NORSE ENVIRONMENTAL SERVICES, INC.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879
TEL. (978) 649-9932 • FAX (978) 649-7582
Website: www.norseenvironmental.com

NOTICE OF INTENT

FOR

12 BLOOMINGTON STREET,
13-15 MCKONE STREET

WARD 16 PARCEL 02469000

DORCHESTER, MA

APPLICANT: TIM JOHNSON ARCHITECT LLC

APRIL 2019

PROJECT: 12 BLOOMINGTON STREET,
13-15 MCKONE STREET - DORCHESTER

APPLICANT: TIM JOHNSON ARCHITECT LLC

TABLE OF CONTENTS

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

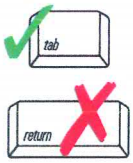
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
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):

12 Bloomington Street, 13-15 McKone Street — a. Street Address
Dorchester — b. City/Town
02122 — c. Zip Code

Latitude and Longitude:
42 17' 23.35" N — d. Latitude
71 02' 48.73" W — e. Longitude

Ward 16 — f. Assessors Map/Plat Number
Parcel 02469000 — g. Parcel /Lot Number

2. Applicant:

Timothy — a. First Name
Johnson — b. Last Name
Tim Johnson Architect LLC — c. Organization
190 Old Colony Avenue — d. Street Address
South Boston — e. City/Town
MA — f. State
02127 — g. Zip Code
617-464-4363 — h. Phone Number
i. Fax Number
architecttj@verizon.net — j. Email Address

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

Mark — a. First Name
Little, Manager — b. Last Name
15 McKone Street LLC — c. Organization
190 Old Colony Avenue — d. Street Address
South Boston — e. City/Town
MA — f. State
02127 — g. Zip Code
617-922-9971 — h. Phone Number
i. Fax Number
mark@abacusbuilders.com — j. Email address

4. Representative (if any):

Steven — a. First Name
Eriksen — b. Last Name
Norse Environmental Services, Inc. — c. Company
92 Middlesex Road, Unit 4 — d. Street Address
Tyngsborough — e. City/Town
MA — f. State
01879 — g. Zip Code
978-649-9932 — h. Phone Number
i. Fax Number
norseenvironmental@verizon.net — j. Email address

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

$3,062.50 — a. Total Fee Paid
$1,562.50 — b. State Fee Paid
$1,500.00 — c. City/Town Fee Paid

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

A. General Information (continued)

6. General Project Description:

The applicant is proposing to raze an existing single family dwelling, construct (3) new two-family dwellings, porches, decks, driveways, parking lot, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) and Bordering Land Subject to Flooding or 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 County Registry of Deeds	
c. Book	d. Page Number
57261	288

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	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	10,677 s.f. 1. square feet 3. cubic feet of flood storage lost	-0- 2. square feet -0- 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	10,677 +/- s.f. 1. square feet	

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

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

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings | b. number of replacement stream crossings

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

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

C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   a. ☐ Yes ☒ No

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

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

   3/2019
   b. Date of map

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

   c. Submit Supplemental Information for Endangered Species Review*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

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

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

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

   (b) ☐ Photographs representative of the site

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

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

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

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

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

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

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

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

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

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

   a. ☐ Yes ☒ No

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

   a. ☐ Yes ☒ No

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

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

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

      2. ☒ A portion of the site constitutes redevelopment

      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house

      2. ☐ Emergency road repair

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

D. Additional Information

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

D. Additional Information (cont'd)

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

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

12 Bloomington, 13-15 Mckone Street Dorchester Massachusetts
a. Plan Title

Peter Nolan & Associates
b. Prepared By

Edmond Spruhan
c. Signed and Stamped by

2/20/19
d. Final Revision Date

1"=10'
e. Scale

Existing Conditions Site Plan
f. Additional Plan or Document Title

4/13/17
g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

City of Boston Check #1058
2. Municipal Check Number

3-20-2019
3. Check date

Commonwealth of MA Check #1048
4. State Check Number

1-24-2019
5. Check date

Mark
6. Payor name on check: First Name

Little
7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant

2. Date: 1-18-19

3. Signature of Property Owner (if different)

4. Date: 1-23-19

5. Signature of Representative (if any)

6. Date: 2/28/19

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.

15 McKONE ST LLC
190 OLD COLONY AVE
BOSTON, MA 02127-2417

1058

53-13/110 MA
88828

March 20, 19
Date

Pay To The Order Of City of Boston $ 1500.00

One thousand five hundred ^{00}/_{100} Dollars

Photo Safe Deposit® Details on back

Bank of America

ACH R/T 011000138

For Environmental Conservation Protect

MP

⑆011000138⑆ 004668111230⑈1058

Harland Clarke

15 McKONE ST LLC
190 OLD COLONY AVE
BOSTON, MA 02127-2417

1048

53-13/110 MA
99823

Jan 24, 2019
Date

Pay To The Order Of Commonwealth of Mass $ 1,562.50

One thousand five hundred Sixty two ^{50}/_{100}

Photo Safe Deposit®

Bank of America

ACH R/T 011000138

For 1/2 of Fee environment Protection Fee

MP

⑆011000138⑆ 004668111230⑈1048

Harland Clarke

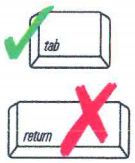
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

A. Applicant Information

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



1. Location of Project:

12 Bloomington Street, 13-15 McKone Street	Dorchester
a. Street Address	b. City/Town
Check #1048	$1,562.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Timothy	Johnson	
a. First Name	b. Last Name	
Tim Johnson Architect LLC		
c. Organization		
190 Old Colony Avenue		
d. Mailing Address		
South Boston	MA	02127
e. City/Town	f. State	g. Zip Code
617-464-4363		architecttj@verizon.net
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

Mark	Little, Manager	
a. First Name	b. Last Name	
McKone St LLC		
c. Organization		
190 Old Colony Avenue		
d. Mailing Address		
South Boston	MA	02127
e. City/Town	f. State	g. Zip Code
617-922-9971		mark@abacusbuilders.com
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)	3	$1,050.00	$3,150.00

Step 5/Total Project Fee: $3,150.00

Step 6/Fee Payments:

Total Project Fee:	$3,062.50 a. Total Fee from Step 5
State share of filing Fee:	$1,562.50 b. 1/2 Total Fee **less** $12.50
City/Town share of filling Fee:	$1,500.00 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.)

Notification to Abutters Under the Massachusetts Wetlands Protection Act

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

A. The name of the applicant is 15 McKone St LLC.

B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of Boston, seeking permission to remove, fill, dredge, or alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, Section 40).

C. The address where the activity is proposed is 12 Bloomington Street, 13-15 McKone Street-Dorchester Ward 16 Parcel 02469000.

Proposing to raze an existing single family dwelling, construct (3) two-family dwellings, porches, decks, driveways, parking, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) and Bordering Land Subject to Flooding or the 100-year floodplain.

D. Copies of the Notice of Intent may be examined at: Boston Conservation Commission located at Boston City Hall, 1 City Hall Square, Room 709 Boston, MA 02201 between the hours of 9:00 a.m. to 5:00 p.m. on the following days of the week: Monday through Friday. For more information, call: 617-635-3850.

E. Copies of the Notice of Intent may also be examined at Norse Environmental Services by calling this telephone number 978-649-9932 between the hours of 8:00 a.m. and 6:00 p.m. on the following days of the week: Monday thru Thursday/ Friday until 12:00 p.m.

F. Information regarding the date, time, and place of the public hearing may be obtained from the Boston Conservation Commission by calling this telephone number 617-635-3850 between the hours of 9:00 a.m. to 5:00 p.m. on the following days of the week: Monday thru Friday. For more information, call: 617-635-3850.

A public hearing will take place at 6 p.m. on April 17, 2019 at Boston City Hall, 1 City Hall Square in the Piemonte Room, 5th floor.

The following is a link to view the Public Notice Page to confirm hearing date and agenda items: **https://www.boston.gov/public-notices**

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 in the City or Town Hall not less than forty-eight (48) hours in advance.

Note: You also may contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetland Protection Act. To contact DEP Call: **Northeast Region:** 978-694-3200.

If you have any further questions please call Steven Eriksen at Norse Environmental Services, Inc., 978-649-9932.

Abutter Mailing List Generator --- City of Boston Assessing Department

Enter/Select a Street Name:

Find Addresses

Click an Address to find a Parcel:

Enter a Parcel ID:

1602468000

Find a Parcel

When you can see Parcels:

Click Here to Select a Parcel

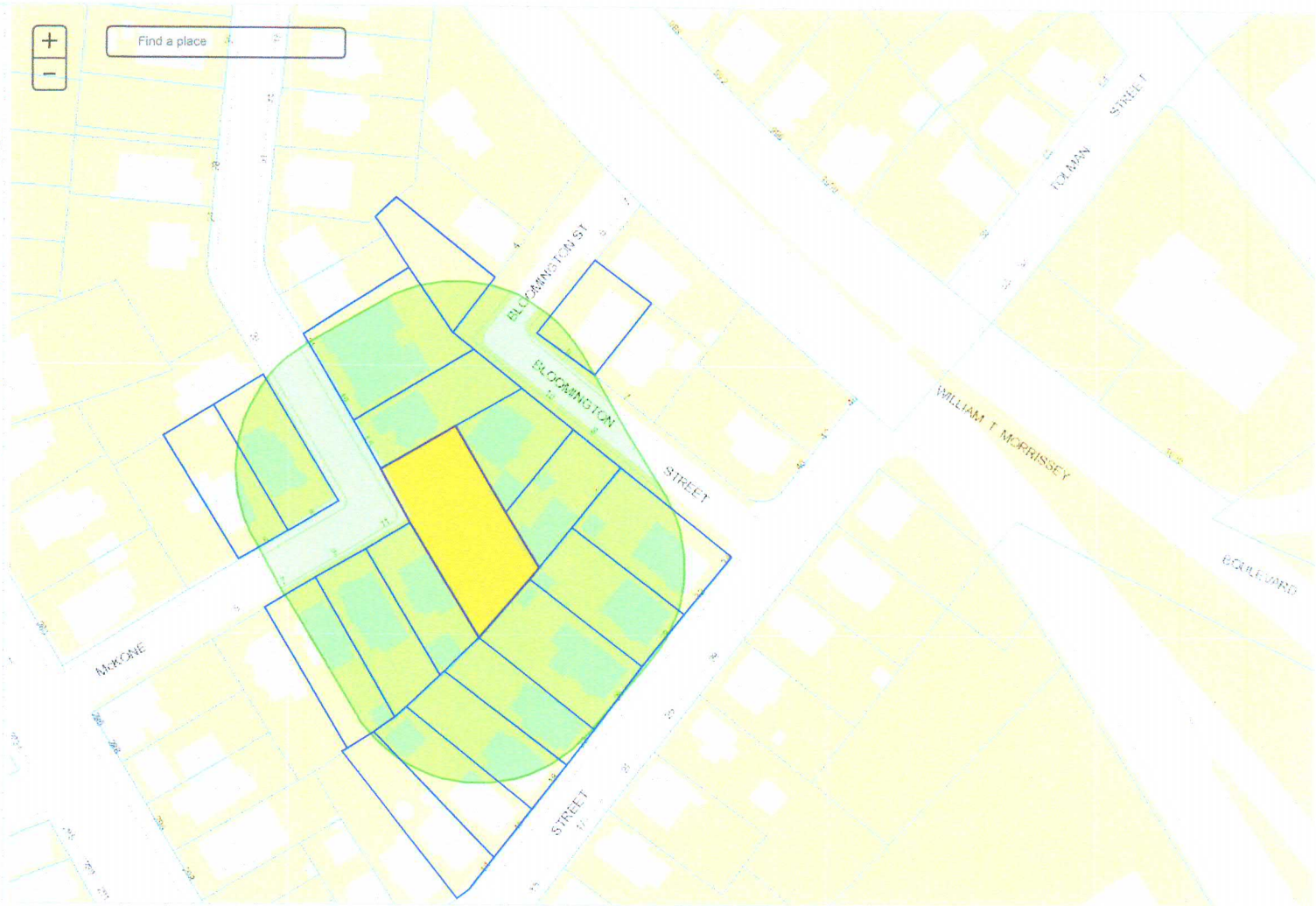
Buffer Parameters:

Distance: 100 Feet

Buffer and Select

Click here to download a CSV file (Open in Notepad, not in Excel) for Mailing list.
Click here for an instruction to convert a CSV file to Mailing Labels using MS Word.

Note: Use newer versions of browser to view this site such as IE 11+ or Chrome 47+ etc.



ABUTTERS LIST: 1602468000 - DORCHESTER

ID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPCODE	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
1602465000	JOYCE JAMES A	C/O JAMES A JOYCE	7 MCKONE ST	DORCHESTER MA	2122	7 MCKONE ST	DORCHESTER	2122
1602466000	RAY VANESSA	C/O VANESSA RAY	9 MCKONE ST	DORCHESTER MA	2122	9 MCKONE ST	DORCHESTER	2122
1602467000	GIANNESCHI ALLISON L	C/O ALLISON L GIANNESCHI	11 MCKONE ST	DORCHESTER MA	2122	11 MCKONE ST	DORCHESTER	2122
1602469000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	15 MCKONE ST	DORCHESTER	2122
1602470000	PETITTI KEVIN A	C/O DENISE PETITTI	PO BOX 23	READVILLE MA	2136	19 MCKONE ST	DORCHESTER	2122
1602480000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	BLOOMINGTON ST	DORCHESTER	2122	
1602484000	SULLIVAN EDWARD H ETAL	28 TOLMAN	DORCHESTER MA	2122	28 TOLMAN ST	DORCHESTER	2122	
1602481000	NGUYEN TRAN T	C/O TRAN T NGUYEN	41 TOLMAN ST	DORCHESTER MA	2122	10 BLOOMINGTON ST	DORCHESTER	2122
1602486002	ROONEY MICHAEL	C/O MICHAEL ROONEY	22 TOLMAN ST # 1	DORCHESTER MA	2122	22 TOLMAN ST Apt 1	DORCHESTER	2122
1602488000	FLAHERTY KATHLEEN	C/O KATHLEEN FLAHERTY	16 TOLMAN ST	DORCHESTER MA	2122	16 TOLMAN ST	DORCHESTER	2122
1602489000	POLLIS RICHARD F ETAL	14 TOLMAN	DORCHESTER MA	2122	14 TOLMAN ST	DORCHESTER	2122	
1602515000	LUU QUANG A	C/O QUANG A LUU & OANH T VU	23 CAMPBELL ST	QUINCY MA	2169	9 BLOOMINGTON ST	DORCHESTER	2122
1602483000	LE MINHHIEU THI	C/O MINHHIEU THI LE	32 TOLMAN ST	DORCHESTER MA	2122	32 TOLMAN ST	DORCHESTER	2122
1602468000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	MCKONE ST	DORCHESTER	2122
1602482000	CONNORS CHARLES ETAL	6 BLOOMINGTON	DORCHESTER MA	2122	6 BLOOMINGTON ST	DORCHESTER	2122	
1602485000	BALLOU JEANINE	C/O JEANINE BALLOU	35 MT VERNON ST	DORCHESTER MA	2125	26 TOLMAN ST	DORCHESTER	2122
1602486000	TWENTY-2 TOLMAN STREET	C/O MICHAEL J SPENCE TS	22 TOLMAN ST	DORCHESTER MA	2122	22 TOLMAN ST	DORCHESTER	2122
1602486004	COLLINS MICHAEL	22 TOLMAN ST # 2	DORCHESTER MA	2122	22 TOLMAN ST Apt 2	DORCHESTER	2122	
1602487000	TIMMONS MICHELE J	18 TOLMAN ST	DORCHESTER MA	2122	18 TOLMAN ST	DORCHESTER	2122	
1602549000	NORTON ROBERT T	8 MCKONE ST	DORCHESTER MA	2122	8 MCKONE ST	DORCHESTER	2122	
1602550000	CARVER PHILIP	6 MCKONE ST	DORCHESTER MA	2122	6 MCKONE ST	DORCHESTER	2122	

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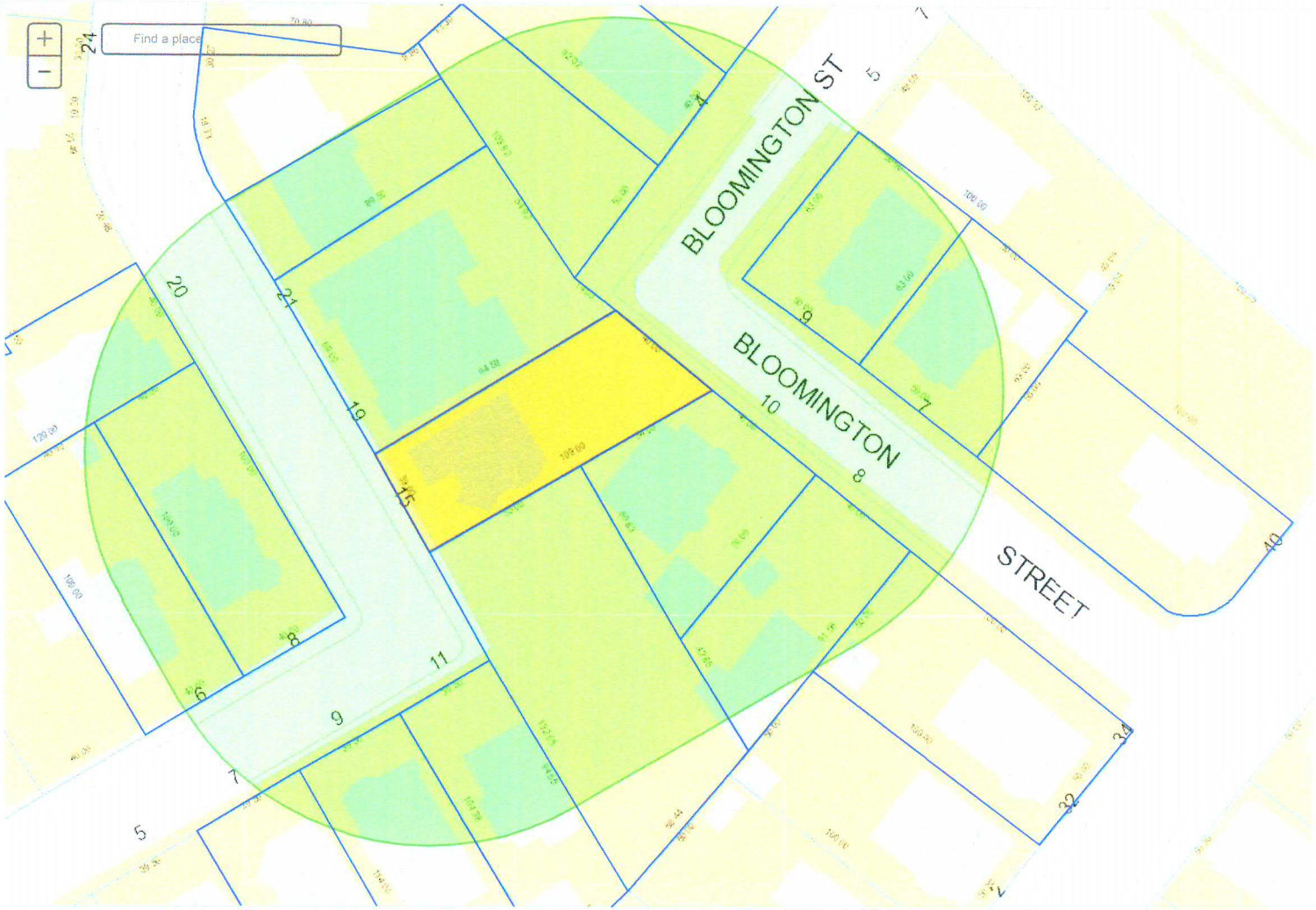

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1602470000	PETITTI KEVIN A	C/O DENISE PETITTI	PO BOX 23	READVILLE MA	2136	19 MCKONE ST	DORCHESTER	2122
1602480000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	BLOOMINGTON ST	DORCHESTER	2122	
1602479000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	20 BLOOMINGTON ST	DORCHESTER	2122	
1602478000	NINE 85 MORRISSEY BLVD LLC	C/O CHRISTOPHER KOKORAS	P O BOX 790	WINCHESTER MA	1890	985 WM T MORRISSEY BL	DORCHESTER	2122
1602481000	NGUYEN TRAN T	C/O TRAN T NGUYEN	41 TOLMAN ST	DORCHESTER MA	2122	10 BLOOMINGTON ST	DORCHESTER	2122
1602515000	LUU QUANG A	C/O QUANG A LUU & OANH T VU	23 CAMPBELL ST	QUINCY MA	2169	9 BLOOMINGTON ST	DORCHESTER	2122
1602483000	LE MINHHIEU THI	C/O MINHHIEU THI LE	32 TOLMAN ST	DORCHESTER MA	2122	32 TOLMAN ST	DORCHESTER	2122
1602514000	7 BLOOMINGTON STREET REALTY	C/O KEVIN J KANE	7 BLOOMINGTON ST	DORCHESTER MA	2122	7 BLOOMINGTON ST	DORCHESTER	2122
1602472000	DIMITRIADIS EUSTATHIOS	12 FENTON ST	DORCHESTER MA	2122	27 MCKONE ST	DORCHESTER	2122	
1602471000	DIMITRIADIS EUSTATHIOS	12 FENTON ST	DORCHESTER MA	2122	25 MCKONE ST	DORCHESTER	2122	
1602468000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	MCKONE ST	DORCHESTER	2122
1602482000	CONNORS CHARLES ETAL	6 BLOOMINGTON	DORCHESTER MA	2122	6 BLOOMINGTON ST	DORCHESTER	2122	
1602513000	PHIPPS MICHAEL D	C/O MICHAEL D PHIPPS	3 BARTLETT PLACE	WALPOLE MA	2122	40 TOLMAN ST	DORCHESTER	2122
1602548000	REDD HOLDINGS LLC	C/O DENIS KEOHANE	469 NEPONSET AVE	BOSTON MA	2122	20 MCKONE ST	DORCHESTER	2122
1602549000	NORTON ROBERT T	8 MCKONE ST	DORCHESTER MA	2122	8 MCKONE ST	DORCHESTER	2122	
1602550000	CARVER PHILIP	6 MCKONE ST	DORCHESTER MA	2122	6 MCKONE ST	DORCHESTER	2122	

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

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

I, Steven Eriksen, hereby certify to the best of my knowledge, under the pains and penalties of perjury that on April 2, 2019 I gave notification to the abutters in compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by 15 McKone St LLC with the Boston Conservation Commission on April 2, 2019 for property located at 12 Bloomington Street, 13-15 McKone Street Ward 16 Parcel 02469000.

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

Name

4-2-19

Date

NORSE ENVIRONMENTAL SERVICES, INC.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879
TEL. (978) 649-9932 • FAX (978) 649-7582
Website: www.norseenvironmental.com

Notice of Intent Report

For

12 Bloomington Street, 13-15 McKone Street Dorchester, MA

Prepared For

Tim Johnson Architect LLC
190 Old Colony Avenue
South Boston, MA 02127

Prepared By

Norse Environmental Services, Inc.
92 Middlesex Road, Unit 4
Tyngsborough, MA 01879

April 2019

Narrative

The applicant is proposing to raze an existing two-family dwelling to construct (3) two-family dwellings, porches, decks, driveways, parking, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) per 310 CMR 10.04 and Bordering Land Subject to Flooding (BLSF) or the 100-year floodplain or elevation 10 ft.

Site Description

The two parcels (ID Numbers 1602468000 & 1602469000) are combined as one 1602469000 with a street address of 12 Bloomington Street and 13-15 McKone Street. The parcel consists of 10,677 +/- s.f. of land located easterly on McKone Street and westerly of Bloomington Street in Dorchester, MA with an existing two-family dwelling. The parcel is landscaped with lawn, trees and a chain link fence. The site is bounded by residential dwellings by McKone Street and Bloomington Street between Morrisey Boulevard and Neponset Avenue.

Soils

The Web Soil Survey Norfolk and Suffolk County maps this site as Merrimac-Urban land complex. Merrimac-Urban Land Complex consists of nearly level to undulating, deep, somewhat excessively drained Merrimac soils and areas of urban land. Although urban development has altered the soils and landscapes on these areas, the soil can be identified at widely separated points, and the general nature of the area can be determined. Broad delineations are made on the map. This map unit consists of about 75 percent Merrimac and similar soils and at least 25 percent urban land and other disturbed areas. Urban land consists of streets, parking lots, buildings, and other structures.

Resource Area

As mentioned above, the entire site is located within LSCSF and BLSF or the 100-year flood-plain. 310 CMR 10.04 Land Subject to Coastal Storm Flowage means, "land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater". Mr. Nick Moreno, Conservation Assistant, confirmed the LSCSF elevation of 10 ft. or 16.46 ft Boston City Base (BCB).

The project proposes to disturb 10,677 s.f. LSCSF. Per the Massachusetts Building Code section 780 CMR 120G Flood-Resistant Construction and Construction in Coastal Dunes, requires construction at or above the Base Food Elevation. The first-floor elevation and utility elevation are proposed at 17.5 +/- ft. (BCB) or the living area will be a minimum of 1.04 ft above the flood plain. Please see the enclosed Climate Resiliency Checklist.

310 CMR 10.00 The Massachusetts Wetland Protection Act presently has no performance standards for work within LSCSF. However, the Commonwealth of Massachusetts, "Applying the Massachusetts Coastal Wetlands Regulations" provides guidance for work within LSCSF. The project has been designed with the interests of storm damage prevention and flood control. The (3) proposed dwellings incorporate flow-through foundations and 422 s.f. of pervious pavement to minimize the footprint of the dwellings and impact to LSCSF. The project proposes minimal grading on site and incorporates 3,258 s.f. of green space or 30.5% of the lot. The green space includes pervious lawn areas and tree plantings throughout the project. The total green space and pervious area is 3,680 s.f. or 34% of the lot area.

Stormwater

The project has been designed to meet the stormwater standards to the maximum extent practicable. The stormwater on site will be managed through a series of drains and culverts. The runoff from the roofs will be collected and directed into a large infiltration system beneath the parking lot. The catch basins are incorporated with oil and water separators and the parking lot catch basin will direct flow into an infiltration trench. The system is designed for a 1" rain event with overflow to the municipal drainage system. Please see the attached Stormwater Report prepared by Spruhan Engineering, P.C.

Priority Habitat

There are no Priority Habitat, or Estimated Habitat for Rare or Endangered Species located at the proposed project according to MassGIS (map enclosed).

Area of Critical Environmental Concern

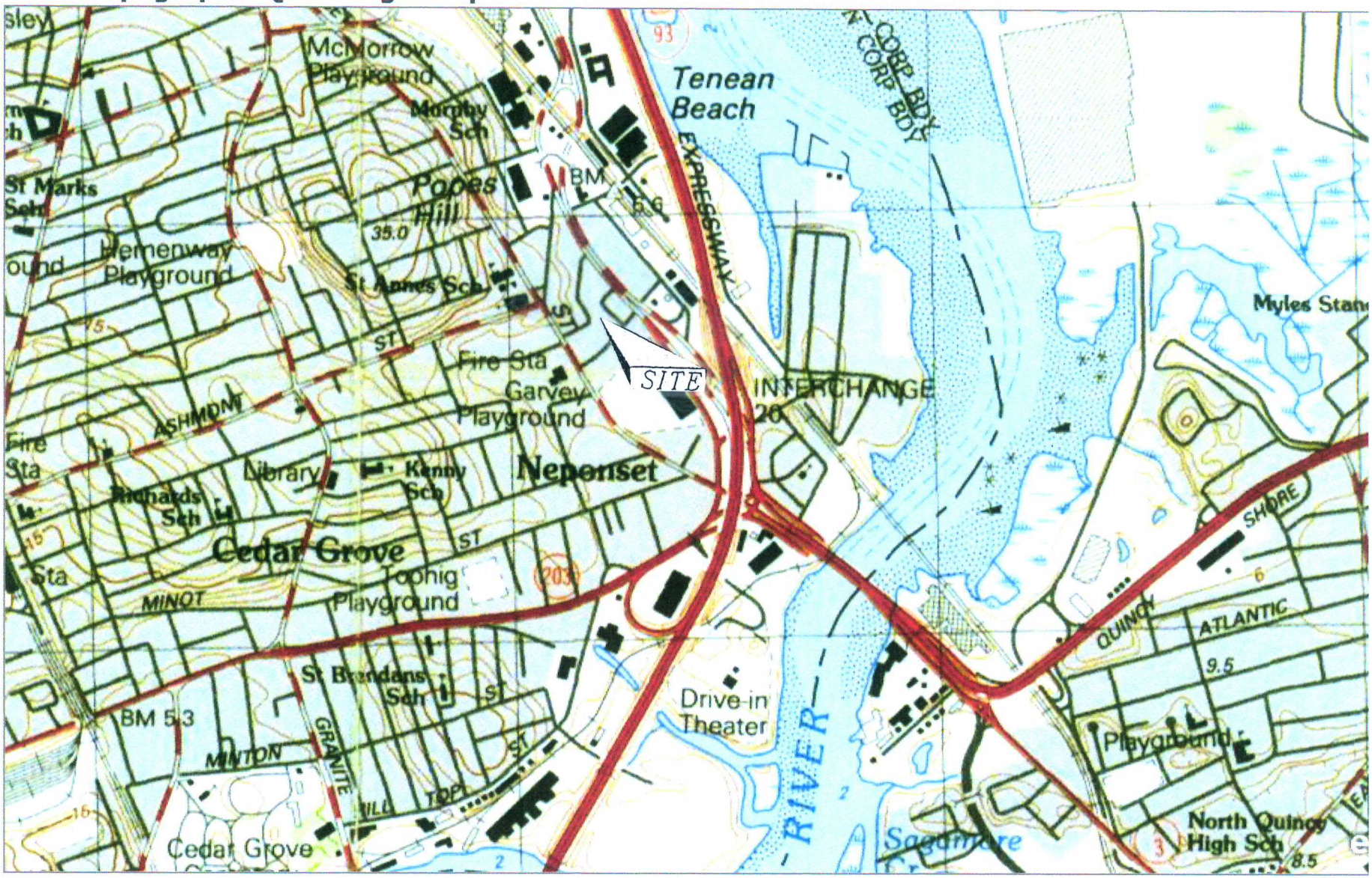
The project is not located within an Area of Critical Environmental Concern (ACEC) according to the MassGIS.

Outstanding Resource Water

The project is not located within an Outstanding Resource Water (ORW).


JOINS PAGE 15
Pleasure Bay
Castle Island
CITY POINT
Head Island
South Boston Yacht Club
City Point
L Street Beach
Carson Beach
Old Harbor
Bayside Exposition Ctr
HARBOR POINT
Harbor Point Park
DORCHESTER BAY
JFK Library & Museum
Massachusetts State Archives
University of Massachusetts Boston
Boston College HS
McCormack MS
Dever ES
Savin Hill Cove
FOX POINT
Savin Hill Yacht Club
Savin Hill Beach
McConnel Park
Malibu Beach
Dorchester Yacht Club
Thimble Island
BOSTON QUINCY
COMMERCIAL POINT
Old Colony Yacht Club
Boston Harbor
MARINA BAY
Nickerson Beach
CHAPEL ROCK
Tenean Beach
Thomas Marine
PORT NORFOLK
QUINCY
(Pages 194 & 195)
MOSSWETUSSET HUMMOCK
SITE
Neponset Bridge
NEPONSET
Pope John Paul II Park
Wollaston Beach
Squantum Yacht Club
Wollaston Yacht Club
0 .25 .5 MILE
0 .25 .5 KILOMETER
© Copyright ARROW MAP, INC

USGS Topographic Quadrangle Maps



USGS 1:25,000 Topographic Maps for Massachusetts

Soil Map—Norfolk and Suffolk Counties, Massachusetts
(McKone Street - Dorchester)

Map Scale: 1:430 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	0.0	0.0%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	0.8	100.0%
Totals for Area of Interest		**0.8**	**100.0%**

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 14, Sep 12, 2018

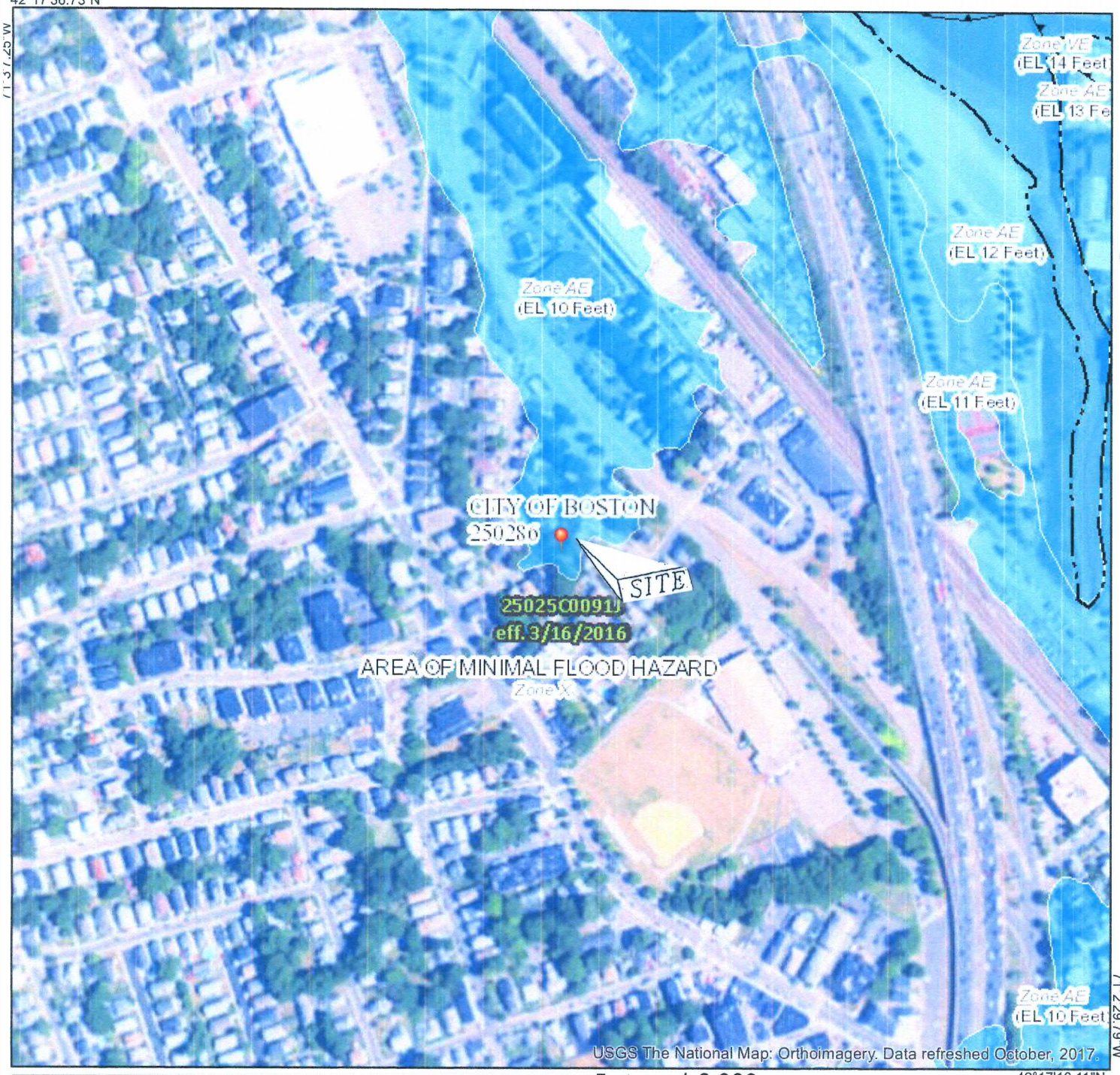
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

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

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

National Flood Hazard Layer FIRMette

FEMA



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

1:6,000

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 I*

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

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / 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 represen 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 3/5/2019 at 9:39:51 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.


OLIVER: MassGIS's Online Mapping Tool
OLIVER Updates
Neponset Avenue
Freeport Street
Mckone Street
William T Morrissey Boulevard
Tolman Street
Bloomington Street
Tolman Street
Neponset Avenue
Mckone Street
SITE
Coffey Street
Available Data Layers
Tiled Layers
State Facilities
Census 1990
Census 2000
Census 2010
Coastal and Marine Features
Conservation / Recreation
Areas of Critical Environmental
Community Preservation Act
Natural Heritage Data
BioMap2
NHESP Ecoregions
NHESP Certified Vernal Poc
NHESP Estimated Habitats
Active Data Layers
Check all
Uncheck all
Potential Vernal Pools
NHESP Priority Habitats of R
NHESP Estimated Habitats
NHESP Certified Vernal Poo
Tax Parcels for Query
Detailed Features
Tax Parcels for Display
Legend
Potential Vernal Pools
NHESP Priority Habitats of Rare Specie
NHESP Estimated Habitats of Rare Wil
NHESP Certified Vernal Pools
Tax Parcels for Query
10 m
50 ft
Scale = 1:1,128
237,539.96m 893,347.96m
MassGIS Topographic Features Basemap
Basemaps

boston planning & development agency

Climate Resiliency Checklist

NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

A.1 - Project Information

REVISED 4/4/19.

Project Name:	RESIDENTIAL APARTMENTS			
Project Address:	13 & 15 MCKONE ST., DORCHESTER			
Project Address Additional:	12 BLOOMINGTON ST., DORCHESTER			
Filing Type (*select*)	*Initial (PNF, EPNF, NPC or other substantial filing)* *Design / Building Permit (prior to final design approval), or* *Construction / Certificate of Occupancy (post construction completion)*			
Filing Contact	*Name*	*Company*	*Email*	*Phone*
Is MEPA approval required	*Yes/no*		*Date*	

A.3 - Project Team

Owner / Developer:	15 MCKONE ST., LLC
Architect:	TIM JOHNSON ARCHITECT, LLC
Engineer:	PETER NOLAN & ASSOC., LLC
Sustainability / LEED:	
Permitting:	
Construction Management:	

A.3 - Project Description and Design Conditions

List the principal Building Uses:	R-3, TWO-FAMILY.
List the First Floor Uses:	
List any Critical Site Infrastructure and or Building Uses:	

Site and Building:

Site Area:	10,638 SF	Building Area:	8,820 SF
Building Height:	33.5 Ft	Building Height:	3 Stories
Existing Site Elevation – Low:	12.63 Ft BCB	Existing Site Elevation – High:	18.23 Ft BCB
Proposed Site Elevation – Low:	15.10 Ft BCB	Proposed Site Elevation – High:	18.23 Ft BCB
Proposed First Floor Elevation:	17.5 Ft BCB	Below grade levels:	N/A Stories

Article 37 Green Building:

LEED Version - Rating System :		LEED Certification:	*Yes / No*
Proposed LEED rating:	*Certified/Silver/ Gold/Platinum*	Proposed LEED point score:	*Pts.*

Building Envelope

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:	*(R)*	Exposed Floor:	*(R)*
Foundation Wall:	*(R)*	Slab Edge (at or below grade):	*(R)*

Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):

Area of Opaque Curtain Wall & Spandrel Assembly:	*(%)*	Wall & Spandrel Assembly Value:	*(U)*
Area of Framed & Insulated / Standard Wall:	*(%)*	Wall Value	*(R)*
Area of Vision Window:	%	Window Glazing Assembly Value:	*(U)*
		Window Glazing SHGC:	*(SHGC)*
Area of Doors:	%	Door Assembly Value:	*(U)*

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined			
Annual Electric:	*(kWh)*	Peak Electric:	*(kW)*
Annual Heating:	*(MMbtu/hr)*	Peak Heating:	*(MMbtu)*
Annual Cooling:	*(Tons/hr)*	Peak Cooling:	*(Tons)*
Energy Use - Below ASHRAE 90.1 - 2013:	%	Have the local utilities reviewed the building energy performance?:	*Yes / no*
Energy Use - Below Mass. Code:	%	Energy Use Intensity:	*(kBtu/SF)*

Back-up / Emergency Power System

Electrical Generation Output:	*(kW)*	Number of Power Units:	
System Type:	*(kW)*	Fuel Source:	

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	*(kW)*	Heating:	*(MMbtu/hr)*
		Cooling:	*(Tons/hr)*

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions: *(Tons)*

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

Describe any energy efficiency assistance or support provided or to be provided to the project:

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2˚F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:	*Deg.*	Temperature Range - High:	*Deg.*
Annual Heating Degree Days:		Annual Cooling Degree Days	

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°:	#	Days – Above 100°:	#
Number of Heatwaves / Year:	#	Average Duration of Heatwave (Days):	#

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm: *In.*

Describe all building and site measures for reducing storm water run-off:

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?	(Yes) / No	What Zone:	A, (AE), AH, AO, AR, A99, V, VE
		Current FEMA SFHA Zone Base Flood Elevation:	16.46 Ft BCB

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online BPDA SLR-FHA Mapping Tool to assess the susceptibility of the project site.	Yes / (No)

If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online BPDA SLR-FHA Mapping Tool to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	16.46 Ft BCB		
Sea Level Rise - Design Flood Elevation:	17.5 Ft BCB	First Floor Elevation:	17.5 Ft BCB
Site Elevations at Building:	15.20 Ft BCB	Accessible Route Elevation:	15.20 Ft BCB

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

N/A

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

ALL UTILITY SERVICE SHUT-OFFS LOCATED 1.0 FT ABOVE BFE.

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

N/A

Describe any strategies that would support rapid recovery after a weather event:

PER SECTION R322, FIRST FLOOR ELEVATION 1.0FT ABOVE BFE. & ALL STRUCTURE AT OR BELOW BFE CONSTRUCTED W/ FLOOD DAMAGE-RESISTANT MATERIALS.

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov

OPERATION AND MAINTENANCE PLAN

12 Bloomington Street, 13-15 McKone Street
Dorchester, Ma.

The following Operation and Maintenance plan provides the requirements for the proposed storm water management system throughout the construction phase and the post development period of the system. The maintenance standards presented are based on recommended design and maintenance standards in *Managing Stormwater in Massachusetts, Volume One: Stormwater Handbook, Prepared by: MA Department of Environmental Protection.*

These operations and maintenance procedures are required for proper operation of the stormwater management system; additional procedures may also be developed as the system is operated over a period of time. As with all stormwater facilities, the conditions may change or the management may be simplified as the maintenance personnel become more familiar with them. For example, as detention facilities mature, the ability for the basins to remove pollutants, and the efficiency increases, and therefore, the frequency of inspection may need to be adjusted.

Proper maintenance is essential to ensure that the performance of the system meets the design expectation. A system that is not maintained will inevitably fail and could lead to financial loss, damage to surrounding infrastructure or environmentally sensitive areas, and an increase in the liability of the property owner. The three keys to maintaining a functional storm water management system are p*ersonnel, education and record keeping.*

Personnel make the difference between a Stormwater Management System that performs as designed throughout its lifetime or one that fails due to lack of attention. *Education* provides the personnel with the skills needed to effectively maintain a Stormwater Management System. *Record Keeping* allows the personnel to track the maintenance and the performance of the system to determine when major maintenance tasks are required.

Maintenance is the responsibility of the property owner. This is true whether the property owner is an individual where the land is private property or where the land is public with the responsibility assigned to that municipality. Maintenance shall be performed as outlined in this Operational and Maintenance Plan. Those responsible for the work shall have a copy of this plan and a copy of the complete design plans to aid them in understanding the intent and requirements unique to this Stormwater Management Facility.

All maintenance personnel shall be aware of the purpose of each stormwater management BMP in removing contaminants and Total Suspended Solids (TSS) from the stormwater runoff. The result is the collection, removal and storage of the contaminants within the components. The contaminants could include trash, debris, oil, sediment and soluble or insoluble materials. In most situations, these can be handled, stored and disposed with minimal safety requirements, in that the health hazards are minimal with the concentrations involved. However, the personnel should be aware of the risk and/or the possibility of potential dangers.

The maintenance personnel shall be aware of the safety needs involved with entry into confined areas such as sediment and oil separators and shall abide by all applicable OSHA regulations. Personnel should be familiar with local emergency numbers and have access to first aid materials. Maintenance personnel

shall be familiar with local, state and federal regulations and guidelines concerning the disposal of all materials generated from the facilities as a result of maintenance. All waste materials shall be handled, stored, transported and disposed in accordance with those regulations.

RESPONSIBLE PARTIES

The construction contractor as well as the owner will be the responsible parties during construction of the Stormwater Management System.

The owner of the property, will be the responsible party during the post-development maintenance period of the Stormwater Management System.

CONSTRUCTION PERIOD MAINTENANCE PROCEDURES

Maintenance requirements are the most demanding during the construction phase of a project when the ground is disturbed with partial runoff control in a condition that is most likely to produce silt-laden runoff. During this period, the contractor and owner shall meet the design and performance standards of a fully constructed, stabilized system. Proper treatment of stormwater is only possible with a proper construction sequence plan and rigorous maintenance procedures of the storm water components.

The general construction sequence, as it applies to the storm water management components shall be as follows:

1. Install erosion and sediment controls measures (straw wattle as shown on plan prior to disturbing soil and any temporary structures.
2. Conduct all soil-disturbing operations during the dry periods and not during times of precipitation.
3. Direct the storm water runoff into temporary pollution prevention structures.
4. Begin site work.
5. Stabilize grading and landscaped areas as soon as possible.

The following structures shall be in place during the construction phase and shall be maintained as outlined below.

Deep Sump Catch Basin

Responsible Party: Site Contractor

- Filter fabric, silt sacks, or the like shall be placed on top of the catch basin frame but beneath the grate (or erosion control lines such as silt socks shall entirely surround the catch basin frame and grate) for the duration of the construction process and shall be cleaned as needed, and removed at the conclusion of the construction period.
- Any construction period debris shall be removed from the Sump at the conclusion of the construction period.

Sub-surface Infiltration System (Stormtech Chambers)

Responsible Party: Site Contractor

- Deep Sump Catch Basin and Sediment and Oil Separator construction period protection as described above is essential for any runoff prior to entering the Sub-surface Infiltration System
- Stabilize the site prior to installing the subsurface structure.
- Do not allow runoff from any disturbed areas on the site to flow to the structure

- Rope off the area where the subsurface structures are to be placed. Accomplish any required excavation with equipment placed just outside this area.
- When installing the final top surface (pavement), work from the edges to minimize compaction of the underlying soils.
- Provide observation well inspection ports to enable inspection of water levels within the system and make the inspection ports visible at grade.

POST-DEVELOPMENT MAINTENANCE PROCEDURES

Deep Sump Catch Basin

Responsible Party: Property Owner

- Inspect the Deep Sump Catch Basin four times per year at minimum, or after significant storm events
- Clean the Deep Sump Catch Basin four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the Basin.

Sub-surface Infiltration System (Stormtech Chambers)

Responsible Party: Property Owner

- Because subsurface structures are installed underground, they are extremely difficult to maintain
- Inspect inlets at least twice a year
- Remove any debris that may clog the system
- Refer to the manufacturer's specifications for maintenance of the Sub-surface Infiltration System as well as the Isolator Rows.

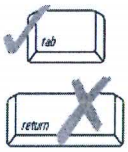
Inspections of hoods, elbows, baffles, etc. at the catch basins and sediment & oil separators shall be conducted twice a year. Inspection and maintenance of lawns and landscaping (including trash/debris removal, etc.), and paved surfaces and sweeping shall be conducted twice a year.

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.

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[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

03/14/19

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): Storm-Tech Units with Crushed stone bed

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.

LOCUS: N.T.S.

STREET VIEW - McKONE STREET

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET, DORCHESTER, MA

	10/22/17			
BOSTON ZONING CODE REVIEW				
1.)	Parcels 2468 & 2469 are located within zoning sub-district 2F-5000.			
	The existing occupancy is single-family & vacant land.			
	The lot is 10,638 sf+/-.			
2.)	The proposed 6 dwelling units contain 8,820.0 sf living area.			
3.)	Multi-family and three-family are forbidden uses in this sub-district.			
4.)	Article 65 Dimensional Regulations:			
		2F-5000		
	Item	Req'd/Allowed	Three 3F bldgs.	Remarks
a.)	Lot size min.	5,000 sf	10,638 sf lot	
b.)	Lot area min./add'l unit	N/A	N/A	
c.)	Lot width/frontage min.	50 ft	40 ft +/-	At Bloomington St.
			77 ft +/-	At McKone St.
d.)	Floor to area ratio	0.5	0.8	
e.)	Height of building max.	2-1/2 stories/35 ft	3 st./32.5'	mean grade, Note 4
f.)	Usable open space/D.U.	None	N/A	
g.)	Front yard min. depth	15 ft/Modal yard	0.0' or modal yard	Note 3
h.)	Side yard min. depth	10'	10' (LT) & 10' (RT)	At McKone St., Note 1
		8'-9"	10' (LT) & 7.67' (RT)	At Bloomington St., Note 1
i.)	Rear yard min. depth	10 ft	10 ft	Note 2
j.)	Parapet setback	N/A	N/A	
k.)	Off-street parking	1.25 sp/D.U. or 8 sp	8 spaces	
	Note 1: Sec. 65-42.7, Side yards of certain narrow lots.			
	Note 2: Sec. 65-42.11, Rear yards of certain shallow lots.			
	Note 3: Section 65-45.2, Conformity w/exist bldg alignment.			
	Note 4: Section 16-8, Headhouses are not incld. in building height if the total area does not exceed 330 s.f. (for roof areas < 3,300 s.f.).			

PROJECT INFO:

Address: 13-15 McKone Street &
12 Bloomington Street, Dorchester, MA

Exist. Occupancy: Single Family & Vacant Land
Proposed Occupancy: R2 - Multifamily

Lot: 10,638 sf ±
Parcel: 2468 & 2469
District: 2F-5000
Ward: 16

Square Footage Calculations per Building

Net Square Footage*

Level	GSF	Net SF*	FAR SF
G	873.0 sf	825.0 sf	873.0 sf
2	1,045.0 sf	1,045.0 sf	1,045.0 sf
3	1,022.0 sf	1,022.0 sf	1,022.0 sf
Subtotals	2,940.0 sf	2,892.0 sf	2,940.0 sf
Project Total	**8,820.0 sf**	**8,676.0 sf**	**8,820.0 sf**

*FAR square footage is measured to ext. face of walls and dimising walls and excludes basement, storage, and mechanical areas.

SCHEDULE OF DRAWINGS

REGISTERED ARCHITECT TIMOTHY C. JOHNSON No. 6995 BOSTON, MA COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

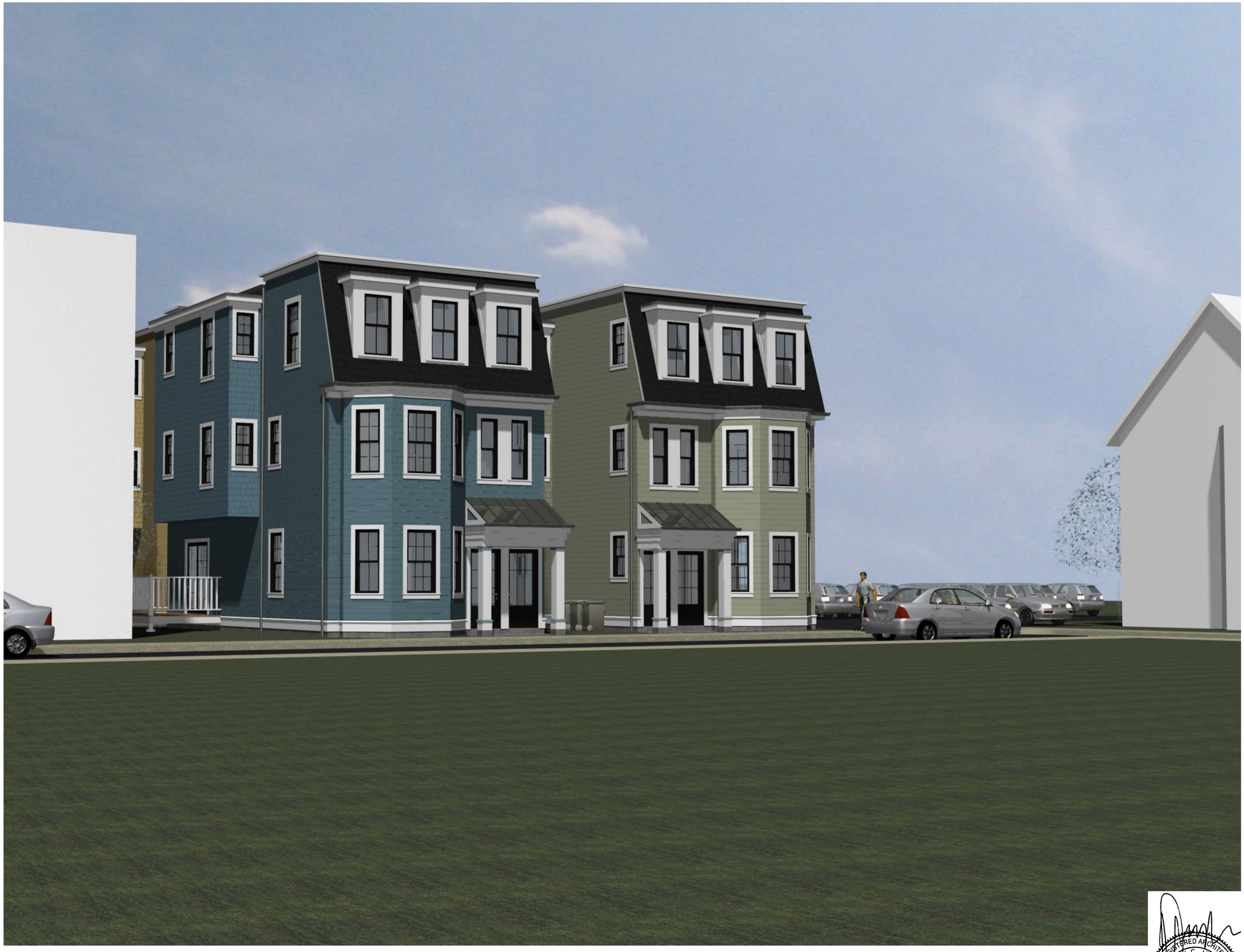
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

PROJECT INFORMATION

DATE: 09/05/18 SC: N. T. S.

A00



STREET VIEW - McKONE STREET

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

PERSPECTIVE VIEWS

DATE: 09/05/18 | SC: N. T. S.

V01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

STREET VIEW - BLOOMINGTON STREET

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

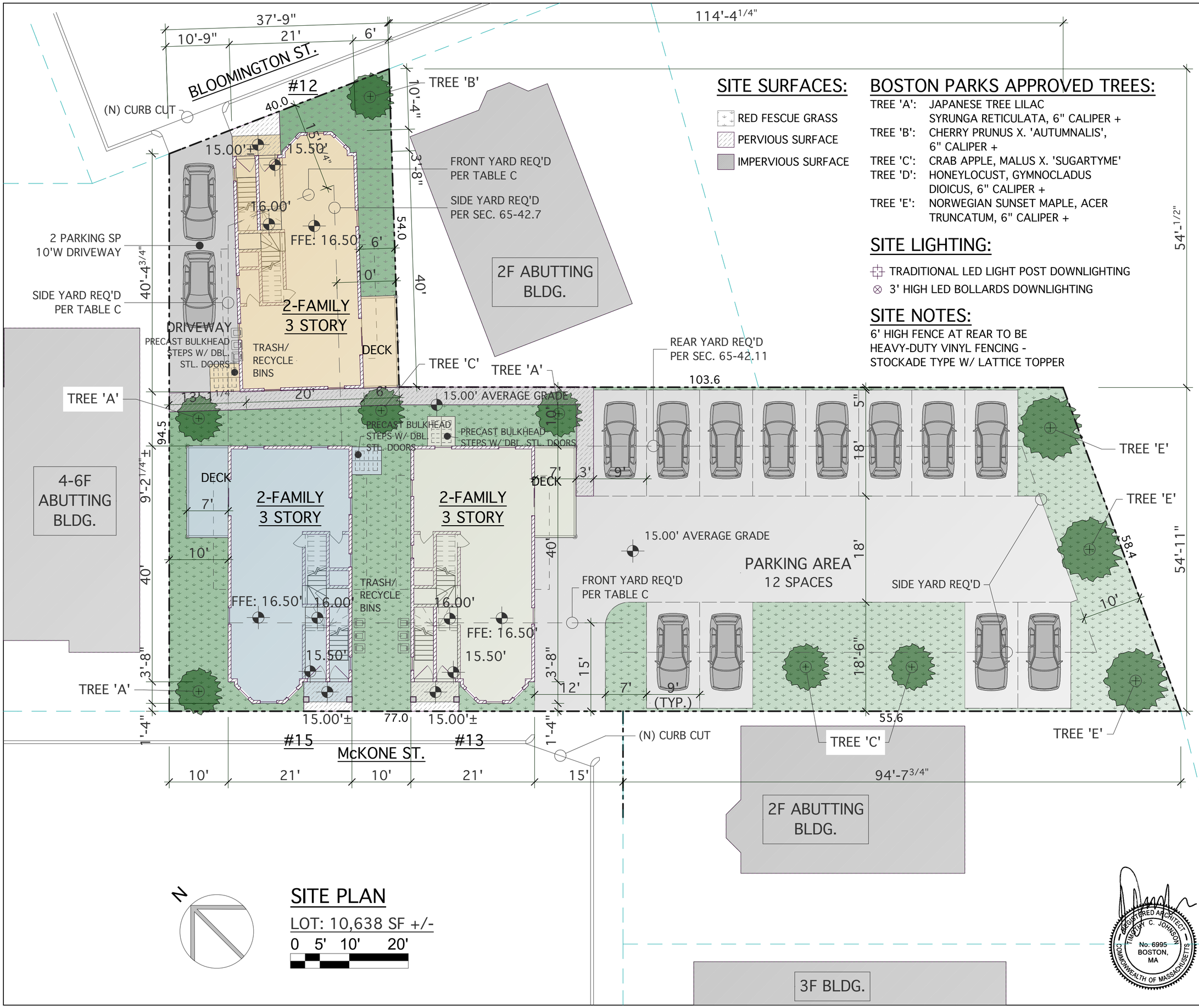
PERMIT SET

PERSPECTIVE VIEWS

DATE: 09/05/18 | SC: N. T. S.

