NOTICE OF INTENT

Multi-Family Residential Building
1201 Saratoga Street
Boston, Massachusetts

SUBMITTED TO:
City of Boston
Conservation Commission
City Hall Plaza, Room 709
Boston, Massachusetts 02201

PREPARED FOR:
1201 Saratoga Street, LLC
146 Bunker Hill Street
Charlestown, MA 02129

PREPARED BY:
Lucas Environmental, LLC
500A Washington Street
Quincy, Massachusetts 02169

REPORT DATE: September 6, 2022

LUCAS ENVIRONMENTAL, LLC

LUCAS
ENVIRONMENTAL, LLC

500A Washington Street, Quincy, MA 02169

September 6, 2022

Boston Conservation Commission
City Hall Plaza, Room 709
Boston, MA 02201

Re: Notice of Intent
Multi-Family Residential Building
1201 Saratoga Street
Boston, Massachusetts 02128

Members of the Boston Conservation Commission:

On behalf of 1201 Saratoga Street, LLC (Applicant & Owner), Lucas Environmental, LLC (LE) is pleased to submit this Notice of Intent (NOI) to the Boston Conservation Commission for the redevelopment of two parcels of land at 1201 Saratoga Street in the East Boston neighborhood of Boston, Massachusetts. The proposed work includes the demolition of the existing house and driveway to construct a six-unit multi-family residential building with stormwater improvements and landscaping. No work will occur within the 100-year floodplain. This NOI is submitted in accordance with the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.).

Enclosed please find one original, one copy of the NOI, and two (2) copies of the Stormwater Compliance Report and the Plans reduced to 11" x 17". The NOI application package includes the WPA Form 3, project narrative, figures, photographic documentation, abutter notification, filing fees, and Plans. The Stormwater Engineering Report is provided separately. A link to an electronic copy of the pdf file of the NOI application and supporting documentation will be provided concurrently with this submittal. We respectfully request that you place this matter on your agenda for the September 21, 2022 Public Hearing.

If you have any questions, please do not hesitate to contact me at 617.405.4140 or cml@lucasenviron.com. Thank you for your consideration in this matter.

Sincerely,
LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, PWS, CWS, RPSS
Environmental Consultant/Wetland & Soil Scientist

cc: 1201 Saratoga Street, LLC – Applicant & Owner (electronic copy)
MassDEP – NERO
Strong Civil Design, LLC (electronic copy)
Sangiolo Associates Architects (electronic copy)

LUCAS ENVIRONMENTAL, LLC

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LUCAS ENVIRONMENTAL, LLC

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SECTION I – FORMS

Boston NOI Checklist

WPA FORM 3 – Notice of Intent

Boston NOI Form

Checklist for Filing a Notice of Intent with Boston Conservation Commission

In order for the Boston Conservation Commission to effectively process your Notice of Intent, BCC requests that you complete the checklist below and include it with your submission. If you should need assistance please contact Commission Staff: 617-635-3850 (cc@boston.gov).

Please Submit the Following to the Conservation Commission:

- ☒ Two copies (a signed original and 1 copy) of a completed Notice of Intent (WPA Form 3)
- ☒ Two copies (a signed original and 1 copy) of a completed Boston Notice of Intent (Local Form)
- ☒ Two copies of plans (reduced to 11" X 17") in their final form with engineer's stamp affixed supporting calculations and other documentation necessary to completely describe the proposed work and mitigating measures. Plans must include existing conditions, the proposed project, erosion controls and mitigation measures, grading and spot elevations and all wetland resource areas and associated buffer zones. Some projects may require both an aerial view of the plans along with a profile view of plans depending on the scope of work.
- ☒ Two copies of an 8 ½" x 11" section of the USGS quadrangle map of the area, containing sufficient information for the Conservation Commission and the Department to locate the site of the work.
- ☒ (If applicable) Two copies the Federal Emergency Management Agency Flood Insurance Rate Map for the project site. FEMA Flood Maps: https://msc.fema.gov/portal.
- ☒ Two copies of the determination regarding the Natural Heritage and Endangered Species Program: Review Section C. Other Applicable Standards and Requirements of the Notice of Intent, page 4 of 8, pertaining to wildlife habitat. The Conservation Commission and the Natural Heritage & Endangered Species Program have the maps necessary to make this determination.
- ☒ (If applicable) Two hard copies of a Stormwater Report to document compliance with the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q), including associated drainage calculations for rooftops, parking lots, driveways, etc., for the required design storm events.
- ☒ (If applicable) A narrative detailing best management practices for stormwater management as set forth in the Stormwater Management Standards of the Massachusetts Department of Environmental Protection and any separate standards and guidelines prepared by the City and the Boston Water and Sewer Commission.
- ☒ (If applicable) Two hard copies of the Checklist for Stormwater Report
- ☒ Details of the stormwater management system, including: catch basins, oil separating tanks, detention basins, outfalls, sewer connections, etc.
- ☒ Any photographs related to the project representing the wetland resource areas.
- ☒ Two copies of a detailed project narrative describing the following: an overview of the entire project, the work proposed within wetland resource areas and/or buffer zones; how the performance standards specific to the wetland resource areas will be met (listing out each performance standard); a consideration of the effect that projected sea level rise, changes in storm intensity and frequency, and other consequences of climate change may have on the resource areas and proposed activities; construction equipment and material involved; and measures to protect wetland resource areas and mitigate impacts. The applicant shall also include narrative on how they plan to integrate climate change and adaptation planning considerations into their project to promote climate resilience to protect and promote Resource Area Values and functions into the future.
- ☒ Two copies of an Abutters List, Affidavit of Service and Abutter Notification, filed concurrently with the Notice of Intent. Abutter notices shall be sent in both English and the second most commonly spoken language(s) in the neighborhood(s) where the project is proposed. Notices shall also include Babel notice cards for additional translation and language access services. All abutters within 300' of the project

Checklist for Filing a Notice of Intent with Boston Conservation Commission

property line must be notified including those in a neighboring municipality. In such an instance, a copy of the filing must also be sent to the local Conservation Commission of the neighboring municipality. EXCEPTION: When work is in land under water bodies and waterways or on a tract of land greater than 50 acres, written notification must only be given to abutters within 300 feet of the "project site."

☐ Two copies of the BPDA Climate Resiliency Checklist (for new buildings). This can be completed online at http://www.bostonplans.org/planning/planning-initiatives/article-37-green-building-guidelines. Please print the pdf that you will receive via email after completion and include it in your submission.

☒ **Electronic copies.** Documents may be submitted via email, or via an email link to downloadable documents.

To minimize the use of non-recyclable materials ***please do not include vinyl or plastic binders, bindings, folders or covers with the filing.*** Staples and binder clips are good choices.

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):

1201 Saratoga Street — a. Street Address
Boston — b. City/Town
02128 — c. Zip Code

Latitude and Longitude:
42.383230 — d. Latitude
-71.997780 — e. Longitude

01-04410-000 & 01-04411-000 — f. Assessors Map/Plat Number
g. Parcel /Lot Number

2. Applicant:

Vahid — a. First Name
Nickpour — b. Last Name
1201 Saratoga Street, LLC — c. Organization
146 Bunker Hill Street — d. Street Address
Charlestown — e. City/Town
MA — f. State
02129 — g. Zip Code
617.799.8482 — h. Phone Number
i. Fax Number
vahid@novatrust.us — 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):

Christopher — a. First Name
Lucas — b. Last Name
Lucas Environmental, LLC — c. Company
500A Washington Street — d. Street Address
Quincy — e. City/Town
MA — f. State
02169 — g. Zip Code
617.405.4140 — h. Phone Number
617.405.4465 — i. Fax Number
cml@lucasenviro.com — j. Email address

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

Provided by MassDEP:

MassDEP File Number

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A. General Information (continued)

6. General Project Description:

The project consists of redeveloping two parcels into a six-unit multi-family building with associated appurtenances and a stormwater unit. Work is proposed within the 100-Foot Buffer Zone to a salt marsh. The project site is separated from the salt marsh by Saratoga Street. No work is proposed within the 100-year floodplain.

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
67223	90

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

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

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

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

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

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

2. Width of Riverfront Area (check one):

   ☐ 25 ft. - Designated Densely Developed Areas only

   ☐ 100 ft. - New agricultural projects only

   ☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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

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

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

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

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

   a. ☐ Yes ☒ No

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

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

   August 1, 2021
   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 https://www.mass.gov/ma-endangered-species-act-mesa-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
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C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
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, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; 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
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

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@mass.gov

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.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☒ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

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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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

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

Provided by MassDEP:

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D. Additional Information (cont'd)

3. ☐ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Conservation Commission Plan
a. Plan Title

Strong Civil Design, LLC
b. Prepared By

Daniel R. Armstrong, P.E.
c. Signed and Stamped by

February 10, 2022
d. Final Revision Date

1"=10'
e. Scale

Stormwater Engineering Report
f. Additional Plan or Document Title

February 9, 2022
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.

Additional Plans:
Landscape Plan, prepared by Sangiolo Associates Architects, dated July 4, 2022.
ZBA Approved Plans, prepared by Sangiolo Associates Architects, revised May 8, 2021
Conservation Commission Plans Exhibits (not to scale), prepared by Strong Civil Design, LLC,

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:

3810
2. Municipal Check Number

September 2, 2022
3. Check date

3811
4. State Check Number

September 2, 2022
5. Check date

Lucas Environmental, LLC
6. Payor name on check: First Name

7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
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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: March 2, 2022

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date: August 31, 2022

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.

City of Boston Environment

NOTICE OF INTENT APPLICATION FORM
Boston Wetlands Ordinance
City of Boston Code, Ordinances, Chapter 7-1.4

Boston File Number

MassDEP File Number

A. GENERAL INFORMATION

1. Project Location

1201 Saratoga Street	Boston	02128
a. Street Address	b. City/Town	c. Zip Code
01-04410-000 & 01-04411-000		
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant

Vahid	Nickpour	1201 Saratoga Street, LLC
a. First Name	b. Last Name	c. Company

146 Bunker Hill Street
d. Mailing Address

Charlestown	MA	02129
e. City/Town	f. State	g. Zip Code

617.799.8482		vahid@novatrust.us
h. Phone Number	i. Fax Number	j. Email address

3. Property Owner

a. First Name	b. Last Name	c. Company

d. Mailing Address

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

h. Phone Number	i. Fax Number	j. Email address

☐ Check if more than one owner

(If there is more than one property owner, please attach a list of these property owners to this form.)

4. Representative (if any)

Christopher	Lucas	Lucas Environmental, LLC
a. First Name	b. Last Name	c. Company

500A Washington Street
d. Mailing Address

Quincy	MA	02169
e. City/Town	f. State	g. Zip Code

617.405.4140	617.405.4465	cml@lucasenviro.com
h. Phone Number	i. Fax Number	j. Email address

5. Is any portion of the proposed project jurisdictional under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40?

☐ Yes ☑ No

If yes, please file the WPA Form 3 - Notice of Intent with this form

6. General Information

The project consists of redeveloping two parcels into a six-unit multi-family building with associated appurtenances and a stormwater unit. Work is proposed within the 100-Foot Buffer Zone to a salt marsh. The project site is separated from the salt marsh by Saratoga Street. No work is proposed within the 100-year floodplain.

7. Project Type Checklist

a. ☐ Single Family Home
b. ☐ Residential Subdivision
c. ☐ Limited Project Driveway Crossing
d. ☐ Commercial/Industrial
e. ☐ Dock/Pier
f. ☐ Utilities
g. ☐ Coastal Engineering Structure
h. ☐ Agriculture – cranberries, forestry
i. ☐ Transportation
j. ☑ Other

8. Property recorded at the Registry of Deeds

Suffolk	90
a. County	b. Page Number
67233	
c. Book	d. Certificate # (if registered land)

9. Total Fee Paid

$2,562.50	$512.50	$2,050.00
a. Total Fee Paid	b. WPA Fee Paid	c. Ordinance Fee Paid

B. BUFFER ZONE & RESOURCE AREA IMPACTS

Buffer Zone Only - Is the project located only in the Buffer Zone of a resource area protected by the Boston Wetlands Ordinance?

☐ Yes ☑ No

1. Coastal Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Coastal Flood Resilience Zone*	Square feet	Square feet	Square feet
☐ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
☐ *100-foot Salt Marsh Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

2. Inland Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Inland Flood Resilience Zone*	Square feet	Square feet	Square feet
☐ *Isolated Wetlands*	Square feet	Square feet	Square feet
☐ *Vernal Pool*	Square feet	Square feet	Square feet
☐ *Vernal Pool Habitat (vernal pool + 100 ft. upland area)*	Square feet	Square feet	Square feet
☐ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

C. OTHER APPLICABLE STANDARDS & REQUIREMENTS

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

Boston Water & Sewer Commission Site Plan Review - Application # 22012 In Review
Inspectional Services Department - Building Permit - To be submitted
Zoning Board of Appeals - Variance Approved (Permit #ERT1046165)

2. 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://www.mass.gov/dfwele/dfw/nhesp/nhregmap.htm.

☐ Yes ☑ No

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

A. Submit Supplemental Information for Endangered Species Review

☐ Percentage/acreage of property to be altered:

(1) within wetland Resource Area _____ percentage/acreage

(2) outside Resource Area _____ percentage/acreage

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

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

☐ Yes ☑ No

If yes, provide the name of the ACEC: _____

4. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Standards?

☐ *Yes. Attach a copy of the Stormwater Checklist & Stormwater Report as required.*
- ☐ *Applying for a Low Impact Development (LID) site design credits*
- ☐ *A portion of the site constitutes redevelopment*
- ☐ *Proprietary BMPs are included in the Stormwater Management System*

☑ *No. Check below & include a narrative as to why the project is exempt*
- ☐ *Single-family house*
- ☐ *Emergency road repair*
- ☐ *Small Residential Subdivision (less than or equal to 4 single family houses or less than or equal to 4 units in a multifamily housing projects) with no discharge to Critical Areas*

5. Is the proposed project subject to Boston Water and Sewer Commission Review?

☐ No ☑ Yes

D. 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 Protection Ordinance.

Signature of Applicant — March 2, 2022 (Date)

Signature of Property Owner (if different) — Date

Christopher M. Lucas
Signature of Representative *(if any)* — August 31, 2022 (Date)

APPENDIX A. - STATUTORY REVIEW & APPROVAL CHECKLIST

Applicants submitting a Notice of Intent to the Boston Conservation Commission are also required to include a list of all permits and approvals either obtained, or necessary to be obtained, for the proposed activity. This checklist is not fully comprehensive but Applicants may utilize this checklist to fulfill this requirement. Any additional permits and approvals needed should be discussed in the narrative accompanying the Notice of Intent.

FEDERAL REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	National Environmental Policy Act (NEPA)	Varies
☐	☐	Section 404 Permit	U.S. Army Corps of Engineers
☐	☐	National Pollution Discharge Elimination System Permit (NPDES)	U.S. Environmental Protection Agency
☐	☐	Stormwater Construction General Permit	U.S. Environmental Protection Agency
☐	☐	Federal Endangered Species Act (ESA)	U.S. Fish and Wildlife Service or National Marine Fisheries Service
☐	☐	Federal Fisheries Regulations	National Marine Fisheries Service

COMMONWEALTH OF MASSACHUSETTS REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	Massachusetts Environmental Policy Act (MEPA)	Massachusetts Environmental Policy Act Office
☐	☐	Federal Consistency Review	Office of Coastal Zone Management
☐	☐	Massachusetts Public Waterfront Act (Chapter 91)	Massachusetts Department of Environmental Protection (Waterways Program)
☐	☐	Section 401 Water Quality Certification	Massachusetts Department of Environmental Protection (Wetlands Program)
☐	☐	Massachusetts Endangered Species Act (MESA)	National Heritage and Endangered Species Program
☐	☐	Massachusetts Marine Fisheries Regulations	Massachusetts Division of Marine Fisheries

☐	☐	Historic Preservation	Massachusetts Board of Underwater Archaeological Resources
☐	☐	Historic Preservation	Massachusetts Historical Commission
☐	☐	Massachusetts Contingency Plan	Massachusetts Department of Environmental Protection
☐	☐	Massachusetts Building Code Variance	Board of Building Regulations and Standards

CITY OF BOSTON LOCAL REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	Boston Zoning Code Article 80	Boston Planning and Development Agency
☐	☐	Boston Zoning Code	Inspectional Services Department
X ☐	☐	Boston Zoning Code Variance	Zoning Board of Appeals
☐	☐	Project Design Review	Civic Design Commission
X ☐	☐	Utility Plan Review	Boston Water and Sewer Commission
☐	☐	Boston Zoning Code Article 32 (GCOD)	Boston Groundwater Trust
☐	☐	Historic Preservation	Boston Landmarks Commission
☐	☐	Boston City Code (100 Foot Rule)	Boston Parks and Recreation Commission
☐	☐	Public Realm Improvements	Boston Public Improvement Commission
☐	☐	Parking Freeze/Abrasive Blasting	Boston Air Pollution Control Commission
X ☐	☐	Massachusetts Building Code	Inspectional Services Department

LUCAS ENVIRONMENTAL, LLC

SECTION II – PROJECT NARRATIVE

1.0 INTRODUCTION

On behalf of 1201 Saratoga Street, LLC (Applicant & Owner), Lucas Environmental, LLC (LE) is pleased to submit this Notice of Intent (NOI) to the Boston Conservation Commission for the redevelopment of 1201 Saratoga Street in the East Boston neighborhood of Boston, Massachusetts.

The proposed work includes the demolition of the existing single-family dwelling to construct a multi-family residential building with six (6) units, stormwater improvements, and landscaping. Portions of the proposed work will occur within the 100-Foot Buffer Zone to Salt Marsh. No work is proposed within the 100-year floodplain. This NOI is submitted in accordance with the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.), and the City of Boston Ordinance Protecting Local Wetlands and Promoting Climate Change Adaptation in the City of Boston (Chapter VII) and the Boston Wetlands Regulations.

This project narrative describes the existing conditions, wetland resource areas, proposed design, project impacts, and regulatory compliance for work within jurisdictional areas on the site. The proposed project is depicted on the enclosed permitting Conservation Commission Plan entitled "Redevelopment at 1201 Saratoga Street in East Boston, Massachusetts", prepared by Strong Civil Design, LLC dated February 10, 2022. The ZBA Approved Plans, prepared by Sangiolo Associates Architects, revised through May 8, 2021 and the Landscape Plan, prepared by Sangiolo Associates Architects, revised through July 4, 2022, are also enclosed. Strong Civil Design also prepared Exhibits of the Conservation Commission Plan for easier viewing.

2.0 EXISTING CONDITIONS

The subject property is located at 1201 Saratoga Street in the East Boston neighborhood of Boston, Massachusetts (See Figure 1 – USGS Map and Figure 2 – Aerial Map). The site consists of two parcels of land identified as Assessor's Parcels 01-04410-000 & 01-04411-000, totaling 6,400 square feet. Parcel 01-04410-000 consists of residential land and Parcel 01-04411-000 consists of a bungalow style, 1.5 story, single family dwelling with on-street parking. The site is bounded by residences to the south and west, salt marsh owned by the state (Department of Conservation and Recreation) to the north, and undeveloped upland property owned by the Massachusetts Port Authority to the east.

A review of the current MassGIS data layer for the Massachusetts Natural Heritage Atlas (effective August 1, 2021) under the Natural Heritage & Endangered Species Program (NHESP) indicates that no portion of the Study Area is located within Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species (See Figure 3 – NHESP Map). No Certified or Potential Vernal Pools under the jurisdiction of the Wetlands Protection Act Regulations (310 CMR 10.00 et seq.) or the Massachusetts Endangered Species Act (321 CMR 10.00 et seq.) are mapped by NHESP in the Study Area.

The Study Area is not located within an Area of Critical Environmental Concern (ACEC), Outstanding Resource Water (ORW), or MassDEP Wellhead Protection Area.

3.0 WETLAND RESOURCE AREAS

A Professional Wetland Scientist (PWS) from LE conducted a wetland site investigation at the project site and adjacent areas on August 20, 2020 and April 15, 2021. The wetland investigation was performed in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40) and regulations (310 CMR 10.00 et seq.); Section 404 of the Clean Water Act (33 U.S.C. 1344); Massachusetts Department of Environmental Protection (MassDEP) publication "Delineating Bordering Vegetated Wetlands" under the Massachusetts Wetlands Protection Act (1995); the U.S. Army Corp of Engineers (USACE) Wetland Delineation Manual (1987); and the Northcentral and Northeast Regional Supplement (2012).

The following data sources were examined prior to the site investigation:

- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps;
- United States Geological Survey Topographic Quadrangle;
- MassGIS MassDEP Wetland and Hydrography Datalayers;
- MassGIS Natural Heritage Atlas Datalayers; and
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) Soil Survey.

According to the FEMA Flood Insurance Rate Map for Suffolk County, Map Number 25025C0038J, revised March 16, 2016, the property to the north lies within mapped FEMA Zone AE (Figure 4 – FEMA Map) and is considered Land Subject to Coastal Storm Flowage (LSCSF) based upon Elevation 12. However, this resource area does not extend onto the subject property. The site is located within Zone X, which is defined as Zone X, which is classified as an area determined to be outside the 0.2% annual chance floodplain (500-year flood).

A wetland resource area consisting of Salt Marsh was identified on the opposite side of Saratoga Street immediately north of the project site, on DCR property. The 100-Foot Buffer Zone from the Salt Marsh extends onto the subject property. No wetland resource areas exist on the project site.

3.1 Salt Marsh – 310 CMR 10.23

As defined in 310 CMR 10.32 of the WPA, Salt Marsh is *a coastal wetland that extends landward up to the highest high tide line, that is, the highest spring tide of the year, and is characterized by plants that are well adapted to or prefer living in, saline soils. Dominant plants within salt marshes typically include salt meadow cord grass (Spartina patens) and/or salt marsh cord grass (Spartina alterniflora), but may also include, without limitation, spike grass (Distichlis spicata), high-tide bush (Iva frutescens), black grass (Juncus gerardii), and common reedgrass (Phragmites).*

Wetland A is a coastal wetland and salt marsh located on the north side of Saratoga Street, across Saratoga Street from the project site. The wetland is part of the Belle Ilse Marsh ACEC.

On August 20, 2020, the upper boundary of the coastal wetland was delineated with pink survey tape numbered sequentially with flag series WFA-1 to WFA-9. This delineation was refreshed on April 15, 2021. At this location, the upper salt marsh is dominated by salt meadow grass (*Spartina patens*) which transitions into a dense stand of common reed (*Phragmites australis*). Portions of the wetland are dominated almost exclusively by common reed, and other areas contain a mix of species, including common reed, marsh elder (*Iva frutescens*), seaside goldenrod (*Solidago sempervirens*), bayberry (*Myrica gale*), sensitive fern (*Onoclea sensibilis*), and glossy buckthorn (*Frangula alnus*). Areas dominated by common reed that are below the highest high tide line are within the salt marsh, whereas the delineated area that lies above the highest high tide line is not considered salt marsh but is coastal wetland. As topographic survey is not available for this area, only the outermost portion of the coastal wetland is identified on the plans, i.e., the salt marsh line is conservatively shown.

The wetland-upland boundary is located along a topographic break with a clear transition from wetland vegetation to upland species such as crabapple (*Malus* sp.), black cherry (*Prunus serotina*), Norway maple (*Acer platanoides*), pasture rose (*Rosa carolina*), staghorn sumac (*Rhus typhina*), Virginia creeper (*Parthenocissus quinquefolia*), oriental bittersweet (*Celastrus orbiculatus*), Japanese knotweed (*Polygonum cuspidatum*), and tansy (*Tanacetum vulgare*). Wetland soil consisted of a mucky loam surface horizon and dark B-horizon with shallow redoximorphic features and refusal on rocky fill. Upland soil contained a chroma 3 B-horizon with no redoximorphic features within the upper part of the soil. Indicators of wetland hydrology include shallow soil saturation, and evidence of tidal flow. Local, state, and federal boundaries are coincident.

4.0 PROPOSED WORK

The proposed work includes the demolition of the existing single-family dwelling to construct a three-story multi-family residential building with six (6) units, regrading, stormwater improvements, and landscaping. Portions of the proposed work will occur within the 100-Foot Buffer Zone to Salt Marsh, bisected by Saratoga Street. No work is proposed within the 100-year floodplain. Overall, the project will result in a total of 4,475 square feet of impervious area, an increase of approximately 1,903 square feet.

The proposed improvements include construction of new six-unit multi-family building, having a footprint of approximately 3,560 square feet, a driveway of approximately 830 square feet, and a front walkway of approximately 85 square feet, with associated utilities and stormwater improvements. The proposed stormwater management system shall consist of sub-surface infiltration chambers collecting runoff from the building's roof and driveway. Excess runoff shall discharge though an overflow pipe into the combined sewer line located on Annavoy Street.

The proposed stormwater management system has been designed to meet the requirements as set forth by the standards of MassDEP and the Boston Water and Sewer Commission (BWSC). A four-unit Stormchamber recharge system (two units long by two units wide) is proposed to collect clean rooftop runoff from gutters off the roof. The proposed stormwater system will remove 80% of total suspended solids (TSS). The project will not result in new untreated discharges, with final discharge to the existing City of Boston municipal stormwater system.

Runoff control, water quality improvement and groundwater recharge will be accomplished by implementing the following drainage improvements:

- Collect storm runoff will discharge to a four-chamber underground infiltration system for treatment of TSS.
- Implement a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan to control erosion, sedimentation and other construction related impacts during construction (See Appendix E – Stormwater Engineering Report).
- Implement a Post Construction Operation and Maintenance (O&M) Plan for the proposed stormwater management system that describes the various components of the system, identifies inspection and maintenance tasks, and provides a schedule to follow which will ensure the proper, long-term, post-construction performance of the system (See Appendix E – Stormwater Engineering Report).

Erosion and sedimentation control BMPs have been incorporated into the project design in order to control runoff and prevent siltation to the wetland resource area and adjacent properties during construction (See Plans). This will consist primarily of and sediment sacks around the existing catch basins and silt sock along the northern limit of work. At the outset of the construction, the site limit of work will be staked and erosion controls will be installed.

4.1 Climate Change

Per Section 5 of the City of Boston 2022 Filing Guidelines, *"Applicants must include a narrative on how climate change will impact the entire property regardless of whether climate change will have an immediate impact on the project in the proposal. This must include how the Applicant plans to integrate climate change and adaptation planning considerations into their project to promote climate resilience, protect Resource Area Values and functions into the future, address climate equity and environmental justice, and provide an alternatives analysis describing all of the climate resiliency measures that could be taken and a reasoning as to why the alternatives are not feasible. These considerations include but are not limited to: sea-level rise, increased heat waves, extreme precipitation events, stormwater runoff, changing precipitation patterns and changes in coastal and stormwater flooding."*

Based upon Strong Civil Design's review, climate change may impact the seasonal high groundwater elevation on the site, which may impact the basement of the proposed structure. It should be noted that the basement level (Elevation 10.03 NAVD 88) is below the current off-site 100-year flood elevation of 12. Even though they are not directly connected, and the stormwater system does have backflow preventers to restrict water from entering the site from the street, a storm surge to the surrounding sea elevation of 12, or higher in the future, will have some temporary impact to the groundwater on the site. Therefore the basement may experience temporary flooding, if not properly sealed, as it would not be able to be pumped out until the storm surge ends, and the use of a perimeter under drain would provide no relief as it would also be below sea level (and have no outlet) The basement is not a habitable floor, and should be designed with the anticipation of a high peak groundwater elevation around it. This would be a temporary condition, and would be able to drain out after a storm event, but could cause the potential for temporary flooding.

The development itself will result in an increase of impervious area. Existing conditions (2,572 square feet of impervious/3,828 square feet of pervious) to proposed conditions (4,475 square feet of impervious/ 1,925 square feet of pervious). The existing condition does not have an on-site stormwater management system, so all runoff is directly discharged to the street, while in the proposed condition, stormwater is collected though roof leaders, and area drains, and is initially collected to an underground chamber system, prior to it entering the underground city system. This design will improve stormwater conditions during most stormwater events, as it is able to regulate flow rates and volumes onsite prior to discharging, but during a future major stormwater event the entire system may become inundated, and potential on-site flooding needs to be anticipated. The landscaping of the site includes proposed shrubs, trees, and perennials as shown on the Landscape Plan (Appendix F) which may also assist in the groundwater absorption and evapotranspiration on-site during the growing season.

4.2 Sea-Level Rise/Coastal Flooding

Per Section 5 of the City of Boston 2022 Filing Guidelines, *"Applicants must utilize the Climate Ready Boston Map Explorer and the Boston Planning and Development Agency Zoning Viewer to account for future flooding impacts that may occur on the project site based on current sea-level rise projections through 2070. Specific considerations must be given to the projected base flood elevation. The Climate Ready Boston Map Explorer can be found at https://www.boston.gov/departments/environment/climate-ready-boston-map-explorer and the Boston Planning and Development Agency Zoning Viewer can be found at http://maps.bostonredevelopmentauthority.org/zoningviewer."*

Review of this information that the site is not located within a future risk area, although immediately adjacent to one.

4.3 Precipitation/Stormwater Flooding

Per Section 5 of the City of Boston 2022 Filing Guidelines, "*Applicants must utilize the stormwater inundation model to account for stormwater impacts that may occur on the project site based on current sea-level rise projections for 2070. The stormwater inundation viewer can be found at https://www.bwscstormviewer.com/stormapp/. **The Stormwater Inundation Model constitutes the current best available data on projected stormwater impacts**"*

Based upon Strong Civil Design's review, the future 2070 storm surge will not raise to the elevation of the site; however, it will raise to street level of Saratoga Street, and therefore may have some impact to the basement, as the driveway entrance is on Saratoga Street. If the surge levels raise above the driveway entrance elevation on Saratoga Street, stormwater will flow down the driveway and into the basement. If there is a way to seal the basement garage door, then any stormwater impacts could be isolated to the driveway (and out of the basement); however, the only mechanism for doing this would require temporary sandbags.

