5 Centennial Drive, Peabody, MA 01960 (HQ)
Tel: 978.532.1900

William J. Devine Golf Course
Cart Boardwalk at Scarborough Pond
WSE Project No. 2160342.E

February 7, 2018

Boston Conservation Commission
1 City Hall Square, Suite 500
Boston, MA 02201-2013

Re: NOI Filing
William J. Devine Golf Course Cart Boardwalk at Scarborough Pond
1 Circuit Drive

Dear Members of the Commission:

On behalf of the Boston Parks and Recreation Department, Weston & Sampson Engineers, Inc. is hereby enclosing eight (8) copies (including original) of the Notice of Intent submittal (including plans) to fulfill the requirements of the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40 submittal requirements and the City of Boston submittal requirements. This submittal is a formal Notice of Intent for a new cart boardwalk over Scarborough Pond at the William Devine Golf Course in Franklin Park, located at 1 Circuit Drive, Boston, MA.

As part of the filing, we have attached the following:

Appendix A: Project Description
Appendix B: Stormwater Report
Appendix C: Project Maps
Appendix D: Contract Specifications
Appendix E: Abutters List Memorandum
Appendix F: Wetlands Memorandum
Appendix G: Plans

If you have any questions regarding this submittal, please contact me at (978) 532-1900.

Very truly yours,

WESTON & SAMPSON

Mel Higgins, PWS
Senior Environmental Scientist

Notice of Intent

1 Circuit Dr.
Boston, MA

February 2018

Prepared for:
Boston Parks and Recreation Department

Submitted to:
Boston Conservation Commission

Weston & Sampson
Five Centennial Drive
Peabody, MA 01960-7985
www.westonandsampson.com
Tel: 978-532-1900
Fax: 978-977-0100

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

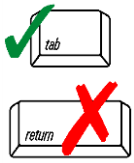
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
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):

1 Circuit Drive — a. Street Address
Boston — b. City/Town
02124 — c. Zip Code

Latitude and Longitude:
42deg 18' 9.63" N — d. Latitude
71deg 5' 40.88"W — e. Longitude

1203486000 — f. Assessors Map/Plat Number
1203486000 — g. Parcel /Lot Number

2. Applicant:

Christopher — a. First Name
Cook — b. Last Name
Boston Parks and Recreation Department — c. Organization
1010 Massachusetts Avenue — d. Street Address
Boston — e. City/Town
MA — f. State
02118 — g. Zip Code
617-635-4505 — h. Phone Number
i. Fax Number
allison.perlman@boston.gov — j. Email Address

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

a. First Name
b. Last Name
c. Organization
d. Street Address
e. City/Town
f. State
g. Zip Code
h. Phone Number
i. Fax Number
j. Email address

4. Representative (if any):

Mel — a. First Name
Higgins — b. Last Name
Weston & Sampson — c. Company
5 Centennial Drive — d. Street Address
Peabody — e. City/Town
MA — f. State
01960 — g. Zip Code
978-977-0110 — h. Phone Number
i. Fax Number
higginsm@wseinc.com — j. Email address

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

exempt — a. Total Fee Paid
b. State Fee Paid
c. City/Town Fee Paid

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

Boston
City/Town

A. General Information (continued)

6. General Project Description:

Construction of cart boardwalk over man-made pond and new, shortened pathways at golf course. Project also includes the decomissioning of existing pathways adjacent to pond.

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 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

a. County	b. Certificate # (if registered land)
Suffolk	
c. Book	d. Page Number
Ward 12. Sect. TBD	unknown

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
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

Boston
City/Town

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	0 (1. linear feet)	280 (improvements) (2. linear feet)
b. ☒ Bordering Vegetated Wetland	6 (1. square feet)	0 (2. square feet)
c. ☒ Land Under Waterbodies and Waterways	14 (1. square feet) 0 (3. cubic yards dredged)	0 (2. square feet)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☒ Bordering Land Subject to Flooding	800 (1. square feet) 0 (3. cubic feet of flood storage lost)	800 (2. square feet) 0 (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.

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

Boston
City/Town

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.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier 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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 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

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
Boston
City/Town

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

   2017
   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
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Boston
City/Town

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

(c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/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/nhesp/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.

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:

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Boston
City/Town

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

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

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

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
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.

Improvements to William J. Devine Golf Course Cart Boardwalk at Scarborough Pond
a. Plan Title

Weston & Sampson
b. Prepared By

Gene Bolinger
c. Signed and Stamped by

2/1/2018
d. Final Revision Date

20-Scale
e. Scale

f. Additional Plan or Document Title

2/1/2018
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:

exempt
2. Municipal Check Number

3. Check date

exempt
4. State Check Number

5. Check date

exempt
6. Payor name on check: First Name

7. Payor name on check: Last Name

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

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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: 2/7/18

3. Signature of Property Owner (if different) — 4. Date

5. Signature of Representative (if any) — 6. Date: 2/7/18

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

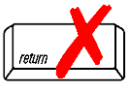
NOI Wetland Fee Transmittal Form

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

A. Applicant Information

EXEMPT FROM FEE

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



1. Location of Project:

a. Street Address | b. City/Town

c. Check number | d. Fee amount

2. Applicant Mailing Address:

a. First Name | b. Last Name

c. Organization

d. Mailing Address

e. City/Town | f. State | g. Zip Code

h. Phone Number | i. Fax Number | j. Email Address

3. Property Owner (if different):

a. First Name | b. Last Name

c. Organization

d. Mailing Address

e. City/Town | f. State | g. Zip Code

h. Phone Number | i. Fax Number | j. Email Address

B. Fees

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

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.

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
EXEMPT FROM FEE			

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee: _____ a. Total Fee from Step 5

State share of filing Fee: _____ b. 1/2 Total Fee **less $**12.50

City/Town share of filling Fee: _____ 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.)

APPENDIX A

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Project Description

PROJECT DESCRIPTION

Background

The Boston Parks and Recreation Department proposes to construct a cart boardwalk across a man-made pond at the William Devine Golf Course in Franklin Park. The crossing has long been contemplated by the City to reduce erosion into the adjacent water resource and improve safety by reestablishing the historic bridge to pedestrian use only. The project anticipates impacting approximately 6 square feet of Bordering Vegetated Wetland (BVW), 14 square feet of land under water (LUW) and 280 linear feet of bank. The proposed work will disturb 800 square feet of area within the 100-year flood plain, however the work will not alter the flood storage capacity of Scarborough Pond.

Site Description

The William Devine Golf Course (also known locally as the Franklin Park Golf Course) encompasses approximately 100 acres within 485-acre Franklin Park. The course is located off Circuit Drive in the south-central section of the park. The project area is located within the extreme southwest corner of the golf course. Of historical note, golf has been played within this section of the park since 1896, and much of the 100' buffer zone is comprised of already altered golf course area. The cart boardwalk project will occur within upland area as well as over open water (Scarborough Pond).

Historic Image of Scarborough Pond Footbridge

The man-made pond was constructed in 1894 to address public demand for a water amenity within Franklin Park. Built in a naturally low area, the pond serves to drain a majority of the park through surface and subsurface drainage systems. Historically, the

pond edge was largely maintained as grass for public access, and even served as grazing area for livestock. Currently, the bank area receives seasonal mowing to help control invasive species growth.

Project Goals

The construction of the Scarborough Pond crossing is intended to:

- Eliminate golf cart related traffic on the stone arch bridge thus reestablishing pedestrian only traffic
- Realign golf cart paths to reduce erosion into water resource from adjacent pathways and achieve a significant net reduction in the total length of cart paths in this vicinity.
- Eliminate delays caused by the circulation conflicts and bottlenecks that occurs at the stone arch bridge.
- Reduce safety hazards. Players proceeding from the 17th tee to the 17th fairway now must reverse their direction and cross in front of the 16th green, cross the historic stone arch bridge, then cross the 16th golf fairway to access the 17th fairway and green. This circulation pattern puts players on both sides of the pond in the direct path of approaching golf shots from the 16th fairway.

Approximate location of proposed cart boardwalk crossing.

Scope of Work

The project involves the construction of a cart boardwalk at Scarborough Pond, several short legs of asphalt cart path, limited grading, removal of redundant cart path sections, and turf reestablishment.

The Scarborough Pond crossing is achieved by the construction of a low-slung, mostly wooden structure, connecting the 17th golf tee to the 17th golf fairway. The structure's alignment meanders and dips in elevation at the center. The boardwalk is 150' in length x 8' in total width, with a 6' clear usable width for carts and pedestrians. Specifications include:

- ACQ pressure treated wood beams, stringers, decking and curbing
- Rail system that includes ACQ pressure treated wood posts (10-foot on center) with horizontal stainless-steel cables
- Driven steel piles and lateral supports
- Concrete abutments (both buried)

Before work begins, sedimentation and erosion control devices will be used to prevent sediment migration into Scarborough Pond. This will include the placement of compost filter tubes at the edge of the limit of work.

Excavation for the cart boardwalk concrete abutments will occur in the upland buffer zone area to avoid direct excavation in and impacts to the BVW. All excavated areas will be protected with appropriate erosion control devices. Native shrub species will be installed to screen the concrete abutments, and in keeping with the historical context of the pond. Driven steel piles will be used to support the cart boardwalk in BVW and open water areas. Wood piles were considered, but due to dense underlying glacial till soils, wood piles posed a risk for shattering during installation. The driven steel piles will likely be installed using barge mounted equipment to prevent damage or impacts to the BVW, and no equipment will be permitted to work within the boundaries of the BVW. Approximately thirty (30) driven steel piles will be installed, with sets of three piles (two vertical piles, and one lateral support pile) being installed at 14' on center. The piles will be installed to the soil depths required to achieve proper bearing capacity, or until refusal. Lateral support piles may not be required if soil bearing capacities are better than anticipated during construction.

Existing compacted gravel cart path and eroded bank area.

Approximately 3,975 SF of existing compacted gravel and metal grating cart paths will be removed and replaced with approximately 1,970 SF of new bituminous concrete pathway. This results in an overall reduction of 2,005 SF of cart path within the 100' Buffer Zone, which will be reestablished as lawn area. The new paths will be in certain locations to collect storm water coming from new impervious areas, and direct run-off to sand filter swales. These sand filter swales will capture and treat storm water before entering the BVW and pond areas. The swales will be installed with a loam and lawn seed mix, and blend seamlessly with the surrounding golf course area.

Example of eroded bank area to receive spot repair along northern pond bank..

The project will also address existing eroded areas at the northern bank of the pond. To improve bank stability, bare earth along the northern shore of the pond will be scoured and supplemented with additional loam as required. Jute netting shall be installed and the area hydro-seeded with an erosion control mix. New England Erosion Control/Restoration Mix for Moist Sites will be used closer to the edge of water, and New England Erosion Control/Restoration Mix for Dry Sites, will be used closer to the top of bank. Compost sock erosion controls will be installed at the toe of erosion repair areas until the slope is properly stabilized.

Environmental Considerations

An estimated 6 square feet of Bordering Vegetated Wetland (BVW) and 14 SF of Land Under Water (LUW) will be directly impacted due to steel pile installation. These impacts are spread out as there will be an estimated 1 square foot of impacts per pile. Because the cart path will be more than 2 feet above the BVW, it is anticipated that there will be no indirect impacts due to shading as part of this project. This is based on the Massachusetts Coastal Zone Management (CZM) guidance document for building boardwalks, walkways and other structures. Under the "elevation" section, it states "elevating the structure at least 2 feet above grade allows for the growth of stabilizing vegetation". As of 11/16/17, this guidance can be accessed using the internet link, below:

http://www.mass.gov/eea/agencies/czm/program-areas/communications/cz-tips/cz-tip-boardwalks.html

In an effort to off-set the minimal direct impacts mentioned above, an estimated 2,005 SF of impervious cart path within the 100' Buffer Zone will be removed and reestablished as lawn area. Additionally, an estimated 1,000 SF (280 linear feet of bank) of eroded area along the northern edge of the pond will be revegetated.

Approximately 800 SF of disturbance and earthwork will occur within the 100-year flood plain. However, this work is associated with restoring existing cart path and eroded areas back to naturalized areas at existing grade, and will not impact flood storage.

APPENDIX B

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Stormwater Report

Stormwater Report

Conservation Commission
Boston, Massachusetts

William J. Devine Golf Cart Boardwalk at Scarborough Pond

Notice of Intent
Massachusetts Wetland Protection Act
M.G.L. c. 131 § 40

February 2018

JOB NO: 2160078

Weston & Sampson
5 Centennial Drive
Peabody, MA 01960
www.westonandsampson.com
Tel: 978-532-1900 Fax: 978-977-0100

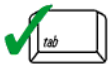
Table of Contents

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

Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

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

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

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

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

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

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

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

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

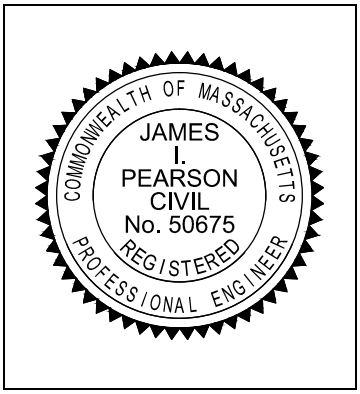
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

I have reviewed the Stormwater 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



02/07/2018

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 Field[1]

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

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

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

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

☒ Site is comprised solely of C and D soils and/or bedrock at the land surface

☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000

☐ Solid Waste Landfill pursuant to 310 CMR 19.000

☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

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

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

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

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

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

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

Standard 4: Water Quality

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

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

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

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

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

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

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

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

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

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

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

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

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

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

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

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

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

☐ All exposure has been eliminated.

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

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

Standard 6: Critical Areas

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

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

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

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

☐ Limited Project

☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.

☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area

☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff

☐ Bike Path and/or Foot Path

☒ Redevelopment Project

☐ Redevelopment portion of mix of new and redevelopment.

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

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

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

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

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

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

Checklist for Stormwater Report

Checklist (continued)

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

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

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

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

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

Standard 9: Operation and Maintenance Plan

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

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

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

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

Standard 10: Prohibition of Illicit Discharges

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

☐ An Illicit Discharge Compliance Statement is attached;

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

Stormwater Report

February 7, 2018

To Be Submitted with the Notice of Intent

Applicant/Project Name:	Boston Parks and Recreation – William J. Devine Golf Course Improvements
Project Address:	1 Circuit Drive, Dorchester MA
Application Prepared by:	
Firm:	Weston & Sampson, Inc.
Registered PE:	James Pearson

Below is an explanation concerning Standards 1-10 as they apply to the Boston Parks and Recreation William J. Devine Golf Course, located on Circuit Drive in Dorchester.

General

The Boston Parks and Recreation Department proposes to construct a cart boardwalk across a man-made pond at the William Devine Golf Course in Franklin Park. The crossing has long been contemplated by the City to reduce erosion into the adjacent water resource and improve safety by reestablishing the historic bridge to pedestrian use only.

As part of the work, some existing pathways will be removed and those areas will be converted to grassed turf. Small minor paved areas will be created on the approaches to the boardwalk structure.