V02

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



SITE SURFACES:

- RED FESCUE GRASS
- PERVIOUS SURFACE
- IMPERVIOUS SURFACE

BOSTON PARKS APPROVED TREES:

TREE 'A': JAPANESE TREE LILAC SYRUNGA RETICULATA, 6" CALIPER +
TREE 'B': CHERRY PRUNUS X. 'AUTUMNALIS', 6" CALIPER +
TREE 'C': CRAB APPLE, MALUS X. 'SUGARTYME'
TREE 'D': HONEYLOCUST, GYMNOCLADUS DIOICUS, 6" CALIPER +
TREE 'E': NORWEGIAN SUNSET MAPLE, ACER TRUNCATUM, 6" CALIPER +

SITE LIGHTING:

- TRADITIONAL LED LIGHT POST DOWNLIGHTING
- 3' HIGH LED BOLLARDS DOWNLIGHTING

SITE NOTES:

6' HIGH FENCE AT REAR TO BE HEAVY-DUTY VINYL FENCING - STOCKADE TYPE W/ LATTICE TOPPER

N

SITE PLAN

LOT: 10,638 SF +/-

0 5' 10' 20'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
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DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

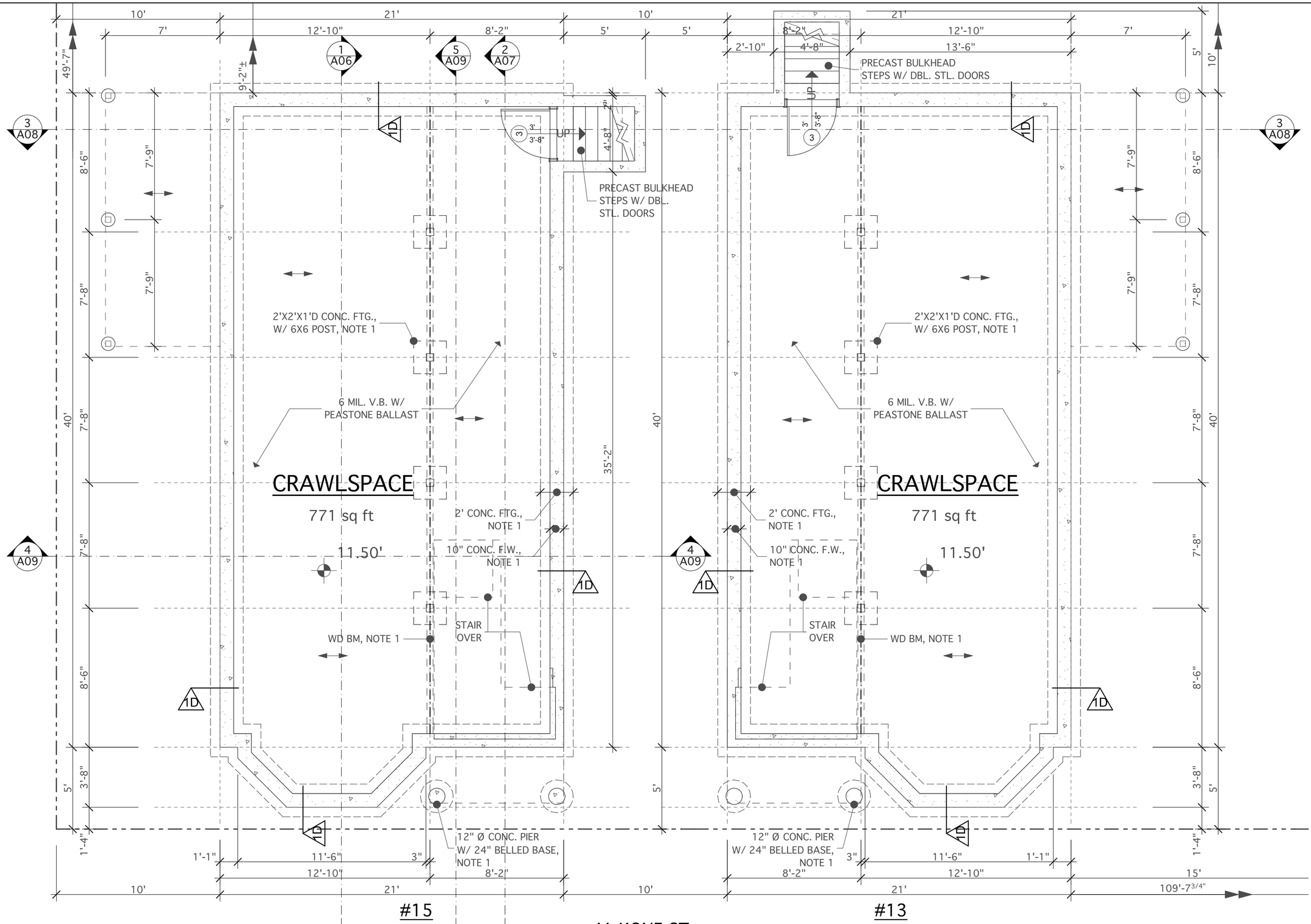
PERMIT SET

ARCHITECTURAL SITE PLAN

DATE: 09/05/18 | SC: 1" = 10'

C01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A. POST ABOVE
P.B. POST BELOW
(EX) EXISTING
(R) RELOCATE
(N) NEW
B.W. BEARING WALL
B.L. BEARING LINE
L.C. LALLY COLUMN
JOIST DIRECTION TO BE VERIFIED BY GC

(SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXHAUST FAN TO EXTERIOR
(HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

0 2' 4' 8'

FOUNDATION PLAN

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

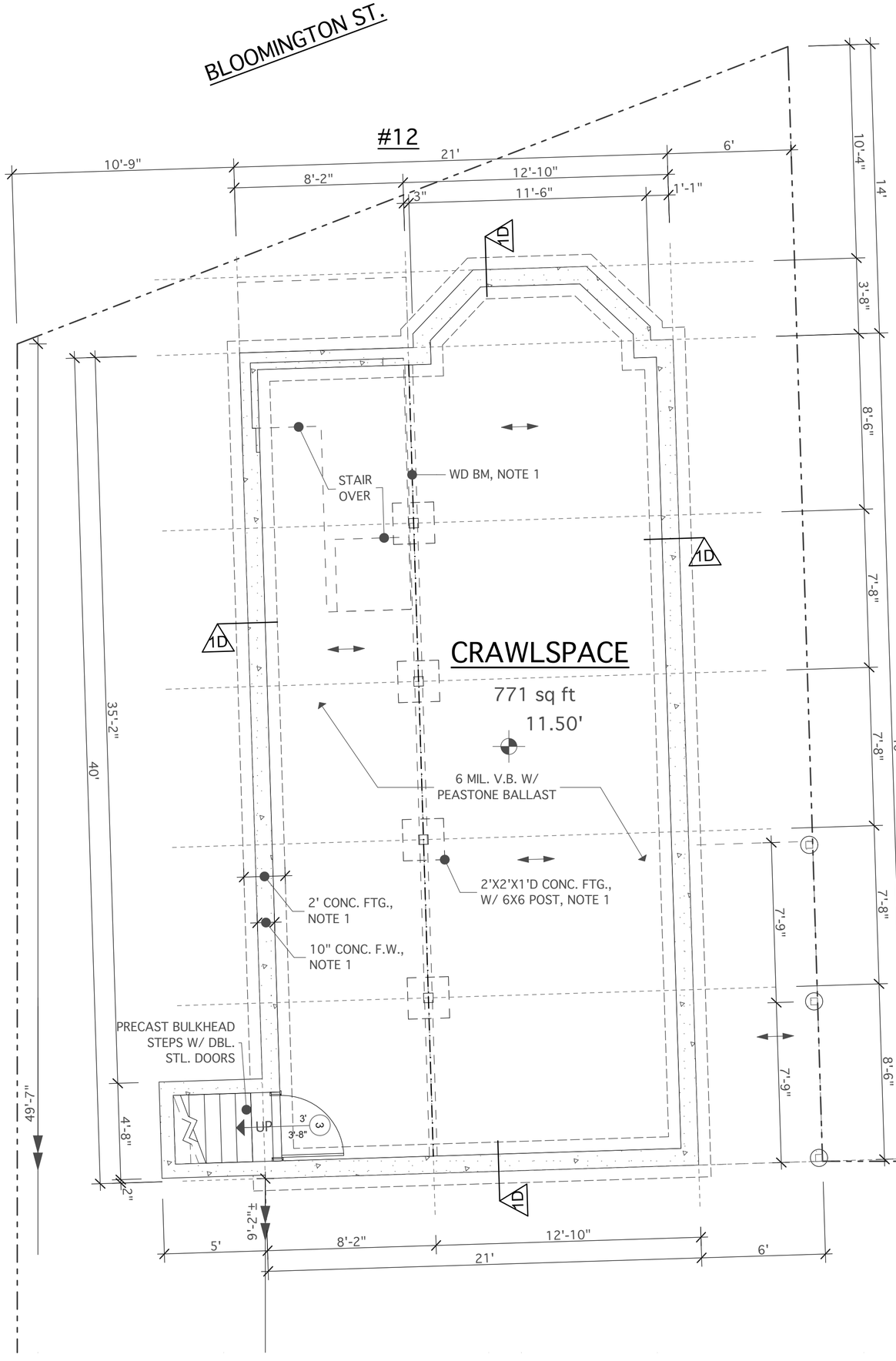
PERMIT SET

LOWER LEVEL FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

NON-RATED WALLS	P.A.	POST ABOVE	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
1-HR FIRE-RATED WALLS	P.B.	POST BELOW	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
2-HR FIRE-RATED WALLS	(EX)	EXISTING	EXHAUST FAN TO EXTERIOR
EXISTING WALLS	(R)	RELOCATE	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXISTING BRICK WALLS	(N)	NEW	EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
	B.W.	BEARING WALL	
	B.L.	BEARING LINE	
	L.C.	LALLY COLUMN	
		JOIST DIRECTION TO BE VERIFIED BY GC	

GENERAL NOTES:
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NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

FOUNDATION PLAN

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

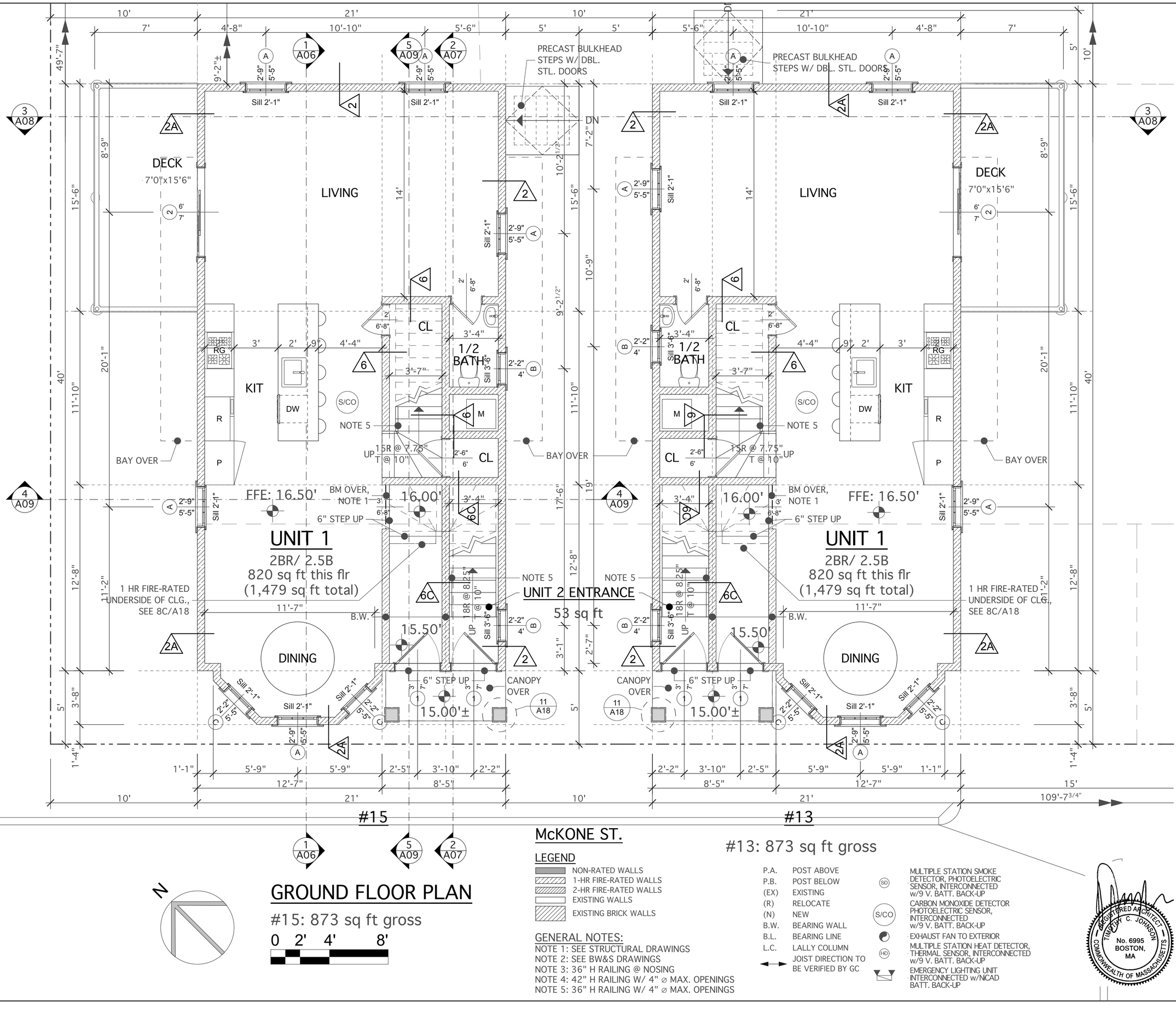
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

LOWER LEVEL FLOOR PLAN #12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A01a



GROUND FLOOR PLAN

#15: 873 sq ft gross

0 2' 4' 8'

N

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A. POST ABOVE
P.B. POST BELOW
(EX) EXISTING
(R) RELOCATE
(N) NEW
B.W. BEARING WALL
B.L. BEARING LINE
L.C. LALLY COLUMN
JOIST DIRECTION TO BE VERIFIED BY GC

(SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXHAUST FAN TO EXTERIOR
(HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

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REGISTERED ARCHITECT — TIMOTHY C. JOHNSON — No. 6995 BOSTON, MA — COMMONWEALTH OF MASSACHUSETTS

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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 McKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

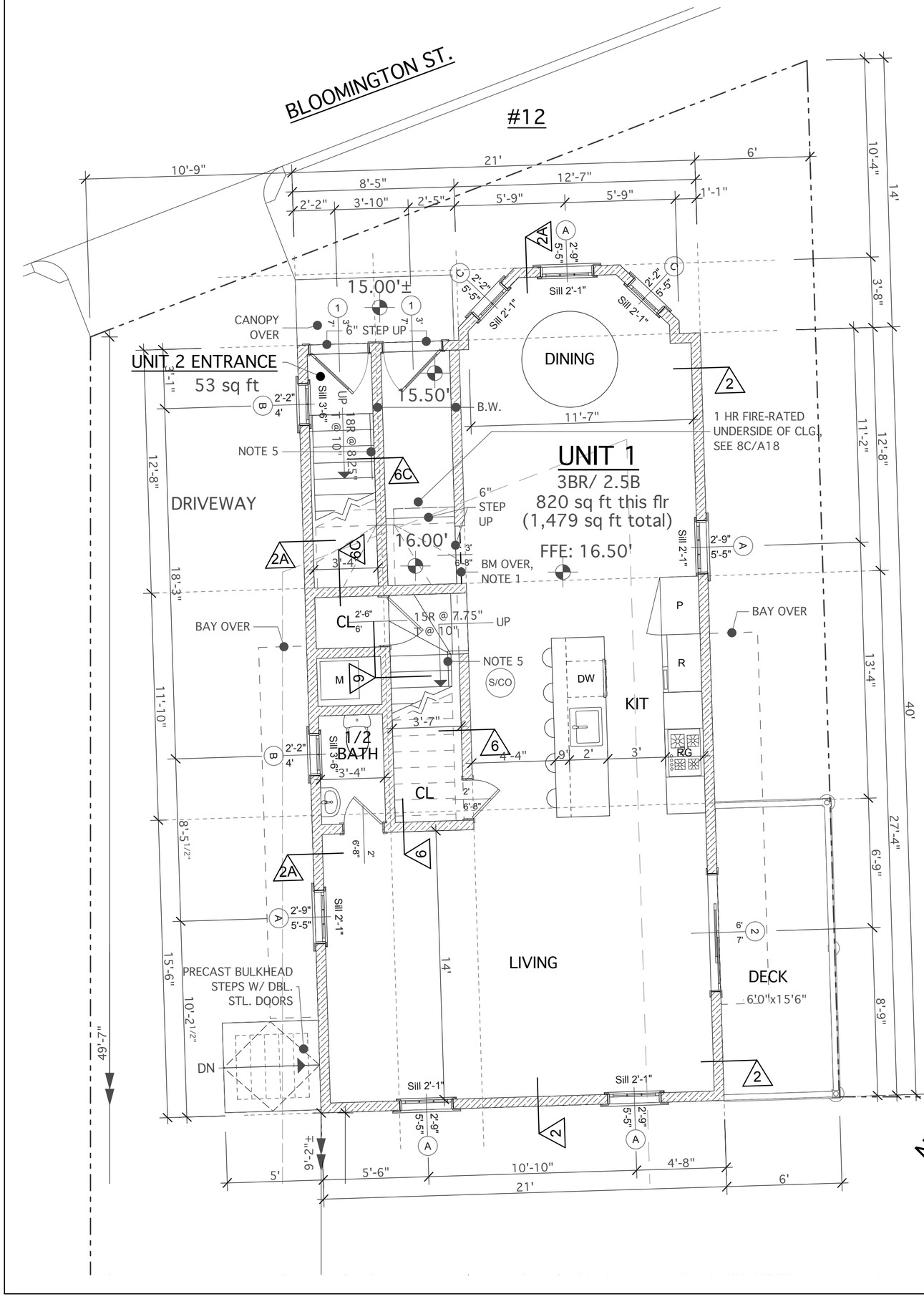
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

GROUND FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A02



GENERAL NOTES:
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NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

GROUND FLOOR PLAN

#12: 873 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

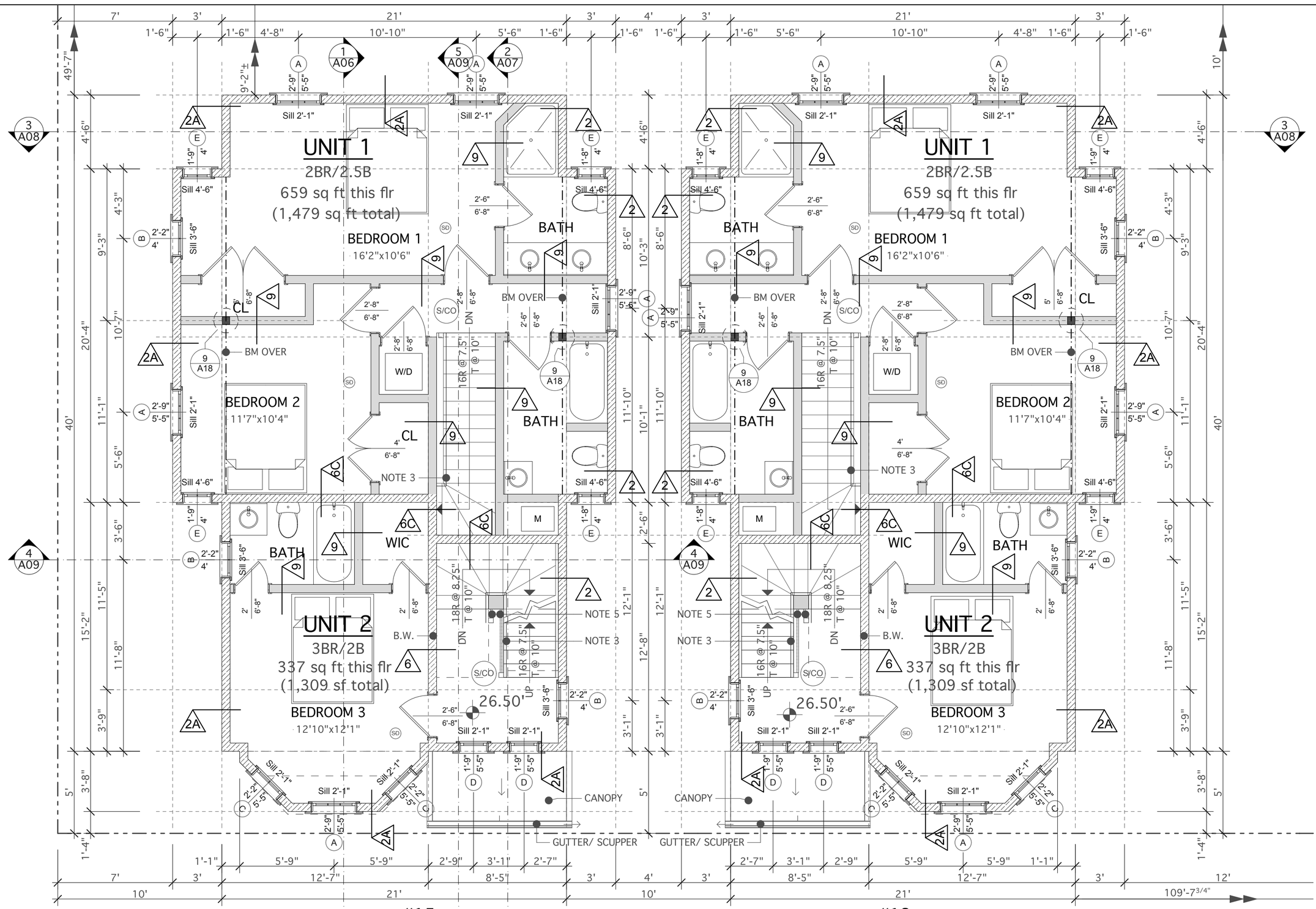
PERMIT SET

GROUND FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 SC: 1/4" = 1'-0"

A02a

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

#13: 995 sq ft gross

P.A.	POST ABOVE	(SD)	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
P.B.	POST BELOW	(S/CO)	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(EX)	EXISTING		EXHAUST FAN TO EXTERIOR
(R)	RELOCATE	(HD)	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(N)	NEW		EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
B.W.	BEARING WALL		
B.L.	BEARING LINE		
L.C.	LALLY COLUMN		
	JOIST DIRECTION TO BE VERIFIED BY GC		

SECOND FLOOR PLAN

#15: 995 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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190 OLD COLONY AVENUE
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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS	
1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

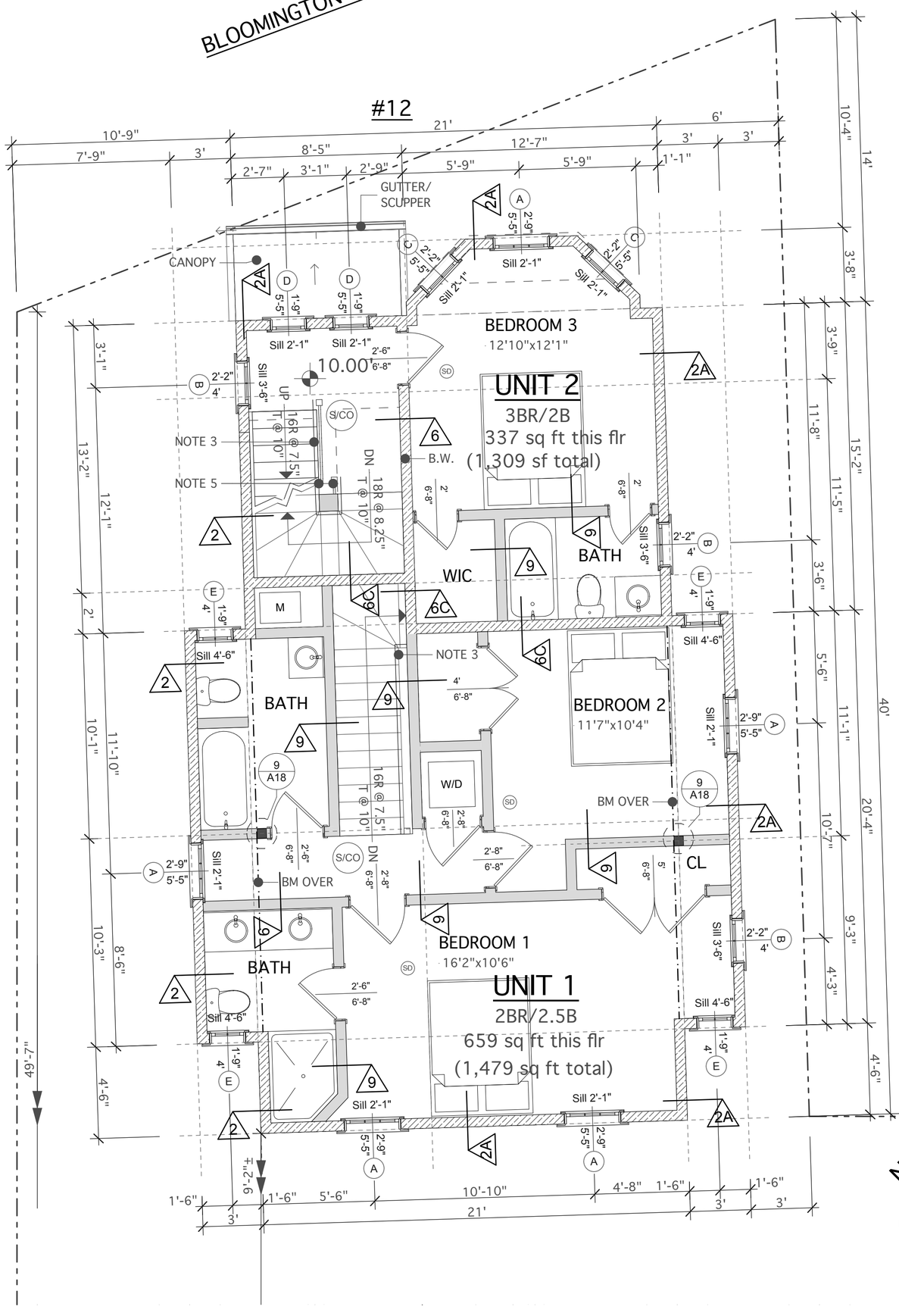
PERMIT SET

SECOND FLOOR PLANS
#13 & #15
McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A03

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- SD — MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- S/CO — CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EXHAUST FAN TO EXTERIOR
- HD — MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

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NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

SECOND FLOOR PLAN

#12: 995 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
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SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

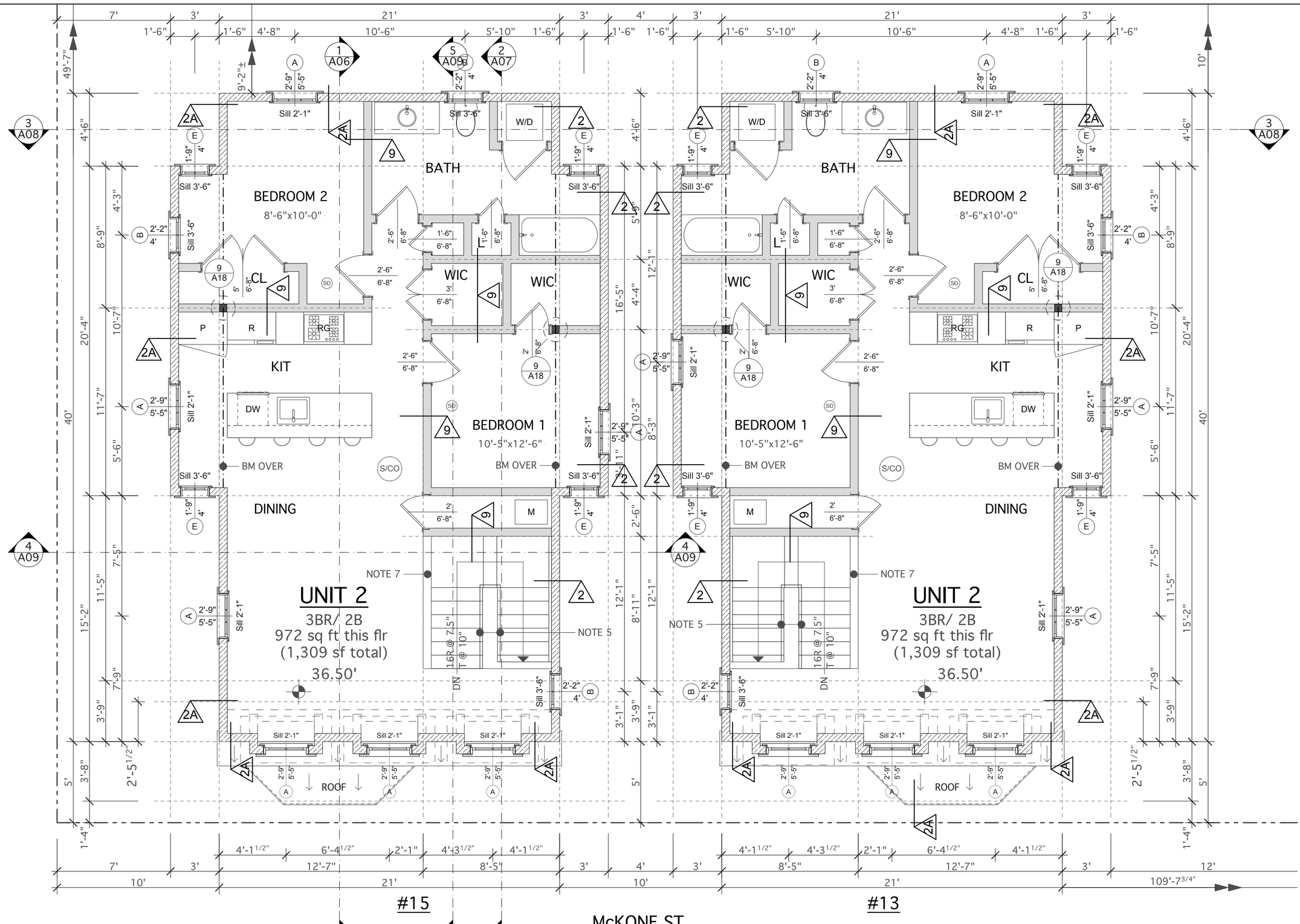
PERMIT SET

SECOND FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A03a

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
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B.W.	BEARING WALL
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NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

THIRD FLOOR PLAN

#15: 972 sq ft gross

#13: 972 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
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DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

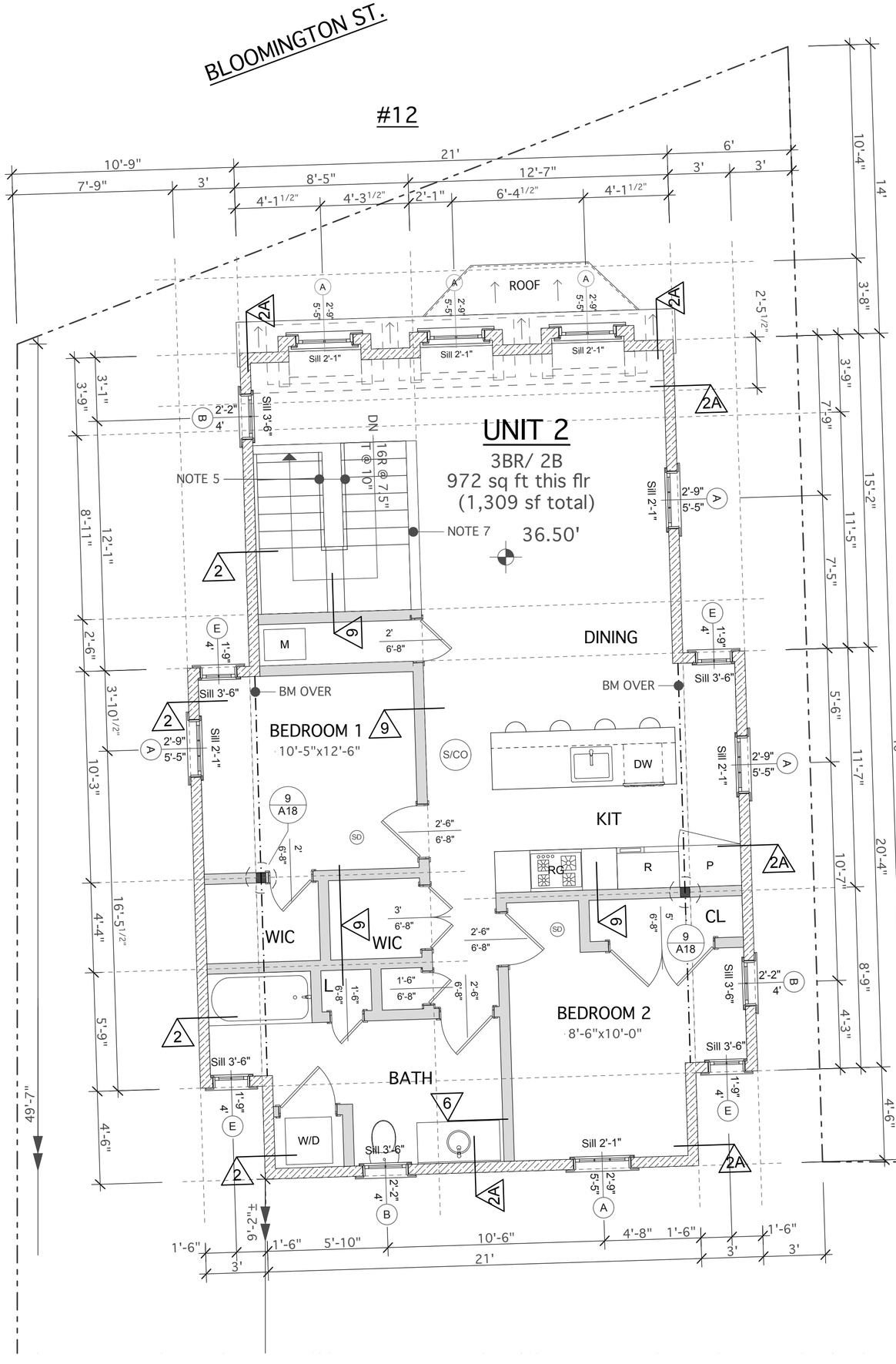
PERMIT SET

THIRD FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A04

REGISTERED ARCHITECT — TIMOTHY C. JOHNSON — No. 6995 BOSTON, MA — COMMONWEALTH OF MASSACHUSETTS



LEGEND

NON-RATED WALLS	P.A.	POST ABOVE	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
1-HR FIRE-RATED WALLS	P.B.	POST BELOW	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
2-HR FIRE-RATED WALLS	(EX)	EXISTING	EXHAUST FAN TO EXTERIOR
EXISTING WALLS	(R)	RELOCATE	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXISTING BRICK WALLS	(N)	NEW	EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
	B.W.	BEARING WALL	
	B.L.	BEARING LINE	
	L.C.	LALLY COLUMN	
		JOIST DIRECTION TO BE VERIFIED BY GC	

GENERAL NOTES:

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NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

THIRD FLOOR PLAN

#12: 972 sq ft gross

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
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13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

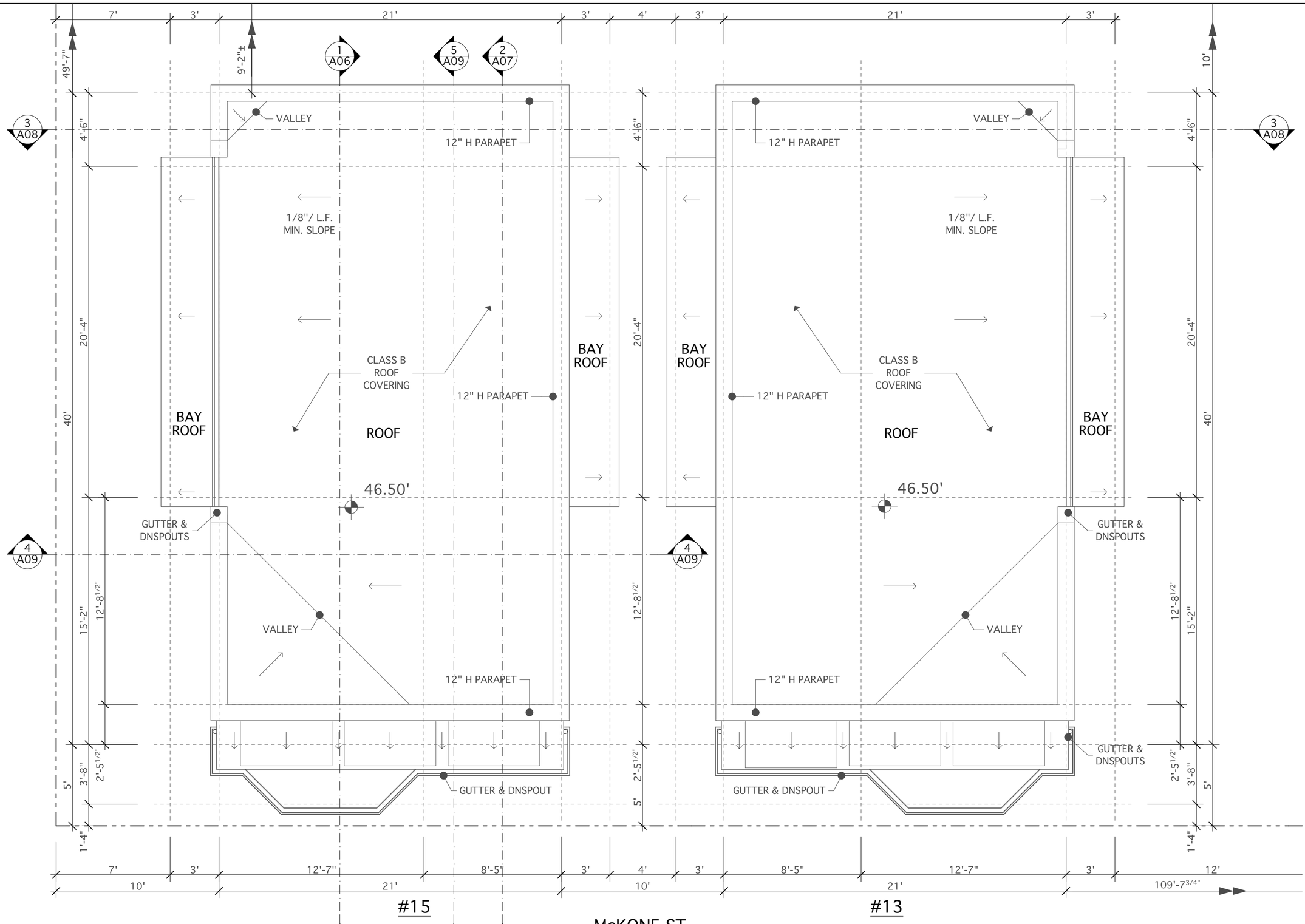
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

THIRD FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A04a



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- (SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- (S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EXHAUST FAN TO EXTERIOR
- (HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

0 2' 4' 8'

ROOF PLAN

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

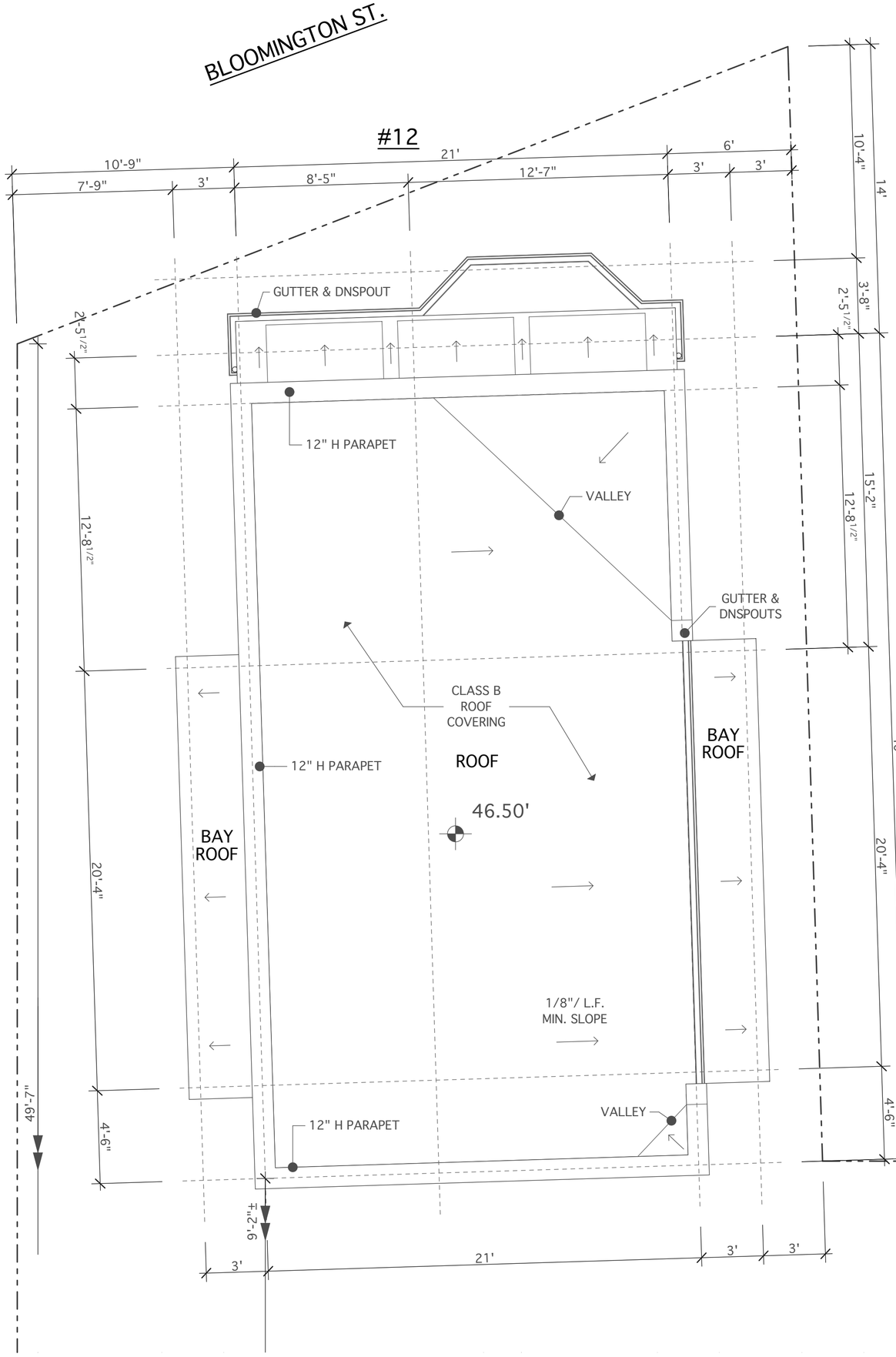
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

ROOF PLANS
#13 & #15
McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A05



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- (SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
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- EXHAUST FAN TO EXTERIOR
- (HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

ROOF PLAN

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

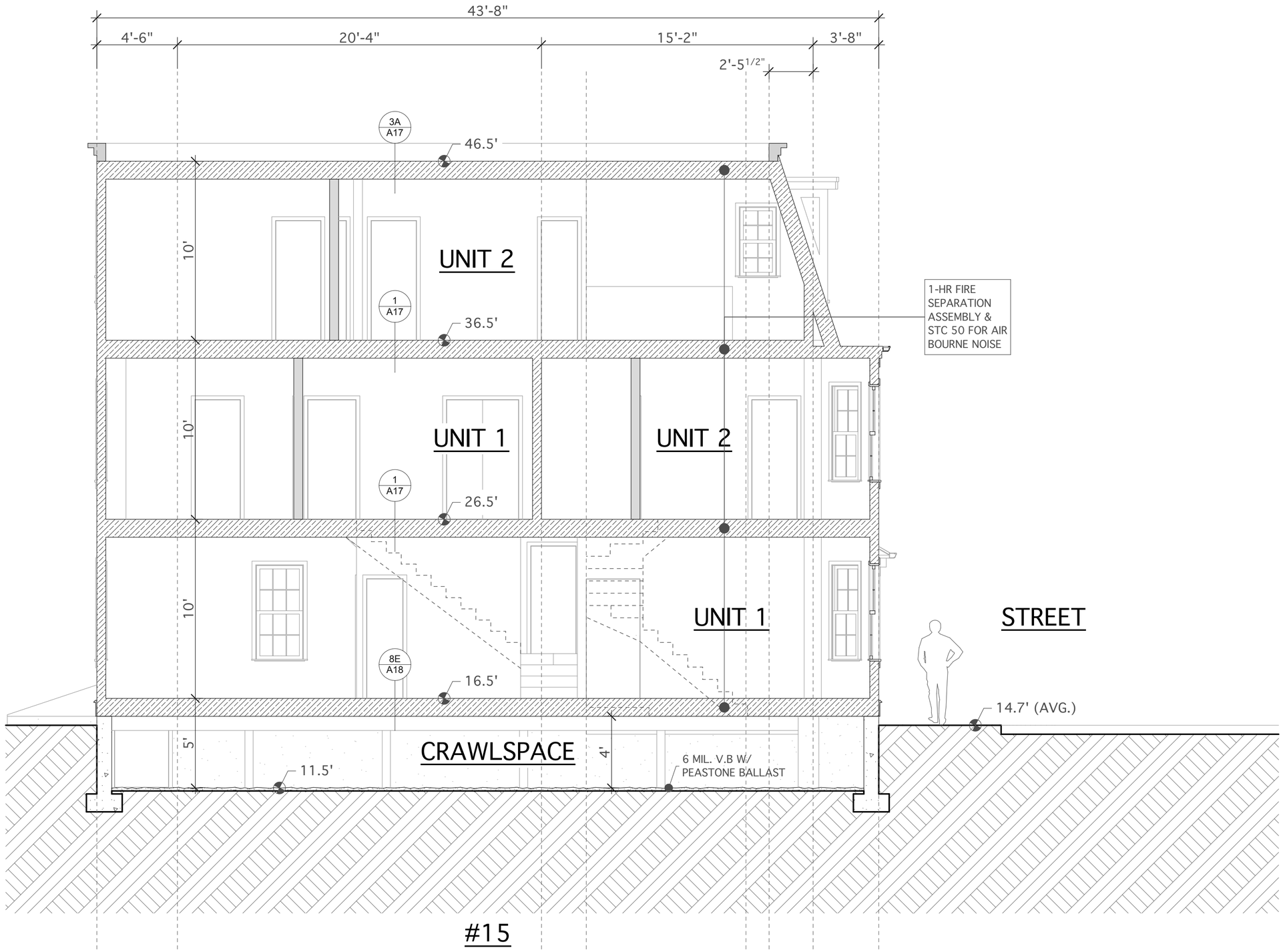
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

ROOF PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A05a



#15

1-1 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

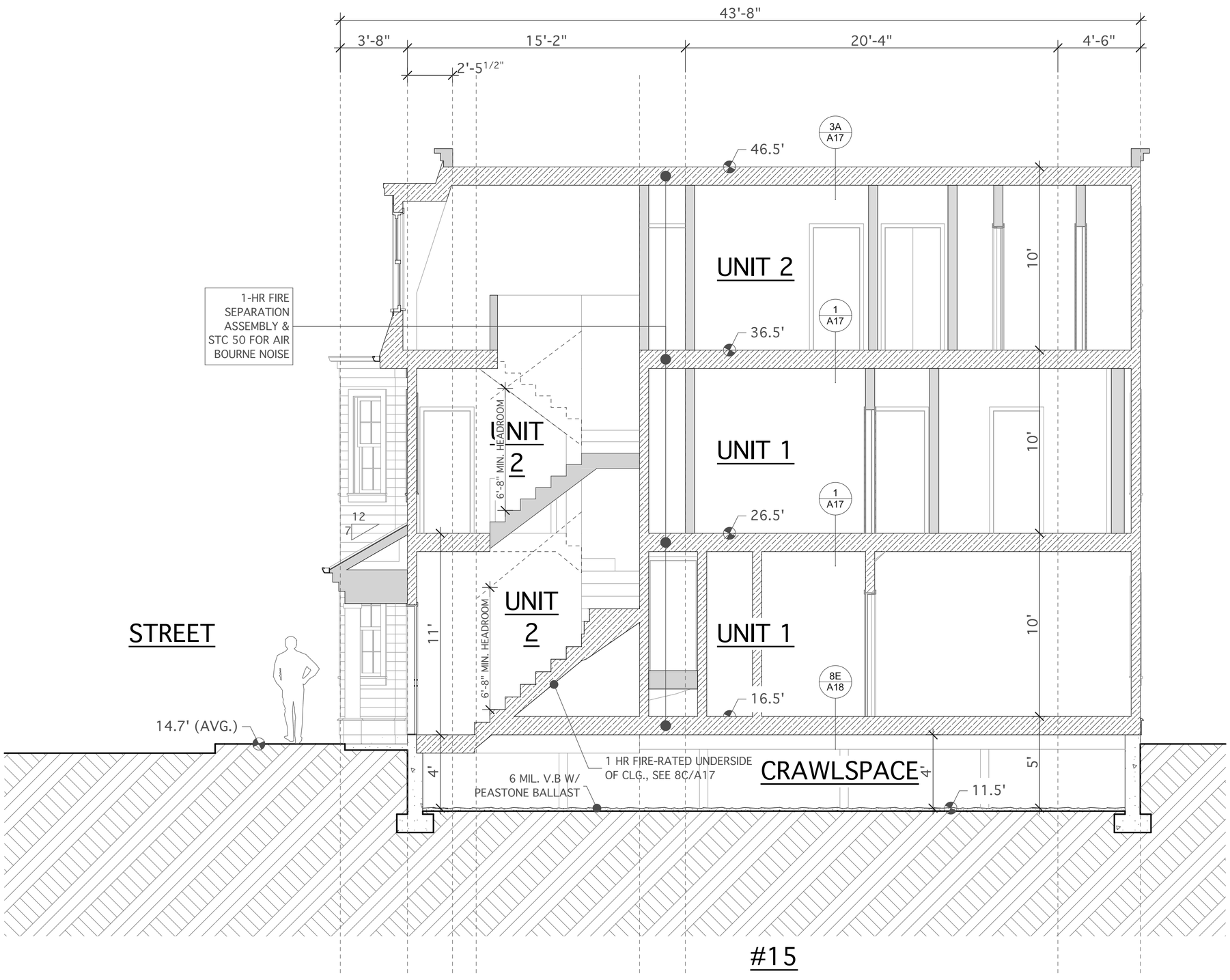
PERMIT SET

1-1 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A06

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



#15

2-2 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

2-2 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A07

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

2-2 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

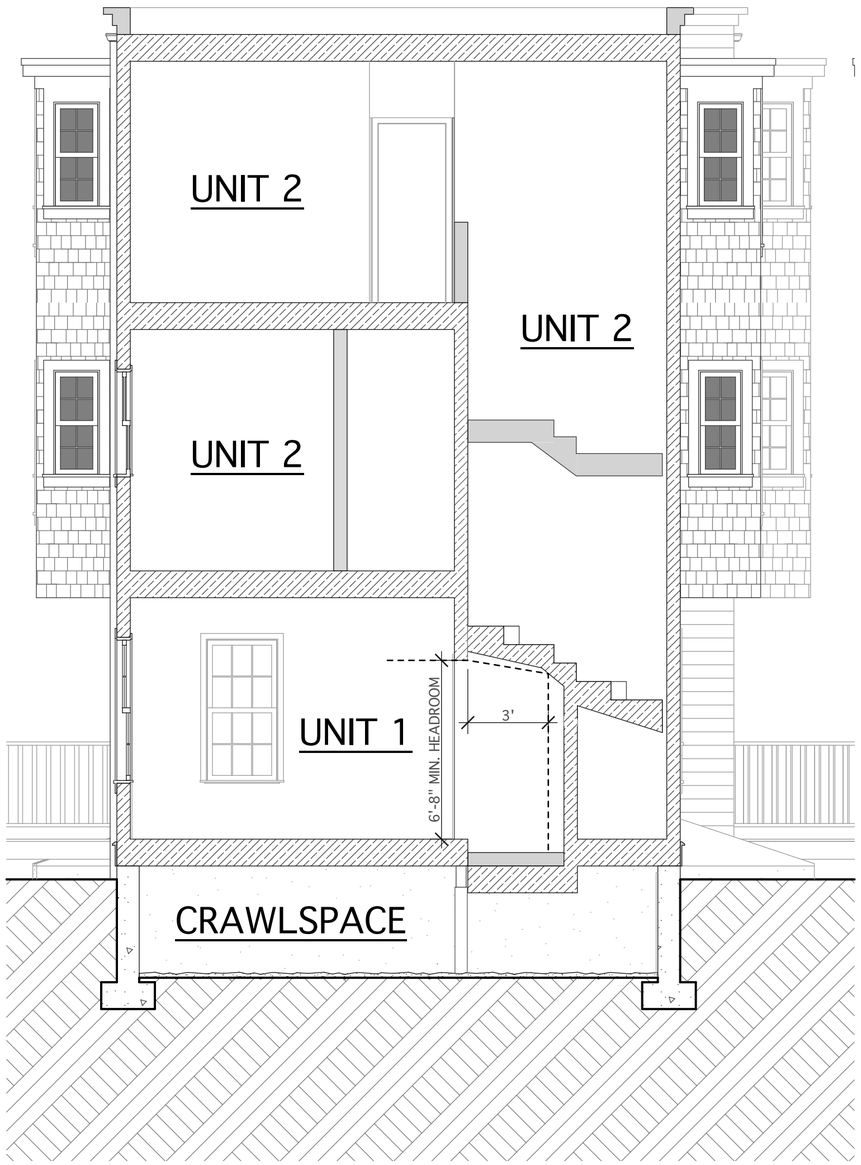
PERMIT SET

3-3 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

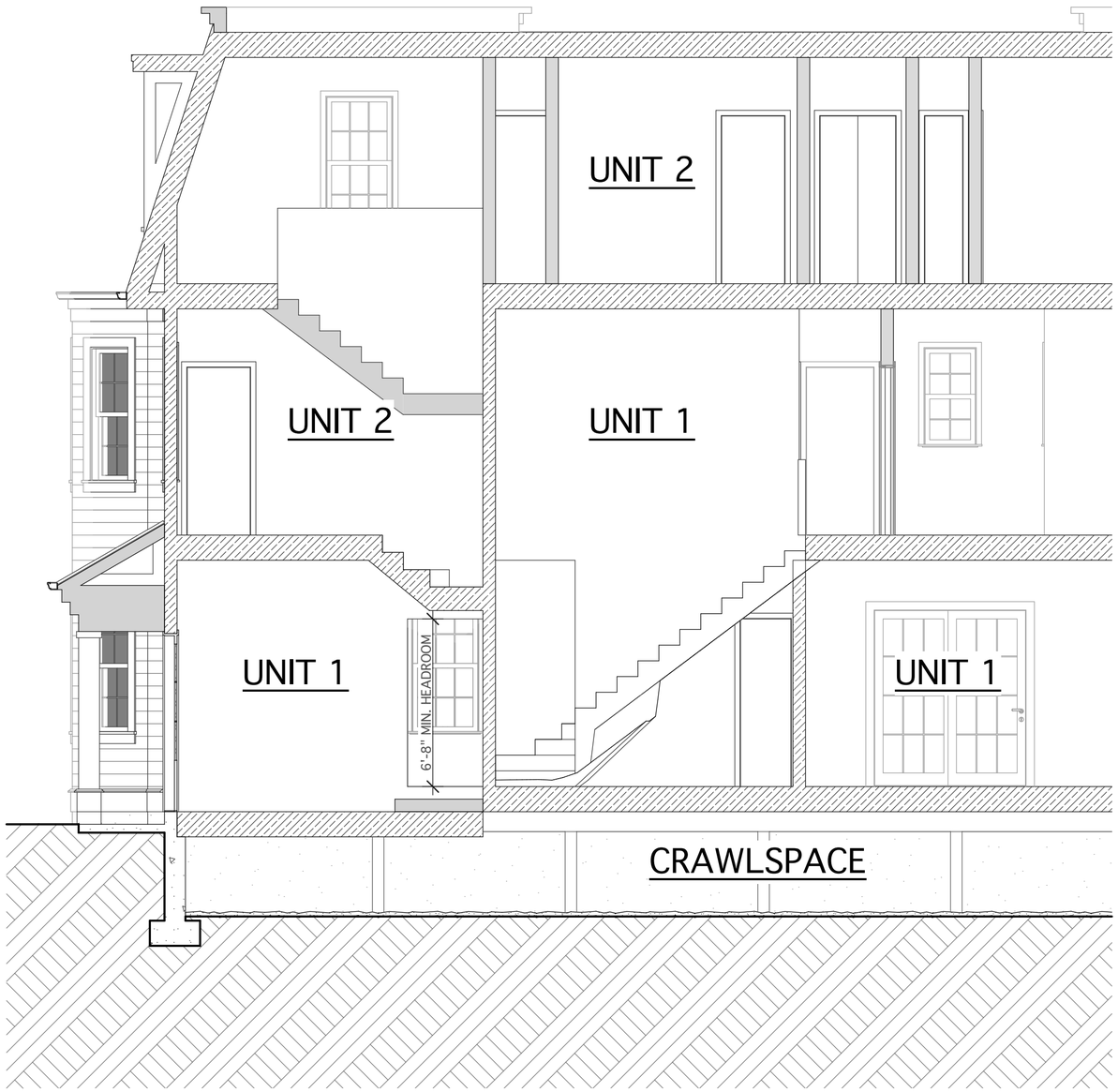
A08

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



4-4 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'



5-5 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

4-4 & 5-5 BUILDING SECTIONS

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A09

#15

#13

SOUTHWEST (McKONE STREET) ELEVATION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY
DWELLING
13-15 MCKONE STREET & 12
BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHWEST
(McKONE STREET)
ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A10

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

#12

NORTHEAST (BLOOMINGTON STREET) ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON,
MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHEAST (BLOOMINGTON STREET) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A11

#13 #15

NORTHEAST (REAR) ELEVATION: TYPICAL REAR ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	△
△	△
△	△

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHEAST (REAR) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A12

#12

SOUTHWEST (REAR) ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHWEST (REAR) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A12a

#15

NORTHWEST (DRIVEWAY) ELEVATION: TYPICAL SIDE ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHWEST (DRIVEWAY) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A13

#15

SOUTHEAST ELEVATION: TYPICAL SIDE ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHEAST ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A14

WINDOW SCHEDULE

Job Name: 15 McKone Street

Date: 09/04/18

*REVISED: date

	LOCATION		MANUFACTURER			NOMINAL SIZES		WINDOWS	
*REV.	Symbol	Qty.	Company	Product No.	Type	Width	Height	Glazing	Remarks
	A	51			DH	2'-9"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	B	24			DH	2'-2"	4'-0"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	C	12			DH	2'-2"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	D	6			DH	1'-9"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	E	24			DH	1'-9"	4'-0"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
TOTAL		117							

DOOR SCHEDULE

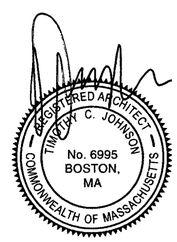
Job Name: 15 McKone Street

Date: 08/24/18

*REVISED: date

	LOCATION		DOOR	NOMINAL SIZES		FRAME		MANUFACTURER		MISC.	
*REV.	Symbol	Qty.	Type	Width	Height	Jamb	Treshld.	Company	Product No.	Hdwre.	Remarks
	1	6	B, K	3'-0"	7'-0"		X				Vinyl Insulated Half-Lite Entry Door w/ Low-E Gl. & SDL
	2	3	D	6'-0"	7'-0"		X				Vinyl Sliding Patio Door w/ Low-E Gl. & SDL
	3	3	B	3'-0"	3'-8"		X				Metal Insulated Door to Crawlspace

HARDWARE SCHEDULE		MISC. SCHEDULE		DOOR SCHEDULE	
L-1	Cylinder lockset, passage lock	T-1	Clr. oak, beveled edges	A	Panel door
L-2	Cylinder lockset, privacy lock	T-2	White marble, beveled edges	B	Flush door
L-3	Dummy trim	T-3	Clr. anod. alum., beveled edges	C	Louvre door
L-4	Mortise-type entry lockset	T-4	Std. alum.sill,adjust. hardwd. thrhd.	D	Patio door
L-5	Bored-type entry lockset			E	French door
L-6	Deadbolt cylinder	W-1	Weatherstrip, bulb-type	F	Sliding door
C-1	Heavy-duty closer	J-1	Solid dimension board, stain grade	G	Bi-fold door
C-2	Standard-duty closer	J-2	Finger-jointed board, paint grade	H	Pocket door
H-1	Plain bearing hinges, 3-butts	J-3	Split-wood frame	J	Sidelights
H-2	Ball bearing hinges, 3-butts	J-4	Hollow metal frame	S	Special
				K	1/2 Lite Door
				T	Transom



OWNER:
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SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

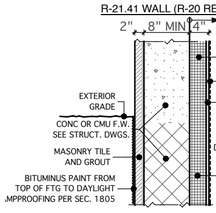
PERMIT SET

SCHEDULES

DATE: 09/05/18 | SC: N. T. S.