4.4 Extreme Heat

Per Section 5 of the City of Boston 2022 Filing Guidelines, *The City of Boston's Heat Resiliency Study is an ongoing climate resilience planning process to share information on the risks facing Boston, some solutions that can reduce urban heat island effects across the city and in localized areas, and some immediate methods to increase access to heat relief resources. While the final plan will be completed in 2022, the study has yielded new heat resilience modeling that can support future efforts to integrate heat resilience into protected resource areas. Applicants must include a consideration to how the wetland resource areas may be affected by heat impacts resulting from the proposed project. Specifically, Applicants must consider:*

1. *The total existing and proposed vegetated area of the site;*
   - Existing: 3,786 sf
   - Proposed: 1,770 sf

2. *The total existing and proposed shaded area of the site, non-vegetated (e.g. physical structures);*
   - Existing: 1,674 sf
   - Proposed: 3,621 sf

3. *The total existing and proposed shaded area of the site, vegetated (e.g. trees);*
   - Existing: 0 sf
   - Proposed: 1,695 sf

4. *The total existing and proposed number and species of trees (e.g. certain species are more tolerant of extreme heat and certain pests);*
   - Existing: 0 sf
   - Proposed: (See Landscape Plan)
     - 3 Flowering Dogwood (*Cornus florida*);
     - 4 Downy Shadblow (*Amelanchier canadensis*);
     - 124 various shrubs; and
     - 27 perennials

5. *The existence and adequacy of any existing or proposed vegetation maintenance plan for trees and landscape; and*
   - Existing: There is no existing maintenance plan.
   - Proposed: All Plant Materials are native species and once established require minimal maintenance. Irrigation will be required for the first three years.

6. *The total existing and proposed area of any impervious surfaces by surface type (e.g. asphalt, wood, etc.)*
   - Existing: 138 sf concrete, 707 asphalt, 1,727 building.
   - Proposed: 700 sf asphalt, 91 brick or concrete pavers, 3,684 building.

Due to the location of the Salt Marsh and Saratoga Street bisecting it from the property, along with a robust planting plan, no adverse impacts are anticipated the resource areas. Although existing vegetated areas of the site will decrease, a more densely vegetated plan is proposed increasing the number of trees and shrubs present. Additionally, the shaded areas of the site are more than double than existing conditions.

5.0 SUMMARY

The proposed project consists of the demolition of the existing single-family dwelling to construct a multi-family residential building with six (6) units, stormwater improvements, and landscaping. Portions of the proposed work will occur within the 100-Foot Buffer Zone to a Salt Marsh.

The project proposes the following:

- Additional units available for the Boston community.
- The proposed work area is previously altered and developed, providing little value to existing resource areas. Saratoga Street bisects the Salt Marsh from the project site.
- The proposed project includes the installation of a stormwater management system designed in accordance with the MassDEP and BWSC standards.
- Erosion controls will be installed as noted on the Plans.
- No work is proposed within any wetland resource areas, including the 100-year floodplain.

The proposed design achieves the goals of the Applicant, while being sensitive to adjacent regulated resource areas. Accordingly, the Applicant respectfully requests that the Boston Conservation Commission consider a finding that the proposed design is adequately protective of the interests identified in the Wetlands Protection Act and City of Boston Ordinance and issue an Order of Conditions approving the project as described in this Notice of Intent and as shown on the attached Plans.

SECTION III – FIGURES

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Topographic Quadrangle Images

N

0 450 900 1,800 Feet

USGS Map

Notice of Intent
1201 Saratoga Street
Boston, MA

FIGURE 1

LUCAS ENVIRONMENTAL, LLC

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Color Ortho Imagery - 15cm (2021)

N

0 25 50 100 Feet

Aerial Map

Notice of Intent
1201 Saratoga Street
Boston, MA

FIGURE 2

LUCAS ENVIRONMENTAL, LLC

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Color Ortho Imagery - 15cm (2021)

N

0 400 800 1,600 Feet

NHESP Map

Notice of Intent
1201 Saratoga Street
Boston, MA

FIGURE 3

LUCAS ENVIRONMENTAL, LLC

National Flood Hazard Layer FIRMette

FEMA

71°0'10"W 42°23'13"N

70°59'33"W 42°22'47"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

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

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

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

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

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/29/2021 at 9:21 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

FIGURE 4

SECTION IV – APPENDICES

LUCAS ENVIRONMENTAL, LLC

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

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PHOTOGRAPHIC DOCUMENTATION

DATE: August 8, 2020

Photograph 1: Existing building on the site, taken from corner of Saratoga Street and Annavoy Street, facing east, southeast.

Photograph 2: Existing building on the site, taken from corner of Saratoga Street and Annavoy Street, facing east down Saratoga Street.

Photograph 3: View of Salt Marsh and bordering coastal wetland, north of Saratoga Street, facing east.

Photograph 4: View of Salt Marsh and bordering coastal wetland, north of Saratoga Street, facing east, northeast.

Photograph 5: View of Salt Marsh and bordering coastal wetland, north of Saratoga Street, facing west, northwest.

Photograph 6: View of Salt Marsh and bordering coastal wetland, north of Saratoga Street, facing west, northwest.

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APPENDIX B

ABUTTER INFORMATION

BABEL NOTICE

English:

IMPORTANT! This document or application contains **important information** about your rights, responsibilities and/or benefits. It is crucial that you understand the information in this document and/or application, and we will provide the information in your preferred language at no cost to you. If you need them, please contact us at cc@boston.gov or 617-635-3850.

Spanish:

¡IMPORTANTE! Este documento o solicitud contiene **información importante** sobre sus derechos, responsabilidades y/o beneficios. Es fundamental que usted entienda la información contenida en este documento y/o solicitud, y le proporcionaremos la información en su idioma preferido sin costo alguno para usted. Si los necesita, póngase en contacto con nosotros en el correo electrónico cc@boston.gov o llamando al 617-635-3850.

Haitian Creole:

AVI ENPÒTAN! Dokiman oubyen aplikasyon sa genyen **enfòmasyon ki enpòtan** konsènan dwa, responsablite, ak/oswa benefis ou yo. Li enpòtan ke ou konprann enfòmasyon ki nan dokiman ak/oubyen aplikasyon sa, e n ap bay enfòmasyon an nan lang ou prefere a, san ou pa peye anyen. Si w bezwen yo, tanpri kontakte nou nan cc@boston.gov oswa 617-635-3850.

Traditional Chinese:

非常重要！這份文件或是申請表格包含關於您的權利，責任，和／或福利的重要信息。請您務必完全理解這份文件或申請表格的全部信息，這對我們來說十分重要。我們會免費給您提供翻譯服務。如果您有需要請聯系我們的郵箱 cc@boston.gov 電話# 617-635-3850..

Vietnamese:

QUAN TRỌNG! Tài liệu hoặc đơn yêu cầu này chứa **thông tin quan trọng** về các quyền, trách nhiệm và/hoặc lợi ích của bạn. Việc bạn hiểu rõ thông tin trong tài liệu và/hoặc đơn yêu cầu này rất quan trọng, và chúng tôi sẽ cung cấp thông tin bằng ngôn ngữ bạn muốn mà không tính phí. Nếu quý vị cần những dịch vụ này, vui lòng liên lạc với chúng tôi theo địa chỉ cc@boston.gov hoặc số điện thoại 617-635-3850.

Simplified Chinese:

非常重要！这份文件或是申请表格包含关于您的权利，责任，和／或福利的重要信息。请您务必完全理解这份文件或申请表格的全部信息，这对我们来说十分重要。我们会免费给您提供翻译服务。如果您有需要请联系我们的邮箱 cc@boston.gov 电话# 617-635-3850.

CITY of BOSTON

Cape Verdean Creole:

INPURTANTI! Es dukumentu ó aplikason ten **informason inpurtanti** sobri bu direitus, rasponsabilidadis i/ó benefísius. Ê krusial ki bu intendi informason na es dukumentu i/ó aplikason ó nu ta da informason na língua di bu preferênsia sen ninhun kustu pa bó. Si bu prisiza del, kontata-nu na cc@boston.gov ó 617-635-3850.

Arabic:

مهم! يحتوي هذا المستند أو التطبيق على معلومات مهمة حول حقوقك ومسؤولياتك أو فوائدك. من الأهمية أن تفهم المعلومات الواردة في هذا المستند أو التطبيق. سوف نقدم المعلومات بلغتك المفضلة دون أي تكلفة عليك. إذا كنت في حاجة إليها، يرجى الاتصال بنا على cc@boston.gov أو 617-635-3850.

Russian:

ВАЖНО! В этом документе или заявлении содержится **важная информация** о ваших правах, обязанностях и/или льготах. Для нас очень важно, чтобы вы понимали приведенную в этом документе и/или заявлении информацию, и мы готовы бесплатно предоставить вам информацию на предпочитаемом вами языке. Если Вам они нужны, просьба связаться с нами по адресу электронной почты cc@boston.gov, либо по телефону 617-635-3850.

Portuguese:

IMPORTANTE! Este documento ou aplicativo contém **Informações importantes** sobre os seus direitos, responsabilidades e/ou benefícios. É importante que você compreenda as informações contidas neste documento e/ou aplicativo, e nós iremos fornecer as informações em seu idioma de preferência sem nenhum custo para você. Se precisar deles, fale conosco: cc@boston.gov ou 617-635-3850.

French:

IMPORTANT ! Ce document ou cette demande contient des **informations importantes** concernant vos droits, responsabilités et/ou avantages. Il est essentiel que vous compreniez les informations contenues dans ce document et/ou cette demande, que nous pouvons vous communiquer gratuitement dans la langue de votre choix. Si vous en avez besoin, veuillez nous contacter à cc@boston.gov ou au 617-635-3850.

CITY of BOSTON

City of Boston Environment

CITY of BOSTON Conservation Commission

NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

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

A. 1201 Saratoga Street, LLC has filed a Notice of Intent with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and/or the Boston Wetlands Ordinance.

(Parcels 01-04410-000 & 01-04411-000)

B. The address of the lot where the activity is proposed is 1201 Saratoga Street, Boston, MA.

C. The project involves redeveloping 2 parcels into a 6 unit multi-family building with work in the 100' Buffer to Salt Marsh.

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

E. Copies of the application may be obtained from Lucas Environmental, LLC by contacting them at 617.405.4140; cml@lucasenviro.com between the hours of 8AM-5PM, Monday-Friday.

F. In accordance with the Chapter 107 of the Acts of 2022, the public hearing will take place **virtually** at https://zoom.us/j/6864582044. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

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

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

NOTE: Notice of the public hearing, including its date, time, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance. If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

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

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

NOTE: If you plan to attend the public hearing and are in need of interpretation, please notify staff at CC@boston.gov by 12 PM the day before the hearing.

City of Boston
Environment

CITY of BOSTON
Conservation Commission

NOTIFICACIÓN PARA PROPIETARIOS Y/O VECINOS COLINDANTES COMISIÓN DE CONSERVACIÓN DE BOSTON

De conformidad con la Ley de protección de los humedales de Massachusetts, el Capítulo 131, Sección 40 de las Leyes Generales de Massachusetts y la Ordenanza sobre los humedales de Boston, por la presente queda usted notificado como propietario o vecino colindante de un proyecto presentado ante la Comisión de Conservación de Boston.

A. **1201 Saratoga Street, LLC** ha presentado un aviso de intención a la Comisión de Conservación de Boston pidiendo permiso para modificar una zona sujeta a protección en virtud de la Ley de protección de los humedales (Leyes generales, capítulo 131, sección 40) y la Ordenanza sobre los humedales de Boston.

(Parcels 01-04410-000 & 01-04411-000)

B. La dirección del lote donde se propone la actividad es **1201 Saratoga Street, Boston, MA.**

C. El proyecto consiste en **la reurbanización de dos parcelas para la construcción de un edificio multifamiliar de 6 unidades con obras en la zona de amortiguación de 100' hasta la marisma salobre.**

D. Se pueden obtener copias del Aviso de Intención comunicándose con la Comisión de Conservación de Boston en CC@boston.gov.

E. Las copias de la notificación de intención pueden obtenerse de **Lucas Environmental, LLC** a **617.405.4140; clm@lucasenviro.com** entre las **8 AM y las 5 PM, de lunes a viernes.**

F. De acuerdo con el Decreto Ejecutivo de le Mancomunidad de Massachusetts que suspende ciertas disposiciones de la Ley de reuniones abiertas, la audiencia pública se llevará a cabo virtualmente en https://zoom.us/j/6864582044. Si no puede acceder a Internet, puede llamar al 1-929-205- 6099, ingresar ID de reunión 686 458 2044 # y usar # como su ID de participante.

G. La información relativa a la fecha y hora de la audiencia pública puede solicitarse a la **Comisión de Conservación de Boston** por correo electrónico a **CC@boston.gov** o llamando al **(617) 635-3850** entre las **9 AM y las 5 PM, de lunes a viernes.**

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en el **Boston Herald** con al menos cinco (5) días de antelación.

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en www.boston.gov/public-notices y en el Ayuntamiento de Boston con no menos de cuarenta y ocho (48) horas de antelación. Si desea formular comentarios, puede asistir a la audiencia pública o enviarlos por escrito a CC@boston.gov o al Ayuntamiento de Boston, Departamento de Medio Ambiente, Sala 709, 1 City Hall Square, Boston, MA 02201.

NOTA: También puede comunicarse con la Comisión de Conservación de Boston o con la Oficina Regional del Noreste del Departamento de Protección Ambiental para obtener más información sobre esta solicitud o la Ley de Protección de Humedales. Para comunicarse con el DEP, llame a la Región Noreste: (978) 694-3200.

NOTA: si tiene previsto asistir a la audiencia pública y necesita servicios de interpretación, sírvase informar al personal en CC@boston.gov antes de las 12 PM del día anterior a la audiencia.

300-FOOT ABUTTERS LIST - AUGUST 31, 2022						
OBJECT ID	**ABUTTER ADDRESS**	**OWNER**	**MAILING ADDRESS**	**CITY**	**STATE**	**ZIP CODE**
292	127 ST ANDREW RD	PHAM TIEN	127 ST ANDREW RD	EAST BOSTON	MA	02128
5863	21 ANNAVOY ST	BRUNO THOMAS	21 ANNAVOY ST	EAST BOSTON	MA	02128
9401	150 ST ANDREW RD	GIACALONE PIETRO	150 ST ANDREW ROAD	EAST BOSTON	MA	02128
18770	156 ST ANDREW RD	BERNINGER THOMAS W	156 ST ANDREW RD	E BOSTON	MA	02128
25868	20 ANNAVOY ST	DIPIETRO LAWRENCE G	20 ANNAVOY	EAST BOSTON	MA	02128
26547	2 NANCIA ST	ALMEIDA WALTER	2 NANCIA ST	EAST BOSTON	MA	02128
27283	1201 SARATOGA ST	THUNDER BLUFF LLC	853 MAIN ST	TEWKSBURY	MA	02128
30581	ST ANDREW RD	DAMICO RENATO ETAL	154 ST ANDREW RD	EAST BOSTON	MA	02128
31623	14 ANNAVOY ST	AHERN ELIZABETH H	14 ANNAVOY ST	E BOSTON	MA	02128
40384	154 ST ANDREW RD	DAMICO RENATO ETAL	154 ST ANDREW RD	EAST BOSTON	MA	02128
47428	137 ST ANDREW RD	NOLA MICHAEL J	137 ST ANDREW RD	EAST BOSTON	MA	02128
49692	1189 1191 SARATOGA ST	HERNANDEZ LEONARD NO AMERICAN SAVINGS BANK TAX DEPT	12520 S 71 HWY	GRANDVIEW	MO	64030
52538	152 ST ANDREW RD	PIEMONTE SABINO	152 ST ANDREW RD	EAST BOSTON	MA	02128
53456	10 NANCIA ST	RIZZO ARTHUR E	10 NANCIA ST	EAST BOSTON	MA	02128
67458	ANNAVOY ST	THUNDER BLUFF LLC	853 MAIN ST	TEWKSBURY	MA	01876
69052	10 ANNAVOY ST	NORRISH GERALDINE AHERN	10 ANNAVOY ST	E BOSTON	MA	02128
72075	1197 1199 SARATOGA ST	DHIMOGJIKA NURIE	1197-1199 SARATOGA ST	EAST BOSTON	MA	02128
81772	1193 SARATOGA ST	DAMICO RENATO V	154 ST ANDREW RD	EAST BOSTON	MA	02128
85073	MAVERICK ST	MASSACHUSETTS PORT AUTHORITY	1 HARBORSIDE DR #200S	EAST BOSTON	MA	02128
86925	146 ST ANDREW RD	CASTELLANO HECTOR J	146 ST ANDREW RD	EAST BOSTON	MA	02128
92097	26 ANNAVOY ST	MUNROE REGINA	26 ANNAVOY ST	E BOSTON	MA	02128
95701	SARATOGA ST	METROPOLITAN DIST COMMISSION	SARATOGA	EAST BOSTON	MA	02128
105983	1187 SARATOGA ST	SHERPA ANG	100 LEXINGTON ST	EAST BOSTON	MA	02128
109033	1183 SARATOGA ST	ROZZI ROBERT A	1183 SARATOGA ST	EAST BOSTON	MA	02128
112100	147 ST ANDREW RD	BARLETTA ANGELINA TS	147 ST ANDREW RD	EAST BOSTON	MA	02128
130131	ST ANDREW RD	BARLETTA ANGELINA TS	147 ST ANDREW RD	EAST BOSTON	MA	02128
139525	1181 SARATOGA ST	SCAPICCHIO LOUIS	1181 SARATOGA ST	EAST BOSTON	MA	02128
145770	32 ANNAVOY ST	MEDINA MIGUEL A	32 ANNAVOY ST	E BOSTON	MA	02128
154239	148 ST ANDREW RD	HARO JUAN	148 ST ANDREW RD	E BOSTON	MA	02128
169499	30 ANNAVOY ST	HOLDEN MICHAEL D	30 ANNAVOY ST	EAST BOSTON	MA	02128

APPENDIX C

FILING FEE INFORMATION

LUCAS ENVIRONMENTAL, LLC

CALCULATED FILING FEE STATEMENT

The proposed project is located at 1201 Saratoga Street in Boston, Massachusetts. Proposed activities are included under Category 3(b) under the Wetlands Filing Fee Calculation Worksheet.

Category 3(b): *Construction of each building for any commercial, industrial, institutional, or apartment/condominium/townhouse-type development, any part of which is in a buffer zone or resource area. Any activities associated with the construction of said building, including associated site preparation, and construction of retention/detention basins, septic systems, parking lots, utilities, point source discharges, package sewage treatment plants, and roadways and driveways other than those roadways and driveways reviewable under 310 CMR 10.53(3)(e), shall not be subject to additional fees if all said activities are reviewed under a single Notice of Intent*. The fee is $1,050.00 per activity under the WPA.

Wetlands Protection Act Fees:

Category 3(b) = 1 x $1,050.00 = $1,050.00
State Share of WPA Filing Fee: ($1,050.00/2) - $12.50 = $512.50
City Share of WPA Filing Fee: Included in Local Fees per Boston Conservation Commission

Local Fees:

Maximum Fee = $1,500.00 per local requirement under Title 14, Section 450.
Category 3 = 1 x $550.00 = $550.00 under local Ordinance.
Total Local Fee = $2,050.00

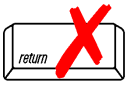
Check Payable to: City of Boston for $2,050.00
Check Payable to: Commonwealth of Massachusetts for $512.50

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

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



A. Applicant Information

1. Location of Project:

1201 Saratoga Street	Boston
a. Street Address	b. City/Town
3811	$512.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Vahid		Nickpour	
a. First Name		b. Last Name	
1201 Saratoga Street, LLC			
c. Organization			
146 Bunker Hill Street			
d. Mailing Address			
Charlestown	MA	02129	
e. City/Town	f. State	g. Zip Code	
617.799.8482		vahid@novatrust.us	
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
Category 3(b)	1	1	$1,050.00

Step 5/Total Project Fee: $1,050.00

Step 6/Fee Payments:

Total Project Fee:	$1,050.00 a. Total Fee from Step 5
State share of filing Fee:	$512.50 b. 1/2 Total Fee **less $**12.50
City/Town share of filling Fee:	$537.50 c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

APPENDIX D

DEED

BOOK 67223
PG. 90.

QUITCLAIM DEED

Thunder Bluff, LLC, a Massachusetts limited liability company with a principal place of business of 853 Main Street, Suite 204, Tewksbury, MA 01876 for consideration paid in the amount of One Million One Hundred Fifty Thousand and 00/100 Dollars ($1,150,000.00)

Grant to 1201 Saratoga Street LLC, a Massachusetts limited liability company, with a principal place of business at 146 Bunker Hill Street, Charlestown, MA 02129

With Quitclaim Covenants

the land with the buildings thereon, situated in that part of said Boston known as East Boston and now numbered 1201 Saratoga Street, being Lots 84 and 85 as shown on plan of lots of Orient Park, East Boston, belonging to A.G. Tomasello, dated July 20, 1915, by William C. Hannon, recorded with Suffolk Deeds, Book 4486, Page 384, bounded and described as follows:

NORTHWESTERLY	by Annavoy Street, eighty (80) feet;
NORTHEASTERLY	by Saratoga Street, eighty (80) feet;
SOUTHEASTERLY	by land now or late of East Boston Co. eighty (80) feet; and
SOUTHWESTERLY	by Lot 86 as shown on said plan, eighty (80) feet.

Containing 6,400 square feet.

Subject to and with the benefit of easements and restrictions of record.

The within conveyance is made in the ordinary course of the Grantor's business and the Grantor is not classified as a corporation for federal income tax purposes for the taxable year in which the sale is made.

Grantor hereby states that no other person is entitled to claim the benefit of an existing state of homestead in the premises and does hereby release and terminate any and all claims of homestead in the premises.

Property Address: 1201 Saratoga Street, Boston, Massachusetts

Meaning and intending to convey the same premises conveyed to the Grantor(s) by deed dated April 6, 2020 and recorded with the Suffolk Registry of Deeds at Book 62794, Page 172.

Remainder of page intentionally left blank

Witness my hand and seal this 16 day of Feb, 2022.

Thunder Bluff, LLC

By: Eric DiNicola, Manager

COMMONWEALTH OF MASSACHUSETTS

Middlesex County

On this 16 day of Feb, 2022, before me, the undersigned notary public, personally appeared Eric DiNicola, as Manager, who proved to me through satisfactory evidence of identification, which were [ ] personal knowledge and/or [X] photo identification, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Notary Public Korinna M Locke
My commission expires: 10/20/2028

Witness my hand and seal this 16 day of February, 2022.

Thunder Bluff, LLC

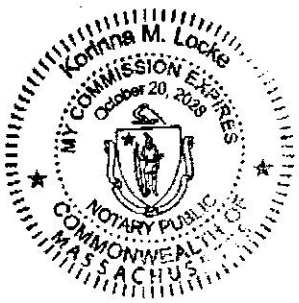
By: Nicholas Earls, Manager

COMMONWEALTH OF MASSACHUSETTS

Middlesex County, ss:

On this 16 day of Feb, 2022, before me, the undersigned notary public, personally appeared Nicholas Earls, as Manager, proved to me through satisfactory evidence of identification, which were [ ] personal knowledge and/or [X] photo identification, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

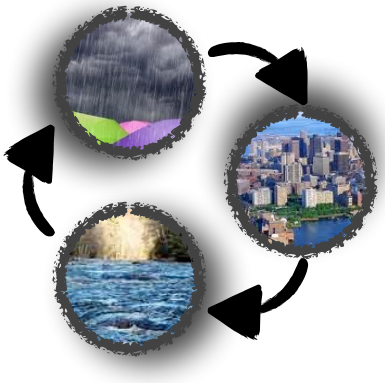
Notary Public Kanna M. Locke
My commission expires: 10/20/2028



LUCAS ENVIRONMENTAL, LLC

APPENDIX E

STORMWATER ENGINEERING REPORT



STORMWATER ENGINEERING REPORT

Prepared For:

1201 Saratoga Street, LLC
Vahid Nickpour
146 Bunker Hill Street
Charlestown, MA 02129
(617) 799-8482

Project Address:

Redevelopment at 1201 Saratoga Street
Boston, Massachusetts 02128

Prepared By:

Daniel R. Armstrong, P.E.
darmstrong@strongcivil.com
Strong Civil Design, LLC
53 Peach Street
Braintree, MA, 02184
(781) 519-9177
www.strongcivil.com

Date:

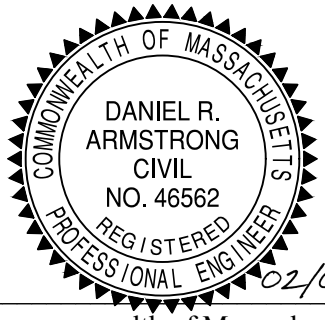
February 09, 2022

Table of Contents:

CERTIFICATION

The following Stormwater Engineering Report was prepared by me or under my direct supervision in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a), including hydrologic and hydraulic inputs and calculations, erosion potential and mitigation, Long-Term Pollution Prevention Plan, Operation and Maintenance Plan, exhibits, plans, and all other applicable documents associated with the proposed design, construction and maintenance of the proposed storm water management system associated with the Redevelopment at 1201 Saratoga Street in Boston, Massachusetts 02128.

Daniel R. Armstrong, P.E.



Commonwealth of Massachusetts
Professional Engineer No. 46562

Stormwater Report

Introduction:

PWN Development is planning to redevelop existing parcels 01-04410-000 and 01-04411-000 , commonly known as 1201 Saratoga Street with a new six unit multifamily building in Boston, Massachusetts. The project shall consist of removing an existing house and driveway, for the construction of the six unit multifamily building with applicable infrastructure. The project is located outside the 100-year flood elevation of 12 (NAVD 88) as shown on FIRM 25025C0038J, dated March 16, 2016. Refer to the plan titled "Redevelopment at 1201 Saratoga Street in East Boston, Massachusetts" sheet A, prepared by Strong Civil Design, LLC dated November 24, 2021 for proposed improvement design. An itemized breakdown illustrating that the proposed improvements are in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a) is provided in this report.

Existing Conditions:

Topography and Drainage Patterns

The existing surface conditions of the parcels consist of an approximately 1,675 square foot house and garage, a 810 square foot driveway off of Anavoy Street, and grass and landscaping on the remainder of the lot, for a total lot size of 6,400 square feet. The site slopes from south to north with surface runoff flowing onto Saratoga Street and into the catch basins located at the corner of Anavoy Street and Saratoga Street.

FEMA Flood Zone

The project is located outside the 100 year flood zone as indicated on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 25025C0038J, dated March 16, 2016. The flood elevation is 12 (NAVD 88)

Proposed Conditions:

Proposed Improvements

The proposed improvements include construction of new six unit multifamily building, having a footprint of approximately 3,560 square feet, a driveway of approximately 830 square feet and a front walkway of approximately 85 square feet, with associated utilities and stormwater improvements. The proposed stormwater management system shall consist of sub-surface infiltration chambers collecting runoff from the buildings roof and driveway. Excess runoff shall discharge though an overflow pipe into the combined sewer line located on Anavoy Street.

Massachusetts Stormwater Standards

The following itemized breakdown illustrates how the proposed development is designed in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a).

Standard 1:

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

No runoff is discharging directly to the resource area. All runoff discharges to a combined sewer system located within the street.

Standard 2:

Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

The discharges from the property are to the combined sewer system within Anavoy Street. Peak flow rates are reduced to the maximum extent possible, per Standard 7 - Redevelopment, for the 2-year, 10-year, and 100-year event. Due to the hydraulic controls of the system, a slight increase in the 10-year event peak rate will occur, to ensure that the 100-year event functions within the physical parameters of the stormwater management system, without causing adverse effects to the property or downstream conditions. The following table illustrates the peak runoff rates as calculated using the SCS Unit Hydrograph Method, TR 55, as calculated by HydroCAD software. A copy of the HydroCAD inputs and outputs is provided at the end of this report. Rainfall depths were obtained from NOAA Atlas 14 based on the site location.

Storm Event	Rainfall Depth (in.)	Peak Runoff Rate (cfs)	
		Pre-development	Post-development
2-Year	3.14	0.23	0.20
10-Year	4.97	0.48	0.54
100-Year	7.88	0.91	0.88

Standard 3:

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

Required Recharge Volume:

The hydrologic soil group of soils is "B according to the Natural Resources Conservation Service. A required recharge depth of 0.35" of impervious area is required by the Massachusetts Stormwater Handbook and a recharge depth of 1" of impervious area is required by Boston Water and Sewer Commission.

$$R_V = F \cdot i$$

where:

R_v = Required Recharge Volume (ft^3)
F = Depth Factor = 1 inch
i = Impervious Area = 4,475 (ft^2)

R_v = 373 ft^3

A recharge volume of 389 ft^3 shall be provided within the sub-surface infiltration chamber system

Standard 4:

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;

b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and

c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

The required water quality volume for the project shall be equal or greater than 0.5 inches of the impervious area. The required recharge volume is based on the following equation.

$$V_{WQ} = D_{WQ} \cdot i$$

where:

V_{WQ} = Required Water Quality Volume (ft^3)
D_{WQ} = Water Quality Depth = 0.5 inches
i = Impervious Area = 4,475 (ft^2)

V_{WQ} = 186 ft^3

A water quality volume of 689 ft^3 shall be provided within the sub-surface infiltration chamber system. Sub-surface structures provide 80% TSS removal

Standard 5

For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

The proposed improvements do not qualify as a land use with a high potential pollution load.

Standard 6

Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

The property is not located within an area of critical environmental concern.

Standard 7

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

The project is a redevelopment project. Stormwater recharge and quality treatment is designed to meet the maximum impervious area onsite..

Standard 8

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

The following erosion control measures shall be implemented during construction and are indicated within the plans as the Construction Period Pollution Prevention Plan

- The owner and contractor are responsible for the installation and maintenance of the silt sock, and silt sacks around the property, and all other pollution prevention measures throughout the entire construction period.
- Should groundwater pumping be required during construction, all pumped groundwater shall be treated prior to discharge. Direct discharge of pumps groundwater to existing or the existing stormwater management system is strictly prohibited.
- There shall be no storage of hazardous material onsite (such as fuels, hydraulic fluids and oils).
- A spill clean-up kit shall be onsite at all times.
- Any area disturbed by construction that will remain undisturbed longer than 14 days shall be stabilized with hydro-seeding or other appropriate measures.
- Additional sedimentation control devices shall be kept on-site during construction and shall be installed at any time during construction if instructed by the Engineer or City.
- Inspection of maintenance of the erosion control features shall be conducted weekly or after any storm event with a depth of 1/2-inch or greater and recorded.
- All sedimentation collected during construction shall disposed of offsite.

Standard 9

A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

The following long term pollution prevention plan for the stormwater management system shall apply to this project.

- The roof down spouts and area drains, shall be inspected yearly and cleaned as needed.
- The sub-surface recharge system shall be inspected every 3 years. The entire system shall be replaced if deemed in failure.
- City fire department shall be immediately contacted to respond to and manage the clean-up of any spill of oil or hazardous materials as recommend by MassDEP. MassDEP 24-hour Spill Reporting shall be contacted to report any such spills toll-free at (888) 304-1133.
- The project shall conform to the City's MS4 IDDE program.