Stormwater Design

The proposed site utilizes Low Impact Development (LID) measures in keeping with a typical park setting. Proposed impervious areas are kept to a minimum, primarily consisting of new paved pedestrian paths. Also, impervious areas are bound by grassed areas. As such, the impervious areas function as "disconnected impervious areas" from a stormwater management perspective. This means that the impervious areas do not generally directly drain to existing stormwater infrastructure, but generally discharge runoff to vegetated areas that provide ample opportunity for infiltration and filtering of stormwater. It should also be noted that 3,945 square feet (SF) of cart paths are being eliminated and converted to grassed areas, while only 1,970 SF of new paved paths are being created. Since the existing compacted gravel paths effectively function as impervious areas, this project will effectively result in a net decrease of impervious area. Nevertheless, new sand filter swales are proposed in between the impervious areas and the pond to further enhance the natural filtering and infiltration of runoff.

Construction period stormwater will be managed with temporary mitigation measures. These will include installation of temporary compost sock sediment barrier or approved

system between the work area and the pond during and after the construction period until such time graded slopes are established with vegetation. Because this is a redevelopment project of a park area, permanent mitigation will include loaming and seeding to create grassed areas. The establishment of new vegetation along the edge of the pond will also address existing erosion issues.

The following sections further describe compliance with each standard of the Massachusetts Stormwater Handbook.

Standard 1: No New Untreated Discharges

The proposed project will create no new untreated discharges. Existing cart paths will be removed and smaller cart path areas will be installed. The paths will be disconnected impervious areas.

Standard 2: Peak Rate Attenuation

Proposed discharge rates are expected to be less than existing discharge rates due to the fact that the proposed conditions will result in less impervious area than existing conditions. Consequently, there will be no increase in peak discharge and therefore no peak rate attenuation is required.

Standard 3: Recharge

Stormwater recharge is provided to the maximum extent practicable by using sand filter swales. The size of the swales is kept to a minimum in order to preserve the historic character of the golf course. Due to the net decrease in impervious area on the site, recharge is technically not required. Additionally, NRCS soil mapping indicates that the onsite soils are silt loam (Hyrologic Soil Group C) which has a poor/marginal infiltration rate.

Standard 4: Water Quality

The proposed site improvements consist of disconnected impervious areas surrounded by vegetated areas. Sand filter swales have been provided to enhance stormwater quality to the maximum extent practicable. There is also a net decrease in impervious area on the site. As such, no additional dedicated stormwater quality treatment facilities are required.

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

Not applicable; the project is not subject to higher potential pollutant loads.

Standard 6: Critical Areas

This project is not located within a Critical Area.

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

This project consists of the redevelopment of an existing park area. All attempts have been made to improve the existing stormwater system and meet the Massachusetts Stormwater Standards to the maximum extent practicable. This includes the use of Low Impact Development measures to eliminate the need for structural BMPs on the site.

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

A Construction Period Pollution Prevention and Erosion and Sediment Control Plan is included with this stormwater report.

Standard 9: Operation and Maintenance Plan

Since the project relies on LID measures for compliance, the normal park maintenance that is already occurring will continue in the proposed turf and vegetated areas.

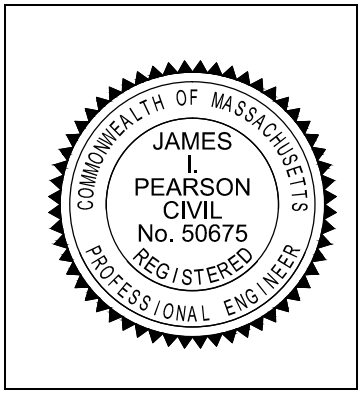
Standard 10: Prohibition of Illicit Discharges

Illicit discharges will be prevented on site through the use of spill/discharge prevention measures along with good housekeeping BMPs during construction. Post construction illicit discharges are not considered a hazard due to the passive recreational use that is anticipated for the site.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including any relevant soil evaluations, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan, the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement 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.

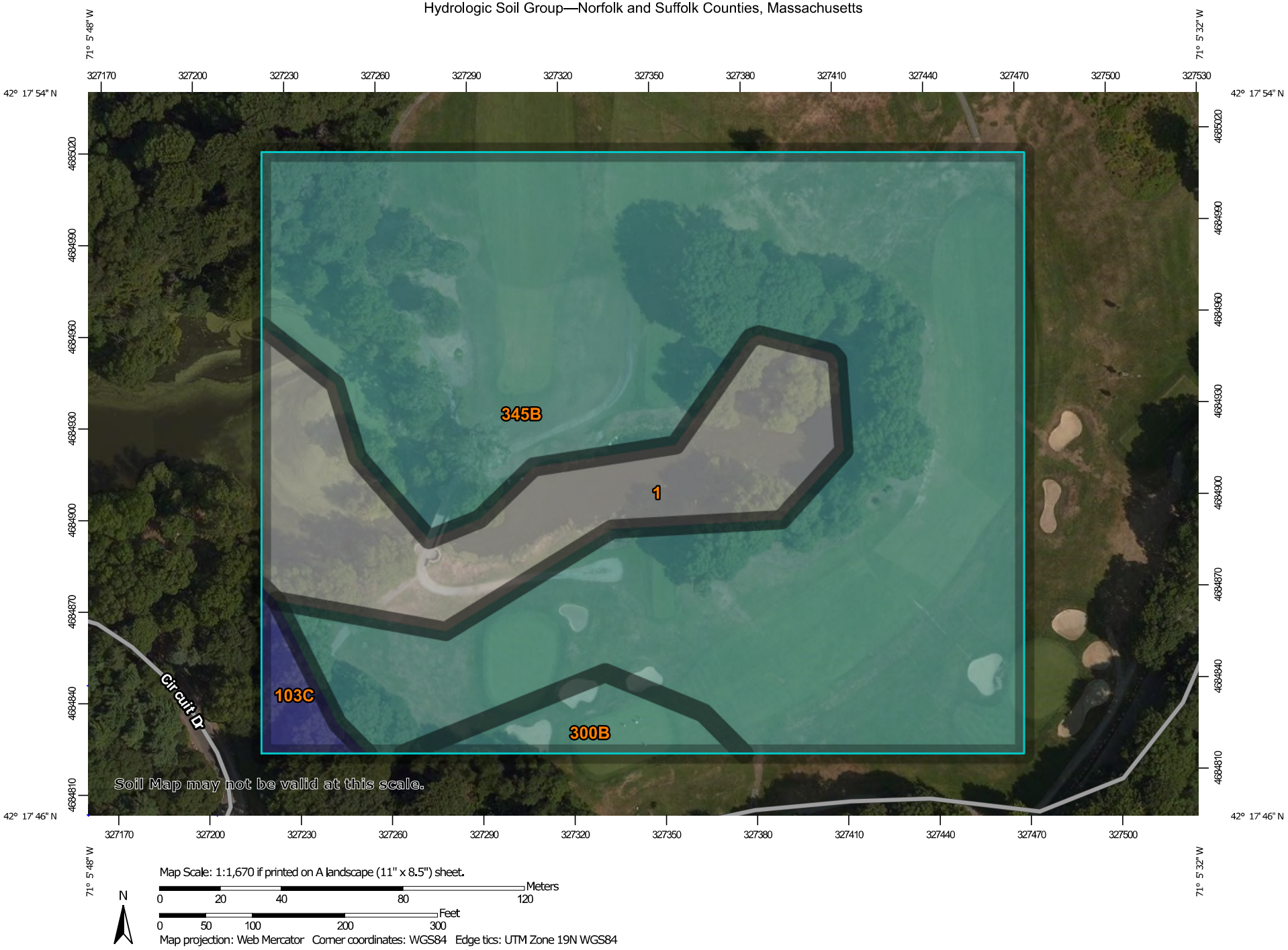
Registered Professional Engineer Block and Signature



02/07/2018

Signature and Date

Attachment A - NRCS Soil Map and HSG Classification



Map Scale: 1:1,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

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

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

Date(s) aerial images were photographed: Aug 10, 2014—Aug 25, 2014

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		2.1	16.9%
103C	Charlton-Hollis-Rock outcrop complex, 8 to 15 percent slopes	B	0.2	1.8%
300B	Montauk fine sandy loam, 3 to 8 percent slopes	C	0.4	3.3%
345B	Pittstown silt loam, 2 to 8 percent slopes	C	9.6	78.0%
Totals for Area of Interest			**12.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Attachment B - Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan

Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan

SECTION 1: Introduction

The project applicant, Boston Parks and Recreation, proposes to build a new golf cart boardwalk across Scarborough Pond in the William J. Devine Golf Course. Improvements will include removal of existing cart paths, establishment of new vegetated areas, and installation of new cart paths to abut the boardwalk. A locus map of the site is provided as part of the Notice of Intent. Soil maps of the area are provided in Attachment A.

As part of this project, this "Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan" has been created to ensure that no further disturbance to the wetland resource is created during the construction of these repairs.

SECTION 2: Construction Period Pollution Prevention Measures

Best Management Practices (BMPs) will be utilized as Construction Period Pollution Prevention Measures to reduce potential pollutants and prevent any off-site discharge. The objectives of the BMPs for construction activity are to minimize the disturbed areas, stabilize any disturbed areas, control the site perimeter and retain sediment. Both erosion and sedimentation controls and non-stormwater best management measures will be used to minimize site disturbance and ensure compliance with the performance standards of the WPA and Stormwater Standards. Measures will be taken to minimize the area disturbed by construction activities to reduce the potential for soil erosion and stormwater pollution problems. In addition, good housekeeping measures will be followed for the day-to-day operation of the construction site under the control of the contractor to minimize the impact of construction. This section describes the control practices that will be in place during construction activities. All recommended control practices will comply with the standards set in the MA DEP Stormwater Policy Handbook.

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

In order to minimize disturbed areas all work will be completed within well-defined work limits. These work limits are shown on the construction plans. The Contractor shall not disturb native vegetation in the undisturbed wetland area without prior approval from the Engineer. The Contractor will be responsible to make sure that all workers know the proper work limits and do not extend their work into the undisturbed areas. The protective measures are described in more detail in the following sections.

2.2 Control Stormwater Flowing onto and through the project

All construction areas adjacent to wetlands will be lined with compost filter socks. The socks will be inspected daily and accumulated silt will be removed as appropriate. In addition, any storage of material will require a second level of protection by surrounding the areas with another row of compost filter tubes. A stabilized truck entrance/exit is proposed so that equipment visiting the site can remove any accumulated dirt and mud from vehicles to prevent tracking the mud.

2.3 Stabilize Soils

The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, mulching, the use of erosion control mats, or other protective measures shall be provided as specified.

The Contractor shall take account of the conditions of the soil where erosion control seeding will take place to ensure that materials used for re-vegetation are adaptive to the sediment control.

Following the completion of construction, the embankment portions of the pond and areas where cart paths are removed will be re-vegetated. The overland areas of the proposed construction staging areas will be re-seeded.

2.4 Proper storage and cover of any stockpiles

The location of the Contractor's storage areas for equipment and/or materials shall be upon cleared portions of the job site or areas to be cleared as a part of this project, and shall require written approval of the Engineer.

No excavated materials or materials used in backfill operations shall be stored within a minimum distance of fifty (50) feet of any watercourse or any wetlands. Adequate measures for erosion and sediment control such as the placement of compost filter socks around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.

There shall be no storage of equipment or materials in areas designated as wetlands.

The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

2.5 Perimeter Controls and Sediment Barriers

Erosion control lines as described in Section 5 will be utilized to ensure that no sedimentation occurs outside the perimeter of the work area.

2.6 Storm Drain Inlet Protection

Storm Drains will be fitted with a protective insert.

2.7 Retain Sediment On-Site

The Contractor will be responsible to monitor all erosion control measures. Whenever necessary the Contractor will clear all sediment from the compost filter tubes and silt fence that have been silted up during construction. Daily monitoring should be conducted using the attached Monitoring Form.

The following good housekeeping practices will be followed on-site during the construction project.

2.8 Material Handling and Waste Management

All materials stored on-site will be stored in a neat, orderly manner in appropriate containers. All materials will be kept in their original containers with the original manufacturer's label. Substances will not be mixed with one another unless recommended by the manufacturer.

All waste materials will be collected and stored in a securely lidded metal container from a licensed management company. The waste and any construction debris from the site will be hauled off-site daily and disposed of properly. The contractor will be responsible for all waste removal. Manufacturer's recommendations for proper use and disposal will be followed for all materials. Sanitary waste will be collected from the portable units a minimum of once a week, by a licensed sanitary waste management contractor.

2.9 Designated Washout Areas

The Contractor shall use washout facilities at their own facilities, unless otherwise directed by the Engineer.

2.10 Proper Equipment/Vehicle Fueling and Maintenance Practices

On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the risk of leakage. To ensure that leaks on stored equipment do not contaminate the site, oil-absorbing mats will be placed under all equipment during storage. Regular fueling and service of the equipment may be performed using approved methods and with care taken to minimize chance of spills. Repair of equipment or machinery within the 100' water resources area shall not be allowed without the prior approval of the Engineer. Any petroleum products will be stored in tightly sealed containers that are clearly labeled.

2.11 Equipment/Vehicle Washing

The Contractor will be responsible to ensure that no equipment is washed on-site.

SECTION 3: Spill Prevention and Control Plan

The Contractor will be responsible for preventing spills in accordance with the project specifications and applicable federal, state and local regulations. The Contractor will identify a properly trained site employee, involved with the day-to-day site operations to be the spill prevention and cleanup coordinator. The name(s) of the responsible spill personnel will be posted on-site. Each employee will be instructed that all spills are to be reported to the spill prevention and cleanup coordinator.

3.1 Spill Control Equipment

Spill control/containment equipment will be kept in the Work Area. Materials and equipment necessary for spill cleanup will be kept either in the Work Area or in an otherwise accessible on-site location. Equipment and materials will include, but not be limited to, absorbent booms/mats, brooms, dust pans, mops, rags, gloves, goggles, sand, plastic and metal containers specifically for this purpose. It is the responsibility of the Contractor to ensure the inventory will be readily accessible and maintained.

3.2 Notification

All workers will be directed to inform the on-site supervisor of a spill event. The supervisor will assess the incident and initiate proper containment and response procedures immediately upon notification. Workers should avoid direct contact with spilled materials during the containment procedures. Primary notification of a spill should be made to the local Fire Department and Police Departments. Secondary Notification will be to the certified cleanup contractor if deemed necessary by Fire and/or Police personnel. The third level of notification is to the DEP. The specific cleanup contractor to be used will be identified by the Contractor prior to commencement of construction activities.

3.3 Spill Containment and Clean-Up Measures

Spills will be contained with granular sorbent material, sand, sorbent pads, booms or all of the above to prevent spreading. Certified cleanup contractors should complete spill cleanup. The material manufacturer's recommended methods for spill cleanup will be clearly posted and on-site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

3.4 Hazardous Materials Spill Report

The Contractor will report and record any spill. The spill report will present a description of the release, including the quantity and type of material, date of the spill, circumstances leading to the release, location of spill, response actions and personnel, documentation of notifications and corrective measures implemented to prevent reoccurrence.

