT 7
N/F
AFC CABLE SYSTEMS INC.

MAP 133
LOT 37
N/F
H & M DARTMOUTH
REALTY LLC

MAP 133
LOT 62
N/F
GNBIF/POLAROID LLC



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SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED
FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40206

DATE: AUGUST 10, 2017

SCALE: 1"=50'

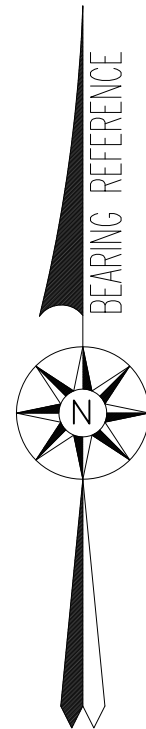
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LATEST REVISION:

SITE LAYOUT PLAN

SHEET 4 OF 9

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SAMUEL BARNET ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

#61 JOHN VERTENTE BOULEVARD
(MAP 133 LOT 47)
AREA=715,712 S.F. +/-
16.43 ACRES +/-

MAP 133
LOT 55
N/F
LONE OAK - NEW BEDFORD, LLC

MAP 133
LOT 7
N/F
AFC CABLE SYSTEMS INC.

MAP 133
LOT 62
N/F
GNBIF/POLAROID LLC

MAP 133
LOT 37
N/F
H & M DARTMOUTH REALTY LLC

SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40208

DATE: AUGUST 10, 2017
SCALE: 1"=50'
JOB NO. 17-413
LATEST REVISION:

GRADING & UTILITY PLAN

SHEET 5 OF 9

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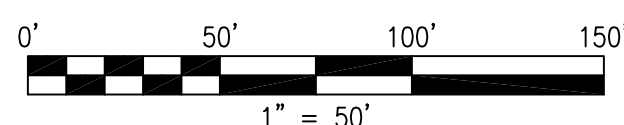


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N84°30'50"E 1121.62'

SAMUEL BARNET ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

#61 JOHN VERTENTE
BOULEVARD
(MAP 133 LOT 47)
AREA=715,712 S.F. +/-
16.43 ACRES +/-

MAP 133
LOT 55
N/F
LONE OAK - NEW
BEDFORD, LLC

9
8
TEMPORARY 50'L X 20'W
CONSTRUCTION ENTRANCE

TEMPORARY CONSTRUCTION PERIOD SOIL STOCKPILE AREA.
EROSION CONTROL BARRIER TO BE INSTALLED AT BOTTOM OF
ALL SLOPES (TYP.) OTHER STOCKPILE AREAS MAY BE UTILIZED
WITH PROPER EROSION CONTROLS PER SWPPP.

MAP 133
LOT 7
N/F
AFC CABLE SYSTEMS INC.

N84°30'50"E 1410.64'

908.85'

R=450.00'
L=222.88'

R=550.00'
L=272.38'

DRIVE-IN DOOR

EXISTING PARKING AREA TO BE
UTILIZED AS CONSTRUCTION PERIOD
PARKING AND STAGING AREA.

PROVIDE STRAW WATTLE AND
SILTATION FENCE OR EQUIVALENT
EROSION CONTROL BARRIER AT ALL
DOWNSLOPE LIMITS OF CONSTRUCTION

12
8

MAP 133
LOT 62
N/F
GNBIF/POLAROID LLC

MAP 133
LOT 37
N/F
H & M DARTMOUTH
REALTY LLC

JOHN VERTENTE ~PUBLIC - VARIABLE WIDTH~ BOULEVARD

0' 50' 100' 150'
1" = 50'

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- WARWICK, RI

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SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED
FOR:
PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40208

DATE: AUGUST 10, 2017

SCALE: 1"=50'

JOB NO. 17-413

LATEST REVISION:

EROSION & SEDIMENT
CONTROL PLAN

SHEET 6 OF 9

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. PROPERTY LINE INFORMATION TAKEN FROM:
3. PLAN ENTITLED: "APPROVAL NOT REQUIRED PLAN" IN NEW BEDFORD, MASSACHUSETTS DRAWN FOR JOHNSON & JOHSON PROFESSIONAL, INC." DATED JANUARY 18, 1999 BY EARLE O. PHILLIPS, JR.
4. TOPOGRAPHIC SURVEY PERFORMED BY FARLAND CORP. IN JULY & AUGUST 2017.
5. WETLAND DELINEATION FROM PLAN ENTITLED "MANUFACTURING AND OFFICE ADDITION, DEPUY ORTHOPEDICS, INC, 61 JOHN VERTENTE BOULEVARD" (SHEET C2) DATED 10/08/04 BY PLANNERS DESIGNERS ARCHITECTS, INC.
6. VERTICAL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 AND HORIZONTAL LOCATIONS REFER TO THE NORTH AMERICAN DATUM (NAD) OF 1983.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL STANDARDS AND REGULATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
9. WHERE PROPOSED PAVEMENT AND WALKS ARE TO MEET EXISTING, THE CONTRACTOR SHALL SAWCUT A NEAT LINE AND MATCH GRADE. SEAL ALL JOINTS WITH HOT BITUMINOUS ASPHALT JOINT SEALER.
10. CURBING TO BE AS INDICATED ON THE PLANS.
11. ALL EXISTING TREES, SHRUBS AND GROUND COVER WHERE NATURAL GRADE IS TO BE RETAINED SHALL BE KEPT IN THEIR EXISTING STATE UNLESS REMOVAL IS REQUIRED FOR CONSTRUCTION PURPOSES.
12. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT TO BE PAVED OR OTHERWISE TREATED AS NOTED ON PLAN SHALL BE TREATED WITH 4" OF LOAM, SEEDED AND HAY MULCHED FOR EROSION CONTROL.
13. SITE IMPROVEMENTS SHALL CONFORM TO A.D.A. SPECIFICATIONS.
14. LIGHTING SHALL BE DIRECTED ON SITE AND AWAY FROM TRAFFIC INTERFERENCE.
15. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON-SITE UTILITY SERVICES ACCORDING TO THE LOCAL AUTHORITY'S SPECIFICATIONS. SERVICES SHALL BE CAPPED OFF WHERE SAME ENTER THE PERIMETER OF THE PROPERTY LINE.
16. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
17. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION. THESE PLANS ARE PERMITTING PLANS AND SHALL NOT TO BE USED FOR CONSTRUCTION. A FINAL SET OF STAMPED PLANS FOR CONSTRUCTION WILL BE ISSUED AFTER RECEIVING FINAL APPROVAL FROM THE LOCAL AND/OR STATE DEPARTMENTS.
19. ANY MINOR MODIFICATIONS (AS DETERMINED BY THE CITY ENGINEER) TO THE INFORMATION SHOWN ON THE APPROVED SITE PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER AS A MINOR PLAN REVISION FOR APPROVAL PRIOR TO WORK BEING PERFORMED.
20. ANY WORK AND MATERIAL WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
21. ALL HANDICAP PARKING, RAMPS, AND ACCESS SHALL CONFORM TO AAB & MAAB REQUIREMENTS.
22. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL SHALL CONFORM TO CITY OF NEW BEDFORD CONSERVATION COMMISSION REQUIREMENTS AS STATED IN THE ORDER OF CONDITIONS.
23. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO MUTCD REQUIREMENTS.
24. THE CONTRACTOR SHALL OBTAIN A STREET DISTURBANCE & OBSTRUCTION PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE RIGHT OF WAY.
25. ALL WATER AND SEWER MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
26. ALL WATER AND SEWER CONSTRUCTION SHALL BE INSPECTED BY THE CITY OF NEW BEDFORD BEFORE BEING BACKFILLED.
27. THE CITY SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE REQUIRED INSPECTIONS.