A16

R-21.41 WALL (R-20 REQ.)

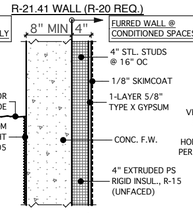


TYPE 1
EXTERIOR WALL (2 HR)

TYPE 1A
SAME AS TYPE 1A w/o FURRED WALL

·UL U914

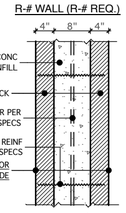
R-21.41 WALL (R-20 REQ.)



TYPE 1B
EXTERIOR WALL (2 HR)

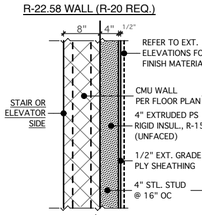
TYPE 1D
SAME AS TYPE 1B w/o FURRED WALL

R-# WALL (R-# REQ.)



TYPE 1C
EXTERIOR WALL (2 HR)

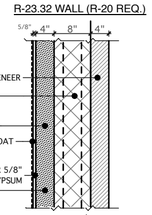
R-22.58 WALL (R-20 REQ.)



TYPE 1E
EXTERIOR WALL (2 HR)

·UL U914

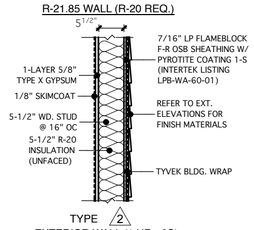
R-23.32 WALL (R-20 REQ.)



TYPE 1F
EXTERIOR WALL (2 HR)

·UL U914

R-21.85 WALL (R-20 REQ.)

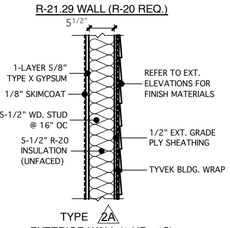


TYPE 2
EXTERIOR WALL (1 HR - 2S)
(WALL RATED BOTH SIDES)

TYPE 2B
SAME AS TYPE 2 w/ 5-1/2" STL STUDS 18G

·UL DES BXUV.U348

R-21.29 WALL (R-20 REQ.)

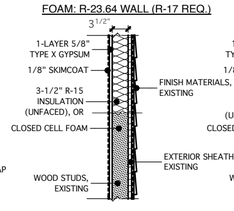


TYPE 2A
EXTERIOR WALL (1 HR - 1S)
(WALL RATED INSIDE ONLY)

TYPE 2C
SAME AS TYPE 2A w/ 5-1/2" STL STUDS 18G

·UL DES U330

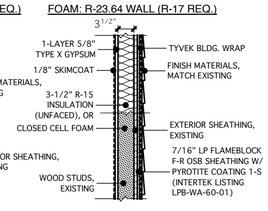
BATT: R-17.64 WALL (R-17 REQ.)
FOAM: R-23.64 WALL (R-17 REQ.)



TYPE 2D
EXTERIOR WALL, EXISTING (1 HR - 1S)
(WALL RATED INSIDE ONLY)
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

·UL DES U330

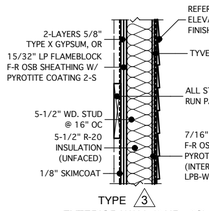
BATT: R-17.64 WALL (R-17 REQ.)
FOAM: R-23.64 WALL (R-17 REQ.)



TYPE 2E
EXTERIOR WALL, EXISTING (1 HR - 2S)
(WALL RATED BOTH SIDES)
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

·UL DES BXUV.U348

R-22.42 WALL (R-20 REQ.)

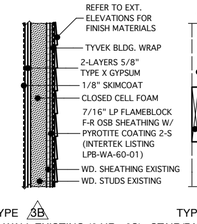


TYPE 3
EXTERIOR WALL (2 HR - 2S)
(WALL RATED BOTH SIDES)

TYPE 3A
SAME AS TYPE 3 w/ 5-1/2" STL STUDS 18G

·UL DES BXUV.U350

R-23.64 WALL (R-20 REQ.)

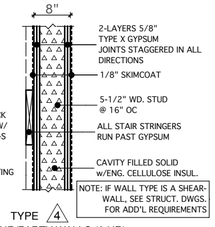


TYPE 3B
EXTERIOR WALL EXISTING (2 HR - 2S)
(WALL RATED BOTH SIDES AT EXISTING FRAMING)

TYPE 3C
SAME AS TYPE 3B w/o FLAMEBLOCK SHEATHING

·UL DES BXUV.U349

STC 61 (50 REQ.)

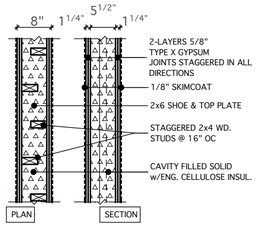


TYPE 4
STAIR/PARTY WALLS (2 HR)

TYPE 4A
SAME AS TYPE 4 w/ 5-1/2" STL STUDS 18G

·UL DES U301

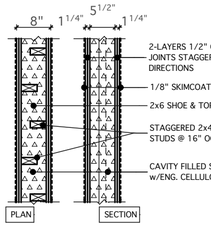
STC 64 (50 REQ.)



TYPE 5
UNIT SEPARATION (2 HR)

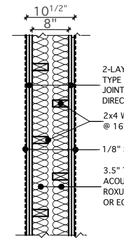
·UL DES U301

STC 64 (50 REQ.)



TYPE 5A
UNIT SEPARATION (1 HR)

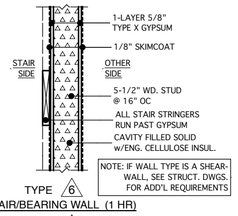
·UL DES U340



TYPE 5B
UNIT SEPARATION (2 HR)
STC RATING: 56-59 PER ASTM E90

·UL DES U301

STC 51 (50 REQ.)



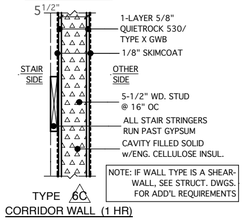
TYPE 6
STAIR/BEARING WALL (1 HR)

TYPE 6A
SAME AS TYPE 6 w/ 5-1/2" STL STUDS 18G

TYPE 6B
SAME AS TYPE 6 w/ 7/16" LP FLAMEBLOCK-1S AT OTHER SIDE

·UL DES U305 OR BXUV.U348

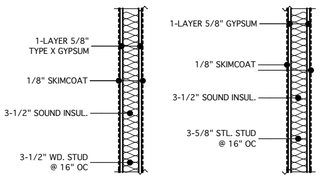
STC 55 (50 REQ.)



TYPE 6C
CORRIDOR WALL (1 HR)

·UL DES U305, U314

R-17.11 WALL (R-17 REQ.)



TYPE 7
WALLS WITHIN UNITS (1 HR)

TYPE 7A
SAME AS TYPE 7 EXCEPT EXISTING FRAMING

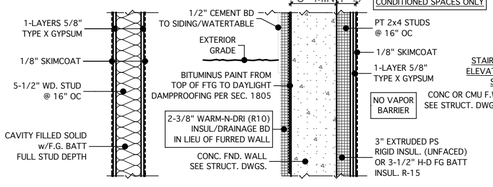
·UL DES U305

TYPE 8
WALLS WITHIN UNITS

TYPE 8A
SAME AS TYPE 8 w/o INSULATION & SKIM COAT

·UL DES U305

STC 51 (50 REQ.)



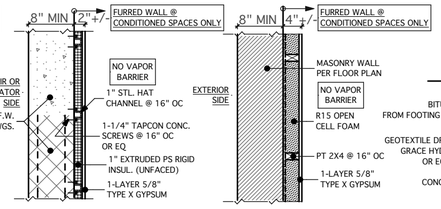
TYPE 9
WALLS WITHIN UNITS (1 HR)

TYPE 9A
SAME AS TYPE 9 w/5-1/2" STL. STUDS

TYPE 9B
SAME AS TYPE 9 w/WATER-RESISTANT GWB

·UL DES U305

R-17 WALL (R-17 REQ.)



TYPE 10
CONC. FOUNDATION WALL

TYPE 10A
SAME AS TYPE 10 w/3-5/8" STL. STUDS

TYPE 10B
SAME AS TYPE 10 w/o FURRED WALL
(SEE STRUCTURAL DRAWINGS FOR WALL THICKNESS & REINFORCING)

TYPE 11
8" CMU FURRED WALL (2 HR)

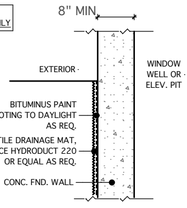
TYPE 11A
8" CMU w/o FURRED WALL
·(ACRYLIC PAINT FINISH OPTIONAL)

·UL DES U914

TYPE 12
EXISTING MASONRY W/ NEW FURRED WALL
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

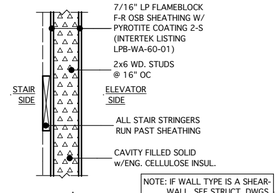
TYPE 12A
SAME AS TYPE 12 w/o FURRED WALL

8" MIN



TYPE 13
CONC. RETAINING WALL
(SEE STRUCTURAL DRAWINGS FOR WALL THICKNESS & REINFORCING)

STC 51 (50 REQ.)



TYPE 14
SHAFT WALL (2 HR)

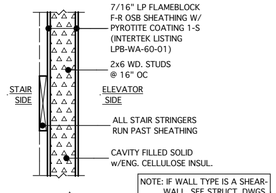
TYPE 14A
SAME AS TYPE 14 w/ 5-1/2" STL STUDS 18G

TYPE 14B
SAME AS TYPE 14A w/2-LAYERS 5/8" GWBX E-S

·UL DES BXUV.U350

·UL DES U301

STC 51 (50 REQ.)



TYPE 15
SHAFT WALL (1 HR)

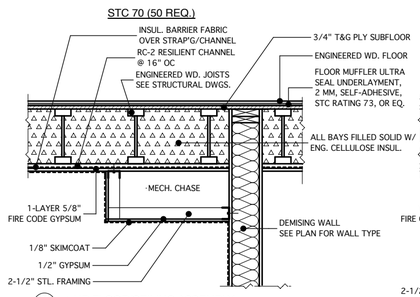
TYPE 15A
SAME AS TYPE 15 w/ 5-1/2" STL STUDS 18G

TYPE 15B
SAME AS TYPE 15 w/1-LAYER 5/8" GWBX E-S

·UL DES BXUV.U350

·UL DES U305

STC 70 (50 REQ.)



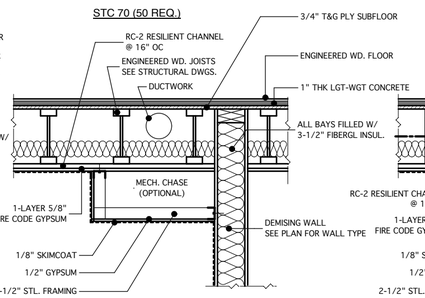
1 1-HR FLOOR/CEILING ASSEMBLY

1A SAME AS ASSEMBLY 1
EXCEPT EXISTING FRAMING

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

STC 70 (50 REQ.)

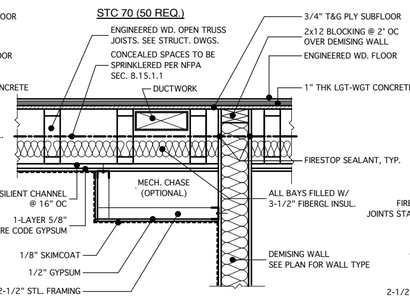


1B 1-HR FLOOR/CEILING ASSEMBLY

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

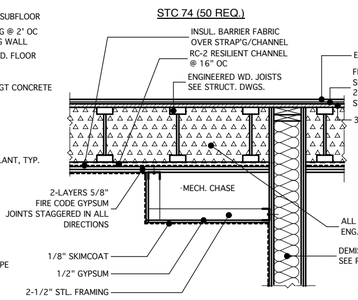
STC 70 (50 REQ.)



1C 1-HR FLOOR/CEILING ASSEMBLY
NOTE: NO DRAFTSTOPPING REQUIRED.

·UL DES L569

STC 74 (50 REQ.)

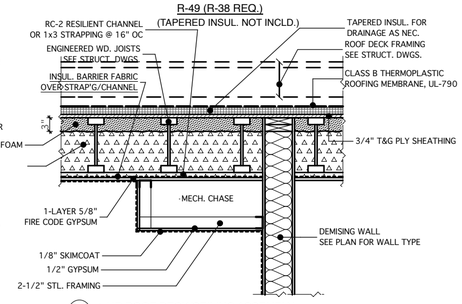


2 2-HR FLOOR/CEILING ASSEMBLY

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L511

R-49 (R-38 REQ.)
(TAPERED INSUL. NOT INCLD.)



3A 1-HR ROOF DECK/CEILING ASSEMBLY
SEE 3C FOR ALTERNATE ROOF INSULATION

3B SAME AS ASSEMBLY 3A
EXCEPT EXISTING FRAMING

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

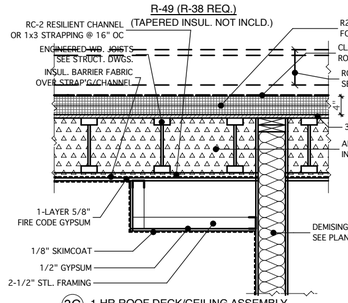
PERMIT SET

WALL/ FLOOR TYPES

DATE: 09/05/18 | SC: N. T. S.

A17

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

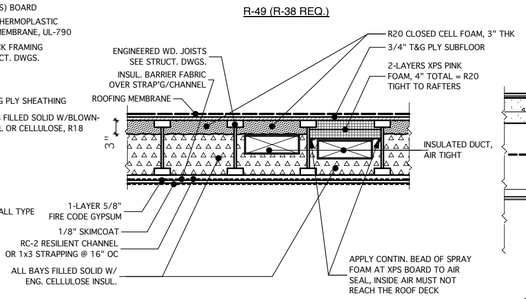


3C 1-HR ROOF DECK/CEILING ASSEMBLY
ALTERNATE ROOF INSULATION

3D SAME AS ASSEMBLY 3C
EXCEPT EXISTING FRAMING

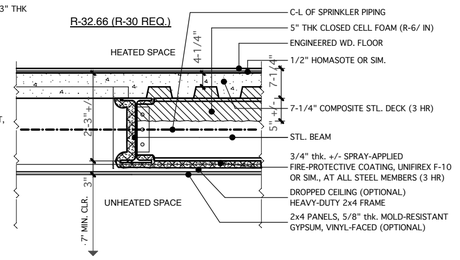
NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569



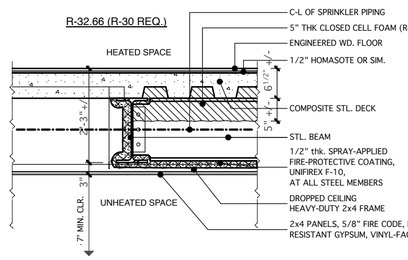
3E 1-HR ROOF DECK/CEILING ASSEMBLY
SHOWING DUCTS INSIDE ROOF FRAMING CAVITY

·UL DES L569



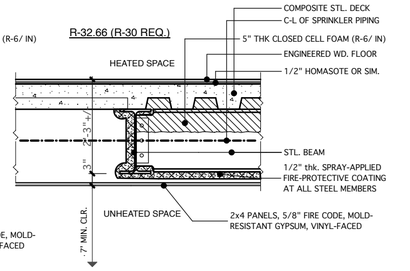
4A 3-HR FLOOR/CEILING ASSEMBLY
7 FT. MIN. CLEARANCE AT DROPPED CEILING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

·UL DES G529



5A 2-HR FLOOR/CEILING ASSEMBLY
7 FT. MIN. CLEARANCE AT DROPPED CEILING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

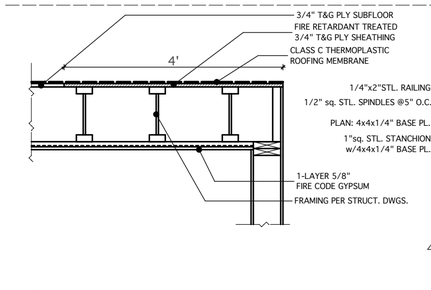
·UL DES G205



6 1-HR FLOOR/CEILING ASSEMBLY

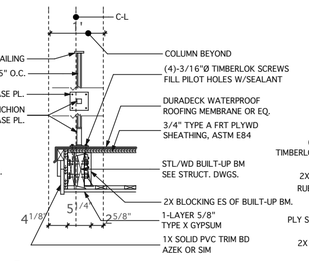
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

·UL DES G201

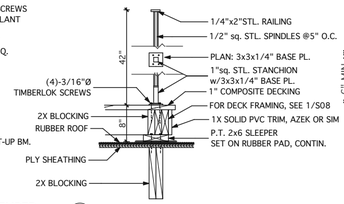


3F 1-HR ROOF DECK/CEILING ASSEMBLY
ALTERNATE ROOFING MEMBRANE/SHEATHING

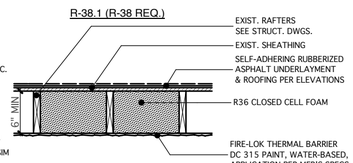
·UL DES L569



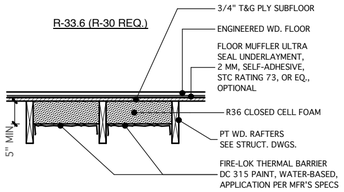
7 1-HR DECK ASSEMBLY AT STL. STRUCT'L MEMBER AT EXTERIOR



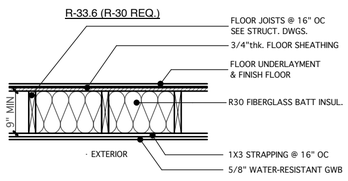
7A RAILING/ROOF DECK ASSEMBLY



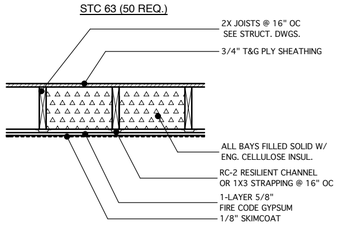
8D UNFINISHED CEILING ASSEMBLY
AT ROOF - CATHEDRAL



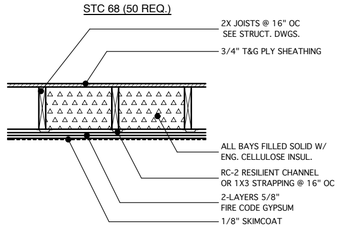
8E FLOOR/CEILING ASSEMBLY
AT CRAWLSPACE w/UN-INSUL. FND.



8F FLOOR/CEILING ASSEMBLY
AT EXTERIOR CONDITION

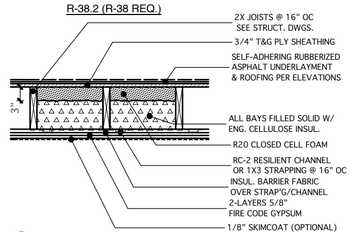


8 1-HR FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING



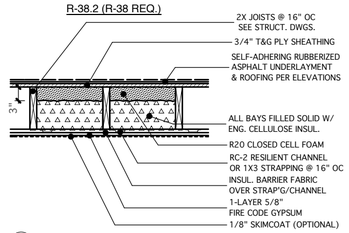
8A 2-HR FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING

·UL DES L511



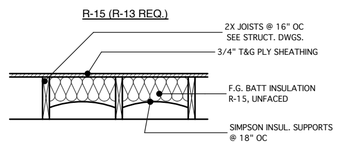
8B 2-HR CEILING ASSEMBLY
AT ROOF - CATHEDRAL

·UL DES L511

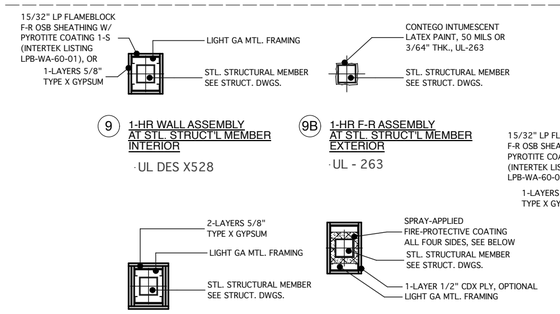


8C 1-HR CEILING ASSEMBLY
AT ROOF - CATHEDRAL

·UL DES L569



8G FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING



9 1-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

·UL DES X528

9B 1-HR F-R ASSEMBLY
AT STL. STRUCT'L MEMBER
EXTERIOR

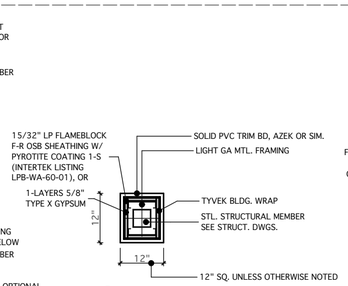
·UL - 263

9A 2-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

·UL DES X528

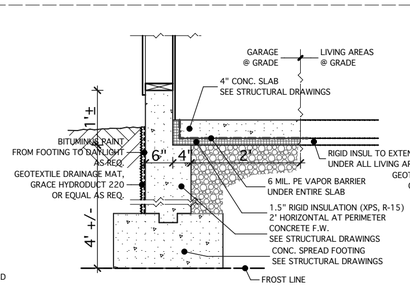
10 3-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

SPRAY APPLIED PER MFR'S SPEC TO ACHIEVE 3-HR FIRE RATING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84



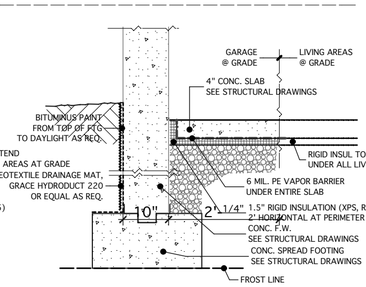
11 1-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
AT EXTERIOR

·UL DES X528



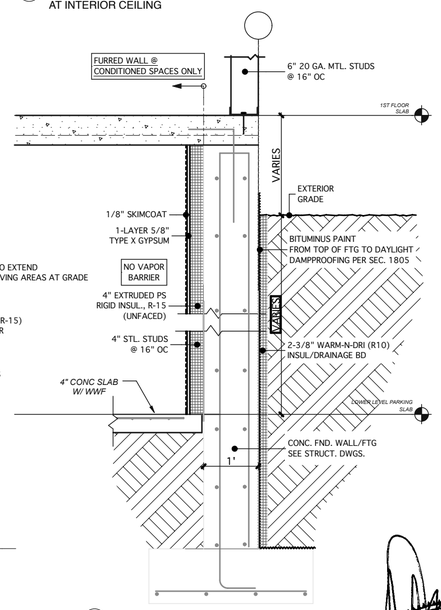
13 INSULATED SLAB ON GRADE DETAIL
SEE STRUCTURAL DWGS.

NOTE: CONC SLABS BELOW THE FROST LINE – E.G. BASEMENTS – REQUIRE RIGID INSUL AT PERIMETER ONLY.



13A INSULATED SLAB ON GRADE DETAIL
SEE STRUCTURAL DWGS.

NOTE: CONC SLABS BELOW THE FROST LINE – E.G. BASEMENTS – REQUIRE RIGID INSUL AT PERIMETER ONLY.



X5 FOUNDATION WALL SECTION
SEE STRUCTURAL DWGS.

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

WALL/FLOOR TYPES

DATE: 09/05/18 | SC: N. T. S.

A18

EXISTING LEGEND

SS	SEWER LINE
Ⓢ	SEWER MANHOLE
W	WATER LINE
G	GAS LINE
	UTILITY POLE
GV	GAS VALVE
E	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
205	CONTOUR LINE (MJR)
195	CONTOUR LINE (MNR)
X	SPOT GRADE
Ⓓ	DRAIN MANHOLE
	HYDRANT
	TREE

BLOOMINGTON STREET
(PUBLIC WAY - VARIABLE WIDTH)

EXISTING 4" GAS MAIN
EXISTING 12" SEWER LINE
EXISTING CATCH BASIN
EXISTING 12" SEWER LINE
EXISTING CATCH BASIN
EXISTING 4" GAS MAIN
EXISTING S.M.H. RIM=15.06' INV=9.00'±
EXISTING D.M.H.
LOT A
16.46 CONTOUR FLOOD ELEVATION ZONE AE
16.46 CONTOUR FLOOD ELEVATION ZONE AE
40.00'
LOT 13
3,936± S.F
EXISTING CHAIN LINK FENCE
24.1'
54.00'
N/F ALLAN
EXISTING LAWN
EXISTING WOOD LANDING & STEPS
EXISTING CHAIN LINK FENCE
EXISTING CHAIN LINK FENCE
116.68'
120.6'
16.46 CONTOUR FLOOD ELEVATION ZONE AE
#15
EXISTING
2 STORY
WOOD FRAMED
RESIDENTIAL
DWELLING
F.F.=18.30'
(TAKEN AT
THRESHOLD)
94.58'
LOT 15
LOT 14
LOT 12
6,741± S.F (MEASURED)
6,700± S.F (RECORDED)
EXISTING LAWN
EXISTING CHAIN LINK FENCE
94.44'
55.00'
EXISTING CONCRETE WALKWAY
EXISTING LAWN
EXISTING CHAIN LINK FENCE
1.5'
EXISTING WATER SERVICE
11.1'
EXISTING WOOD LANDING & STEPS
EXISTING CONCRETE WALKWAY
EXISTING CHAIN LINK FENCE
39.05'
38.00'
94.65'
EXISTING CHAIN LINK FENCE
EXISTING GAS SERVICE
APPROX LOCATION OF EXISTING SEWER SERVICE
EXISTING 24" DRAIN LINE
EXISTING 54" COMBINED SEWER
EXISTING D.M.H. RIM=15.42' INV=10.07' INV=11.31' INV=10.11'
EXISTING 4" GAS MAIN
EXISTING C.S.M.H. RIM=15.66' INV=3.75'±
EXISTING 54" COMBINED SEWER
EXISTING UNDERGROUND ELECTRIC LINE
EXISTING 6" HSW WATER MAIN
LOT 8
16.46 CONTOUR FLOOD ELEVATION ZONE AE
MCKONE STREET
(PUBLIC WAY - 38' WIDE)
16.46 CONTOUR FLOOD ELEVATION ZONE AE
EXISTING 4" GAS MAIN
EXISTING UNDERGROUND ELECTRIC LINE
EXISTING 54" COMBINED SEWER

ZONING LEGEND

ZONING DISTRICT: 2F-5000 (TWO FAMILY RESIDENTIAL)

	REQUIRED	EXISTING	COMPLIANCE
MIN. AREA	5,000 S.F.	10,677± S.F.	YES
MIN. FRONTAGE	40'	77'	YES
MIN. YARD FRONT	15'	11.1'	EXISTING NON-CONFORMING
SIDE	10'	1.5'	EXISTING NON-CONFORMING
REAR	20'	24.1'	YES
REAR YARD OCC.	25%	0.0%	YES
USABLE OPEN SPACE PER DWELLING UNIT	750 S.F.	9,372.3± S.F.	YES
MIN. LOT WIDTH	40'	40.0'	YES
MAX. BLDG. HEIGHT	35'	26.7'±	YES
MAX. STORIES	2.5	2.0	YES
MAX. F.A.R.	0.5	-	-

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 4/13/2017.

2. DEED REFERENCE BOOK 57261 PAGE 288, CUFFOLK COUNTY REGISTRY OF DEEDS.

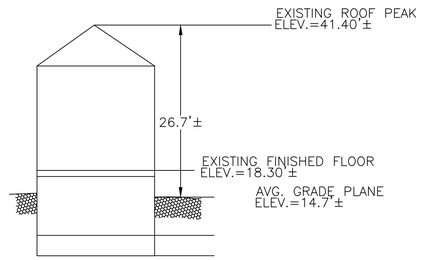
3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE AE (EL. 10), ON FLOOD HAZARD BOUNDARY MAP NUMBER 25025C0091J, PANEL NUMBER 0091J, COMMUNITY NUMBER: 250286, DATED MARCH 16, 2016.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAN NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

7. BASE FLOOD ELEVATION FOR ZONE AE BASED ON NAVD 88 DATUM = 10.0 (FEET). NAVD CONVERSION FACTOR TO CITY OF BOSTON BASE = +1.968 (METERS) OR 6.46 (FEET). THEREFOR BASE FLOOD ELEVATION FOR ZONE AE = 16.46', CITY OF BOSTON DATUM (AS SHOWN ON PLAN).



EXISTING PROFILE
NOT TO SCALE

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SCALE 1"=10'				
DATE 4/13/2017	REV	DATE	REVISION	BY
SHEET 1				
PLAN NO. 1 OF 1				
CLIENT:				
DRAWN BY				
CHKD BY PJN				
APPD BY PJN				

15 MCKONE STREET
BOSTON (DORCHESTER)
MASSACHUSETTS

EXISTIN CONDITIONS
SITE PLAN

COMMONWEALTH OF MASSACHUSETTS
PETER J. NOLAN 49185
REGISTERED PROFESSIONAL LAND SURVEYOR

SHEET NO.
1

PETER NOLAN & ASSOCIATES LLC
LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135
PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691
EMAIL: pnolan@pnasurveyors.com

RESERVED FOR BWSC USE ONLY

EXISTING LEGEND

SS	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
G	GAS LINE
	UTILITY POLE
GV	GAS VALVE
E	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
205	CONTOUR LINE (MJR)
195	CONTOUR LINE (MNR)
X	SPOT GRADE
D	DRAIN MANHOLE
	HYDRANT
	TREE

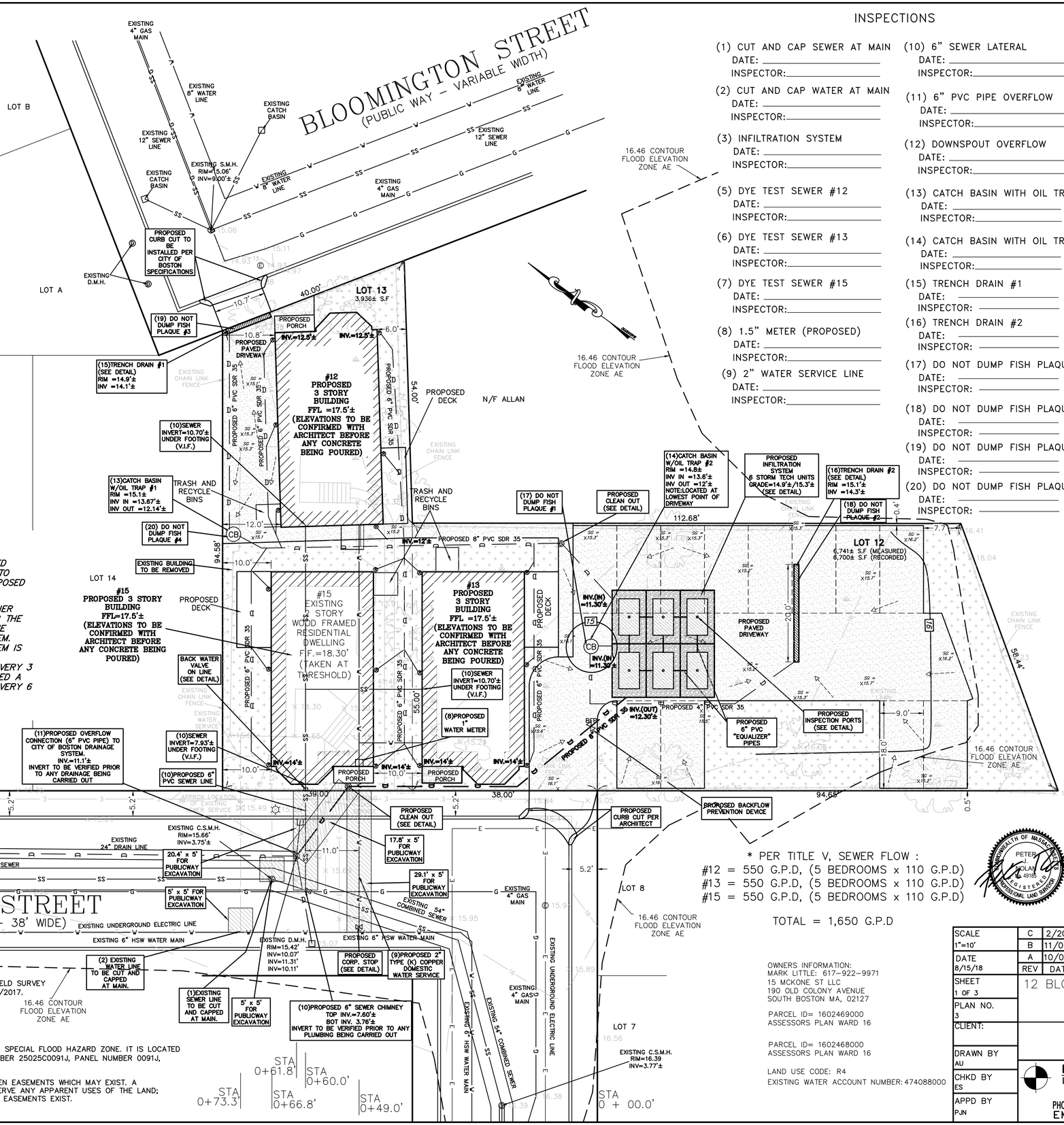
NOTE: CONTRACTOR TO CONFIRM LOCATION OF DOWN SPOUTS PRIOR TO CARRYING OUT ANY DRAINAGE WORKS

NOTE: SURFACE WATER TO BE DIVERTED FROM ALL SIDES OF FOUNDATION WALL

NOTE: STRUCTURAL ENGINEER TO ENSURE THERE IS A MINIMUM OF 8" FROM GRADE TO TOP OF FOUNDATION ON PROPOSED BUILDING

NOTE: ALL PROPOSED IMPERVIOUS AREAS TO BE SLOPED TO PROPOSED CATCH BASINS

NOTE: BUILDING OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE STORM WATER SYSTEM. STORM WATER SYSTEM IS TO BE INSPECTED A MINIMUM OF ONCE EVERY 3 MONTHS AND CLEANED A MINIMUM OF ONCE EVERY 6 MONTHS.



INSPECTIONS

(1) CUT AND CAP SEWER AT MAIN
DATE: _____
INSPECTOR: _____

(2) CUT AND CAP WATER AT MAIN
DATE: _____
INSPECTOR: _____

(3) INFILTRATION SYSTEM
DATE: _____
INSPECTOR: _____

(5) DYE TEST SEWER #12
DATE: _____
INSPECTOR: _____

(6) DYE TEST SEWER #13
DATE: _____
INSPECTOR: _____

(7) DYE TEST SEWER #15
DATE: _____
INSPECTOR: _____

(8) 1.5" METER (PROPOSED)
DATE: _____
INSPECTOR: _____

(9) 2" WATER SERVICE LINE
DATE: _____
INSPECTOR: _____

(10) 6" SEWER LATERAL
DATE: _____
INSPECTOR: _____

(11) 6" PVC PIPE OVERFLOW
DATE: _____
INSPECTOR: _____

(12) DOWNSPOUT OVERFLOW
DATE: _____
INSPECTOR: _____

(13) CATCH BASIN WITH OIL TRAP #1
DATE: _____
INSPECTOR: _____

(14) CATCH BASIN WITH OIL TRAP #2
DATE: _____
INSPECTOR: _____

(15) TRENCH DRAIN #1
DATE: _____
INSPECTOR: _____

(16) TRENCH DRAIN #2
DATE: _____
INSPECTOR: _____

(17) DO NOT DUMP FISH PLAQUE #1
DATE: _____
INSPECTOR: _____

(18) DO NOT DUMP FISH PLAQUE #2
DATE: _____
INSPECTOR: _____

(19) DO NOT DUMP FISH PLAQUE #3
DATE: _____
INSPECTOR: _____

(20) DO NOT DUMP FISH PLAQUE #4
DATE: _____
INSPECTOR: _____

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.

2. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS.

3. ALL WORK SHALL CONFORM TO CITY OF BOSTON GENERAL CONSTRUCTION STANDARDS.

4. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.

5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR.

6. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTRACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.

7. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.

8. NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6" OF THE WATER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12" ABOVE THE PIPES.

9. PAVEMENT AREA SHALL BE PAVED TO A THICKNESS AS SHOWN ON THE PLANS MEASURED AFTER COMPACTION, WITH A BINDER COURSE AND TOP COURSE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I–1.

10. BASE MATERIAL SHALL BE CLEAN BANK RUN GRAVEL, CONFORMING TO M.D.P.W. M1.03.1, WITH NO STONES LARGER THAN THREE (3) INCHES IN DIAMETER AND SHALL BE PLACED AND ROLLED WITH AT LEAST A TEN TON ROLLER. THE SURFACES SHALL BE WET DURING ROLLING TO BIND THE MATERIAL. ALL STONES OF 4" DIAMETER OR LARGER SHALL BE REMOVED FROM THE SUB-BASE PRIOR TO PLACING BASE MATERIAL.

11. ALL EXISTING PAVING TO BE DISTURBED SHALL BE CUT ALONG A STRAIGHT LINE THROUGH ITS ENTIRE THICKNESS. BUTT THE NEW PAVING INTO THE EXISTING PAVEMENT TO REMAIN.

12. ANY PAVEMENT REMOVED FOR UTILITY TRENCH EXCAVATION OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH A PAVEMENT SECTION CONSISTING OF 1 1/2" WEAR COURSE OVERLYING A 1/2" BINDER COURSE OVERLYING A 12" COMPACTED GRAVEL BASE COURSE.

13. THE CONTRACTOR SHALL APPLY FOR A STREET OPENING AND UTILITY CONNECTION PERMITS AND SIDEWALK CROSSING PERMIT WITH THE CITY OF BOSTON DPW.

14. A PREREQUISITE FOR FILING A GENERAL SERVICE APPLICATION WITH THE BOSTON WATER AND SEWER COMMISSION FOR NEW CONSTRUCTION IS THE ROUGH CONSTRUCTION SIGN-OFF DOCUMENT FROM THE CITY OF BOSTON'S INSPECTIONAL SERVICES DEPARTMENT.

15. THE OWNER IS RESPONSIBLE TO MAINTAIN THE DRAINAGE SYSTEM FOR PROPER OPERATION INCLUDING KEEPING THE DRAIN FREE FROM DEBRIS AND ICE BLOCKAGE.

SITE PLAN #: 18403

GRAPHIC SCALE

10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

* PER TITLE V, SEWER FLOW :
#12 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)
#13 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)
#15 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)

TOTAL = 1,650 G.P.D

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 4/13/2017.

2. DEED REFERENCE BOOK 57261 PAGE 288, CUFFOLK COUNTY REGISTRY OF DEEDS.

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4. I CERTIFY THAT THE DWELLING SHOWN IS LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE AE (EL. 10), ON FLOOD HAZARD BOUNDARY MAP NUMBER 25025C0091J, PANEL NUMBER 0091J, COMMUNITY NUMBER: 250286, DATED MARCH 16, 2016.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAN NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

OWNERS INFORMATION:
MARK LITTLE: 617-922-9971
15 MCKONE ST LLC
190 OLD COLONY AVENUE
SOUTH BOSTON MA, 02127

PARCEL ID= 1602469000
ASSESSORS PLAN WARD 16

PARCEL ID= 1602468000
ASSESSORS PLAN WARD 16

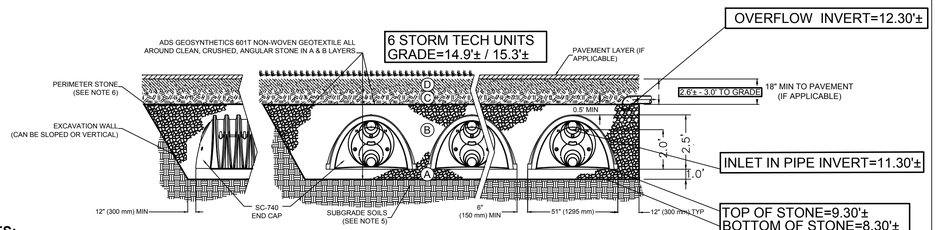
LAND USE CODE: R4
EXISTING WATER ACCOUNT NUMBER: 474088000

SCALE	C	2/20/19	F.F. ELEVATION AND FLOOD LINE ADDED	HM
1"=10'	B	11/07/18	REVISED AS PER BWSC COMMENTS	AU
DATE	A	10/02/18	REVISED AS PER BWSC COMMENTS	AU
8/15/18	REV	DATE	REVISION	BY
SHEET 1 OF 3	12 BLOOMINGTON ST, 13–15 McKONE ST DORCHESTER MASSACHUSETTS			
PLAN NO. 3				
CLIENT:	PLAN TO ACCOMPANY BWSC APPLICATION			
DRAWN BY AU	**PETER NOLAN & ASSOCIATES LLC**			
CHKD BY ES	LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS			
APPD BY PJN	697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135			
	PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691			
	EMAIL: pnolan@pnasurveyors.com			

SHEET NO. 1

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

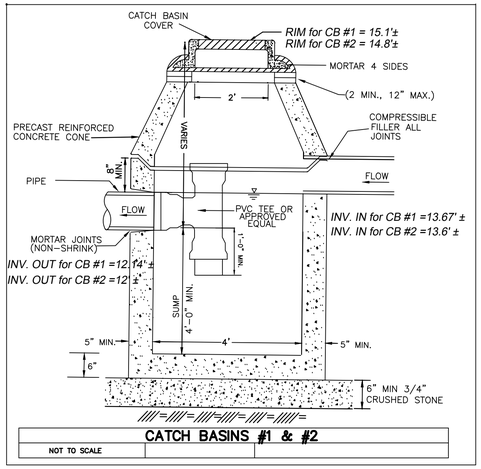


NOTES:

1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

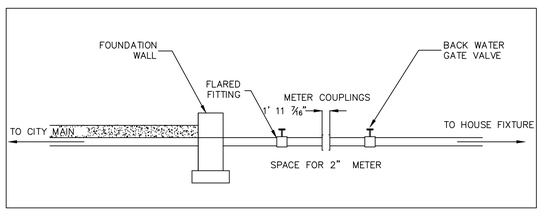
STORMTECH GENERAL NOTES

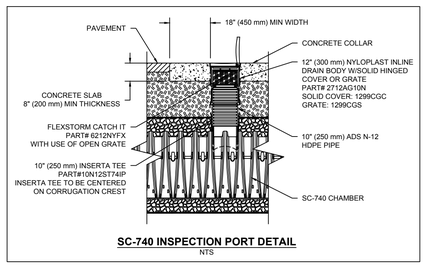
1. STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 96 INCHES.
3. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
4. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
5. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
6. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
8. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.



CATCH BASINS #1 & #2

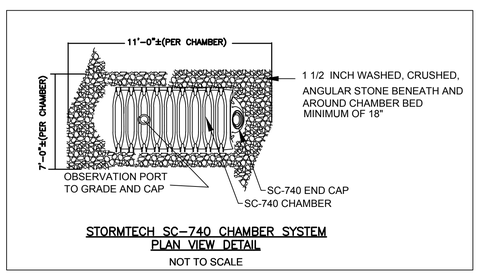
NOT TO SCALE





SC-740 INSPECTION PORT DETAIL

NTS

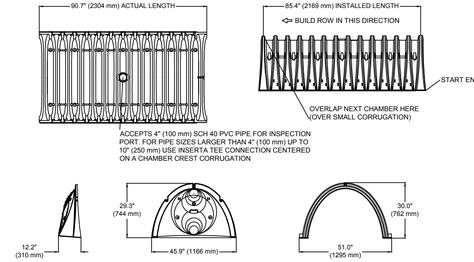


STORMTECH SC-740 CHAMBER SYSTEM PLAN VIEW DETAIL

NOT TO SCALE

SC-740 TECHNICAL SPECIFICATION

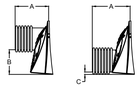
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



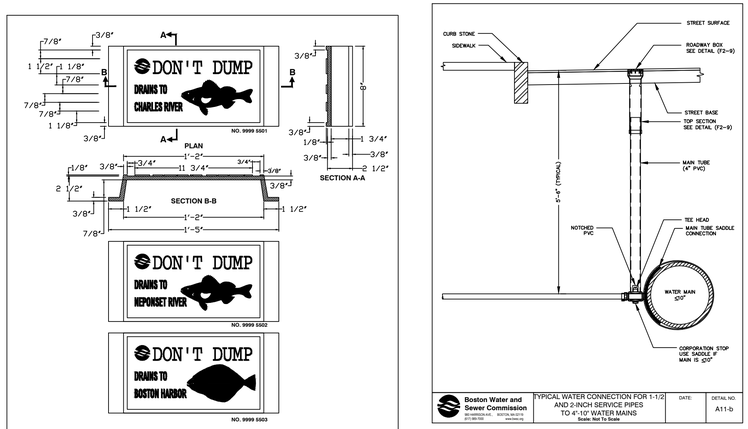
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

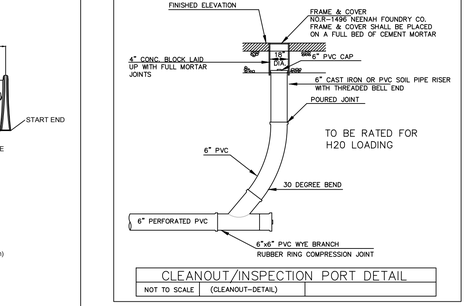
ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

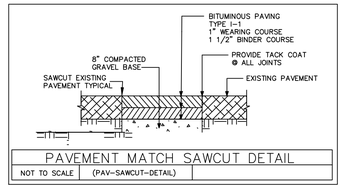


Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000	8" x14" CATCH BASIN SIGN SCALE: NOT TO SCALE	DATE: Jan 3, 2006	DETAIL NO. Model



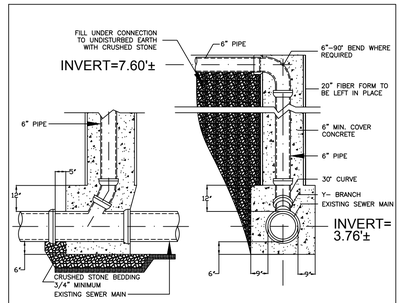
CLEANOUT/INSPECTION PORT DETAIL

NOT TO SCALE | (CLEANOUT-DETAIL)



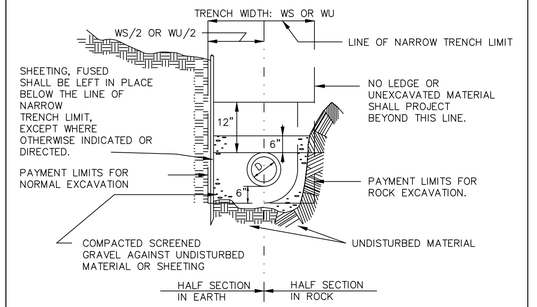
PAVEMENT MATCH SAWCUT DETAIL

NOT TO SCALE | (PAV-SAWCUT-DETAIL)



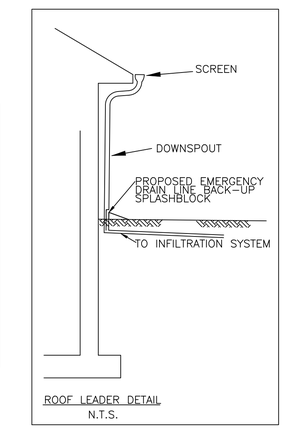
Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	**TYPICAL SEWER CHIMNEY** Scale: Not To Scale	DATE: 11/29/17	DETAIL NO. Model

Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	TYPICAL WATER CONNECTION FOR 1-1/2 AND 2-INCH SERVICE PIPES TO 4"-10" WATER MAINS Scale: Not To Scale	DATE:	DETAIL NO. A11-5



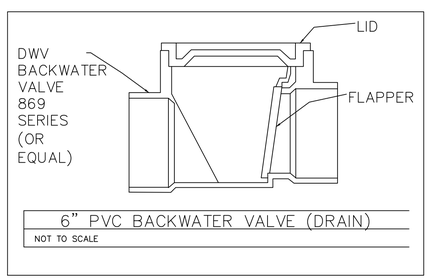
WATER TRENCH SECTION

NOT TO SCALE | (WTR&SEWER-TRENCH-SECTION)



ROOF LEADER DETAIL

N.T.S.