This document does not relieve the Contractor of the Federal reporting requirements of 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302 and the State requirements specified under the Massachusetts Contingency Plan (M.C.P) relating to spills or other releases of oils or hazardous substances. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302, occurs during a twenty-four (24) hour period, the Contractor is required to comply with the response requirements of the above mentioned regulations. Spills of oil or hazardous material in excess of the reportable quantity will be reported to the National Response Center (NRC).

SECTION 4: Contact Information/Responsible Parties

Owner/Operator:
Boston Parks and Recreation
1010 Massachusetts Avenue, 3rd Floor
Boston, MA 02118
(617) 635-4505p

Engineer:
James Pearson, P.E.
Weston & Sampson, Inc.
5 Centennial Drive
Peabody, MA 01960
978-532-1900

Site Inspector:
TBD

Contractor:
TBD

SECTION 5: Erosion and Sedimentation Control

Erosion and Sedimentation Controls are shown on the project plans. In addition a technical specification (***Section 01570 Environmental Protection***) has been included as part of Appendix D, which details all Erosion and Sedimentation controls.

SECTION 6: Site Development Plans

A full set of site development plans are included with this submittal.

SECTION 7: Operation and Maintenance of Erosion Control

The erosion control measures will be installed as detailed in the technical specification ***01570 Environmental Protection***. If there is a failure to the controls the Contractor, under the supervision of the Engineer, will be required to stop work until the failure is repaired.

Periodically throughout the work, whenever the Engineer deems it necessary, the sediment that has been deposited against the controls will be removed to ensure that the controls are working properly.

SECTION 8: Inspection Schedule

During construction the erosion and sedimentation controls will be inspected daily. Once the Contractor is selected, an on site inspector will be selected to work closely with the Engineer to insure that all erosion and sedimentation controls are in place and working properly. An Inspection Form is included.

Inspection Form

Inspected By: _____ Date: _____Time:_____

YES	NO	DOES NOT APPLY	ITEM
			Do any erosion/siltation control measures require repair or clean out to maintain adequate function?
			Is there any evidence that sediment is leaving the site and entering the wetlands?
			Are any temporary soil stockpiles or construction materials located in non-approved areas?
			Are on-site construction traffic routes, parking, and storage of equipment and supplies located in areas not specifically designed for them?

Specific location, current weather conditions, and action to be taken:

_____

_____

_____

_____

_____

Other Comments:

_____

_____

Pending the actions noted above I certify that the site is in compliance with the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan.

Signature: _____ Date: _____

APPENDIX C

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Project Maps

FIGURE 1
1 Circuit Drive
Boston, Massachusetts

LOCUS MAP

Work Area

1,000 0 1,000

Scale In Feet

Weston & Sampson

Path: T:\Water\ERMAP\GIS - Constraints Mapping\Boston\William Devine Golf Course\Figure 1 - locus.mxd User: higginsm Saved: 10/31/2017 1:06:59 PM Opened: 10/31/2017 1:07:14 PM

FIGURE 2
1 Circuit Drive
Boston, Massachusetts

ENVIRONMENTAL RECEPTORS

100 0 100
Scale In Feet

Weston & Sampson

Path: T:\Water\ERMA\GIS - Constraints Mapping\Boston\William Devine Golf Course\Figure 2 - Env Receptor.mxd **User:** higginsm **Saved:** 10/31/2017 1:01:56 PM **Opened:** 10/31/2017 1:04:55 PM

APPENDIX D

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Contract Specifications

SECTION 01570

ENVIRONMENTAL PROTECTION

PART 1 – GENERAL

1.01 DESCRIPTION:

A. The work covered by this section of the specifications consists of furnishing all labor, materials, tools and equipment and performing all work required for the prevention of environmental pollution during and as a result of construction operations under this contract.

B. The requirements set forth in this section of the specifications apply to construction in and adjacent to wetlands, unless otherwise specifically stated.

C. All work under this Contract shall be in accordance with the Conservation Commissions' Orders of Conditions as well as any conditional requirements applied, all of which are attached to Section 00890, PERMITS.

D. Prior to commencement of work, the Contractor shall meet with representatives of the Engineer to develop mutual understandings relative to compliance of the environmental protection program.

1.02 SUBMITTALS:

A. The Contractor shall submit for approval six sets of the Storm Water Pollution Prevention Plan (SWPPP), including details and literature fully describing environmental protection methods to be employed in carrying out construction activities within 100 feet of wetlands or across areas designated as wetlands.

PART 2 - PRODUCTS

2.01 FILTER SOCKS

A. Tubes for mulch filters shall be a minimum of 12” (300mm) in diameter, and shall be jute mesh or approved biodegradable material.

B. Wood chip or compost shall be an organic substance produced by reducing wood to small sizes. It can consist of a mixture of bark, wood shavings, wood chips, wood scraps and mineral grit that is an approved by-product of the lumber, paper, or landscaping industries. No manure, bio-solids, kiln dried wood, or construction debris shall be allowed. Organic matter content shall be between 20-100% (dry weight basis) as determined by ASTM D2974 (method A) Standard Test Methods for Moisture, Ash and Organic Matter of Peat and Other Organic Soils. Moisture content shall be <150% by dry weight (<60% by wet weight) as measured by ASTM D2216 Standard Test Method for Laboratory Determination of Water Content of Soil and Rock and ASTM D2974 (cited

above). Wood chip compost shall pass through a 3 inch (75mm) sieve.

C. Stakes for anchors shall be nominal 2x2 stakes

PART 3- EXECUTION

3.01 NOTIFICATION AND STOPPAGE OF WORK:

A. The Engineer will notify the Contractor in writing of any non-compliance with the provisions of the Order of Conditions. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails to act promptly, the Owner may order stoppage of all or part of the work through the Engineer until satisfactory corrective action has been taken. No claim for an extension of time or for excess costs or damage incurred by the Contractor as a result of time lost due to any stop work orders shall be made unless it was later determined that the Contractor was in compliance.

3.02 AREA OF CONSTRUCTION ACTIVITY:

A. Insofar as possible, the Contractor shall confine his construction activities to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction at least equal to that which existed prior to work under this contract.

3.03 PROTECTION OF WATER RESOURCES:

A. The Contractor shall not pollute streams, ponds or reservoirs with fuels, oils, bitumens, calcium chloride, acids or other harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers and streams.

B. Special measures should be taken to insure against spillage of any pollutants into public waters.

3.04 CONSTRUCTION IN AREAS DESIGNATED AS WETLANDS ON THE DRAWINGS:

A. Insofar as possible, the Contractor shall make every effort to minimize disturbance within areas designated as wetlands. Total easement widths shall be limited to the widths shown.

B. The Contractor shall perform his work in such a way that these areas are left in the condition existing prior to construction where possible.

C. Excavated materials shall not be permanently placed or temporarily stored in areas designated as wetlands. Temporary storage areas for excavated material shall be as required by the Engineer.

D. The use of a temporary gravel roadway or matting to construct the boardwalk in the wetlands area is not acceptable.

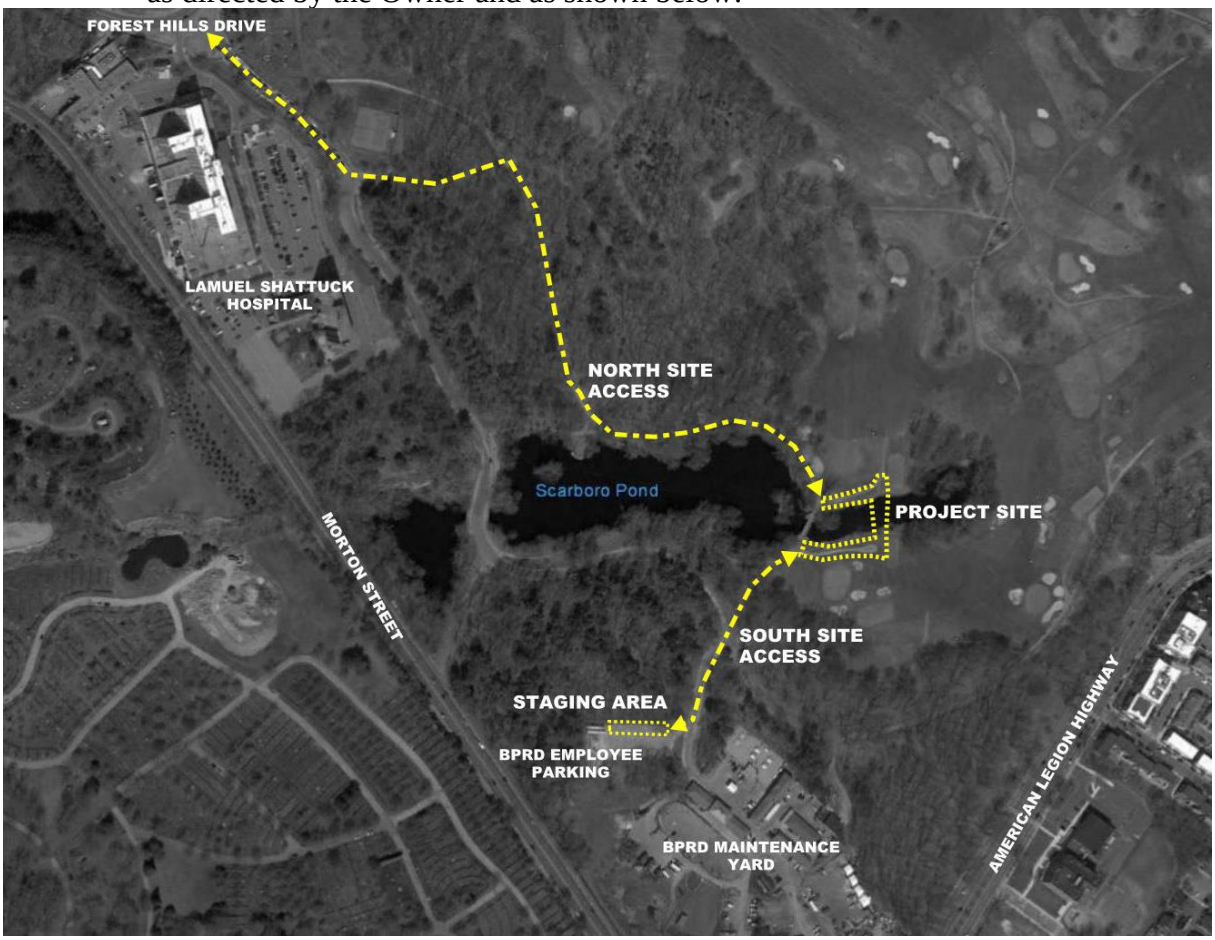
3.05 PROTECTING AND MINIMIZING EXPOSED AREAS:

A. The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures shall be provided as specified.

B. The Contractor shall take account of the conditions of the soil where temporary cover crop will be used to ensure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

3.06 LOCATION OF STORAGE AREAS:

A. The location of the Contractor's storage areas for equipment and/or materials shall be as directed by the Owner and as shown below:



B. No excavated materials or materials used in backfill operations shall be deposited within a minimum distance of one hundred (100) feet of any watercourse or any drainage facility without approval by the Engineer. Adequate measures for erosion and sediment control such as the placement of filter socks around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.

C. There shall be no storage of equipment or materials in areas designated as wetlands.

D. The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

3.07 PROTECTION OF LANDSCAPE:

A. The Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without written authority from the Owner. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized by the Engineer. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees which are not to be removed, particularly overhanging branches and limbs. The Contractor shall, in any event, be responsible for any damage resulting from such use.

B. Branches, limbs, and roots shall not be cut except by permission of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. When there is unavoidable injury to branches, limbs and trunks of trees, the injured portions shall be neatly trimmed and covered with an application of grafting wax or tree healing paint as directed.

C. Where, in the opinion of the Engineer, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting or other operations, the Engineer may require the Contractor to adequately protect such trees by placing boards, planks, poles or fencing around them. Any trees or landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the expense of the Contractor. The Engineer will decide what method of restoration shall be used, and whether damaged trees shall be treated and healed or removed and disposed of under the provisions of Section 02230, CLEARING AND GRUBBING.

D. Cultivated hedges, shrubs, and plants which could be injured by the Contractor's operations shall be protected by suitable means or shall be dug up, balled and temporarily replanted and maintained. After construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of a kind and quality at least equal to that existing at the start of the work.

3.08 DUST CONTROL:

A. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, to minimize creation and dispersion of dust.

B. Calcium Chloride shall not be used for dust control within wetland resource areas, buffer zones, drainage basins, or in the vicinity of any source of potable water.

3.09 SEPARATION AND REPLACEMENT OF TOPSOIL:

A. Topsoil shall be carefully removed from areas where excavations are to be made, and separately stored to be used again as directed. The topsoil shall be stored in an area acceptable to the Engineer and adequate measures shall be employed to prevent erosion and drying out of said material.

END OF SECTION

APPENDIX E

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Abutters List Memorandum

5 Centennial Drive, Peabody, MA 01960 (HQ)
Tel: 978.532.1900

MEMORANDUM

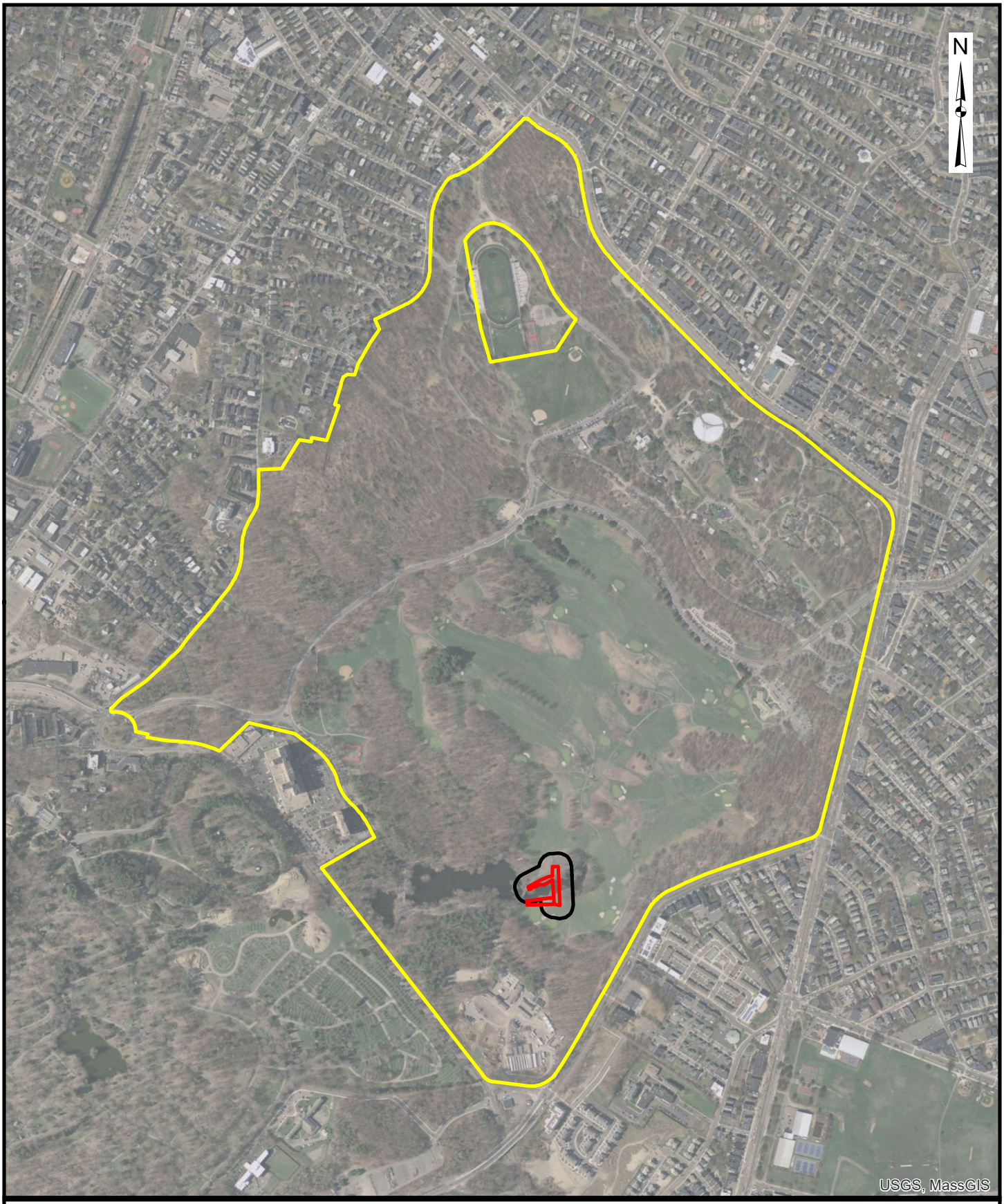
TO: Boston Conservation Commission

FROM: Weston & Sampson Engineers, Inc.