CONSTRUCTION SEQUENCING NOTES

1. CONSTRUCT TEMPORARY AND PERMANENT EROSION CONTROL FACILITIES. EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING.
2. TREE PROTECTION FENCE SHALL BE INSTALLED AND APPROVED BY THE OWNER REPRESENTATIVE PRIOR TO ANY EARTH MOVING.
3. ALL PERMANENT DITCHES AND SWALES ARE TO BE STABILIZED WITH VEGETATION OR RIP RAP PRIOR TO DIRECTING RUNOFF TO THEM.
4. CLEAR CUT, DEMOLISH AND DISPOSE OF EXISTING SITE ELEMENTS NOT TO REMAIN.
5. STORMWATER SHALL NOT BE DIRECTED TOWARDS THE INFILTRATION BASIN UNTIL THE ENTIRE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
6. GRADE AND GRAVEL ALL PAVED AREAS. ALL PROPOSED PAVED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
7. BEGIN ALL PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
8. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND MULCH AND SEED AS REQUIRED.
9. FINISH PAVING ALL HARD SURFACE AREAS.
10. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
11. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
12. REMOVE TEMPORARY EROSION CONTROL MEASURES.
13. THE CONSTRUCTION SEQUENCE SHALL BE CONFINED TO THE LIMIT OF WORK AS SHOWN ON THE DRAWINGS.
14. UPON COMPLETION OF CONSTRUCTION THE OWNER SHALL AGREE TO MAINTAIN AND CLEAN ALL DRAINAGE STRUCTURES AS REQUIRED.

SITE PREPARATION NOTES

1. WITHIN THE LIMIT OF WORK LINE AS NOTED ON THE SITE PLANS, REMOVE AND DISCARD ALL CONCRETE PAVEMENT, BITUMINOUS CONCRETE PAVEMENT, BRICK PAVEMENT, TOP SOIL, MULCH, TRASH, DEAD TREES AND STUMPS, SHRUBBERY, CHAIN LINK FENCE POSTS, RAILS, FABRIC, GATES, FOOTINGS AND ALL APPURTENANCES, BOLLARDS, POSTS, CONCRETE FOOTINGS AND FOUNDATIONS, WALLS AND CURBS UNLESS OTHERWISE NOTED.
2. THE OWNER'S REPRESENTATIVE SHALL BE CONSULTED AND WILL REVIEW THE WORK ON SITE WITH THE CONTRACTOR BEFORE ANY WORK SHALL COMMENCE.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS TO REMAIN THAT ARE DUE TO CONTRACTOR OPERATIONS.
5. ALL ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS EFFORTS OF THE DEMOLITION WITH ALL TRADES.
7. THE CONTRACTOR SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
8. THE CONTRACTOR SHALL MAINTAIN OR ADJUST TO NEW FINISH GRADES AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS LIGHT POLES, SIGN POLES, MANHOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS UNLESS OTHERWISE NOTED OR DIRECTED BY THE OWNER'S REPRESENTATIVE.

UTILITY AND GRADING NOTES

1. ALL ON-SITE STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) OR CLASS V RCP, UNLESS NOTED OTHERWISE.
2. HDPE PIPE SHALL CONFORM WITH AASHTO DESIGNATIONS M294 AND M252, SHALL BE MANUFACTURED WITH HIGH DENSITY POLYETHYLENE PLASTIC AND SHALL BE ADS N-12 PIPE AS MANUFACTURED BY ADVANCE DRAINAGE SYSTEM, INC. OR HANCOCK HI 0 PIPE AS MANUFACTURED BY HANCOCK, INC. OR APPROVED EQUAL UNLESS OTHERWISE NOTED OR DETAILED.
3. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES.
4. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5 FEET OF COVER AND A MAXIMUM OF 6 FEET OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
5. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSE. THE CONTRACTOR SHALL NOTE THAT NOT ALL FITTINGS ARE NOTED, SHOWN OR INDICATED.
6. ALL WATER MAIN FITTINGS, TEES, BENDS, HYDRANTS, ETC. SHALL BE RESTRAINED WITH CONCRETE THRUST BLOCKS.
7. DOMESTIC WATER SERVICES 2.5" AND SMALLER SHALL BE TYPE K COPPER TUBING AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED CORPORATION STOP AND APPROVED SADDLE CURB STOP, AND BOX, USING MATERIALS SPECIFIED BY THE MUNICIPAL WATER DEPARTMENT OR COMPANY.
8. ALL WATER MAINS 3" AND LARGER SHALL BE CEMENT LINED DUCTILE IRON - CLASS 52, AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED FITTINGS AND GATE VALVES.
9. ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
10. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS AND REQUIREMENTS. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.
11. BEFORE THE DEVELOPMENT SITE IS GRADED, THE AREA OF THE DRAINAGE BASINS SHOULD BE FENCED OFF TO PREVENT HEAVY EQUIPMENT FROM COMPACTING THE UNDERLYING SOIL.
12. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
13. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
14. MAXIMUM SLOPE IN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
15. CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
16. CONTRACTOR SHALL ADJUST UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
17. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER'S REPRESENTATIVE FOR RESOLUTION OF THE CONFLICT.
18. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
19. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE AND ELECTRICAL). FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.

LAYOUT AND MATERIAL NOTES

1. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
2. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO CONSTRUCTION.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND ALL DETAILS CONTIGUOUS TO THE BUILDING INCLUDING SIDEWALKS, RAMPS, UTILITY ENTRANCE LOCATIONS, WALL PACKS, CONCRETE DOOR PADS, ROOF DRAINS, ETC.
4. ACCESSIBLE CURB RAMPS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES, WHICHER IS MORE STRINGENT.
5. THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN:
ALL DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING.
ALL DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE.
ALL DIMENSIONS ARE TO CENTER OF PAVEMENT MARKINGS.
ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.