1201 Saratoga Street, LLC is the owner and operator of the proposed stormwater management system and is responsible for maintenance.

Standard 10

All illicit discharges to the stormwater management system are prohibited.

No illicit discharges to stormwater management systems are proposed with this development. The project shall conform to the City's MS4 IDDE program.

EXHIBITS

National Flood Hazard Layer FIRMette

FEMA

71°0'10"W 42°23'13"N

70°59'33"W 42°22'47"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

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

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

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

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

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/29/2021 at 9:21 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

NOAA Atlas 14, Volume 10, Version 3
Location name: East Boston, Massachusetts, USA*
Latitude: 42.3833°, Longitude: -70.9977°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.297** (0.241-0.365)	**0.366** (0.296-0.450)	**0.479** (0.386-0.592)	**0.572** (0.459-0.712)	**0.700** (0.541-0.920)	**0.795** (0.600-1.07)	**0.898** (0.657-1.27)	**1.02** (0.695-1.47)	**1.21** (0.785-1.80)	**1.37** (0.864-2.08)
10-min	**0.420** (0.341-0.517)	**0.518** (0.420-0.638)	**0.678** (0.548-0.838)	**0.810** (0.649-1.01)	**0.992** (0.766-1.30)	**1.13** (0.851-1.52)	**1.27** (0.930-1.80)	**1.45** (0.984-2.08)	**1.71** (1.11-2.55)	**1.93** (1.22-2.95)
15-min	**0.495** (0.401-0.608)	**0.609** (0.494-0.750)	**0.796** (0.643-0.984)	**0.952** (0.764-1.19)	**1.17** (0.901-1.53)	**1.33** (1.00-1.79)	**1.50** (1.10-2.11)	**1.70** (1.16-2.44)	**2.01** (1.31-3.00)	**2.28** (1.44-3.47)
30-min	**0.660** (0.536-0.812)	**0.815** (0.660-1.00)	**1.07** (0.861-1.32)	**1.28** (1.02-1.59)	**1.56** (1.21-2.06)	**1.78** (1.34-2.40)	**2.01** (1.47-2.83)	**2.28** (1.55-3.28)	**2.70** (1.76-4.03)	**3.06** (1.94-4.67)
60-min	**0.826** (0.671-1.02)	**1.02** (0.827-1.26)	**1.34** (1.08-1.65)	**1.60** (1.28-1.99)	**1.96** (1.52-2.58)	**2.23** (1.68-3.01)	**2.52** (1.84-3.56)	**2.87** (1.95-4.12)	**3.40** (2.21-5.07)	**3.85** (2.44-5.87)
2-hr	**1.07** (0.874-1.31)	**1.34** (1.09-1.64)	**1.77** (1.44-2.17)	**2.13** (1.72-2.64)	**2.63** (2.05-3.44)	**3.00** (2.28-4.03)	**3.40** (2.51-4.79)	**3.90** (2.66-5.54)	**4.67** (3.04-6.90)	**5.34** (3.39-8.06)
3-hr	**1.25** (1.02-1.52)	**1.56** (1.28-1.91)	**2.08** (1.69-2.54)	**2.50** (2.03-3.08)	**3.09** (2.42-4.03)	**3.52** (2.69-4.72)	**4.00** (2.96-5.61)	**4.59** (3.14-6.50)	**5.52** (3.60-8.11)	**6.32** (4.02-9.49)
6-hr	**1.63** (1.35-1.97)	**2.03** (1.68-2.46)	**2.69** (2.21-3.27)	**3.23** (2.63-3.95)	**3.98** (3.12-5.14)	**4.52** (3.47-6.00)	**5.13** (3.82-7.13)	**5.88** (4.04-8.24)	**7.05** (4.62-10.3)	**8.07** (5.15-12.0)
12-hr	**2.10** (1.75-2.53)	**2.59** (2.15-3.12)	**3.39** (2.80-4.10)	**4.06** (3.33-4.93)	**4.97** (3.92-6.36)	**5.64** (4.35-7.41)	**6.38** (4.76-8.76)	**7.28** (5.02-10.1)	**8.68** (5.71-12.5)	**9.89** (6.33-14.5)
24-hr	**2.53** (2.11-3.02)	**3.14** (2.62-3.75)	**4.14** (3.44-4.96)	**4.97** (4.10-6.00)	**6.12** (4.86-7.78)	**6.96** (5.40-9.08)	**7.88** (5.93-10.8)	**9.04** (6.25-12.4)	**10.8** (7.16-15.4)	**12.4** (7.98-18.0)
2-day	**2.85** (2.40-3.38)	**3.62** (3.04-4.29)	**4.87** (4.08-5.80)	**5.92** (4.91-7.09)	**7.35** (5.89-9.32)	**8.40** (6.58-10.9)	**9.57** (7.28-13.1)	**11.1** (7.70-15.1)	**13.6** (8.97-19.1)	**15.7** (10.1-22.6)
3-day	**3.12** (2.63-3.68)	**3.94** (3.33-4.66)	**5.29** (4.45-6.28)	**6.42** (5.35-7.65)	**7.96** (6.40-10.0)	**9.08** (7.14-11.8)	**10.3** (7.90-14.1)	**12.0** (8.35-16.3)	**14.7** (9.75-20.6)	**17.1** (11.0-24.4)
4-day	**3.37** (2.85-3.97)	**4.22** (3.57-4.97)	**5.61** (4.72-6.63)	**6.76** (5.65-8.04)	**8.35** (6.73-10.5)	**9.51** (7.49-12.3)	**10.8** (8.27-14.6)	**12.5** (8.72-16.9)	**15.3** (10.2-21.4)	**17.8** (11.5-25.3)
7-day	**4.07** (3.47-4.77)	**4.95** (4.21-5.80)	**6.38** (5.40-7.50)	**7.57** (6.36-8.95)	**9.21** (7.46-11.5)	**10.4** (8.23-13.3)	**11.7** (9.01-15.7)	**13.5** (9.44-18.0)	**16.4** (10.9-22.7)	**19.0** (12.3-26.7)
10-day	**4.72** (4.03-5.50)	**5.62** (4.79-6.56)	**7.08** (6.02-8.30)	**8.30** (7.00-9.78)	**9.98** (8.10-12.4)	**11.2** (8.87-14.2)	**12.6** (9.64-16.7)	**14.3** (10.1-19.1)	**17.2** (11.5-23.6)	**19.7** (12.8-27.6)
20-day	**6.59** (5.67-7.64)	**7.58** (6.51-8.79)	**9.19** (7.86-10.7)	**10.5** (8.93-12.3)	**12.4** (10.1-15.1)	**13.7** (10.9-17.1)	**15.2** (11.6-19.6)	**16.9** (12.0-22.2)	**19.5** (13.1-26.4)	**21.6** (14.0-29.8)
30-day	**8.15** (7.04-9.40)	**9.21** (7.94-10.6)	**10.9** (9.39-12.7)	**12.4** (10.5-14.4)	**14.3** (11.7-17.3)	**15.8** (12.5-19.5)	**17.4** (13.1-22.1)	**19.0** (13.5-24.8)	**21.3** (14.4-28.7)	**23.1** (15.1-31.7)
45-day	**10.1** (8.76-11.6)	**11.2** (9.73-12.9)	**13.1** (11.3-15.1)	**14.6** (12.5-17.0)	**16.8** (13.7-20.0)	**18.4** (14.5-22.4)	**20.0** (15.1-25.0)	**21.6** (15.4-27.9)	**23.6** (16.0-31.6)	**25.1** (16.4-34.2)
60-day	**11.8** (10.2-13.5)	**13.0** (11.2-14.9)	**14.9** (12.9-17.1)	**16.5** (14.2-19.1)	**18.7** (15.3-22.3)	**20.5** (16.2-24.8)	**22.2** (16.6-27.4)	**23.7** (16.9-30.5)	**25.6** (17.3-34.0)	**26.8** (17.5-36.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

Map Scale: 1:5,150 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

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 17, Sep 3, 2021

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

Date(s) aerial images were photographed: Aug 13, 2020—Oct 18, 2020

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		59.9	47.1%
65	Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded	A/D	13.5	10.6%
325B	Newport silt loam, 3 to 8 percent slopes	B	7.9	6.2%
603	Urban land, wet substratum, 0 to 3 percent slopes		8.1	6.4%
627C	Newport-Urban land complex, 3 to 15 percent slopes	B	23.5	18.5%
655	Udorthents, wet substratum		14.3	11.2%
Totals for Area of Interest			**127.2**	**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

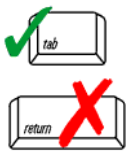
Massachusetts DEP Checklist for Stormwater Report

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.

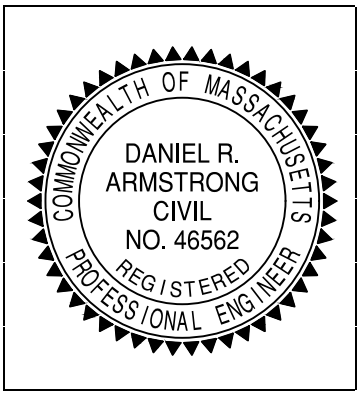
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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



02/09/2022

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.

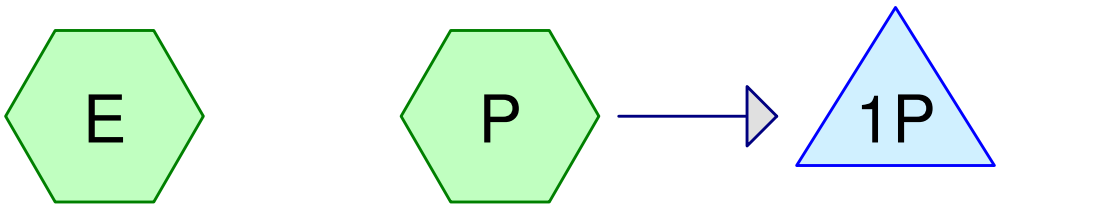
Standard 10: Prohibition of Illicit Discharges

☐ 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.

HydroCAD Printout



Subcat Reach Pond Link

Routing Diagram for 1201 Saratoga
Prepared by Strong Civil Design, LLC, Printed 11/29/2021

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>1.35"
Tc=6.0 min CN=80 Runoff=0.23 cfs 0.017 af

Subcatchment P: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>1.86"
Tc=6.0 min CN=87 Runoff=0.31 cfs 0.023 af

Pond 1P: Recharge System Peak Elev=8.15' Storage=384 cf Inflow=0.31 cfs 0.023 af
6.0" Round Culvert n=0.013 L=26.0' S=0.0100 '/' Outflow=0.20 cfs 0.015 af

Summary for Subcatchment E: Existing

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.14"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.14"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 1.86" for 2-Year event
Inflow = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af
Outflow = 0.20 cfs @ 12.22 hrs, Volume= 0.015 af, Atten= 38%, Lag= 7.8 min
Primary = 0.20 cfs @ 12.22 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 8.15' @ 12.22 hrs Surf.Area= 262 sf Storage= 384 cf

Plug-Flow detention time= 172.1 min calculated for 0.015 af (65% of inflow)
Center-of-Mass det. time= 72.5 min (891.7 - 819.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.18 cfs @ 12.22 hrs HW=8.14' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.18 cfs @ 2.33 fps)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>2.86"
Tc=6.0 min CN=80 Runoff=0.48 cfs 0.035 af

Subcatchment P: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>3.54"
Tc=6.0 min CN=87 Runoff=0.59 cfs 0.043 af

Pond 1P: Recharge System Peak Elev=8.45' Storage=428 cf Inflow=0.59 cfs 0.043 af
6.0" Round Culvert n=0.013 L=26.0' S=0.0100 '/' Outflow=0.54 cfs 0.035 af

Summary for Subcatchment E: Existing

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.97"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.043 af, Depth> 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.97"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 3.54" for 10-Year event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.54 cfs @ 12.12 hrs, Volume= 0.035 af, Atten= 8%, Lag= 2.0 min
Primary = 0.54 cfs @ 12.12 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 8.45' @ 12.12 hrs Surf.Area= 262 sf Storage= 428 cf

Plug-Flow detention time= 113.6 min calculated for 0.035 af (82% of inflow)
Center-of-Mass det. time= 42.2 min (843.1 - 801.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.53 cfs @ 12.12 hrs HW=8.44' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.53 cfs @ 2.90 fps)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>5.51"
Tc=6.0 min CN=80 Runoff=0.91 cfs 0.067 af

Subcatchment P: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>6.33"
Tc=6.0 min CN=87 Runoff=1.02 cfs 0.077 af

Pond 1P: Recharge System Peak Elev=9.22' Storage=513 cf Inflow=1.02 cfs 0.077 af
6.0" Round Culvert n=0.013 L=26.0' S=0.0100 '/' Outflow=0.88 cfs 0.070 af

Summary for Subcatchment E: Existing

Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.067 af, Depth> 5.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.88"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.077 af, Depth> 6.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.88"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 6.33" for 100-Year event
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.88 cfs @ 12.14 hrs, Volume= 0.070 af, Atten= 13%, Lag= 3.1 min
Primary = 0.88 cfs @ 12.14 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 9.22' @ 12.14 hrs Surf.Area= 262 sf Storage= 513 cf

Plug-Flow detention time= 81.7 min calculated for 0.070 af (90% of inflow)
Center-of-Mass det. time= 32.7 min (817.7 - 785.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.87 cfs @ 12.14 hrs HW=9.19' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.87 cfs @ 4.43 fps)

APPENDIX F

PLANS

GENERAL NOTES:

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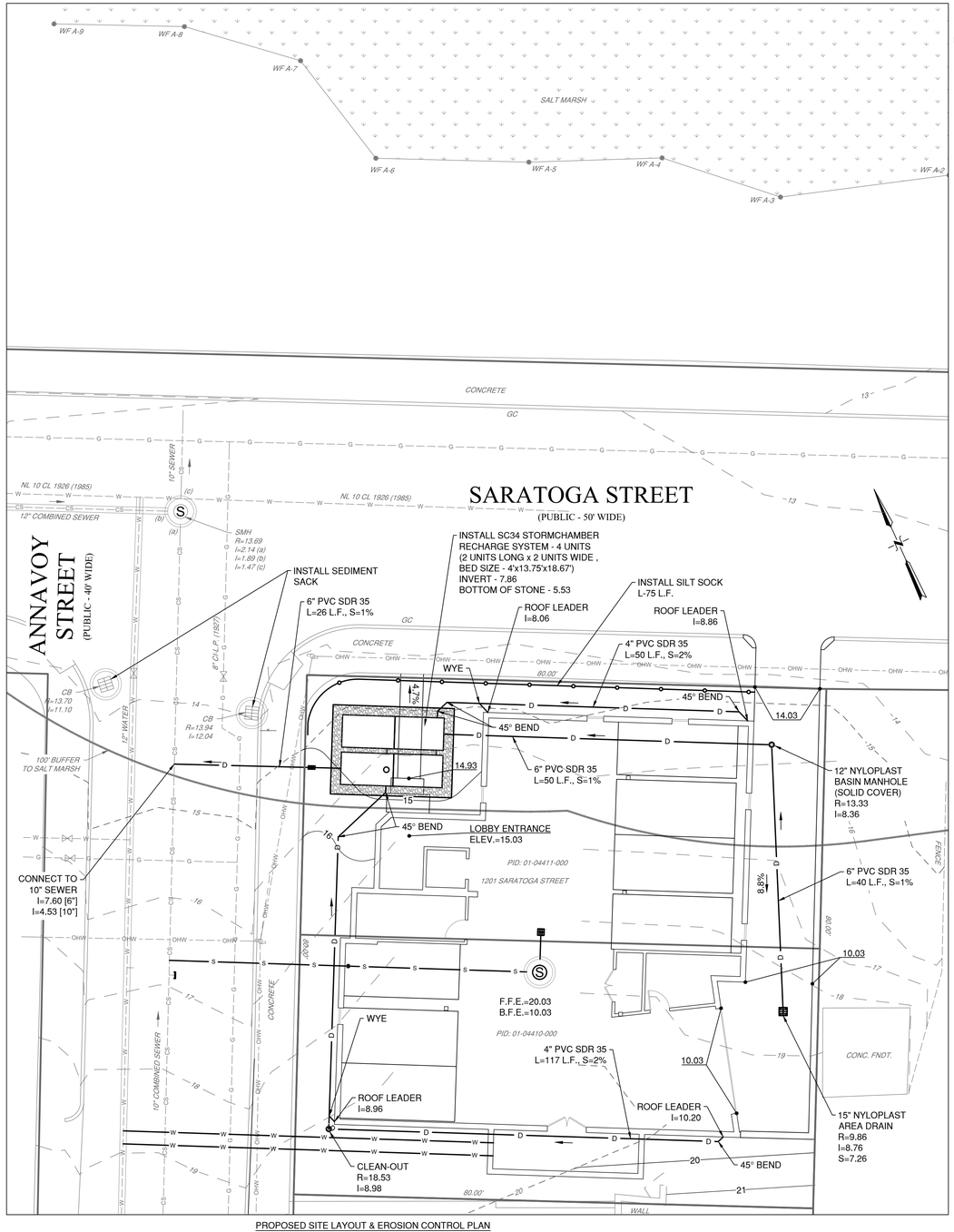
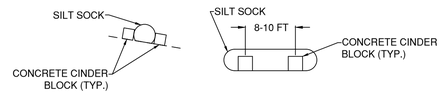


PROPOSED SITE LAYOUT & EROSION CONTROL PLAN



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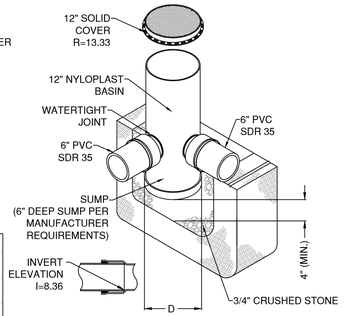
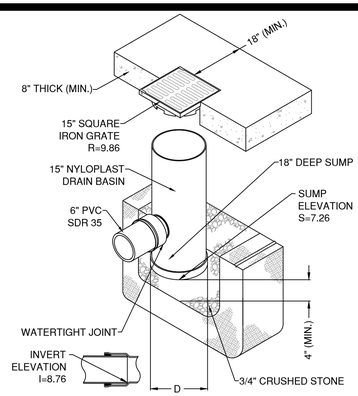
SILT SOCK DETAIL
NOT TO SCALE



NYLOPLAST BASIN MANHOLE DETAIL
(N.T.S.)



NYLOPLAST AREA DRAIN DETAIL
(N.T.S.)

LOCUS MAP
1"=200'

GROUNDWATER RECHARGE VOLUME REQUIREMENTS:

1" OF RECHARGE OVER THE TOTAL IMPERVIOUS AREA.

SURFACE CONDITIONS (S.F.)	
IMPERVIOUS	4,475
PERVIOUS	1,925
TOTAL	6,400

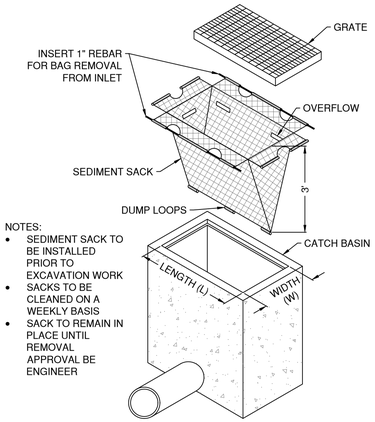
(1/12) FT * 4,475 FT² = 372.9 FT³

REQUIRED RECHARGE VOLUME = 373 CUBIC FEET

RECHARGE VOLUME PROVIDED:

STORMCHAMBER VOLUME = 300 CU. FT.
75 * 4 = 300
STORMCHAMBER STONE VOLUME (30% VOIDS) = 89 CU. FT.
[(2.33 * 13.75 * 18.67) - (300)] * 0.3 = 89.4

TOTAL RECHARGE VOLUME = 389 CUBIC FEET (300 FT³ + 89 FT³)



NOTES:
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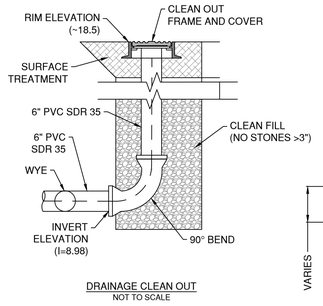
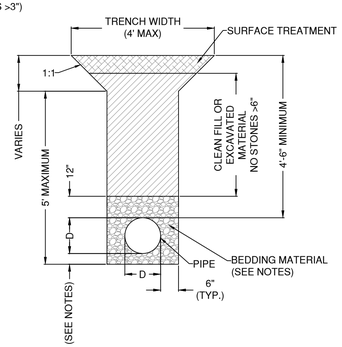
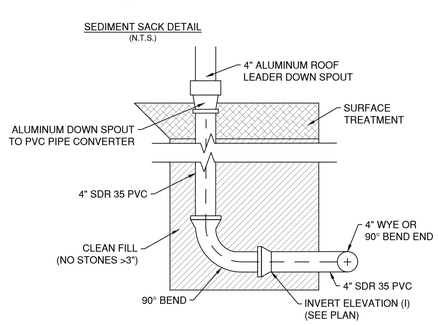
- SACKS TO BE CLEANED ON A WEEKLY BASIS
- SACK TO REMAIN IN PLACE UNTIL REMOVAL APPROVAL BE ENGINEER

SEDIMENT SACK DETAIL
(N.T.S.)



DRAINAGE CLEAN OUT
NOT TO SCALE





ROOF LEADER DOWN SPOUT DETAIL
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PIPE TRENCH DETAIL
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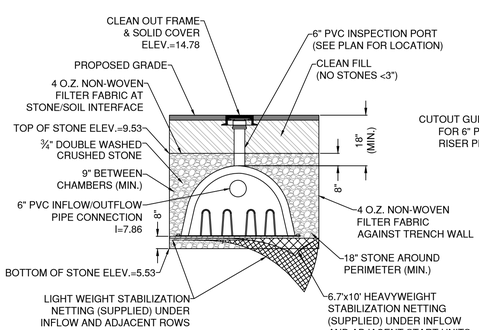

SC34 STORMCHAMBER UNITS
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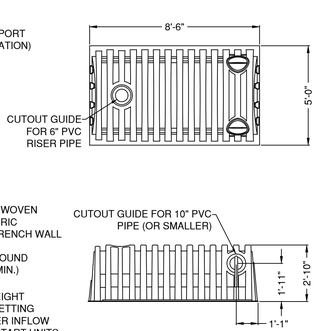


Revisions:

No.	Description	Date
---	---	---

Engineer's Stamp:

COMMONWEALTH OF MASSACHUSETTS
DANIEL R. ARMSTRONG
CIVIL
NO. 46562
REGISTERED PROFESSIONAL ENGINEER
02/10/2022

Project Title:

REDEVELOPMENT AT 1201 SARATOGA STREET IN EAST BOSTON MASSACHUSETTS

Prepared For:
VAHID NICKPOUR
1201 SARATOGA STREET, LLC
146 BUNKER HILL STREET
CHARLESTOWN, MA 02129
(617) 799-8482

Drawing Title:

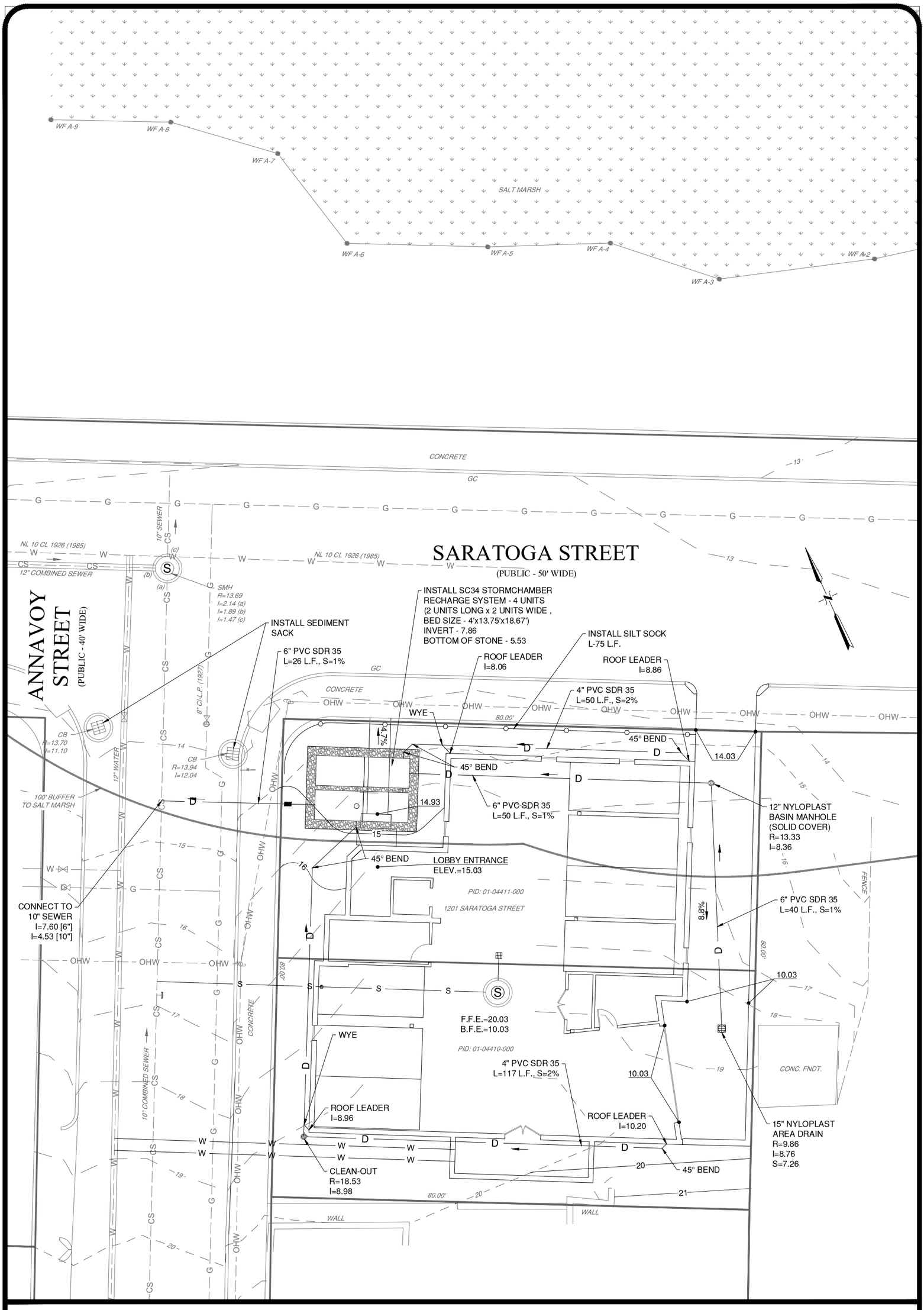
CONSERVATION COMMISSION PLAN

Scale: 1"=10'
0 5 10 20 25 FEET

Prepared By:
STRONG CIVIL DESIGN, LLC
53 PEACH STREET
BRAINTREE, MA 02184
(781) 974-5844

Date: February 10, 2022
Project No.: 000-000-00-000-0000
Engineer: Daniel R. Armstrong, P.E.
Drawing Name: 1201 Saratoga.dwg

Drawing No.
A



CONSERVATION COMMISSION PLAN VIEW EXHIBIT (NOT TO SCALE)
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

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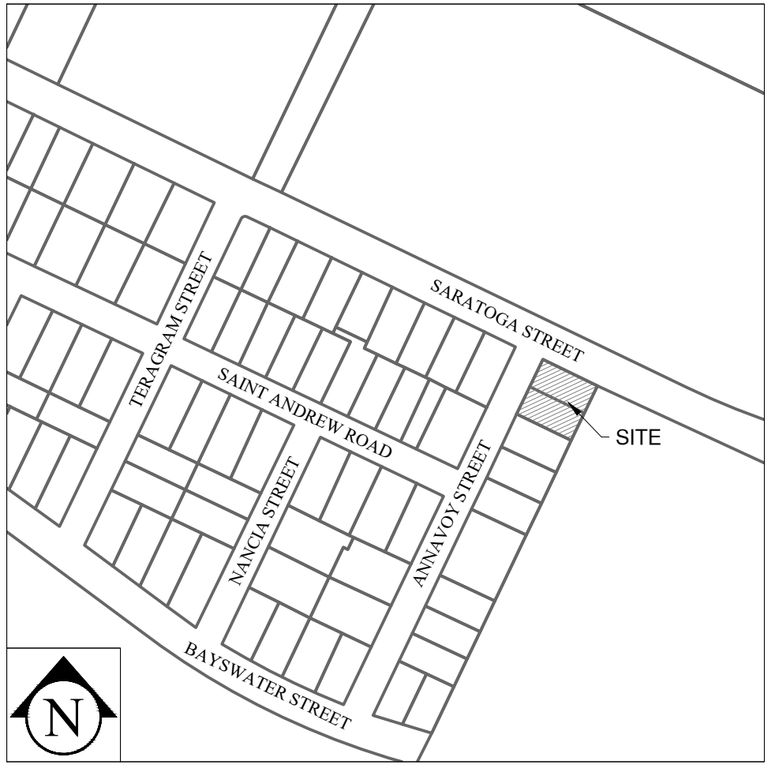

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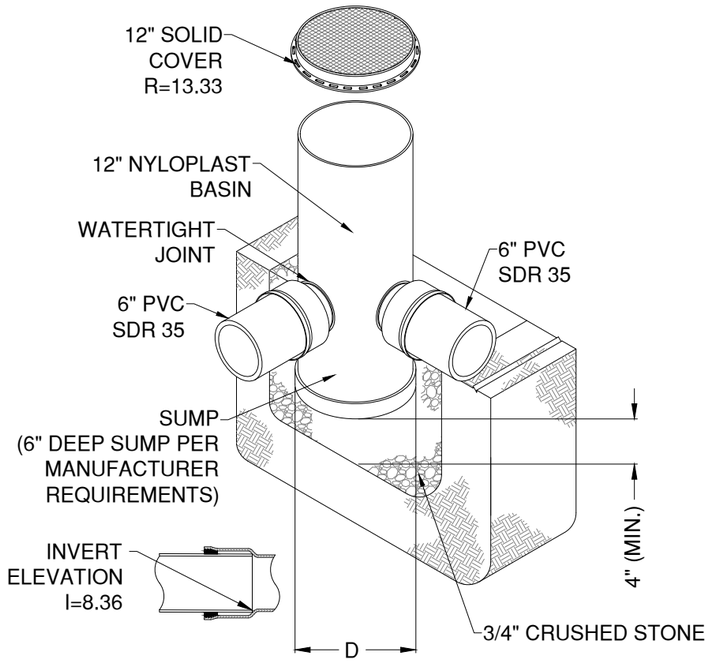
TOTAL RECHARGE VOLUME = 389 CUBIC FEET (300 FT^3 + 89 FT^3)

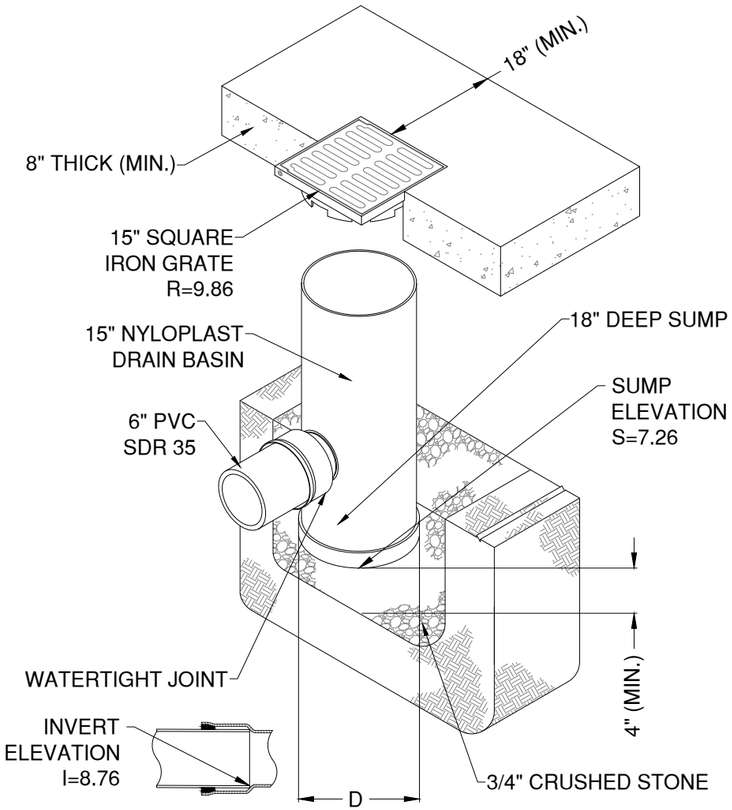
CONSERVATION COMMISSION LOCUS MAP, CALCULATIONS, AND NOTES EXHIBIT
FOR
1201 SARATOGA STREET, EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844

5



NYLOPLAST BASIN MANHOLE DETAIL
(N.T.S.)