DATE: 10/24/2017

SUBJECT: Notification to Abutters Not Applicable

According to 310 CMR 10.05 (4), "An applicant who proposes work solely within a lot with an area greater than 50 acres, is required to provide notification only to Abutters whose Lot is within 100 feet from the Project Site." The parcel for the William Devine Golf Course is approximately 490 acres, and the location to the closest abutter is approximately 650 feet from the limit of work. As such, there were no abutters to notify. Please see attached map showing the limit of work, 100-foot baffer around the limit of work, and parcel boundary.



100ftbuffer
Work Area
Parcel (490 acres)

FIGURE 1
William Devine Golf Course
Dorchester, Massachusetts

FOR ABUTTERS LIST

1,000 0 1,000
Scale In Feet

Weston & Sampson

APPENDIX G

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Wetlands Memorandum

Five Centennial Drive
Peabody, MA 01960-7985
tel: 978-532-1900 fax: 978-977-0100
www.westonandsampson.com

planning, permitting, design, construction, operation, maintenance

Weston&Sampson

MEMORANDUM

TO: Brandon Riley

FROM: Mel Higgins, PWS

DATE: December 18, 2015

SUBJECT: Wetlands Delineation
Dorchester, MA – William Devine Golf Course

Background

On December 18, 2015, wetland resource areas were delineated at the the William Devine Golf Course, located at 1 Circuit Drive in Dorchester, Massachusetts.

A total of two (2) wetland resources were identified and flagged in the field using pink flagging by a Weston & Sampson employee who is a nationally certified Professional Wetland Scientist (PWS) and trained in the wetland delineation process using the Massachusetts Department of Environmental Protection (MassDEP) manual "*Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*". The location and flag numbering system can be seen on the attached field map. A further description of these wetland resource areas is presented, below.

Bordering Vegetated Wetlands (BVW (Wetland Flags BVW-1 through BVW-29)

This resource area is considered bordering vegetated wetlands (BVW) to Scarboro Pond at the William Devine Golf Course. Dominant vegetation at the site included common reed (*Phragmites australis*), pin oak (*Quercus palustris*) and silky dogwood (*Swida amomum*), all species that thrive in wet conditions. Soil borings inside the wetland limit consisted of dark silty loam with dark red mottles from 2 – 12 inches below ground surface. Hydrology indicators included nearby standing water (the pond), soil saturation at 1" below ground surface, and water stained leaves. Flags were hung starting at the southern end of the stone bridge that spans Scarboro Pond. The flags continued in a counterclockwise direction around the pond until approximately 100 feet east of the northern end of the bridge. At this point, the BVW vegetation was replaced by manicured lawn and a steep bank, thus no more BVW was noted. At this point, the flagging continued as Top of Bank (see below).

Top of Bank (Wetland Flags TOB-1 through TOB-6)

At apptoximately 100 feet east of the north end of the stone bridge, the resource area became top of bank associated with Scarboro Pond. A steep bank was noted at the edge of water and immediately becoming upland area. As such no BVW was noted. The TOB flags continued in a westerly direction and terminated at the north end of the stone bridge.

Attached please find a field map showing the different wetland limits flagged in the field with associated wetland flag numbers. Completed DEP Bordering Vegetated Wetland Delineation Field Data forms area also attached to this memorandum.

Perennial Stream
Intermittent Stream
DEP Wetlands

FIGURE 1
William Devine Golf Course
Dorchester, Massachusetts

WETLANDS FIELD MAP

100 0 100
Scale In Feet

Weston & Sampson

Path: T:\Water\MFH\GIS - Constreints Mapping\Dorchesterwetlands field map.mxd User: higginsm Saved: 12/15/2015 10:30:37 AM Opened: 12/15/2015 10:30:48 AM

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Weston & Sampson Prepared by: Weston & Sampson Project location: Dorchester DEP File #:
William Devine Golf Course

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology usedto delineateBVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 1		Transect Number: BVW-8	Date of Delineation: 12/18/15
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Tree layer				
Pin Oak (Quercus palustris)	80%	100%	Yes	FACW*
Shrub layer				
Silky dogwood (Swida amomum)	20%	100%	Yes	FACW*
Cover layer				
Common reed (Phragmites australis)	50%	100%	Yes	FACW*

understory died away/hibernating (mid December delineation)

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.*

Vegetation conclusion:

Number of dominant wetland indicator plants: 3 Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? (yes) no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? (yes) no
title/date: Norfolk and Suffolk Co., MA (MAGIS)
map number: online
soil type mapped: silt loam
hydric soil inclusions:

Are field observations consistent with soil survey? (yes) no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-2"	10 YR 2/2	
B	2-12"	10 YR 2/2	5R 3/6

Remarks:

3. Other:

Conclusion: Is soil hydric? (yes) no

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: ______
- ☐ Depth to free water in observation hole: ______
- ☒ Depth to soil saturation in observation hole: 1" bgs
- ☐ Water marks: ______
- ☐ Drift lines: ______
- ☐ Sediment Deposits: ______
- ☐ Drainage patterns in BVW: ______
- ☐ Oxidized rhizospheres: ______
- ☒ Water-stained leaves: ______
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): ______
- ☐ Other: ______

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	✓	
Wetland hydrology present:		
Hydric soil present	✓	
Other indicators of hydrology present	✓	
Sample location is in a BVW	✓	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

APPENDIX G

William J Devine Golf Course Cart Boardwalk at Scarborough Pond

Plans

CITY OF BOSTON

THE HONORABLE MARTIN J. WALSH, MAYOR

PREPARED BY:

Weston & Sampson SM

DESIGN STUDIO

85 DEVONSHIRE STREET, 3RD FLOOR
BOSTON, MA 02109
(617) 412-4480

NORTH

LOCATION MAP
WILLIAM J. DEVINE GOLF COURSE AT FRANKLIN PARK
1 CIRCUIT DRIVE
DORCHESTER, MA 02121

PARKS & RECREATION DEPARTMENT
CHRISTOPHER COOK, COMMISSIONER

IMPROVEMENTS TO
WILLIAM J. DEVINE GOLF COURSE CART BOARDWALK AT SCARBOROUGH POND

BOSTON, MASSACHUSETTS

FEBRUARY 2018
N.O.I. SUBMISSION

DRAWING INDEX

BOSTON PARKS AND RECREATION

Sheet No.: L0.00

Sheet Name: COVER SHEET

BPRD Project No.	
Date	02/07/18
Scale	N/A
Drawn	BR/NS
Checked	ERB

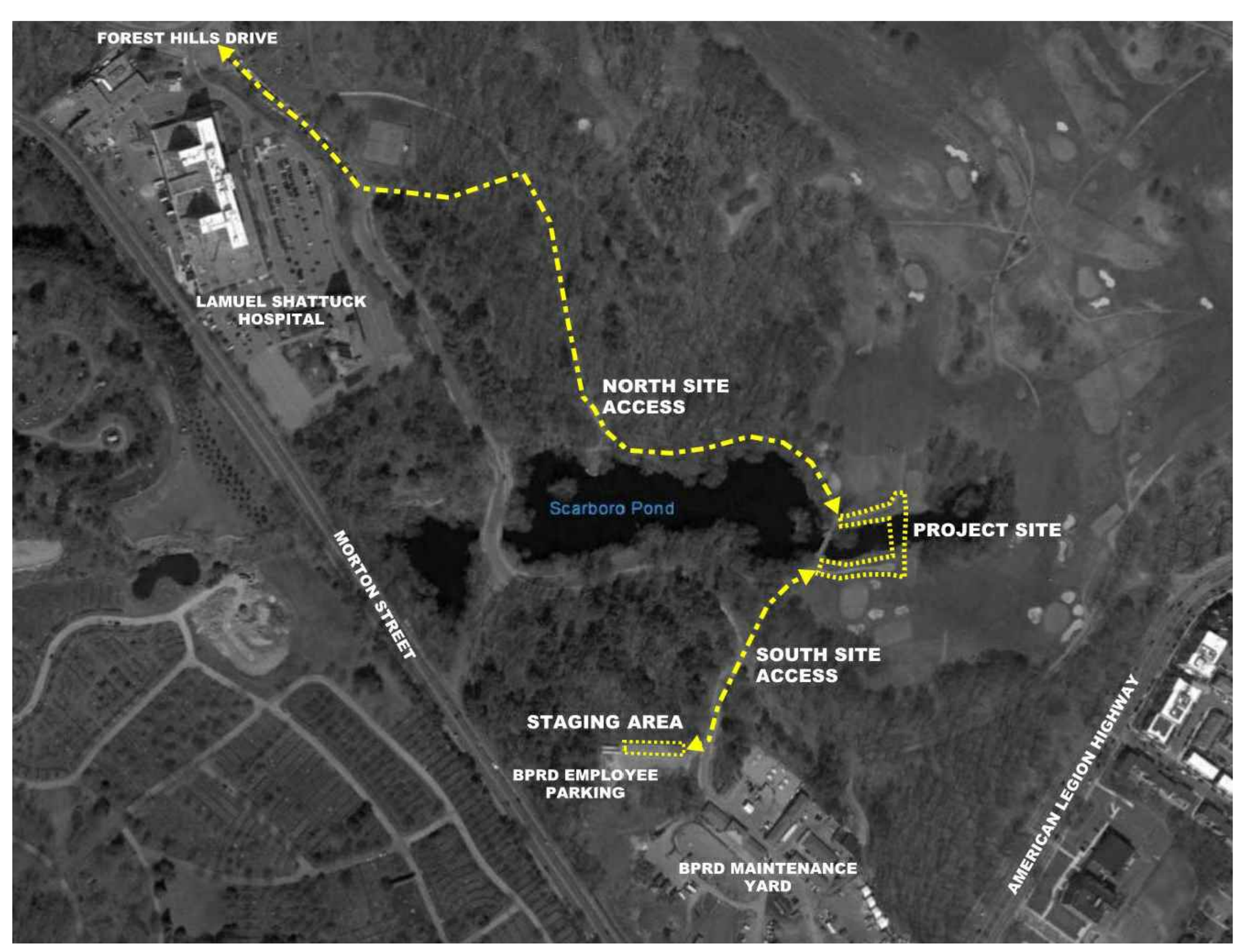
Project Name: WILLIAM J. DEVINE GOLF COURSE CART BOARDWALK AT SCARBOROUGH POND

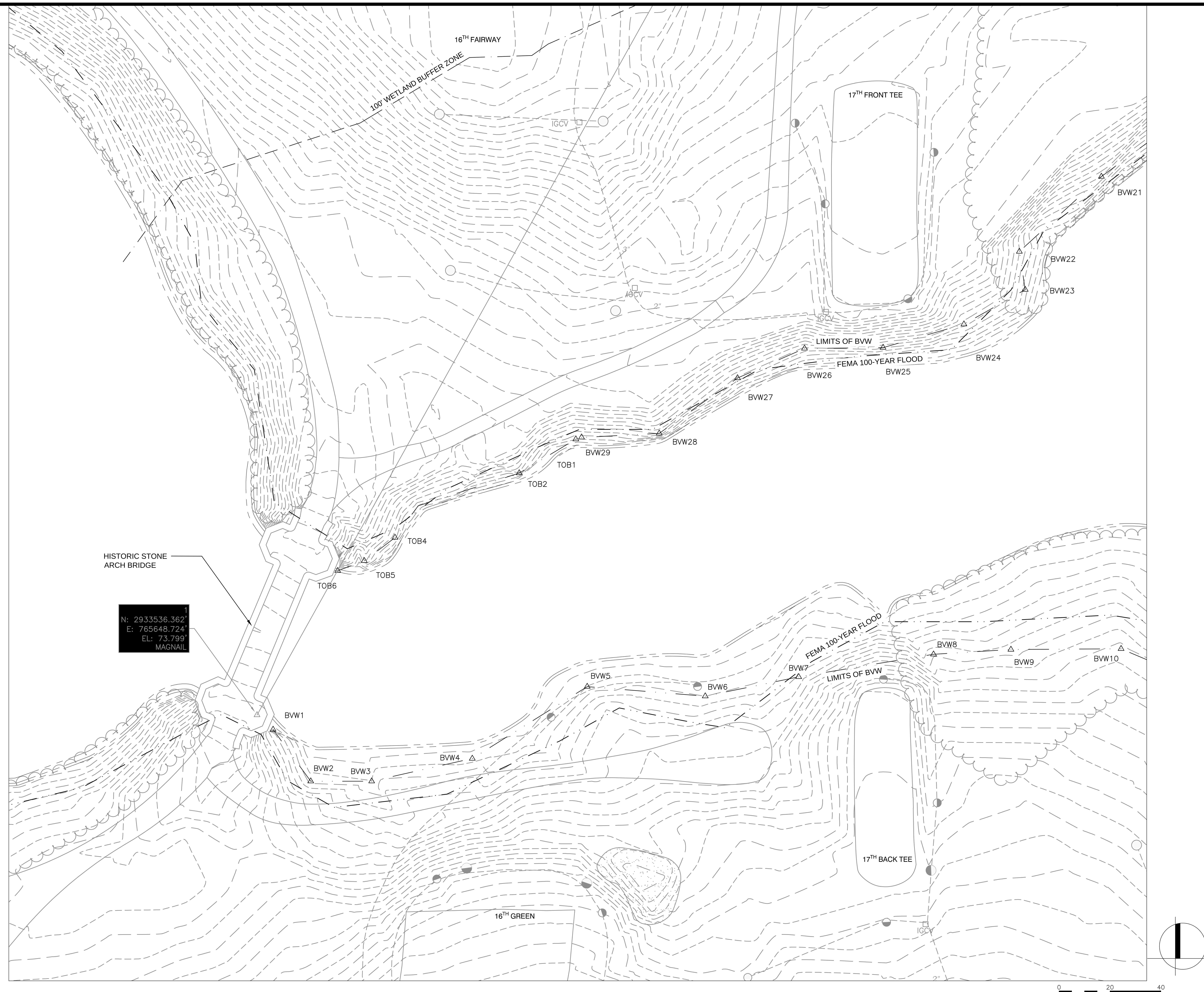
LEGEND

- LIMITS OF BVW
- FEMA 100-YEAR FLOOD
- 100' WETLAND BUFFER ZONE
- 0.5' CONTOUR
- EDGE OF WATER
- TREE LINE
- SAND TRAP
- IRRIGATION HEADS