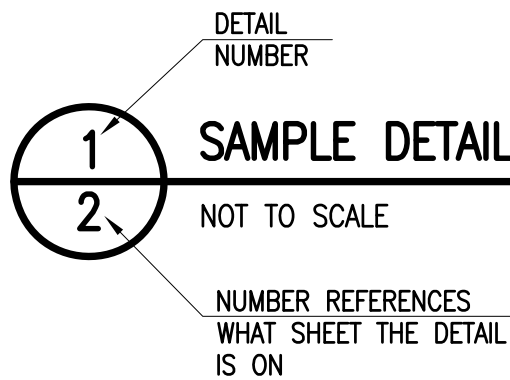
SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE CONSERVATION COMMISSION SHALL BE NOTIFIED, AT LEAST 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
2. A COPY OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
3. SOIL EROSION AND SEDIMENT CONTROL PRACTICES IN THE PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
4. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY DEMOLITION GRADING OPERATIONS AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
5. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
6. ALL SOIL EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
7. THE MAINTENANCE OF SOIL EROSION AND SEDIMENT CONTROL MEASURES AND FACILITIES DURING AND IMMEDIATELY AFTER CONSTRUCTION RESTS WITH THE GENERAL CONTRACTOR. UPON ACCEPTANCE OF THE PROJECT, THE OWNER SHALL BECOME RESPONSIBLE FOR MAINTENANCE OF ANY REMAINING MEASURES AND FACILITIES.
8. OFF SITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE ENGINEER.
9. THE CONSERVATION COMMISSION AND/OR ENGINEER MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.
10. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS AT ALL TIMES.
11. THE CONTRACTOR SHALL UTILIZE ALL METHODS NECESSARY TO PREVENT BLOWING AND MOVEMENT OF DUST FROM THE EXPOSED SOIL SURFACES.
12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
13. A CRUSHED STONE TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ENTRANCE EXISTS. SEE LOCATION DETAIL ON PLAN.
14. ALL CATCH BASIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS DETAILED ON THE PLAN, IF APPLICABLE.
15. ALL STORM DRAINAGE OUTLETS SHALL BE PROTECTED AS REQUIRED HEREON BEFORE DISCHARGE POINTS BECOME OPERATIONAL.
16. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
17. LAND AREAS EXPOSED AT ANY ONE TIME AND THE LENGTH OF EXPOSURE SHALL BE KEPT TO A PRACTICAL MINIMUM. THEY SHALL BE LEFT IN A NEAT AND FINISHED APPEARANCE AND PROTECTED FROM EROSION.
18. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTRIBUTED AREAS SHALL BE MULCHED.
19. ALL CRITICAL AREAS SUBJECT TO EROSION SHALL RECEIVE A TEMPORARY SEEDING AND BE MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS IMMEDIATELY FOLLOWING ROUGH GRADING.
20. IMMEDIATELY AFTER COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, SEED THE STOCKPILE WITH ANNUAL RYE GRASS. STABILIZE TOPSOIL STOCKPILES WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
21. SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF WETLANDS, THE FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITIES. THE BASE OF ALL STOCKPILES SHALL BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE. LOCATIONS ARE DELINEATED ON THE PLAN.
22. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
23. ALL AREAS NOT STABILIZED BY CONSTRUCTION, SODDING OR LANDSCAPING SHALL BE SEEDED AND STABILIZED IN ACCORDANCE WITH THE SEEDING AND MULCHING SPECIFICATIONS.
24. MULCHING IS REQUIRED ON ALL SEEDED AREAS TO INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATIVE COVER.
25. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTRATION DEVICE. THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA.

GENERAL PLANTING NOTES

1. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.
2. ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED, AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. GUY WIRES SHALL BE ATTACHED TO THE TREE AT A HEIGHT OF TWO-THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED AT POINTS SO AS NOT TO SPLIT THE TRUNK OF MULTI-STEMMED TREES. PROVIDE THREE STAKES PER TREE UNLESS NOTED OTHERWISE INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE BURLAP WRAPPING WITH A 50% OVERLAP. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL.
3. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOP SOIL, PEAT MOSS, AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH SAND.
4. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION AND SHALL BE SUBSEQUENTLY FLOODED TWICE WITHIN TWENTY-FOUR (24) HOURS OF PLANTING. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED WITH MATERIAL OF SIMILAR SIZE AND SPECIES AT THE EXPENSE OF THE DEVELOPER. THE REPLACED PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER THE REPLACEMENT DATE.
6. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 6" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED.
7. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH EITHER SOD OR SEED AS INDICATED ON THE LANDSCAPE PLANS. SEED SHALL CONSIST OF THE MIXTURE LISTED IN THE GENERAL SEEDING NOTES. ALL DISTURBED LAWN AREAS SHALL BE TOP SOILED, LIMED, FERTILIZED, AND FINE GRADED PRIOR TO LAWN INSTALLATION.
8. ALL TREES ARE TO BE GUYED, 3 EACH, UNLESS OTHERWISE NOTED ON PLAN.
9. ALL DECIDUOUS TREES ARE TO BE WRAPPED, WITH TREE WRAP, UP TO THE FIRST BRANCHING AND SECURED.
10. THE LANDSCAPE CONTRACTOR IS TO PERFORM ALL CONTRACTED WORK IN A REASONABLE PERIOD OF CONTINUOUS WORK.
11. THE LANDSCAPE CONTRACTOR IS TO MAINTAIN PLANT MATERIAL WHILE THE PROJECT IS UNDERWAY AND FOR A PERIOD OF TWO WEEKS AFTER THE COMPLETION OF THE PROJECT UNLESS OTHERWISE SPECIFIED.
12. THE CONTRACTOR IS TO CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE, CAUSED BY THE LANDSCAPE CONTRACTOR.

EXISTING	LEGEND	PROPOSED
	CONTOUR LINE	
	SPOT GRADE	
	EDGE OF PAVEMENT	
	VERTICAL GRANITE CURB	
	SLOPED GRANITE CURB	
	VERTICAL CONCRETE CURB	
	BITUMINOUS CONCRETE CURB	
	CAPE COD BERM	
	STONE WALL	
	CHAIN LINK FENCE	
	IRON FENCE	
	POST & RAIL FENCE	
	STOCKADE FENCE	
	GUARD RAIL	
	STRAW WATTLES	
	WATER LINE	
	FIRE HYDRANT	
	POST INDICATOR VALVE	
	WATER GATE	
	WATER METER PIT	
	IRRIGATION HAND HOLE	
	WELL	
	SEWER LINE	
	SEWER MANHOLE	
	GAS LINE	
	GAS METER	
	GAS GATE	
	DRAIN LINE	
	DRAIN MANHOLE	
	CATCH BASIN	
	OVERHEAD WIRES	
	ELECTRIC, TELEPHONE & CABLE	
	UTILITY POLE	
	GUY WIRE	