NYLOPLAST AREA DRAIN DETAIL
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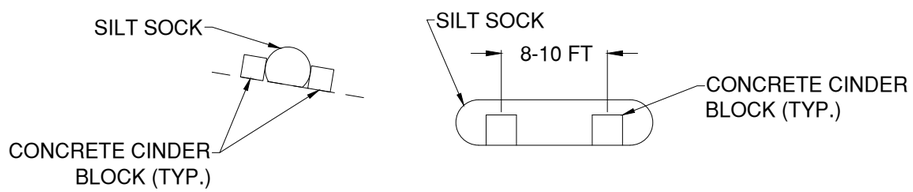

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NOT TO SCALE

CONSERVATION COMMISSION DETAILS 1 EXHIBIT
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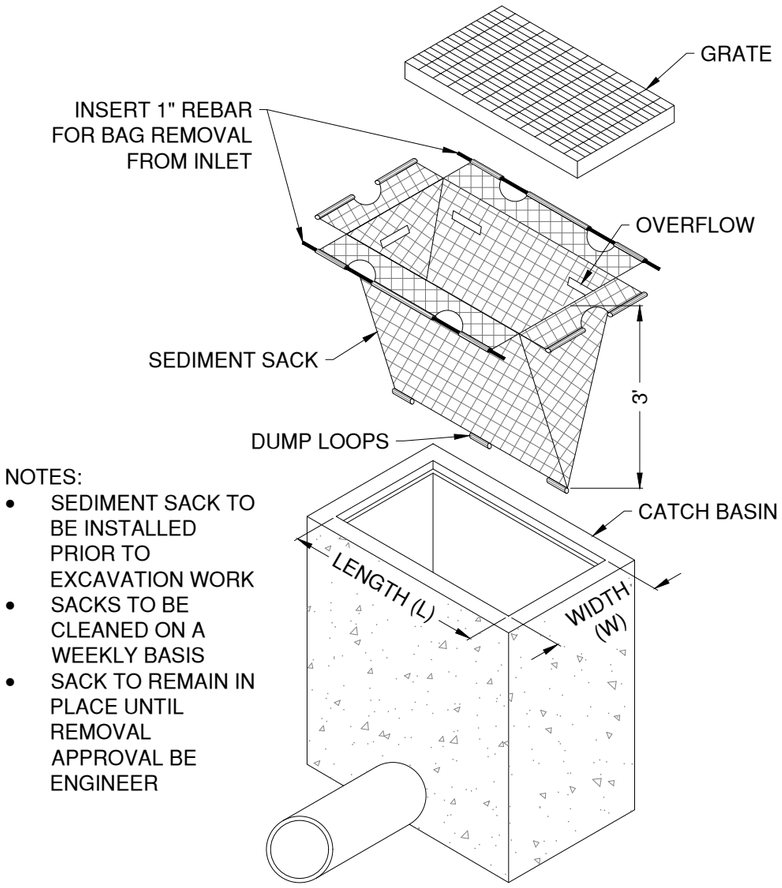
STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844



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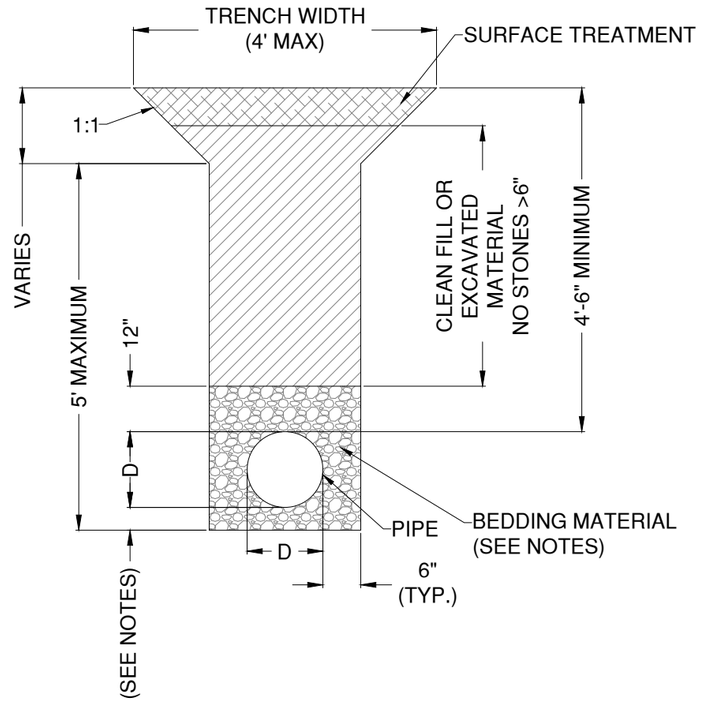

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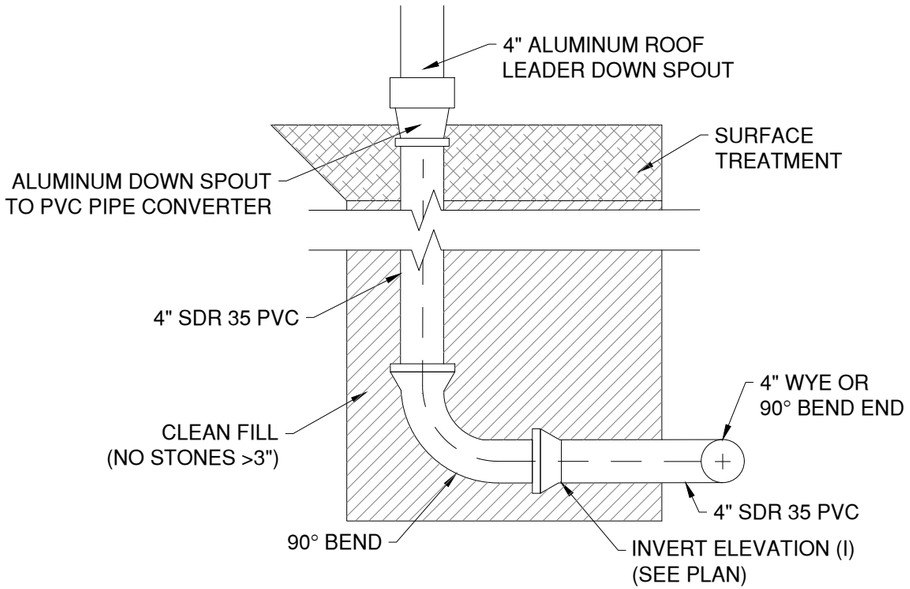
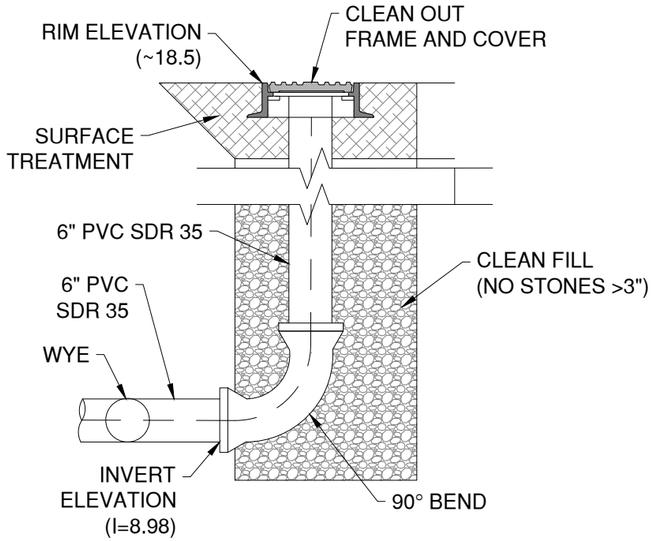
(N.T.S.)

CONSERVATION COMMISSION DETAILS 2 EXHIBIT
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844



ROOF LEADER DOWN SPOUT DETAIL
NOT TO SCALE



DRAINAGE CLEAN OUT
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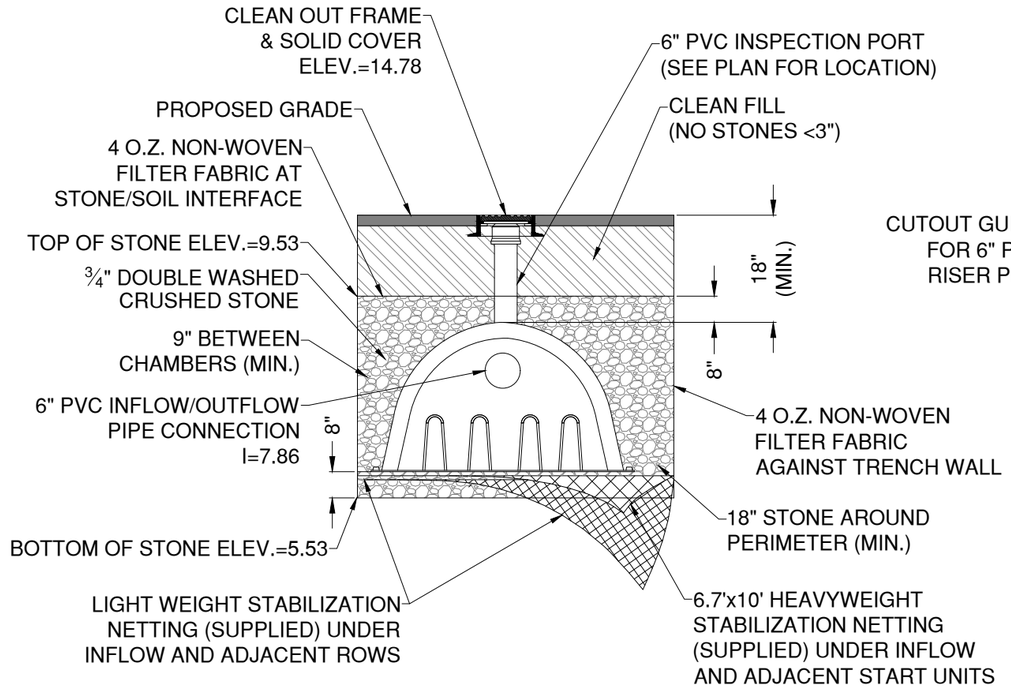
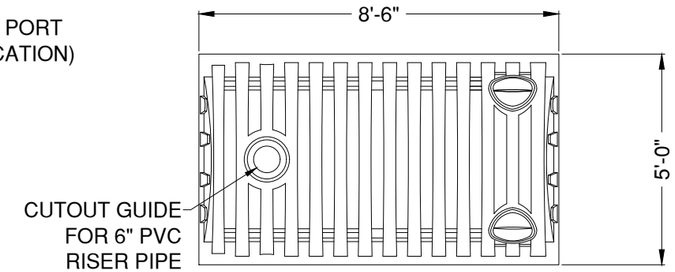
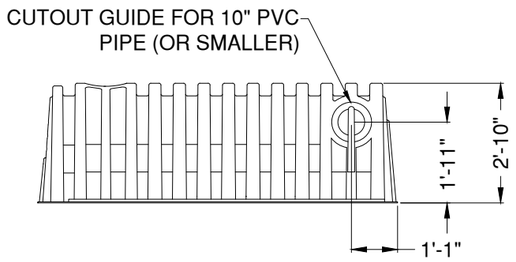


SC34 STORMCHAMBER UNITS
NOT TO SCALE





CONSERVATION COMMISSION DETAILS 3 EXHIBIT
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844

Project:
6 UNIT MULTI FAMILY BUILDING
1201 Saratoga St. E. Boston, MA

Owner:
Nova Realty Trust
1201 Saratoga St LLC
146 Bunker Hill, Charlestown, MA

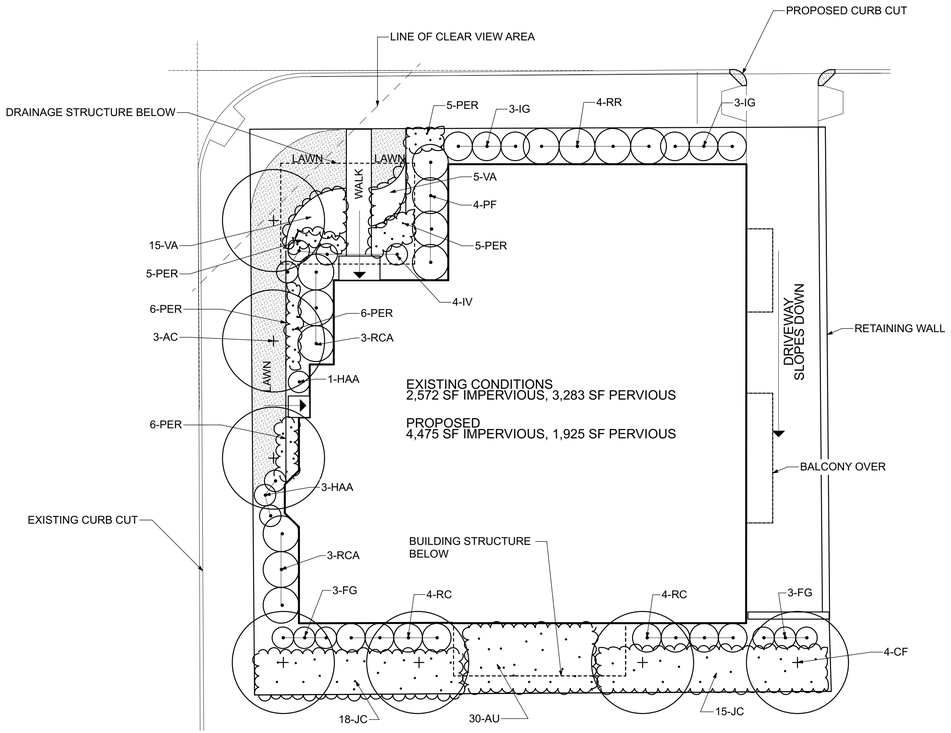
Architect:
Sangiolo Associates Architects
www.sangioloassociates.com
617 272 5402

Structural Engineer:
R&G Structural Engineers
300 TradeCenter, Suite 3540
Woburn, MA 01801

Date:
7-4-22

Drawing:
LANDSCAPE PLAN

L1



1 Landscape Plan 1" = 10'

PLANT LIST - 201 SARATOGA STTEET EAST BOSTON MA
7/4/22

QTY	KEY	SPECIES	SIZE	REMARKS
UNDERSTORY TREES -				
3	AC	Amelanchier canadensis Downy Shadblow	2.5" caliper	Multistemmed
3	CF	Cornus florida Flowering Dogwood	2.5" caliper	
NATIVE SHRUBS				
30	AU	Arctostaphylos uva-ursi Bearberry		1 gallon
6	FG	Fothergilla gardenii Dwarf Fothergilla		3 gallon
3	HAA	Hydrangea arborescens Annabelle Hydrangea		3 gallon
6	IG	Ilex glabra Inkberry Holly		5 gallon
4	IV	Itea virginica Sweetspire		3 gallon
33	JC	Juniperus conferta Blue Pacific Juniper Blue Pacific		2 gallon
4	PF	Pieris floribunda Mountain Andromeda		7 gallon
8	RC	Rosa caroliniana Pasture Rose		1 gallon
6	RCA	Rhododendron catawbiense album White Catawba Rhododendron		7 gallon
4	RR	Rhododendron maximum Rosebay Rhododendron		7 gallon
20	VA	Vaccinum angustifolium Low bush Blueberry		1 gallon

NATIVE PERENNIALS - 27

PER Eastern Showy Aster, Bee balm, Liatris, False Indigo,
Tall Phlox, Geranium, Anemone canadensis, Achillea, Penstemon,
Pink Threadleaf coreopsis, Echineacea, Rudbeckia, Heuchera

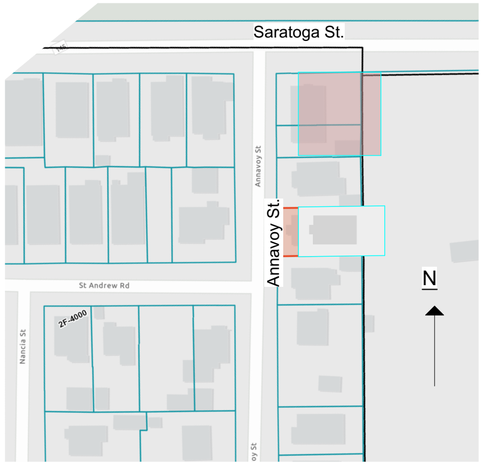
NOTES
1. Lawn areas (572 sf) will be seeded with a No Mow/Deep Root Fescue Blend Seed Mix - Hard Fescue, Sheep fescue, Chewings fescue, Red fescue, Creeping Red fescue
2. Native trees will be planted along the south and west facing facades to provide some solar relief to the building.
3. The specified native plantings have seasonal interest and provide shelter, food and habitat for birds. They have spreading root systems and once established require less maintenance and water.

Plant List

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Cover**	**A1**

Looking down Annavoy to Saratoga

Looking from Saratoga towards Annavoy



1 BPDA Map 1" =100'

1201 Saratoga Zoning Table 7/23/19

2F-4000	USE	LOT AREA MIN.	ADDITIONAL LOT AREA	LOT WIDTH	LOT FRONTAGE**	FAR	BUILDING HEIGHT STORIES	BUILDING HEIGHT FEET	USABLE OPEN SPACE	FRONT YARD	SIDE YARD	REAR YARD
REQUIRED	1-2 FAMILY DETACHED	4000	N/A	40	40	0.8	2.5	35	None	5**	7	40
PROPOSED	OTHER USE	6400 EXISITNG		80	80	0.99	2.5	29.5	1,798	5.1***	7.8/4.5	9.8

** Average alignment estimated from BPDA map

FAR Calculation nic elevator

First (Nic Parking)	3301
Second	3057
Gross Square Feet	6358
Lot Area	6400
FAR	**0.99**

Saratoga towards Annavoy

SEE CLOUDED AREA FOR CHANGES

BUILDING INFORMATION

OCCUPANCY
6 UNITS
2 - 4 BEDROOM & 2 - 3 BEDROOM

CONSTRUCTION TYPE
5A, WOOD FRAME PROTECTED, 3 STORY

FIRE RESISTANCE RATING REQUIREMENTS

BUILDING TO BE FULLY SPRINKLED

EXTERIOR BEARING WALLS 1 HR.
INTERIOR BEARING WALLS 1 HR.

INTERIOR PARTITIONS 0 HR.
(1HR. PROVIDED FOR SOUND)

CORRIDOR WALLS 20 MIN.
(1 HOUR PROVIDED FOR SOUND)

STRUCTURAL FRAME 1 HR.
FLOOR CONSTRUCTION 1 HR.
ROOF CONSTRUCTION 1 HR.
STAIR ENCLOSURE 2 HR.

SOUND TRANSMISSION
STC 50 ROOF, FLOORS AND COMMON WALLS

ENERGY REQUIREMENTS
STRECH ENERGY CODE,
HERS RATER REQUIRED.
FENESTRATION, U=.35 MAX
ROOF, R=49 MIN.
EXTERIOR WALLS, R=20 MIN.
FLOORS OVER HEATED SPACE, R=19 MIN.

DRAWINGS

A2

SARATOGA STREET

ANNAVOY STREET

NL 10 CL 1926 (1985)

12"SEWER

10"SEWER

SMH
RIM=20.16
INV. IN=8.61
INV. IN=8.36(R)
INV. OUT=7.94(R)

CB
RIM=20.17
INV=17.57

CB
RIM=20.41
INV=18.51

12"WATER

30'

GC

CONCRETE SIDEWALK

LINE OF CLEAR VIEW AREA

PROPOSED CURB CUT

EXISTING CURB CUT

CONC. SIDEWALK

GRASS

LANDSCAPED

WALK

DECK

DRIVEWAY
SLOPE = 2%

DRIVEWAY
SLOPE = 10%

80.00'

5.1'

14.6'

15.0'

36.6'

DEMOLISH EXISTING
HOUSE

RETAINING WALL

FENCE

No. 1201

PROPOSED 3 STORY WOOD FRAME

LOT COVERAGE = .57.

EXISTING
BUILDING
FF EL.=28.5

3,626.75 sq ft

LOT = 6,400 SF

AREA=6400 SQ. FT.

4.5'

11.5'

BALCONY OVER

7.8'

CONC. FNDT.

DECK

DECK

GARAGE

DRIVEWAY

10.0'

7.9'

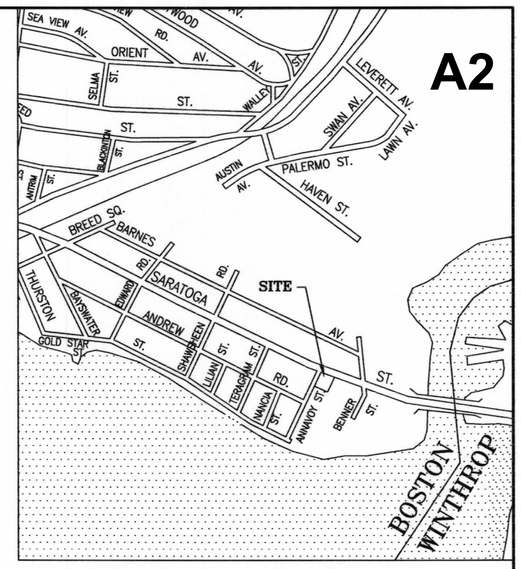
2,012 sq ft

WALL
80.00'

RETAINING WALL

POSSIBLE 1 PARKING AND RAMP
THIS SIDE

DEMOLISH EXISTING
GARAGE



LOCUS MAP
NOT TO SCALE

PID:1901168000 & 1901169000

LEGEND

SEWER	S
WATER	W
DRAIN	D
GAS	G
ELECTRIC	E
UP	UTILITY POLE
WG	WATER GATE
D	DRAIN MANHOLE
S	SEWER MANHOLE
B	CATCH BASIN
GG	GAS GATE
E	ELECTRIC MANHOLE
T	TELEPHONE MANHOLE

PLOT PLAN

1201 SARATOGA STREET

BOSTON, MASS.

SCALE : 1"= 10' DECEMBER 20, 2019

AGH ENGINEERING

166 WATER STREET STOUGHTON, MA 02072

PHONE: (781)344-2386

GRAPHIC SCALE

10 0 5 10 20 40

SEE CLOUDED AREA FOR CHANGES

Plot Plan

SCALE: 1" = 10'

REGISTERED ARCHITECT
MARK SANGIOLO
No. 7444
WEST HARWICH, MA
COMMONWEALTH OF MASSACHUSETTS

stamped for proposed conditions

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Context, Saratoga Street**	**A3**

Context Saratoga view West 2

SCALE: 1:1.67

Context Saratoga view Southwest

SCALE: 6" = 1'-0"

Context Saratoga view West

SCALE: 1:1.67

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Context Annavoy Street**	**A4**

Saratoga view West

SCALE: 1:1.67

Context Annavoy view North

SCALE: 1:1.67

Context Annavoy St. view North

SCALE: 1:1.67

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Existing/Proposed Conditions**	**A5**

Green line = proposed building outline
Red line = existing building outline

Existing building is shaded blue
Proposed building is clear

Last 3' of proposed roof shields rooftop mechanical equipment

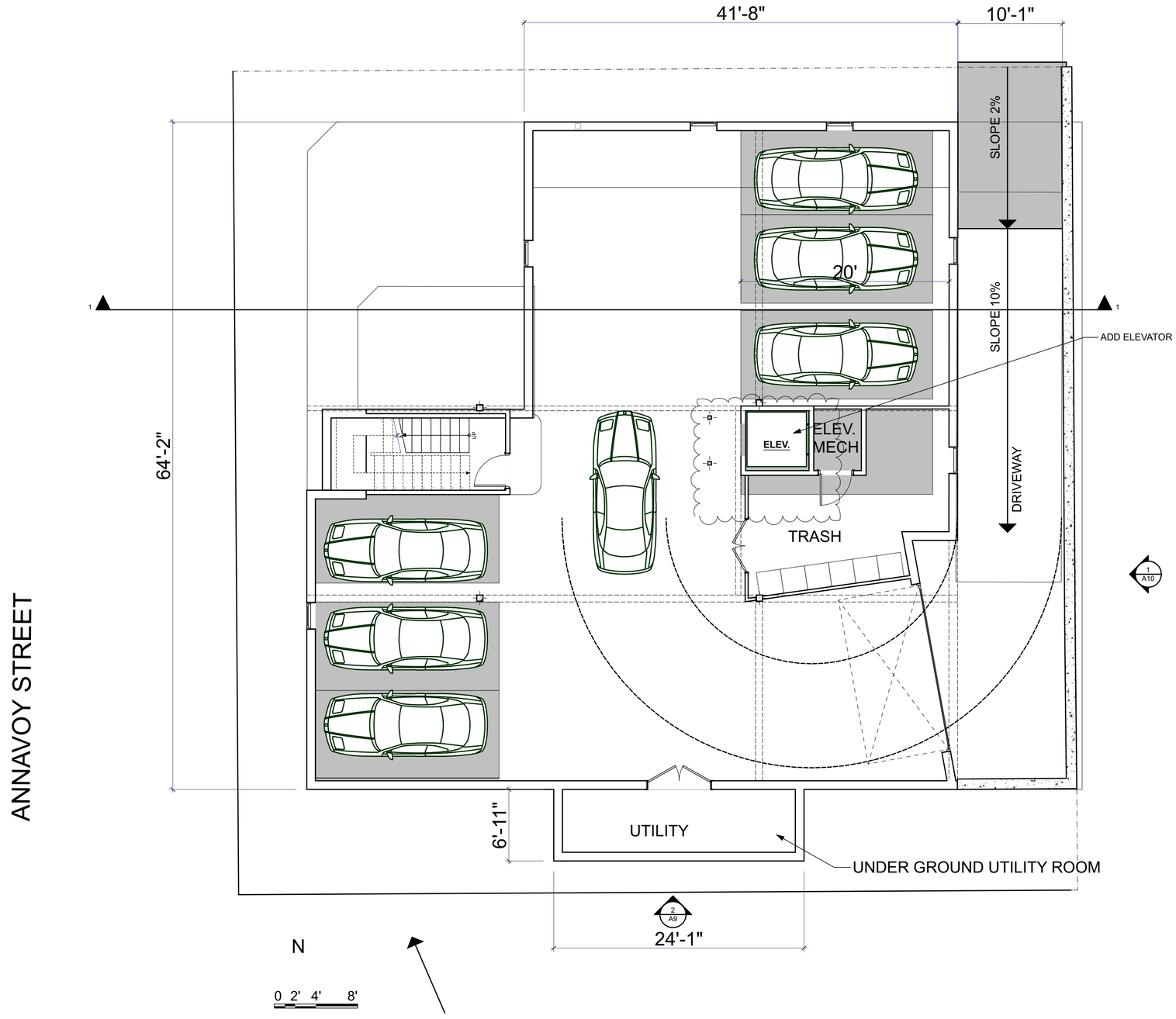
1201 Saratoga proposed and existing building overlay.