GENERAL NOTES

1. FIELD SURVEY PERFORMED BY CHAPPELL ENGINEERING, LLC. BURLINGTON, MA ON FEBRUARY 2, 2016. ELEVATIONS SHOWN HEREON ARE BASED ON BOSTON CITY BASE (BCB). UTILITIES SHOWN HEREON ARE COMPLIED FROM SURFACE FEATURES, PAINT MARKINGS AND RECORD INFORMATION. CHAPPELL ENGINEERING, LLC. DOES NOT WARRANT THE LOCATION OR EXISTENCE OF SAID UTILITIES.
2. LOCATIONS OF ANY UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS, (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO PROJECT REPRESENTATIVE PRIOR TO EXCAVATION WORK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND REVIEWING THE DRAWINGS AND ASSUMES RESPONSIBILITY OF VERIFYING ALL EXISTING CONDITIONS AND MATERIALS SHOWN WITHIN THE PROJECT CONTRACT LIMITS.
5. ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION, PERMANENT CONSTRUCTION AND WORK OF ADJACENT CONTRACTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
6. ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS-BUILT" DRAWINGS.
7. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO AND TO THE SATISFACTION OF THE OWNER.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT HIS EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.
9. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.
9. FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF THE OWNER.
10. EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
11. NO CUTTING OR FILLING SHALL OCCUR WITHIN FIVE (5) FEET OF EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
12. ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES PRIOR TO SUBMITTING BID.
13. THE LAYOUT OF ALL NEW WALKWAYS AND THE GRADING OF ALL SLOPES AND CROSS SLOPES SHALL CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS RULES AND REGULATIONS FOR HANDICAP ACCESS CMR 521, AND THE AMERICANS WITH DISABILITIES ACT (ADA), TITLE 3. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE REQUIRED.
14. CONTRACTORS STAGING AREA MUST BE LOCATED AT THE BPRD MAINTENANCE YARD, IN THE AREA DESIGNATED AND AGREED UPON BY THE OWNER. NO OTHER AREAS SHALL BE USED FOR STAGING OR STOCKPILING EQUIPMENT OR MATERIALS WITHOUT PERMISSION FROM THE OWNER.
15. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY OF BOSTON'S PARKS DEPARTMENT.
16. IN CASE OF CONFLICT WITHIN THE CONTRACT DOCUMENTS THE CITY OWNS "BEST AND MOST."





EXISTING CONDITIONS PLAN

BOSTON PARKS AND RECREATION

Prepared By:
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Consultant Project No. 2160078

No.	Date	Revision
1	10.24.17	LANDMARKS COMMISSION SUBMISSION
2	02.07.18	N.O.I. SUBMISSION

Project Name.:
William J. Devine Golf Course Cart Boardwalk at Scarborough Pond

BPRD Project No.	
Date	02/07/2018
Scale	AS SHOWN
Drawn	BR/NS
Checked	ERB

Sheet Name.:
EXISTING CONDITIONS PLAN

Sheet No.:
L100

LEGEND

- LIMIT OF WORK
- LIMITS OF BVW
- FEMA 100-YEAR FLOOD
- 100' WETLAND BUFFER ZONE
- EDGE OF WATER
- STRIP AND STOCKPILE TOPSOIL, TYP.
- R&D EXISTING GRAVEL PATH AND METAL GRATING, TYP.
- SILT FENCE AND COMPOST SOCKS, TYP.

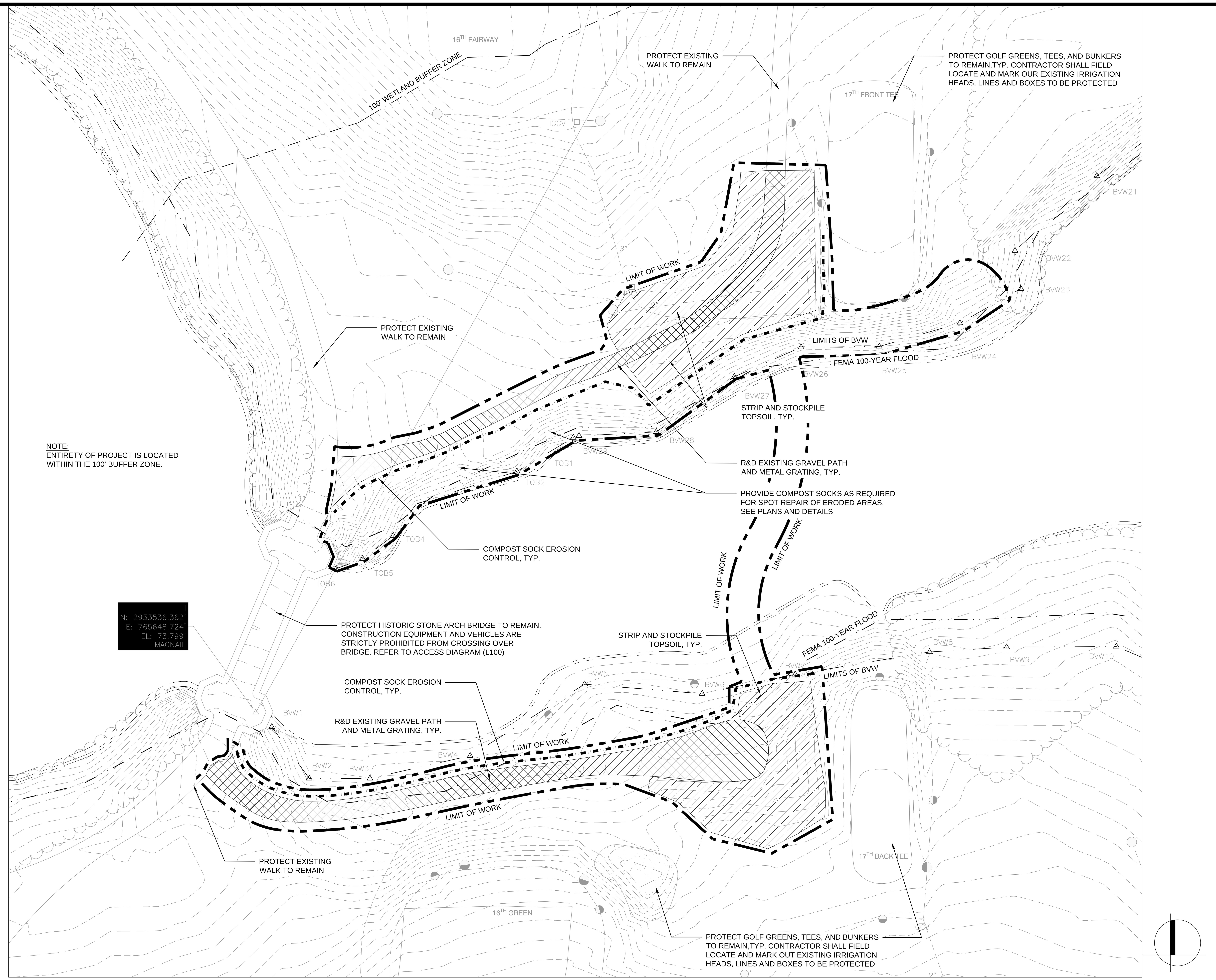
EX. EXISTING
TYP. TYPICAL
R&D REMOVE & DISPOSE

DEMOLITION & SITE PREPARATION NOTES

1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE DISTURBED YET SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE PROPOSED SITE IMPROVEMENTS AND TO DETERMINE THE LOCATION OF PROPOSED SITE IMPROVEMENTS.
2. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS DELIVERED TO FRANKLIN PARK YARD AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. UNLESS SPECIFICALLY NOTED TO BE SAVED OR REUSED, ALL SITE FEATURES CALLED FOR REMOVAL SHALL BE TRANSPORTED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AT NO COST TO THE OWNER.
4. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
5. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
6. ALL ITEMS CALLED FOR REMOVAL (COMPLETE) SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.
7. CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIER AT DRIPLINE AFTER CLEARING UNDERBRUSH AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS. TREES TO REMAIN SHALL BE PRUNED.
8. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THERE SHALL BE NO STORAGE OF MATERIALS OR PARKING OF CONSTRUCTION VEHICLES WITHIN DRIPLINE OF TREES.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL MEET ALL OF THE COMMONWEALTH OF MASSACHUSETTS D.E.P. AND THE CITY OF BOSTON'S WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
5. ALL CATCH BASINS AND DRAIN GRATES WITHIN LIMIT OF CONTRACT SHALL BE PROTECTED WITH FILTER FABRIC DURING THE ENTIRE DURATION OF CONSTRUCTION.
6. EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING & DRAINAGE PLANS, NOTES, DETAILS AND SPECIFICATIONS.
7. ANY AREA OUTSIDE THE PROJECT LIMIT THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
8. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.
9. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC/PRIVATE ROADS.



SITE PREPARATION PLAN

BOSTON PARKS AND RECREATION

Prepared By:
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Consultant Project No. 2160078

No.	Date	Revision
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2	02.07.18	N.O.I. SUBMISSION

Project Name.:
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BPRD Project No.	
Date	02/07/2018
Scale	AS SHOWN
Drawn	BR/NS
Checked	ERB

Sheet Name.:
SITE PREPARATION PLAN

Sheet No.:
L200

LEGEND

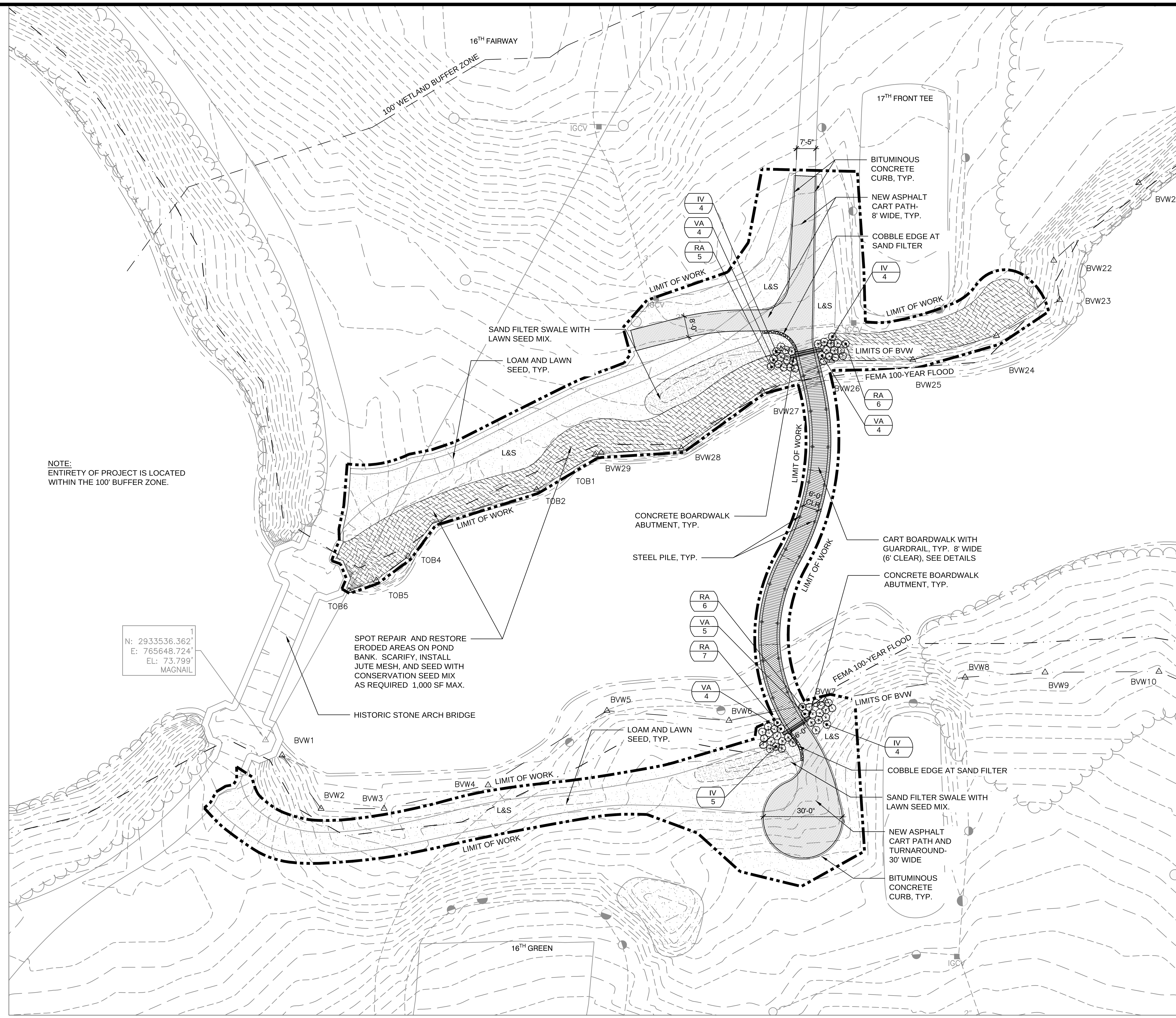
- LIMIT OF WORK
- LIMITS OF BVW
- FEMA 100-YEAR FLOOD
- 100' WETLAND BUFFER ZONE
- EDGE OF WATER
- CART BOARDWALK WITH GUARDRAIL, TYP. 8' WIDE (6' CLEAR), SEE DETAILS
- SAND FILTER SWALE WITH LAWN SEED MIX
- SPOT REPAIR AND RESTORATION OF ERODED AREAS - 1,00SF TOTAL
- NEW ASPHALT CART PATH- 8' WIDE, TYP.
- LOAM AND LAWN SEED, TYP.
- SHRUB PLANTING, TYP.

MATERIALS NOTES

1. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AND INFRARED LIGHT AT ALL POINTS OF CONNECTION AND ALL SAWCUT EDGES WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT PLAN.
2. THE DEPTH OF LOAM TOP SOIL FOR ALL RESTORED LAWN AREAS SHALL BE 6" MINIMUM. ALL DISTURBED AREAS SHALL BE RESTORED WITH LOAM AND SEED UNLESS OTHERWISE NOTED
3. ALL REFERENCES TO LOAM AND SEED REFER TO HYDROMULCH SEEDED LAWN.