REVISIONS

www.FarlandCorp.com

401 COUNTY STREET
NEW BEDFORD, MA 02740
P.508.717.3479

OFFICES IN:

- TAUNTON
- MARLBOROUGH
- WARWICK, RI

DRAWN BY: JKM

DESIGNED BY: CAF

CHECKED BY: CAF

SITE PLAN

— 61 JOHN VERTENTE BOULEVARD —

ASSESSORS MAP 133 LOT 47

NEW BEDFORD, MASSACHUSETTS

PREPARED FOR: PARALLEL PRODUCTS OF NEW ENGLAND
401 INDUSTRY ROAD
LOUISVILLE, KY 40206

DATE: AUGUST 10, 2017

SCALE: AS NOTED

JOB NO. 17-413

LATEST REVISION:

NOTES

SHEET 7 OF 9



- WARWICK, RI

CHECKED BY: CAF

CHECKED BY: CAF

CHECKED BY: CAF

CHECKED BY: CAF

PREPARED PARALLEL PRODUCTS OF NEW ENGLAND
FOR: 401 INDUSTRY ROAD
LOUISVILLE, KY 40208

PREPARED
FOR:

ALE: AS NOTED

LATEST REVISION:

SHEET 8 OF 9

>4% TO 5%	15'-0" (MAX.)
-----------	---------------

NOTE: BASED ON DESIGN SLOPE OF 7.5% AND A 6" CURB REVEAL



- K. IF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, IS TO BE LOCATED

8 NOT TO SCALE



- THE MANUAL ON UNIFORM TRAFFIC CONTROL
DEVICES, LATEST EDITION.

8 NO. 10 SCALE



8
NOT TO SCALE



8 NOT TO SCALE



8
NOT TO SCALE

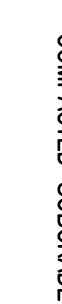


8 NOT TO SCALE

8 NO. 10 SCALE



8 NOT TO SCALE



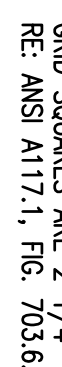
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8 NOT TO SCALE



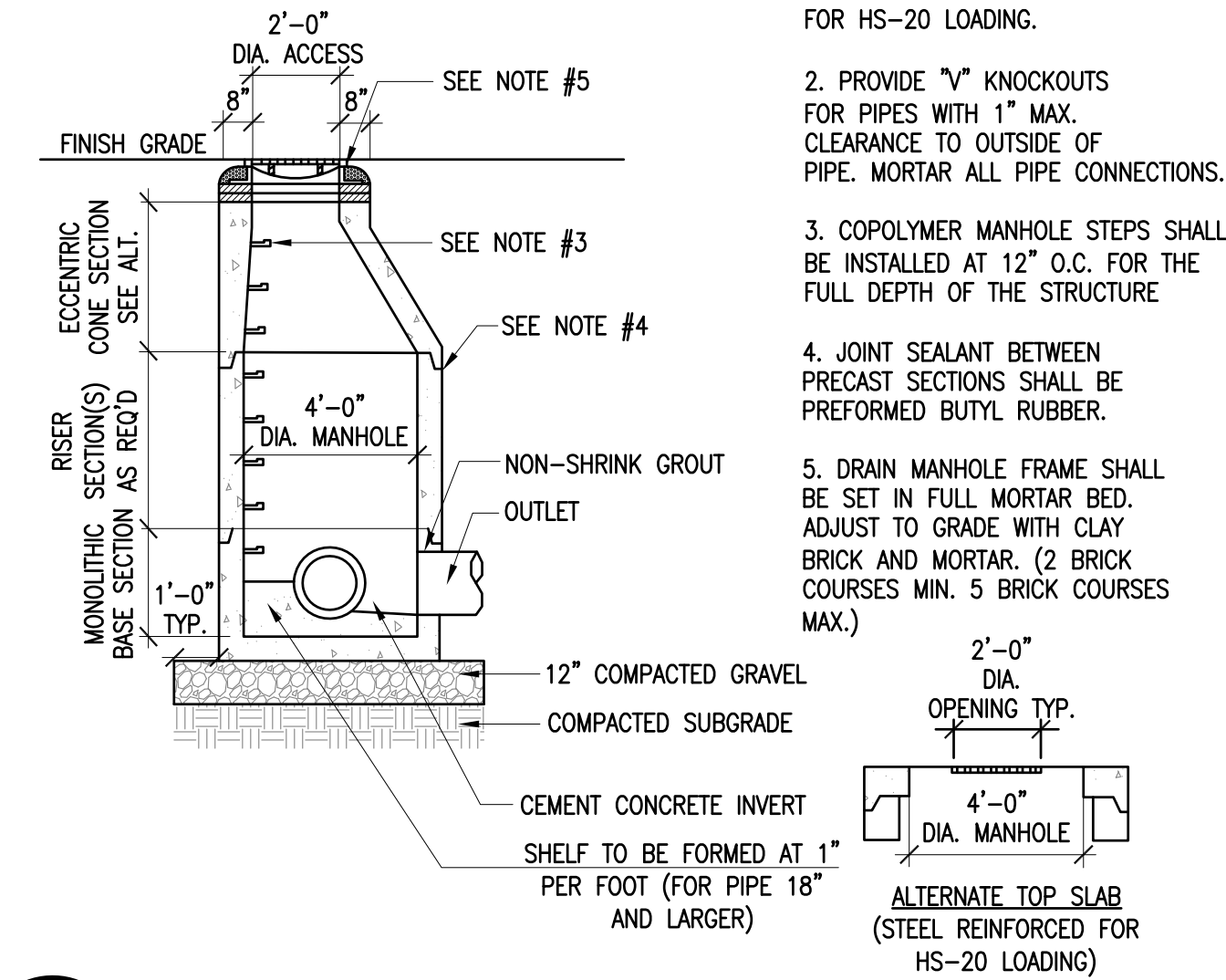
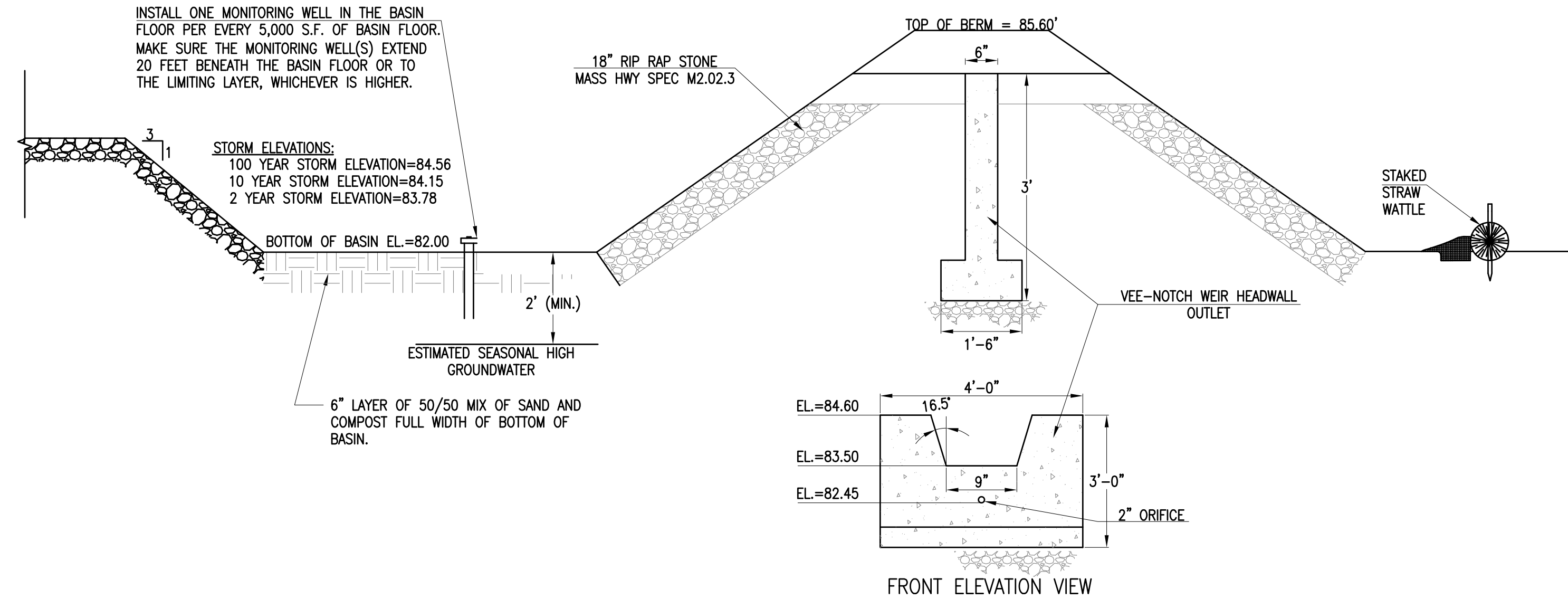
8 NO. 10 SCALE