10-7-20

Compare existing & proposed

SCALE: 1' = 1'-0"

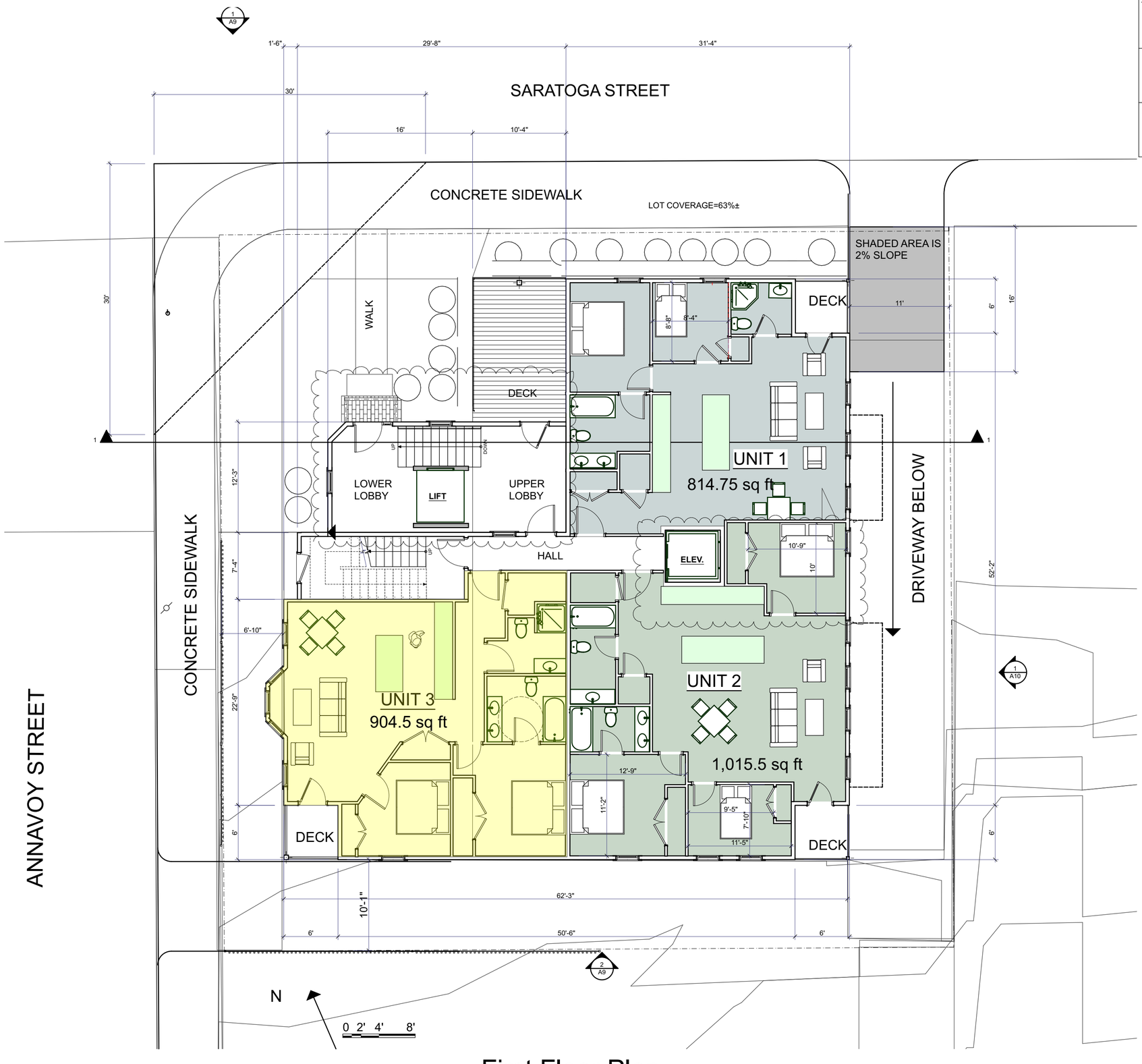
Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 ~~March-7-21~~ May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Basement Floor Plan**	**A6**



SEE CLOUDED AREA FOR CHANGES

1 Basement Plan 1/8" = 1'-0"

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 ~~March-23-21~~ May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**First Floor Plan**	**A7**



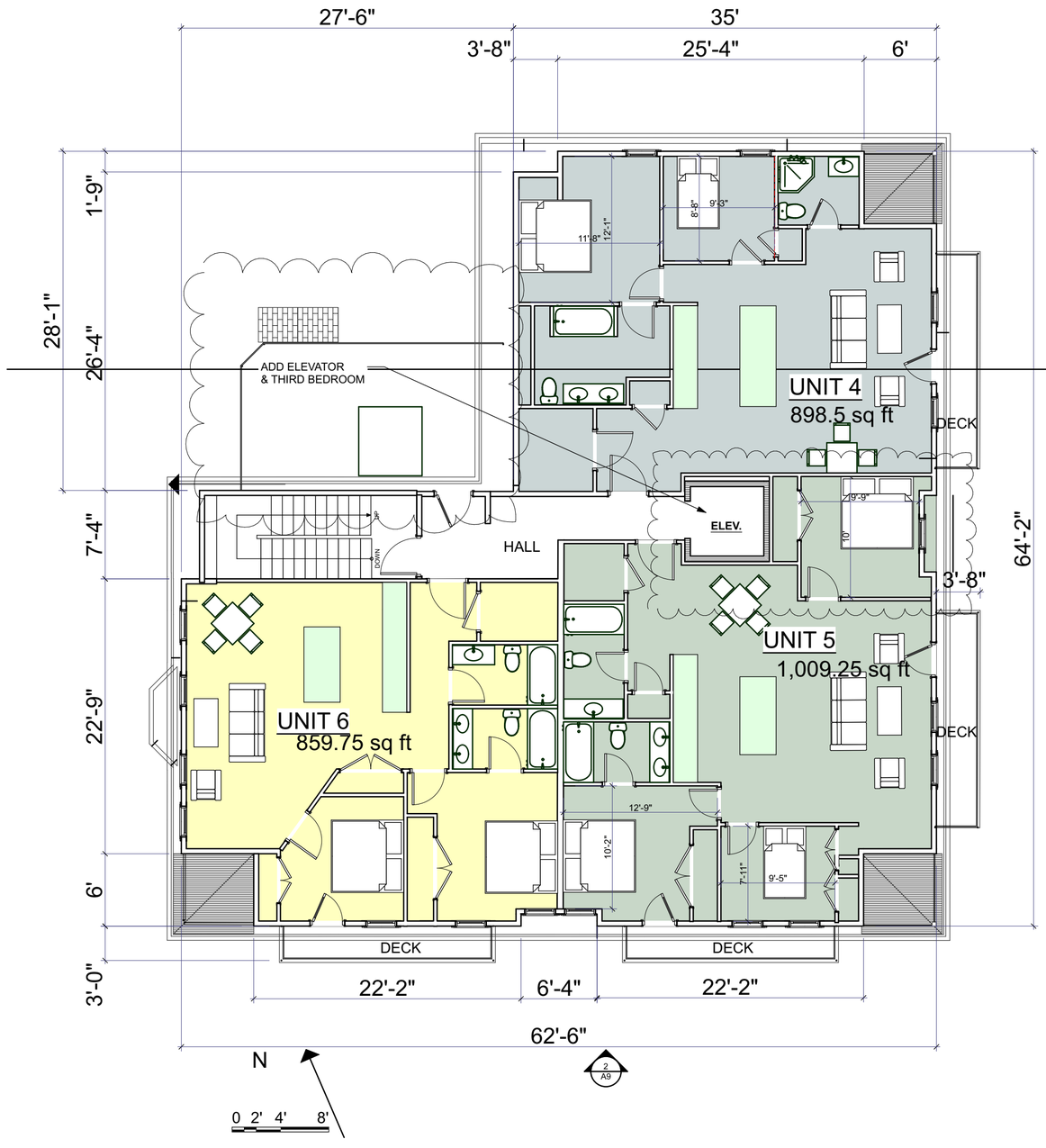
First Floor Plan

SCALE: 1/8" = 1'-0"

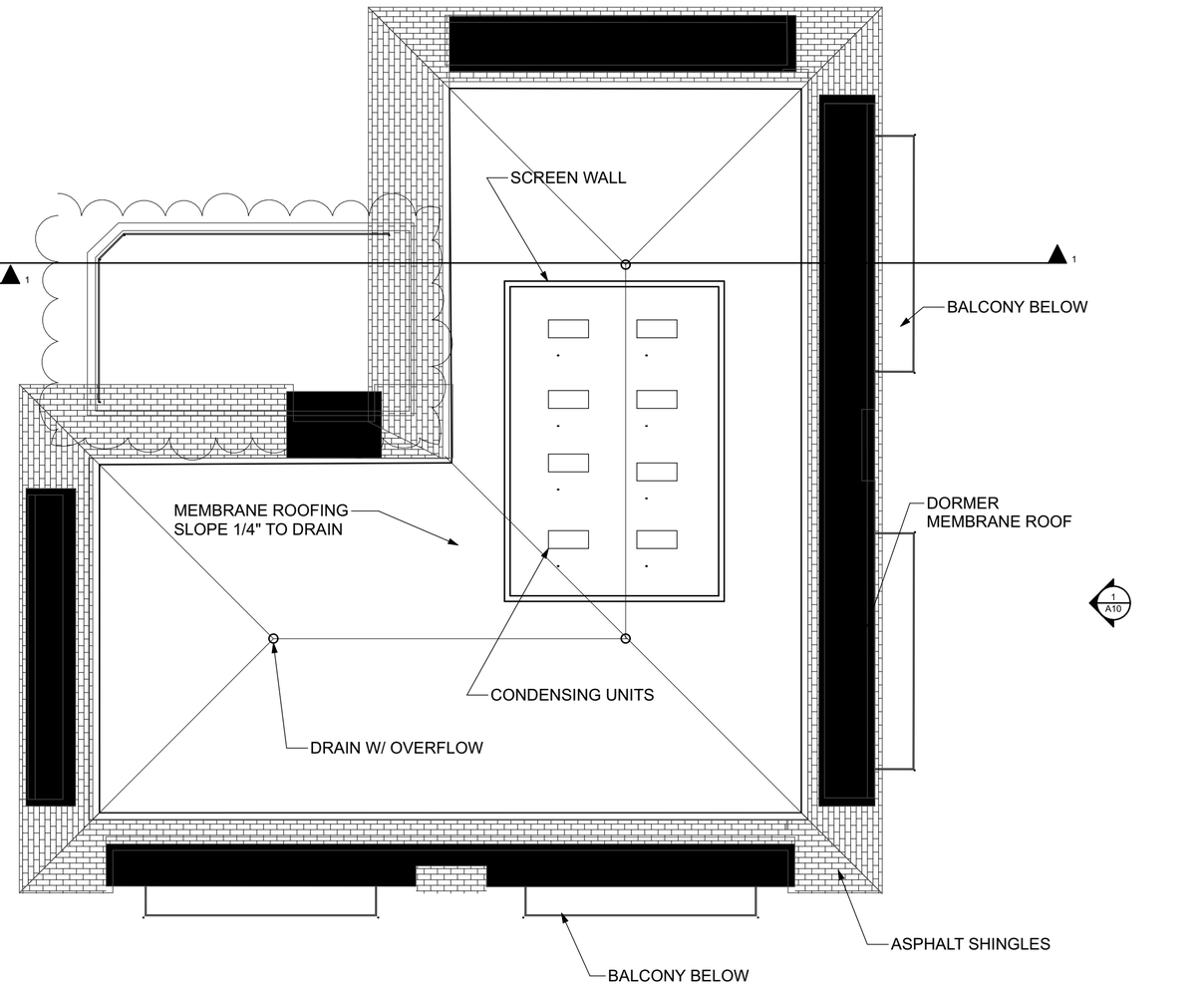
SEE CLOUDED AREA FOR CHANGES

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Second Floor Plan**	**A8**

SEE CLOUDED AREA FOR CHANGES



2 Second Floor Plan 1/8" = 1'-0"



1 Roof Plan 1/8" = 1'-0"

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
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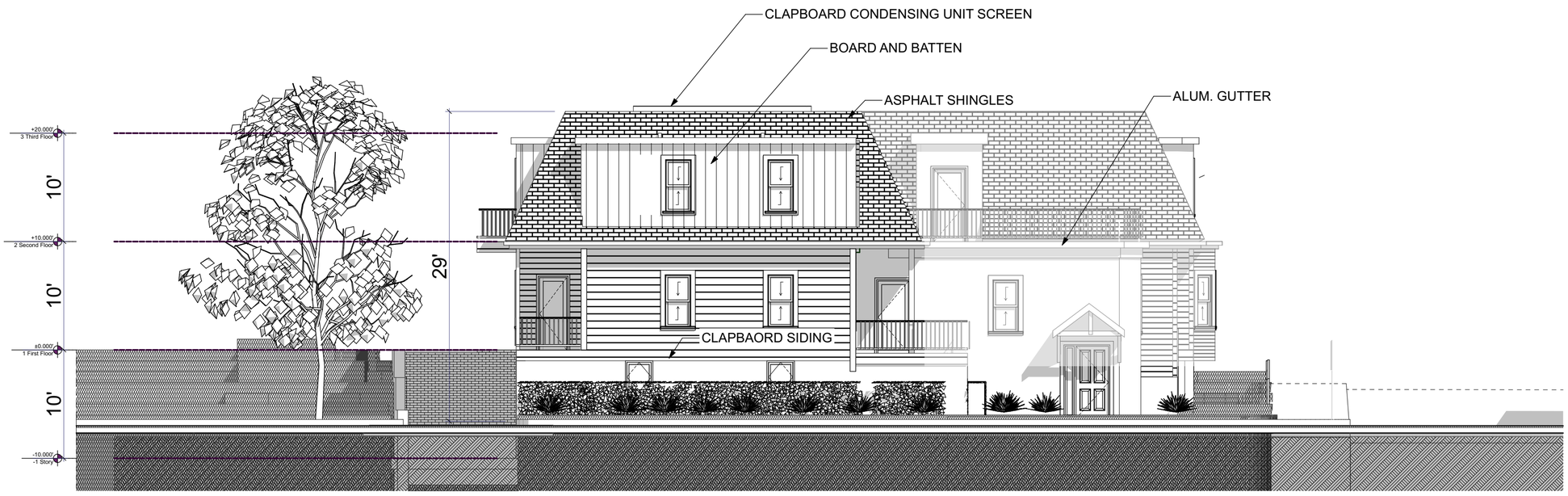
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Elevations North & South**	**A9**

South Elevation

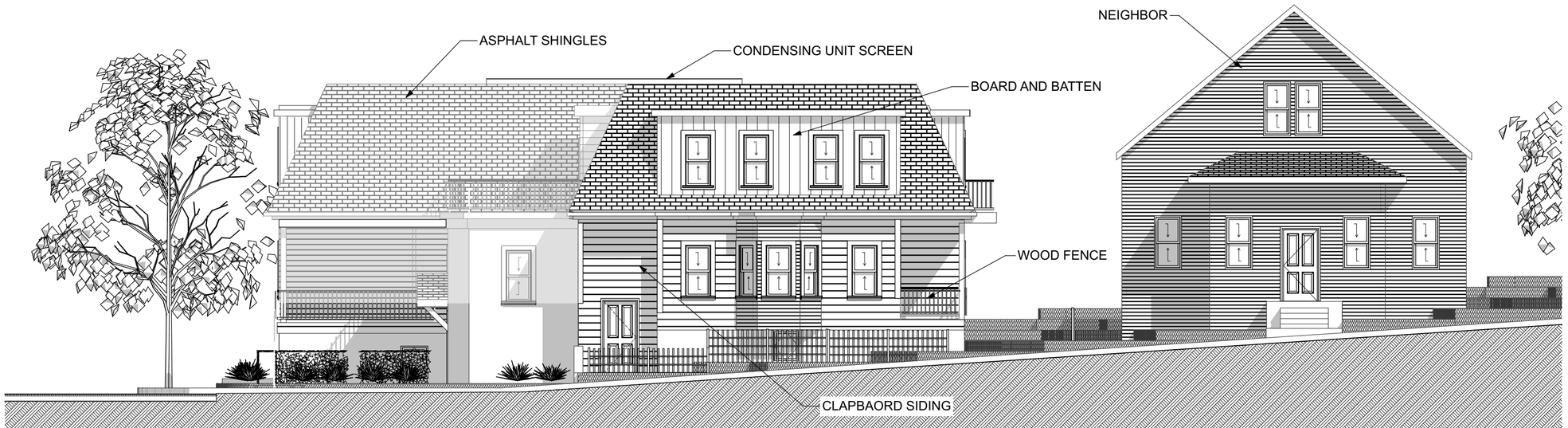
SCALE: 1/8" = 1'-0"



North Elevation/Saratoga St

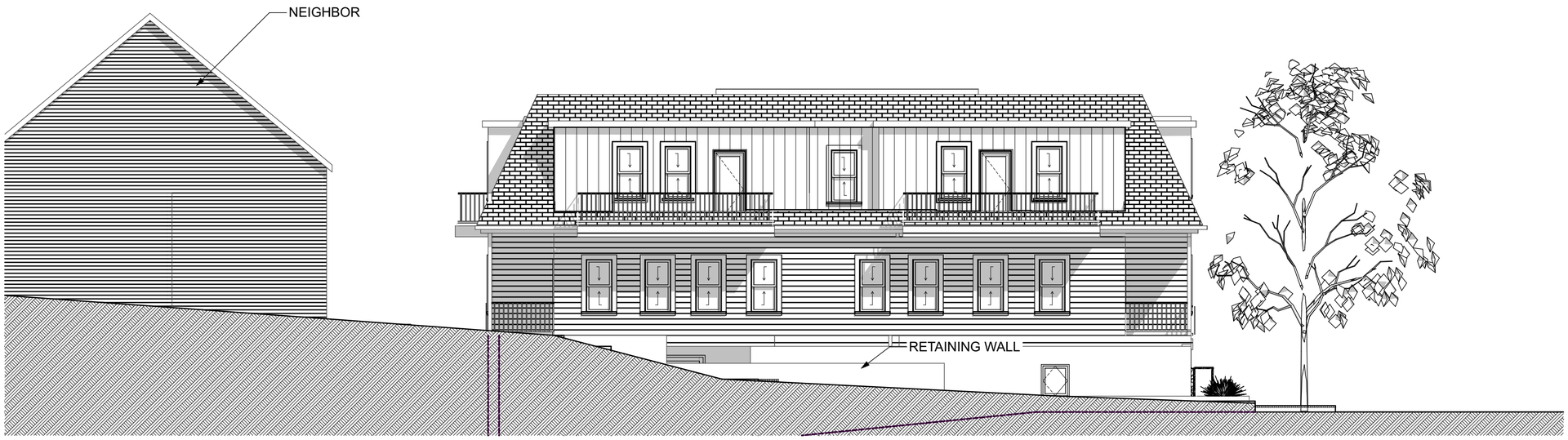
SCALE: 1/8" = 1'-0"

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Elevations East & West**	**A10**



West Elevation/Annavoy St.

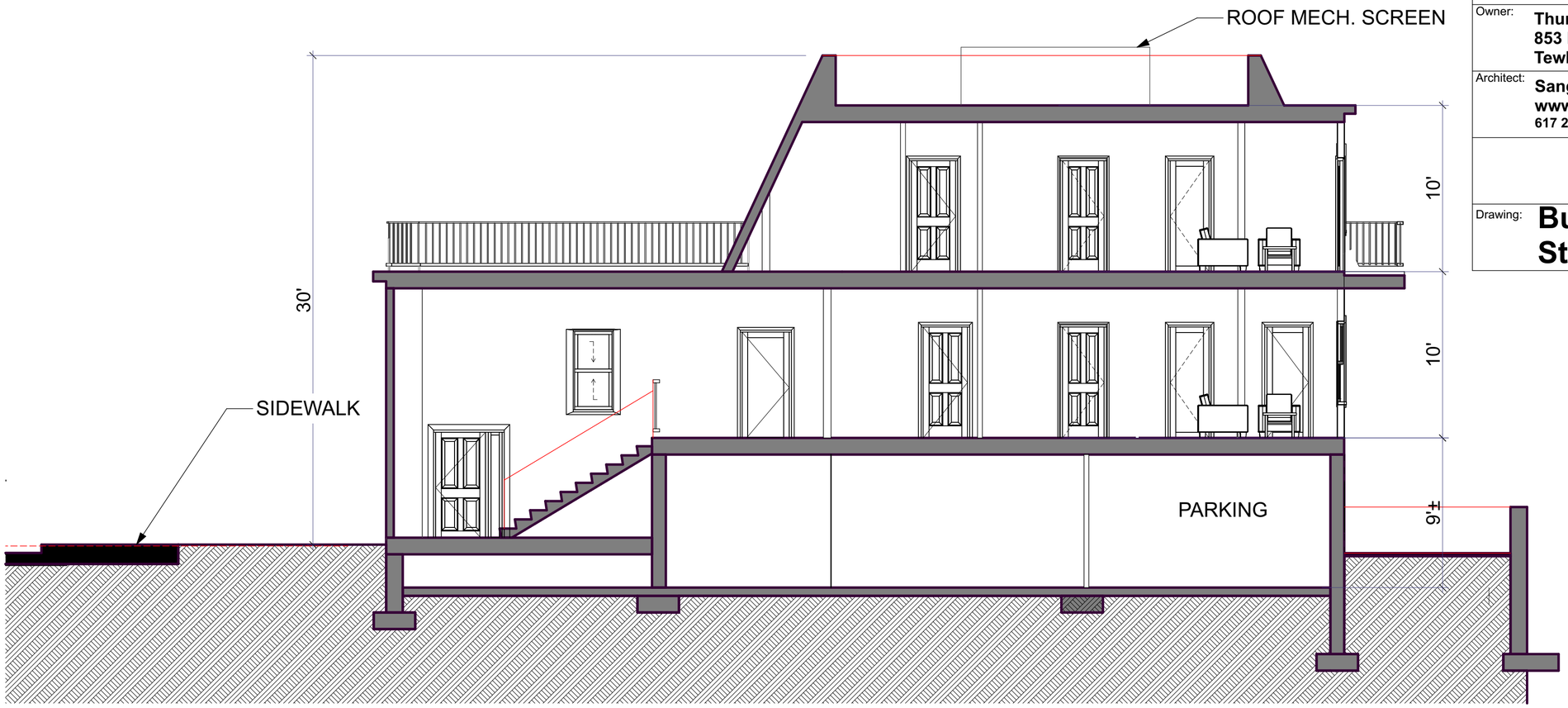
SCALE: 1/8" = 1'-0"



East Elevation

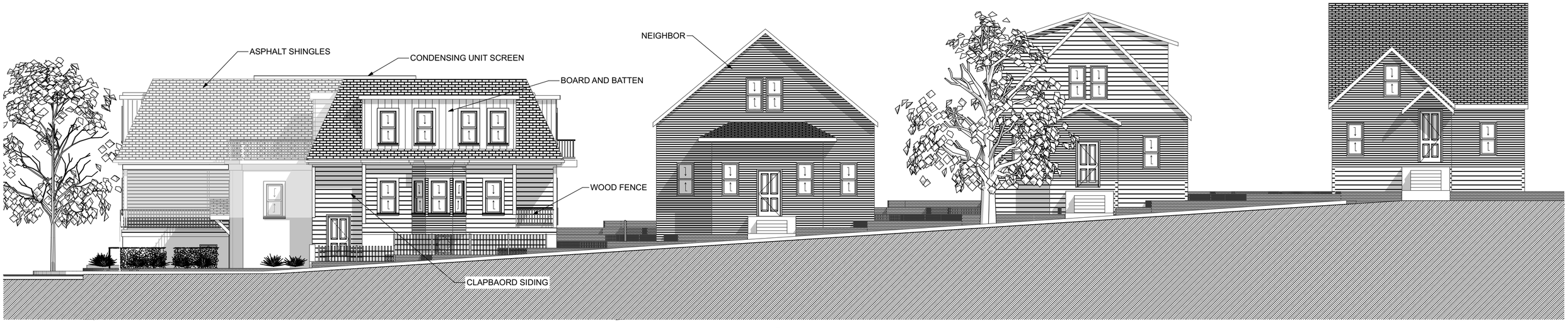
SCALE: 1/8" = 1'-0"

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Building Section & Streetscape**	**A11**



Building Section A

SCALE: 3/16" = 1'-0"



Annavoy Streetscape

SCALE: 1" = 10'

Project:	**6 UNIT MULTI FAMILY BUILDING** **1201 Saratoga St. E. Boston, MA**	DATE: March-9-21 April-7-21 May-8-21
Owner:	**Thunder Bluff LLC** **853 Main Street, Suite 204** **Tewksbury, MA 01876**	
Architect:	**Sangiolo Associates Architects** **www.sangioloassociates.com** **617 272 5402**	REGISTERED ARCHITECT MARK SANGIOLO No. 7444 WEST HARWICH, MA COMMONWEALTH OF MASSACHUSETTS
Drawing:	**Perpective Views**	**A12**

Saratoga looking west towards Annavoy

Saratoga looking east towards Annavoy

October 19, 2022

Boston Conservation Commission
City Hall Plaza, Room 709
Boston, MA 02201

Re: Notice of Intent – Supplement #1
Multi-Family Residential Building
1201 Saratoga Street
Boston, Massachusetts 02128
MassDEP File #006-1894

Members of the Boston Conservation Commission:

On behalf of 1201 Saratoga Street, LLC (Applicant & Owner), Lucas Environmental, LLC (LE) is pleased to submit this supplement to the Notice of Intent (NOI) to the Boston Conservation Commission for the redevelopment of two parcels of land at 1201 Saratoga Street in the East Boston neighborhood of Boston, Massachusetts (MassDEP File #006-1894). The proposed work includes the demolition of the existing house and driveway to construct a six-unit multi-family residential building with stormwater improvements and landscaping. No work will occur within the 100-year floodplain. This NOI is submitted in accordance with the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.).

This supplement is submitted in response to the comments from Conservation staff sent via email on September 8, 2022. The comments are provided below in *italics*, with the Applicant's response in standard format. The bulleted comments have been numbered for convenience and discussion.

1. *Question A.5 on the Boston NOI form is answered incorrectly.*

   The form has an error that when one box is checked off, all boxes below it automatically change to match it. LE noted this to the Conservation staff and they have corrected the form. LE has revised the form appropriately. The revised form is attached.

2. *In addition to being within the 100ft Buffer to Salt Marsh, this project is within the 100ft Salt Marsh Area, a separate resource that is jurisdictional under the Boston Wetlands Ordinance. In Section B of the Boston NOI form, the size and alteration of the 100ft Salt Marsh Area should be indicated.*

   The form has been revised as requested.

3. *Question C.4 on the Boston NOI form is also answered incorrectly.*

   See Response to Comment #1 above. The revised form is attached.

4. *Does this project need to be reviewed by the Parks Commission?*

   The Applicant has reached out to the Boston Parks & Recreation Division, and they do not believe a review is required as the site is not near a park; however, they are looking into it and will provide confirmation to the Applicant.

5. *The translation certification and the affidavit of service are missing from the abutter notice materials.*

   The abutters were notified concurrently with the submittal and not available at the time of the submission. The translation certification, affidavit of service, and mailing receipts are attached.

6. *The narrative should include a more detailed discussion on the means and methods of the proposed work.*

   The project engineer Strong Civil Design, LLC has added the construction sequencing "means and methods" to the Conservation Commission Plan, dated September 22, 2022. The means and methods are as follows:

   1. Installation of silt sock as illustrated on plan.
   2. Installation of sediment sacks as illustrated on plan.
   3. Demolition and removal of existing Structure.
   4. Removal or capping of underground utilities as permitted with BWSC.
   5. Construct retaining walls, foundations, and proposed building.
   6. Installation of underground stormwater system and utilities as permitted with BWSC.
   7. Rough grade the site.
   8. Install walkways and asphalt drive.
   9. Final grade the site.
   10. Install proposed vegetation, and loam and seed all unpaved and disturbed areas.
   11. Upon establishment of all vegetation remove silt sock and sediment sacks.

7. *Although there are no performance standards for the Buffer Zone, the narrative should also include a discussion on the Buffer Zone language and how those provisions are being met. Additionally, the Buffer Zone is considered a resource area under the Ordinance, and the narrative should reflect this as well. Finally, the narrative should include a discussion on the project's location within the 100ft Salt Marsh Area, despite the lack of performance standards for this resource area as well.*

   The Applicant notes that the proposed work is within the 100-Foot Buffer Zone to Salt Marsh as well as the locally regulated 100-Foot Salt Marsh Area, which is considered a resource area under the Ordinance.

   Per the City of Boston Ordinance Protecting Local Wetlands and Promoting Climate Change Adaptation in the City of Boston (Chapter VII) and the Boston Wetlands Regulations, the "Buffer Zone is presumed important to the protection of the resource areas because activities undertaken in close proximity to resource areas have a reasonable probability of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as

a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, degraded water quality, loss of wildlife habitat, degradation."

The 100-Foot Salt Marsh Area of the site is developed, with Saratoga Street bisecting the site from the existing Salt Marsh. No impacts are anticipated to the Salt Marsh, and no further impacts are proposed to the 100-Foot Salt Marsh Area. The site improvements include the installation of a stormwater management system where none is present today and improved landscaping. The 100-Foot Salt Marsh area currently does not contribute to the protection of flood control (outside of the 100-year floodplain), storm damage prevention, prevention of pollution, or protection of wildlife habitat due to the developed nature of the site. Fisheries and land containing shellfish are not applicable.

8. *Staff also wants to note that we are not fully in agreement with some of the resiliency statements made in the narrative.*

The Conservation staff requested further detail on the extreme heat discussion. The Applicant proposes to increase the impervious area of the site approximately 1,900 square feet (calculations provide in NOI narrative); however, the area of the site being shaded is increasing by approximately 1,695 square feet. Additionally, the majority of the existing site consists of lawn and minimal landscaping, whereas the proposed project includes substantial plantings including 7 tree, 124 shrubs, and 27 perennials.

Regarding concerns related to the stormwater system, the basement has been designed for parking and is not a habitable floor. The Applicant looks forward to further discussing the stormwater system at the Public Hearing with the Conservation Commission.

9. *In the Stormwater Report Checklist, Standard 2 appears to be filled out incorrectly. Additionally, it does not seem as though that standard is being met.*

The Checklist for the Stormwater Report included in the Stormwater Engineering Report was revised September 22, 2022 as requested per email correspondence with staff.

10. *More explanation is needed regarding Standard 7 and why the project is not complying with those specific standards.*

The Stormwater Engineering Report was revised September 22, 2022 as requested per email correspondence with staff.

11. *Staff could not find the illicit discharge statement.*

The page containing the statement that there are no illicit discharges has been signed and stamped by a P.E., included in the Stormwater Engineering Report, revised September 22, 2022.

12. *Not all sheets in the planset were stamped. Additionally, there was no existing conditions plan included. The resource areas should be clearly shown on all sheets, including the landscaping plan.*

    All the plans were stamped in the plan set; however, as noted in the NOI, additional exhibits were provided for clarity and ease of review. These exhibits have been stamped at the request of Conservation Staff. The following plans are enclosed:
    1. Plot Plan (1 Sheet), prepared by Antonio Szerszunowicz, PLS, dated June 1, 2021, (i.e., Existing Conditions Plan).
    2. Conservation Commission Plan (1 Sheet), prepared by Strong Civil Design, LLC, dated September 22, 2022.
    3. Exhibits (5 Sheets), prepared by Strong Civil Design, LLC, dated September 22, 2022.
    4. Landscape Plan (1 Sheet), prepared by Sangiolo Associates Architects, revised September 22, 2022.