PLANT SCHEDULE

ABRV.	QTY	COMMON NAME	BOTANICAL NAME	SIZE	NOTES
IV	17	WINTERBERRY HOLLY	ILEX VERTICILLATA 'RED SPRITE'	3 GAL. CONT	
RA	24	FRAGRANT SUMAC	RHUS AROMATICA	3 GAL. CONT	
VA	17	MAPLELEAF VIBURNUM	VIBURNUM ACERFOLIUM	3 GAL. CONT	



LAYOUT AND MATERIALS PLAN

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Sheet Name.: **LAYOUT AND MATERIALS PLAN**

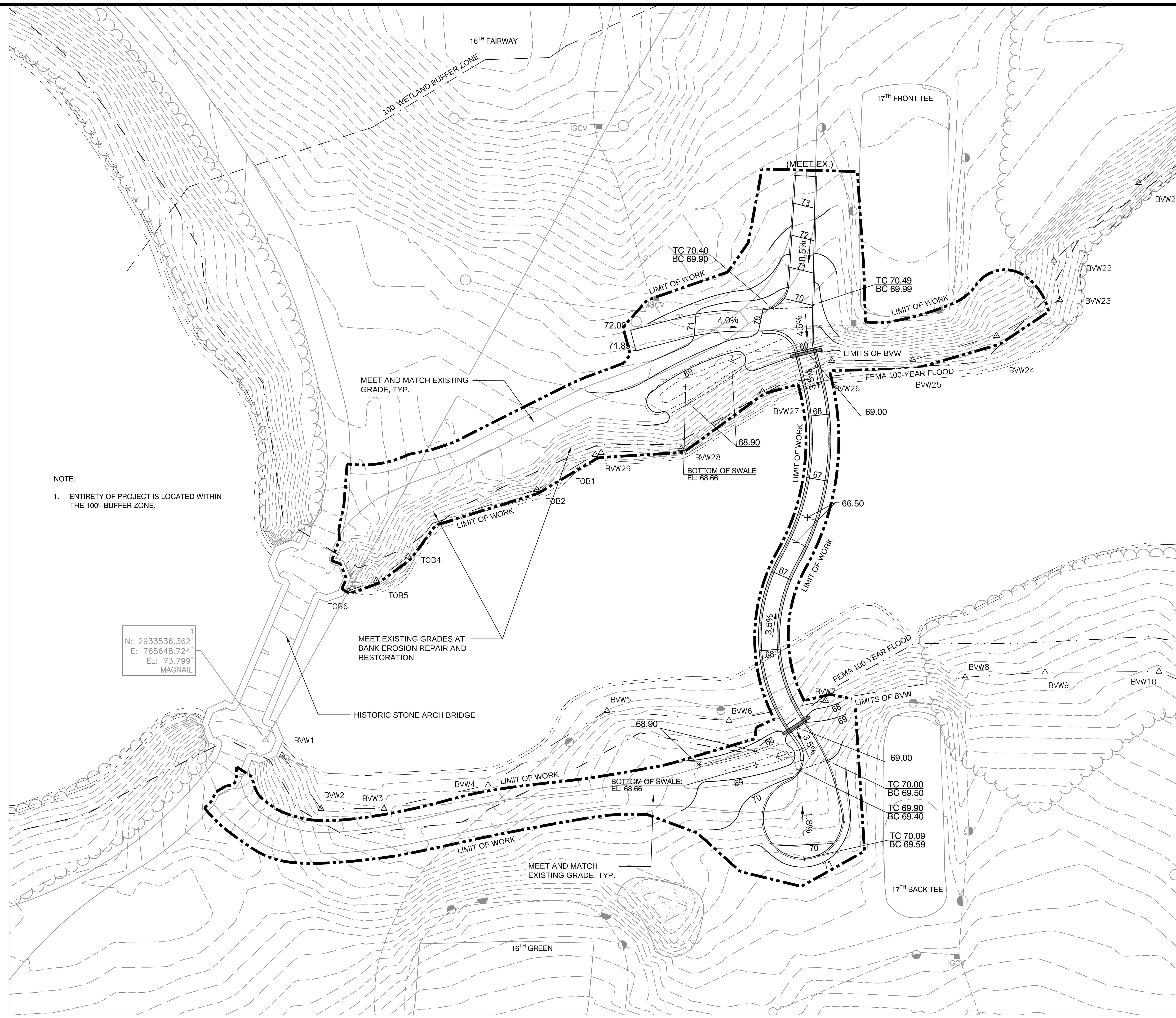
Sheet No.: **L300**

LEGEND

- LIMIT OF WORK
- LIMITS OF BVW
- FEMA 100-YEAR FLOOD
- 100' WETLAND BUFFER ZONE
- EDGE OF WATER
- PROPOSED CONTOURS

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY ALL GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
2. ALL GRADING IS TO BE SMOOTH AND CONTINUOUS WHERE PROPOSED SURFACE MEETS EXISTING SURFACE, BLEND THE TWO PAVEMENTS AND ELIMINATE ROUGH SPOTS AND ABRUPT GRADE CHANGES AND MEET LINE AND GRADE OF EXISTING CONDITIONS WITH NEW IMPROVEMENTS.
3. CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCH TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.
4. ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA), AND MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF (1.5%) PERCENT AND THE RUNNING SLOPE (PARALLEL TO THE DIRECTION OF TRAVEL) BETWEEN 1% MIN. AND 4.5% MAX. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
5. ALL UTILITY GRATES, COVERS OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES.
6. THE CONTRACTOR SHALL CONFIRM AND/OR SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
7. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
8. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
9. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
10. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED (L&S) UNLESS OTHERWISE NOTED.
11. SEE EARTHWORK SECTION OF SPECIFICATIONS FOR EXCAVATION AND FILLING PROCEDURES.



GRADING AND DRAINAGE PLAN

BOSTON PARKS AND RECREATION

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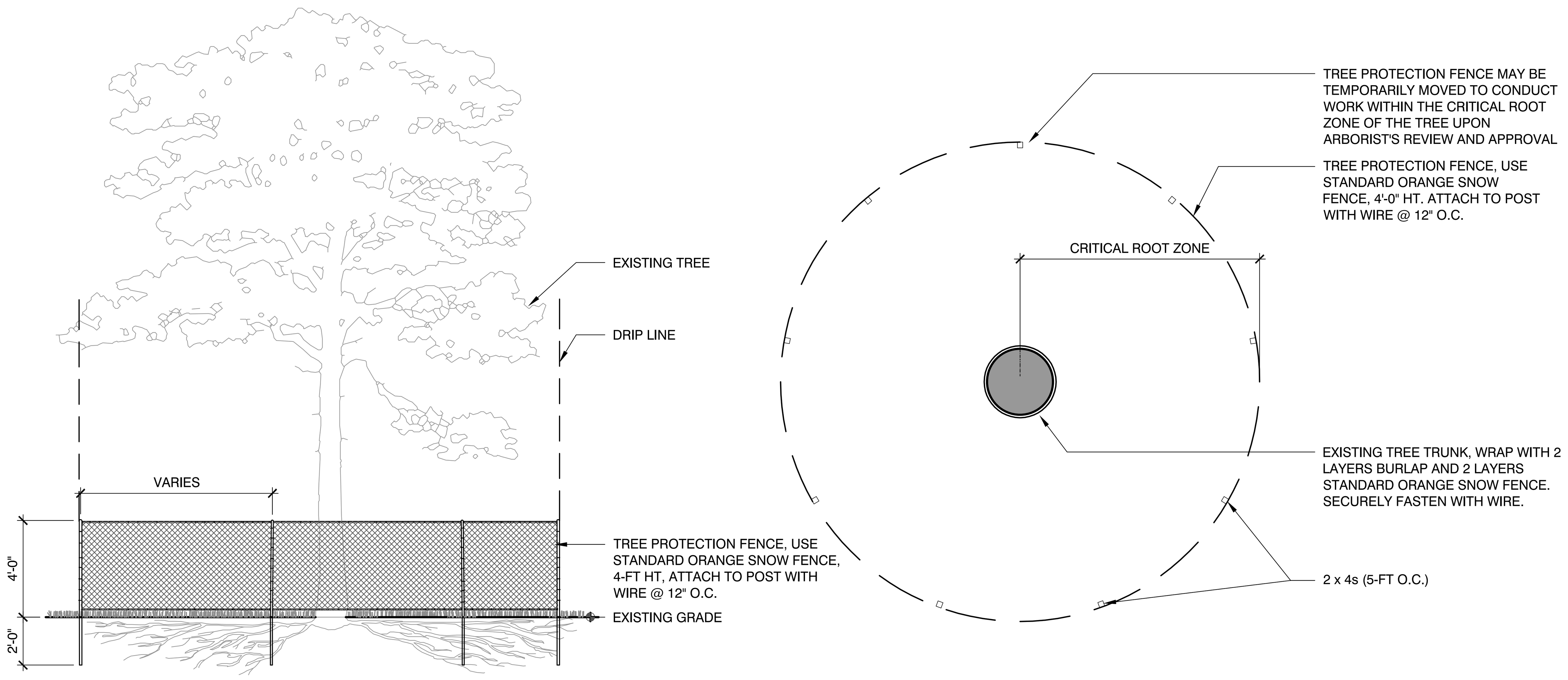
Sheet Name.:
GRADING AND DRAINAGE PLAN

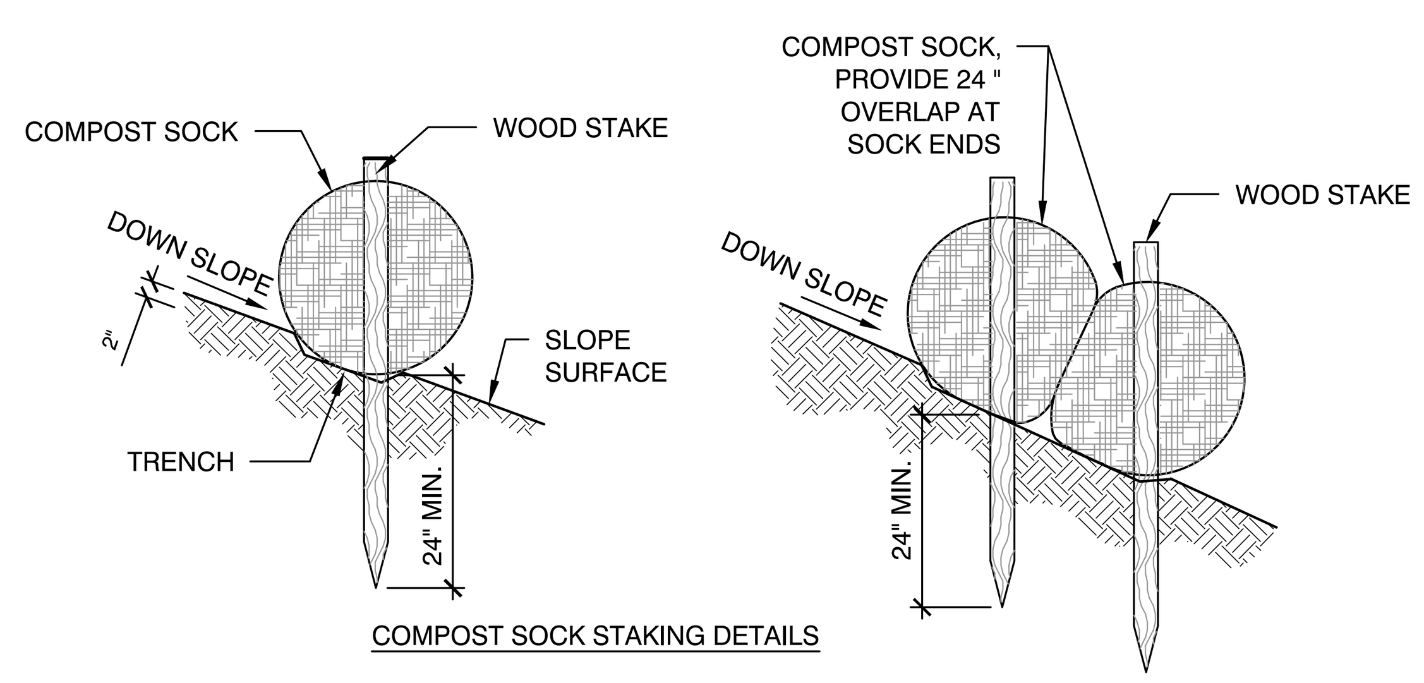
Sheet No.:
L400



CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND.

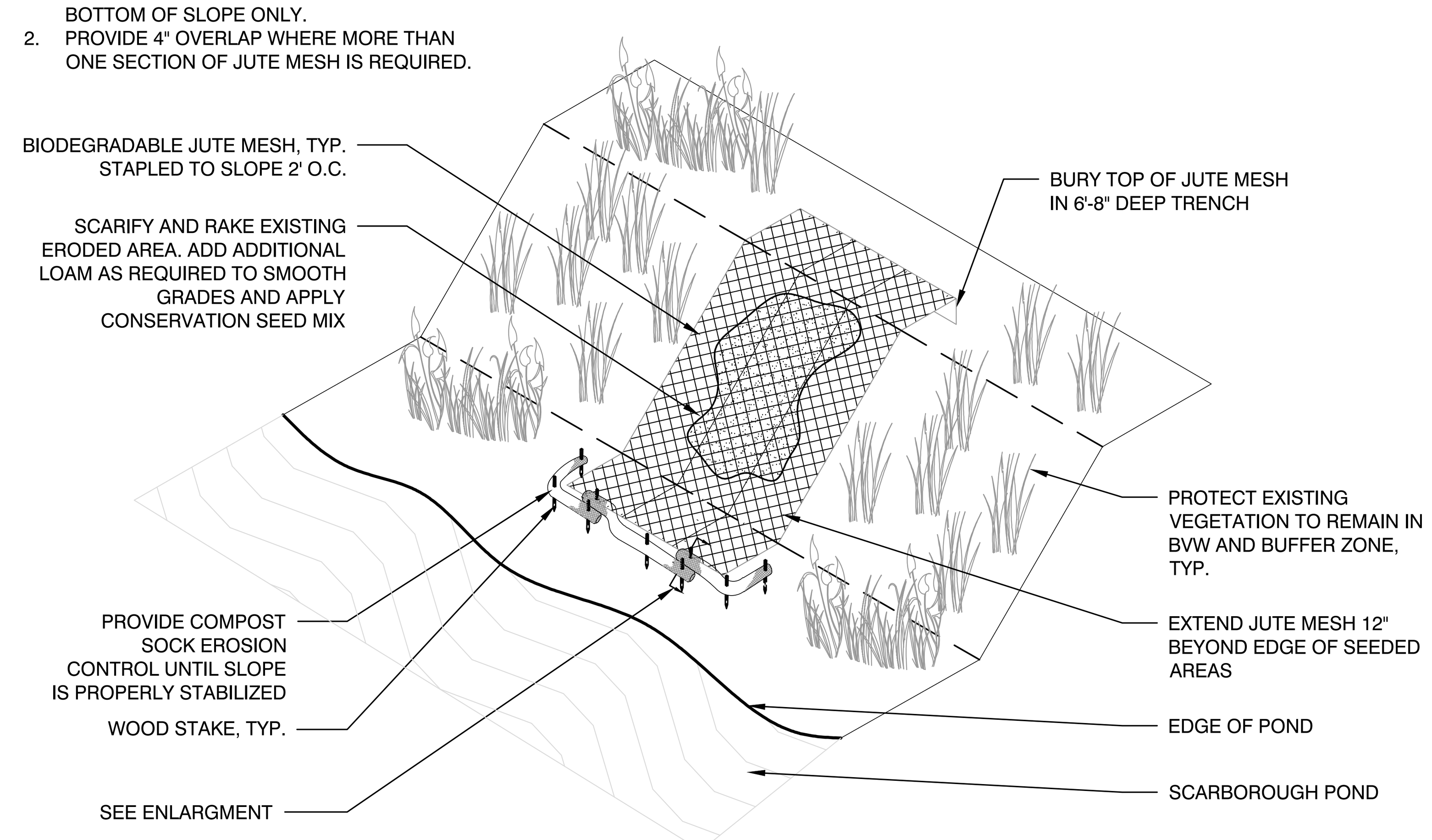
NOTE:
1. WHERE SPACE IS AVAILABLE, TREE PROTECTION FENCE TO BE PLACED A MINIMUM OF 10' FROM BASE OF TREE PLUS AN ADDITIONAL 1' FOR EACH ADDITIONAL DBH FOR TREES GREATER THAN 10" DBH (DIA. AT BREAST HT.)
2. ALL WORK DONE WITHIN TREE PROTECTION FENCE IS TO BE DONE BY HAND AND LIGHT EQUIPMENT.
3. ROOTS EXPOSED DURING EXCAVATION SHALL BE NEATLY CUT AND COVERED WITH SOIL IMMEDIATELY.
4. FOR TREES THAT OCCUR IN GROUPS PROVIDE TREE PROTECTION FENCE AROUND ENTIRE AREA. SEE PLAN FOR LOCATIONS.
5. MAINTAIN FENCE PROTECTION IN SOUND CONDITION UNTIL FENCE COMPLETION
6. A CERTIFIED ARBORIST SHALL DELINEATE LIMIT OF TREE PROTECTION FENCE AS THEY RELATE TO THE LIMITS OF THE CRITICAL ROOT ZONE.