8 NOT TO SCALE



1. UNSUITABLE SOILS BENEATH INFILTRATION BASIN ARE TO BE REMOVED TO A DEPTH OF NATURALLY OCCURRING PERVIOUS MATERIAL AND, IF NECESSARY, REPLACED WITH CLEAN WASHED SAND TO THE PROPOSED BASIN BOTTOM ELEVATION. AFTER BASIN FLOOR IS SHAPED, PLACE SOIL ADDITIVES, INCLUDING COMPOST, ON BASIN FLOOR. MIX NATIVE SOILS THAT WERE EXCAVATED FROM THE A & B HORIZONS TO CREATE THE BASIN, AND THEN SCARIFY THE NATIVE MATERIALS AND COMPOST INTO THE PARENT MATERIAL USING A CHISEL PLOW OR ROTARY DISC TO A DEPTH OF 12".
2. NEVER PLANT TREES OR SHRUBS WITHIN THE BASIN OR ON THE IMPOUNDING EMBANKMENTS AS THEY INCREASE THE CHANCE OF BASIN FAILURE DUE TO ROOT DECAY OR SUBSURFACE DISTURBANCE.
3. NEVER ALLOW CONSTRUCTION EQUIPMENT TO DRIVE ACROSS THE AREA INTENDED TO SERVE AS THE INFILTRATION BASIN.
4. NEVER COMPACT THE BASIN FLOOR.
5. IMMEDIATELY FOLLOWING BASIN CONSTRUCTION, STABILIZE THE FLOOR AND SIDE SLOPES WITH DENSE TURF OF WATER TOLERANT GRASS.
6. NEVER USE THE INFILTRATION BASIN AS A TEMPORARY SEDIMENT TRAP FOR CONSTRUCTION ACTIVITIES. DO NOT DIRECT RUNOFF INTO THE BASIN UNTIL THE BOTTOM AND SIDE SLOPES ARE STABILIZED, AND ALL CONTRIBUTING AREAS ARE STABILIZED.
7. INFILTRATION BASIN SHALL NOT ACCEPT STORMWATER RUNOFF UNTIL ALL AREAS WITHIN CONTRIBUTING WATERSHED AREA HAVE BEEN STABILIZED WITH HARDSCAPE OR VEGETATIVE STABILIZATION.



NOTES:

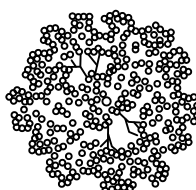
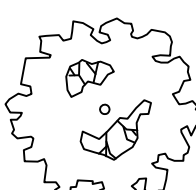
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH "1" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL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

2'-0"
DIA.
OPENING TYP.

4'-0"
DIA. MANHOLE

ALTERNATE TOP SLAB
(STEEL REINFORCED FOR
HS-20 LOADING)