The proposed design achieves the goals of the Applicant, while being sensitive to adjacent regulated resource areas. Accordingly, the Applicant respectfully requests that the Boston Conservation Commission consider a finding that the proposed design is adequately protective of the interests identified in the Wetlands Protection Act and City of Boston Ordinance and issue an Order of Conditions approving the project as described in this Notice of Intent and as shown on the attached Plans.

Enclosed please find two (2) of the NOI supplemental materials, including the plans reduced to 11" x 17". A link to an electronic copy of the pdf file of the NOI supplemental package will be provided concurrently with this submittal. We respectfully request that you place this matter on your agenda for the November 2, 2022 Public Hearing.

If you have any questions, please do not hesitate to contact me at 617.405.4140 or cml@lucasenviron.com. Thank you for your consideration in this matter.

Sincerely,
LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, PWS, CWS, RPSS
Environmental Consultant/Wetland & Soil Scientist

Enclosures:
1. NOI Boston NOI Form
2. Abutter Information
3. Stormwater Engineering Report
4. Revised Plans

cc: 1201 Saratoga Street, LLC – Applicant & Owner (electronic copy)
MassDEP – NERO
Strong Civil Design, LLC (electronic copy)
Sangiolo Associates Architects (electronic copy)

City of Boston Environment

CITY of BOSTON
Conservation Commission

INSTRUCTIONS FOR COMPLETING APPLICATION
NOTICE OF INTENT – BOSTON NOI FORM (2021)

The Boston Notice of Intent Form is intended to be a supplement to the WPA Form 3 detailing impacts to locally designated wetland resource areas and buffer zones. Please read these instructions for assistance in completing the Notice of Intent application form. These instructions cover certain items on the Notice of Intent form that are not self-explanatory.

INSTRUCTIONS TO SECTION B: BUFFER ZONE AND RESOURCE AREA IMPACTS

Item 1. Buffer Zone Only. If you check the Buffer Zone Only box in this section you are indicating that the project is entirely in the Buffer Zone to a resource area ***under both*** the Wetlands Protection Act and Boston Wetlands Ordinance. If so, skip the remainder of Section B and go directly to Section C. Do not check this box if the project is within the Waterfront Area.

Item 2. The ***boundaries of coastal resource areas*** specific to the Ordinance can be found in Section II of the Boston Wetlands Regulations. You must also include the size of the proposed alterations (and proposed replacement areas) in each resource area.

Item 3. The ***boundaries of inland resource areas*** specific to the Ordinance can be found in Section II of the Boston Wetlands Regulations. You must also include the size of the proposed alterations (and proposed replacement areas) in each resource area.

INSTRUCTIONS TO SECTION C: OTHER APPLICABLE STANDARDS AND REQUIREMENTS

Item 1. Rare Wetland Wildlife Habitat. Except for Designated Port Areas, no work (including work in the Buffer Zone) may be permitted in any resource area that would have adverse effects on the habitat of rare, "state-listed" vertebrate or invertebrate animal species.

The most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife is published by the Natural Heritage and Endangered Species Program (NHESP). See: http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm or the *Massachusetts Natural Heritage Atlas*.

If any portion of the proposed project is located within Estimated Habitat, the applicant must send the Natural Heritage Program, at the following address, a copy of the Notice of Intent by certified mail or priority mail (or otherwise sent in a manner that guarantees delivery within two days), no later than the date of the filing of the Notice of Intent with the Conservation Commission.

Evidence of mailing to the Natural Heritage Program (such as Certified Mail Receipt or Certificate of Mailing for Priority Mail) must be submitted to the Conservation Commission along with the Notice of Intent.

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581-3336
508.792.7270

City of Boston Environment

NOTICE OF INTENT APPLICATION FORM
Boston Wetlands Ordinance
City of Boston Code, Ordinances, Chapter 7-1.4

Boston File Number

MassDEP File Number

A. GENERAL INFORMATION

1. Project Location

1201 Saratoga Street	Boston	02128
a. Street Address	b. City/Town	c. Zip Code
01-04410-000 & 01-04411-000		
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant

Vahid	Nickpour	1201 Saratoga Street, LLC
a. First Name	b. Last Name	c. Company

146 Bunker Hill Street
d. Mailing Address

Charlestown	MA	02129
e. City/Town	f. State	g. Zip Code

617.799.8482		vahid@novatrust.us
h. Phone Number	i. Fax Number	j. Email address

3. Property Owner

a. First Name	b. Last Name	c. Company

d. Mailing Address

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

h. Phone Number	i. Fax Number	j. Email address

☐ Check if more than one owner

(If there is more than one property owner, please attach a list of these property owners to this form.)

4. Representative (if any)

Christopher	Lucas	Lucas Environmental, LLC
a. First Name	b. Last Name	c. Company

500A Washington Street
d. Mailing Address

Quincy	MA	02169
e. City/Town	f. State	g. Zip Code

617.405.4140	617.405.4465	cml@lucasenviro.com
h. Phone Number	i. Fax Number	j. Email address

5. Is any portion of the proposed project jurisdictional under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40?

☐ Yes ☑ No

If yes, please file the WPA Form 3 - Notice of Intent with this form

6. General Information

The project consists of redeveloping two parcels into a six-unit multi-family building with associated appurtenances and a stormwater unit. Work is proposed within the 100-Foot Buffer Zone to a salt marsh. The project site is separated from the salt marsh by Saratoga Street. No work is proposed within the 100-year floodplain.

7. Project Type Checklist

a. ☐ Single Family Home
b. ☐ Residential Subdivision
c. ☐ Limited Project Driveway Crossing
d. ☐ Commercial/Industrial
e. ☐ Dock/Pier
f. ☐ Utilities
g. ☐ Coastal Engineering Structure
h. ☐ Agriculture – cranberries, forestry
i. ☐ Transportation
j. ☑ Other

8. Property recorded at the Registry of Deeds

Suffolk
a. County

90
b. Page Number

67233
c. Book

d. Certificate # (if registered land)

9. Total Fee Paid

$2,562.50
a. Total Fee Paid

$512.50
b. WPA Fee Paid

$2,050.00
c. Ordinance Fee Paid

B. BUFFER ZONE & RESOURCE AREA IMPACTS

Buffer Zone Only - Is the project located only in the Buffer Zone of a resource area protected by the Boston Wetlands Ordinance?

☐ Yes ☑ No

1. Coastal Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Coastal Flood Resilience Zone*	Square feet	Square feet	Square feet
☐ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
☐ *100-foot Salt Marsh Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

*This area is developed and will remain developed.

2. Inland Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Inland Flood Resilience Zone*	Square feet	Square feet	Square feet
☐ *Isolated Wetlands*	Square feet	Square feet	Square feet
☐ *Vernal Pool*	Square feet	Square feet	Square feet
☐ *Vernal Pool Habitat (vernal pool + 100 ft. upland area)*	Square feet	Square feet	Square feet
☐ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

C. OTHER APPLICABLE STANDARDS & REQUIREMENTS

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

Boston Water & Sewer Commission Site Plan Review - Application # 22012 In Review
Inspectional Services Department - Building Permit - To be submitted
Zoning Board of Appeals - Variance Approved (Permit #ERT1046165)

2. 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 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://www.mass.gov/dfwele/dfw/nhesp/nhregmap.htm.

☐ Yes ☑ No

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

A. Submit Supplemental Information for Endangered Species Review

☐ Percentage/acreage of property to be altered:

(1) within wetland Resource Area _____ percentage/acreage

(2) outside Resource Area _____ percentage/acreage

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

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

☐ Yes ☐ No

If yes, provide the name of the ACEC: _____

4. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Standards?

☑ *Yes. Attach a copy of the Stormwater Checklist & Stormwater Report as required.*
- ☐ *Applying for a Low Impact Development (LID) site design credits*
- ☐ *A portion of the site constitutes redevelopment*
- ☐ *Proprietary BMPs are included in the Stormwater Management System*

☐ *No. Check below & include a narrative as to why the project is exempt*
- ☐ *Single-family house*
- ☐ *Emergency road repair*
- ☐ *Small Residential Subdivision (less than or equal to 4 single family houses or less than or equal to 4 units in a multifamily housing projects) with no discharge to Critical Areas*

5. Is the proposed project subject to Boston Water and Sewer Commission Review?

☑ Yes ☐ No

D. 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 Protection Ordinance.

Signature of Applicant — March 2, 2022 (Date)

Signature of Property Owner (if different) — Date

Christopher M. Lucas
Signature of Representative *(if any)* — August 31, 2022 (Date)

APPENDIX A. - STATUTORY REVIEW & APPROVAL CHECKLIST

Applicants submitting a Notice of Intent to the Boston Conservation Commission are also required to include a list of all permits and approvals either obtained, or necessary to be obtained, for the proposed activity. This checklist is not fully comprehensive but Applicants may utilize this checklist to fulfill this requirement. Any additional permits and approvals needed should be discussed in the narrative accompanying the Notice of Intent.

FEDERAL REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	National Environmental Policy Act (NEPA)	Varies
☐	☐	Section 404 Permit	U.S. Army Corps of Engineers
☐	☐	National Pollution Discharge Elimination System Permit (NPDES)	U.S. Environmental Protection Agency
☐	☐	Stormwater Construction General Permit	U.S. Environmental Protection Agency
☐	☐	Federal Endangered Species Act (ESA)	U.S. Fish and Wildlife Service or National Marine Fisheries Service
☐	☐	Federal Fisheries Regulations	National Marine Fisheries Service

COMMONWEALTH OF MASSACHUSETTS REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	Massachusetts Environmental Policy Act (MEPA)	Massachusetts Environmental Policy Act Office
☐	☐	Federal Consistency Review	Office of Coastal Zone Management
☐	☐	Massachusetts Public Waterfront Act (Chapter 91)	Massachusetts Department of Environmental Protection (Waterways Program)
☐	☐	Section 401 Water Quality Certification	Massachusetts Department of Environmental Protection (Wetlands Program)
☐	☐	Massachusetts Endangered Species Act (MESA)	National Heritage and Endangered Species Program
☐	☐	Massachusetts Marine Fisheries Regulations	Massachusetts Division of Marine Fisheries

☐	☐	Historic Preservation	Massachusetts Board of Underwater Archaeological Resources
☐	☐	Historic Preservation	Massachusetts Historical Commission
☐	☐	Massachusetts Contingency Plan	Massachusetts Department of Environmental Protection
☐	☐	Massachusetts Building Code Variance	Board of Building Regulations and Standards

CITY OF BOSTON LOCAL REVIEWS AND APPROVALS

NEEDED	OBTAINED	REGULATION	REVIEW BODY
☐	☐	Boston Zoning Code Article 80	Boston Planning and Development Agency
☐	☐	Boston Zoning Code	Inspectional Services Department
☑	☐	Boston Zoning Code Variance	Zoning Board of Appeals
☐	☐	Project Design Review	Civic Design Commission
☑	☐	Utility Plan Review	Boston Water and Sewer Commission
☐	☐	Boston Zoning Code Article 32 (GCOD)	Boston Groundwater Trust
☐	☐	Historic Preservation	Boston Landmarks Commission
☐	☐	Boston City Code (100 Foot Rule)	Boston Parks and Recreation Commission
☐	☐	Public Realm Improvements	Boston Public Improvement Commission
☐	☐	Parking Freeze/Abrasive Blasting	Boston Air Pollution Control Commission
☑	☐	Massachusetts Building Code	Inspectional Services Department

City of Boston
Environment

CITY of BOSTON
Conservation Commission

AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION

Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance

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

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by 1201 Saratoga Street, LLC for redeveloping two parcels into a six-unit multi-family building with associated appurtenances and a stormwater unit. located at 1201 Saratoga Street, Parcels 01-04410-000 & 01-04411-000.

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

Name

September 8, 2022
Date

BABEL NOTICE

English:

IMPORTANT! This document or application contains **important information** about your rights, responsibilities and/or benefits. It is crucial that you understand the information in this document and/or application, and we will provide the information in your preferred language at no cost to you. If you need them, please contact us at cc@boston.gov or 617-635-3850.

Spanish:

¡IMPORTANTE! Este documento o solicitud contiene **información importante** sobre sus derechos, responsabilidades y/o beneficios. Es fundamental que usted entienda la información contenida en este documento y/o solicitud, y le proporcionaremos la información en su idioma preferido sin costo alguno para usted. Si los necesita, póngase en contacto con nosotros en el correo electrónico cc@boston.gov o llamando al 617-635-3850.

Haitian Creole:

AVI ENPÒTAN! Dokiman oubyen aplikasyon sa genyen **enfòmasyon ki enpòtan** konsènan dwa, responsablite, ak/oswa benefis ou yo. Li enpòtan ke ou konprann enfòmasyon ki nan dokiman ak/oubyen aplikasyon sa, e n ap bay enfòmasyon an nan lang ou prefere a, san ou pa peye anyen. Si w bezwen yo, tanpri kontakte nou nan cc@boston.gov oswa 617-635-3850.

Traditional Chinese:

非常重要！這份文件或是申請表格包含關於您的權利，責任，和／或福利的重要信息。請您務必完全理解這份文件或申請表格的全部信息，這對我們來說十分重要。我們會免費給您提供翻譯服務。如果您有需要請聯系我們的郵箱 cc@boston.gov 電話# 617-635-3850..

Vietnamese:

QUAN TRỌNG! Tài liệu hoặc đơn yêu cầu này chứa **thông tin quan trọng** về các quyền, trách nhiệm và/hoặc lợi ích của bạn. Việc bạn hiểu rõ thông tin trong tài liệu và/hoặc đơn yêu cầu này rất quan trọng, và chúng tôi sẽ cung cấp thông tin bằng ngôn ngữ bạn muốn mà không tính phí. Nếu quý vị cần những dịch vụ này, vui lòng liên lạc với chúng tôi theo địa chỉ cc@boston.gov hoặc số điện thoại 617-635-3850.

Simplified Chinese:

非常重要！这份文件或是申请表格包含关于您的权利，责任，和／或福利的重要信息。请您务必完全理解这份文件或申请表格的全部信息，这对我们来说十分重要。我们会免费给您提供翻译服务。如果您有需要请联系我们的邮箱 cc@boston.gov 电话# 617-635-3850.

CITY of BOSTON

Cape Verdean Creole:

INPURTANTI! Es dukumentu ó aplikason ten **informason inpurtanti** sobri bu direitus, rasponsabilidadis i/ó benefísius. Ê krusial ki bu intendi informason na es dukumentu i/ó aplikason ó nu ta da informason na língua di bu preferênsia sen ninhun kustu pa bó. Si bu prisiza del, kontata-nu na cc@boston.gov ó 617-635-3850.

Arabic:

مهم! يحتوي هذا المستند أو التطبيق على معلومات مهمة حول حقوقك ومسؤولياتك أو فوائدك. من الأهمية أن تفهم المعلومات الواردة في هذا المستند أو التطبيق. سوف نقدم المعلومات بلغتك المفضلة دون أي تكلفة عليك. إذا كنت في حاجة إليها، يرجى الاتصال بنا على cc@boston.gov أو 617-635-3850.

Russian:

ВАЖНО! В этом документе или заявлении содержится **важная информация** о ваших правах, обязанностях и/или льготах. Для нас очень важно, чтобы вы понимали приведенную в этом документе и/или заявлении информацию, и мы готовы бесплатно предоставить вам информацию на предпочитаемом вами языке. Если Вам они нужны, просьба связаться с нами по адресу электронной почты cc@boston.gov, либо по телефону 617-635-3850.

Portuguese:

IMPORTANTE! Este documento ou aplicativo contém **Informações importantes** sobre os seus direitos, responsabilidades e/ou benefícios. É importante que você compreenda as informações contidas neste documento e/ou aplicativo, e nós iremos fornecer as informações em seu idioma de preferência sem nenhum custo para você. Se precisar deles, fale conosco: cc@boston.gov ou 617-635-3850.

French:

IMPORTANT ! Ce document ou cette demande contient des **informations importantes** concernant vos droits, responsabilités et/ou avantages. Il est essentiel que vous compreniez les informations contenues dans ce document et/ou cette demande, que nous pouvons vous communiquer gratuitement dans la langue de votre choix. Si vous en avez besoin, veuillez nous contacter à cc@boston.gov ou au 617-635-3850.

CITY of BOSTON

City of Boston Environment

CITY of BOSTON Conservation Commission

NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

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

A. 1201 Saratoga Street, LLC has filed a Notice of Intent with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and/or the Boston Wetlands Ordinance.

(Parcels 01-04410-000 & 01-04411-000)

B. The address of the lot where the activity is proposed is 1201 Saratoga Street, Boston, MA.

C. The project involves redeveloping 2 parcels into a 6 unit multi-family building with work in the 100' Buffer to Salt Marsh.

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

E. Copies of the application may be obtained from Lucas Environmental, LLC by contacting them at 617.405.4140; cml@lucasenviro.com between the hours of 8AM-5PM, Monday-Friday.

F. In accordance with the Chapter 107 of the Acts of 2022, the public hearing will take place **virtually** at https://zoom.us/j/6864582044. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

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

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

NOTE: Notice of the public hearing, including its date, time, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance. If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

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

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

NOTE: If you plan to attend the public hearing and are in need of interpretation, please notify staff at CC@boston.gov by 12 PM the day before the hearing.

City of Boston
Environment

CITY of BOSTON
Conservation Commission

NOTIFICACIÓN PARA PROPIETARIOS Y/O VECINOS COLINDANTES COMISIÓN DE CONSERVACIÓN DE BOSTON

De conformidad con la Ley de protección de los humedales de Massachusetts, el Capítulo 131, Sección 40 de las Leyes Generales de Massachusetts y la Ordenanza sobre los humedales de Boston, por la presente queda usted notificado como propietario o vecino colindante de un proyecto presentado ante la Comisión de Conservación de Boston.

A. **1201 Saratoga Street, LLC** ha presentado un aviso de intención a la Comisión de Conservación de Boston pidiendo permiso para modificar una zona sujeta a protección en virtud de la Ley de protección de los humedales (Leyes generales, capítulo 131, sección 40) y la Ordenanza sobre los humedales de Boston.

(Parcels 01-04410-000 & 01-04411-000)

B. La dirección del lote donde se propone la actividad es **1201 Saratoga Street, Boston, MA.**

C. El proyecto consiste en **la reurbanización de dos parcelas para la construcción de un edificio multifamiliar de 6 unidades con obras en la zona de amortiguación de 100' hasta la marisma salobre.**

D. Se pueden obtener copias del Aviso de Intención comunicándose con la Comisión de Conservación de Boston en CC@boston.gov.

E. Las copias de la notificación de intención pueden obtenerse de **Lucas Environmental, LLC** a **617.405.4140; clm@lucasenviro.com** entre las **8 AM y las 5 PM, de lunes a viernes.**

F. De acuerdo con el Decreto Ejecutivo de le Mancomunidad de Massachusetts que suspende ciertas disposiciones de la Ley de reuniones abiertas, la audiencia pública se llevará a cabo virtualmente en https://zoom.us/j/6864582044. Si no puede acceder a Internet, puede llamar al 1-929-205- 6099, ingresar ID de reunión 686 458 2044 # y usar # como su ID de participante.

G. La información relativa a la fecha y hora de la audiencia pública puede solicitarse a la **Comisión de Conservación de Boston** por correo electrónico a **CC@boston.gov** o llamando al **(617) 635-3850** entre las **9 AM y las 5 PM, de lunes a viernes.**

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en el **Boston Herald** con al menos cinco (5) días de antelación.

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en www.boston.gov/public-notices y en el Ayuntamiento de Boston con no menos de cuarenta y ocho (48) horas de antelación. Si desea formular comentarios, puede asistir a la audiencia pública o enviarlos por escrito a CC@boston.gov o al Ayuntamiento de Boston, Departamento de Medio Ambiente, Sala 709, 1 City Hall Square, Boston, MA 02201.

NOTA: También puede comunicarse con la Comisión de Conservación de Boston o con la Oficina Regional del Noreste del Departamento de Protección Ambiental para obtener más información sobre esta solicitud o la Ley de Protección de Humedales. Para comunicarse con el DEP, llame a la Región Noreste: (978) 694-3200.

NOTA: si tiene previsto asistir a la audiencia pública y necesita servicios de interpretación, sírvase informar al personal en CC@boston.gov antes de las 12 PM del día anterior a la audiencia.

TRANSLATION CERTIFICATION OF ACCURACY

I, **Nina Cespedes**, on behalf of **MAPA Translations & Language Solutions, Inc.**, a professional translation, and interpretation agency, hereby certify that the document(s) mentioned below has (have) been translated by experienced and qualified professional translators and that, in our best judgement, the translated text truly reflects the content, meaning, and style of the original text and constitutes in every respect a correct and true translation of the original document. This document is to certify the correctness of the translation only. We do not guarantee that the original is a genuine document, or that the statements contained in the original document are true. Further, **MAPA Translations & Language Solutions, Inc.**, assumes no liability for the way in which the translation is used by the customer or any third party, including end users of the translation.

1) English to Spanish Translation

2) Document Name: Spanish Abutter Notification Form

09-2-22

MAPA Signature & Date

I, the undersigned Notary Public, do hereby certify that NINA CESPEDES appeared before me on 9.2.22 and acknowledged that they are the original document owner of the above mentioned document(s), requested a professional translation of the above referenced document(s) and that the above referenced document(s) was/were translated by a professional translator competent in the above referenced language pair.

DRITA L. PROTOPAPA
Notary Public
Commonwealth of Massachusetts
My Commission Expires
March 14, 2025

Official Notary Signature, Date, & Seal of Notary Republic

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender

Lucas Environmental, LLC
500A Washington Street
Quincy, MA 02169

TOTAL NO. of Pieces Listed by Sender: 6/27

TOTAL NO. of Pieces Received at Post Office™: 27

Postmaster, per *(name of receiving employee)*

x

Affix Stamp Here
Postmark with Date of Receipt.

USPS® Tracking Number / Firm-specific Identifier		Postage	Fee	Special Handling	Parcel Airlift
1.	PHAM TIEN 127 ST ANDREW RD EAST BOSTON, MA 02128	.50			
2.	BERNINGER THOMAS W 156 ST ANDREW RD E BOSTON, MA 02128	.50			
3.	THUNDER BLUFF LLC 853 MAIN ST TEWKSBURY, MA 01876	.50			
4.	NOLA MICHAEL J 137 ST ANDREW RD EAST BOSTON, MA 02128	.50			
5.	RIZZO ARTHUR E 10 NANCIA ST EAST BOSTON, MA 02128	.50			
6.	DAMICO RENATO V 154 ST ANDREW RD EAST BOSTON, MA 02128	.50			

Total $3.00

See Reverse for Instructions

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender

Lucas Environmental, LLC
500A Washington Street
Quincy, MA 02169

TOTAL NO. of Pieces Listed by Sender: 6/27

TOTAL NO. of Pieces Received at Post Office™: 27

Postmaster, per *(name of receiving employee)*

X

Affix Stamp Here
Postmark with Date of Receipt.

USPS® Tracking Number / Firm-specific Identifier		Postage	Fee	Special Handling	Parcel Airlift
1.	MUNROE REGINA 26 ANNAVOY ST E BOSTON, MA 02128	.50			
2.	ROZZI ROBERT A 1183 SARATOGA ST EAST BOSTON, MA 02128	.50			
3.	MEDINA MIGUEL A 32 ANNAVOY ST E BOSTON, MA 02128	.50			
4.	BRUNO THOMAS 21 ANNAVOY ST EAST BOSTON, MA 02128	.50			
5.	DIPIETRO LAWRENCE G 20 ANNAVOY EAST BOSTON, MA 02128	.50			
6.	DAMICO RENATO ETAL 154 ST ANDREW RD EAST BOSTON, MA 02128	.50			

Total $3.00

See Reverse for Instructions

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender

Lucas Environmental, LLC
500A Washington Street
Quincy, MA 02169

TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™
6/21	21

Postmaster, per *(name of receiving employee)*

X

Affix Stamp Here
Postmark with Date of Receipt.

	USPS® Tracking Number / Firm-specific Identifier		Postage	Fee	Special Handling	Parcel Airlift
1.		HERNANDEZ LEONARD NO AMERICAN SAVINGS BANK TAX DEPT 12520 S 71 HWY GRANDVIEW, MO 64030	.50			
2.		NORRISH GERALDINE AHERN 10 ANNAVOY ST E BOSTON, MA 02128	.50			
3.		MASSACHUSETTS PORT AUTHORITY 1 HARBORSIDE DR #200S EAST BOSTON, MA 02128	.50			
4.		DEPT OF CONSERVATION & RECREATION 251 CAUSEWAY ST, SUITE 900 BOSTON, MA 02114	.50			
5.		BARLETTA ANGELINA TS 147 ST ANDREW RD EAST BOSTON, MA 02128	.50			
6.		HARO JUAN 148 ST ANDREW RD E BOSTON, MA 02128	.50			
			$3.00			

See Reverse for Instructions

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender

Lucas Environmental, LLC
500A Washington Street
Quincy, MA 02169

TOTAL NO. of Pieces Listed by Sender: 6/27

TOTAL NO. of Pieces Received at Post Office™: 27

Postmaster, per *(name of receiving employee)*

X

Affix Stamp Here
Postmark with Date of Receipt.

	USPS® Tracking Number / Firm-specific Identifier		Postage	Fee	Special Handling	Parcel Airlift
1.		GIACALONE PIETRO 150 ST ANDREW ROAD EAST BOSTON, MA 02128	.50			
2.		ALMEIDA WALTER 2 NANCIA ST EAST BOSTON, MA 02128	.50			
3.		AHERN ELIZABETH H 14 ANNAVOY ST E BOSTON, MA 02128	.50			
4.		PIEMONTE SABINO 152 ST ANDREW RD EAST BOSTON, MA 02128	.50			
5.		DHIMOGJIKA NURIE 1197-1199 SARATOGA ST EAST BOSTON, MA 02128	.50			
6.		CASTELLANO HECTOR J 146 ST ANDREW RD EAST BOSTON, MA 02128	.50			

Total $3.00

See Reverse for Instructions

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

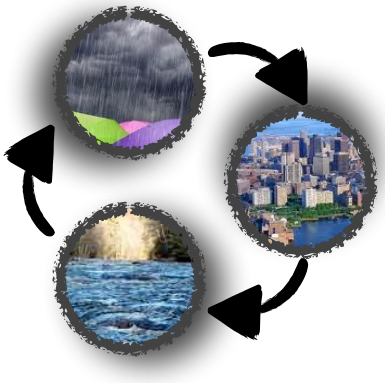
Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Lucas Environmental, LLC 500A Washington Street Quincy, MA 02169	3/27	27	
	Postmaster, per *(name of receiving employee)* X		

USPS® Tracking Number / Firm-specific Identifier	Address	Postage	Fee	Special Handling	Parcel Airlift
1.	SHERPA ANG 100 LEXINGTON ST EAST BOSTON, MA 02128	.50			
2.	SCAPICCHIO LOUIS 1181 SARATOGA ST EAST BOSTON, MA 02128	.50			
3.	HOLDEN MICHAEL D 30 ANNAVOY ST EAST BOSTON, MA 02128	.50			
4.					
5.					
6.					

PS Form **3665**, January 2017 (Page 5 of 5) PSN 7530-17-000-5549

Total $ 1.50

See Reverse for Instructions



STORMWATER ENGINEERING REPORT

Prepared For:

1201 Saratoga Street, LLC
Vahid Nickpour
146 Bunker Hill Street
Charlestown, MA 02129
(617) 799-8482

Project Address:

Redevelopment at 1201 Saratoga Street
Boston, Massachusetts 02128

Prepared By:

Daniel R. Armstrong, P.E.
darmstrong@strongcivil.com
Strong Civil Design, LLC
53 Peach Street
Braintree, MA, 02184
(781) 519-9177
www.strongcivil.com

Date:

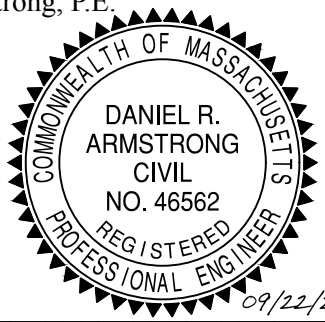
September 22, 2022

Table of Contents:

CERTIFICATION

The following Stormwater Engineering Report was prepared by me or under my direct supervision in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a), including hydrologic and hydraulic inputs and calculations, erosion potential and mitigation, Long-Term Pollution Prevention Plan, Operation and Maintenance Plan, exhibits, plans, and all other applicable documents associated with the proposed design, construction and maintenance of the proposed storm water management system associated with the Redevelopment at 1201 Saratoga Street in Boston, Massachusetts 02128.

Daniel R. Armstrong, P.E.



Commonwealth of Massachusetts
Professional Engineer No. 46562

Stormwater Report

Introduction:

PWN Development is planning to redevelop existing parcels 01-04410-000 and 01-04411-000 , commonly known as 1201 Saratoga Street with a new six unit multifamily building in Boston, Massachusetts. The project shall consist of removing an existing house and driveway, for the construction of the six unit multifamily building with applicable infrastructure. The project is located outside the 100-year flood elevation of 12 (NAVD 88) as shown on FIRM 25025C0038J, dated March 16, 2016. Refer to the plan titled "Redevelopment at 1201 Saratoga Street in East Boston, Massachusetts" sheet A, prepared by Strong Civil Design, LLC dated November 24, 2021 for proposed improvement design. An itemized breakdown illustrating that the proposed improvements are in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a) is provided in this report.

Existing Conditions:

Topography and Drainage Patterns

The existing surface conditions of the parcels consist of an approximately 1,675 square foot house and garage, a 810 square foot driveway off of Anavoy Street, and grass and landscaping on the remainder of the lot, for a total lot size of 6,400 square feet. The site slopes from south to north with surface runoff flowing onto Saratoga Street and into the catch basins located at the corner of Anavoy Street and Saratoga Street.

FEMA Flood Zone

The project is located outside the 100 year flood zone as indicated on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 25025C0038J, dated March 16, 2016. The flood elevation is 12 (NAVD 88)

Proposed Conditions:

Proposed Improvements

The proposed improvements include construction of new six unit multifamily building, having a footprint of approximately 3,560 square feet, a driveway of approximately 830 square feet and a front walkway of approximately 85 square feet, with associated utilities and stormwater improvements. The proposed stormwater management system shall consist of sub-surface infiltration chambers collecting runoff from the buildings roof and driveway. Excess runoff shall discharge though an overflow pipe into the combined sewer line located on Anavoy Street.