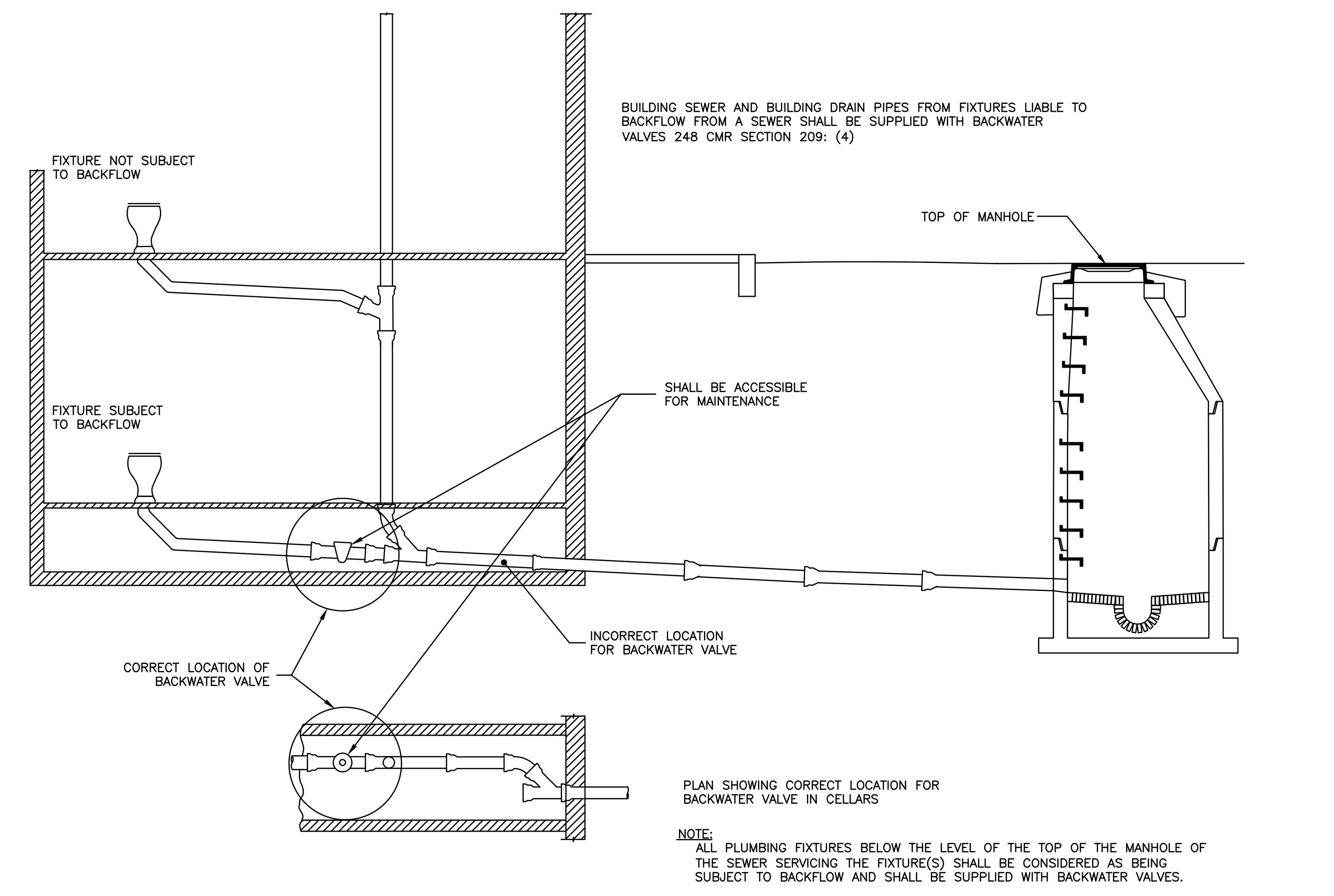
6" PVC BACKWATER VALVE (DRAIN)

NOT TO SCALE

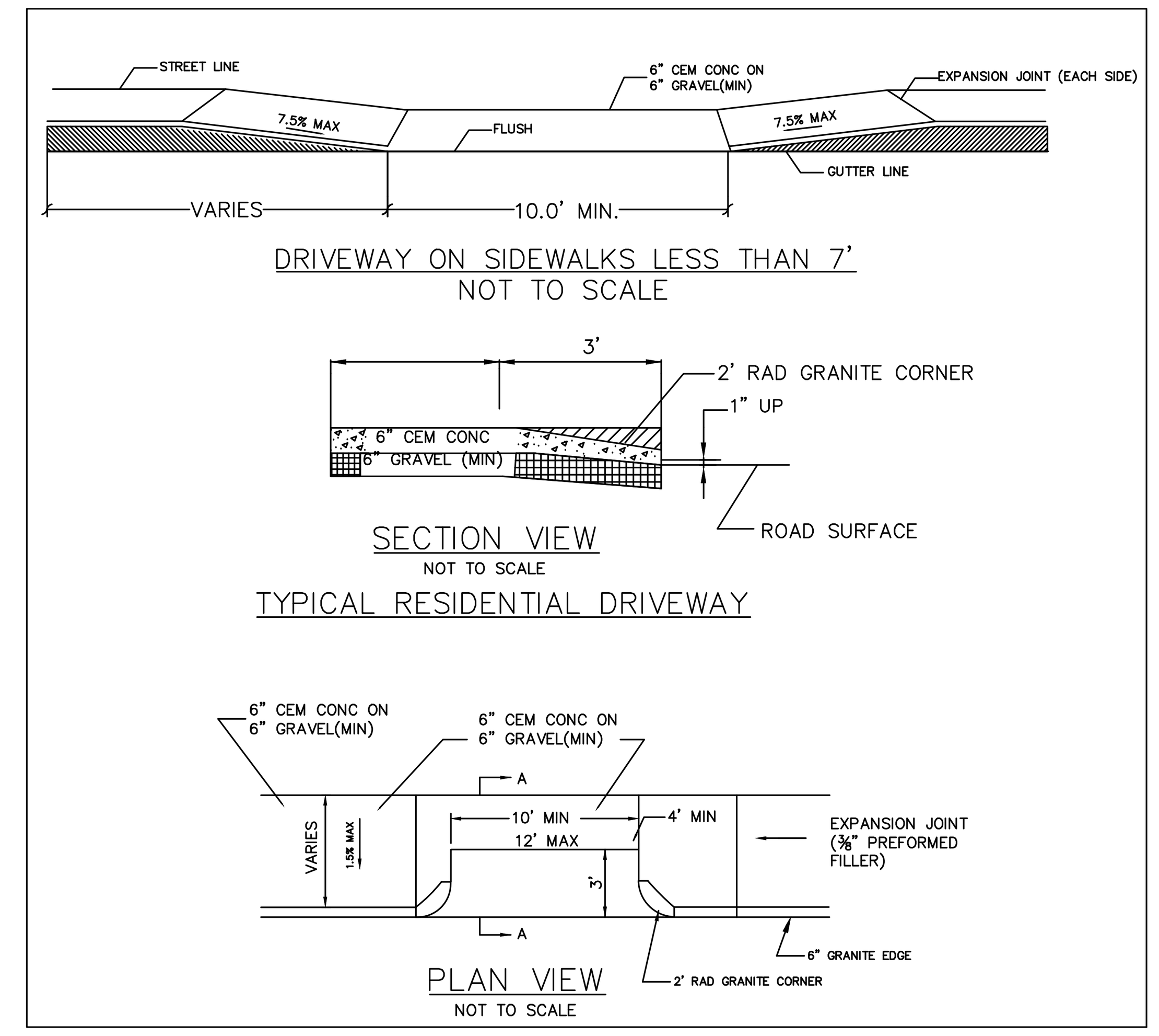
SCALE 1"=10'				
DATE 8/15/18	REV	DATE	REVISION	BY
SHEET 2 OF 3			12 BLOOMINGTON ST, 13-15 McKONE ST DORCHESTER MASSACHUSETTS	
PLAN NO. 2				
CLIENT:			PLAN TO ACCOMPANY BWSC APPLICATION	
DRAWN BY AU				
CHKD BY ES			**PETER NOLAN & ASSOCIATES LLC** LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS	
APPD BY PJN			697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135 PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691 EMAIL: pnolan@pnasurveyors.com	

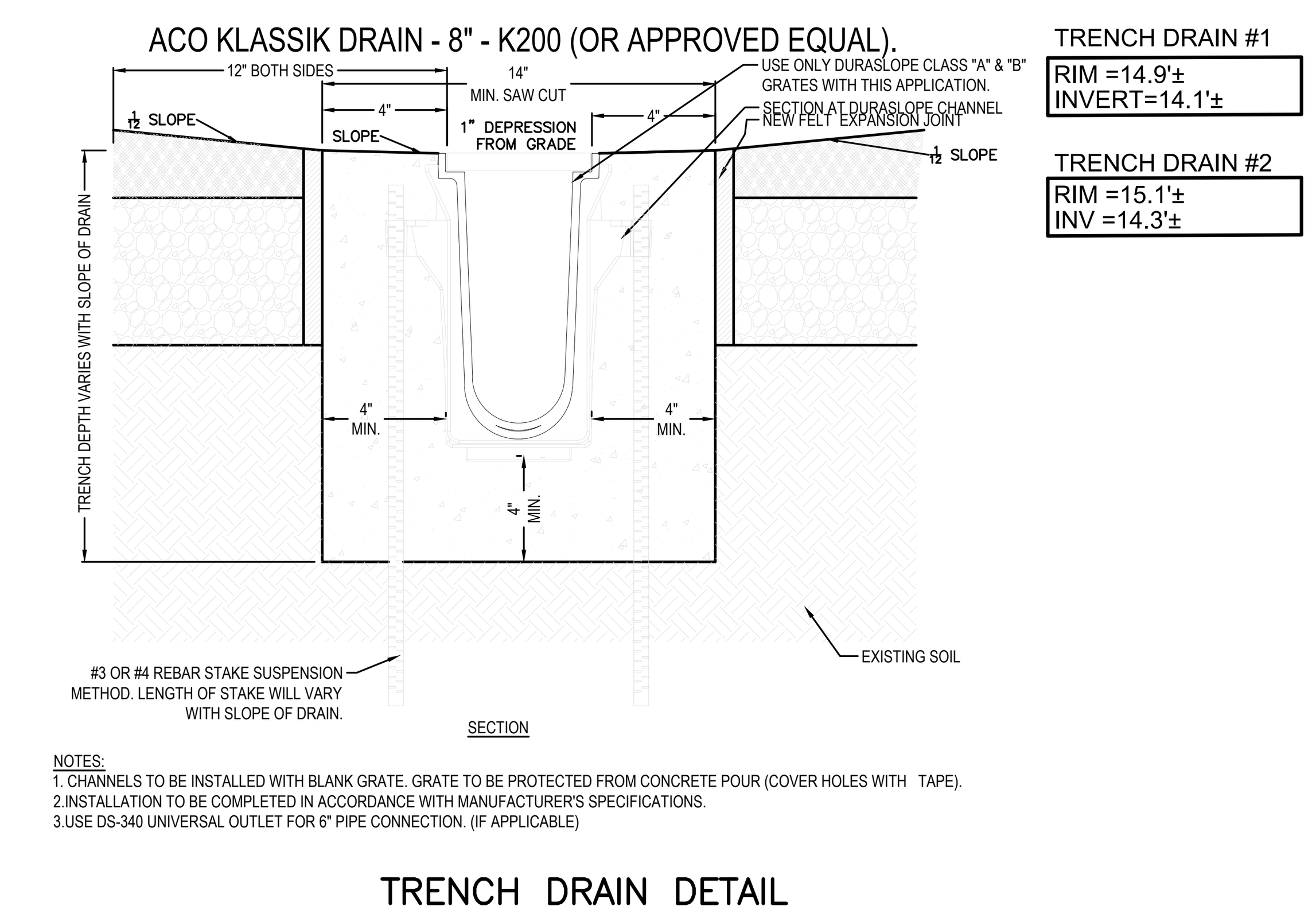
COMMONWEALTH OF MASSACHUSETTS EDMOND J. SPRAGUE 53316 CIVIL REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 2



Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	LOCATION OF BACKWATER VALVES IN CELLARS Scale: Not To Scale	DATE: Sept. 30, 2012	DETAIL NO. Model





POST-CONSTRUCTION (PROPOSED) STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:

Impervious Roof #12 Bloomington= 980.17 SF
Impervious Roof #13 Mckone= 1011.19 SF
Impervious Roof #15 Mckone= 1009.57 SF
Impervious Pavement = 4,521.36 SF
Total = 7,522.29 SF

Design For **1”** Rainstorm

Storage Volume Required:

$V_R = (1”/12)\ (7{,}522.29\ SF) = 626.85\ CF$

CAPACITY OF PROPOSED STORM TECH SYSTEM

Storage Capacity of single Storm Tech UNIT = 49 CF

Void Ratio =0.3

Total Volume= (11’x 7’ x 4’$_{\text{depth (2.5ft for Storm Tech unit)}}$ x 6 units) =1,848 CF

Capacity for 6 UNIT = 294 CF

Storage Capacity in Crushed Stone = (Total Volume – Capacity of Units) x Void Ratio = (1,848 - 294) x 0.3 = 466.2 CF

Total Storage Provided = Capacity in Crushed Stone + Total Capacity in Units = 466.2 CF + 294 CF = 760.2 CF

Since Total Storage Provided (760.20 CF) > Total Storage Required (626.85 CF/D)
Therefore, utilize 6-Storm-Tech Chamber with 1 ft. of Crushed Stone Beneath to Contain 1” Storm Event

PRE-CONSTRUCTION (EXISTING) STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:

Impervious Roof #15 Mckone= 1305.00 SF
Impervious Pavement = 305.00 SF
Total = 1,610.00 SF

Design For **1”** Rainstorm

Storage Volume Required:

$V_R = (1”/12)\ (1{,}610.00\ SF) = 134.16\ CF$

SCALE 1"=10'				
DATE 7/31/18	A	11/07/18	REVISED AS PER BWSC COMMENTS	AU
	REV	DATE	REVISION	BY
SHEET 3 OF 3	12 BLOOMINGTON ST, 13–15 McKONE ST DORCHESTER MASSACHUSETTS			
PLAN NO. 3				
CLIENT:	PLAN TO ACCOMPANY BWSC APPLICATION			
DRAWN BY AU				
CHKD BY ES	PETER NOLAN & ASSOCIATES LLC LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS 697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135 PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691 EMAIL: pnolan@pnasurveyors.com			
APPD BY PJN				

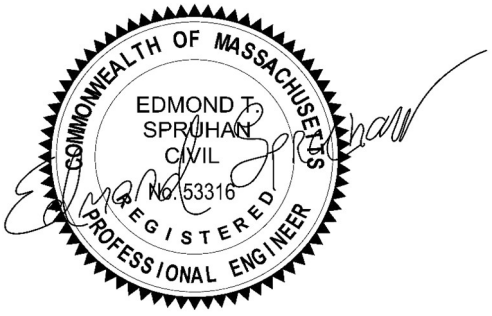
COMMONWEALTH OF MASSACHUSETTS EDMOND SPRUHAN CIVIL 53310 REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 3

SPRUHAN ENGINEERING, P.C.

STORMWATER REPORT

12 Bloomington Street, 13-15 Mckone Street, Dorchester, MA



Prepared By: Spruhan Engineering, P.C.

11/07/2018

Contents

1.0 Introduction

Spruhan Engineering, P.C. has prepared this Storm water Report for the proposed redevelopment project located at 12 Bloomington Street, 13-15 Mckone Street, Dorchester, Massachusetts.

The proposed development consists of three 2 family residential dwellings and a new driveways and parking lots. The purpose of this report is to show the proposed and existing hydrological conditions and the efficiency of the proposed infiltration system.

The proposed infiltration system consists of 6 stormtech chambers and is sized for a 1 inch storm event for all the proposed impervious area per BWSC requirements.

2.0 Existing Conditions

The existing property is located at 12 Bloomington Street, 13-15 Mckone Street, Dorchester, Massachusetts. The site is bounded by residential dwellings on the sides, by Mckone St at the front and Bloomington St at the rear. The property is located at Mckone Street between Morrisey Blvd and Neponset Ave. The existing roof area on the lot is 1,305 S.F., the existing paved area is 304 S.F., and the existing landscaped area on the lot is 9,069 S.F.

2.1 Existing Topography and Drainage Infrastructure.

In general, the property slopes from southeast to west side ranging between approximately 1.50% and 1.67%. As there is no drainage system currently installed, all storm water scours across the surface at grade.

3.0 Proposed Conditions

3.1 Project Description

The proposed development consists of three 2-family new residential dwellings, 2 driveways and a parking lot. The total proposed area of the roof will have an area of 2,648.3 S.F. The proposed driveway and walkways will have an area of 4,772 S.F. The remaining landscaped area on the lot will have a proposed footprint of 3,258 S.F.

3.2 Storm Water Runoff

HydroCAD was used to model the site for the existing and proposed conditions for the 10-year, 25-year, and 100-year type III storm events based on Atlas-14 Rain information for Middlesex County Central Area (Refer to Chapter 5 of this report for further information on rainfall data of the site). HydroCAD calculations can be seen in Appendix A. The following table shows a summary of the existing and proposed conditions on the site as they relate to flowrate and volume of storm water runoff for each of the storm events.

	Summary Table			
	Rainfall Intensity		Volume of Runoff	
	EXISTING	PROPOSED	EXISTING	PROPOSED
10 Year Storm	0.30 cfs	0.18 cfs	1,208 cf	226 cf
25 Year Storm	0.48 cfs	0.86 cfs	1,771 cf	812 cf
100 Year Storm	0.82 cfs	1.50 cfs	2,777 cf	2,204 cf

4.0 Soil Information

The NRCS Web Soil Survey characterizes the soil as Hydrologic Soil Group ‘A’. The NRCS soils information can be found in appendix B of this report.

5.0 NOAA's Atlas Precipitation Data

The NOAA's National Weather Service contains in its website rainfall depth information necessary for the hydrological calculations performed in the chosen software for this report in its section called Precipitation Frequency Data Server.

The results for a 10 year, 25 year and 100 year, 24-hr storm are shown in the next table.

NOAA Atlas 14, Volume 10, Version 2
Location name: Dorchester, Massachusetts, USA*
Latitude: 42.2899°, Longitude: -71.0469°
Elevation: 7.88 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	**0.302** (0.248-0.368)	**0.374** (0.307-0.456)	**0.492** (0.402-0.602)	**0.590** (0.478-0.727)	**0.725** (0.564-0.949)	**0.829** (0.630-1.12)	**0.932** (0.685-1.32)	**1.08** (0.736-1.56)	**1.27** (0.829-1.92)	**1.42** (0.899-2.20)
10-min	**0.428** (0.351-0.521)	**0.530** (0.434-0.646)	**0.698** (0.569-0.853)	**0.836** (0.677-1.03)	**1.03** (0.800-1.34)	**1.17** (0.892-1.58)	**1.32** (0.971-1.87)	**1.53** (1.04-2.21)	**1.80** (1.17-2.73)	**2.01** (1.27-3.11)
15-min	**0.504** (0.413-0.613)	**0.624** (0.511-0.760)	**0.821** (0.669-1.00)	**0.984** (0.797-1.21)	**1.21** (0.941-1.58)	**1.38** (1.05-1.86)	**1.55** (1.14-2.20)	**1.80** (1.23-2.60)	**2.12** (1.38-3.21)	**2.37** (1.50-3.66)
30-min	**0.689** (0.565-0.837)	**0.854** (0.700-1.04)	**1.13** (0.918-1.38)	**1.35** (1.09-1.66)	**1.66** (1.29-2.17)	**1.90** (1.44-2.56)	**2.14** (1.57-3.03)	**2.48** (1.69-3.58)	**2.93** (1.90-4.42)	**3.27** (2.07-5.05)
60-min	**0.873** (0.716-1.06)	**1.08** (0.888-1.32)	**1.43** (1.17-1.75)	**1.72** (1.39-2.11)	**2.11** (1.64-2.76)	**2.41** (1.84-3.25)	**2.72** (2.00-3.85)	**3.15** (2.15-4.56)	**3.73** (2.43-5.63)	**4.16** (2.64-6.44)
2-hr	**1.12** (0.922-1.35)	**1.41** (1.16-1.70)	**1.88** (1.54-2.28)	**2.27** (1.85-2.77)	**2.80** (2.20-3.65)	**3.22** (2.46-4.32)	**3.63** (2.69-5.13)	**4.25** (2.91-6.10)	**5.07** (3.31-7.59)	**5.70** (3.62-8.72)
3-hr	**1.30** (1.08-1.56)	**1.64** (1.35-1.97)	**2.19** (1.80-2.64)	**2.64** (2.16-3.22)	**3.27** (2.57-4.24)	**3.76** (2.89-5.02)	**4.24** (3.16-5.96)	**4.97** (3.41-7.10)	**5.95** (3.89-8.84)	**6.68** (4.25-10.2)
6-hr	**1.70** (1.42-2.03)	**2.12** (1.76-2.54)	**2.81** (2.33-3.37)	**3.38** (2.78-4.09)	**4.16** (3.29-5.35)	**4.77** (3.68-6.31)	**5.37** (4.01-7.48)	**6.28** (4.33-8.87)	**7.48** (4.91-11.0)	**8.39** (5.35-12.6)
12-hr	**2.21** (1.85-2.62)	**2.72** (2.28-3.23)	**3.54** (2.96-4.23)	**4.23** (3.50-5.08)	**5.17** (4.11-6.59)	**5.90** (4.58-7.73)	**6.63** (4.96-9.11)	**7.69** (5.32-10.7)	**9.09** (5.99-13.2)	**10.1** (6.49-15.1)
24-hr	**2.69** (2.27-3.17)	**3.32** (2.80-3.92)	**4.35** (3.65-5.15)	**5.20** (4.34-6.21)	**6.38** (5.11-8.07)	**7.29** (5.69-9.48)	**8.20** (6.18-11.2)	**9.56** (6.64-13.2)	**11.4** (7.52-16.4)	**12.7** (8.18-18.8)
2-day	**3.05** (2.60-3.58)	**3.85** (3.27-4.52)	**5.16** (4.36-6.08)	**6.25** (5.24-7.40)	**7.74** (6.24-9.76)	**8.89** (7.00-11.5)	**10.0** (7.66-13.7)	**11.9** (8.31-16.4)	**14.4** (9.55-20.6)	**16.3** (10.5-23.8)
3-day	**3.35** (2.86-3.91)	**4.22** (3.59-4.92)	**5.63** (4.78-6.60)	**6.80** (5.73-8.03)	**8.41** (6.81-10.6)	**9.66** (7.64-12.5)	**10.9** (8.35-14.8)	**13.0** (9.06-17.7)	**15.7** (10.4-22.3)	**17.8** (11.5-25.8)
4-day	**3.63** (3.11-4.23)	**4.53** (3.87-5.27)	**5.98** (5.09-6.99)	**7.19** (6.07-8.46)	**8.85** (7.19-11.1)	**10.1** (8.03-13.0)	**11.4** (8.77-15.5)	**13.6** (9.49-18.4)	**16.4** (10.9-23.2)	**18.6** (12.0-26.8)
7-day	**4.42** (3.80-5.11)	**5.34** (4.59-6.18)	**6.84** (5.85-7.95)	**8.09** (6.86-9.46)	**9.80** (8.00-12.2)	**11.1** (8.86-14.2)	**12.5** (9.58-16.7)	**14.7** (10.3-19.8)	**17.6** (11.7-24.6)	**19.8** (12.8-28.3)
10-day	**5.14** (4.43-5.92)	**6.08** (5.24-7.01)	**7.62** (6.54-8.82)	**8.89** (7.57-10.4)	**10.7** (8.71-13.1)	**12.0** (9.57-15.2)	**13.4** (10.3-17.7)	**15.5** (10.9-20.8)	**18.4** (12.3-25.6)	**20.6** (13.3-29.2)
20-day	**7.20** (6.26-8.24)	**8.23** (7.14-9.43)	**9.90** (8.56-11.4)	**11.3** (9.68-13.1)	**13.2** (10.8-16.0)	**14.7** (11.7-18.2)	**16.2** (12.3-20.9)	**18.1** (12.8-23.9)	**20.7** (13.9-28.4)	**22.6** (14.7-31.7)
30-day	**8.90** (7.77-10.1)	**9.99** (8.71-11.4)	**11.8** (10.2-13.5)	**13.3** (11.4-15.3)	**15.3** (12.6-18.4)	**16.9** (13.4-20.7)	**18.5** (14.0-23.4)	**20.2** (14.4-26.5)	**22.5** (15.2-30.6)	**24.2** (15.8-33.8)
45-day	**11.0** (9.66-12.5)	**12.2** (10.7-13.9)	**14.1** (12.3-16.1)	**15.7** (13.6-18.0)	**17.9** (14.7-21.3)	**19.6** (15.6-23.7)	**21.2** (16.1-26.6)	**22.8** (16.3-29.7)	**24.8** (16.8-33.6)	**26.4** (17.2-36.5)
60-day	**12.8** (11.3-14.5)	**14.0** (12.3-15.9)	**16.0** (14.0-18.2)	**17.7** (15.3-20.2)	**20.0** (16.5-23.6)	**21.7** (17.3-26.2)	**23.5** (17.7-29.1)	**24.9** (17.9-32.3)	**26.8** (18.2-36.1)	**28.2** (18.5-38.9)

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

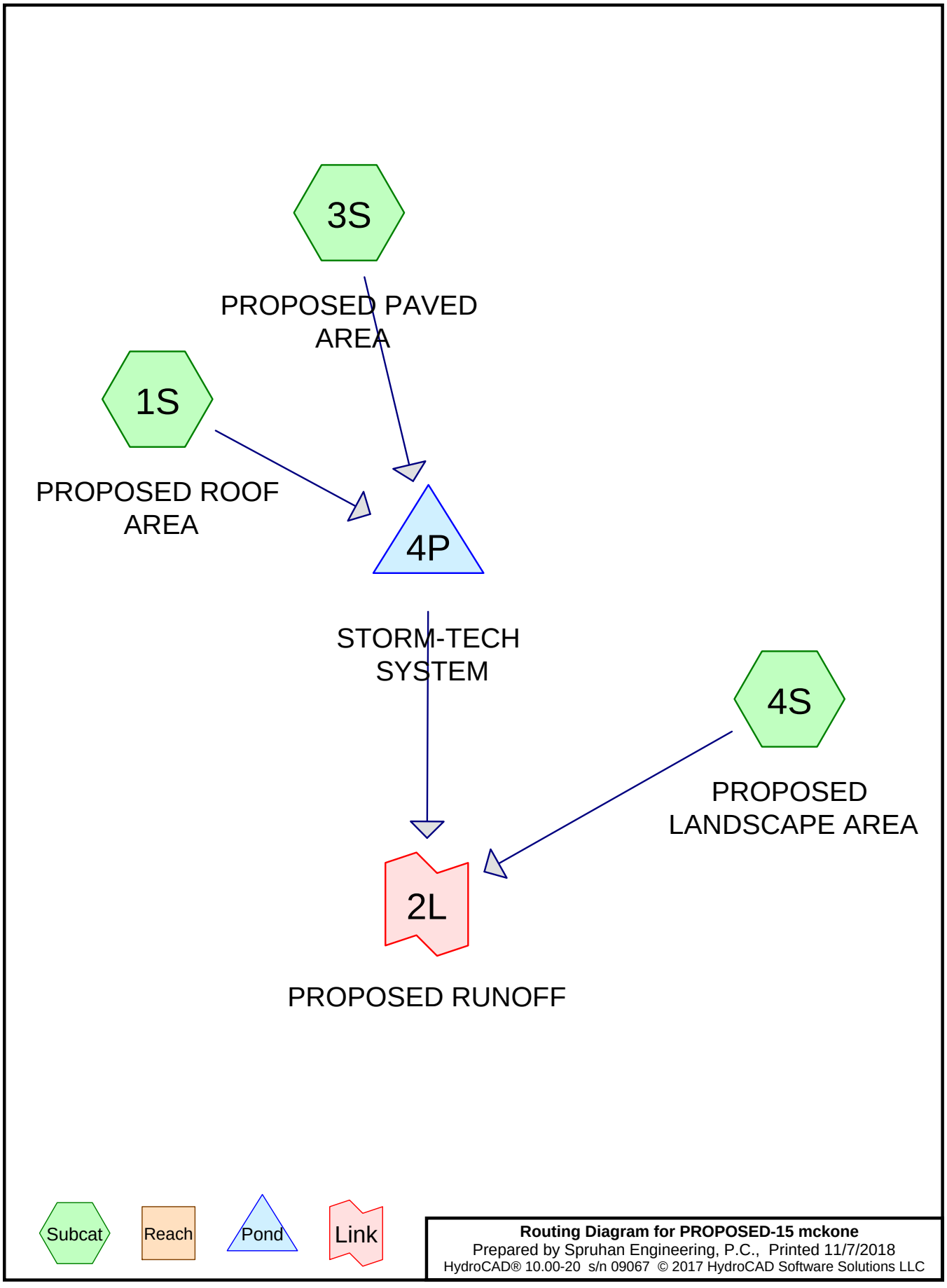
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper 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

Appendix A – HydroCAD Calculations



Routing Diagram for PROPOSED-15 mckone
Prepared by Spruhan Engineering, P.C., Printed 11/7/2018

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
3,258	49	50-75% Grass cover, Fair, HSG A (4S)
4,772	98	Paved roads w/curbs & sewers, HSG A (3S)
2,648	98	Roofs, HSG A (1S)
10,678	**83**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
10,678	HSG A	1S, 3S, 4S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
10,678		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
3,258	0	0	0	0	3,258	50-75% Grass cover, Fair
4,772	0	0	0	0	4,772	Paved roads w/curbs & sewers
2,648	0	0	0	0	2,648	Roofs
10,678	**0**	**0**	**0**	**0**	**10,678**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.32 cfs 1,095 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.57 cfs 1,972 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>0.72"
Tc=5.0 min CN=49 Runoff=0.04 cfs 195 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=12.61' Storage=759 cf Inflow=0.89 cfs 3,067 cf
Discarded=0.05 cfs 2,311 cf Primary=0.15 cfs 31 cf Outflow=0.19 cfs 2,342 cf

Link 2L: PROPOSED RUNOFF Inflow=0.18 cfs 226 cf
Primary=0.18 cfs 226 cf

Total Runoff Area = 10,678 sf Runoff Volume = 3,262 cf Average Runoff Depth = 3.67"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

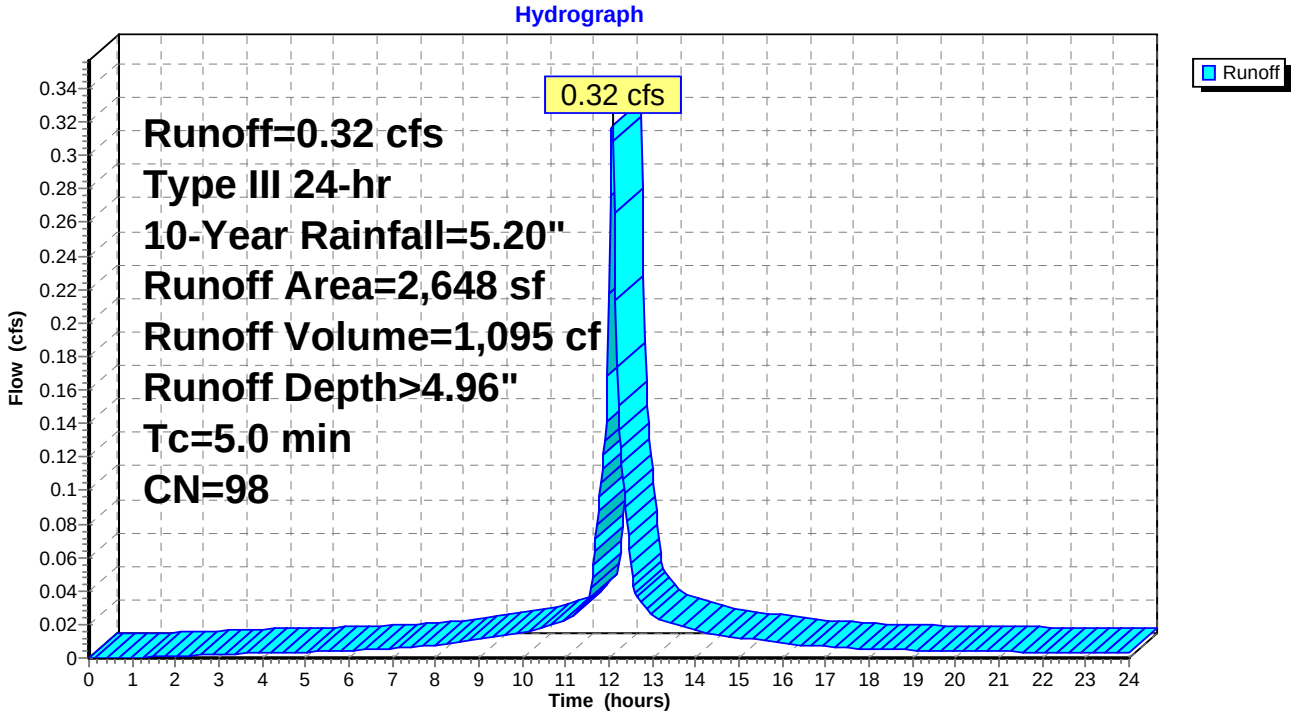
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,095 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

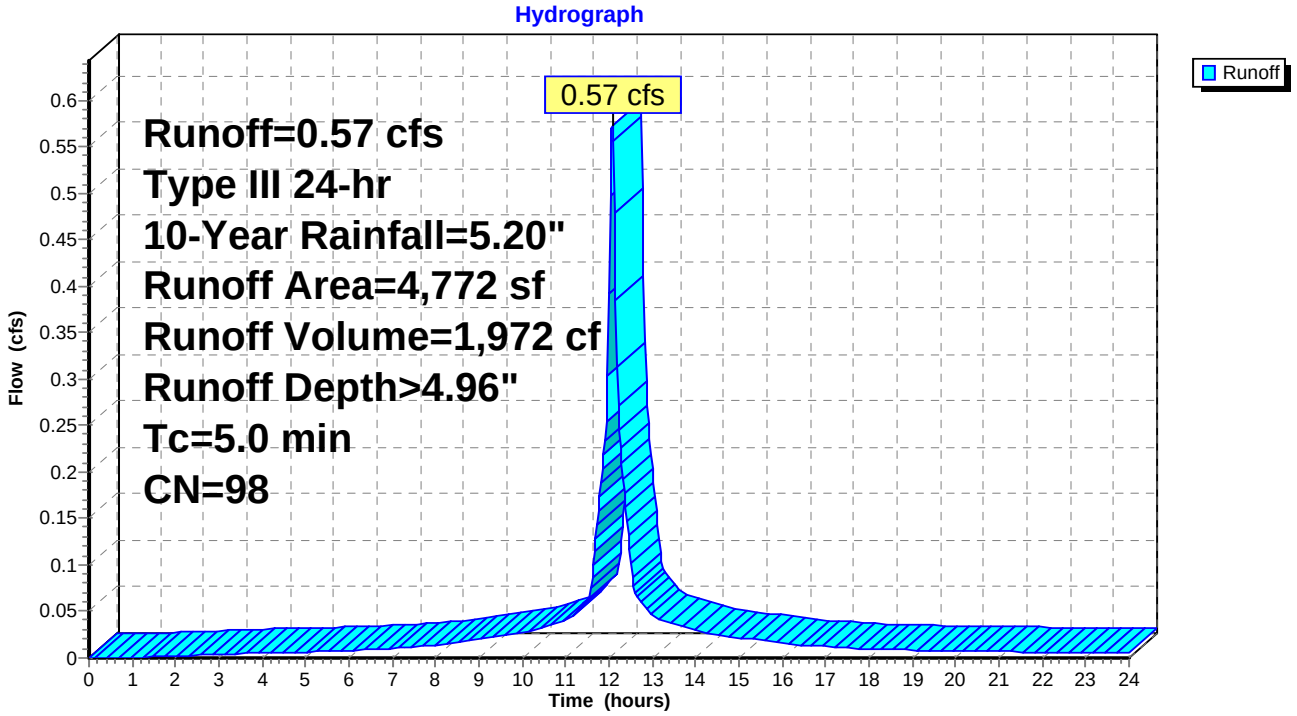
Runoff = 0.57 cfs @ 12.07 hrs, Volume= 1,972 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

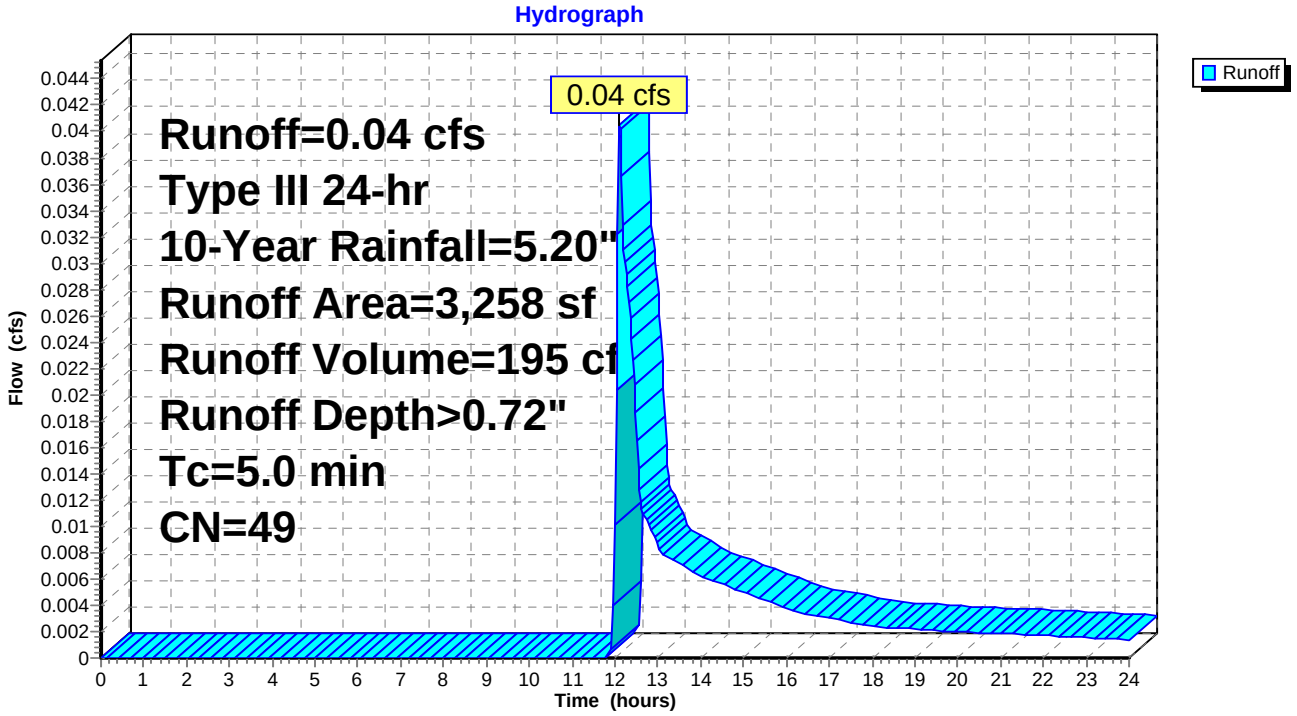
Runoff = 0.04 cfs @ 12.11 hrs, Volume= 195 cf, Depth> 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 4.96" for 10-Year event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,067 cf
Outflow = 0.19 cfs @ 12.07 hrs, Volume= 2,342 cf, Atten= 78%, Lag= 0.0 min
Discarded = 0.05 cfs @ 12.06 hrs, Volume= 2,311 cf
Primary = 0.15 cfs @ 12.07 hrs, Volume= 31 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 12.61' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 234.8 min calculated for 2,339 cf (76% of inflow)
Center-of-Mass det. time= 151.1 min (897.1 - 746.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.06 hrs HW=12.52' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.13 cfs @ 12.07 hrs HW=12.51' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 0.13 cfs @ 1.58 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

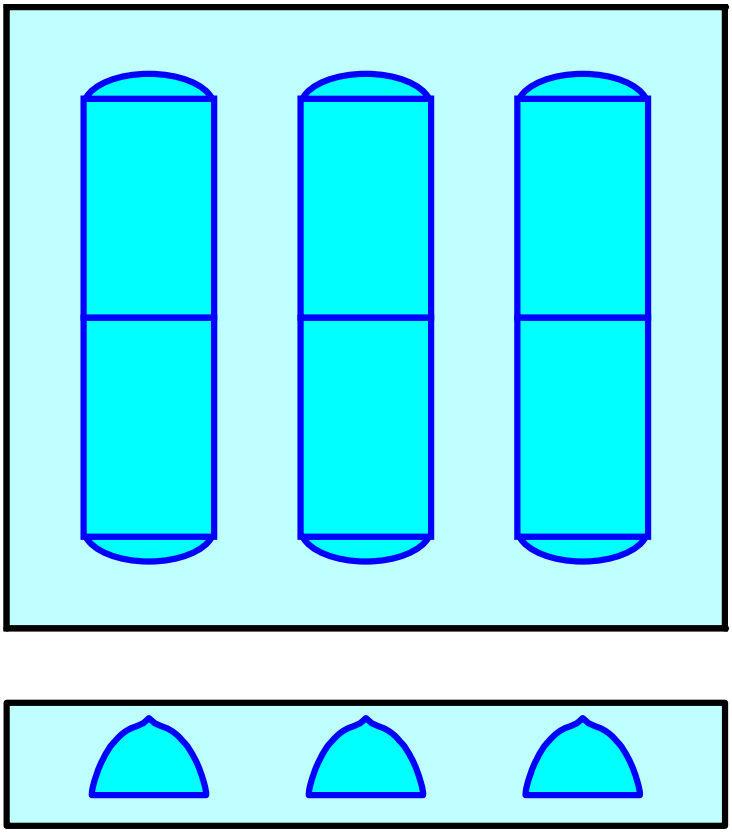
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

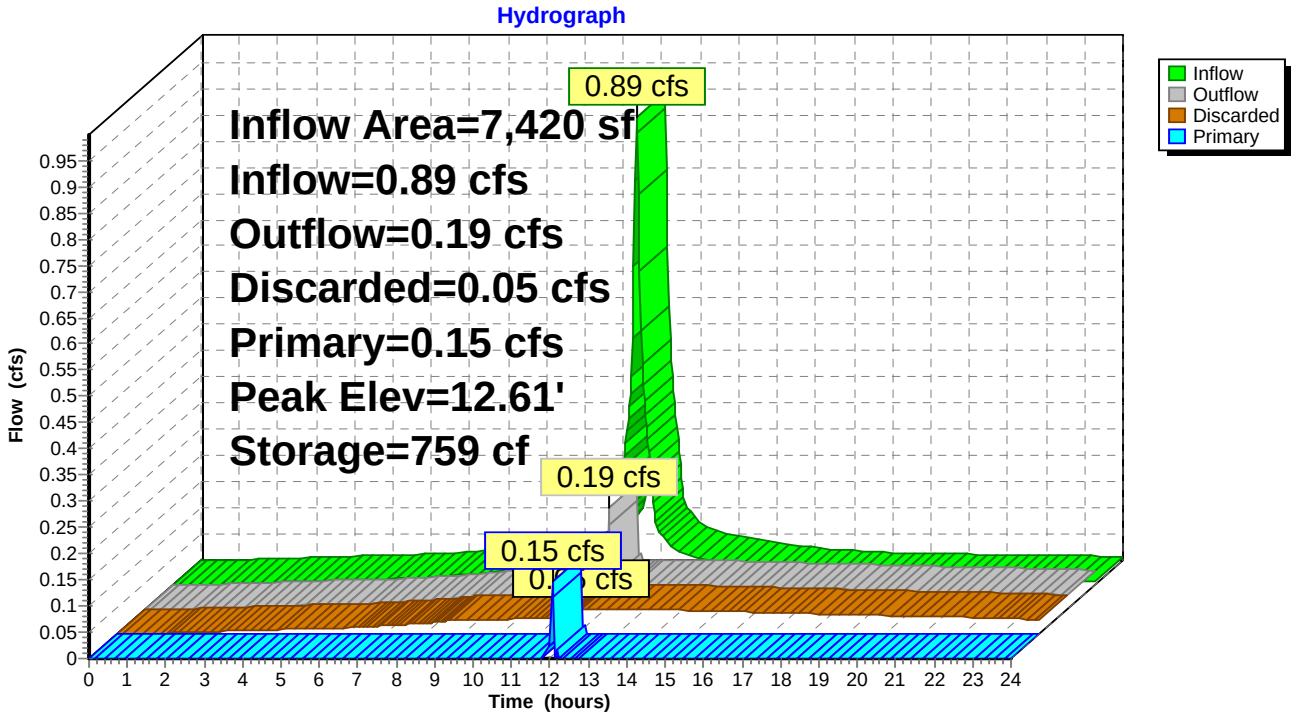
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

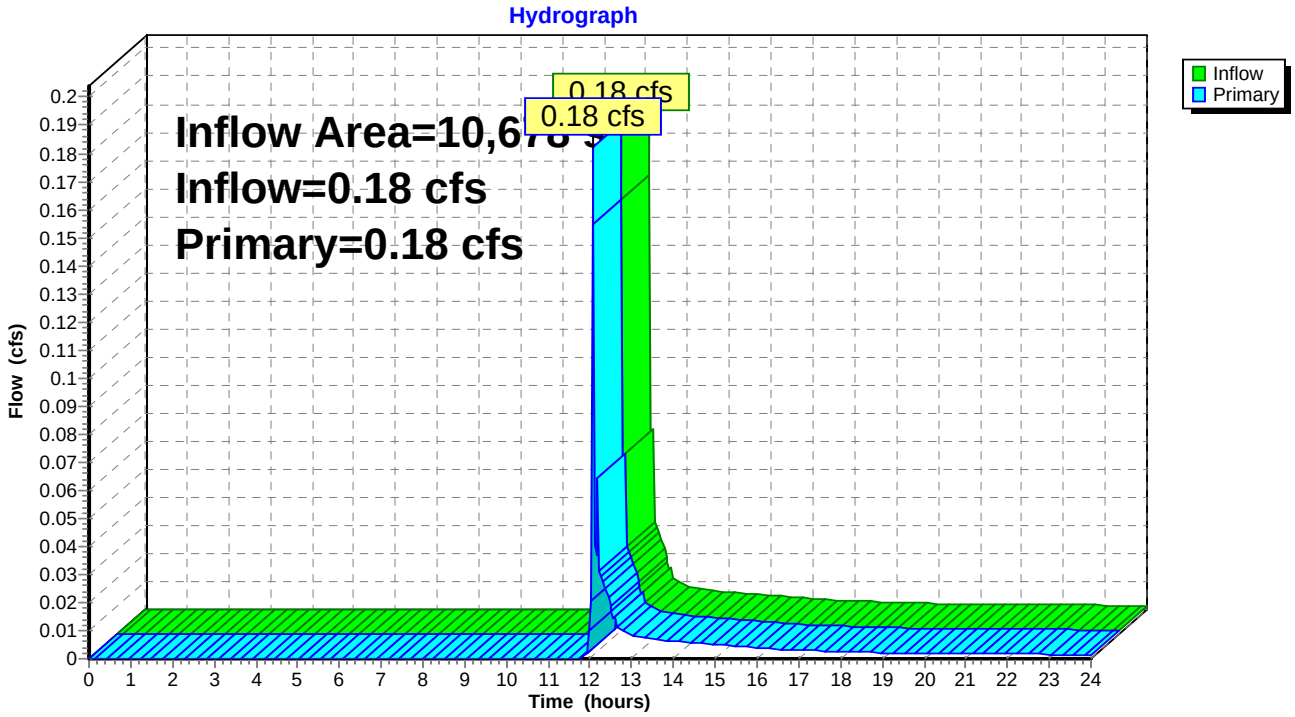


Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 0.25" for 10-Year event
Inflow = 0.18 cfs @ 12.07 hrs, Volume= 226 cf
Primary = 0.18 cfs @ 12.07 hrs, Volume= 226 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF



Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.39 cfs 1,354 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.71 cfs 2,441 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>1.25"
Tc=5.0 min CN=49 Runoff=0.09 cfs 341 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=13.21' Storage=759 cf Inflow=1.10 cfs 3,795 cf
Discarded=0.05 cfs 2,466 cf Primary=0.77 cfs 471 cf Outflow=0.81 cfs 2,937 cf

Link 2L: PROPOSED RUNOFF Inflow=0.86 cfs 812 cf
Primary=0.86 cfs 812 cf

Total Runoff Area = 10,678 sf Runoff Volume = 4,136 cf Average Runoff Depth = 4.65"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

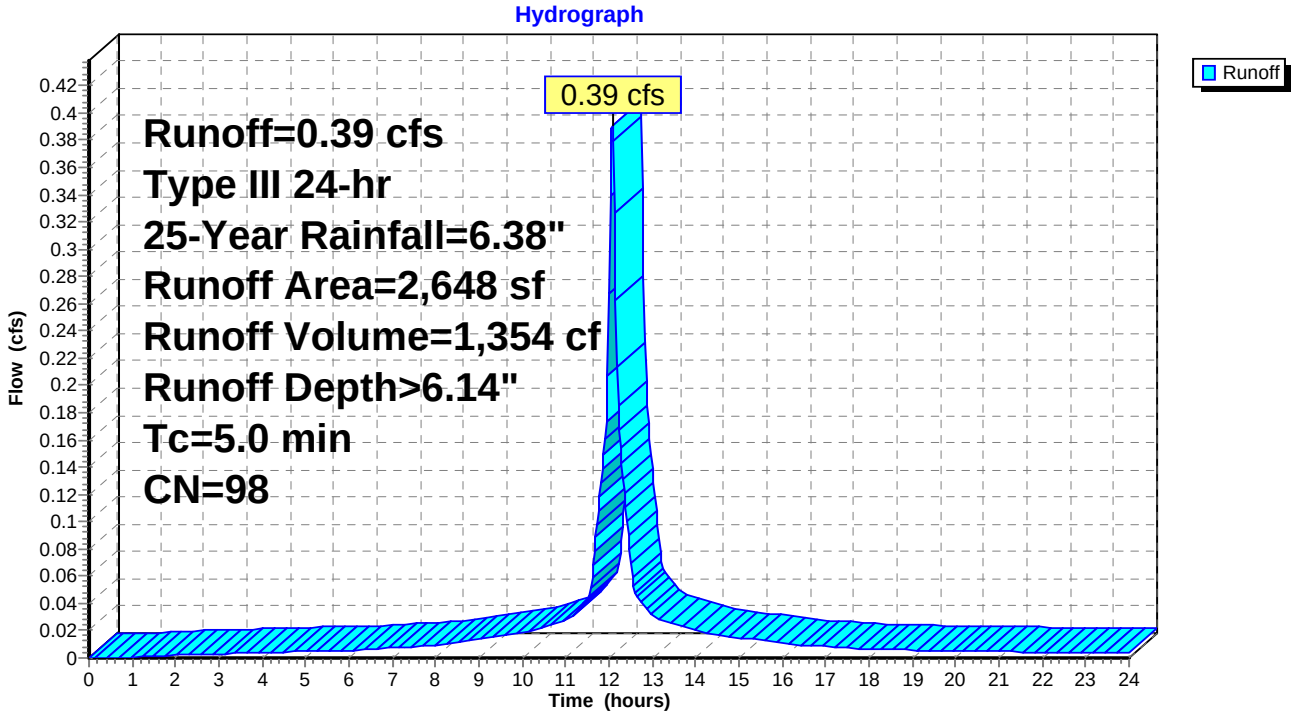
Runoff = 0.39 cfs @ 12.07 hrs, Volume= 1,354 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

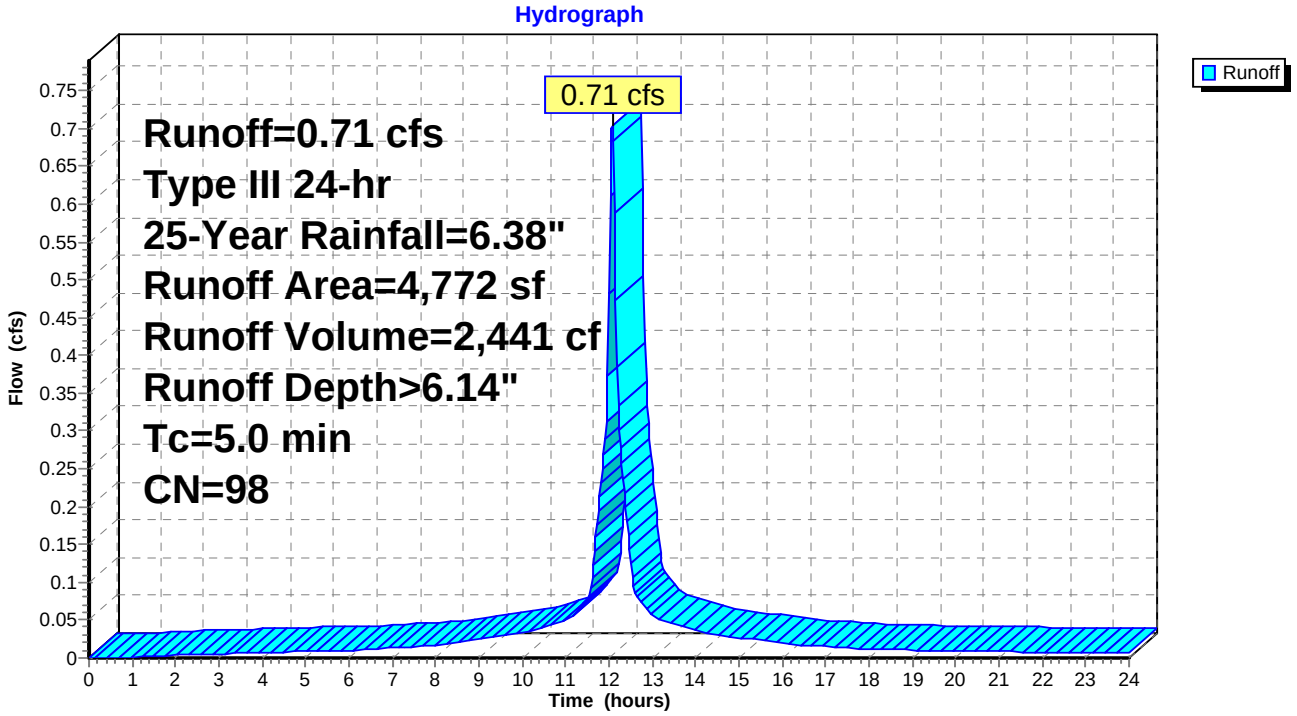
Runoff = 0.71 cfs @ 12.07 hrs, Volume= 2,441 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

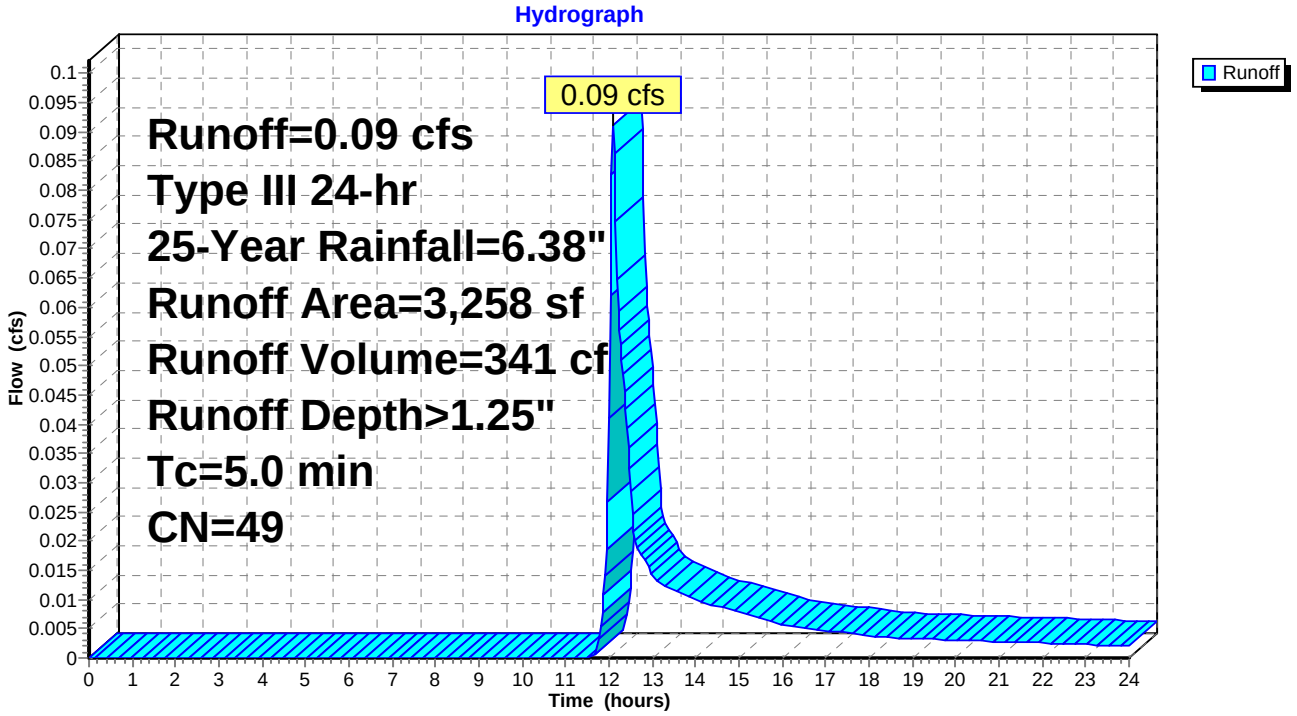
Runoff = 0.09 cfs @ 12.09 hrs, Volume= 341 cf, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 6.14" for 25-Year event
Inflow = 1.10 cfs @ 12.07 hrs, Volume= 3,795 cf
Outflow = 0.81 cfs @ 12.07 hrs, Volume= 2,937 cf, Atten= 26%, Lag= 0.0 min
Discarded = 0.05 cfs @ 12.00 hrs, Volume= 2,466 cf
Primary = 0.77 cfs @ 12.07 hrs, Volume= 471 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 13.21' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 198.3 min calculated for 2,933 cf (77% of inflow)
Center-of-Mass det. time= 116.0 min (859.0 - 742.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.00 hrs HW=12.75' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.75 cfs @ 12.07 hrs HW=13.18' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 0.75 cfs @ 3.83 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