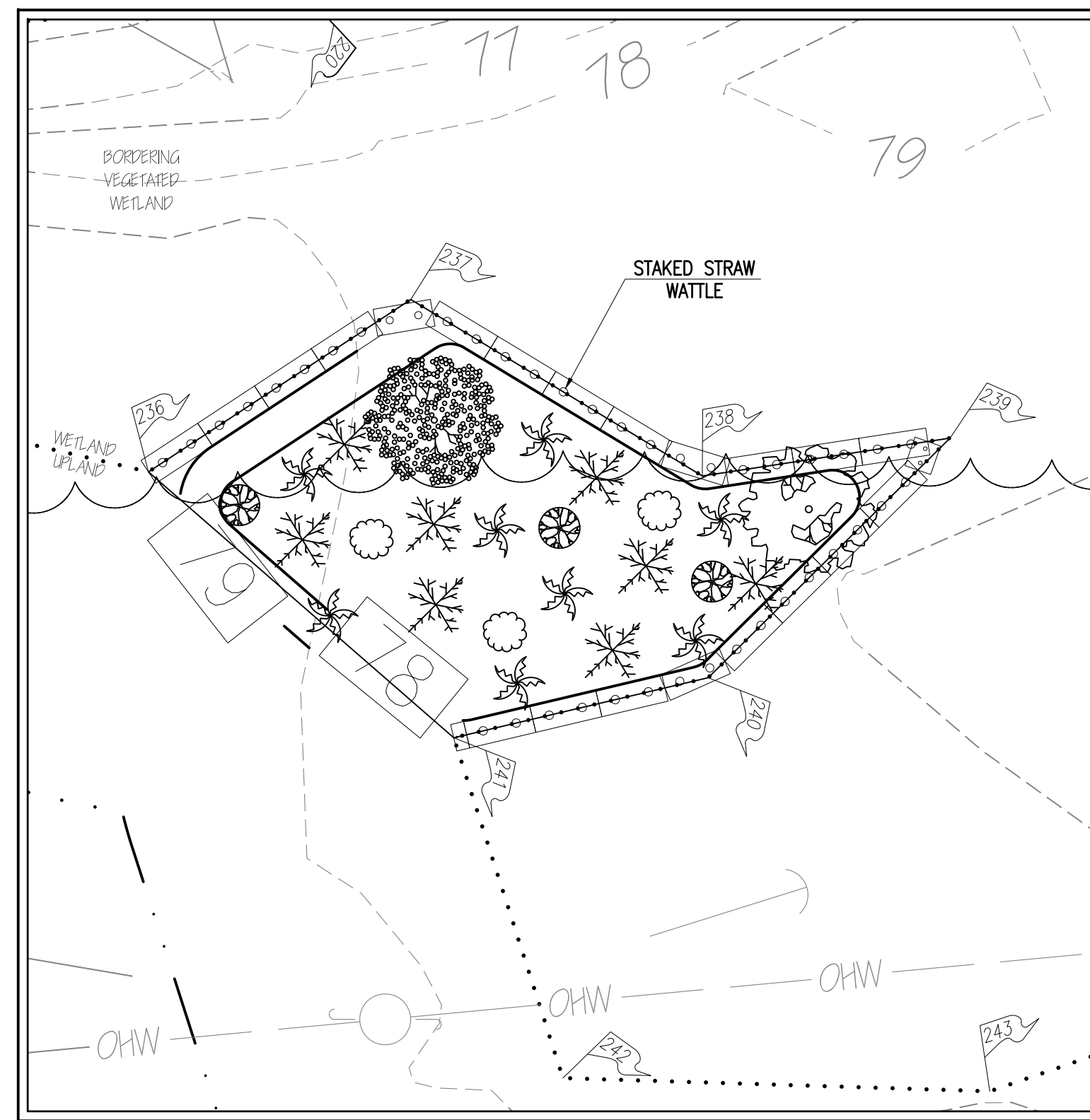
13 STORMWATER
9 NOT TO SCALE

REPLICAITON PLANTING TABLE				
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
TREES				
	ACER RUBRUM	RED MAPLE	1 INCH CALIPER	1
	NYSSA SYLVATICA	BLACK TUPELO	1 INCH CALIPER	1

REPLICAITON PLANTING TABLE				
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
SHRUBS				
	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	36 INCH	3
	VACCINIUM CONYMBOSIUM	HIGHBUSH BLUEBERRY	36 INCH	3

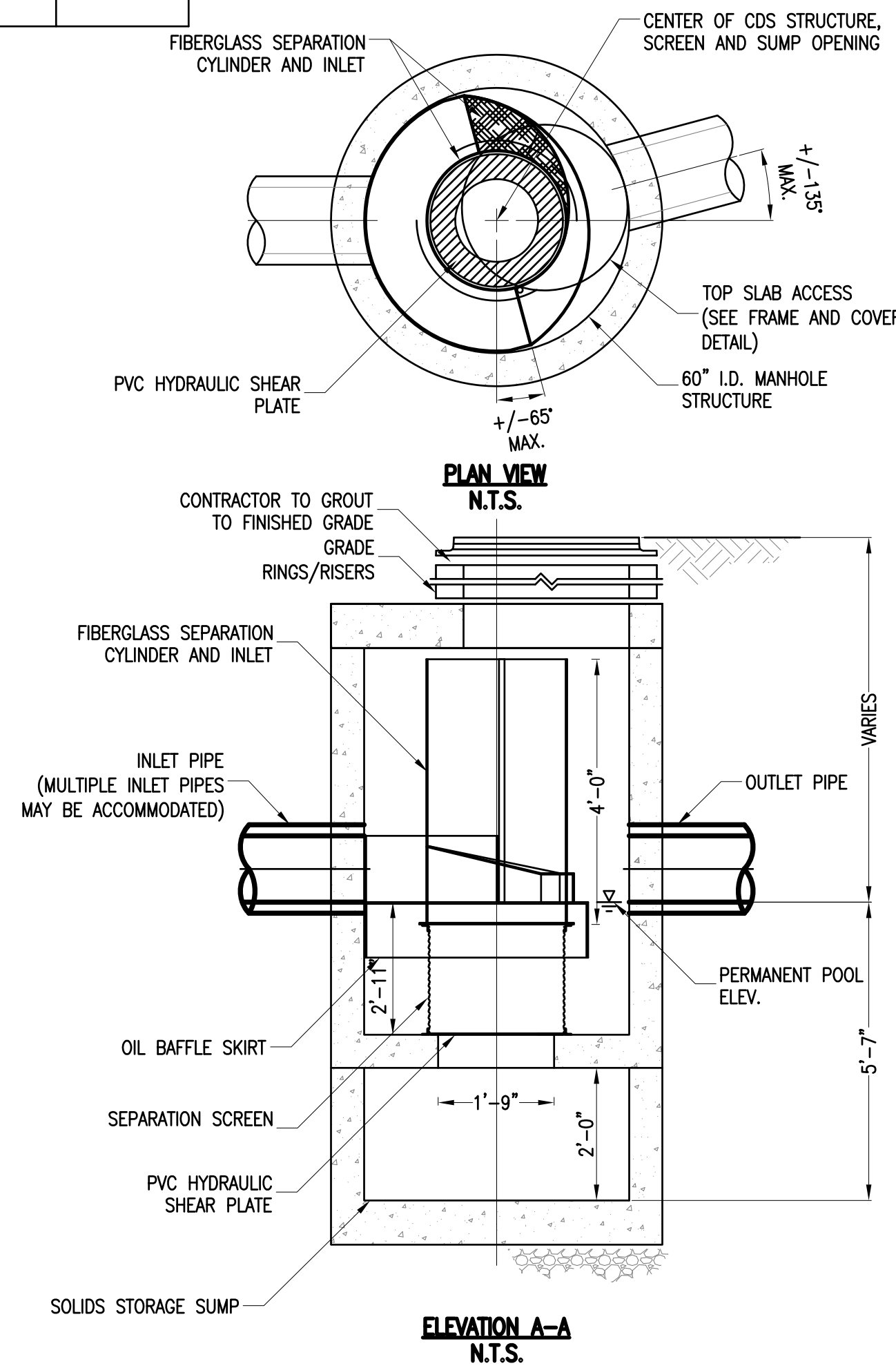
REPLICAITON PLANTING TABLE				
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
GROUND				
	OSMUNDA REGALIS	ROYAL FERN	1 GALLON	8
	OSMUNDA CINNAMOMEA	CINNAMON FERN	1 GALLON	8