Massachusetts Stormwater Standards

The following itemized breakdown illustrates how the proposed development is designed in accordance with the rules and regulations outlined in the Massachusetts Stormwater Standards as incorporated in the Wetland Protection Act Regulations 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a).

Standard 1:

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

No runoff is discharging directly to the resource area. All runoff discharges to a combined sewer system located within the street.

Standard 2:

Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

The discharges from the property are to the combined sewer system within Anavoy Street. Peak flow rates are reduced to the maximum extent possible, per Standard 7 - Redevelopment, for the 2-year, 10-year, and 100-year event. Due to the hydraulic controls of the system, a slight increase in the 10-year event peak rate will occur, to ensure that the 100-year event functions within the physical parameters of the stormwater management system, without causing adverse effects to the property or downstream conditions. The following table illustrates the peak runoff rates as calculated using the SCS Unit Hydrograph Method, TR 55, as calculated by HydroCAD software. A copy of the HydroCAD inputs and outputs is provided at the end of this report. Rainfall depths were obtained from NOAA Atlas 14 based on the site location.

Storm Event	Rainfall Depth (in.)	Peak Runoff Rate (cfs)	
		Pre-development	Post-development
2-Year	3.14	0.23	0.19
10-Year	4.97	0.48	0.51
100-Year	7.88	0.91	0.87

Standard 3:

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

Required Recharge Volume:

The hydrologic soil group of soils is "B according to the Natural Resources Conservation Service. A required recharge depth of 0.35" of impervious area is required by the Massachusetts Stormwater Handbook and a recharge depth of 1" of impervious area is required by Boston Water and Sewer Commission.

$$R_V = F \cdot i$$

where:

R_v = Required Recharge Volume (ft^3)
F = Depth Factor = 1 inch
i = Impervious Area = 4,475 (ft^2)

R_v = 373 ft^3

A recharge volume of 389 ft^3 shall be provided within the sub-surface infiltration chamber system

Standard 4:

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;

b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and

c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

The required water quality volume for the project shall be equal or greater than 0.5 inches of the impervious area. The required recharge volume is based on the following equation.

$$V_{WQ} = D_{WQ} \cdot i$$

where:

V_{WQ} = Required Water Quality Volume (ft^3)
D_{WQ} = Water Quality Depth = 0.5 inches
i = Impervious Area = 4,475 (ft^2)

V_{WQ} = 186 ft^3

A water quality volume of 389 ft^3 shall be provided within the sub-surface infiltration chamber system. Sub-surface structures provide 80% TSS removal

Standard 5

For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

The proposed improvements do not qualify as a land use with a high potential pollution load.

Standard 6

Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

The property is not located within an area of critical environmental concern.

Standard 7

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

The project is a redevelopment project. A stormwater analysis for this project was completed and it illustrates the pre and post development discharge rates. The 2-year and 100-year event show a decrease in peak flow rate. The 10-year event shows a slight increase. In order for the system to meet Mass Stormwater Standards 3 (recharge) and Standards 4 (quality), an underground chamber recharge system was the best management practice to implement in order to meet these standards. The location and elevation of the system was controlled by the location and elevation of the BWSC combined sewer pipe within Anavoy Street. Therefore the location and area available to provide stormwater management was limited. The size of the chambers and the size of the outflow culvert to

the BWSC system was optimized to meet standard 2, standard 3, and standard 4, but there was no practicable way to adjust the design to also meet the 10-year stormwater event. As this project is a redevelopment project, which complies with Standards 7, the stormwater management system was designed to meet all the criteria with the only exception being the 10-year event, (which was minimized to the maximum extent practicable).

Standard 8

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

The following erosion control measures shall be implemented during construction and are indicated within the plans as the Construction Period Pollution Prevention Plan

- The owner and contractor are responsible for the installation and maintenance of the silt sock, and silt sacks around the property, and all other pollution prevention measures throughout the entire construction period.
- Should groundwater pumping be required during construction, all pumped groundwater shall be treated prior to discharge. Direct discharge of pumps groundwater to existing or the existing stormwater management system is strictly prohibited.
- There shall be no storage of hazardous material onsite (such as fuels, hydraulic fluids and oils).
- A spill clean-up kit shall be onsite at all times.
- Any area disturbed by construction that will remain undisturbed longer than 14 days shall be stabilized with hydro-seeding or other appropriate measures.
- Additional sedimentation control devices shall be kept on-site during construction and shall be installed at any time during construction if instructed by the Engineer or City.
- Inspection of maintenance of the erosion control features shall be conducted weekly or after any storm event with a depth of 1/2-inch or greater and recorded.
- All sedimentation collected during construction shall disposed of offsite.

Standard 9

A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

The following long term pollution prevention plan for the stormwater management system shall apply to this project.

- The roof down spouts and area drains, shall be inspected yearly and cleaned as needed.
- The sub-surface recharge system shall be inspected every 3 years. The entire system shall be replaced if deemed in failure.
- City fire department shall be immediately contacted to respond to and manage the clean-up of any spill of oil or hazardous materials as recommend by MassDEP. MassDEP 24-hour Spill Reporting shall be contacted to report any such spills toll-free at (888) 304-1133.
- The project shall conform to the City's MS4 IDDE program.

1201 Saratoga Street, LLC is the owner and operator of the proposed stormwater management system and is responsible for maintenance.

Standard 10

All illicit discharges to the stormwater management system are prohibited.

As illustrated in the supporting document titled, Construction Commission Plan, no illicit discharges to stormwater management systems are proposed with this development. The project was designed in conformance with the Boston Water and Sewer Commission requirements and conforms to the City's MS4 IDDE program.

EXHIBITS

National Flood Hazard Layer FIRMette

FEMA

71°0'10"W 42°23'13"N

70°59'33"W 42°22'47"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

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

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

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

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

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/29/2021 at 9:21 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

NOAA Atlas 14, Volume 10, Version 3
Location name: East Boston, Massachusetts, USA*
Latitude: 42.3833°, Longitude: -70.9977°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.297** (0.241-0.365)	**0.366** (0.296-0.450)	**0.479** (0.386-0.592)	**0.572** (0.459-0.712)	**0.700** (0.541-0.920)	**0.795** (0.600-1.07)	**0.898** (0.657-1.27)	**1.02** (0.695-1.47)	**1.21** (0.785-1.80)	**1.37** (0.864-2.08)
10-min	**0.420** (0.341-0.517)	**0.518** (0.420-0.638)	**0.678** (0.548-0.838)	**0.810** (0.649-1.01)	**0.992** (0.766-1.30)	**1.13** (0.851-1.52)	**1.27** (0.930-1.80)	**1.45** (0.984-2.08)	**1.71** (1.11-2.55)	**1.93** (1.22-2.95)
15-min	**0.495** (0.401-0.608)	**0.609** (0.494-0.750)	**0.796** (0.643-0.984)	**0.952** (0.764-1.19)	**1.17** (0.901-1.53)	**1.33** (1.00-1.79)	**1.50** (1.10-2.11)	**1.70** (1.16-2.44)	**2.01** (1.31-3.00)	**2.28** (1.44-3.47)
30-min	**0.660** (0.536-0.812)	**0.815** (0.660-1.00)	**1.07** (0.861-1.32)	**1.28** (1.02-1.59)	**1.56** (1.21-2.06)	**1.78** (1.34-2.40)	**2.01** (1.47-2.83)	**2.28** (1.55-3.28)	**2.70** (1.76-4.03)	**3.06** (1.94-4.67)
60-min	**0.826** (0.671-1.02)	**1.02** (0.827-1.26)	**1.34** (1.08-1.65)	**1.60** (1.28-1.99)	**1.96** (1.52-2.58)	**2.23** (1.68-3.01)	**2.52** (1.84-3.56)	**2.87** (1.95-4.12)	**3.40** (2.21-5.07)	**3.85** (2.44-5.87)
2-hr	**1.07** (0.874-1.31)	**1.34** (1.09-1.64)	**1.77** (1.44-2.17)	**2.13** (1.72-2.64)	**2.63** (2.05-3.44)	**3.00** (2.28-4.03)	**3.40** (2.51-4.79)	**3.90** (2.66-5.54)	**4.67** (3.04-6.90)	**5.34** (3.39-8.06)
3-hr	**1.25** (1.02-1.52)	**1.56** (1.28-1.91)	**2.08** (1.69-2.54)	**2.50** (2.03-3.08)	**3.09** (2.42-4.03)	**3.52** (2.69-4.72)	**4.00** (2.96-5.61)	**4.59** (3.14-6.50)	**5.52** (3.60-8.11)	**6.32** (4.02-9.49)
6-hr	**1.63** (1.35-1.97)	**2.03** (1.68-2.46)	**2.69** (2.21-3.27)	**3.23** (2.63-3.95)	**3.98** (3.12-5.14)	**4.52** (3.47-6.00)	**5.13** (3.82-7.13)	**5.88** (4.04-8.24)	**7.05** (4.62-10.3)	**8.07** (5.15-12.0)
12-hr	**2.10** (1.75-2.53)	**2.59** (2.15-3.12)	**3.39** (2.80-4.10)	**4.06** (3.33-4.93)	**4.97** (3.92-6.36)	**5.64** (4.35-7.41)	**6.38** (4.76-8.76)	**7.28** (5.02-10.1)	**8.68** (5.71-12.5)	**9.89** (6.33-14.5)
24-hr	**2.53** (2.11-3.02)	**3.14** (2.62-3.75)	**4.14** (3.44-4.96)	**4.97** (4.10-6.00)	**6.12** (4.86-7.78)	**6.96** (5.40-9.08)	**7.88** (5.93-10.8)	**9.04** (6.25-12.4)	**10.8** (7.16-15.4)	**12.4** (7.98-18.0)
2-day	**2.85** (2.40-3.38)	**3.62** (3.04-4.29)	**4.87** (4.08-5.80)	**5.92** (4.91-7.09)	**7.35** (5.89-9.32)	**8.40** (6.58-10.9)	**9.57** (7.28-13.1)	**11.1** (7.70-15.1)	**13.6** (8.97-19.1)	**15.7** (10.1-22.6)
3-day	**3.12** (2.63-3.68)	**3.94** (3.33-4.66)	**5.29** (4.45-6.28)	**6.42** (5.35-7.65)	**7.96** (6.40-10.0)	**9.08** (7.14-11.8)	**10.3** (7.90-14.1)	**12.0** (8.35-16.3)	**14.7** (9.75-20.6)	**17.1** (11.0-24.4)
4-day	**3.37** (2.85-3.97)	**4.22** (3.57-4.97)	**5.61** (4.72-6.63)	**6.76** (5.65-8.04)	**8.35** (6.73-10.5)	**9.51** (7.49-12.3)	**10.8** (8.27-14.6)	**12.5** (8.72-16.9)	**15.3** (10.2-21.4)	**17.8** (11.5-25.3)
7-day	**4.07** (3.47-4.77)	**4.95** (4.21-5.80)	**6.38** (5.40-7.50)	**7.57** (6.36-8.95)	**9.21** (7.46-11.5)	**10.4** (8.23-13.3)	**11.7** (9.01-15.7)	**13.5** (9.44-18.0)	**16.4** (10.9-22.7)	**19.0** (12.3-26.7)
10-day	**4.72** (4.03-5.50)	**5.62** (4.79-6.56)	**7.08** (6.02-8.30)	**8.30** (7.00-9.78)	**9.98** (8.10-12.4)	**11.2** (8.87-14.2)	**12.6** (9.64-16.7)	**14.3** (10.1-19.1)	**17.2** (11.5-23.6)	**19.7** (12.8-27.6)
20-day	**6.59** (5.67-7.64)	**7.58** (6.51-8.79)	**9.19** (7.86-10.7)	**10.5** (8.93-12.3)	**12.4** (10.1-15.1)	**13.7** (10.9-17.1)	**15.2** (11.6-19.6)	**16.9** (12.0-22.2)	**19.5** (13.1-26.4)	**21.6** (14.0-29.8)
30-day	**8.15** (7.04-9.40)	**9.21** (7.94-10.6)	**10.9** (9.39-12.7)	**12.4** (10.5-14.4)	**14.3** (11.7-17.3)	**15.8** (12.5-19.5)	**17.4** (13.1-22.1)	**19.0** (13.5-24.8)	**21.3** (14.4-28.7)	**23.1** (15.1-31.7)
45-day	**10.1** (8.76-11.6)	**11.2** (9.73-12.9)	**13.1** (11.3-15.1)	**14.6** (12.5-17.0)	**16.8** (13.7-20.0)	**18.4** (14.5-22.4)	**20.0** (15.1-25.0)	**21.6** (15.4-27.9)	**23.6** (16.0-31.6)	**25.1** (16.4-34.2)
60-day	**11.8** (10.2-13.5)	**13.0** (11.2-14.9)	**14.9** (12.9-17.1)	**16.5** (14.2-19.1)	**18.7** (15.3-22.3)	**20.5** (16.2-24.8)	**22.2** (16.6-27.4)	**23.7** (16.9-30.5)	**25.6** (17.3-34.0)	**26.8** (17.5-36.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

Map Scale: 1:5,150 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

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 17, Sep 3, 2021

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

Date(s) aerial images were photographed: Aug 13, 2020—Oct 18, 2020

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		59.9	47.1%
65	Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded	A/D	13.5	10.6%
325B	Newport silt loam, 3 to 8 percent slopes	B	7.9	6.2%
603	Urban land, wet substratum, 0 to 3 percent slopes		8.1	6.4%
627C	Newport-Urban land complex, 3 to 15 percent slopes	B	23.5	18.5%
655	Udorthents, wet substratum		14.3	11.2%
Totals for Area of Interest			**127.2**	**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

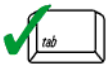
Massachusetts DEP Checklist for Stormwater Report

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.

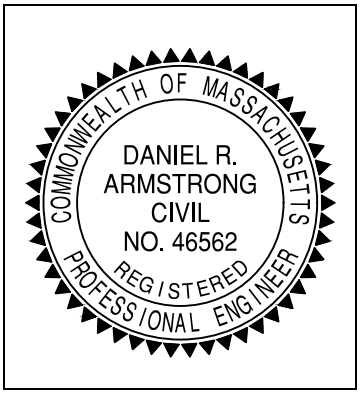
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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



09/22/2022
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.

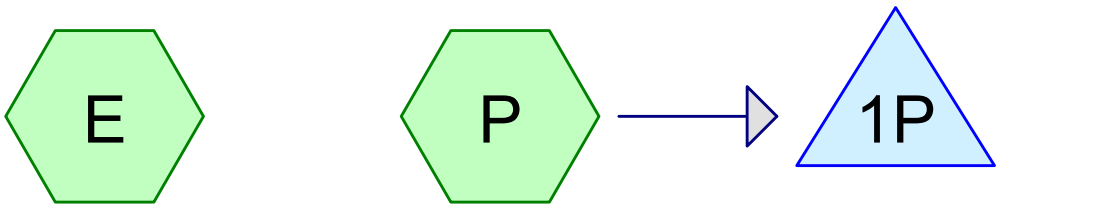
Standard 10: Prohibition of Illicit Discharges

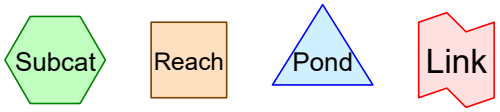
☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ 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.

HydroCAD Printout





Routing Diagram for 1201 Saratoga_Rev1
Prepared by Strong Civil Design, LLC, Printed 9/22/2022

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>1.35"
Tc=6.0 min CN=80 Runoff=0.23 cfs 0.017 af

SubcatchmentP: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>1.86"
Tc=6.0 min CN=87 Runoff=0.31 cfs 0.023 af

Pond 1P: Recharge System Peak Elev=8.17' Storage=386 cf Inflow=0.31 cfs 0.023 af
6.0" Round Culvert n=0.010 L=26.0' S=0.0100 '/' Outflow=0.19 cfs 0.015 af

Summary for Subcatchment E: Existing

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.14"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.14"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 1.86" for 2-Year event
Inflow = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af
Outflow = 0.19 cfs @ 12.22 hrs, Volume= 0.015 af, Atten= 40%, Lag= 7.9 min
Primary = 0.19 cfs @ 12.22 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 8.17' @ 12.22 hrs Surf.Area= 262 sf Storage= 386 cf

Plug-Flow detention time= 172.5 min calculated for 0.015 af (65% of inflow)
Center-of-Mass det. time= 72.9 min (892.0 - 819.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.18 cfs @ 12.22 hrs HW=8.15' (Free Discharge)
1=Culvert (Inlet Controls 0.18 cfs @ 1.46 fps)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>2.86"
Tc=6.0 min CN=80 Runoff=0.48 cfs 0.035 af

SubcatchmentP: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>3.54"
Tc=6.0 min CN=87 Runoff=0.59 cfs 0.043 af

Pond 1P: Recharge System Peak Elev=8.58' Storage=445 cf Inflow=0.59 cfs 0.043 af
6.0" Round Culvert n=0.010 L=26.0' S=0.0100 '/' Outflow=0.51 cfs 0.035 af

Summary for Subcatchment E: Existing

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.97"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.043 af, Depth> 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.97"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 3.54" for 10-Year event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.51 cfs @ 12.14 hrs, Volume= 0.035 af, Atten= 13%, Lag= 2.9 min
Primary = 0.51 cfs @ 12.14 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 8.58' @ 12.14 hrs Surf.Area= 262 sf Storage= 445 cf

Plug-Flow detention time= 113.1 min calculated for 0.035 af (82% of inflow)
Center-of-Mass det. time= 42.5 min (843.5 - 801.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.50 cfs @ 12.14 hrs HW=8.57' (Free Discharge)
1=Culvert (Inlet Controls 0.50 cfs @ 2.56 fps)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE: Existing Runoff Area=6,400 sf 38.83% Impervious Runoff Depth>5.51"
Tc=6.0 min CN=80 Runoff=0.91 cfs 0.067 af

SubcatchmentP: Proposed Runoff Area=6,400 sf 69.92% Impervious Runoff Depth>6.33"
Tc=6.0 min CN=87 Runoff=1.02 cfs 0.077 af

Pond 1P: Recharge System Peak Elev=9.48' Storage=534 cf Inflow=1.02 cfs 0.077 af
6.0" Round Culvert n=0.010 L=26.0' S=0.0100 '/' Outflow=0.87 cfs 0.070 af

Summary for Subcatchment E: Existing

Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.067 af, Depth> 5.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.88"

Area (sf)	CN	Description
3,915	69	50-75% Grass cover, Fair, HSG B
2,485	98	Roofs, HSG B
6,400	80	Weighted Average
3,915		61.17% Pervious Area
2,485		38.83% Impervious Area

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

Summary for Subcatchment P: Proposed

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.077 af, Depth> 6.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.88"

Area (sf)	CN	Description
1,925	61	>75% Grass cover, Good, HSG B
4,475	98	Roofs, HSG B
6,400	87	Weighted Average
1,925		30.08% Pervious Area
4,475		69.92% Impervious Area

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

Summary for Pond 1P: Recharge System

Inflow Area = 0.147 ac, 69.92% Impervious, Inflow Depth > 6.33" for 100-Year event
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.87 cfs @ 12.14 hrs, Volume= 0.070 af, Atten= 14%, Lag= 3.1 min
Primary = 0.87 cfs @ 12.14 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 9.48' @ 12.14 hrs Surf.Area= 262 sf Storage= 534 cf

Plug-Flow detention time= 81.5 min calculated for 0.069 af (90% of inflow)
Center-of-Mass det. time= 33.1 min (818.1 - 785.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	5.53'	259 cf	**13.75'W x 19.08'L x 4.50'H Field A** 1,181 cf Overall - 318 cf Embedded = 863 cf x 30.0% Voids
#2A	6.20'	318 cf	**StormChamber SC-34** x 4 Inside #1 Effective Size= 53.8"W x 34.0"H => 9.89 sf x 7.58'L = 75.0 cf Overall Size= 60.0"W x 34.0"H x 8.50'L with 0.92' Overlap

Row Length Adjustment= +0.92' x 9.89 sf x 2 rows

577 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	7.86'	**6.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.86' / 7.60' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.86 cfs @ 12.14 hrs HW=9.45' (Free Discharge)
1=Culvert (Inlet Controls 0.86 cfs @ 4.39 fps)

NORTH

"SALT MARSH"

WF A-9 WETLANDS WF A-8 WF A-7 WF A-6 WETLANDS WF A-5 WF A-4 WF A-3 WETLANDS WF A-2 WF A-1

LINE OF WETLANDS AND SALTMARSH

CONCRETE SIDEWALK

GC

100.0' TO WETLANDS

100.0' TO SALT MARSH

NL 10 CL 1926 (1985)

12"SEWER

10"SEWER

SMH
RIM=20.16
INV. IN=8.61
INV. IN=8.36(R)
INV. OUT=7.94(R)

SARATOGA STREET

CB
RIM=20.17
INV=17.57

CB
RIM=20.41
INV=18.51

12"WATER

ANNAVOY STREET

LANDSCAPED

80.00'

CONC. SIDEWALK

GRASS

LANDSCAPED

No. 1201

EXISTING BUILDING
FF EL.=28.5

AREA=6400 SQ. FT.

CONC. FNDT.

LINE 100' FROM WETLANDS AND SALTMARSH

FENCE

DRIVEWAY

GARAGE

WALL

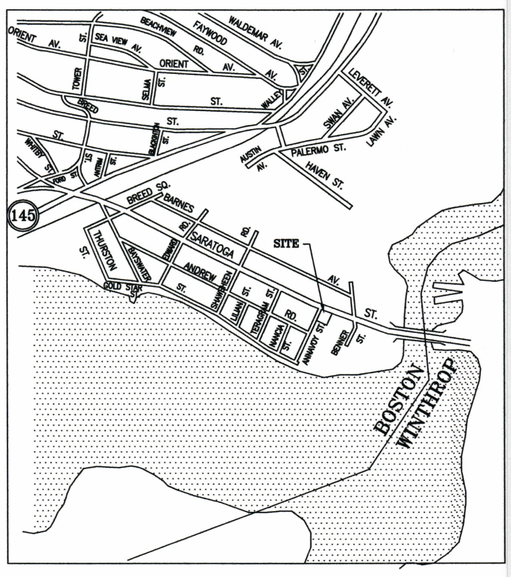
RETAINING WALL

PID:1901168000 & 1901169000

SMH
RIM=31.99
INV=22.52

LEGEND

SEWER	S
WATER	W
DRAIN	D
GAS	G
ELECTRIC	E
UP	UTILITY POLE
WG	WATER GATE
D	DRAIN MANHOLE
S	SEWER MANHOLE
B	CATCH BASIN
GG	GAS GATE
E	ELECTRIC MANHOLE
T	TELEPHONE MANHOLE
WF A-2	WETLAND FLAGS



LOCUS MAP
NOT TO SCALE

PLOT PLAN

1201 SARATOGA STREET

BOSTON, MASS.

SCALE : 1"= 10' JUNE 18, 2021

AGH ENGINEERING

166 WATER STREET STOUGHTON, MA 02072

PHONE: (781)344-2386

GRAPHIC SCALE

10 0 5 10 20 40

COMMONWEALTH OF MASSACHUSETTS
ANTONI SZERSZUNOWICZ
No. 36394
REGISTERED PROFESSIONAL LAND SURVEYOR

GENERAL NOTES:

- EXISTING TOPOGRAPHIC ELEVATIONS, SURFACE CONDITIONS, AND UTILITY INFORMATION IS BASED ON THE PLAN TITLED "PLOT PLAN, 1201 SARATOGA STREET, BOSTON, MASS" PREPARED BY AGH ENGINEERING, DATED JUNE 18, 2021, AND RECORD INFORMATION OBTAINED FROM THE CITY OF BOSTON.
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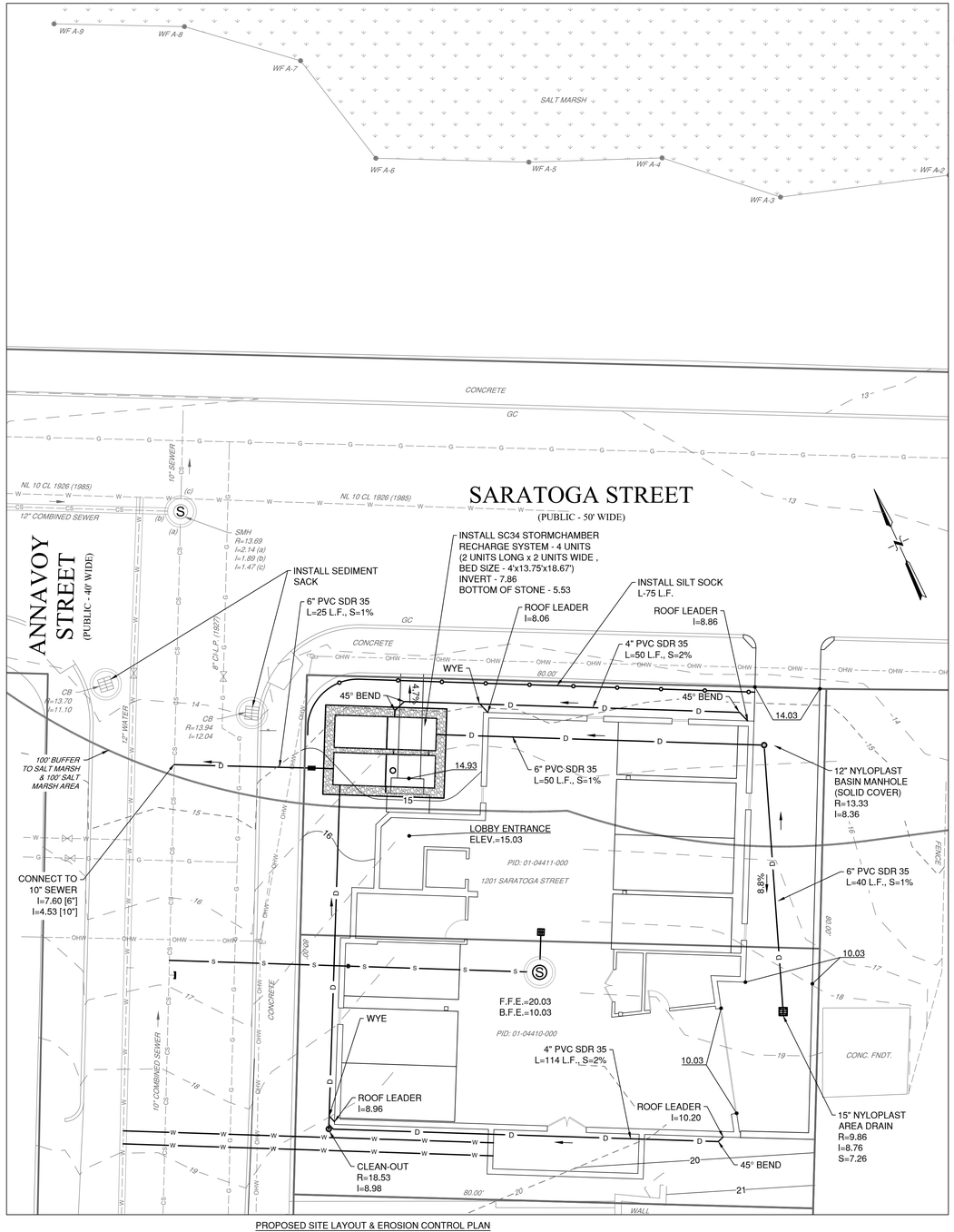
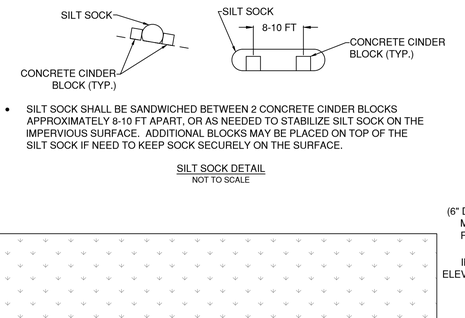


PROPOSED SITE LAYOUT & EROSION CONTROL PLAN



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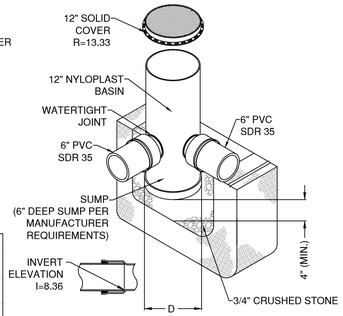
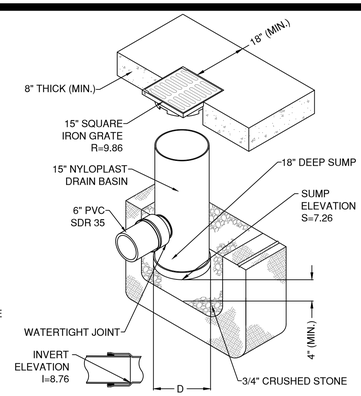
SILT SOCK DETAIL
NOT TO SCALE

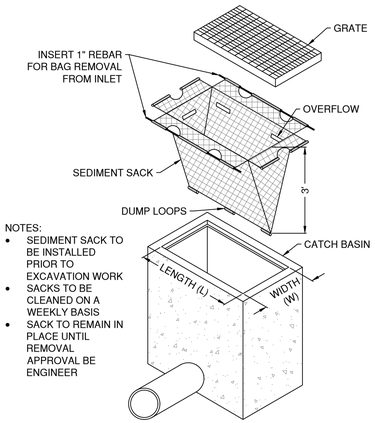


NYLOPLAST BASIN MANHOLE DETAIL
(N.T.S.)



NYLOPLAST AREA DRAIN DETAIL
(N.T.S.)

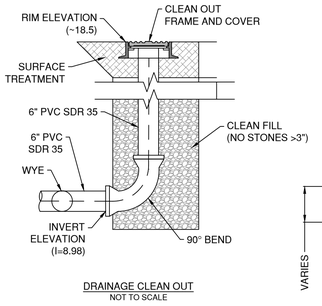
LOCUS MAP
1"=200'



NOTES:

- SEDIMENT SACK TO BE INSTALLED PRIOR TO EXCAVATION WORK
- SACKS TO BE CLEANED ON A WEEKLY BASIS
- SACK TO REMAIN IN PLACE UNTIL REMOVAL APPROVAL BE ENGINEER

SEDIMENT SACK DETAIL
(N.T.S.)



DRAINAGE CLEAN OUT
NOT TO SCALE

GROUNDWATER RECHARGE VOLUME REQUIREMENTS:

1" OF RECHARGE OVER THE TOTAL IMPERVIOUS AREA.