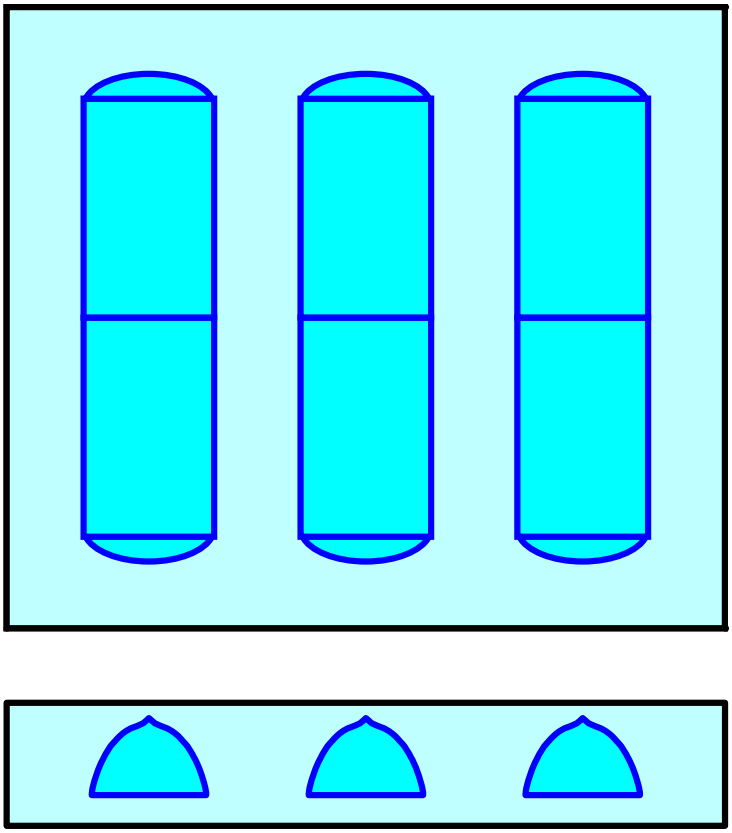
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

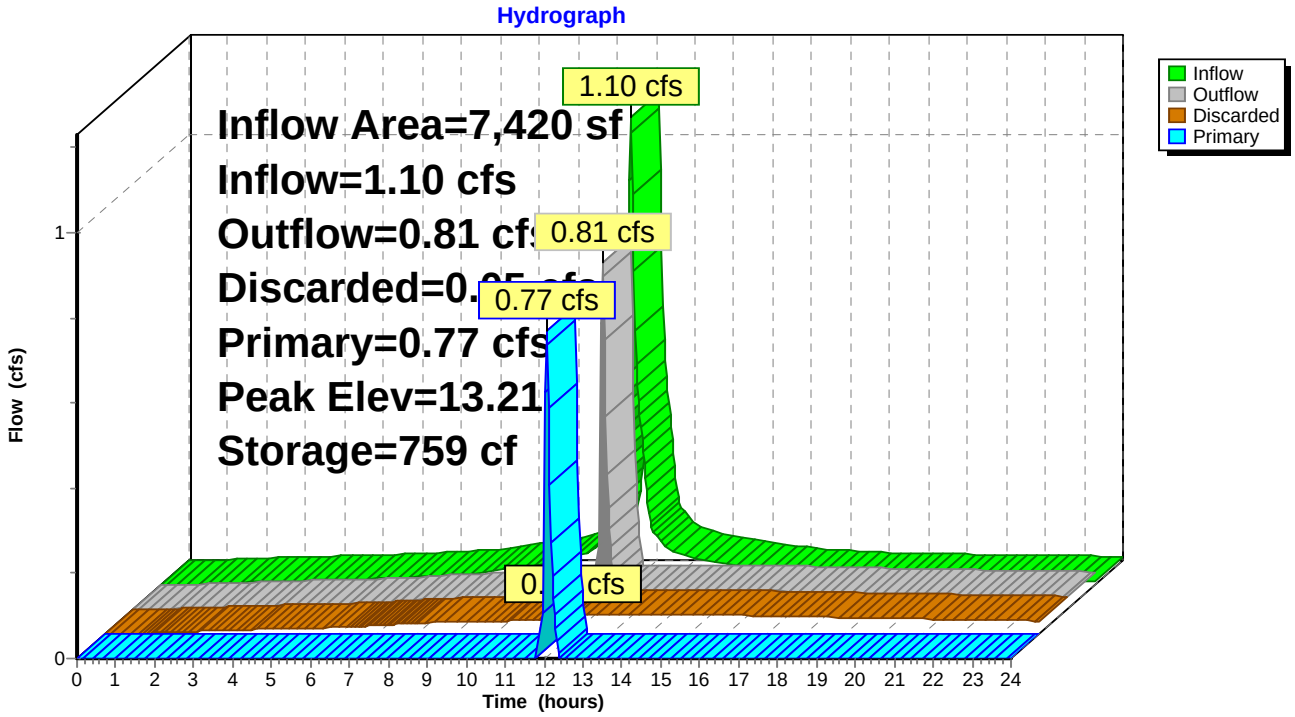
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

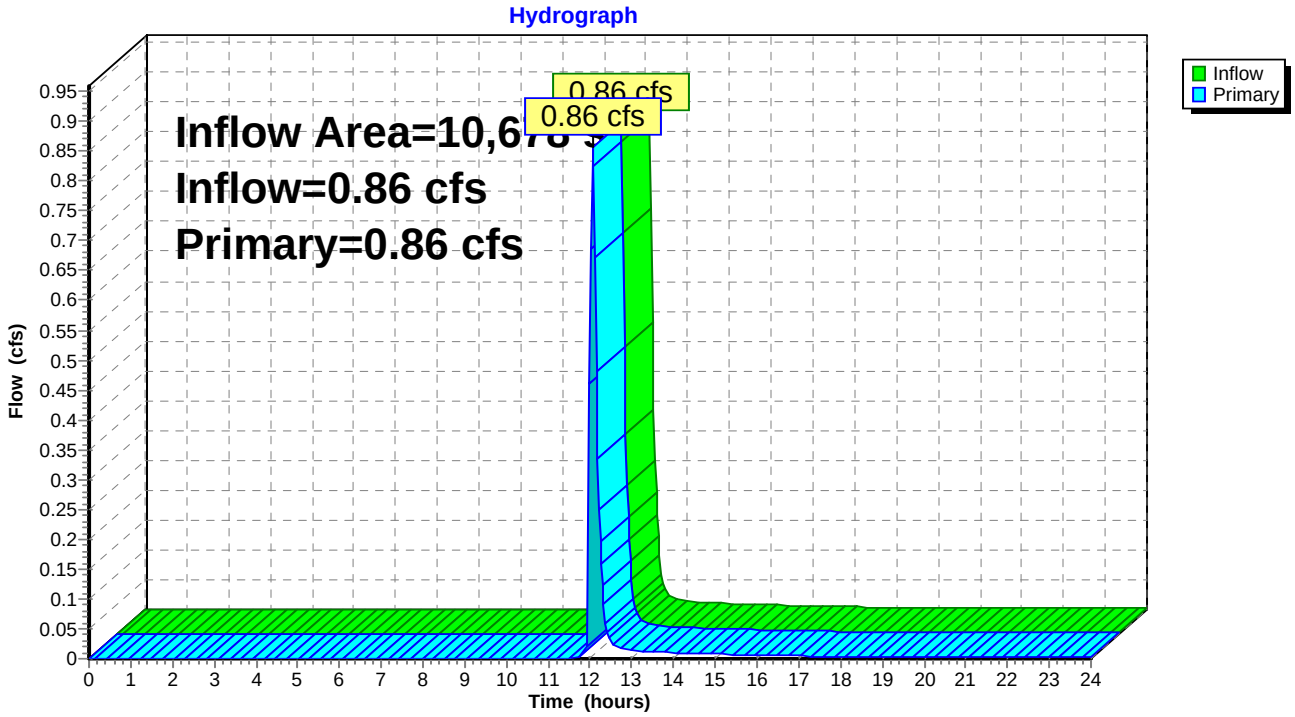


Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 0.91" for 25-Year event
Inflow = 0.86 cfs @ 12.07 hrs, Volume= 812 cf
Primary = 0.86 cfs @ 12.07 hrs, Volume= 812 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF



Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.50 cfs 1,756 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.91 cfs 3,164 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.19 cfs 614 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=14.48' Storage=759 cf Inflow=1.41 cfs 4,919 cf
Discarded=0.05 cfs 2,659 cf Primary=1.31 cfs 1,590 cf Outflow=1.36 cfs 4,249 cf

Link 2L: PROPOSED RUNOFF Inflow=1.50 cfs 2,204 cf
Primary=1.50 cfs 2,204 cf

Total Runoff Area = 10,678 sf Runoff Volume = 5,534 cf Average Runoff Depth = 6.22"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

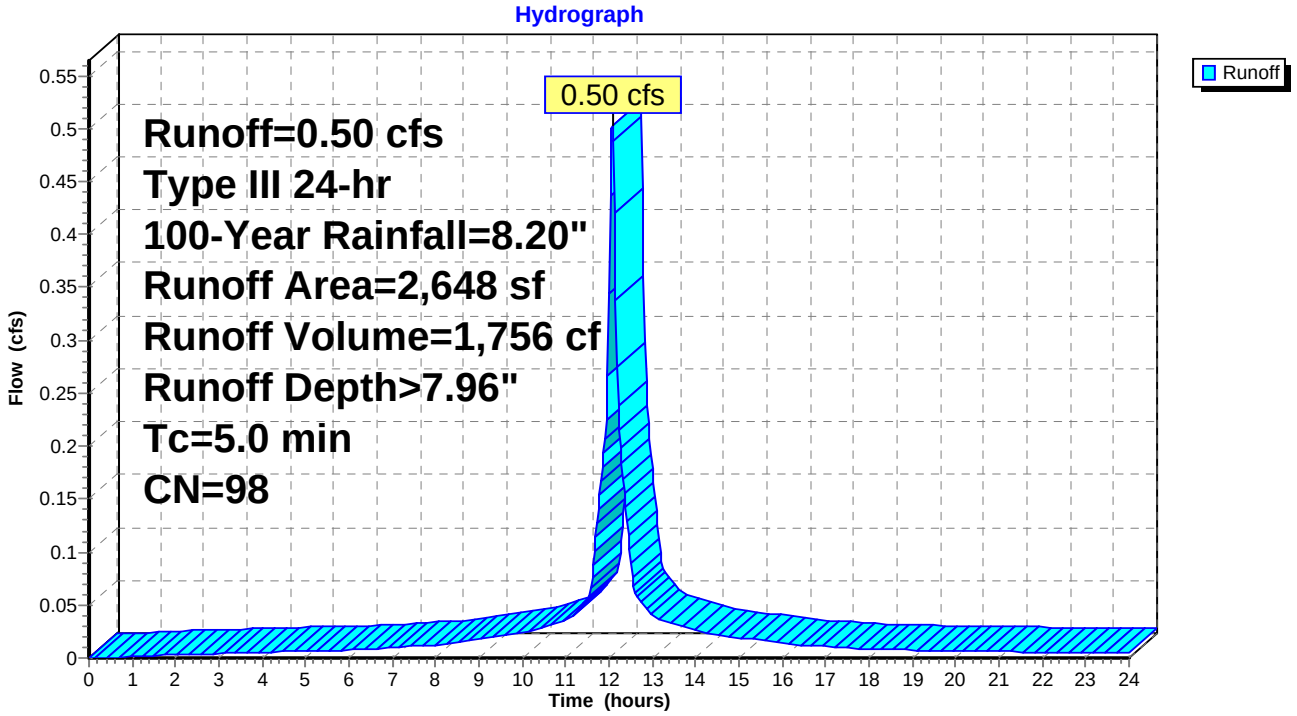
Runoff = 0.50 cfs @ 12.07 hrs, Volume= 1,756 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

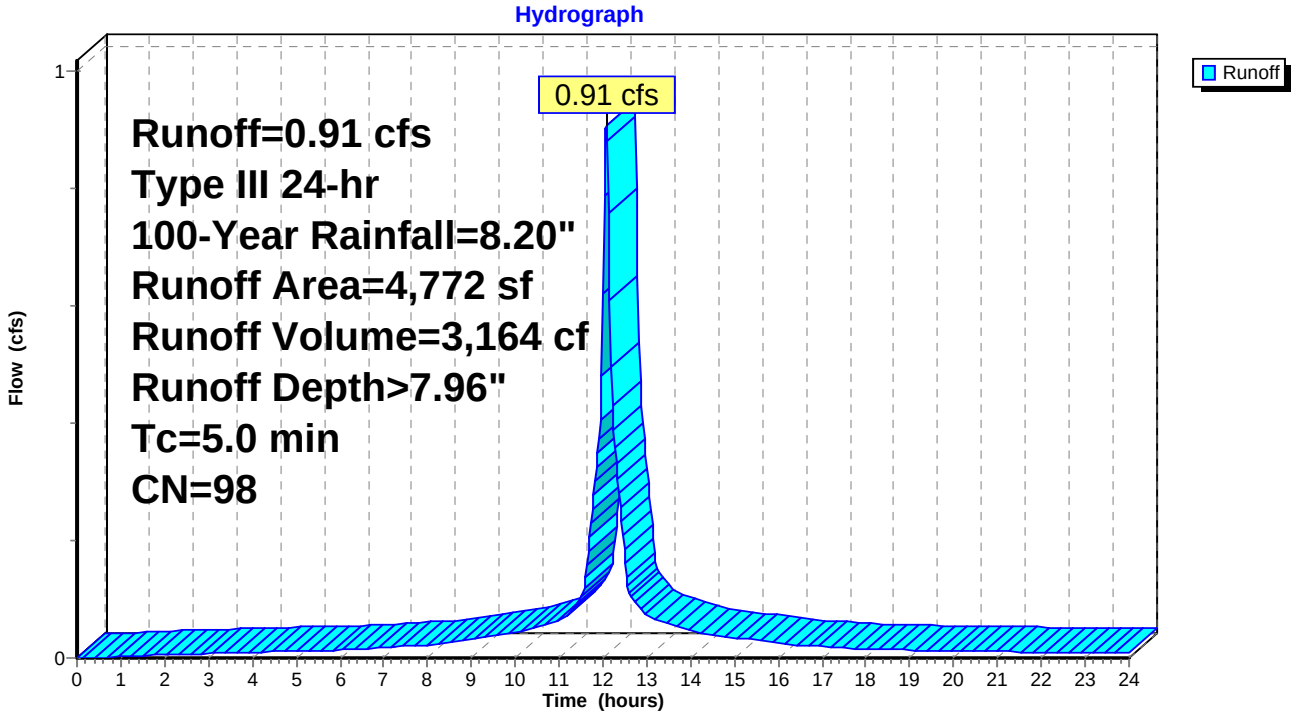
Runoff = 0.91 cfs @ 12.07 hrs, Volume= 3,164 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

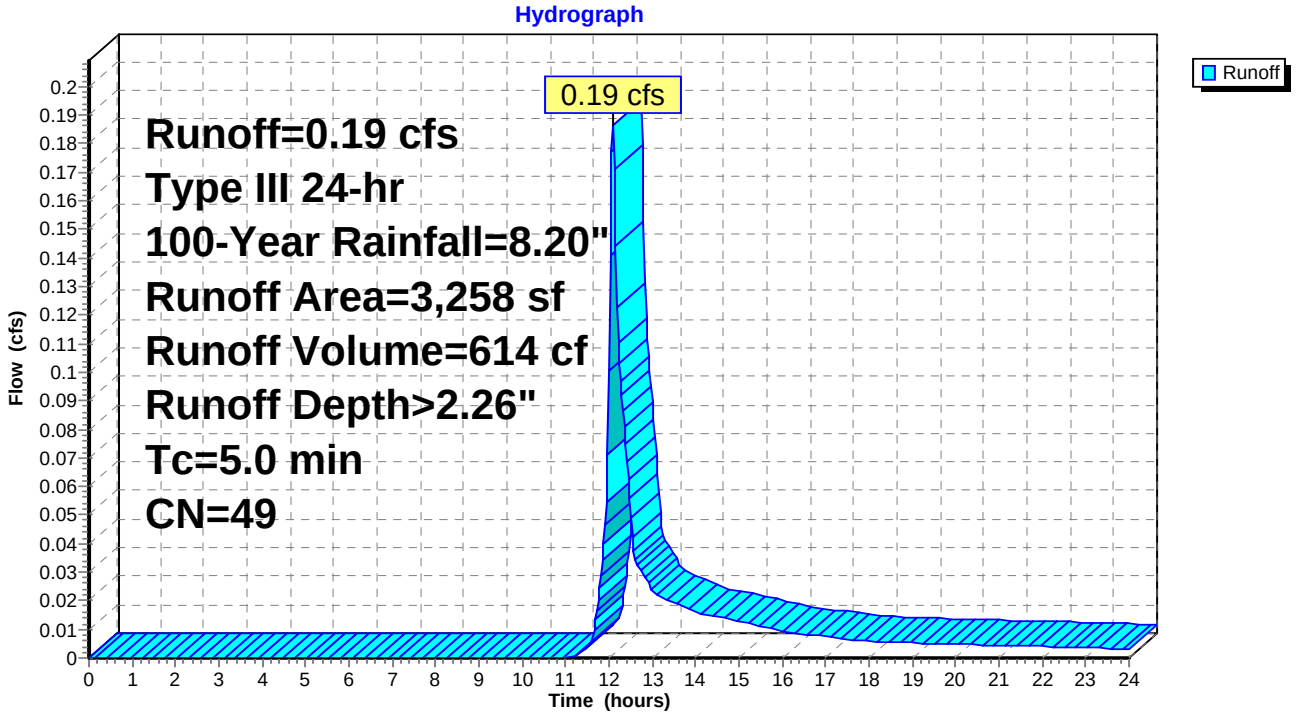
Runoff = 0.19 cfs @ 12.09 hrs, Volume= 614 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 7.96" for 100-Year event
Inflow = 1.41 cfs @ 12.07 hrs, Volume= 4,919 cf
Outflow = 1.36 cfs @ 12.07 hrs, Volume= 4,249 cf, Atten= 4%, Lag= 0.0 min
Discarded = 0.05 cfs @ 11.82 hrs, Volume= 2,659 cf
Primary = 1.31 cfs @ 12.07 hrs, Volume= 1,590 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 14.48' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 135.1 min calculated for 4,244 cf (86% of inflow)
Center-of-Mass det. time= 73.9 min (813.5 - 739.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 11.82 hrs HW=12.71' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=1.29 cfs @ 12.07 hrs HW=14.42' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.58 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

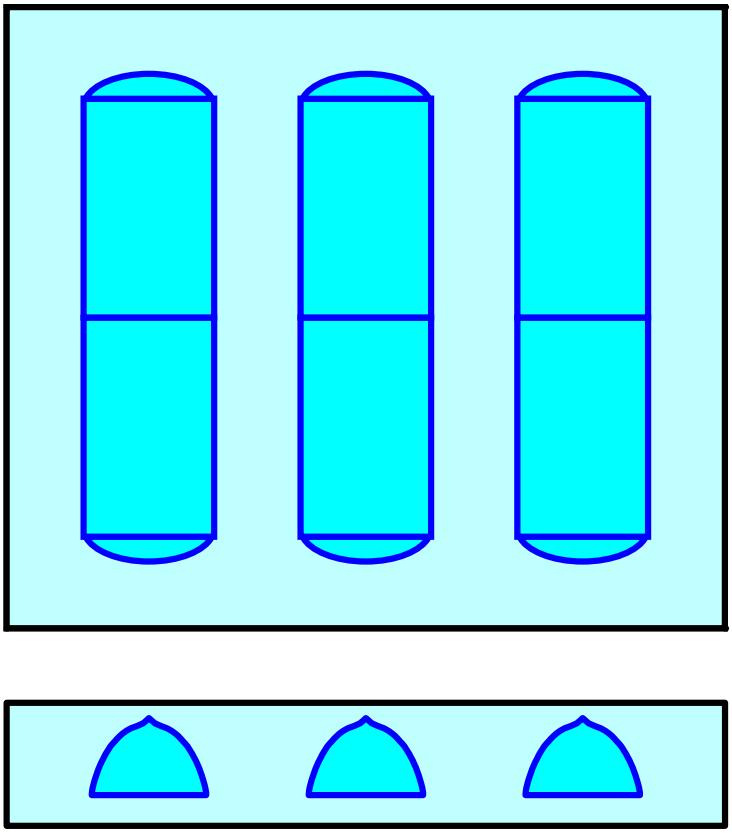
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

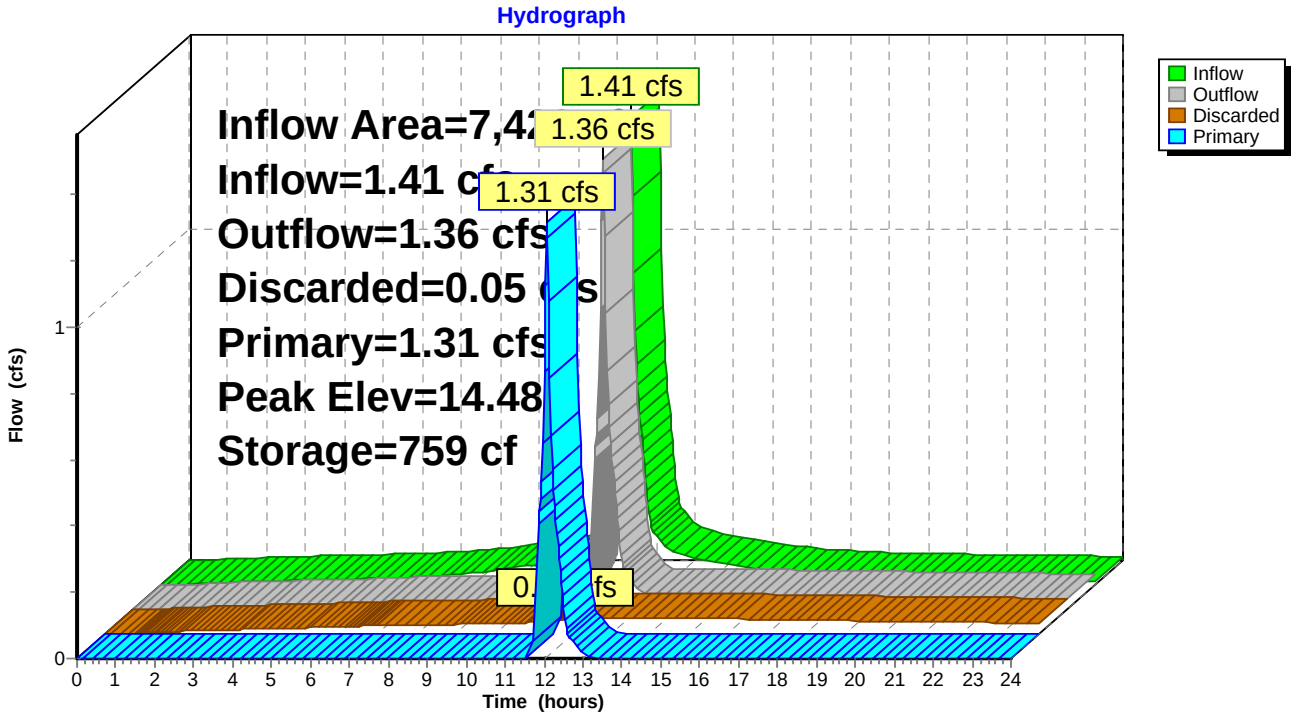
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

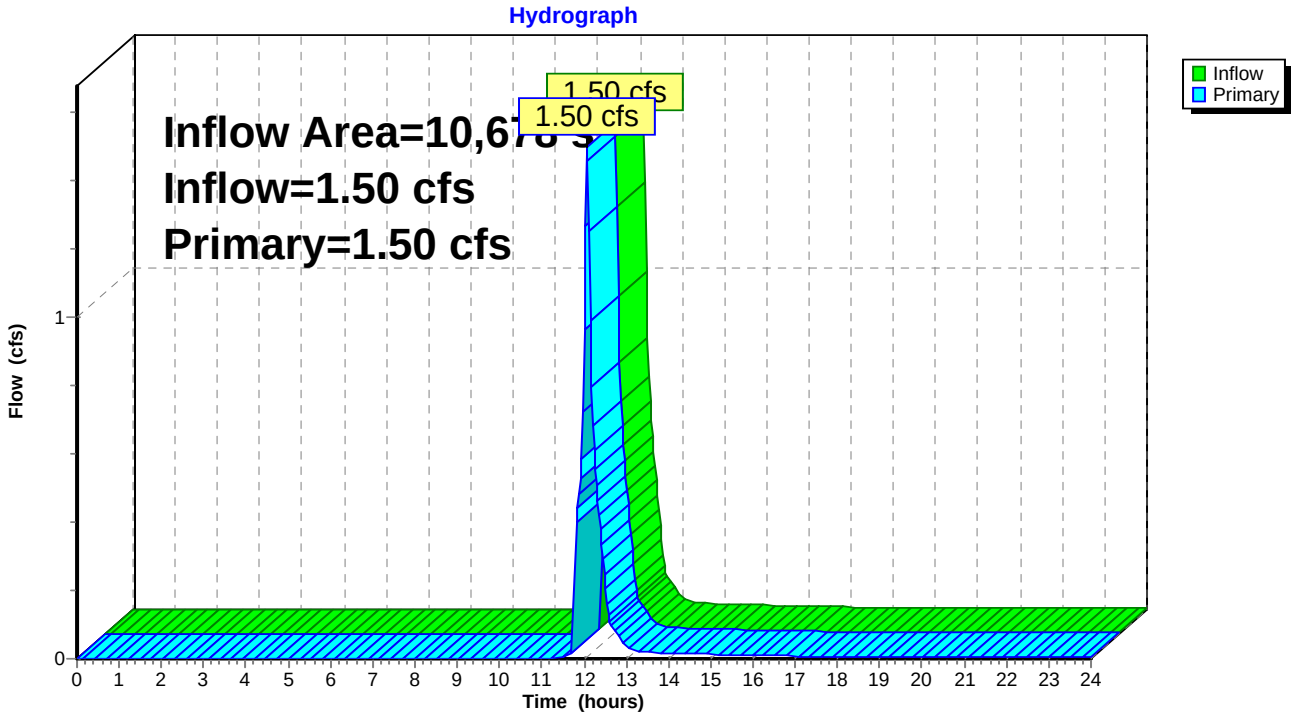


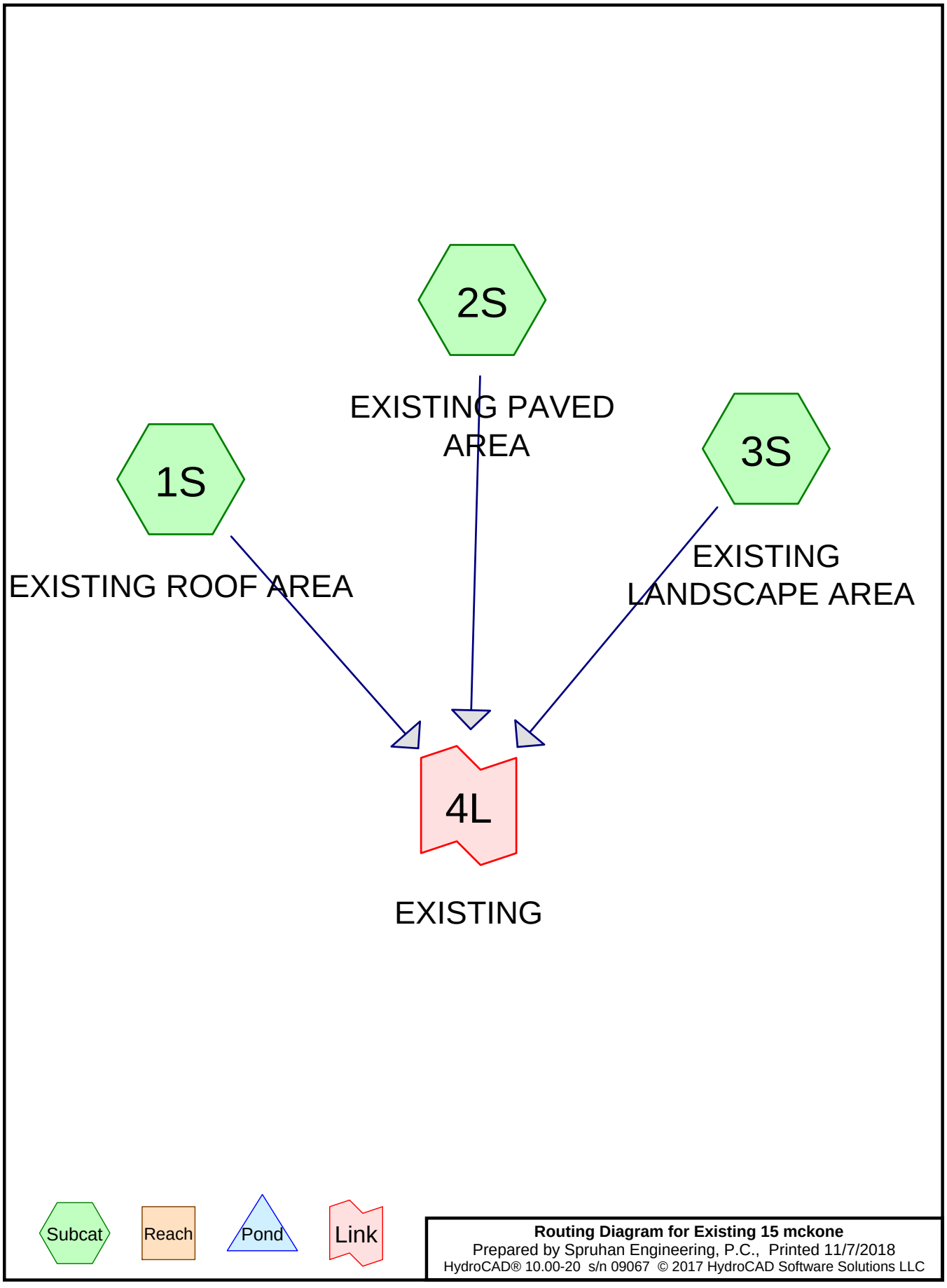
Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 2.48" for 100-Year event
Inflow = 1.50 cfs @ 12.07 hrs, Volume= 2,204 cf
Primary = 1.50 cfs @ 12.07 hrs, Volume= 2,204 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF





Routing Diagram for Existing 15 mckone
Prepared by Spruhan Engineering, P.C., Printed 11/7/2018

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
9,069	49	50-75% Grass cover, Fair, HSG A (3S)
304	98	Paved roads w/curbs & sewers, HSG A (2S)
1,305	98	Roofs, HSG A (1S)
10,678	**56**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
10,678	HSG A	1S, 2S, 3S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
10,678		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
9,069	0	0	0	0	9,069	50-75% Grass cover, Fair
304	0	0	0	0	304	Paved roads w/curbs & sewers
1,305	0	0	0	0	1,305	Roofs
10,678	**0**	**0**	**0**	**0**	**10,678**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.16 cfs 539 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.04 cfs 126 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>0.72"
Tc=5.0 min CN=49 Runoff=0.11 cfs 543 cf

Link 4L: EXISTING Inflow=0.30 cfs 1,208 cf
Primary=0.30 cfs 1,208 cf

Total Runoff Area = 10,678 sf Runoff Volume = 1,208 cf Average Runoff Depth = 1.36"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

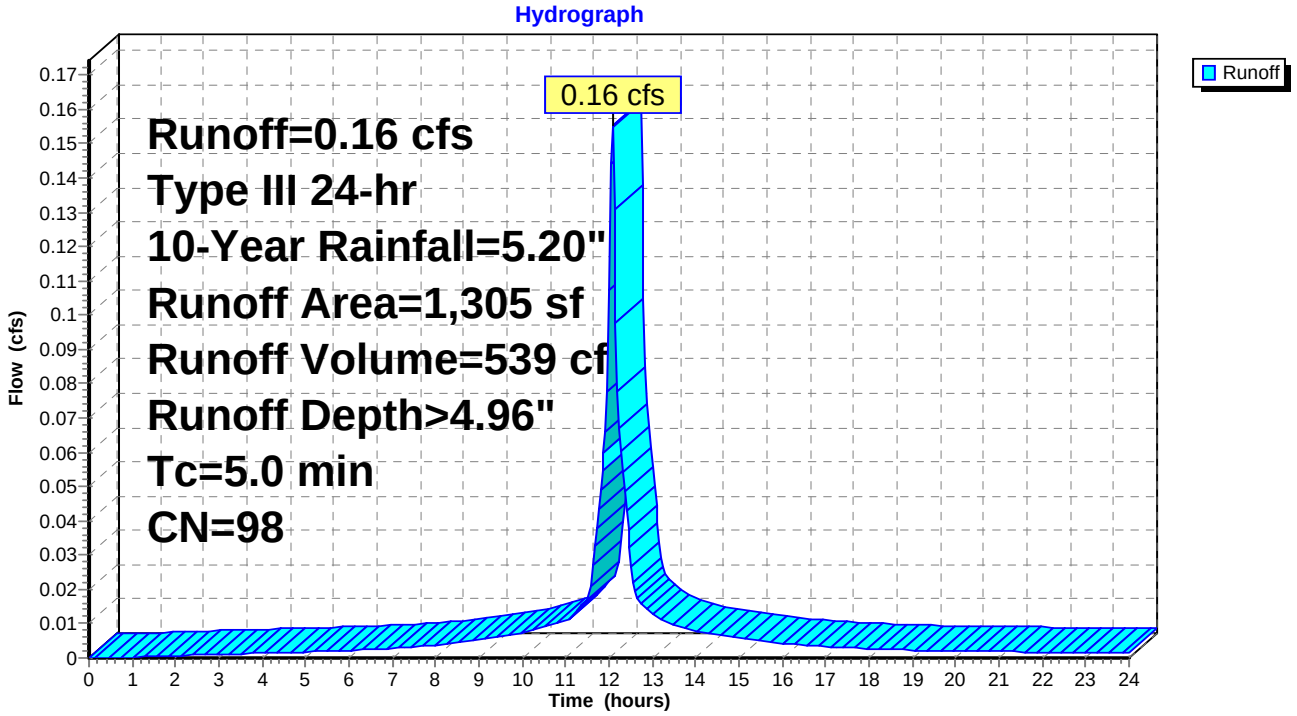
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 539 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

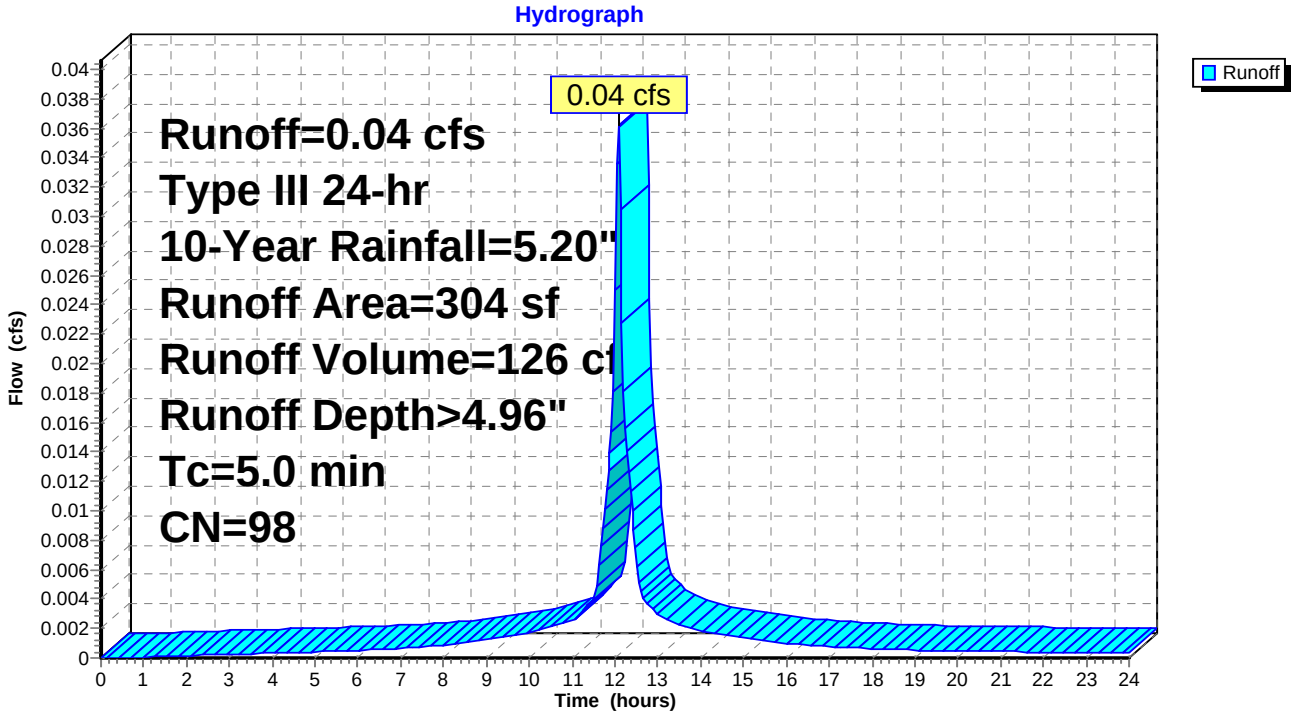
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 126 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

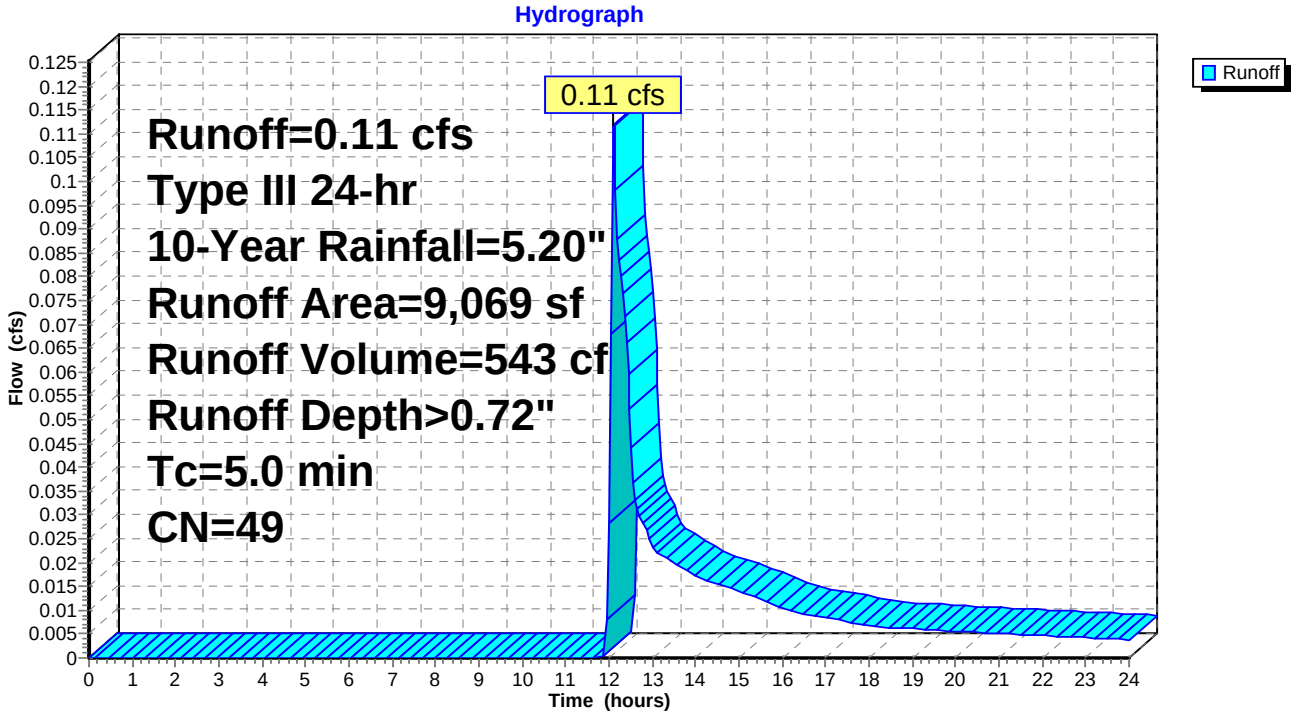
Runoff = 0.11 cfs @ 12.11 hrs, Volume= 543 cf, Depth> 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

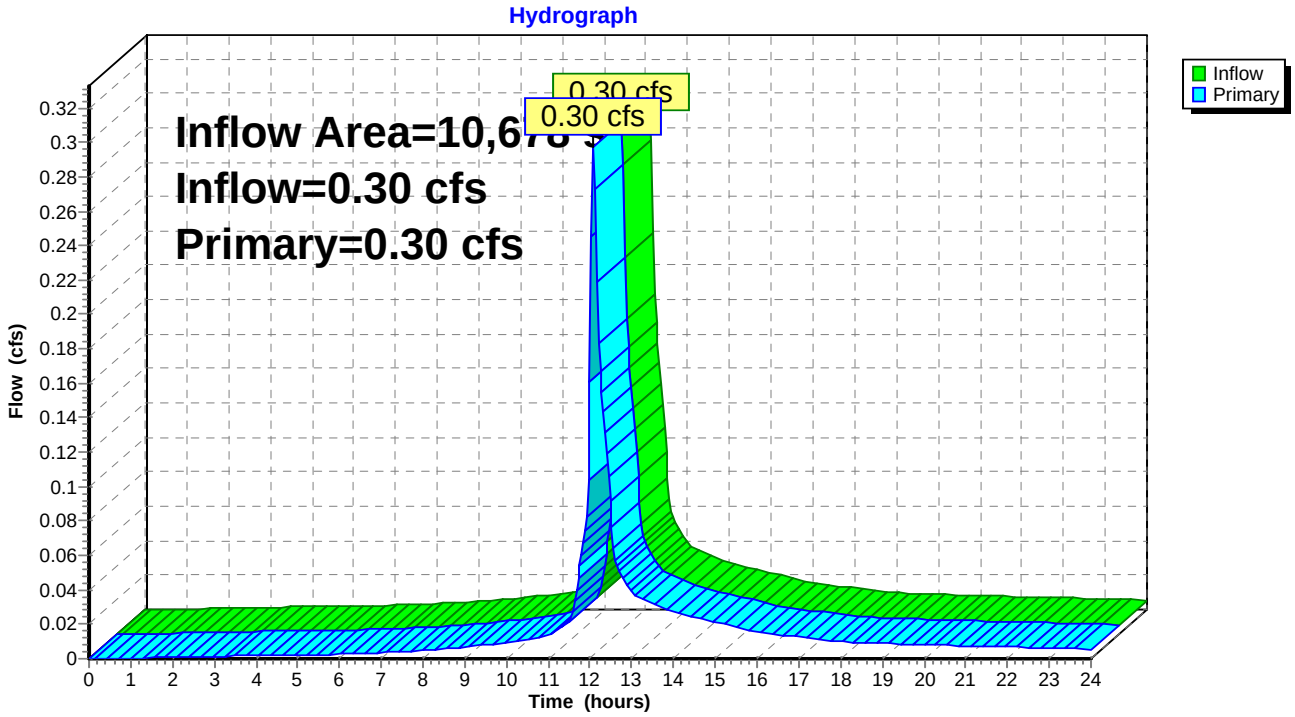


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 1.36" for 10-Year event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 1,208 cf
Primary = 0.30 cfs @ 12.09 hrs, Volume= 1,208 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.19 cfs 668 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.04 cfs 156 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>1.25"
Tc=5.0 min CN=49 Runoff=0.25 cfs 948 cf

Link 4L: EXISTING Inflow=0.48 cfs 1,771 cf
Primary=0.48 cfs 1,771 cf

Total Runoff Area = 10,678 sf Runoff Volume = 1,771 cf Average Runoff Depth = 1.99"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

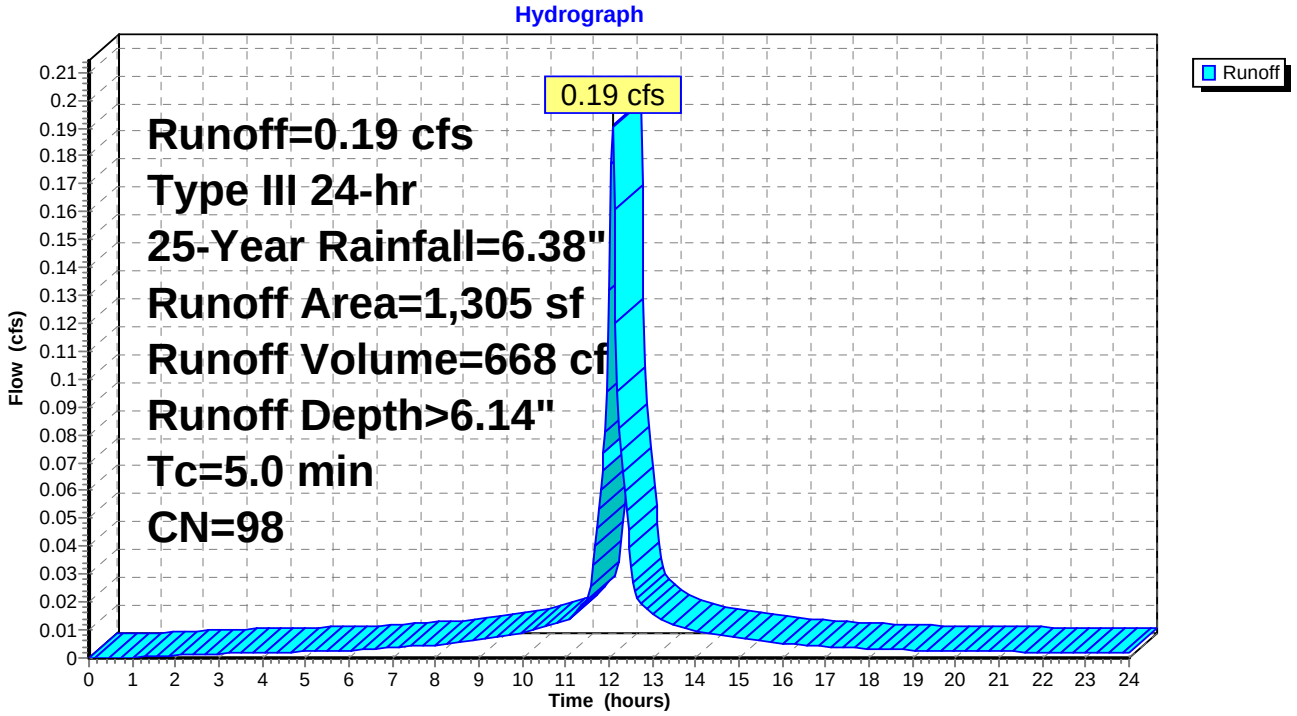
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 668 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

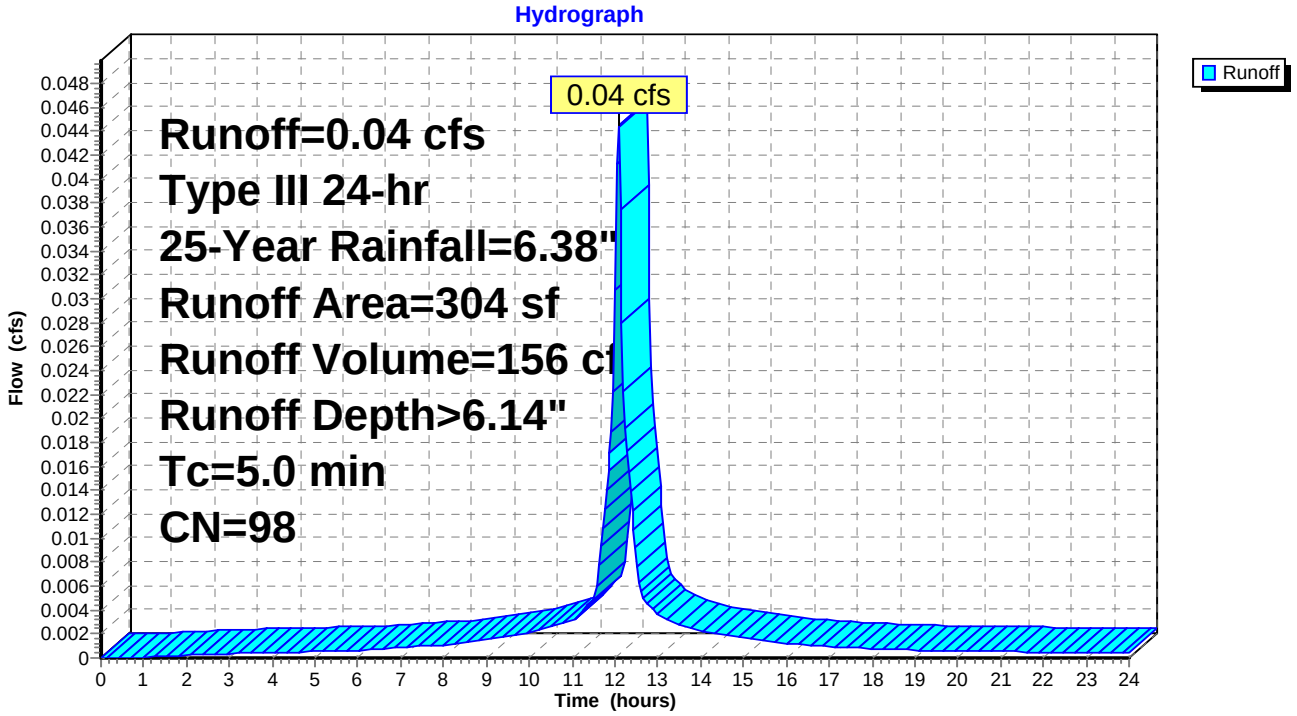
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 156 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

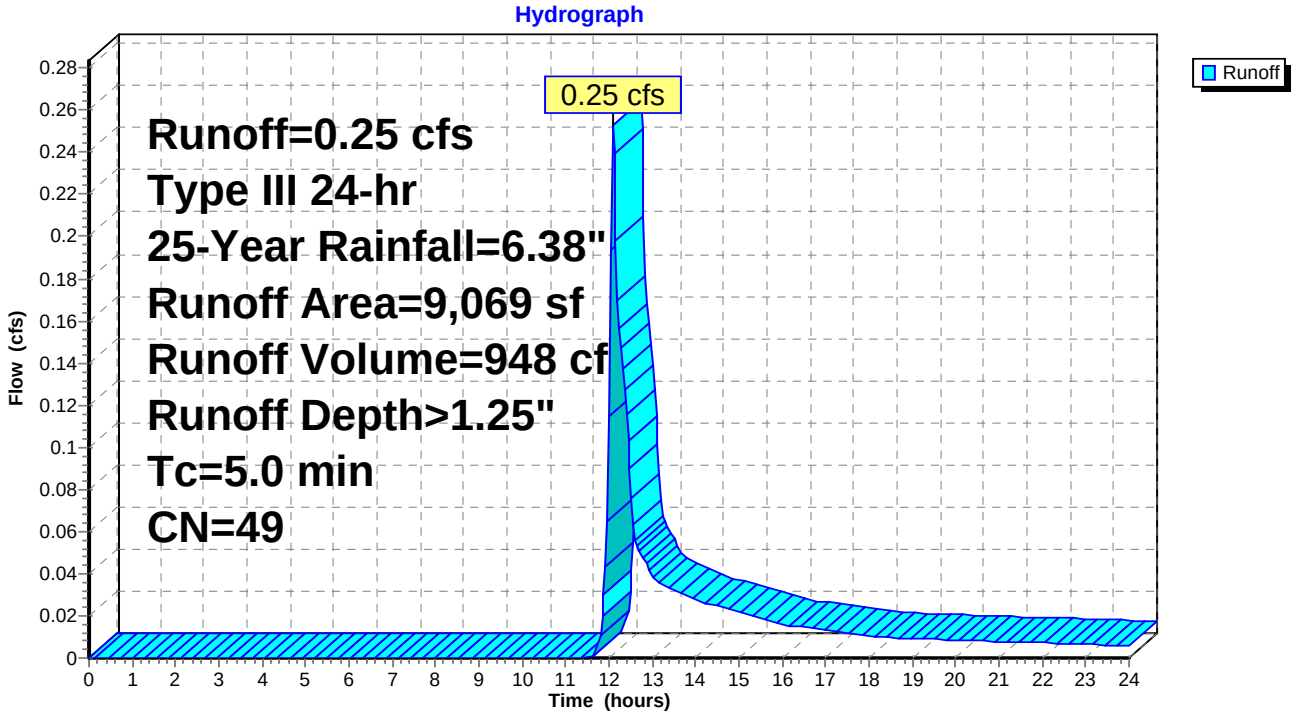
Runoff = 0.25 cfs @ 12.09 hrs, Volume= 948 cf, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

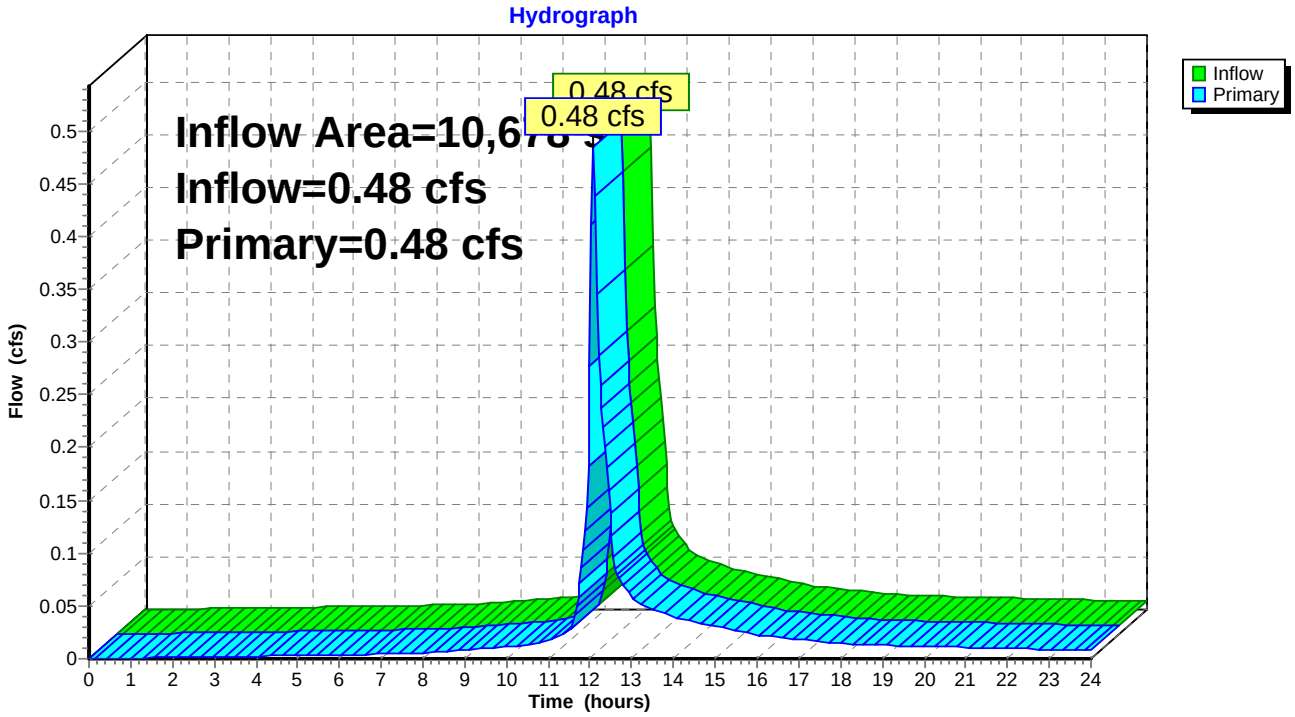


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 1.99" for 25-Year event
Inflow = 0.48 cfs @ 12.08 hrs, Volume= 1,771 cf
Primary = 0.48 cfs @ 12.08 hrs, Volume= 1,771 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.25 cfs 865 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.06 cfs 202 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.52 cfs 1,710 cf

Link 4L: EXISTING Inflow=0.82 cfs 2,777 cf
Primary=0.82 cfs 2,777 cf

Total Runoff Area = 10,678 sf Runoff Volume = 2,777 cf Average Runoff Depth = 3.12"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