14 DRAIN MA
9 NOT TO SCALE

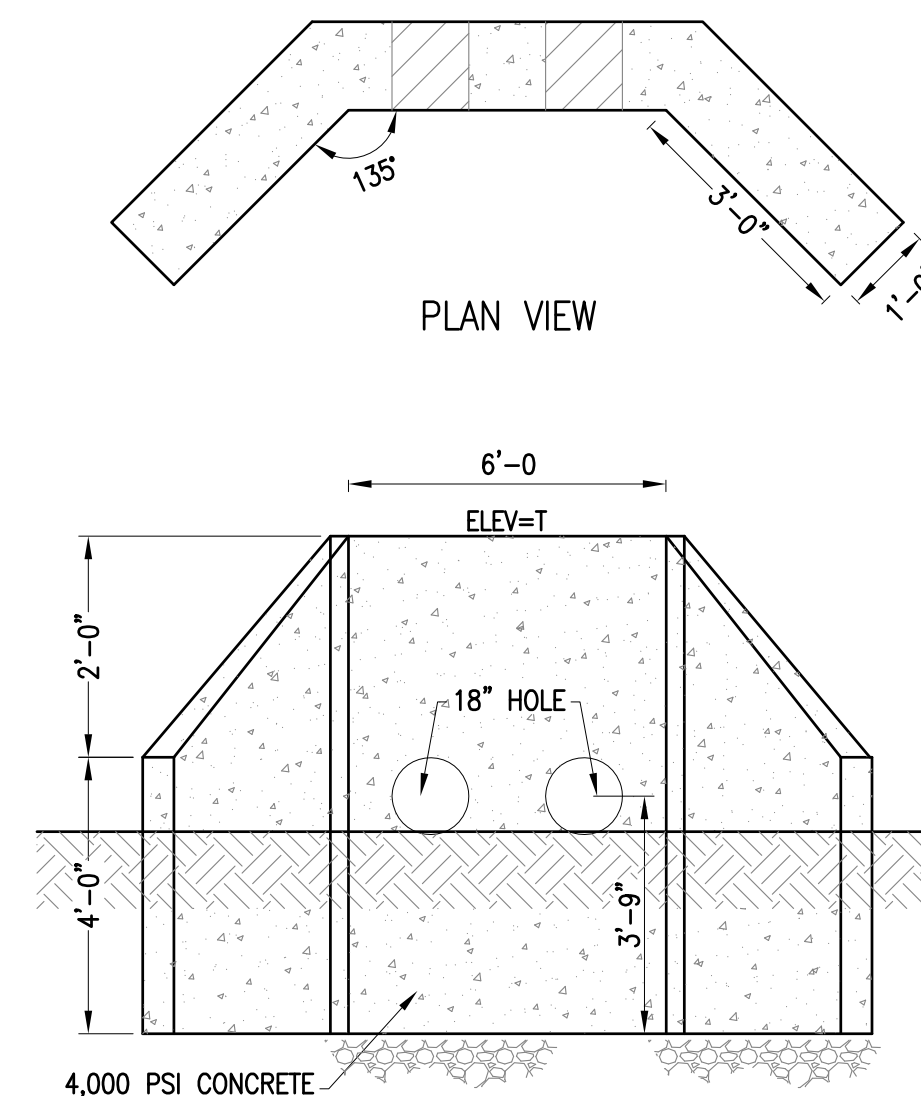


1. THE WETLAND REPLICATION AREA SHALL BE CONSTRUCTED PRIOR TO ANY EARTH DISTURBANCE REQUIRED FOR THE PROPOSED PROJECT.
2. WETLAND REPLICATION SHALL BE PERFORMED UNDER THE DIRECTION AND GUIDANCE OF A QUALIFIED BOTANIST.
3. PRIOR TO THE COMMENCEMENT OF WORK, THE LIMITS OF THE EXISTING WETLAND BOUNDARY SHALL BE STAKED OR FLAGGED AT 15' INTERVALS IN THE VICINITY OF THE REPLICATION AREAS, AND AN EROSION CONTROL BARRIER (STRAW MATTE AND/OR SILT FENCE) SHALL BE INSTALLED ALONG THE PERIMETER OF THE REPLICATION AREA, AS SHOWN ON THE SITE PLAN, TO SERVE AS A LIMIT OF WORK, SUCH THAT NO ACTIVITIES ARE TO OCCUR ON THE WETLAND SIDE OF THE BARRIER.
4. TEMPORARY DISTURBANCE OR ALTERATION TO WETLAND RESOURCE AREAS NECESSARY FOR ACCESS TO THE PROPOSED REPLICATION AREA SHALL BE MINIMIZED. ONLY OPERATE IN WETLAND RESOURCE AREA IF IT IS DRY, FROZEN, OR OTHERWISE STABLE ENOUGH TO CARRY THE EQUIPMENT WITHOUT DAMAGE THROUGH THE USE OF TIRE MATS, BRUSH, CORDUROY, OR BOG BRIDGES. TEMPORARY ALTERATIONS TO RESOURCE AREAS SHALL BE SUBSTANTIALLY RESTORED TO PREEXISTING HYDROLOGY AND TOPOGRAPHY. AT LEAST 75% OF THE SURFACE AREA OF ANY DISTURBED VEGETATION SHALL BE ESTABLISHED WITH INDIGENEOUS WETLAND PLANT SPECIES WITHIN TWO GROWING SEASONS.
5. CONSTRUCTION SHALL COMMENCE WITH REMOVAL OF EXISTING VEGETATION WITHIN THE REPLICATION AREA. EXISTING MATURE UPLAND TREES THAT ARE FACULTATIVE OR WETTER MAY BE LEFT ON HUMMOCKS WITHIN THE REPLICATION AREA, AS THEY MAY PROVIDE SHADING TO THE PLANTINGS INSTALLED AROUND THESE HUMMOCKS. EXISTING BOULDERS WITHIN THE REPLICATION AREA ARE ALSO TO REMAIN.
6. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR REUSE ELSEWHERE ON-SITE. EXCAVATION SHALL EXTEND TO APPROXIMATELY 6" BELOW THE PROPOSED FINAL GRADE ELEVATION. IF DENSE SOILS ARE ENCOUNTERED, IT IS RECOMMENDED TO EXCAVATE AN ADDITIONAL 6" TO ACCOMMODATE WETLAND SOIL MIX.
7. THE EXCAVATED REPLICATION AREA FLOOR SHALL BE GRADED TO BLEND WITH UNDISTURBED WETLAND AREAS AND REMAINING HUMMOCKS WHERE EXISTING TREES ARE TO REMAIN. THE REPLICATION AREA SHALL NOT HAVE FINISHED TOPOGRAPHY WHICH RESULTS IN COMPLETELY FLAT TOPOGRAPHY. THE FINISH GRADING SHOULD RESULT IN A SHALLOW PIT AND MOUND TOPOGRAPHY THROUGHOUT THE REPLICATION AREA.
8. A WET SOIL MIX SHALL BE COMPRISED OF THE "0" AND "A" HORIZON SOILS STRIPPED FROM THE WETLAND DISTURBANCE AREA. THESE SOILS BE OF INSUFFICIENT QUANTITY OR QUALITY, A CREATED BLEND CONSISTING OF ONE PART SANDY LOAM AND ONE PART COMPOSTED LEAVES OR PEAT MOSS SHALL BE USED.
9. TREE, SHRUB, AND GROUND COVER PLANTINGS SHALL BE INSTALLED PER PLAN IMMEDIATELY FOLLOWING THE EXCAVATION AND PLACEMENT OF ORGANIC SOILS WITHIN THE REPLICATION AREA. DUE TO HIGH PLANT MORTALITY, PLANTING SHOULD BE COMPLETED DURING THE SUMMER MONTHS. LOCATION OF PLANTS MAY BE ADJUSTED IN THE FIELD TO ACCOMMODATE EXISTING TREES AND/OR BOULDERS WHICH ARE TO REMAIN. TREES ARE TO BE PLANTED AT NO MORE THAN 25 FEET ON-CENTER. SHRUBS AND FERNS ARE TO BE PLANTED NO MORE THAN 8' ON CENTER. ALL WETLAND PLANTING IS TO BE PERFORMED BY HAND.
10. AFTER PLANTING IS COMPLETED, THE REPLICATION AREA SHALL BE HAND RAKED TO ELIMINATE AND DEPRESSIONS GREATER THAN FOUR INCHES IN DEPTH WHICH MAY HAVE BEEN CREATED DURING DIGGING, AND TO ELIMINATE COMPACTION AS MUCH AS POSSIBLE.
11. THE WETLAND FLOOR (UP TO ELEVATION 200.5 +/-) SHALL BE SEEDED WITH COMMERCIALY AVAILABLE SEED MIX (NEW ENGLAND WETLAND PLANTS, INC. "NEW ENGLAND WETMIX", OR EQUAL), APPLIED AT A RATE OF 1 LB PER 2,500 S.F.