SURFACE CONDITIONS (S.F.)	
IMPERVIOUS	4,475
PERVIOUS	1,925
TOTAL	6,400

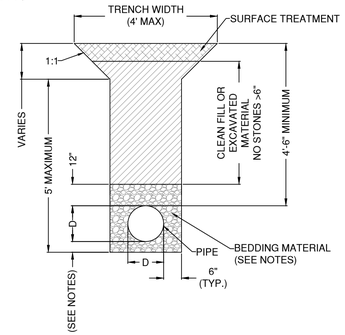
(1/12) FT * 4,475 FT² = 372.9 FT³

REQUIRED RECHARGE VOLUME = 373 CUBIC FEET

RECHARGE VOLUME PROVIDED:

STORMCHAMBER VOLUME = 300 CU. FT.
75 * 4 = 300
STORMCHAMBER STONE VOLUME (30% VOIDS) = 89 CU. FT.
[(2.33 * 13.75 * 18.67) - (300)] * 0.3 = 89.4

TOTAL RECHARGE VOLUME = 389 CUBIC FEET (300 FT³ + 89 FT³)



NOTES:

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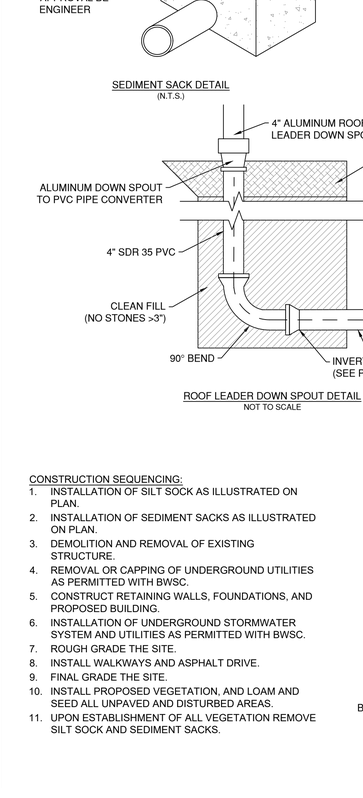
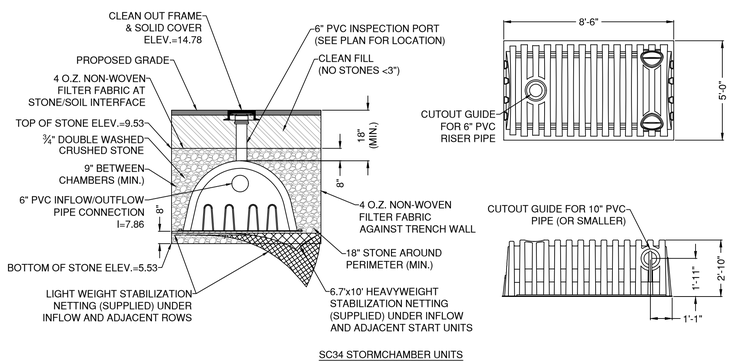
PIPE TRENCH DETAIL
(N.T.S.)



ROOF LEADER DOWN SPOUT DETAIL
NOT TO SCALE

CONSTRUCTION SEQUENCING:

1. INSTALLATION OF SILT SOCK AS ILLUSTRATED ON PLAN.
2. INSTALLATION OF SEDIMENT SACKS AS ILLUSTRATED ON PLAN.
3. DEMOLITION AND REMOVAL OF EXISTING STRUCTURE.
4. REMOVAL OR CAPPING OF UNDERGROUND UTILITIES AS PERMITTED WITH BWSC.
5. CONSTRUCT RETAINING WALLS, FOUNDATIONS, AND PROPOSED BUILDING.
6. INSTALLATION OF UNDERGROUND STORMWATER SYSTEM AND UTILITIES AS PERMITTED WITH BWSC.
7. ROUGH GRADE THE SITE.
8. INSTALL WALKWAYS AND ASPHALT DRIVE.
9. FINAL GRADE THE SITE.
10. INSTALL PROPOSED VEGETATION, AND LOAM AND SEED ALL UNPAVED AND DISTURBED AREAS.
11. UPON ESTABLISHMENT OF ALL VEGETATION REMOVE SILT SOCK AND SEDIMENT SACKS.



SC34 STORMCHAMBER UNITS
NOT TO SCALE

Revisions:

No.	Description	Date
---	---	---

Engineer's Stamp:

DANIEL R. ARMSTRONG CIVIL NO. 46562 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
9/22/2022

Project Title:

REDEVELOPMENT AT 1201 SARATOGA STREET IN EAST BOSTON MASSACHUSETTS

Prepared For:
VAHID NICKPOUR
1201 SARATOGA STREET, LLC
146 BUNKER HILL STREET
CHARLESTOWN, MA 02129
(617) 799-8482

Drawing Title:

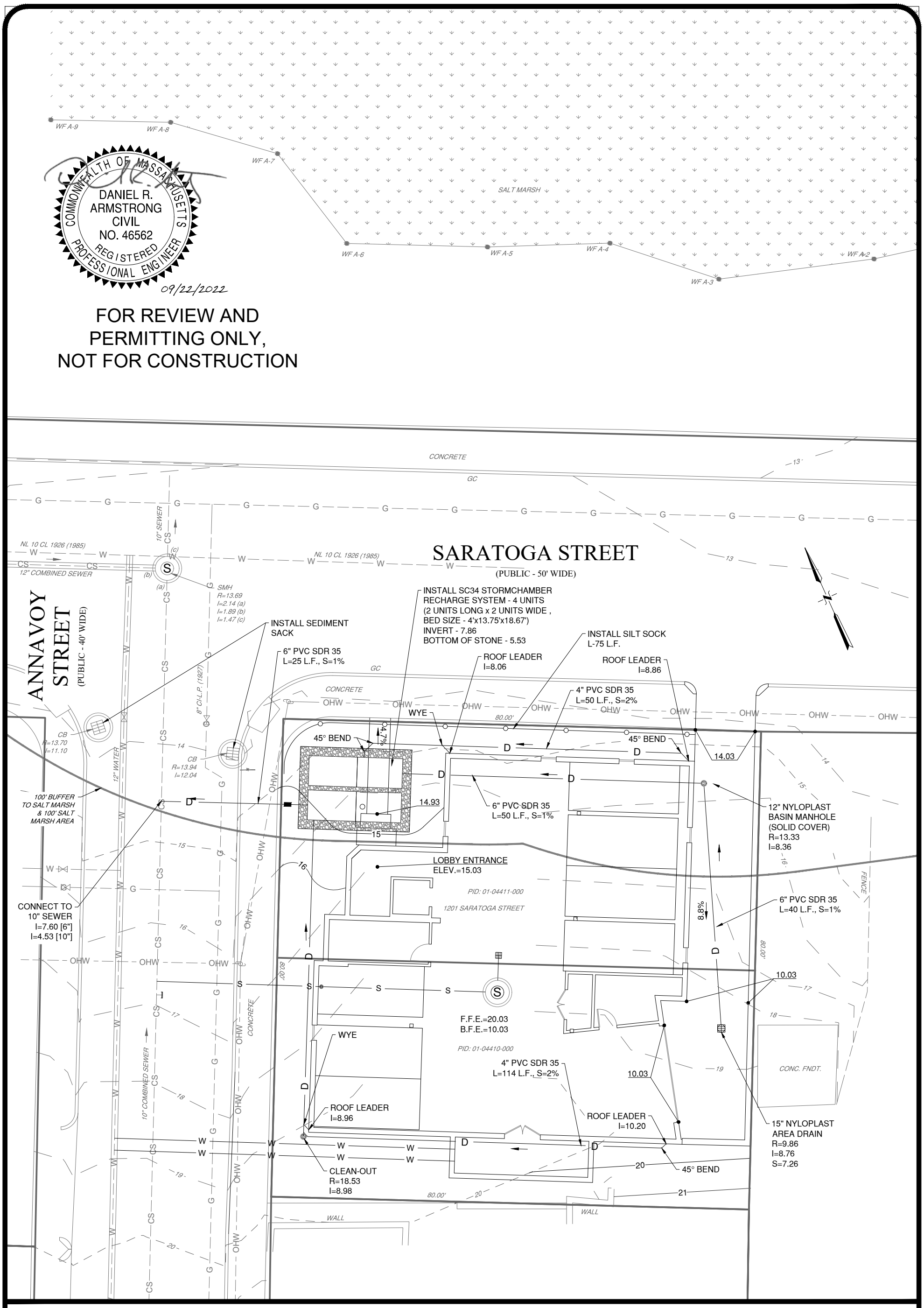
CONSERVATION COMMISSION PLAN

Scale: 1"=10'
0 5 10 20 25 FEET

Prepared By:
STRONG CIVIL DESIGN, LLC
53 PEACH STREET
BRAINTREE, MA 02184
(781) 974-5844

Date: September 22, 2022
Project No.: 000-000-00-000-0000
Engineer: Daniel R. Armstrong, P.E.
Drawing Name:
1201 Saratoga.dwg

Drawing No.
A



CONSERVATION COMMISSION PLAN VIEW EXHIBIT (NOT TO SCALE)
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

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FOR REVIEW AND PERMITTING ONLY, NOT FOR CONSTRUCTION

COMMONWEALTH OF MASSACHUSETTS
DANIEL R. ARMSTRONG
CIVIL
NO. 46562
REGISTERED PROFESSIONAL ENGINEER
09/22/2022

LOCUS MAP
1"=200'

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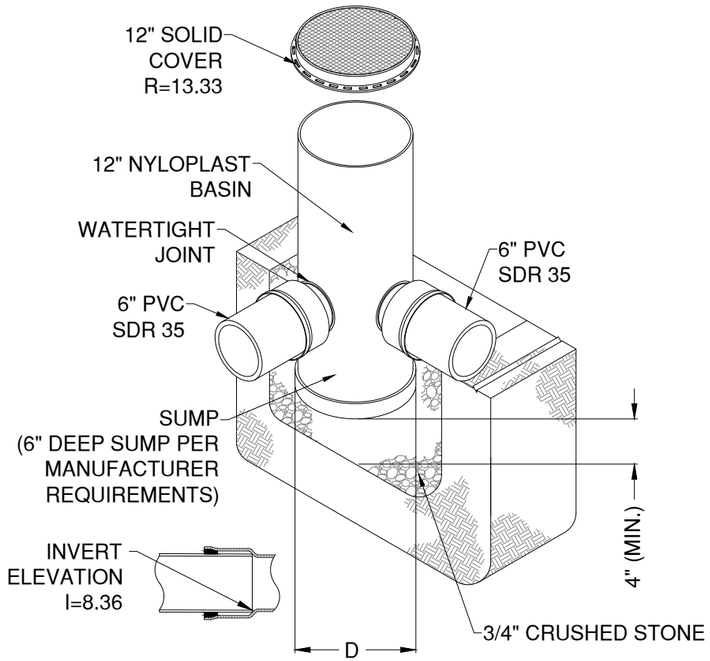
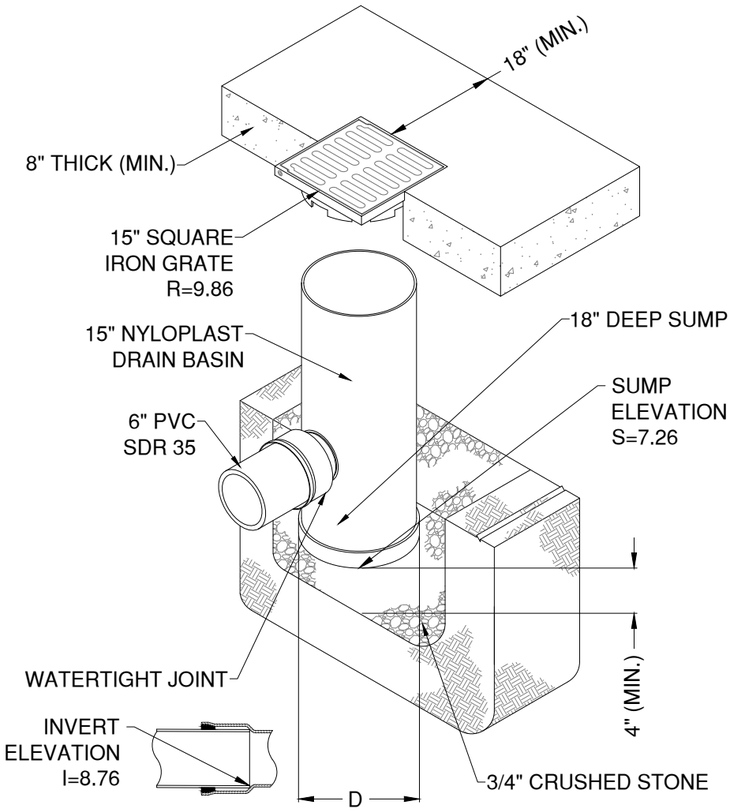
TOTAL RECHARGE VOLUME = 389 CUBIC FEET (300 FT^3 + 89 FT^3)

CONSERVATION COMMISSION LOCUS MAP, CALCULATIONS, AND NOTES EXHIBIT FOR 1201 SARATOGA STREET, EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844



NYLOPLAST BASIN MANHOLE DETAIL
(N.T.S.)



NYLOPLAST AREA DRAIN DETAIL
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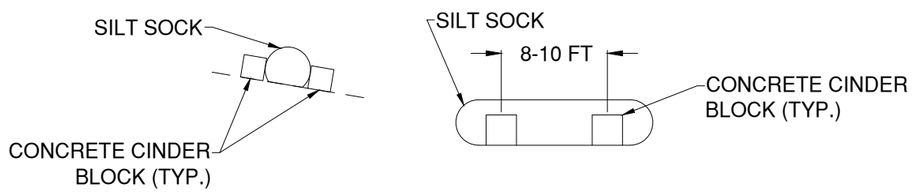

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SILT SOCK DETAIL
NOT TO SCALE

COMMONWEALTH OF MASSACHUSETTS
DANIEL R. ARMSTRONG
CIVIL
NO. 46562
REGISTERED PROFESSIONAL ENGINEER
09/22/2022

FOR REVIEW AND
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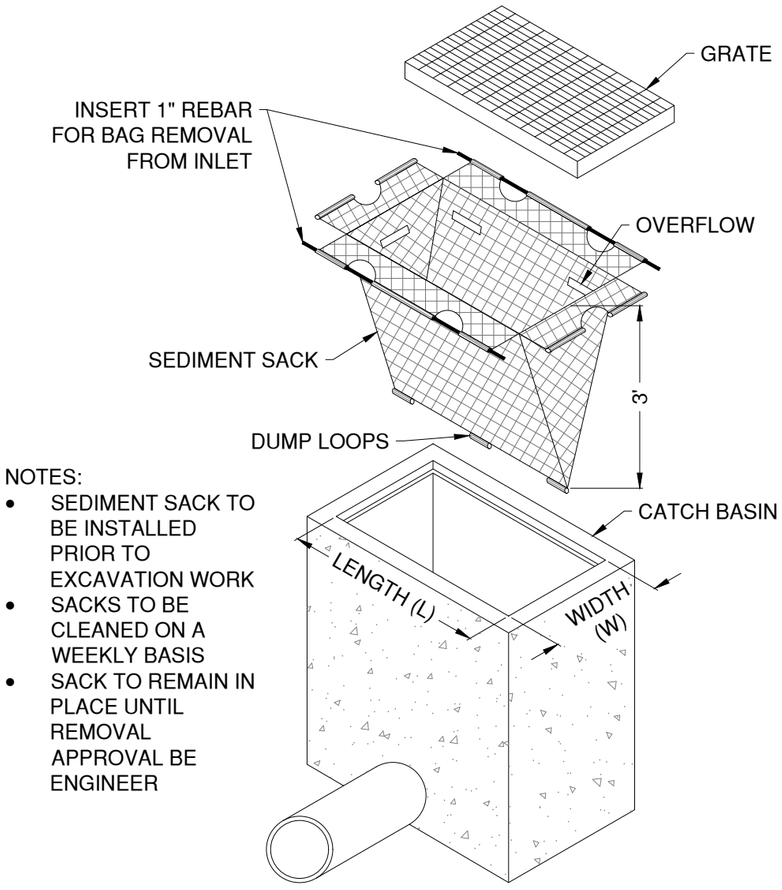
CONSERVATION COMMISSION DETAILS 1 EXHIBIT
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844



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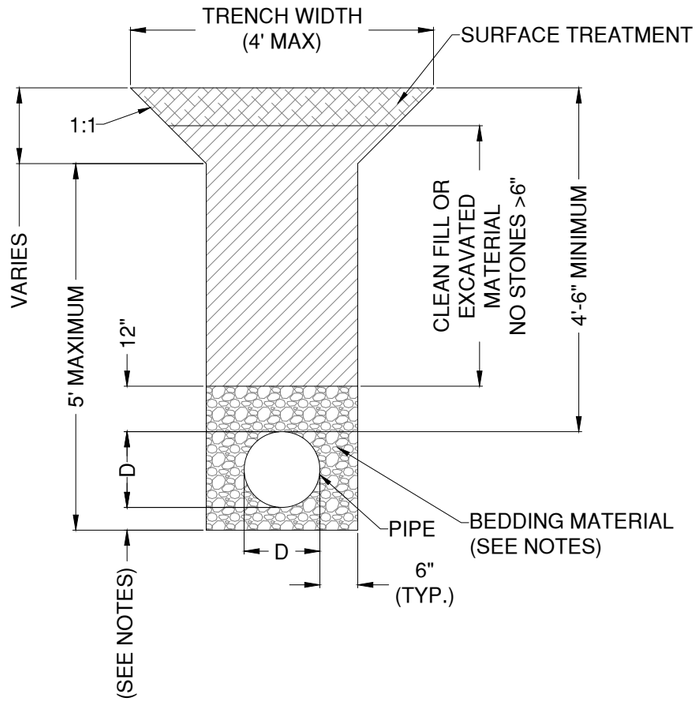

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PIPE TRENCH DETAIL
(N.T.S.)

FOR REVIEW AND PERMITTING ONLY, NOT FOR CONSTRUCTION

CONSERVATION COMMISSION DETAILS 2 EXHIBIT
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844

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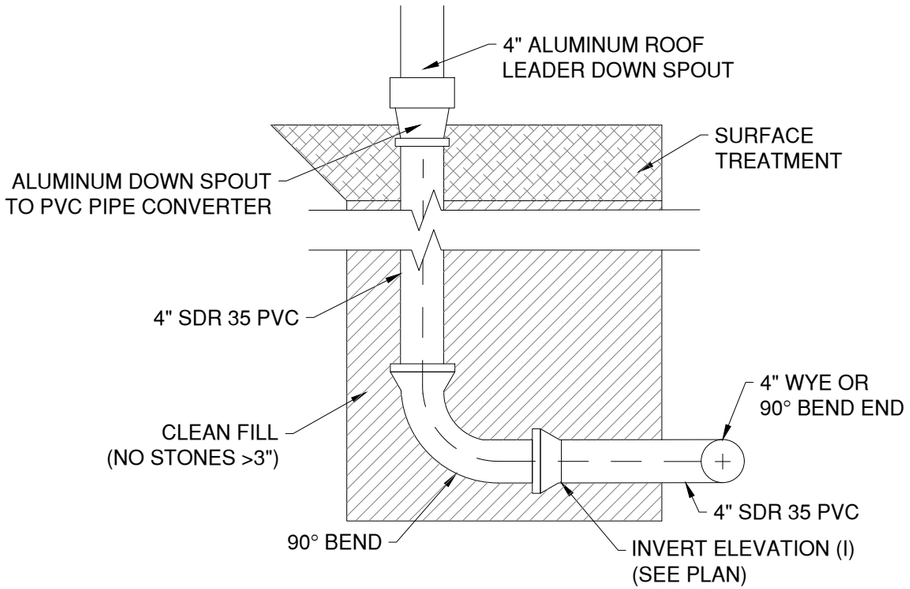
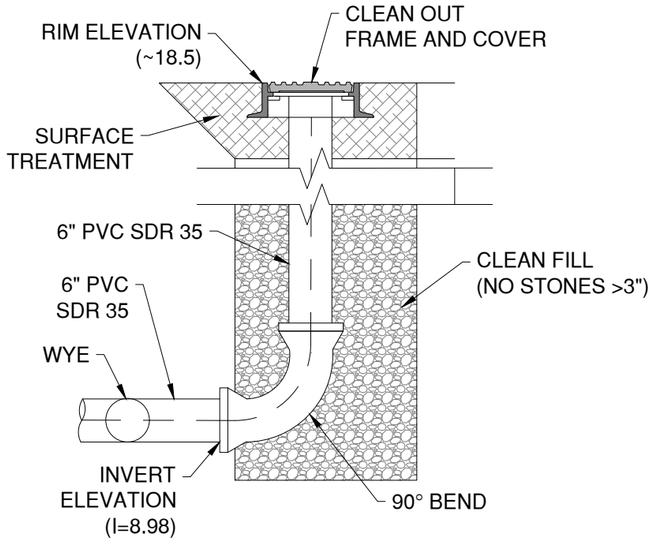


ROOF LEADER DOWN SPOUT DETAIL
NOT TO SCALE



DRAINAGE CLEAN OUT
NOT TO SCALE

FOR REVIEW AND
PERMITTING ONLY,
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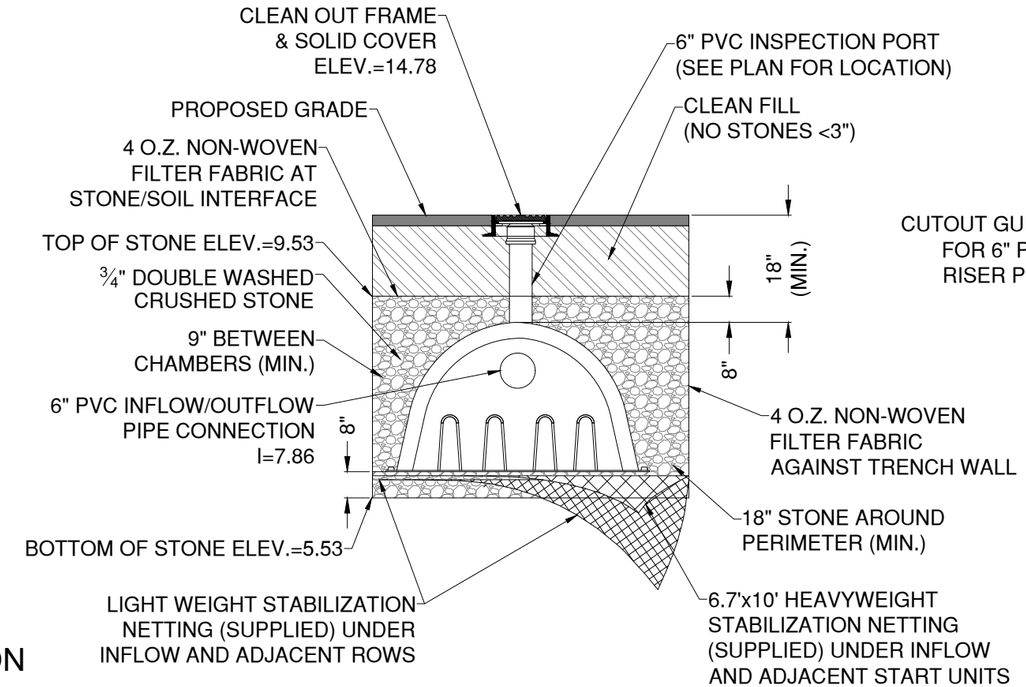
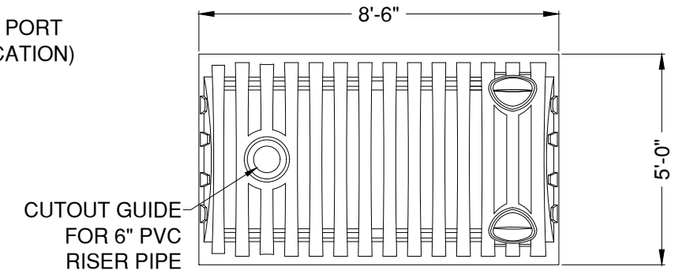
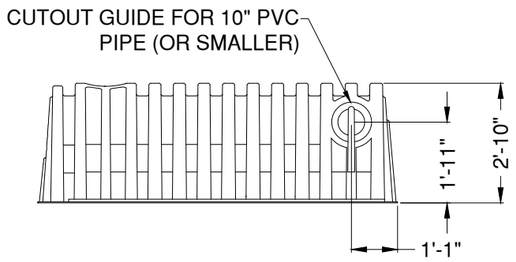


SC34 STORMCHAMBER UNITS
NOT TO SCALE





CONSERVATION COMMISSION DETAILS 3 EXHIBIT
FOR
1201 SARATOGA STREET,EAST BOSTON, MA

5

STRONG CIVIL DESIGN, LLC - 53 PEACH STREET, BRAINTREE, MA 02184 - (781) 974-5844

5

Project:

6 UNIT MULTI FAMILY BUILDING
1201 Saratoga St. E. Boston, MA

Owner:
Nova Realty Trust
1201 Saratoga St LLC
146 Bunker Hill, Charlestown, MA

Architect:
Sangiolo Associates Architects
www.sangioloassociates.com
617 272 5402

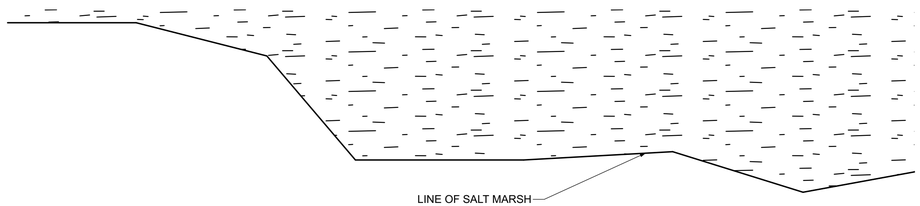
Structural Engineer:
R&G Structural Engineers
300 TradeCenter, Suite 3540
Woburn, MA 01801

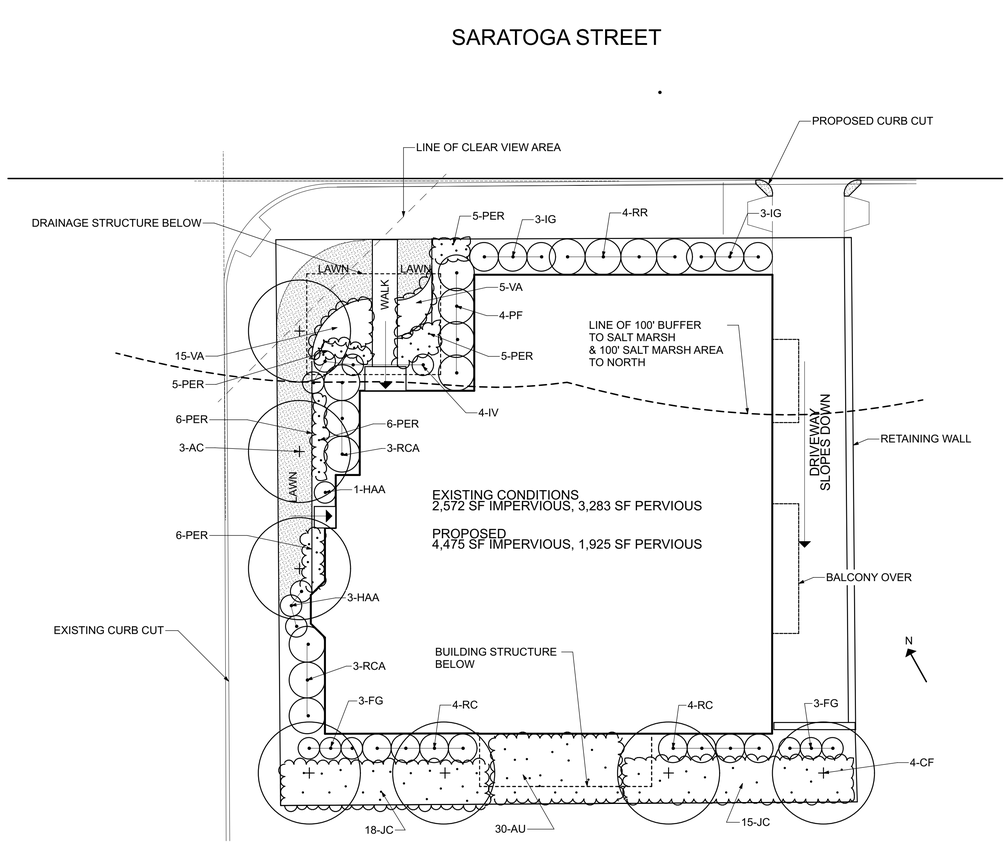
Date:
7-4-22
r 9-22-22
r 10–4–22

Drawing:

LANDSCAPE PLAN

L1





1 Landscape Plan 1" = 10'

PLANT LIST - 201 SARATOGA STTEET EAST BOSTON MA
7/4/22

QTY	KEY	SPECIES	SIZE	REMARKS
UNDERSTORY TREES -				
3	AC	Amelanchier canadensis Downy Shadblow	2.5" caliper	Multistemmed
3	CF	Cornus florida Flowering Dogwood	2.5" caliper	
NATIVE SHRUBS				
30	AU	Arctostaphylos uva-ursi Bearberry		1 gallon
6	FG	Fothergilla gardenii Dwarf Fothergilla		3 gallon
3	HAA	Hydrangea arborescens Annabelle Hydrangea		3 gallon
6	IG	Ilex glabra Inkberry Holly		5 gallon
4	IV	Itea virginica Sweetspire		3 gallon
33	JC	Juniperus conferta Blue Pacific Juniper Blue Pacific		2 gallon
4	PF	Pieris floribunda Mountain Andromeda		7 gallon
8	RC	Rosa caroliniana Pasture Rose		1 gallon
6	RCA	Rhododendron catawbiense album White Catawba Rhododendron		7 gallon
4	RR	Rhododendron maximum Rosebay Rhododendron		7 gallon
20	VA	Vaccinum angustifolium Low bush Blueberry		1 gallon

NATIVE PERENNIALS - 27

PER Eastern Showy Aster, Bee balm, Liatris, False Indigo,
Tall Phlox, Geranium, Anemone canadensis, Achillea, Penstemon,
Pink Threadleaf coreopsis, Echineacea, Rudbeckia, Heuchera

NOTES
1. Lawn areas (572 sf) will be seeded with a No Mow/Deep Root Fescue Blend Seed Mix - Hard Fescue, Sheep fescue, Chewings fescue, Red fescue, Creeping Red fescue
2. Native trees will be planted along the south and west facing facades to provide some solar relief to the building.
3. The specified native plantings have seasonal interest and provide shelter, food and habitat for birds. They have spreading root systems and once established require less maintenance and water.

Plant List