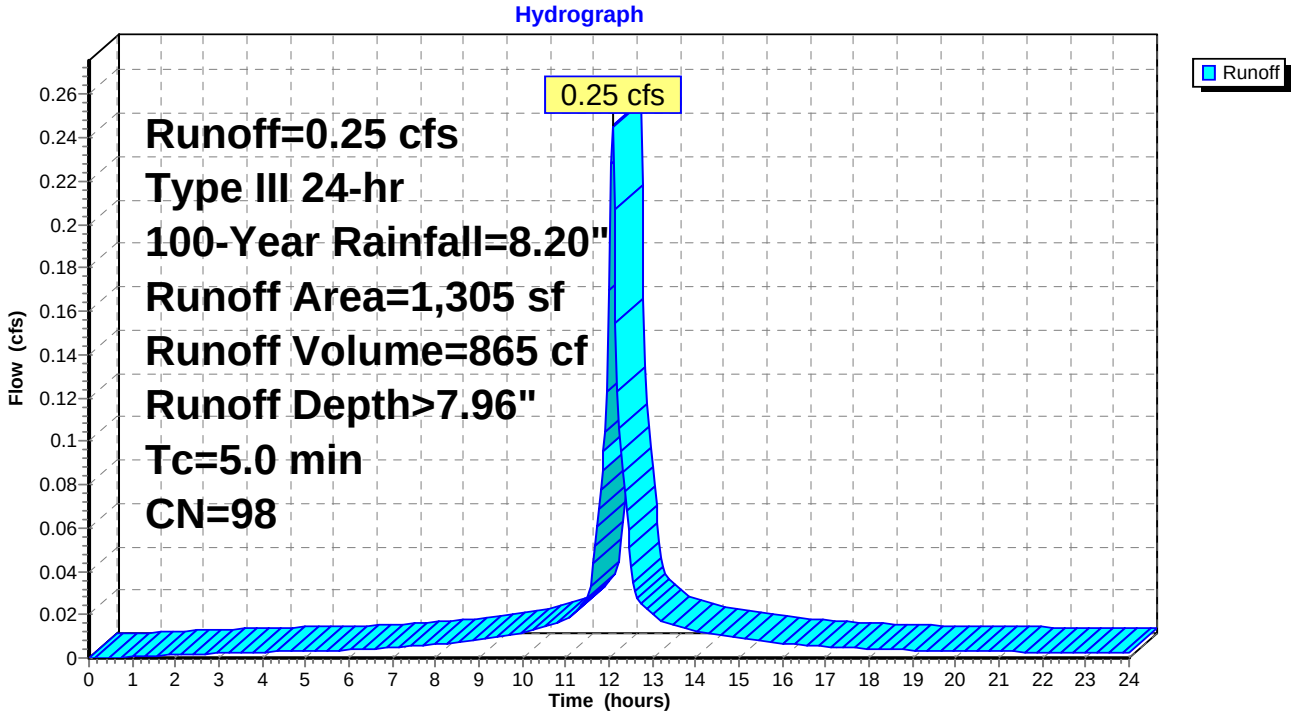
Runoff = 0.25 cfs @ 12.07 hrs, Volume= 865 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

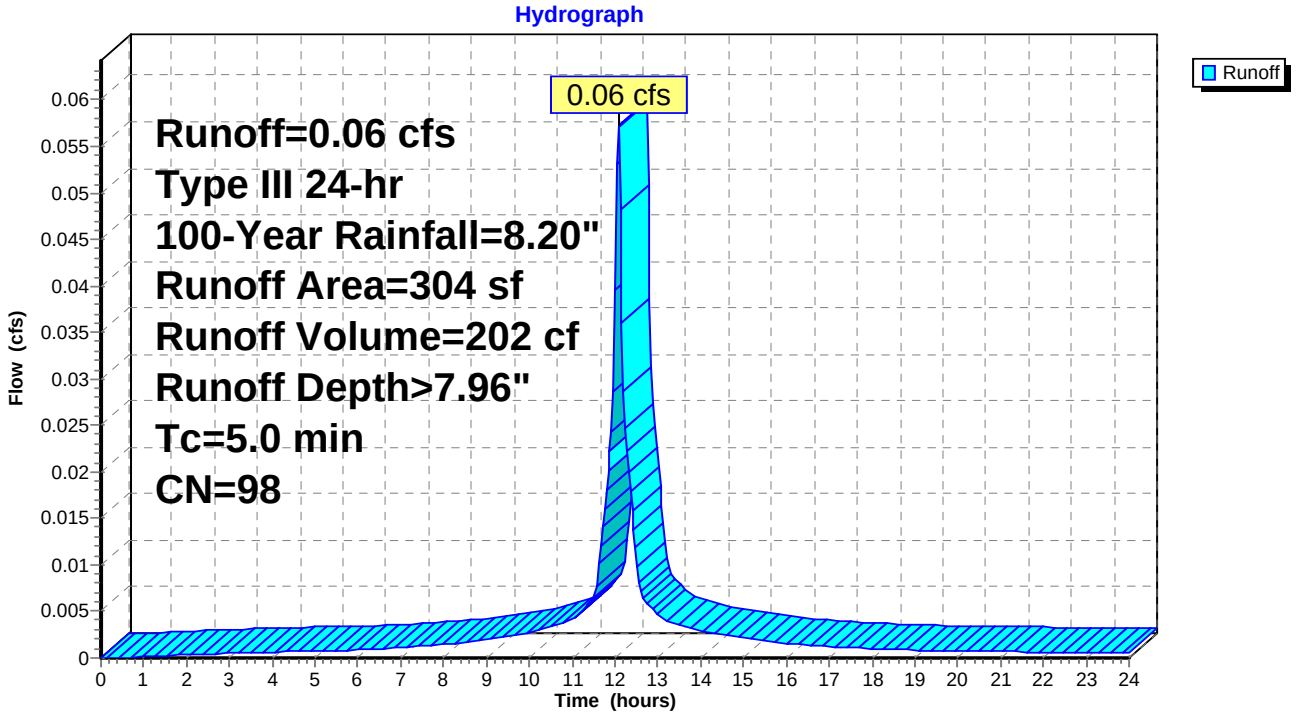
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 202 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

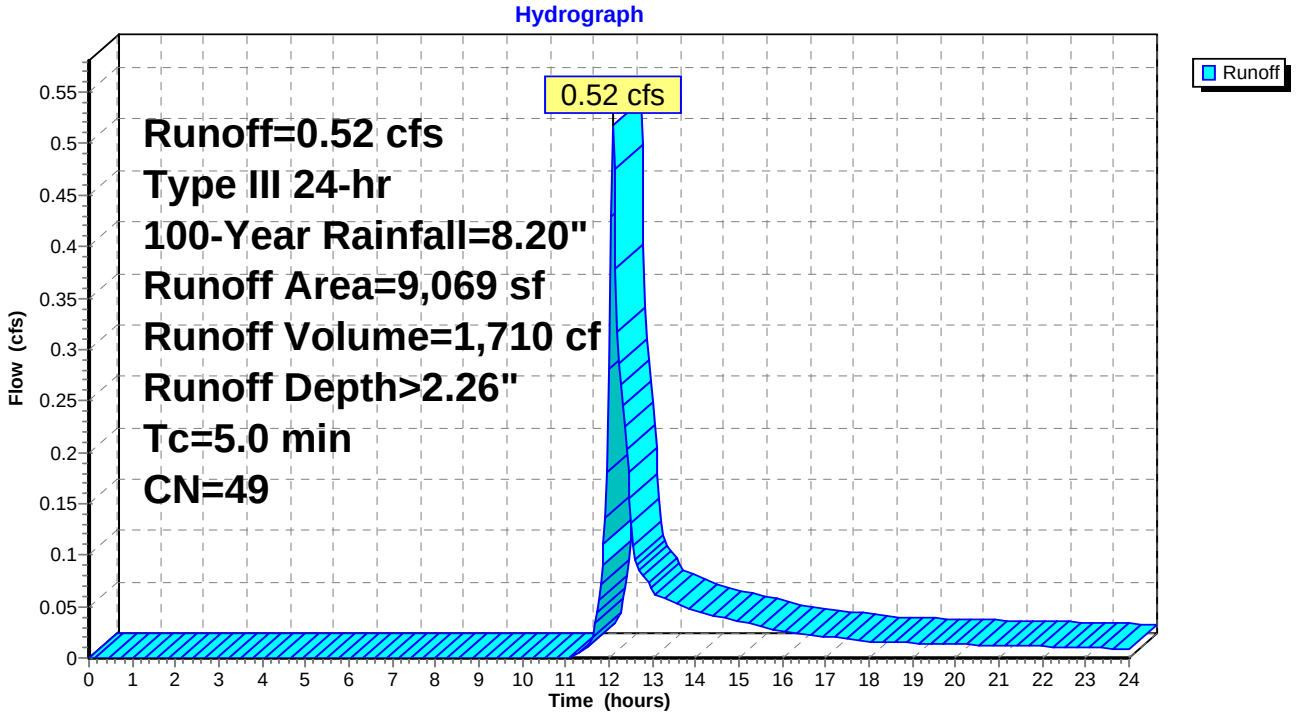
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,710 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

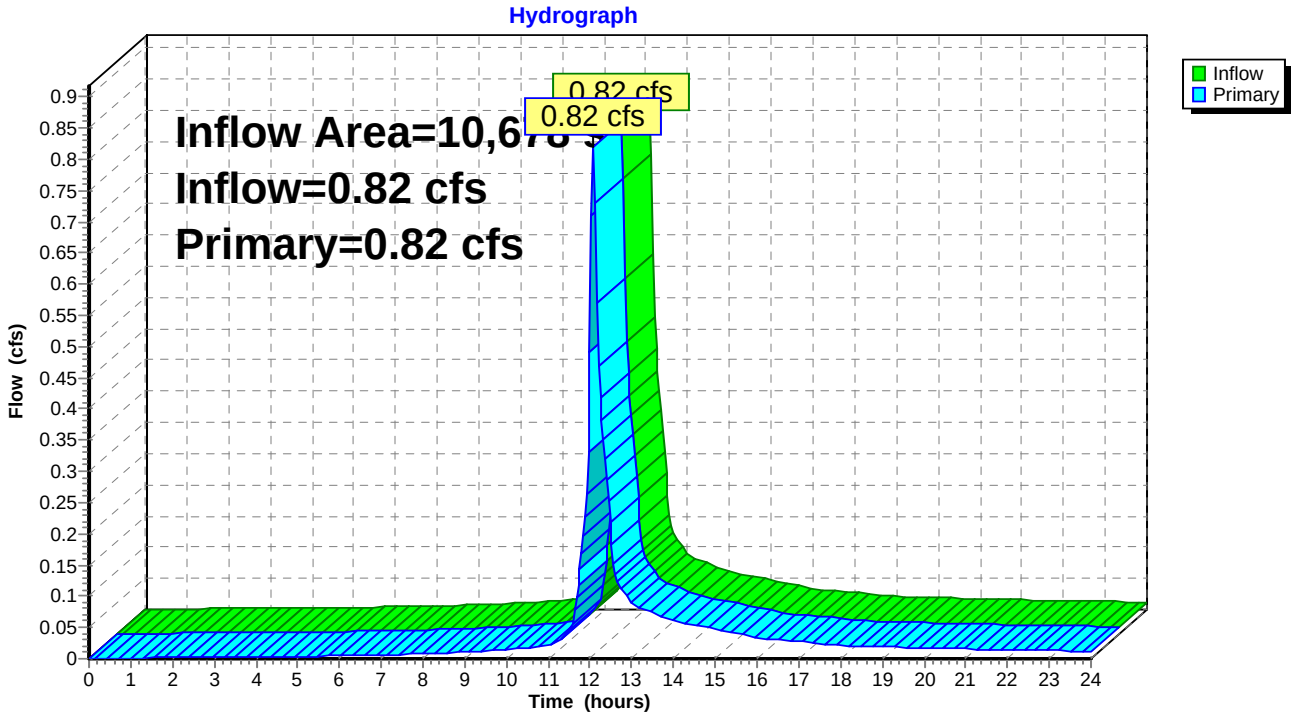


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 3.12" for 100-Year event
Inflow = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf
Primary = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.25 cfs 865 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.06 cfs 202 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.52 cfs 1,710 cf

Link 4L: EXISTING Inflow=0.82 cfs 2,777 cf
Primary=0.82 cfs 2,777 cf

Total Runoff Area = 10,678 sf Runoff Volume = 2,777 cf Average Runoff Depth = 3.12"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

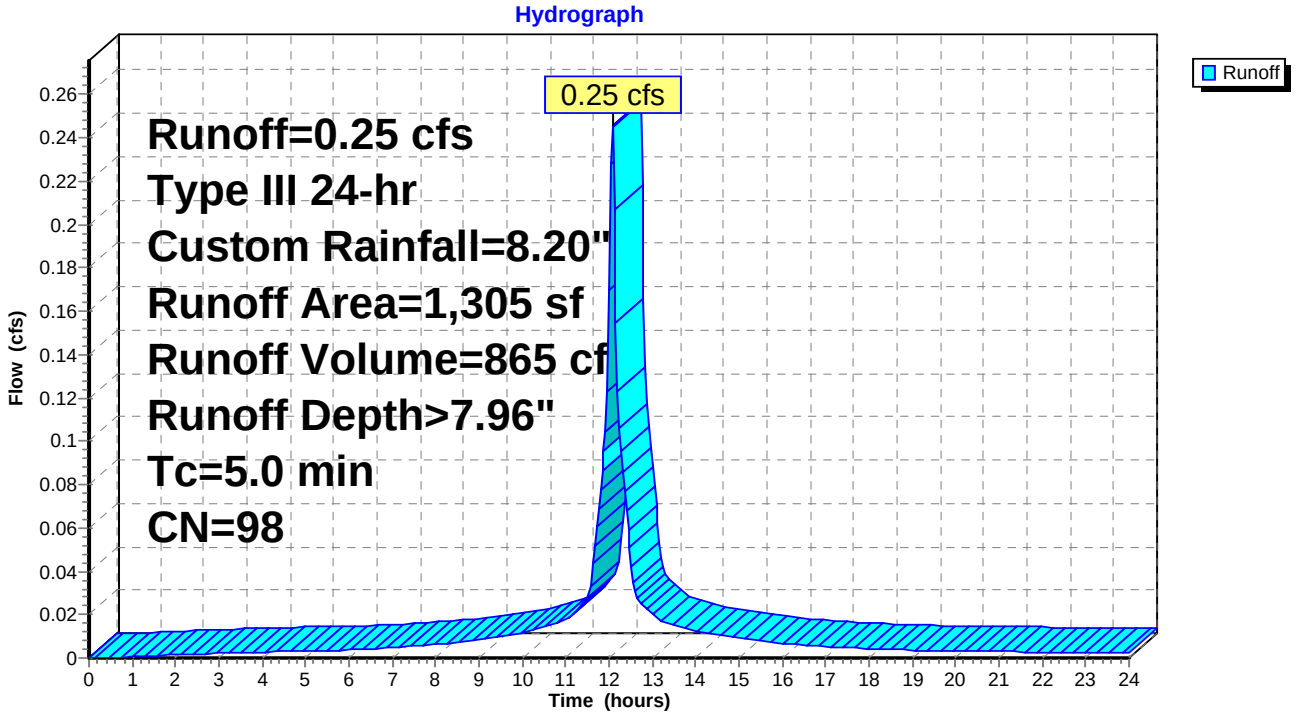
Runoff = 0.25 cfs @ 12.07 hrs, Volume= 865 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

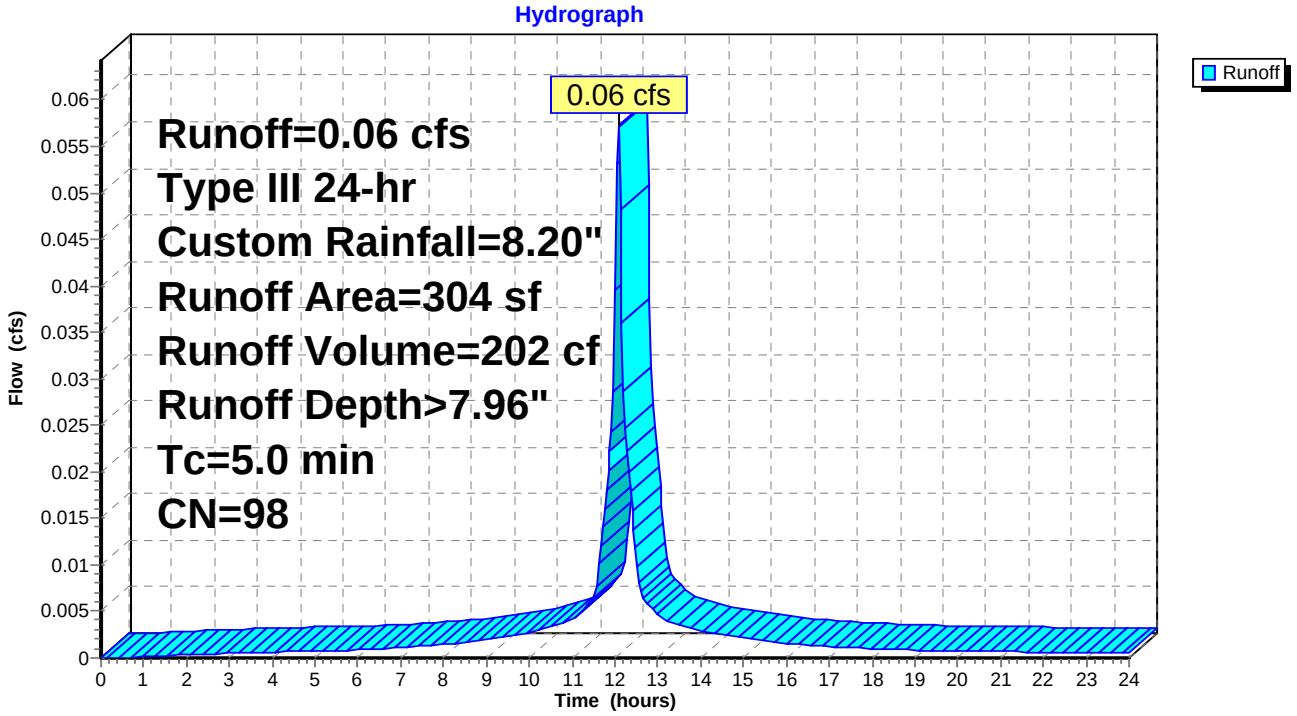
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 202 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

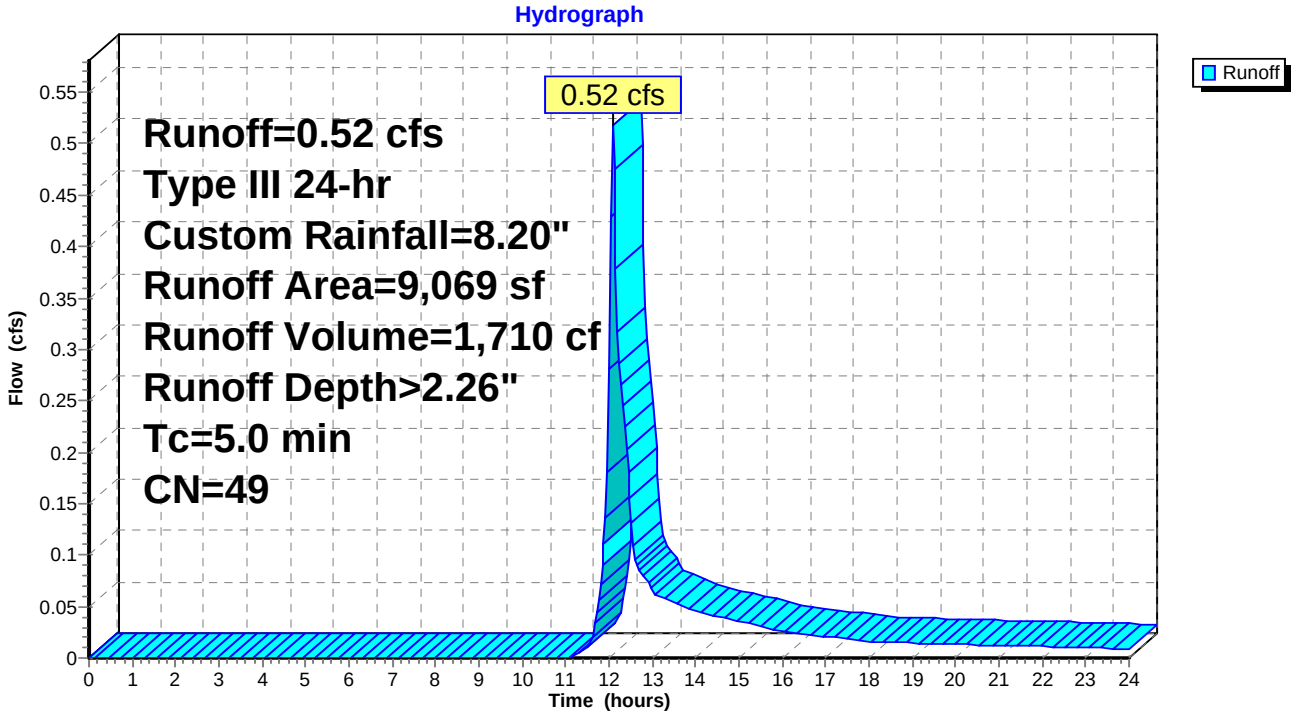
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,710 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

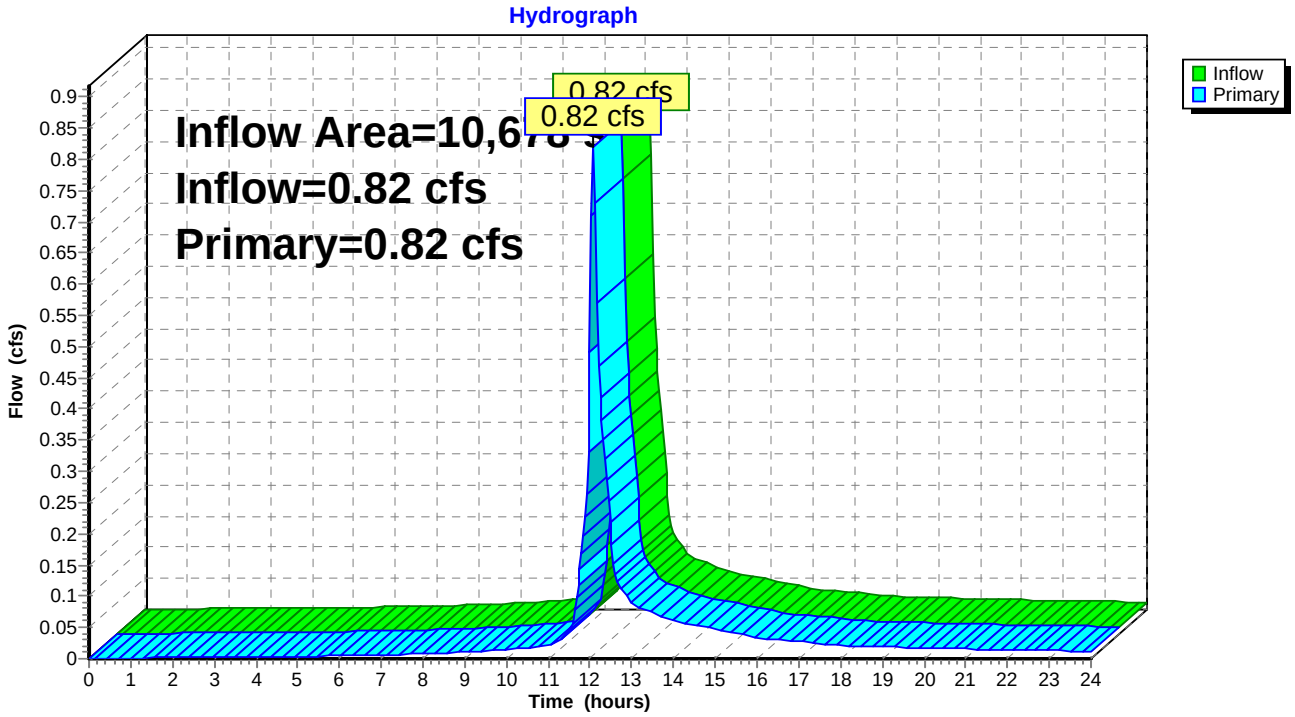


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 3.12" for Custom event
Inflow = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf
Primary = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Appendix B – Soils Information

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:366 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 14, Sep 12, 2018

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	0.7	100.0%
Totals for Area of Interest		**0.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Norfolk and Suffolk Counties, Massachusetts

626B—Merrimac-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyr9
Elevation: 0 to 820 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Merrimac and similar soils: 45 percent
Urban land: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Merrimac

Setting

Landform: Outwash terraces, outwash plains, kames, eskers, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw1 - 10 to 22 inches: fine sandy loam
Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand
2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A

Hydric soil rating: No

Description of Urban Land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Hinckley

Percent of map unit: 5 percent
Landform: Outwash plains, eskers, kames, deltas
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash plains, terraces, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Windsor

Percent of map unit: 5 percent
Landform: Outwash terraces, deltas, outwash plains, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

LOCUS: N.T.S.

STREET VIEW - McKONE STREET

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET, DORCHESTER, MA

	10/22/17			
BOSTON ZONING CODE REVIEW				
1.)	Parcels 2468 & 2469 are located within zoning sub-district 2F-5000.			
	The existing occupancy is single-family & vacant land.			
	The lot is 10,638 sf+/-.			
2.)	The proposed 6 dwelling units contain 8,820.0 sf living area.			
3.)	Multi-family and three-family are forbidden uses in this sub-district.			
4.)	Article 65 Dimensional Regulations:			
		2F-5000		
	Item	Req'd/Allowed	Three 3F bldgs.	Remarks
a.)	Lot size min.	5,000 sf	10,638 sf lot	
b.)	Lot area min./add'l unit	N/A	N/A	
c.)	Lot width/frontage min.	50 ft	40 ft +/-	At Bloomington St.
			77 ft +/-	At McKone St.
d.)	Floor to area ratio	0.5	0.8	
e.)	Height of building max.	2-1/2 stories/35 ft	3 st./32.5'	mean grade, Note 4
f.)	Usable open space/D.U.	None	N/A	
g.)	Front yard min. depth	15 ft/Modal yard	0.0' or modal yard	Note 3
h.)	Side yard min. depth	10'	10' (LT) & 10' (RT)	At McKone St., Note 1
		8'-9"	10' (LT) & 7.67' (RT)	At Bloomington St., Note 1
i.)	Rear yard min. depth	10 ft	10 ft	Note 2
j.)	Parapet setback	N/A	N/A	
k.)	Off-street parking	1.25 sp/D.U. or 8 sp	8 spaces	
	Note 1: Sec. 65-42.7, Side yards of certain narrow lots.			
	Note 2: Sec. 65-42.11, Rear yards of certain shallow lots.			
	Note 3: Section 65-45.2, Conformity w/exist bldg alignment.			
	Note 4: Section 16-8, Headhouses are not incld. in building height if the total area does not exceed 330 s.f. (for roof areas < 3,300 s.f.).			

PROJECT INFO:

Address: 13-15 McKone Street &
12 Bloomington Street, Dorchester, MA

Exist. Occupancy: Single Family & Vacant Land
Proposed Occupancy: R2 - Multifamily

Lot: 10,638 sf ±
Parcel: 2468 & 2469
District: 2F-5000
Ward: 16

Square Footage Calculations per Building

Net Square Footage*

Level	GSF	Net SF*	FAR SF
G	873.0 sf	825.0 sf	873.0 sf
2	1,045.0 sf	1,045.0 sf	1,045.0 sf
3	1,022.0 sf	1,022.0 sf	1,022.0 sf
Subtotals	2,940.0 sf	2,892.0 sf	2,940.0 sf
Project Total	**8,820.0 sf**	**8,676.0 sf**	**8,820.0 sf**

*FAR square footage is measured to ext. face of walls and dimising walls and excludes basement, storage, and mechanical areas.

SCHEDULE OF DRAWINGS

REGISTERED ARCHITECT TIMOTHY C. JOHNSON No. 6995 BOSTON, MA COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

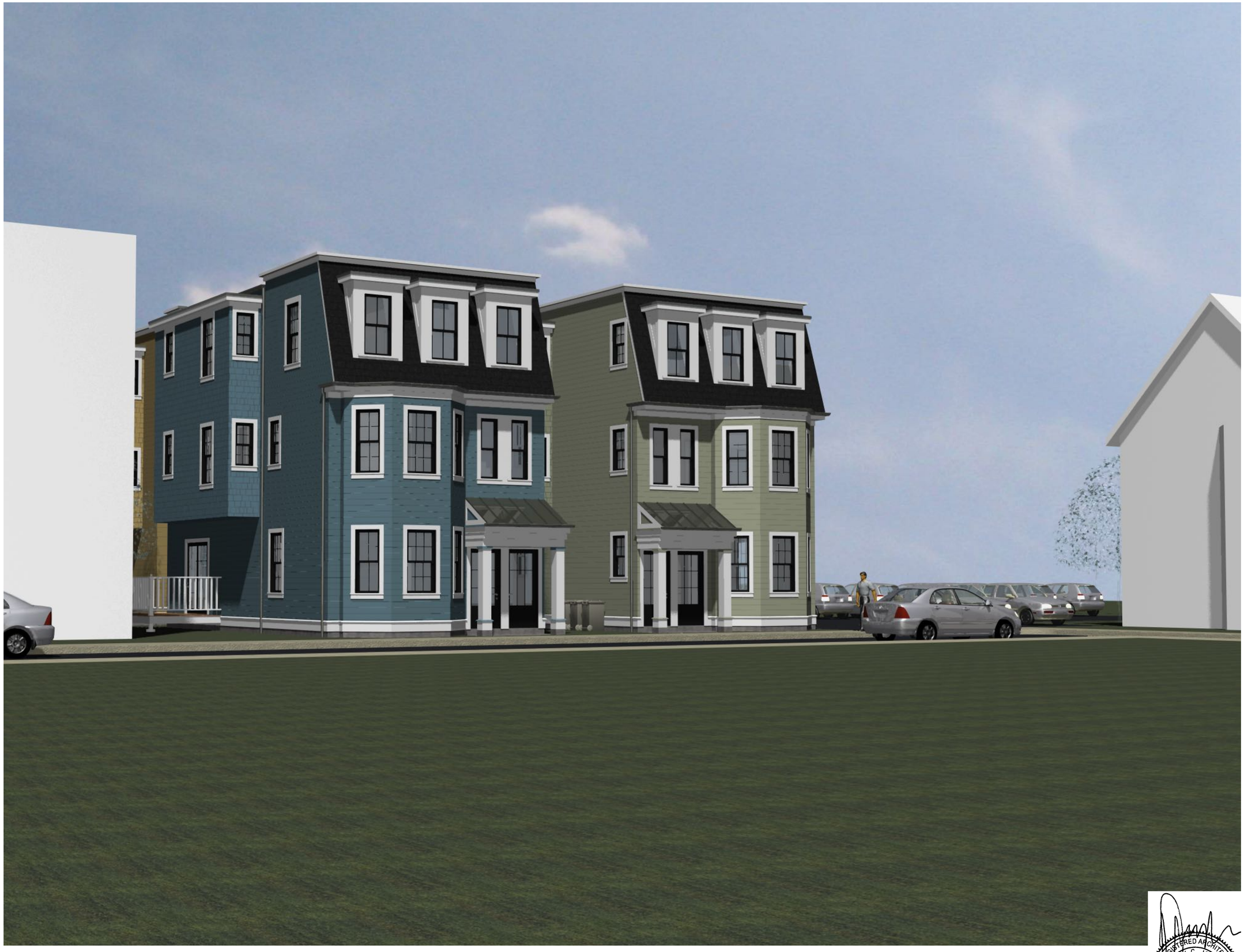
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

PROJECT INFORMATION

DATE: 09/05/18 SC: N. T. S.

A00



STREET VIEW - McKONE STREET

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

PERSPECTIVE VIEWS

DATE: 09/05/18 | SC: N. T. S.

V01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

STREET VIEW - BLOOMINGTON STREET

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

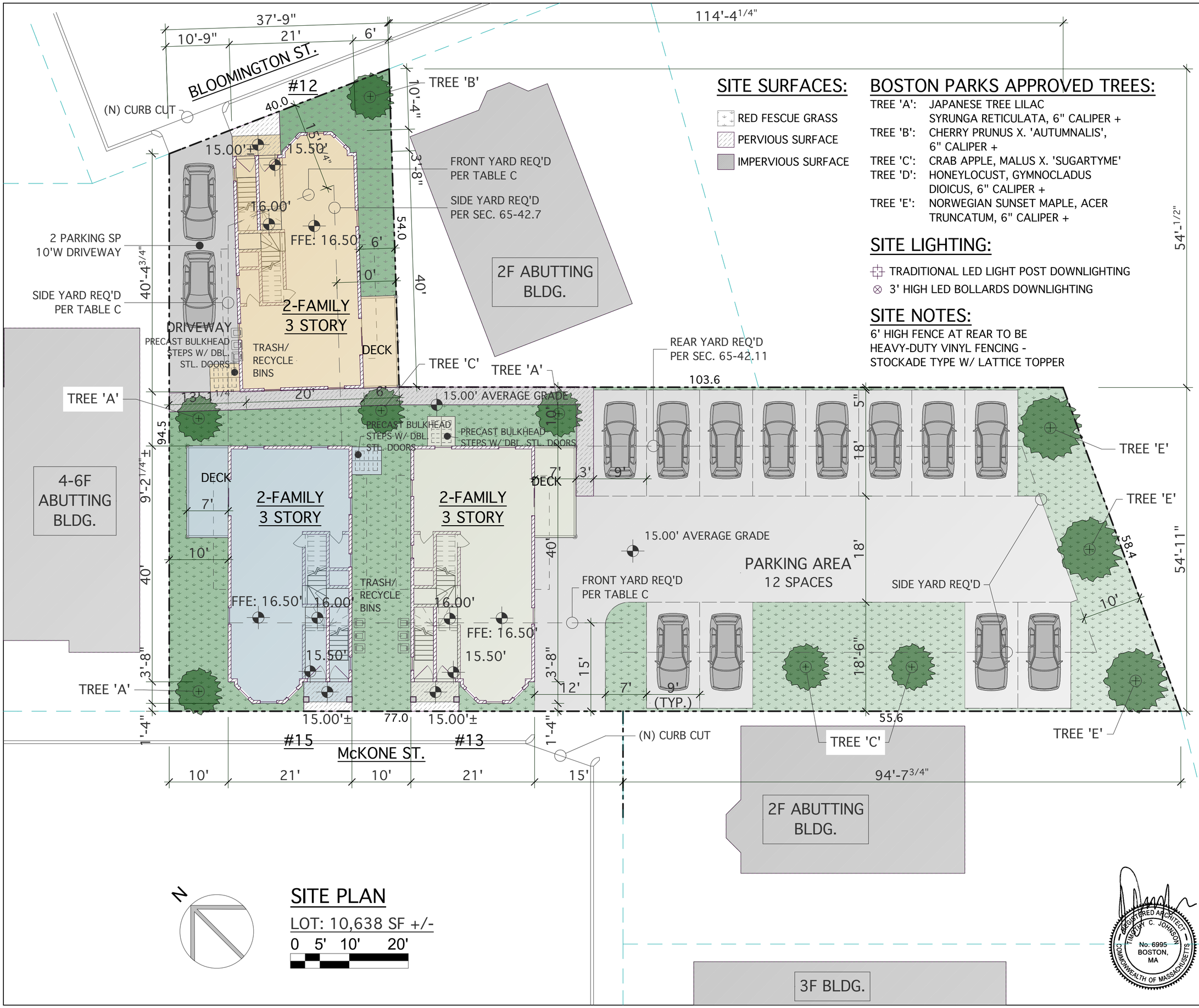
PERMIT SET

PERSPECTIVE VIEWS

DATE: 09/05/18 | SC: N. T. S.

V02

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



SITE SURFACES:

- RED FESCUE GRASS
- PERVIOUS SURFACE
- IMPERVIOUS SURFACE

BOSTON PARKS APPROVED TREES:

TREE 'A': JAPANESE TREE LILAC SYRUNGA RETICULATA, 6" CALIPER +
TREE 'B': CHERRY PRUNUS X. 'AUTUMNALIS', 6" CALIPER +
TREE 'C': CRAB APPLE, MALUS X. 'SUGARTYME'
TREE 'D': HONEYLOCUST, GYMNOCLADUS DIOICUS, 6" CALIPER +
TREE 'E': NORWEGIAN SUNSET MAPLE, ACER TRUNCATUM, 6" CALIPER +

SITE LIGHTING:

- TRADITIONAL LED LIGHT POST DOWNLIGHTING
- 3' HIGH LED BOLLARDS DOWNLIGHTING

SITE NOTES:

6' HIGH FENCE AT REAR TO BE HEAVY-DUTY VINYL FENCING - STOCKADE TYPE W/ LATTICE TOPPER

N

SITE PLAN

LOT: 10,638 SF +/-

0 5' 10' 20'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
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BOSTON, MA 02127
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

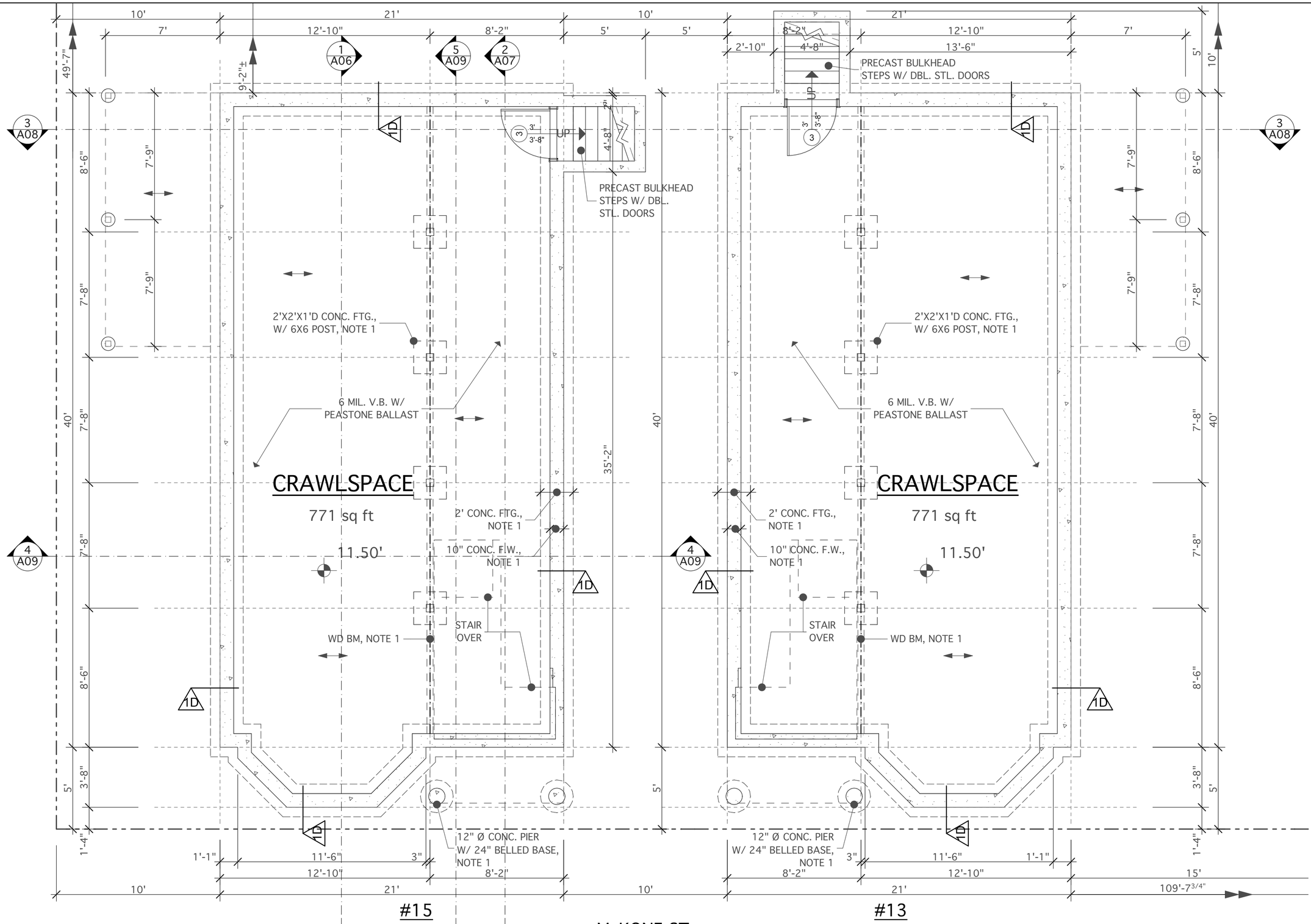
PERMIT SET

ARCHITECTURAL SITE PLAN

DATE: 09/05/18 | SC: 1" = 10'

C01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A. POST ABOVE
P.B. POST BELOW
(EX) EXISTING
(R) RELOCATE
(N) NEW
B.W. BEARING WALL
B.L. BEARING LINE
L.C. LALLY COLUMN
JOIST DIRECTION TO BE VERIFIED BY GC

(SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXHAUST FAN TO EXTERIOR
(HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

0 2' 4' 8'

FOUNDATION PLAN

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

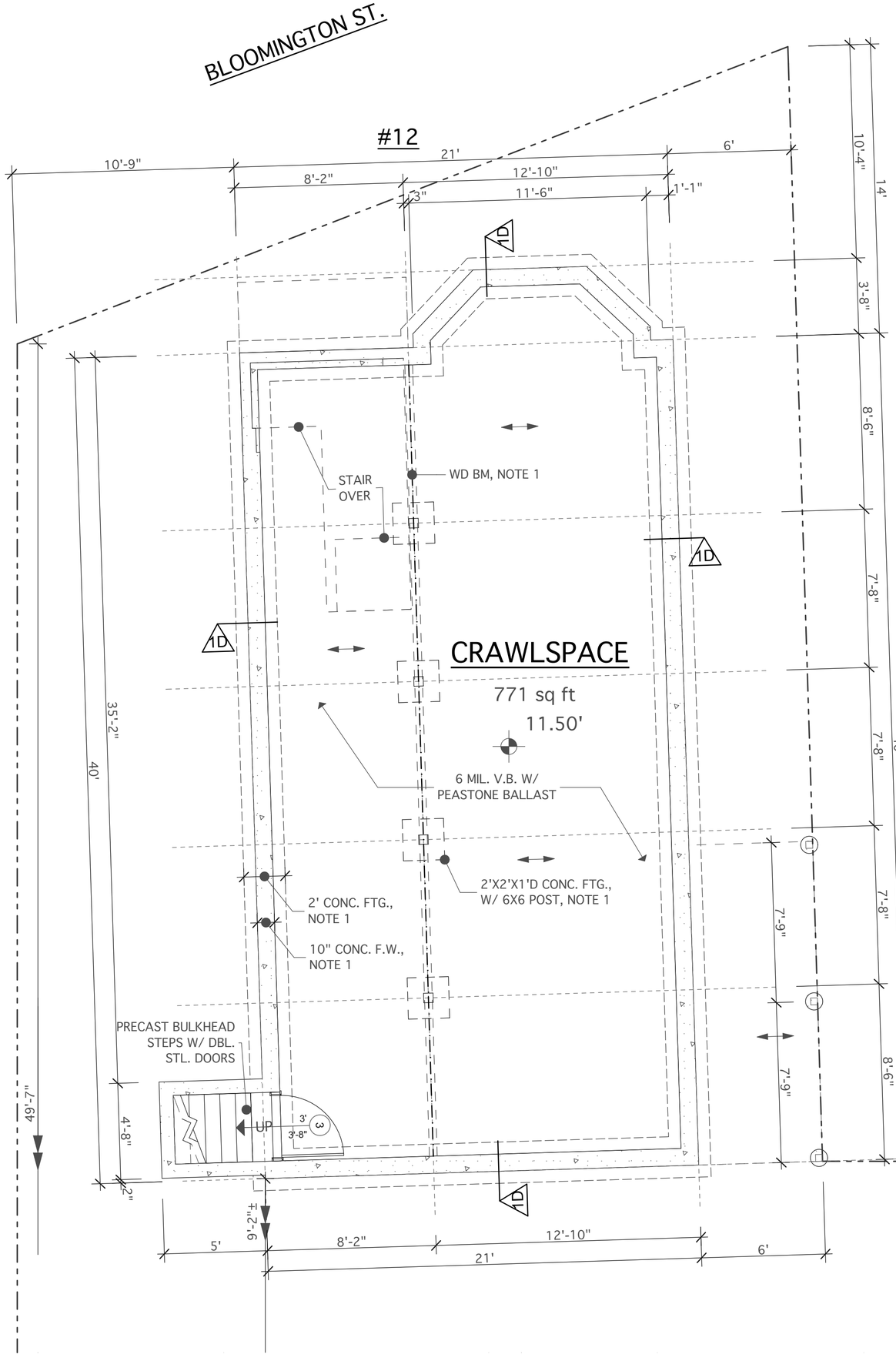
PERMIT SET

LOWER LEVEL FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A01

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

NON-RATED WALLS	P.A.	POST ABOVE	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
1-HR FIRE-RATED WALLS	P.B.	POST BELOW	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
2-HR FIRE-RATED WALLS	(EX)	EXISTING	EXHAUST FAN TO EXTERIOR
EXISTING WALLS	(R)	RELOCATE	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXISTING BRICK WALLS	(N)	NEW	EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
	B.W.	BEARING WALL	
	B.L.	BEARING LINE	
	L.C.	LALLY COLUMN	
		JOIST DIRECTION TO BE VERIFIED BY GC	

GENERAL NOTES:
NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

FOUNDATION PLAN

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

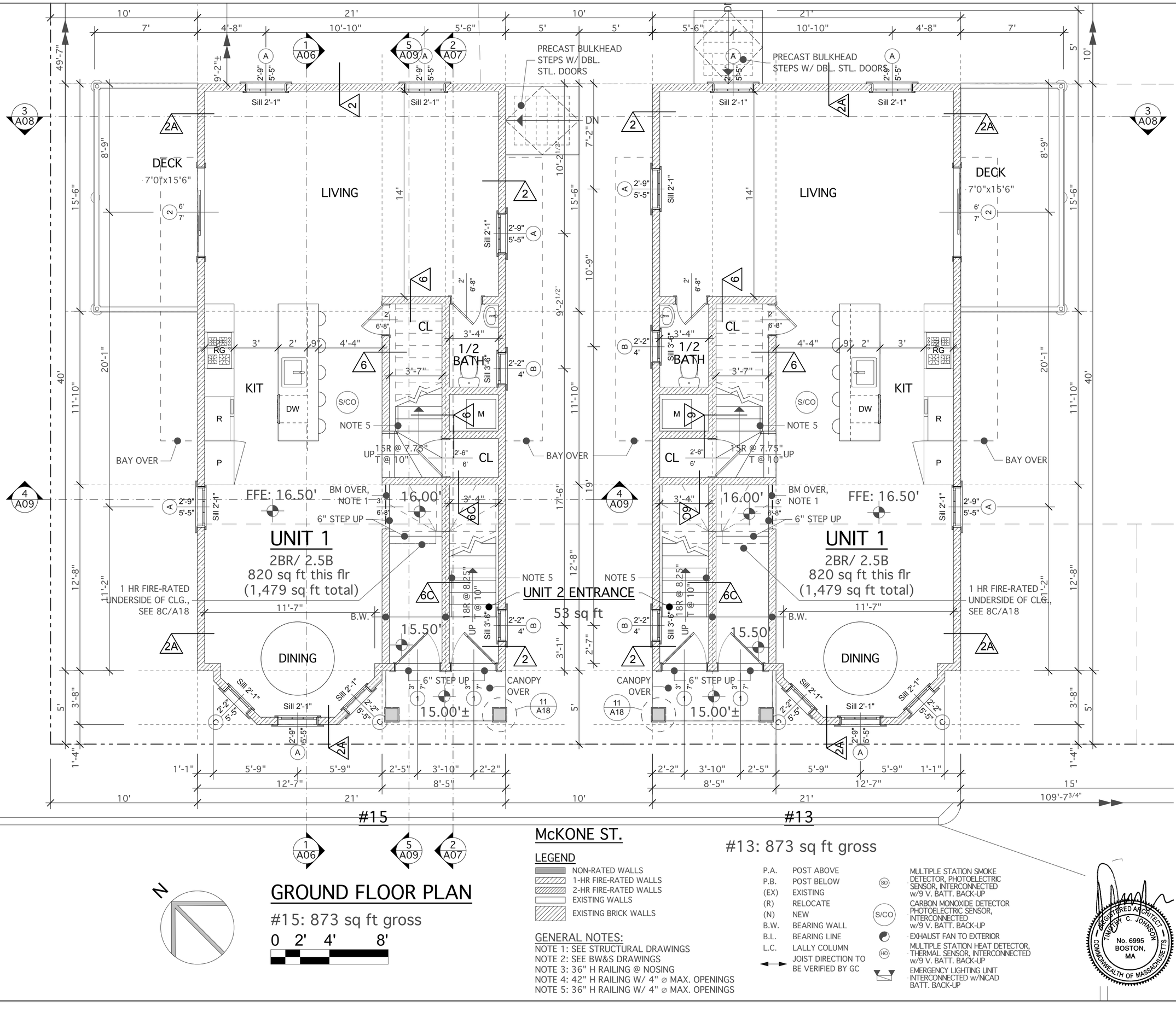
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

LOWER LEVEL FLOOR PLAN #12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A01a



GROUND FLOOR PLAN

#15: 873 sq ft gross

0 2' 4' 8'

N

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A. POST ABOVE
P.B. POST BELOW
(EX) EXISTING
(R) RELOCATE
(N) NEW
B.W. BEARING WALL
B.L. BEARING LINE
L.C. LALLY COLUMN
JOIST DIRECTION TO BE VERIFIED BY GC

(SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXHAUST FAN TO EXTERIOR
(HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

REGISTERED ARCHITECT — TIMOTHY C. JOHNSON — No. 6995 BOSTON, MA — COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 McKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

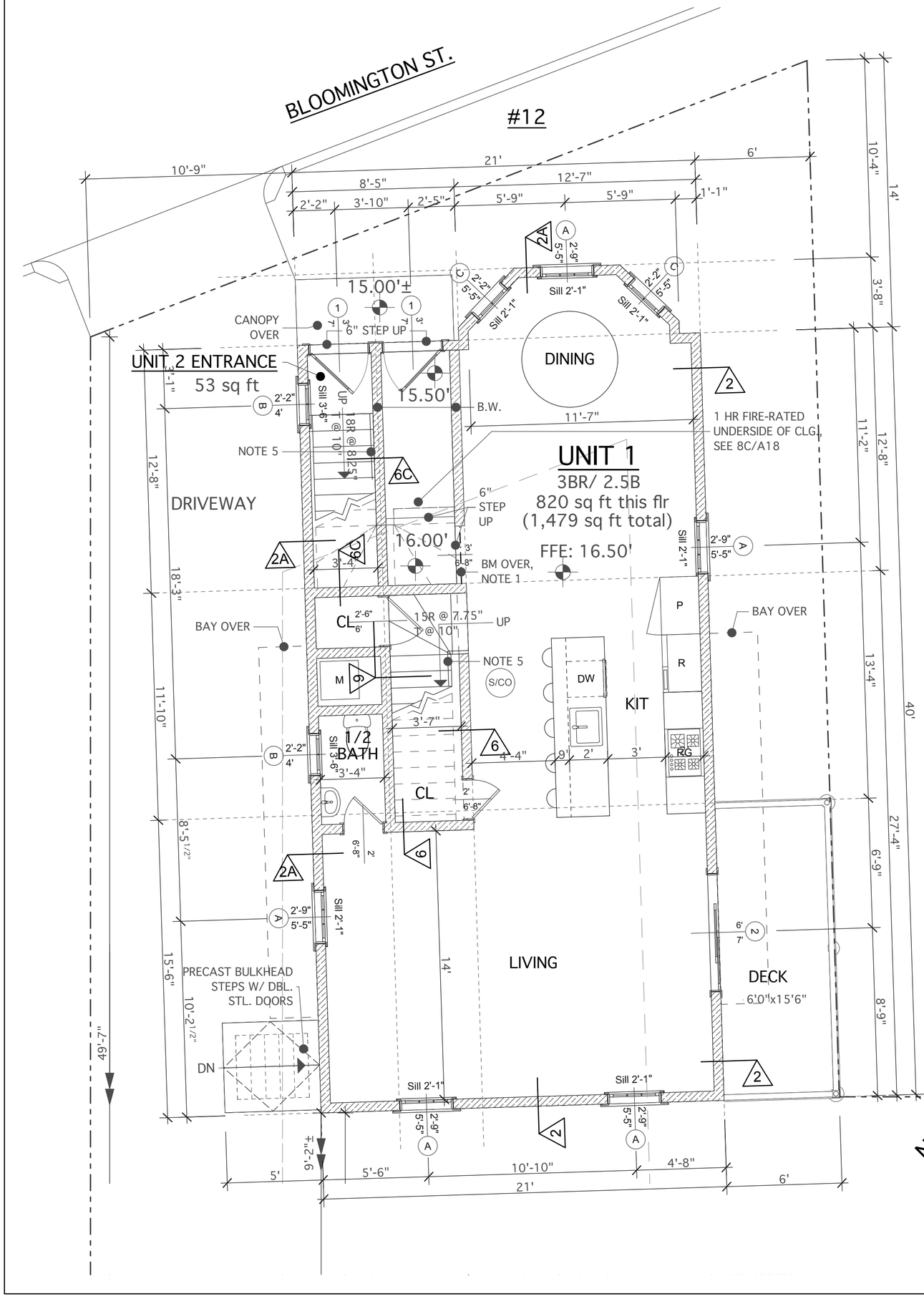
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

GROUND FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A02



GENERAL NOTES:
NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

GROUND FLOOR PLAN

#12: 873 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
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BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

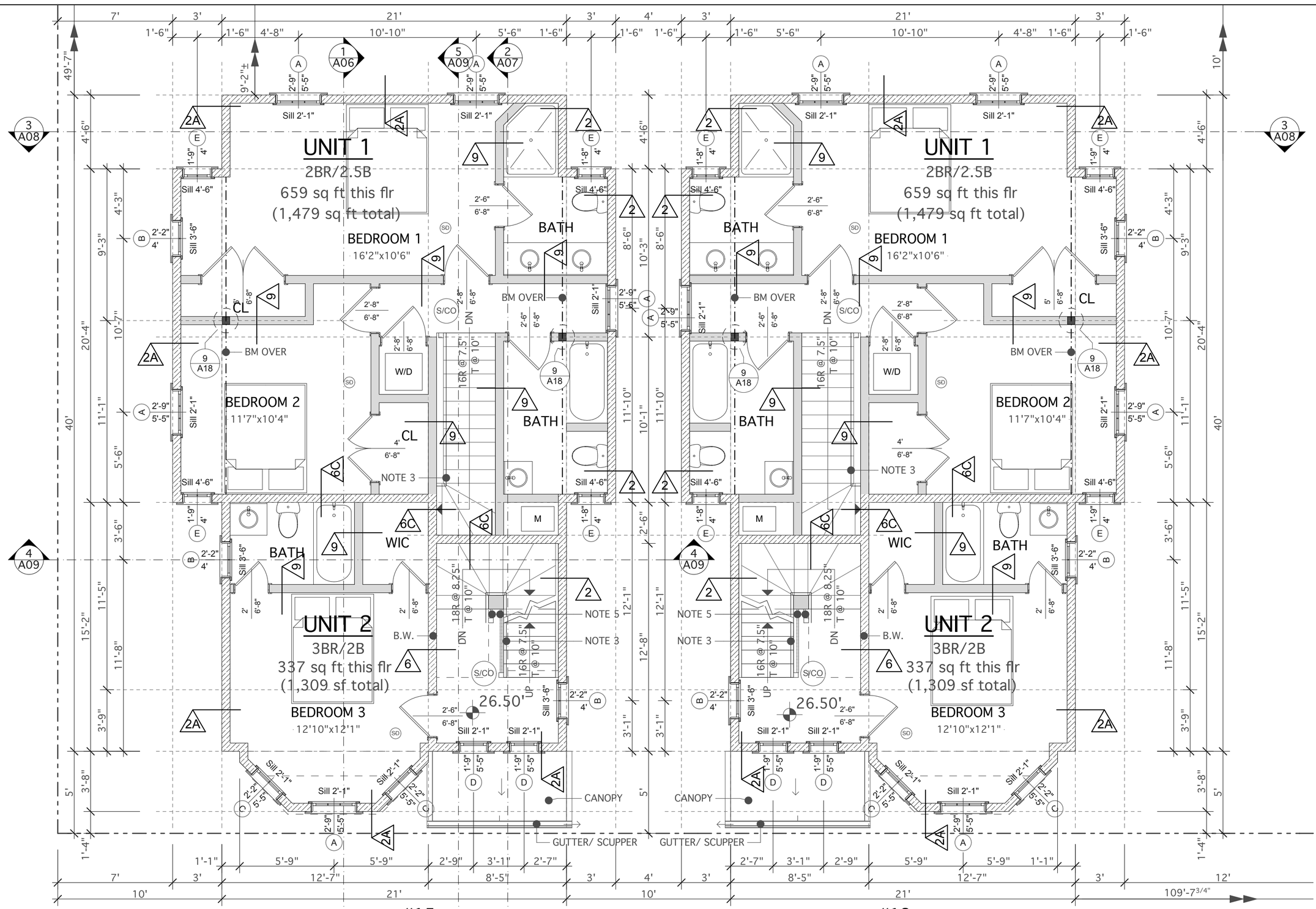
PERMIT SET

GROUND FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 SC: 1/4" = 1'-0"