1 TREE PROTECTION FENCE
SCALE: N.T.S



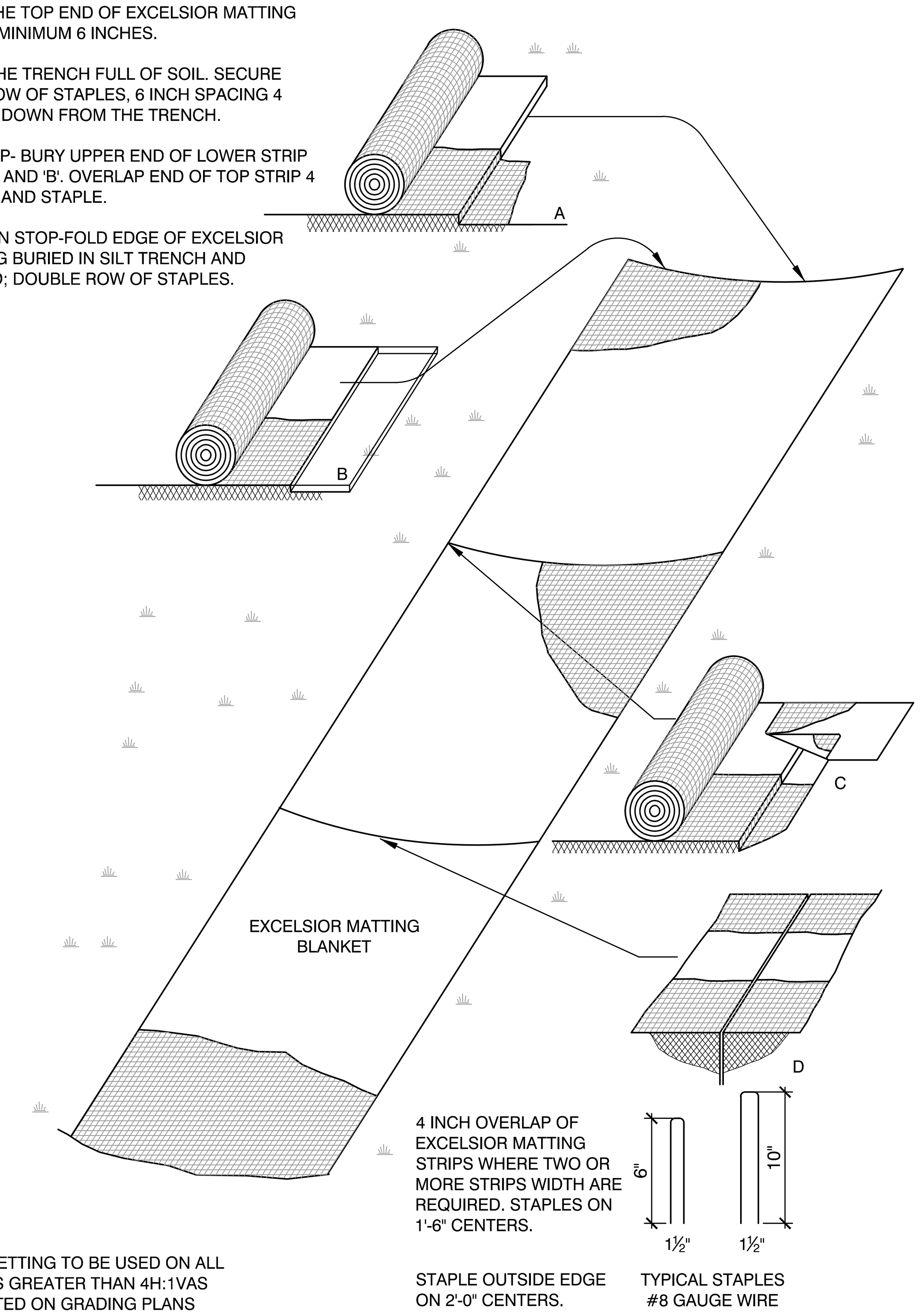
2 COMPOST SOCK EROSION CONTROL
SCALE: N.T.S

NOTES:
1. JUTE MESH ROLLS SHALL RUN TOP TO BOTTOM OF SLOPE ONLY.
2. PROVIDE 4" OVERLAP WHERE MORE THAN ONE SECTION OF JUTE MESH IS REQUIRED.



3 SPOT EROSION REPAIR
SCALE: N.T.S

A. BURY THE TOP END OF EXCELSIOR MATTING STRIPS MINIMUM 6 INCHES.
B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 6 INCH SPACING 4 INCHES DOWN FROM THE TRENCH.
C. OVERLAP- BURY UPPER END OF LOWER STRIP AS IN 'A' AND 'B'. OVERLAP END OF TOP STRIP 4 INCHES AND STAPLE.
D. EROSION STOP-FOLD EDGE OF EXCELSIOR MATTING BURIED IN SILT TRENCH AND TAMPED; DOUBLE ROW OF STAPLES.



NOTE:
1. JUTE NETTING TO BE USED ON ALL SLOPES GREATER THAN 4H:1VAS INDICATED ON GRADING PLANS

4 SLOPE EROSION CONTROL
SCALE: N.T.S

BOSTON PARKS AND RECREATION

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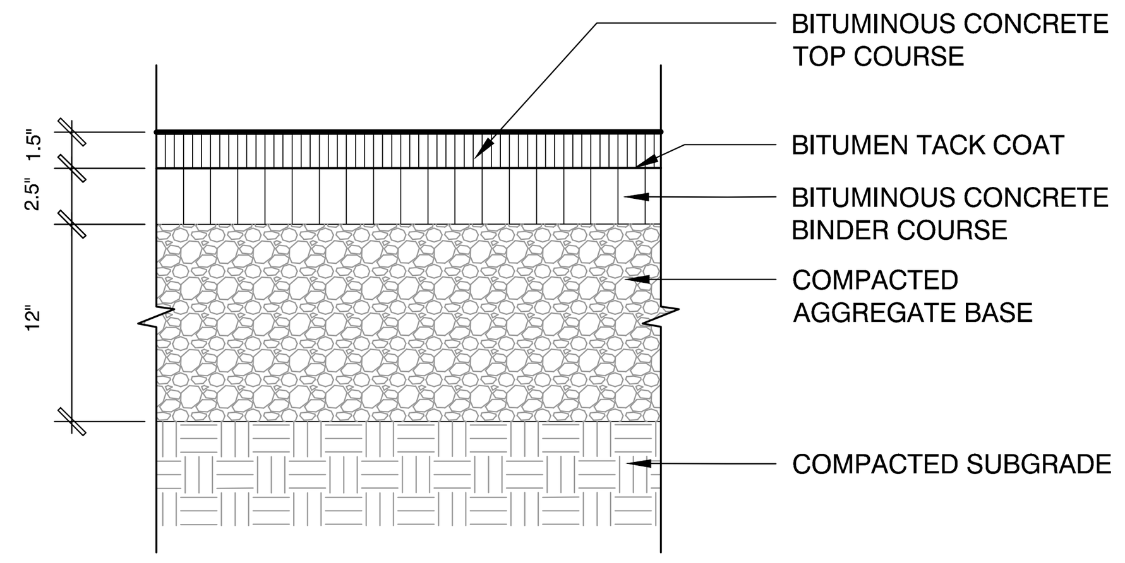
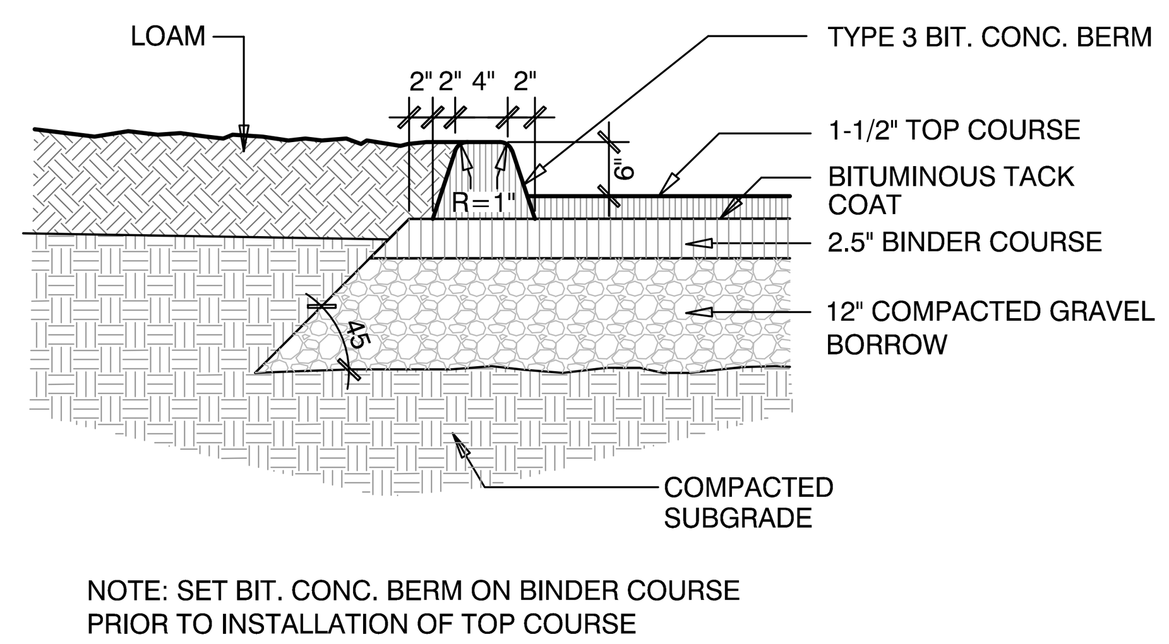
CONSTRUCTION DETAILS

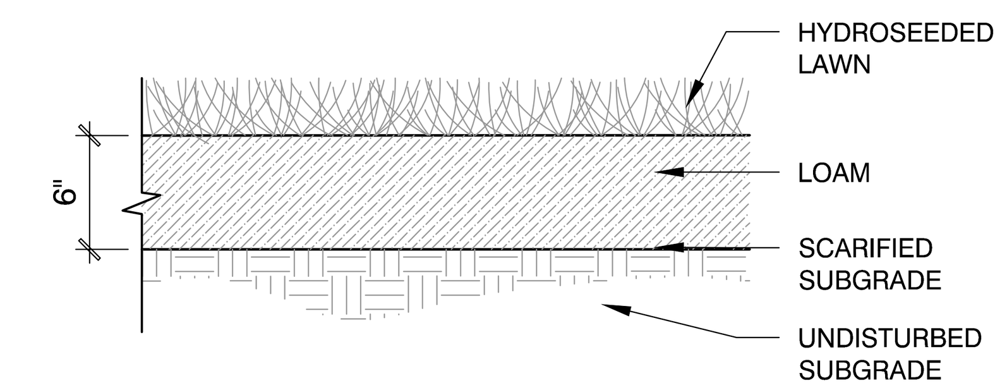
Sheet No.:
L500



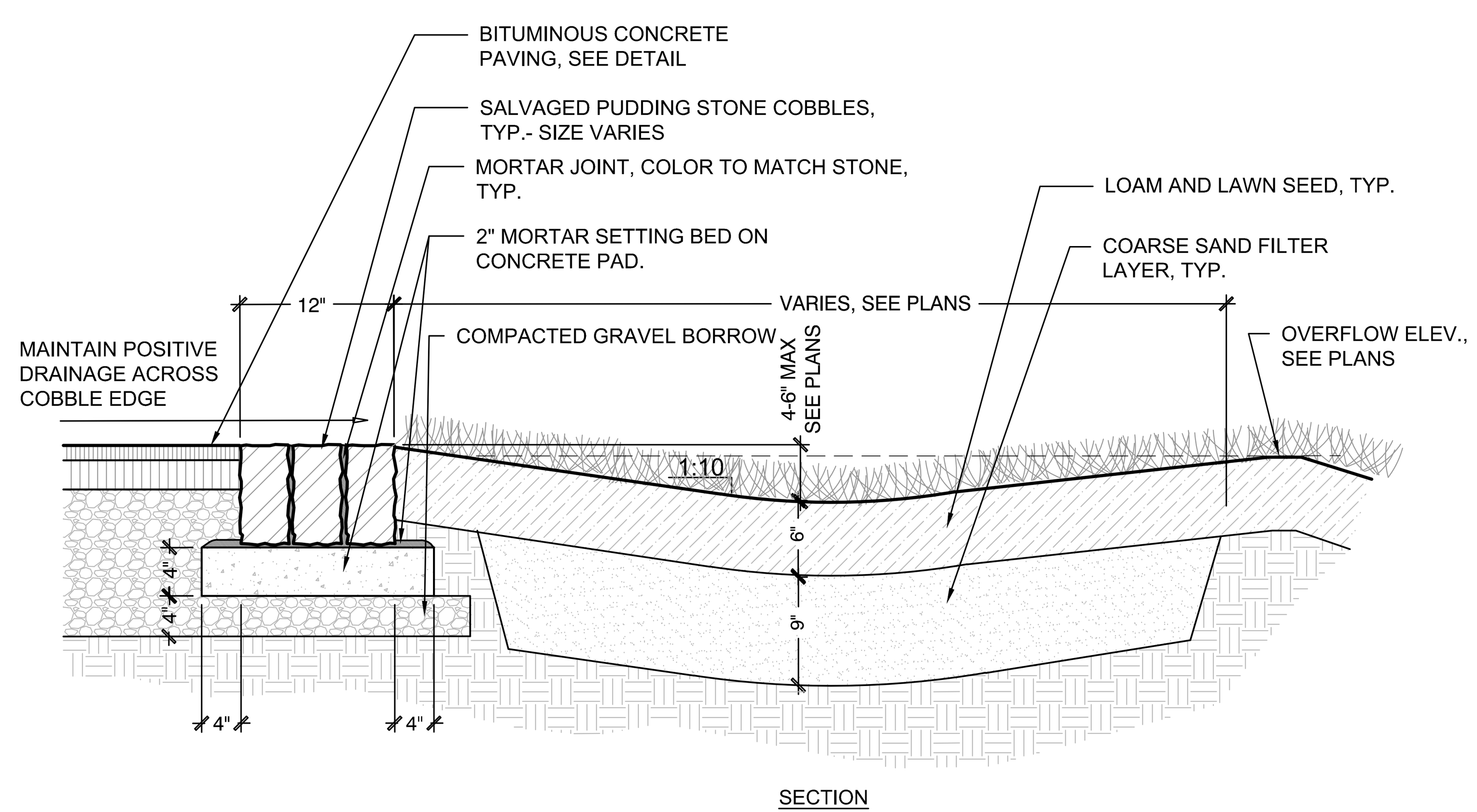
1 BITUMINOUS CONCRETE PAVING
SCALE: N.T.S