12. DEPENDING UPON THE WEATHER, THE REPLICATION AREA MAY NEED DAILY WATERING FOR APPROXIMATELY ONE MONTH, OR UNTIL THE PLANTINGS HAVE TAKEN ROOT AND GROWTH IS OBSERVED. IT IS RECOMMENDED THAT PLANTING BE PERFORMED IN APRIL/MAY OR SEPTEMBER/OCTOBER, TO AVOID PLANT MORTALITY DURING SUMMER MONTHS. PLANTINGS SHALL BE WATERED AS NECESSARY TO ENSURE SURVIVAL FOR A MINIMUM TWO-YEAR PERIOD.
13. THE TOWN OF STOUGHTON CONSERVATION COMMISSION SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF THE COMMENCEMENT OF WETLAND REPLICATION CONSTRUCTION.
14. A WETLAND SCIENTIST OR OTHER QUALIFIED PROFESSIONAL SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR, AND SHALL INSPECT THE CONSTRUCTION OF THE REPLICATION AREA UPON EXCAVATION TO THE SUBGRADE, WHEN WETSOIL MIX IS APPLIED AT FINISH GRADE, AND ONCE PLANTING HAVE BEEN INSTALLED.
15. AFTER ONE GROWING SEASON, THE REPLICATION AREA SHALL BE ASSESSED BY A WETLAND SCIENTIST TO DETERMINE THE GROWING SUCCESS OF THE PLANTINGS, AND ASSESS THE NEED FOR POSSIBLE ADDITIONAL PLANTINGS.
16. AFTER THE SECOND GROWING SEASON, A REPORT SHALL BE SUBMITTED TO THE CONSERVATION COMMISSION, STATING THE SUCCESS OF THE WETLAND REPLICATION AREA. IN ACCORDANCE WITH THE PERFORMANCE STANDARDS FOUND IN 310 CMR 10.04(V)(8), IF THE 75% REGENERATION CRITERIA IS NOT ACHIEVED, A MITIGATION PLAN SHALL BE SUBMITTED TO THE CONSERVATION COMMISSION AND THE MONITORING PERIOD SHALL BE EXTENDED.

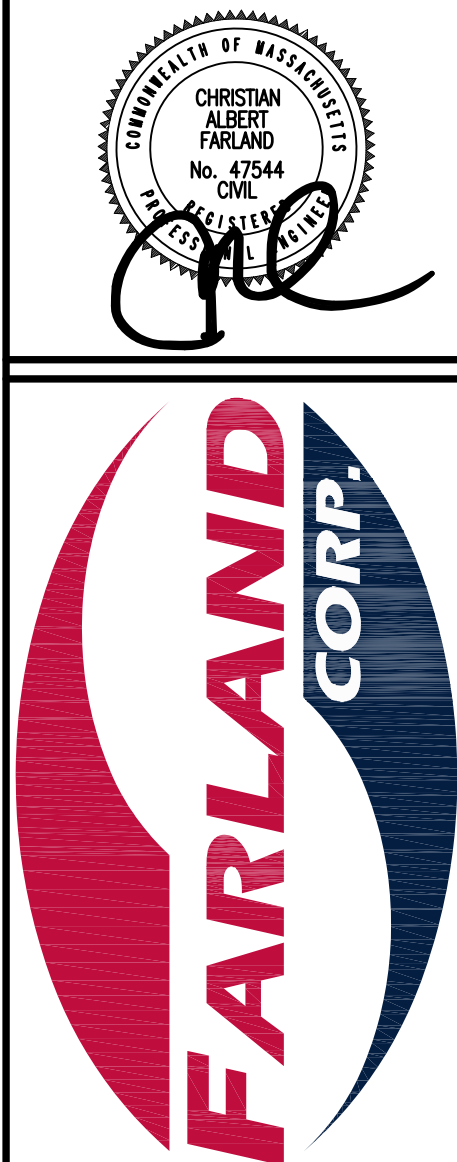


16 CDS2025
9 NOT TO SCALE



17 CONCRETE
9 NOT TO SCALE

15 WETLAND
9 NOT TO SCALE



401 COUNTY STREET
NEW BEDFORD, MA 02740
P.508.717.3479
OFFICES IN:
● TAUNTON
● MARLBOROUGH
● WARWICK, RI

DRAWN BY: JKM
DESIGNED BY: CAF
CHECKED BY: CAF

SITE PLAN

61 JOHN VERTENTE BOULEVARD
ASSESSORS MAP 133 LOT 47
NEW BEDFORD, MASSACHUSETTS

PREPARED PARALLEL PRODUCTS OF NEW ENGLAND
FOR: 401 INDUSTRY ROAD
LOUISVILLE, KY 40208

LATEST REVISION:

SHEET 9 OF 9