A02a

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

#13: 995 sq ft gross

P.A.	POST ABOVE	(SD)	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
P.B.	POST BELOW	(S/CO)	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(EX)	EXISTING		EXHAUST FAN TO EXTERIOR
(R)	RELOCATE	(HD)	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
(N)	NEW		EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
B.W.	BEARING WALL		
B.L.	BEARING LINE		
L.C.	LALLY COLUMN		
	JOIST DIRECTION TO BE VERIFIED BY GC		

SECOND FLOOR PLAN

#15: 995 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS	
1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

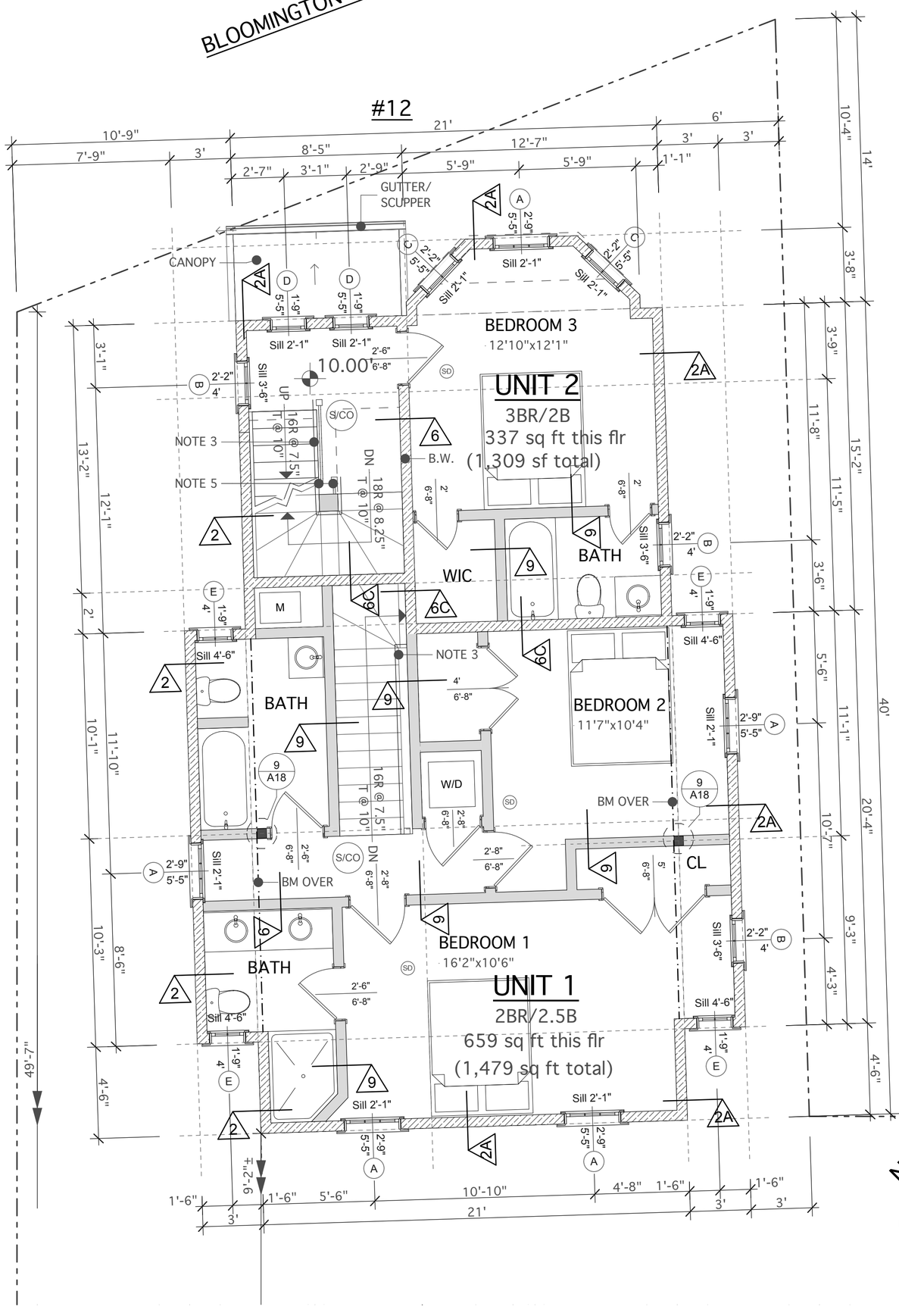
PERMIT SET

SECOND FLOOR PLANS
#13 & #15
McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A03

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- SD — MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- S/CO — CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EXHAUST FAN TO EXTERIOR
- HD — MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

SECOND FLOOR PLAN

#12: 995 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

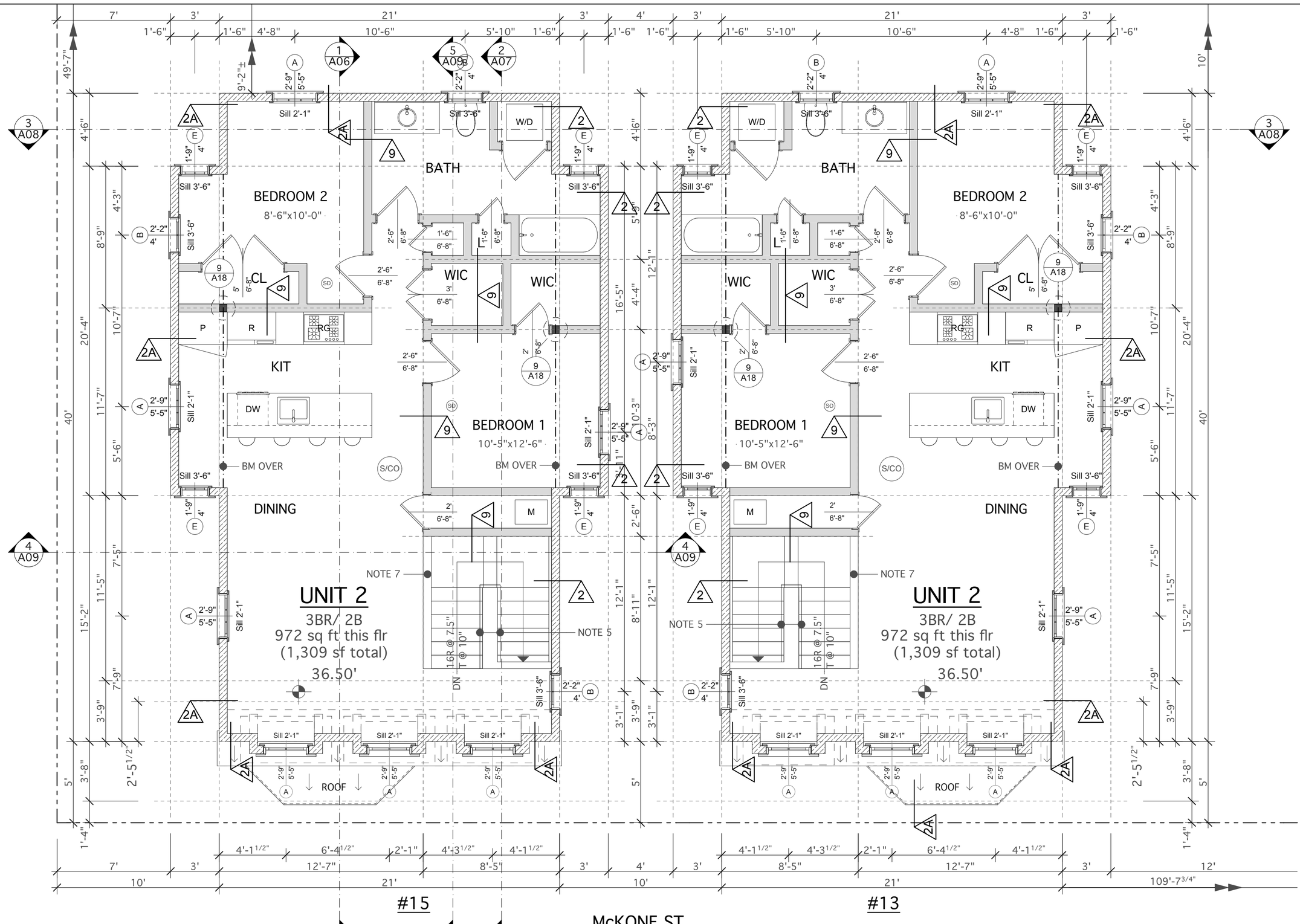
PERMIT SET

SECOND FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A03a

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC
(SD)	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
S/CO	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
	EXHAUST FAN TO EXTERIOR
(HD)	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
	EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP

GENERAL NOTES:

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NOTE 2: SEE BW&S DRAWINGS
NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

THIRD FLOOR PLAN

#15: 972 sq ft gross

#13: 972 sq ft gross

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

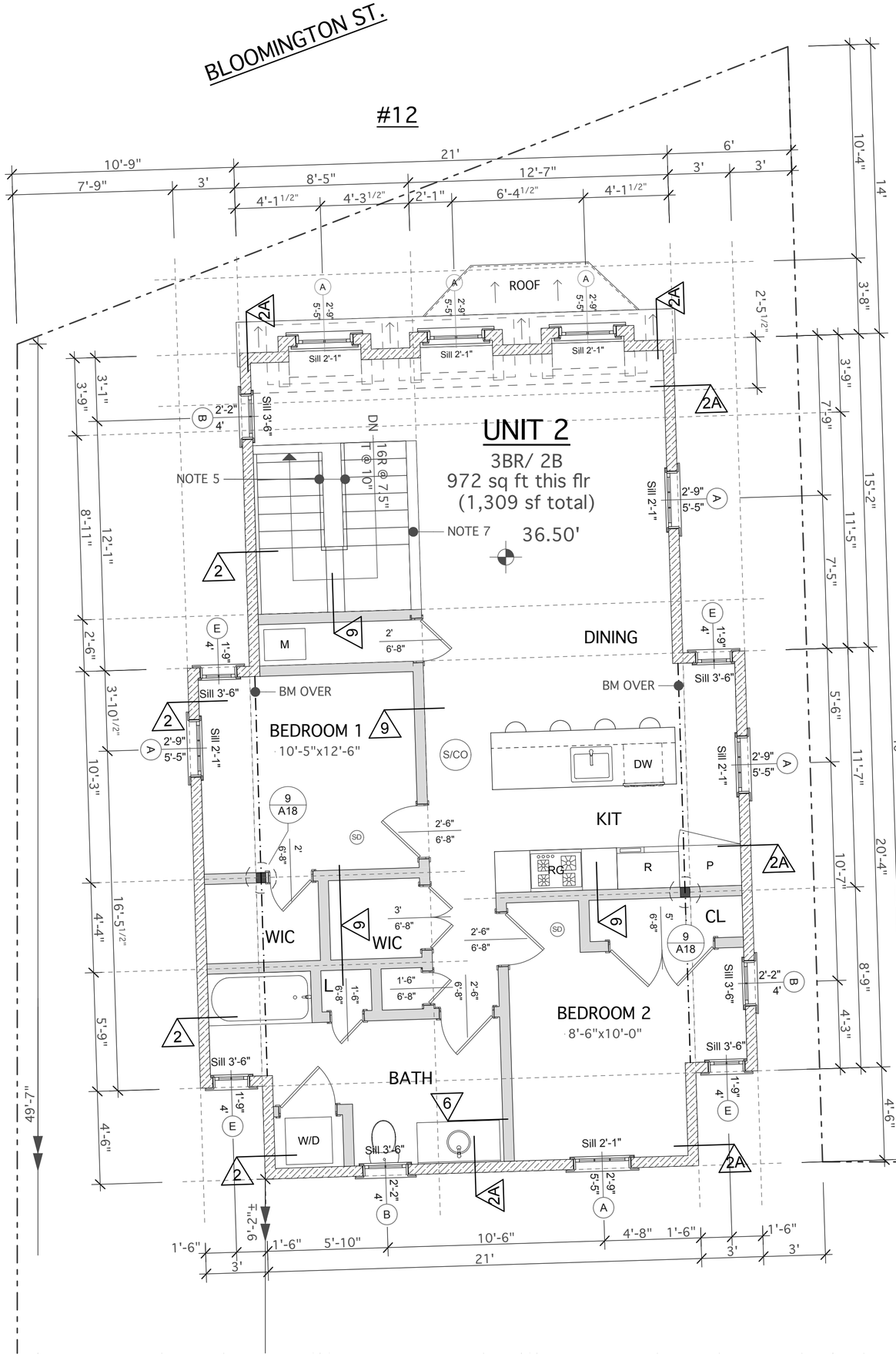
PERMIT SET

THIRD FLOOR PLANS #13 & #15 McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A04

REGISTERED ARCHITECT — TIMOTHY C. JOHNSON — No. 6995 BOSTON, MA — COMMONWEALTH OF MASSACHUSETTS



LEGEND

NON-RATED WALLS	P.A.	POST ABOVE	MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
1-HR FIRE-RATED WALLS	P.B.	POST BELOW	CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
2-HR FIRE-RATED WALLS	(EX)	EXISTING	EXHAUST FAN TO EXTERIOR
EXISTING WALLS	(R)	RELOCATE	MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
EXISTING BRICK WALLS	(N)	NEW	EMERGENCY LIGHTING UNIT INTERCONNECTED w/NICAD BATT. BACK-UP
	B.W.	BEARING WALL	
	B.L.	BEARING LINE	
	L.C.	LALLY COLUMN	
		JOIST DIRECTION TO BE VERIFIED BY GC	

GENERAL NOTES:

NOTE 1: SEE STRUCTURAL DRAWINGS
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NOTE 3: 36" H RAILING @ NOSING
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NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

THIRD FLOOR PLAN

#12: 972 sq ft gross

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

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TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

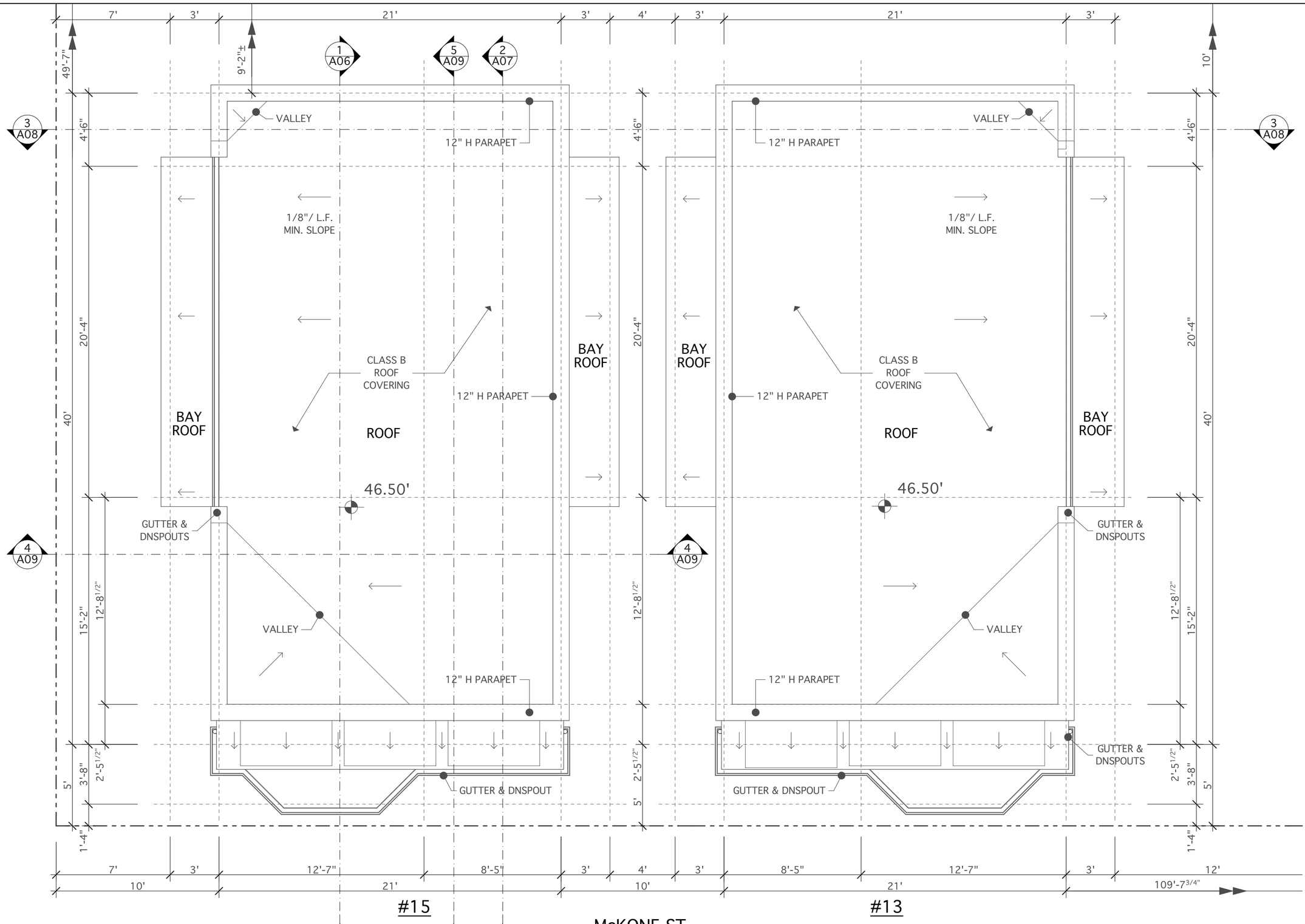
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

THIRD FLOOR PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A04a



McKONE ST.

LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- (SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- (S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- EXHAUST FAN TO EXTERIOR
- (HD) MULTIPLE STATION HEAT DETECTOR, THERMAL SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
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GENERAL NOTES:

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NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

0 2' 4' 8'

ROOF PLAN

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

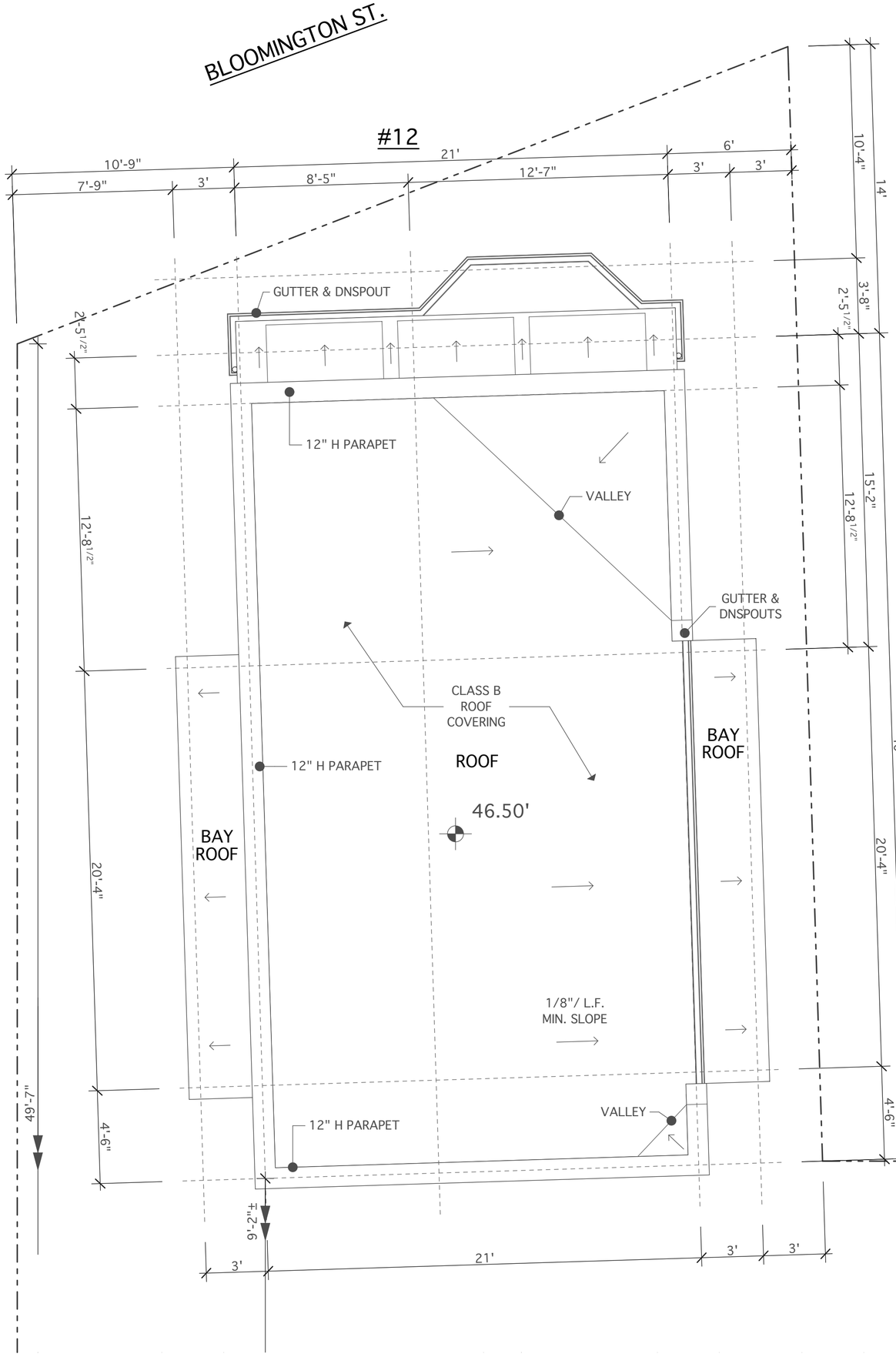
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

ROOF PLANS
#13 & #15
McKONE STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A05



LEGEND

- NON-RATED WALLS
- 1-HR FIRE-RATED WALLS
- 2-HR FIRE-RATED WALLS
- EXISTING WALLS
- EXISTING BRICK WALLS

P.A.	POST ABOVE
P.B.	POST BELOW
(EX)	EXISTING
(R)	RELOCATE
(N)	NEW
B.W.	BEARING WALL
B.L.	BEARING LINE
L.C.	LALLY COLUMN
	JOIST DIRECTION TO BE VERIFIED BY GC

- (SD) MULTIPLE STATION SMOKE DETECTOR, PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
- (S/CO) CARBON MONOXIDE DETECTOR PHOTOELECTRIC SENSOR, INTERCONNECTED w/9 V. BATT. BACK-UP
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GENERAL NOTES:

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NOTE 3: 36" H RAILING @ NOSING
NOTE 4: 42" H RAILING W/ 4" ⌀ MAX. OPENINGS
NOTE 5: 36" H RAILING W/ 4" ⌀ MAX. OPENINGS

N

ROOF PLAN

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
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BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

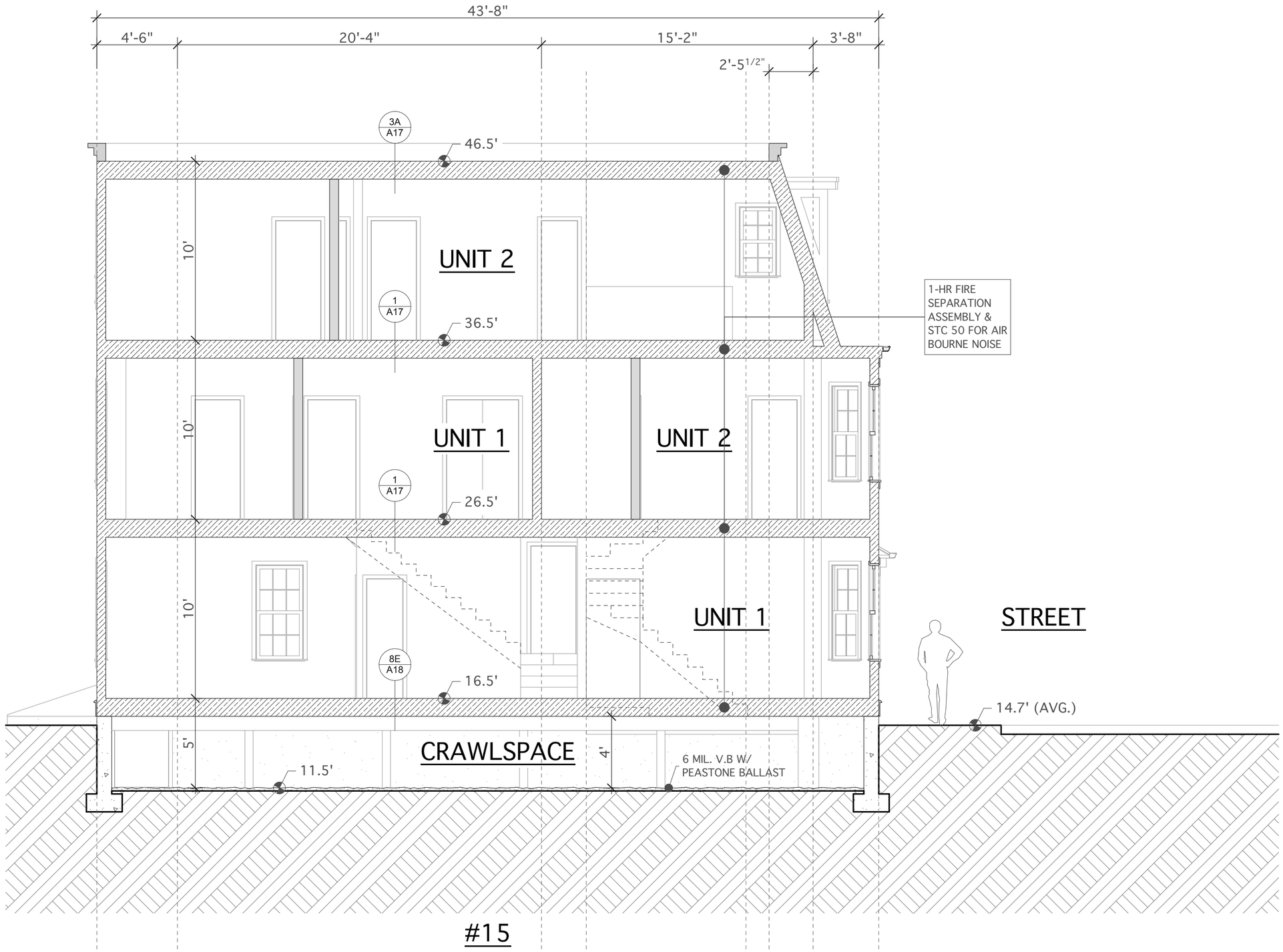
TIM JOHNSON ARCHITECT, LLC

PERMIT SET

ROOF PLAN
#12 BLOOMINGTON STREET

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A05a



#15

1-1 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

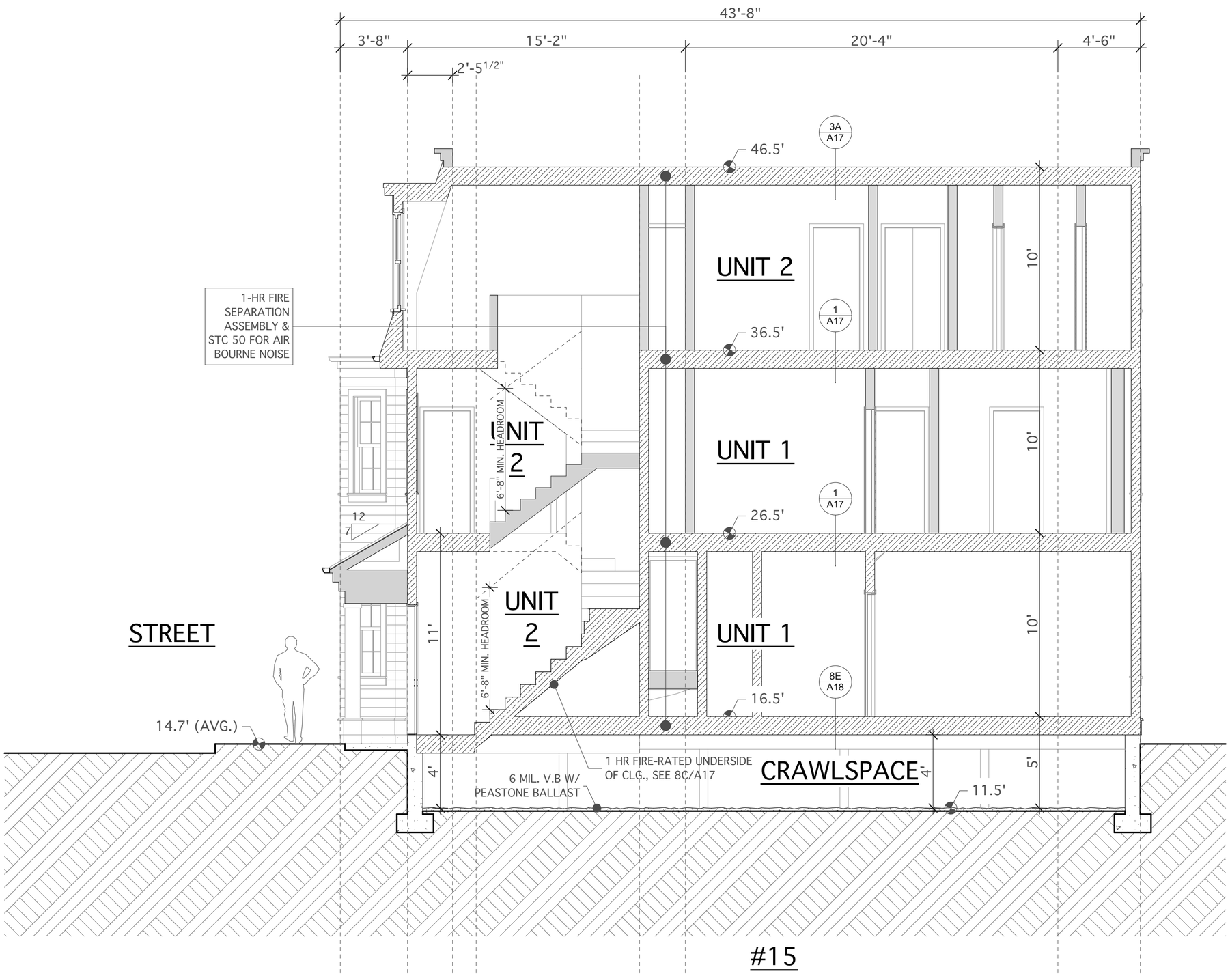
PERMIT SET

1-1 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A06

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



#15

2-2 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

2-2 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A07

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

2-2 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
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BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

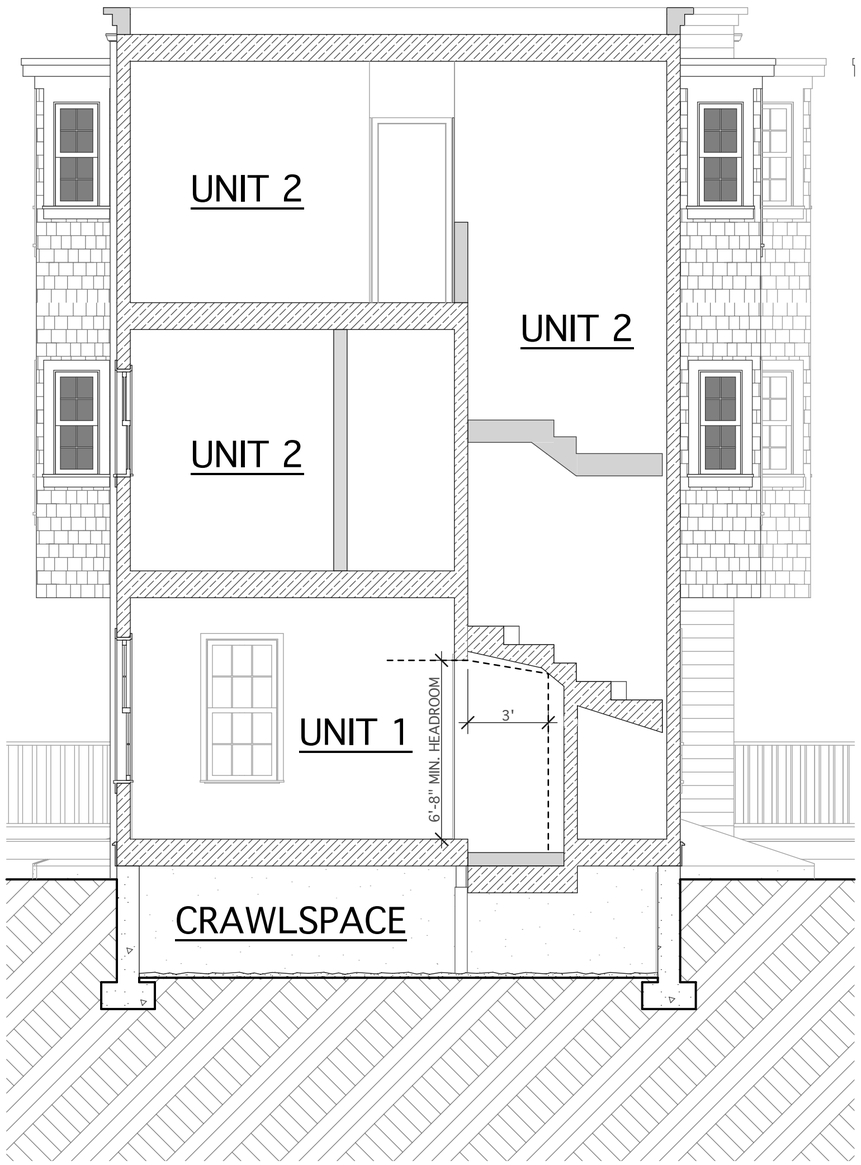
PERMIT SET

3-3 BUILDING SECTION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

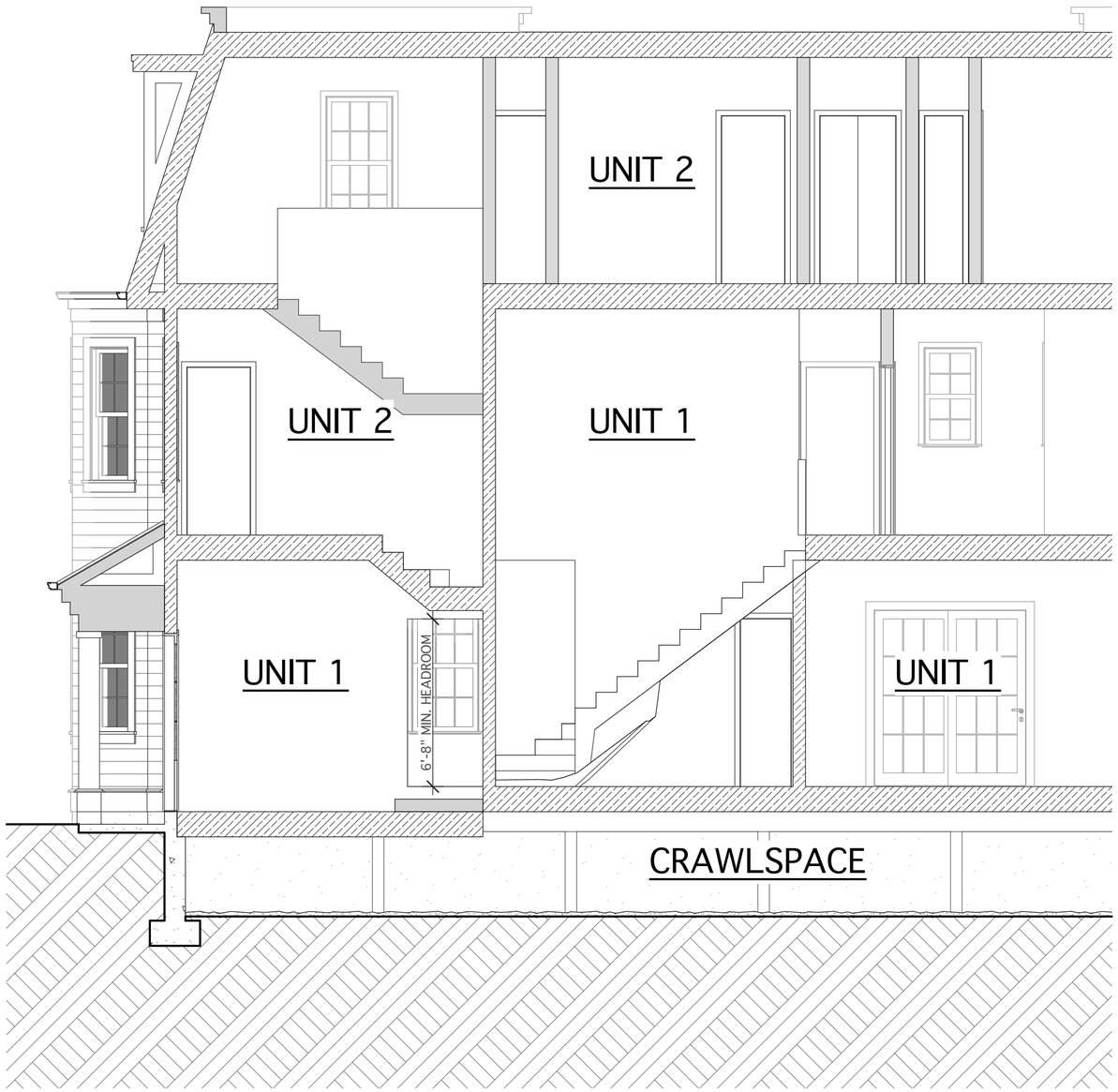
A08

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS



4-4 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'



5-5 BUILDING SECTION: TYPICAL BUILDING SECTION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
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SOUTH BOSTON, MA 02127
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

4-4 & 5-5 BUILDING SECTIONS

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A09

#15

#13

SOUTHWEST (McKONE STREET) ELEVATION

0 2' 4' 8'

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY
DWELLING
13-15 MCKONE STREET & 12
BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHWEST
(McKONE STREET)
ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A10

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

#12

NORTHEAST (BLOOMINGTON STREET) ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON,
MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHEAST (BLOOMINGTON STREET) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A11

#13 #15

NORTHEAST (REAR) ELEVATION: TYPICAL REAR ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
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DORCHESTER, MA 02122

REVISIONS

1 09/14/18	△
△	△
△	△

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHEAST (REAR) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A12

#12

SOUTHWEST (REAR) ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
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DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHWEST (REAR) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A12a

#15

NORTHWEST (DRIVEWAY) ELEVATION: TYPICAL SIDE ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
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PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

NORTHWEST (DRIVEWAY) ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A13

#15

SOUTHEAST ELEVATION: TYPICAL SIDE ELEVATION

0 2' 4' 8'

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
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BOSTON, MA 02127
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DORCHESTER, MA 02122

REVISIONS
1 09/14/18

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

SOUTHEAST ELEVATION

DATE: 09/05/18 | SC: 1/4" = 1'-0"

A14

WINDOW SCHEDULE

Job Name: 15 McKone Street

Date: 09/04/18

*REVISED: date

	LOCATION		MANUFACTURER			NOMINAL SIZES		WINDOWS	
*REV.	Symbol	Qty.	Company	Product No.	Type	Width	Height	Glazing	Remarks
	A	51			DH	2'-9"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	B	24			DH	2'-2"	4'-0"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	C	12			DH	2'-2"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	D	6			DH	1'-9"	5'-5"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
	E	24			DH	1'-9"	4'-0"	Low-E	Vinyl Frame, 1x Trim, Screens & SDL
TOTAL		117							

DOOR SCHEDULE

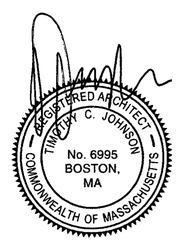
Job Name: 15 McKone Street

Date: 08/24/18

*REVISED: date

	LOCATION		DOOR	NOMINAL SIZES		FRAME		MANUFACTURER		MISC.	
*REV.	Symbol	Qty.	Type	Width	Height	Jamb	Treshld.	Company	Product No.	Hdwre.	Remarks
	1	6	B, K	3'-0"	7'-0"		X				Vinyl Insulated Half-Lite Entry Door w/ Low-E Gl. & SDL
	2	3	D	6'-0"	7'-0"		X				Vinyl Sliding Patio Door w/ Low-E Gl. & SDL
	3	3	B	3'-0"	3'-8"		X				Metal Insulated Door to Crawlspace

HARDWARE SCHEDULE		MISC. SCHEDULE		DOOR SCHEDULE	
L-1	Cylinder lockset, passage lock	T-1	Clr. oak, beveled edges	A	Panel door
L-2	Cylinder lockset, privacy lock	T-2	White marble, beveled edges	B	Flush door
L-3	Dummy trim	T-3	Clr. anod. alum., beveled edges	C	Louvre door
L-4	Mortise-type entry lockset	T-4	Std. alum.sill,adjust. hardwd. thrhd.	D	Patio door
L-5	Bored-type entry lockset			E	French door
L-6	Deadbolt cylinder	W-1	Weatherstrip, bulb-type	F	Sliding door
C-1	Heavy-duty closer	J-1	Solid dimension board, stain grade	G	Bi-fold door
C-2	Standard-duty closer	J-2	Finger-jointed board, paint grade	H	Pocket door
H-1	Plain bearing hinges, 3-butts	J-3	Split-wood frame	J	Sidelights
H-2	Ball bearing hinges, 3-butts	J-4	Hollow metal frame	S	Special
				K	1/2 Lite Door
				T	Transom



OWNER:
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REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

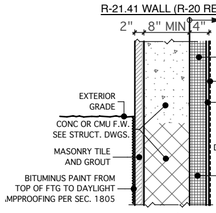
PERMIT SET

SCHEDULES

DATE: 09/05/18 | SC: N. T. S.

A16

R-21.41 WALL (R-20 REQ.)

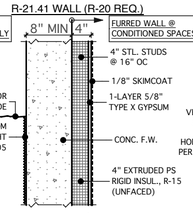


TYPE 1
EXTERIOR WALL (2 HR)

TYPE 1A
SAME AS TYPE 1A w/o FURRED WALL

·UL U914

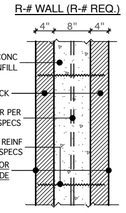
R-21.41 WALL (R-20 REQ.)



TYPE 1B
EXTERIOR WALL (2 HR)

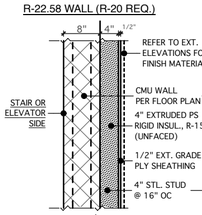
TYPE 1D
SAME AS TYPE 1B w/o FURRED WALL

R-# WALL (R-# REQ.)



TYPE 1C
EXTERIOR WALL (2 HR)

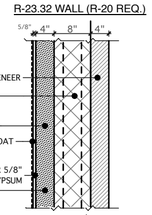
R-22.58 WALL (R-20 REQ.)



TYPE 1E
EXTERIOR WALL (2 HR)

·UL U914

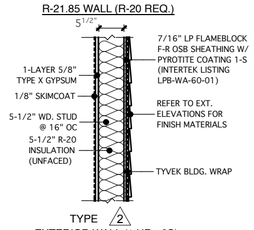
R-23.32 WALL (R-20 REQ.)



TYPE 1F
EXTERIOR WALL (2 HR)

·UL U914

R-21.85 WALL (R-20 REQ.)

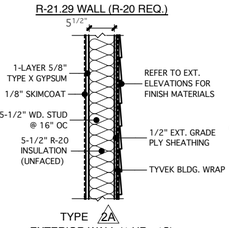


TYPE 2
EXTERIOR WALL (1 HR - 2S)
(WALL RATED BOTH SIDES)

TYPE 2B
SAME AS TYPE 2 w/ 5-1/2" STL STUDS 18G

·UL DES BXUV.U348

R-21.29 WALL (R-20 REQ.)

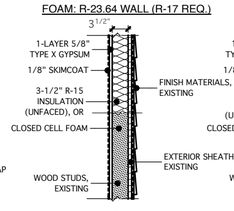


TYPE 2A
EXTERIOR WALL (1 HR - 1S)
(WALL RATED INSIDE ONLY)

TYPE 2C
SAME AS TYPE 2A w/ 5-1/2" STL STUDS 18G

·UL DES U330

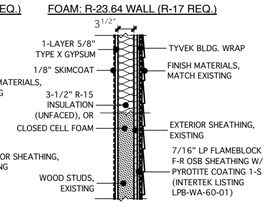
BATT: R-17.64 WALL (R-17 REQ.)
FOAM: R-23.64 WALL (R-17 REQ.)



TYPE 2D
EXTERIOR WALL, EXISTING (1 HR - 1S)
(WALL RATED INSIDE ONLY)
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

·UL DES U330

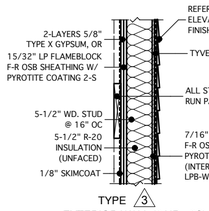
BATT: R-17.64 WALL (R-17 REQ.)
FOAM: R-23.64 WALL (R-17 REQ.)



TYPE 2E
EXTERIOR WALL, EXISTING (1 HR - 2S)
(WALL RATED BOTH SIDES)
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

·UL DES BXUV.U348

R-22.42 WALL (R-20 REQ.)

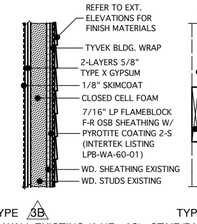


TYPE 3
EXTERIOR WALL (2 HR - 2S)
(WALL RATED BOTH SIDES)

TYPE 3A
SAME AS TYPE 3 w/ 5-1/2" STL STUDS 18G

·UL DES BXUV.U350

R-23.64 WALL (R-20 REQ.)

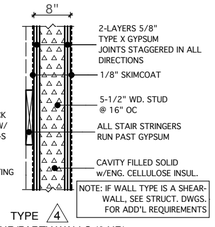


TYPE 3B
EXTERIOR WALL EXISTING (2 HR - 2S)
(WALL RATED BOTH SIDES AT EXISTING FRAMING)

TYPE 3C
SAME AS TYPE 3B w/o FLAMEBLOCK SHEATHING

·UL DES BXUV.U349

STC 61 (50 REQ.)

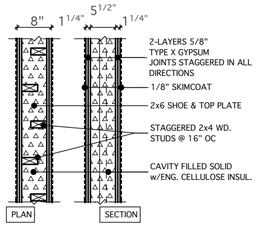


TYPE 4
STAIR/PARTY WALLS (2 HR)

TYPE 4A
SAME AS TYPE 4 w/ 5-1/2" STL STUDS 18G

·UL DES U301

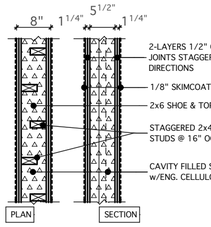
STC 64 (50 REQ.)



TYPE 5
UNIT SEPARATION (2 HR)

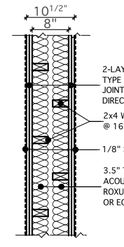
·UL DES U301

STC 64 (50 REQ.)



TYPE 5A
UNIT SEPARATION (1 HR)

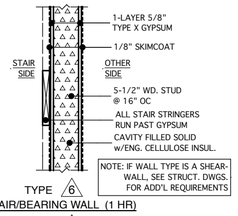
·UL DES U340



TYPE 5B
UNIT SEPARATION (2 HR)
STC RATING: 56-59 PER ASTM E90

·UL DES U301

STC 51 (50 REQ.)



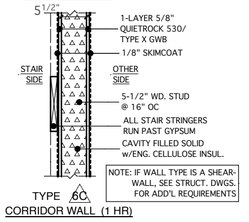
TYPE 6
STAIR/BEARING WALL (1 HR)

TYPE 6A
SAME AS TYPE 6 w/ 5-1/2" STL STUDS 18G

TYPE 6B
SAME AS TYPE 6 w/ 7/16" LP FLAMEBLOCK-1S AT OTHER SIDE

·UL DES U305 OR BXUV.U348

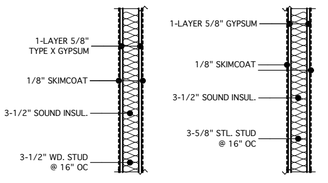
STC 55 (50 REQ.)



TYPE 6C
CORRIDOR WALL (1 HR)

·UL DES U305, U314

R-17.11 WALL (R-17 REQ.)



TYPE 7
WALLS WITHIN UNITS (1 HR)

TYPE 7A
SAME AS TYPE 7 EXCEPT EXISTING FRAMING

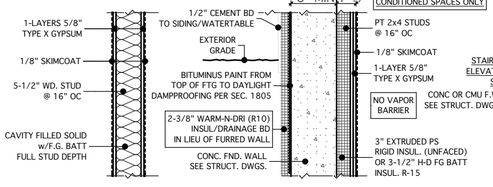
·UL DES U305

TYPE 8
WALLS WITHIN UNITS

TYPE 8A
SAME AS TYPE 8 w/o INSULATION & SKIM COAT

·UL DES U305

STC 51 (50 REQ.)



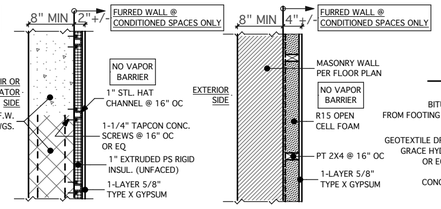
TYPE 9
WALLS WITHIN UNITS (1 HR)

TYPE 9A
SAME AS TYPE 9 w/5-1/2" STL. STUDS

TYPE 9B
SAME AS TYPE 9 w/WATER-RESISTANT GWB

·UL DES U305

R-17 WALL (R-17 REQ.)



TYPE 10
CONC. FOUNDATION WALL

TYPE 10A
SAME AS TYPE 10 w/3-5/8" STL. STUDS

TYPE 10B
SAME AS TYPE 10 w/o FURRED WALL
(SEE STRUCTURAL DRAWINGS FOR WALL THICKNESS & REINFORCING)

TYPE 11
8" CMU FURRED WALL (2 HR)

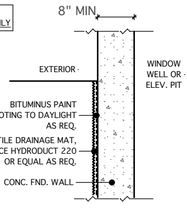
TYPE 11A
8" CMU w/o FURRED WALL
·(ACRYLIC PAINT FINISH OPTIONAL)

·UL DES U914

TYPE 12
EXISTING MASONRY W/ NEW FURRED WALL
PER IECC 2009 w/MA AMENDMENTS SEC. 401.5

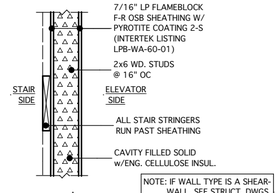
TYPE 12A
SAME AS TYPE 12 w/o FURRED WALL

8" MIN



TYPE 13
CONC. RETAINING WALL
(SEE STRUCTURAL DRAWINGS FOR WALL THICKNESS & REINFORCING)

STC 51 (50 REQ.)



TYPE 14
SHAFT WALL (2 HR)

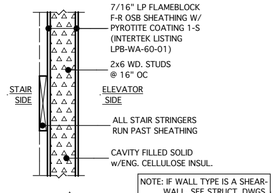
TYPE 14A
SAME AS TYPE 14 w/ 5-1/2" STL STUDS 18G

TYPE 14B
SAME AS TYPE 14A w/2-LAYERS 5/8" GWBX E-S

·UL DES BXUV.U350

·UL DES U301

STC 51 (50 REQ.)



TYPE 15
SHAFT WALL (1 HR)

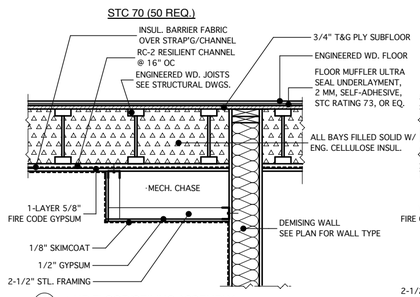
TYPE 15A
SAME AS TYPE 15 w/ 5-1/2" STL STUDS 18G

TYPE 15B
SAME AS TYPE 15 w/1-LAYER 5/8" GWBX E-S

·UL DES BXUV.U350

·UL DES U305

STC 70 (50 REQ.)



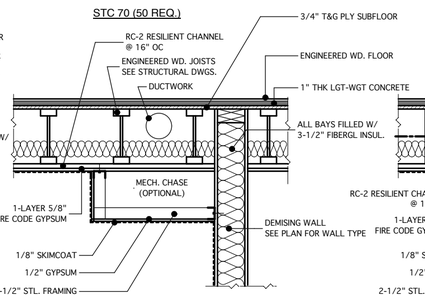
1 1-HR FLOOR/CEILING ASSEMBLY

1A SAME AS ASSEMBLY 1
EXCEPT EXISTING FRAMING

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

STC 70 (50 REQ.)

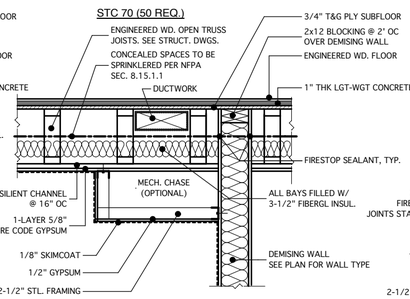


1B 1-HR FLOOR/CEILING ASSEMBLY

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

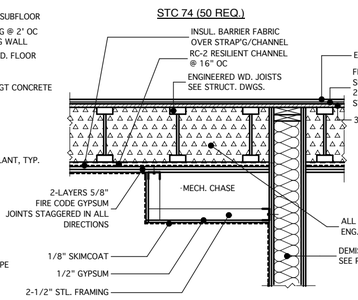
STC 70 (50 REQ.)



1C 1-HR FLOOR/CEILING ASSEMBLY
NOTE: NO DRAFTSTOPPING REQUIRED.

·UL DES L569

STC 74 (50 REQ.)

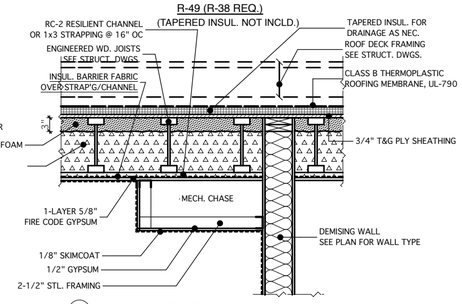


2 2-HR FLOOR/CEILING ASSEMBLY

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L511

R-49 (R-38 REQ.)
(TAPERED INSUL. NOT INCLD.)



3A 1-HR ROOF DECK/CEILING ASSEMBLY
SEE 3C FOR ALTERNATE ROOF INSULATION

3B SAME AS ASSEMBLY 3A
EXCEPT EXISTING FRAMING

NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

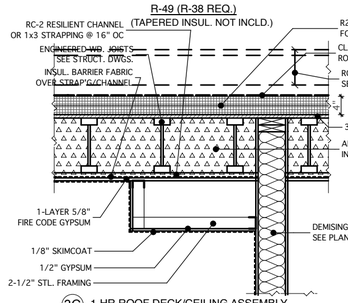
PERMIT SET

WALL/ FLOOR TYPES

DATE: 09/05/18 | SC: N. T. S.