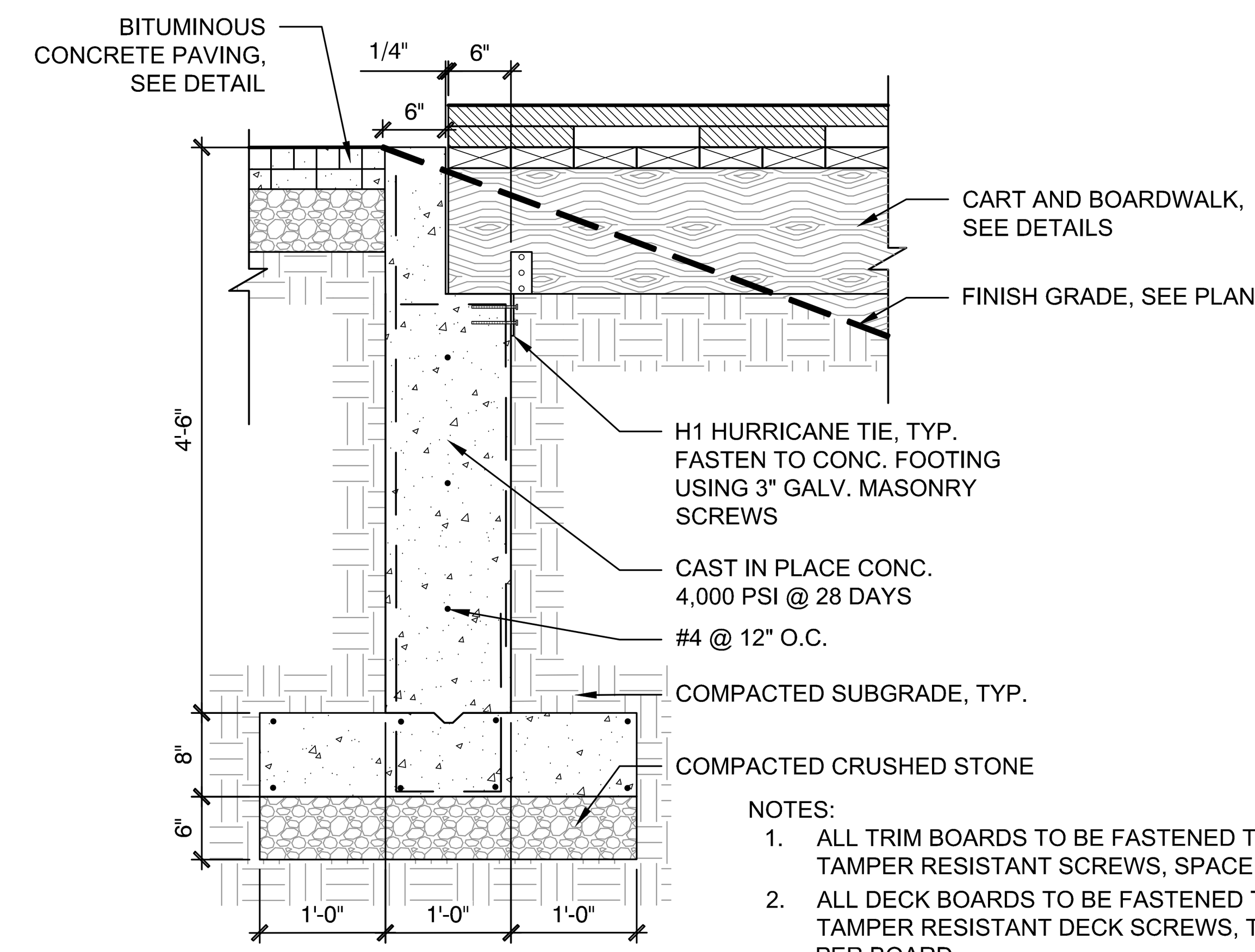
2 BITUMINOUS CONCRETE CURB
SCALE: N.T.S



3 LOAM AND SEED
SCALE: N.T.S

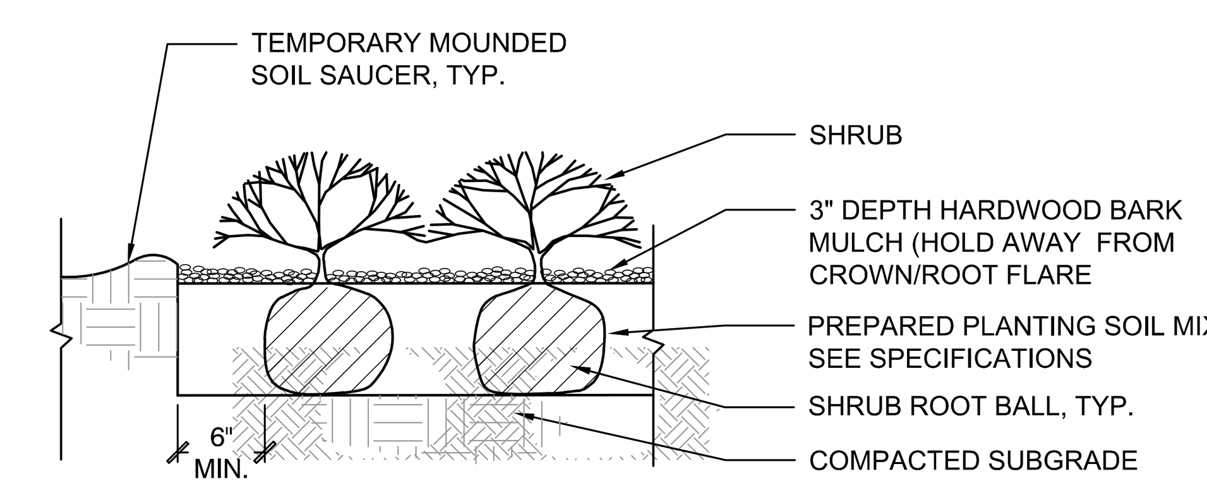


4 SAND FILTER WITH COBBLE EDGE
SCALE: N.T.S



NOTES:
1. ALL TRIM BOARDS TO BE FASTENED TO DECK BOARDS WITH 3" SS. TAMPER RESISTANT SCREWS, SPACED 12" O.C.
2. ALL DECK BOARDS TO BE FASTENED TO PT JOISTS USING 2 ½" SS. TAMPER RESISTANT DECK SCREWS, TWO (2) SCREWS PER JOIST PER BOARD.
3. ALL PT. FRAMING TO BE FASTENED USING HEAVY DUTY GALV. HARDWARE AND FASTENERS.

5 BRIDGE FOOTING DETAIL
SCALE: N.T.S



NOTE:
1. ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

5 SHRUB PLANTING
SCALE: N.T.S

BOSTON PARKS AND RECREATION

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Consultant Project No.	2160078

MASSACHUSETTS REGISTERED LANDSCAPE ARCHITECT NO. 908

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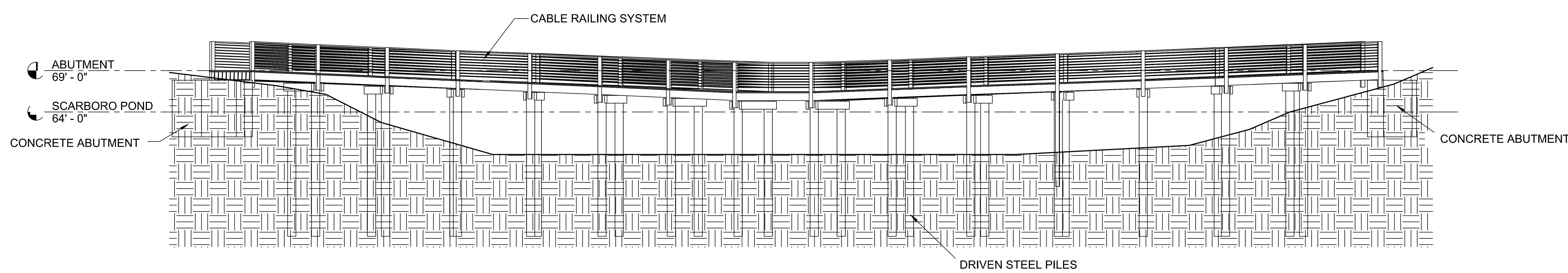
2	02.07.18	N.O.I. SUBMISSION

Project Name.:
William J. Devine Golf Course Cart Boardwalk at Scarborough Pond

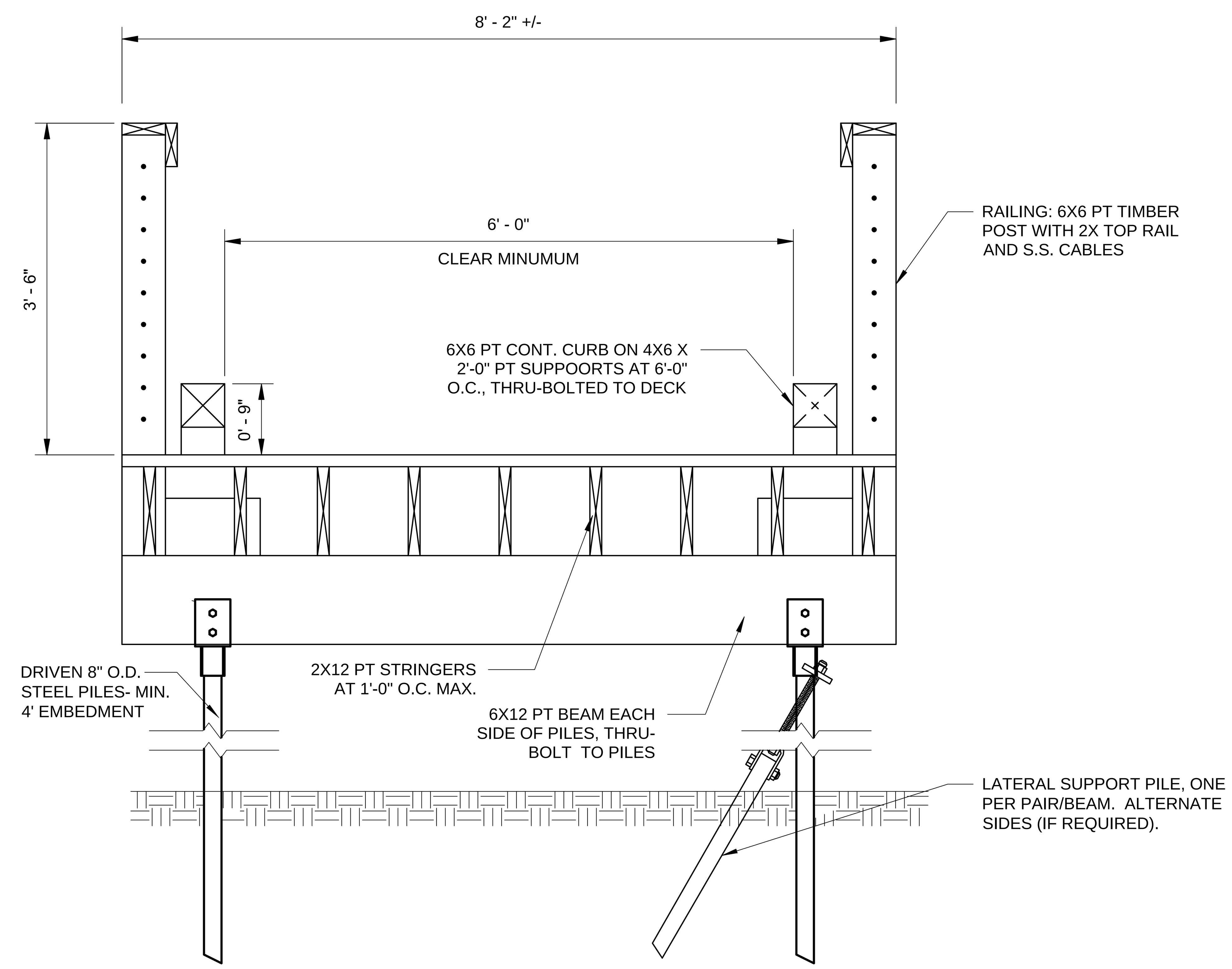
BPRD Project No.	
Date	02/07/2018
Scale	AS SHOWN
Drawn	BR/NS
Checked	ERB

Sheet Name.:
CONSTRUCTION DETAILS

Sheet No.:
L501



TYPICAL CART BRIDGE ELEVATION



NOTE: 1. FASTENERS AND CONNECTION MATERIALS HOT-DIPPED GALVANIZED U.N.O.
2. PILE PAIRS SHALL BE SPACED 14' O.C. MAXIMUM.

TYPICAL CART BRIDGE SECTION

BOSTON PARKS AND RECREATION

Prepared By:
Weston & Sampson
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Boston, MA 02109
(617) 412-4480 1 (800) Sampson
www.westonandsampson.com

Consultant Project No. 2160078

No.	Date	Revision
1	10.24.17	LANDMARKS COMMISSION SUBMISSION
2	02.07.18	N.O.I. SUBMISSION

Project Name.:
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L502