A17

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

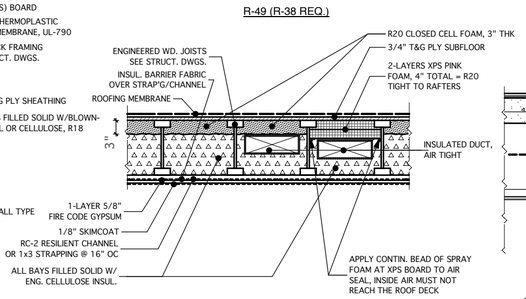


3C 1-HR ROOF DECK/CEILING ASSEMBLY
ALTERNATE ROOF INSULATION

3D SAME AS ASSEMBLY 3C
EXCEPT EXISTING FRAMING

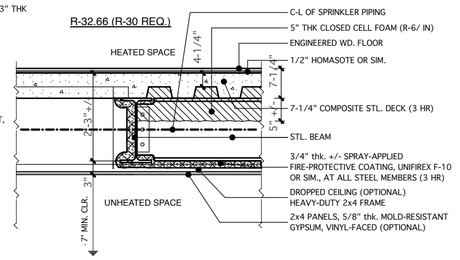
NOTE: PROVIDE DRAFTSTOPPING ABOVE & IN LINE W/DWELLING UNIT AND SLEEPING UNIT SEPARATIONS PER IBC 718

·UL DES L569



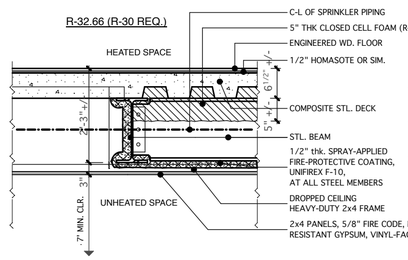
3E 1-HR ROOF DECK/CEILING ASSEMBLY
SHOWING DUCTS INSIDE ROOF FRAMING CAVITY

·UL DES L569



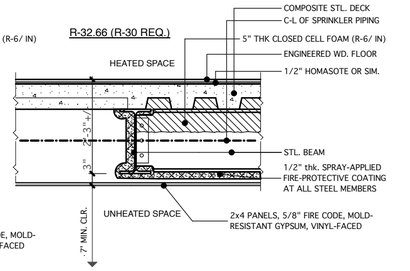
4A 3-HR FLOOR/CEILING ASSEMBLY
7 FT. MIN. CLEARANCE AT DROPPED CEILING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

·UL DES G529



5A 2-HR FLOOR/CEILING ASSEMBLY
7 FT. MIN. CLEARANCE AT DROPPED CEILING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

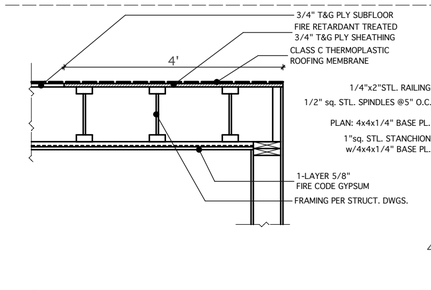
·UL DES G205



6 1-HR FLOOR/CEILING ASSEMBLY

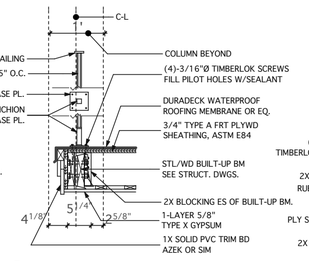
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84

·UL DES G201

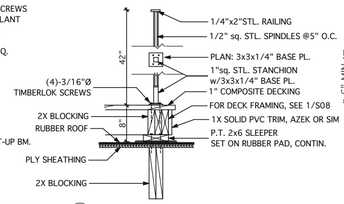


3F 1-HR ROOF DECK/CEILING ASSEMBLY
ALTERNATE ROOFING MEMBRANE/SHEATHING

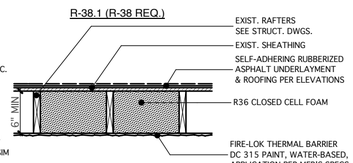
·UL DES L569



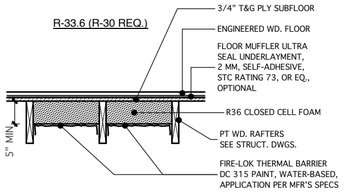
7 1-HR DECK ASSEMBLY AT STL. STRUCT'L MEMBER AT EXTERIOR



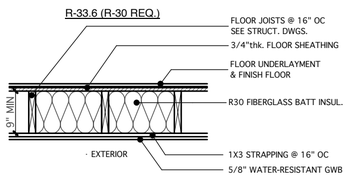
7A RAILING/ROOF DECK ASSEMBLY



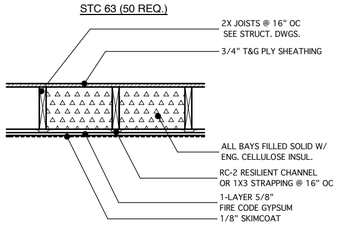
8D UNFINISHED CEILING ASSEMBLY
AT ROOF - CATHEDRAL



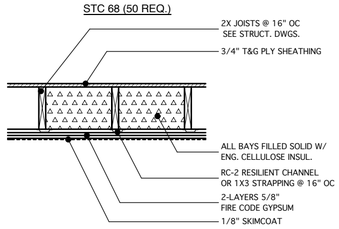
8E FLOOR/CEILING ASSEMBLY
AT CRAWLSPACE w/UN-INSUL. FND.



8F FLOOR/CEILING ASSEMBLY
AT EXTERIOR CONDITION

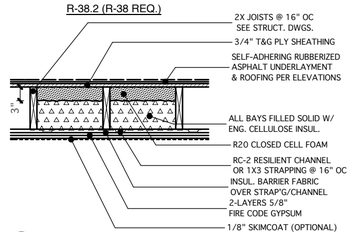


8 1-HR FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING



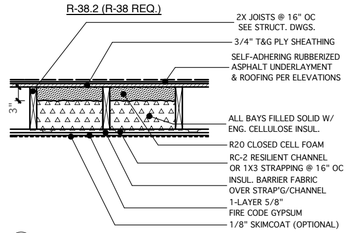
8A 2-HR FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING

·UL DES L511



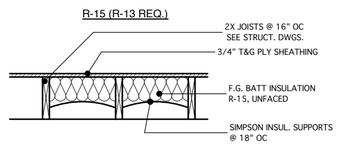
8B 2-HR CEILING ASSEMBLY
AT ROOF - CATHEDRAL

·UL DES L511

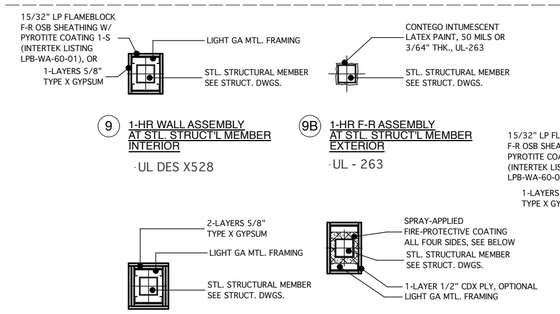


8C 1-HR CEILING ASSEMBLY
AT ROOF - CATHEDRAL

·UL DES L569



8G FLOOR/CEILING ASSEMBLY
AT INTERIOR CEILING



9 1-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

·UL DES X528

9B 1-HR F-R ASSEMBLY
AT STL. STRUCT'L MEMBER
EXTERIOR

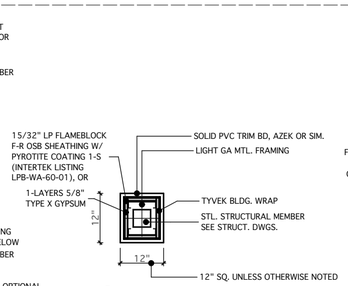
·UL - 263

9A 2-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

·UL DES X528

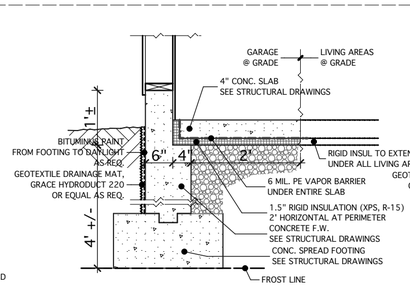
10 3-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
INTERIOR

SPRAY APPLIED PER MFR'S SPEC TO ACHIEVE 3-HR FIRE RATING
UNIFIREX F-10 (SFRM) BY UNISHIELD INT'L
FIRE-RESIST RATING: ASTM E119
SURFACE BURNING CHARACTER: ASTM E84



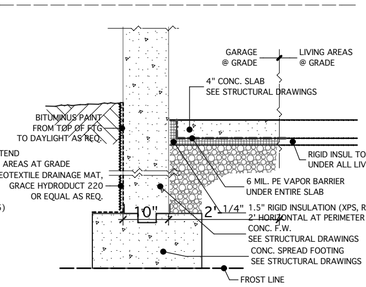
11 1-HR WALL ASSEMBLY
AT STL. STRUCT'L MEMBER
AT EXTERIOR

·UL DES X528



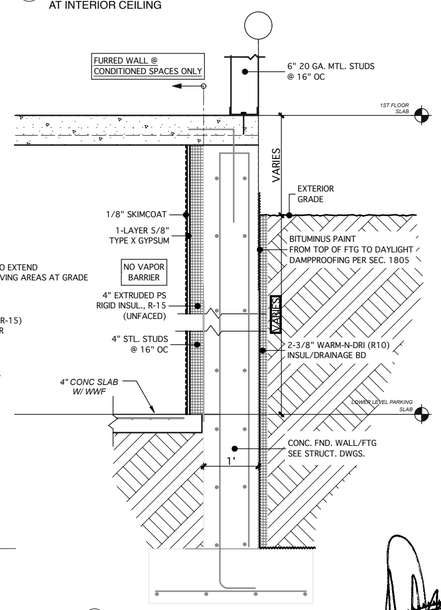
13 INSULATED SLAB ON GRADE DETAIL
SEE STRUCTURAL DWGS.

NOTE: CONC SLABS BELOW THE FROST LINE – E.G. BASEMENTS – REQUIRE RIGID INSUL AT PERIMETER ONLY.



13A INSULATED SLAB ON GRADE DETAIL
SEE STRUCTURAL DWGS.

NOTE: CONC SLABS BELOW THE FROST LINE – E.G. BASEMENTS – REQUIRE RIGID INSUL AT PERIMETER ONLY.



X5 FOUNDATION WALL SECTION
SEE STRUCTURAL DWGS.

REGISTERED ARCHITECT
TIMOTHY C. JOHNSON
No. 6995
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

OWNER:
ABACUS BUILDERS
190 OLD COLONY AVENUE
SOUTH BOSTON, MA 02127
TEL: 617-269-1213

PROJECT ARCHITECT:
TIM JOHNSON ARCHITECT, LLC
190 OLD COLONY AVENUE
BOSTON, MA 02127
TEL: 617-464-4363

PROPOSED (3) 2-FAMILY, 3-STORY DWELLING
13-15 MCKONE STREET & 12 BLOOMINGTON STREET
DORCHESTER, MA 02122

REVISIONS

1 09/14/18	

Tim Johnson Architect, LLC

TIM JOHNSON ARCHITECT, LLC

PERMIT SET

WALL/FLOOR TYPES

DATE: 09/05/18 | SC: N. T. S.

A18

OPERATION AND MAINTENANCE PLAN

12 Bloomington Street, 13-15 McKone Street
Dorchester, Ma.

The following Operation and Maintenance plan provides the requirements for the proposed storm water management system throughout the construction phase and the post development period of the system. The maintenance standards presented are based on recommended design and maintenance standards in *Managing Stormwater in Massachusetts, Volume One: Stormwater Handbook, Prepared by: MA Department of Environmental Protection.*

These operations and maintenance procedures are required for proper operation of the stormwater management system; additional procedures may also be developed as the system is operated over a period of time. As with all stormwater facilities, the conditions may change or the management may be simplified as the maintenance personnel become more familiar with them. For example, as detention facilities mature, the ability for the basins to remove pollutants, and the efficiency increases, and therefore, the frequency of inspection may need to be adjusted.

Proper maintenance is essential to ensure that the performance of the system meets the design expectation. A system that is not maintained will inevitably fail and could lead to financial loss, damage to surrounding infrastructure or environmentally sensitive areas, and an increase in the liability of the property owner. The three keys to maintaining a functional storm water management system are p*ersonnel, education and record keeping.*

Personnel make the difference between a Stormwater Management System that performs as designed throughout its lifetime or one that fails due to lack of attention. *Education* provides the personnel with the skills needed to effectively maintain a Stormwater Management System. *Record Keeping* allows the personnel to track the maintenance and the performance of the system to determine when major maintenance tasks are required.

Maintenance is the responsibility of the property owner. This is true whether the property owner is an individual where the land is private property or where the land is public with the responsibility assigned to that municipality. Maintenance shall be performed as outlined in this Operational and Maintenance Plan. Those responsible for the work shall have a copy of this plan and a copy of the complete design plans to aid them in understanding the intent and requirements unique to this Stormwater Management Facility.

All maintenance personnel shall be aware of the purpose of each stormwater management BMP in removing contaminants and Total Suspended Solids (TSS) from the stormwater runoff. The result is the collection, removal and storage of the contaminants within the components. The contaminants could include trash, debris, oil, sediment and soluble or insoluble materials. In most situations, these can be handled, stored and disposed with minimal safety requirements, in that the health hazards are minimal with the concentrations involved. However, the personnel should be aware of the risk and/or the possibility of potential dangers.

The maintenance personnel shall be aware of the safety needs involved with entry into confined areas such as sediment and oil separators and shall abide by all applicable OSHA regulations. Personnel should be familiar with local emergency numbers and have access to first aid materials. Maintenance personnel

shall be familiar with local, state and federal regulations and guidelines concerning the disposal of all materials generated from the facilities as a result of maintenance. All waste materials shall be handled, stored, transported and disposed in accordance with those regulations.

RESPONSIBLE PARTIES

The construction contractor as well as the owner will be the responsible parties during construction of the Stormwater Management System.

The owner of the property, will be the responsible party during the post-development maintenance period of the Stormwater Management System.

CONSTRUCTION PERIOD MAINTENANCE PROCEDURES

Maintenance requirements are the most demanding during the construction phase of a project when the ground is disturbed with partial runoff control in a condition that is most likely to produce silt-laden runoff. During this period, the contractor and owner shall meet the design and performance standards of a fully constructed, stabilized system. Proper treatment of stormwater is only possible with a proper construction sequence plan and rigorous maintenance procedures of the storm water components.

The general construction sequence, as it applies to the storm water management components shall be as follows:

1. Install erosion and sediment controls measures (straw wattle as shown on plan prior to disturbing soil and any temporary structures.
2. Conduct all soil-disturbing operations during the dry periods and not during times of precipitation.
3. Direct the storm water runoff into temporary pollution prevention structures.
4. Begin site work.
5. Stabilize grading and landscaped areas as soon as possible.

The following structures shall be in place during the construction phase and shall be maintained as outlined below.

Deep Sump Catch Basin

Responsible Party: Site Contractor

- Filter fabric, silt sacks, or the like shall be placed on top of the catch basin frame but beneath the grate (or erosion control lines such as silt socks shall entirely surround the catch basin frame and grate) for the duration of the construction process and shall be cleaned as needed, and removed at the conclusion of the construction period.
- Any construction period debris shall be removed from the Sump at the conclusion of the construction period.

Sub-surface Infiltration System (Stormtech Chambers)

Responsible Party: Site Contractor

- Deep Sump Catch Basin and Sediment and Oil Separator construction period protection as described above is essential for any runoff prior to entering the Sub-surface Infiltration System
- Stabilize the site prior to installing the subsurface structure.
- Do not allow runoff from any disturbed areas on the site to flow to the structure

- Rope off the area where the subsurface structures are to be placed. Accomplish any required excavation with equipment placed just outside this area.
- When installing the final top surface (pavement), work from the edges to minimize compaction of the underlying soils.
- Provide observation well inspection ports to enable inspection of water levels within the system and make the inspection ports visible at grade.

POST-DEVELOPMENT MAINTENANCE PROCEDURES

Deep Sump Catch Basin

Responsible Party: Property Owner

- Inspect the Deep Sump Catch Basin four times per year at minimum, or after significant storm events
- Clean the Deep Sump Catch Basin four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the Basin.

Sub-surface Infiltration System (Stormtech Chambers)

Responsible Party: Property Owner

- Because subsurface structures are installed underground, they are extremely difficult to maintain
- Inspect inlets at least twice a year
- Remove any debris that may clog the system
- Refer to the manufacturer's specifications for maintenance of the Sub-surface Infiltration System as well as the Isolator Rows.

Inspections of hoods, elbows, baffles, etc. at the catch basins and sediment & oil separators shall be conducted twice a year. Inspection and maintenance of lawns and landscaping (including trash/debris removal, etc.), and paved surfaces and sweeping shall be conducted twice a year.

NORSE ENVIRONMENTAL SERVICES, INC.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879
TEL. (978) 649-9932 • FAX (978) 649-7582
Website: www.norseenvironmental.com

NOTICE OF INTENT

FOR

12 BLOOMINGTON STREET,
13-15 MCKONE STREET

WARD 16 PARCEL 02469000

DORCHESTER, MA

APPLICANT: TIM JOHNSON ARCHITECT LLC

APRIL 2019

PROJECT: 12 BLOOMINGTON STREET,
13-15 MCKONE STREET - DORCHESTER

APPLICANT: TIM JOHNSON ARCHITECT LLC

TABLE OF CONTENTS

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

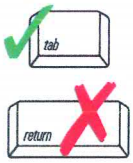
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
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):

12 Bloomington Street, 13-15 McKone Street — a. Street Address
Dorchester — b. City/Town
02122 — c. Zip Code

Latitude and Longitude:
42 17' 23.35" N — d. Latitude
71 02' 48.73" W — e. Longitude

Ward 16 — f. Assessors Map/Plat Number
Parcel 02469000 — g. Parcel /Lot Number

2. Applicant:

Timothy — a. First Name
Johnson — b. Last Name
Tim Johnson Architect LLC — c. Organization
190 Old Colony Avenue — d. Street Address
South Boston — e. City/Town
MA — f. State
02127 — g. Zip Code
617-464-4363 — h. Phone Number
i. Fax Number
architecttj@verizon.net — j. Email Address

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

Mark — a. First Name
Little, Manager — b. Last Name
15 McKone Street LLC — c. Organization
190 Old Colony Avenue — d. Street Address
South Boston — e. City/Town
MA — f. State
02127 — g. Zip Code
617-922-9971 — h. Phone Number
i. Fax Number
mark@abacusbuilders.com — j. Email address

4. Representative (if any):

Steven — a. First Name
Eriksen — b. Last Name
Norse Environmental Services, Inc. — c. Company
92 Middlesex Road, Unit 4 — d. Street Address
Tyngsborough — e. City/Town
MA — f. State
01879 — g. Zip Code
978-649-9932 — h. Phone Number
i. Fax Number
norseenvironmental@verizon.net — j. Email address

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

$3,062.50 — a. Total Fee Paid
$1,562.50 — b. State Fee Paid
$1,500.00 — c. City/Town Fee Paid

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

A. General Information (continued)

6. General Project Description:

The applicant is proposing to raze an existing single family dwelling, construct (3) new two-family dwellings, porches, decks, driveways, parking lot, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) and Bordering Land Subject to Flooding or 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 County Registry of Deeds	
c. Book	d. Page Number
57261	288

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	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	10,677 s.f. 1. square feet 3. cubic feet of flood storage lost	-0- 2. square feet -0- 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	10,677 +/- s.f. 1. square feet	

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

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

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings | b. number of replacement stream crossings

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

Provided by MassDEP:
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Document Transaction Number
Dorchester
City/Town

C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   a. ☐ Yes ☒ No

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

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

   3/2019
   b. Date of map

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

   c. Submit Supplemental Information for Endangered Species Review*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

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

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

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

   (b) ☐ Photographs representative of the site

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

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Dorchester
City/Town

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

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

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

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

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

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

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

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

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

   a. ☐ Yes ☒ No

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

   a. ☐ Yes ☒ No

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

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

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

      2. ☒ A portion of the site constitutes redevelopment

      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house

      2. ☐ Emergency road repair

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

D. Additional Information

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dorchester
City/Town

D. Additional Information (cont'd)

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

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

12 Bloomington, 13-15 Mckone Street Dorchester Massachusetts
a. Plan Title

Peter Nolan & Associates
b. Prepared By

Edmond Spruhan
c. Signed and Stamped by

2/20/19
d. Final Revision Date

1"=10'
e. Scale

Existing Conditions Site Plan
f. Additional Plan or Document Title

4/13/17
g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

City of Boston Check #1058
2. Municipal Check Number

3-20-2019
3. Check date

Commonwealth of MA Check #1048
4. State Check Number

1-24-2019
5. Check date

Mark
6. Payor name on check: First Name

Little
7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant

2. Date: 1-18-19

3. Signature of Property Owner (if different)

4. Date: 1-23-19

5. Signature of Representative (if any)

6. Date: 2/28/19

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.

15 McKONE ST LLC
190 OLD COLONY AVE
BOSTON, MA 02127-2417

1058

53-13/110 MA
88828

March 20, 19
Date

Pay To The Order Of City of Boston $ 1500.00

One thousand five hundred ^{00}/_{100} Dollars

Photo Safe Deposit® Details on back

Bank of America

ACH R/T 011000138

For Environmental Conservation Protect

MP

⑆011000138⑆ 004668111230⑈1058

Harland Clarke

15 McKONE ST LLC
190 OLD COLONY AVE
BOSTON, MA 02127-2417

1048

53-13/110 MA
99823

Jan 24, 2019
Date

Pay To The Order Of Commonwealth of Mass $ 1,562.50

One thousand five hundred Sixty two ^{50}/_{100}

Photo Safe Deposit®

Bank of America

ACH R/T 011000138

For 1/2 of Fee environment Protection Fee

MP

⑆011000138⑆ 004668111230⑈1048

Harland Clarke

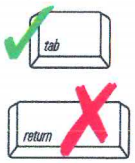
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

A. Applicant Information

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



1. Location of Project:

12 Bloomington Street, 13-15 McKone Street	Dorchester
a. Street Address	b. City/Town
Check #1048	$1,562.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Timothy	Johnson	
a. First Name	b. Last Name	
Tim Johnson Architect LLC		
c. Organization		
190 Old Colony Avenue		
d. Mailing Address		
South Boston	MA	02127
e. City/Town	f. State	g. Zip Code
617-464-4363		architecttj@verizon.net
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

Mark	Little, Manager	
a. First Name	b. Last Name	
McKone St LLC		
c. Organization		
190 Old Colony Avenue		
d. Mailing Address		
South Boston	MA	02127
e. City/Town	f. State	g. Zip Code
617-922-9971		mark@abacusbuilders.com
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)	3	$1,050.00	$3,150.00

Step 5/Total Project Fee: $3,150.00

Step 6/Fee Payments:

Total Project Fee:	$3,062.50 a. Total Fee from Step 5
State share of filing Fee:	$1,562.50 b. 1/2 Total Fee **less** $12.50
City/Town share of filling Fee:	$1,500.00 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.)

Notification to Abutters Under the Massachusetts Wetlands Protection Act

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

A. The name of the applicant is 15 McKone St LLC.

B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of Boston, seeking permission to remove, fill, dredge, or alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, Section 40).

C. The address where the activity is proposed is 12 Bloomington Street, 13-15 McKone Street-Dorchester Ward 16 Parcel 02469000.

Proposing to raze an existing single family dwelling, construct (3) two-family dwellings, porches, decks, driveways, parking, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) and Bordering Land Subject to Flooding or the 100-year floodplain.

D. Copies of the Notice of Intent may be examined at: Boston Conservation Commission located at Boston City Hall, 1 City Hall Square, Room 709 Boston, MA 02201 between the hours of 9:00 a.m. to 5:00 p.m. on the following days of the week: Monday through Friday. For more information, call: 617-635-3850.

E. Copies of the Notice of Intent may also be examined at Norse Environmental Services by calling this telephone number 978-649-9932 between the hours of 8:00 a.m. and 6:00 p.m. on the following days of the week: Monday thru Thursday/ Friday until 12:00 p.m.

F. Information regarding the date, time, and place of the public hearing may be obtained from the Boston Conservation Commission by calling this telephone number 617-635-3850 between the hours of 9:00 a.m. to 5:00 p.m. on the following days of the week: Monday thru Friday. For more information, call: 617-635-3850.

A public hearing will take place at 6 p.m. on April 17, 2019 at Boston City Hall, 1 City Hall Square in the Piemonte Room, 5th floor.

The following is a link to view the Public Notice Page to confirm hearing date and agenda items: **https://www.boston.gov/public-notices**

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 in the City or Town Hall not less than forty-eight (48) hours in advance.

Note: You also may contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetland Protection Act. To contact DEP Call: **Northeast Region:** 978-694-3200.

If you have any further questions please call Steven Eriksen at Norse Environmental Services, Inc., 978-649-9932.

Abutter Mailing List Generator --- City of Boston Assessing Department

Enter/Select a Street Name:

Find Addresses

Click an Address to find a Parcel:

Enter a Parcel ID:

1602468000

Find a Parcel

When you can see Parcels:

Click Here to Select a Parcel

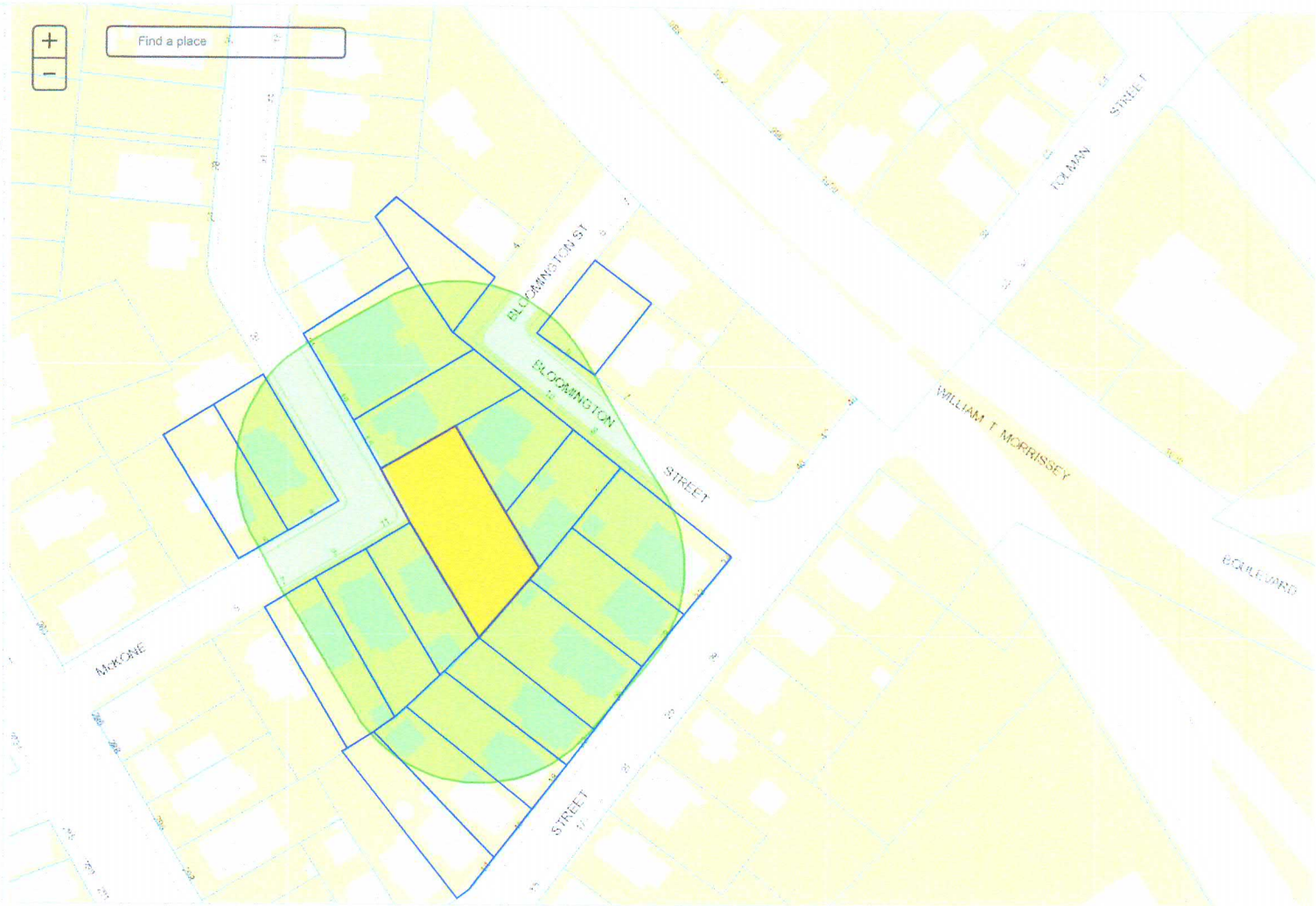
Buffer Parameters:

Distance: 100 Feet

Buffer and Select

Click here to download a CSV file (Open in Notepad, not in Excel) for Mailing list.
Click here for an instruction to convert a CSV file to Mailing Labels using MS Word.

Note: Use newer versions of browser to view this site such as IE 11+ or Chrome 47+ etc.



ABUTTERS LIST: 1602468000 - DORCHESTER

ID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPCODE	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
1602465000	JOYCE JAMES A	C/O JAMES A JOYCE	7 MCKONE ST	DORCHESTER MA	2122	7 MCKONE ST	DORCHESTER	2122
1602466000	RAY VANESSA	C/O VANESSA RAY	9 MCKONE ST	DORCHESTER MA	2122	9 MCKONE ST	DORCHESTER	2122
1602467000	GIANNESCHI ALLISON L	C/O ALLISON L GIANNESCHI	11 MCKONE ST	DORCHESTER MA	2122	11 MCKONE ST	DORCHESTER	2122
1602469000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	15 MCKONE ST	DORCHESTER	2122
1602470000	PETITTI KEVIN A	C/O DENISE PETITTI	PO BOX 23	READVILLE MA	2136	19 MCKONE ST	DORCHESTER	2122
1602480000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	BLOOMINGTON ST	DORCHESTER	2122	
1602484000	SULLIVAN EDWARD H ETAL	28 TOLMAN	DORCHESTER MA	2122	28 TOLMAN ST	DORCHESTER	2122	
1602481000	NGUYEN TRAN T	C/O TRAN T NGUYEN	41 TOLMAN ST	DORCHESTER MA	2122	10 BLOOMINGTON ST	DORCHESTER	2122
1602486002	ROONEY MICHAEL	C/O MICHAEL ROONEY	22 TOLMAN ST # 1	DORCHESTER MA	2122	22 TOLMAN ST Apt 1	DORCHESTER	2122
1602488000	FLAHERTY KATHLEEN	C/O KATHLEEN FLAHERTY	16 TOLMAN ST	DORCHESTER MA	2122	16 TOLMAN ST	DORCHESTER	2122
1602489000	POLLIS RICHARD F ETAL	14 TOLMAN	DORCHESTER MA	2122	14 TOLMAN ST	DORCHESTER	2122	
1602515000	LUU QUANG A	C/O QUANG A LUU & OANH T VU	23 CAMPBELL ST	QUINCY MA	2169	9 BLOOMINGTON ST	DORCHESTER	2122
1602483000	LE MINHHIEU THI	C/O MINHHIEU THI LE	32 TOLMAN ST	DORCHESTER MA	2122	32 TOLMAN ST	DORCHESTER	2122
1602468000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	MCKONE ST	DORCHESTER	2122
1602482000	CONNORS CHARLES ETAL	6 BLOOMINGTON	DORCHESTER MA	2122	6 BLOOMINGTON ST	DORCHESTER	2122	
1602485000	BALLOU JEANINE	C/O JEANINE BALLOU	35 MT VERNON ST	DORCHESTER MA	2125	26 TOLMAN ST	DORCHESTER	2122
1602486000	TWENTY-2 TOLMAN STREET	C/O MICHAEL J SPENCE TS	22 TOLMAN ST	DORCHESTER MA	2122	22 TOLMAN ST	DORCHESTER	2122
1602486004	COLLINS MICHAEL	22 TOLMAN ST # 2	DORCHESTER MA	2122	22 TOLMAN ST Apt 2	DORCHESTER	2122	
1602487000	TIMMONS MICHELE J	18 TOLMAN ST	DORCHESTER MA	2122	18 TOLMAN ST	DORCHESTER	2122	
1602549000	NORTON ROBERT T	8 MCKONE ST	DORCHESTER MA	2122	8 MCKONE ST	DORCHESTER	2122	
1602550000	CARVER PHILIP	6 MCKONE ST	DORCHESTER MA	2122	6 MCKONE ST	DORCHESTER	2122	

Abutter Mailing List Generator --- City of Boston Assessing Department

Enter/Select a Street Name:

Find Addresses

Click an Address to find a Parcel:

Enter a Parcel ID:

1602469000

Find a Parcel

When you can see Parcels:

Click Here to Select a Parcel

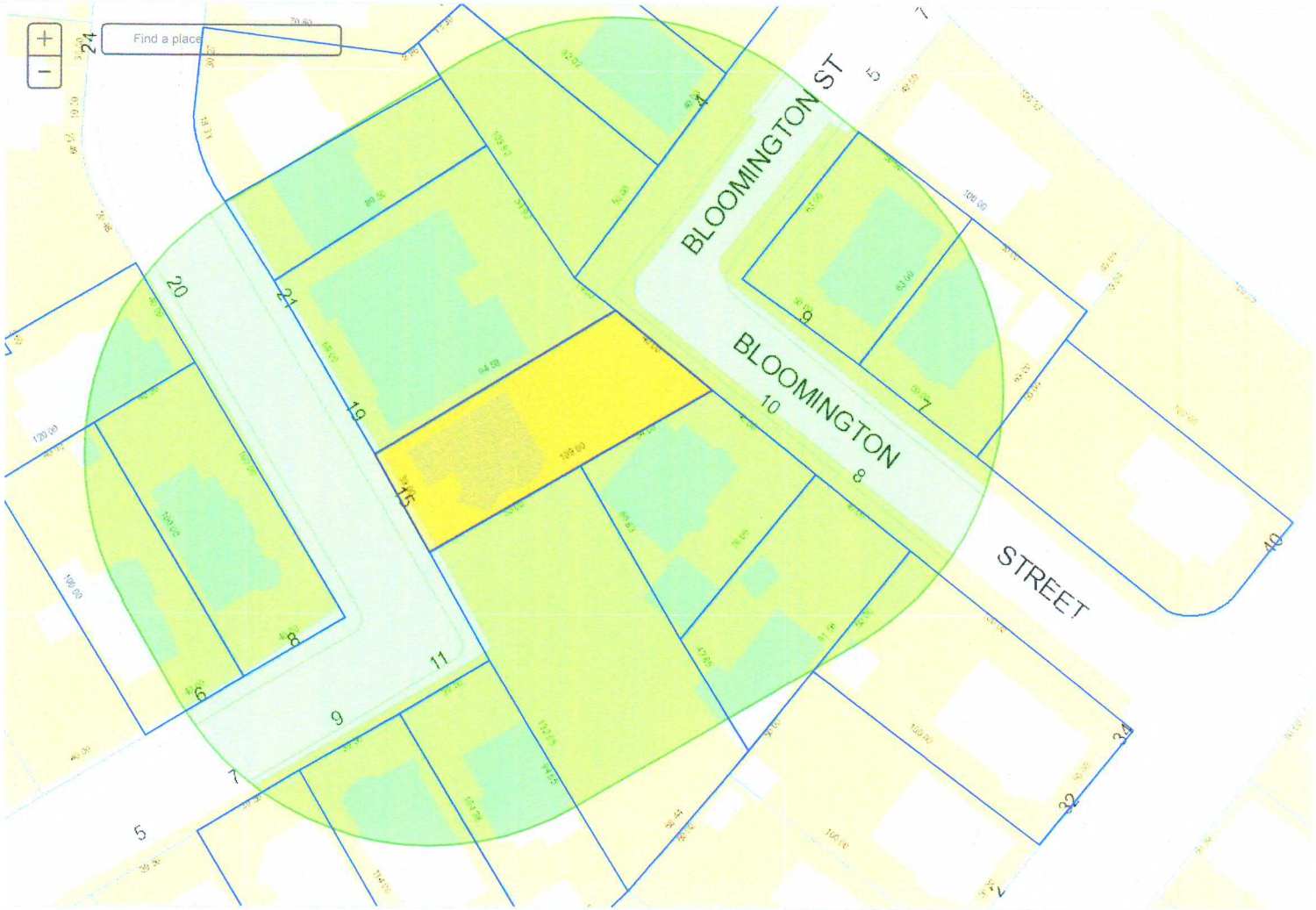
Buffer Parameters:

Distance: 100 Feet

Buffer and Select

Click here to download a CSV file (Open in Notepad, not in Excel) for Mailing list.
Click here for an instruction to convert a CSV file to Mailing Labels using MS Word.

Note: Use newer versions of browser to view this site such as IE 11+ or Chrome 47+ etc.



ABUTTERS LIST: 1602469000 - DORCHESTER

ID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPCODE	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
1602465000	JOYCE JAMES A	C/O JAMES A JOYCE	7 MCKONE ST	DORCHESTER MA	2122	7 MCKONE ST	DORCHESTER	2122
1602466000	RAY VANESSA	C/O VANESSA RAY	9 MCKONE ST	DORCHESTER MA	2122	9 MCKONE ST	DORCHESTER	2122
1602467000	GIANNESCHI ALLISON L	C/O ALLISON L GIANNESCHI	11 MCKONE ST	DORCHESTER MA	2122	11 MCKONE ST	DORCHESTER	2122
1602469000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	15 MCKONE ST	DORCHESTER	2122
1602470000	PETITTI KEVIN A	C/O DENISE PETITTI	PO BOX 23	READVILLE MA	2136	19 MCKONE ST	DORCHESTER	2122
1602480000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	BLOOMINGTON ST	DORCHESTER	2122	
1602479000	TIGHE STEPHEN M	20 BLOOMINGTON ST	DORCHESTER MA	2122	20 BLOOMINGTON ST	DORCHESTER	2122	
1602478000	NINE 85 MORRISSEY BLVD LLC	C/O CHRISTOPHER KOKORAS	P O BOX 790	WINCHESTER MA	1890	985 WM T MORRISSEY BL	DORCHESTER	2122
1602481000	NGUYEN TRAN T	C/O TRAN T NGUYEN	41 TOLMAN ST	DORCHESTER MA	2122	10 BLOOMINGTON ST	DORCHESTER	2122
1602515000	LUU QUANG A	C/O QUANG A LUU & OANH T VU	23 CAMPBELL ST	QUINCY MA	2169	9 BLOOMINGTON ST	DORCHESTER	2122
1602483000	LE MINHHIEU THI	C/O MINHHIEU THI LE	32 TOLMAN ST	DORCHESTER MA	2122	32 TOLMAN ST	DORCHESTER	2122
1602514000	7 BLOOMINGTON STREET REALTY	C/O KEVIN J KANE	7 BLOOMINGTON ST	DORCHESTER MA	2122	7 BLOOMINGTON ST	DORCHESTER	2122
1602472000	DIMITRIADIS EUSTATHIOS	12 FENTON ST	DORCHESTER MA	2122	27 MCKONE ST	DORCHESTER	2122	
1602471000	DIMITRIADIS EUSTATHIOS	12 FENTON ST	DORCHESTER MA	2122	25 MCKONE ST	DORCHESTER	2122	
1602468000	15 MCKONE ST LLC	C/O 15 MCKONE ST LLC	190 OLD COLONY AV	SOUTH BOSTON MA	2127	MCKONE ST	DORCHESTER	2122
1602482000	CONNORS CHARLES ETAL	6 BLOOMINGTON	DORCHESTER MA	2122	6 BLOOMINGTON ST	DORCHESTER	2122	
1602513000	PHIPPS MICHAEL D	C/O MICHAEL D PHIPPS	3 BARTLETT PLACE	WALPOLE MA	2122	40 TOLMAN ST	DORCHESTER	2122
1602548000	REDD HOLDINGS LLC	C/O DENIS KEOHANE	469 NEPONSET AVE	BOSTON MA	2122	20 MCKONE ST	DORCHESTER	2122
1602549000	NORTON ROBERT T	8 MCKONE ST	DORCHESTER MA	2122	8 MCKONE ST	DORCHESTER	2122	
1602550000	CARVER PHILIP	6 MCKONE ST	DORCHESTER MA	2122	6 MCKONE ST	DORCHESTER	2122	

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

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

I, Steven Eriksen, hereby certify to the best of my knowledge, under the pains and penalties of perjury that on April 2, 2019 I gave notification to the abutters in compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by 15 McKone St LLC with the Boston Conservation Commission on April 2, 2019 for property located at 12 Bloomington Street, 13-15 McKone Street Ward 16 Parcel 02469000.

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

Name

4-2-19

Date

NORSE ENVIRONMENTAL SERVICES, INC.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879
TEL. (978) 649-9932 • FAX (978) 649-7582
Website: www.norseenvironmental.com

Notice of Intent Report

For

12 Bloomington Street, 13-15 McKone Street Dorchester, MA

Prepared For

Tim Johnson Architect LLC
190 Old Colony Avenue
South Boston, MA 02127

Prepared By

Norse Environmental Services, Inc.
92 Middlesex Road, Unit 4
Tyngsborough, MA 01879

April 2019

Narrative

The applicant is proposing to raze an existing two-family dwelling to construct (3) two-family dwellings, porches, decks, driveways, parking, drainage, remove trees, plant trees, associated utilities and grading within Land Subject to Coastal Storm Flowage (LSCSF) per 310 CMR 10.04 and Bordering Land Subject to Flooding (BLSF) or the 100-year floodplain or elevation 10 ft.

Site Description

The two parcels (ID Numbers 1602468000 & 1602469000) are combined as one 1602469000 with a street address of 12 Bloomington Street and 13-15 McKone Street. The parcel consists of 10,677 +/- s.f. of land located easterly on McKone Street and westerly of Bloomington Street in Dorchester, MA with an existing two-family dwelling. The parcel is landscaped with lawn, trees and a chain link fence. The site is bounded by residential dwellings by McKone Street and Bloomington Street between Morrisey Boulevard and Neponset Avenue.

Soils

The Web Soil Survey Norfolk and Suffolk County maps this site as Merrimac-Urban land complex. Merrimac-Urban Land Complex consists of nearly level to undulating, deep, somewhat excessively drained Merrimac soils and areas of urban land. Although urban development has altered the soils and landscapes on these areas, the soil can be identified at widely separated points, and the general nature of the area can be determined. Broad delineations are made on the map. This map unit consists of about 75 percent Merrimac and similar soils and at least 25 percent urban land and other disturbed areas. Urban land consists of streets, parking lots, buildings, and other structures.

Resource Area

As mentioned above, the entire site is located within LSCSF and BLSF or the 100-year flood-plain. 310 CMR 10.04 Land Subject to Coastal Storm Flowage means, "land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater". Mr. Nick Moreno, Conservation Assistant, confirmed the LSCSF elevation of 10 ft. or 16.46 ft Boston City Base (BCB).

The project proposes to disturb 10,677 s.f. LSCSF. Per the Massachusetts Building Code section 780 CMR 120G Flood-Resistant Construction and Construction in Coastal Dunes, requires construction at or above the Base Food Elevation. The first-floor elevation and utility elevation are proposed at 17.5 +/- ft. (BCB) or the living area will be a minimum of 1.04 ft above the flood plain. Please see the enclosed Climate Resiliency Checklist.

310 CMR 10.00 The Massachusetts Wetland Protection Act presently has no performance standards for work within LSCSF. However, the Commonwealth of Massachusetts, "Applying the Massachusetts Coastal Wetlands Regulations" provides guidance for work within LSCSF. The project has been designed with the interests of storm damage prevention and flood control. The (3) proposed dwellings incorporate flow-through foundations and 422 s.f. of pervious pavement to minimize the footprint of the dwellings and impact to LSCSF. The project proposes minimal grading on site and incorporates 3,258 s.f. of green space or 30.5% of the lot. The green space includes pervious lawn areas and tree plantings throughout the project. The total green space and pervious area is 3,680 s.f. or 34% of the lot area.

Stormwater

The project has been designed to meet the stormwater standards to the maximum extent practicable. The stormwater on site will be managed through a series of drains and culverts. The runoff from the roofs will be collected and directed into a large infiltration system beneath the parking lot. The catch basins are incorporated with oil and water separators and the parking lot catch basin will direct flow into an infiltration trench. The system is designed for a 1" rain event with overflow to the municipal drainage system. Please see the attached Stormwater Report prepared by Spruhan Engineering, P.C.

Priority Habitat

There are no Priority Habitat, or Estimated Habitat for Rare or Endangered Species located at the proposed project according to MassGIS (map enclosed).

Area of Critical Environmental Concern

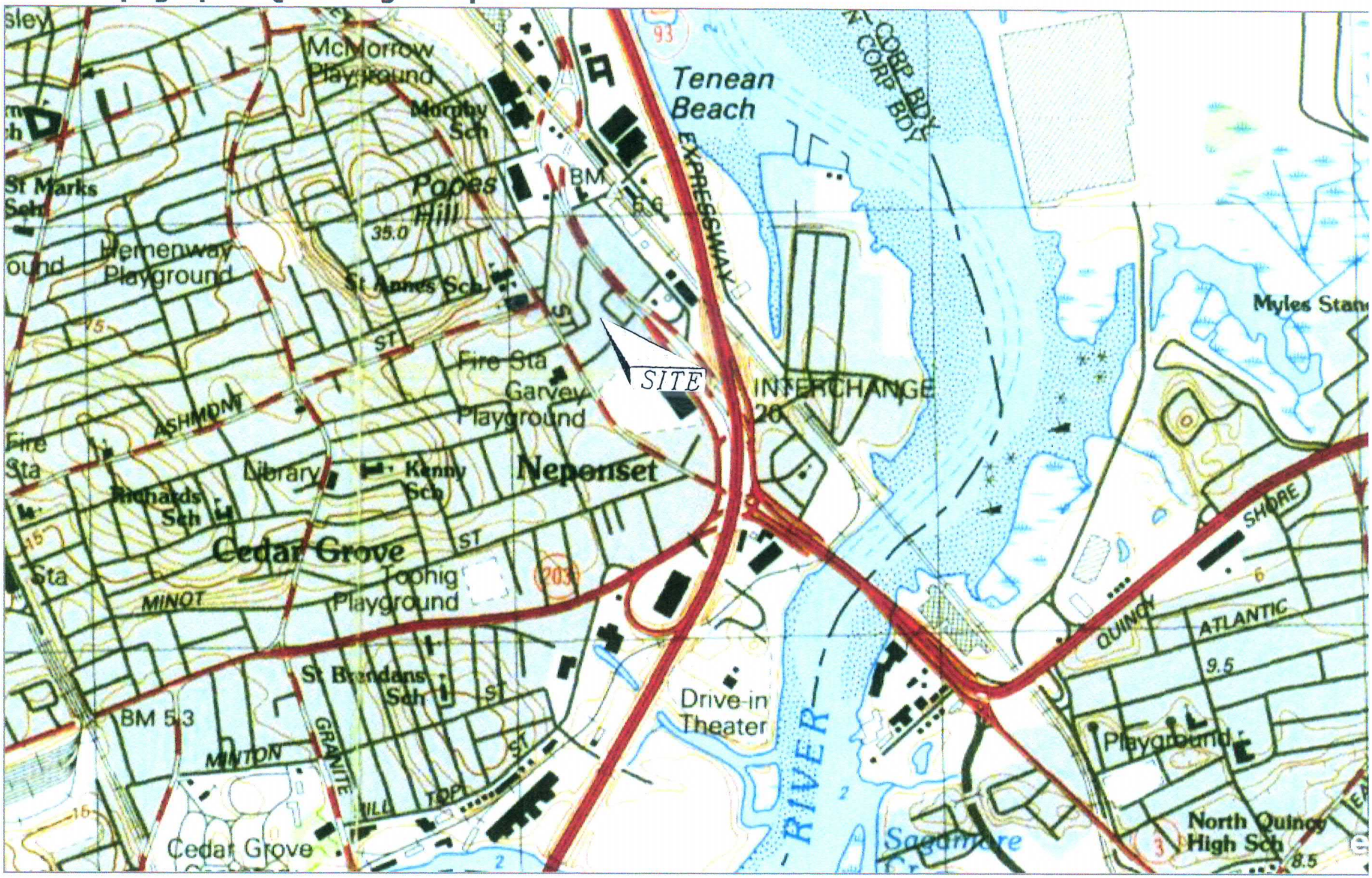
The project is not located within an Area of Critical Environmental Concern (ACEC) according to the MassGIS.

Outstanding Resource Water

The project is not located within an Outstanding Resource Water (ORW).


JOINS PAGE 15
Pleasure Bay
Castle Island
CITY POINT
Head Island
South Boston Yacht Club
City Point
L Street Beach
Carson Beach
Old Harbor
Bayside Exposition Ctr
HARBOR POINT
Harbor Point Park
DORCHESTER BAY
JFK Library & Museum
Massachusetts State Archives
University of Massachusetts Boston
Boston College HS
McCormack MS
Dever ES
Savin Hill Cove
FOX POINT
Savin Hill Yacht Club
Savin Hill Beach
McConnel Park
Malibu Beach
Dorchester Yacht Club
Thimble Island
BOSTON QUINCY
COMMERCIAL POINT
Old Colony Yacht Club
Boston Harbor
MARINA BAY
Nickerson Beach
CHAPEL ROCK
Tenean Beach
Thomas Marine
PORT NORFOLK
QUINCY
(Pages 194 & 195)
MOSSWETUSSET HUMMOCK
SITE
Neponset Bridge
NEPONSET
Pope John Paul II Park
Wollaston Beach
Squantum Yacht Club
Wollaston Yacht Club
0 .25 .5 MILE
0 .25 .5 KILOMETER
© Copyright ARROW MAP, INC

USGS Topographic Quadrangle Maps



USGS 1:25,000 Topographic Maps for Massachusetts

Soil Map—Norfolk and Suffolk Counties, Massachusetts
(McKone Street - Dorchester)

Map Scale: 1:430 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	0.0	0.0%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	0.8	100.0%
Totals for Area of Interest		**0.8**	**100.0%**

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 14, Sep 12, 2018

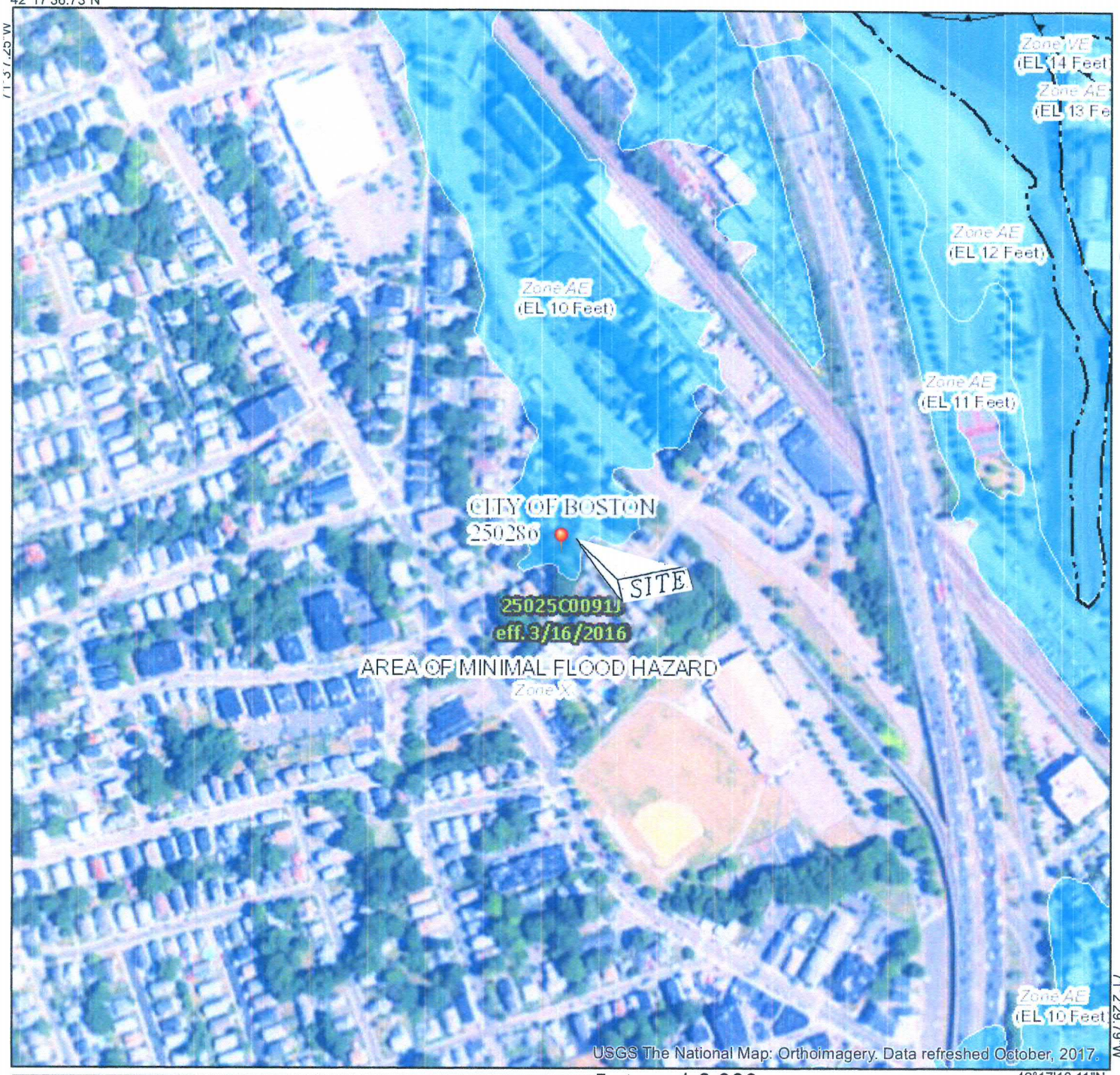
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

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

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

National Flood Hazard Layer FIRMette

FEMA



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

1:6,000

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 I*

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

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / 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 represen 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 3/5/2019 at 9:39:51 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.


OLIVER: MassGIS's Online Mapping Tool
OLIVER Updates
Neponset Avenue
Freeport Street
Mckone Street
William T Morrissey Boulevard
Tolman Street
Bloomington Street
Tolman Street
Neponset Avenue
Mckone Street
SITE
Coffey Street
Available Data Layers
Tiled Layers
State Facilities
Census 1990
Census 2000
Census 2010
Coastal and Marine Features
Conservation / Recreation
Areas of Critical Environmental
Community Preservation Act
Natural Heritage Data
BioMap2
NHESP Ecoregions
NHESP Certified Vernal Poc
NHESP Estimated Habitats
Active Data Layers
Check all
Uncheck all
Potential Vernal Pools
NHESP Priority Habitats of R
NHESP Estimated Habitats
NHESP Certified Vernal Poo
Tax Parcels for Query
Detailed Features
Tax Parcels for Display
Legend
Potential Vernal Pools
NHESP Priority Habitats of Rare Specie
NHESP Estimated Habitats of Rare Wil
NHESP Certified Vernal Pools
Tax Parcels for Query
10 m
50 ft
Scale = 1:1,128
237,539.96m 893,347.96m
MassGIS Topographic Features Basemap
Basemaps

EXISTING LEGEND

SS	SEWER LINE
Ⓢ	SEWER MANHOLE
W	WATER LINE
G	GAS LINE
	UTILITY POLE
GV	GAS VALVE
E	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
205	CONTOUR LINE (MJR)
195	CONTOUR LINE (MNR)
X	SPOT GRADE
Ⓓ	DRAIN MANHOLE
	HYDRANT
	TREE

BLOOMINGTON STREET
(PUBLIC WAY - VARIABLE WIDTH)

EXISTING 4" GAS MAIN
EXISTING 12" SEWER LINE
EXISTING CATCH BASIN
EXISTING 12" SEWER LINE
EXISTING CATCH BASIN
EXISTING 4" GAS MAIN
EXISTING S.M.H. RIM=15.06' INV=9.00'±
EXISTING D.M.H.
LOT A
16.46 CONTOUR FLOOD ELEVATION ZONE AE
16.46 CONTOUR FLOOD ELEVATION ZONE AE
40.00'
LOT 13
3,936± S.F
EXISTING CHAIN LINK FENCE
24.1'
54.00'
N/F ALLAN
EXISTING LAWN
EXISTING WOOD LANDING & STEPS
EXISTING CHAIN LINK FENCE
EXISTING CHAIN LINK FENCE
116.68'
120.6'
16.46 CONTOUR FLOOD ELEVATION ZONE AE
#15
EXISTING
2 STORY
WOOD FRAMED
RESIDENTIAL
DWELLING
F.F.=18.30'
(TAKEN AT
THRESHOLD)
94.58'
LOT 15
LOT 14
LOT 12
6,741± S.F (MEASURED)
6,700± S.F (RECORDED)
EXISTING LAWN
EXISTING CHAIN LINK FENCE
94.44'
55.00'
EXISTING CONCRETE WALKWAY
EXISTING LAWN
EXISTING CHAIN LINK FENCE
1.5'
EXISTING WATER SERVICE
11.1'
EXISTING WOOD LANDING & STEPS
EXISTING CONCRETE WALKWAY
EXISTING CHAIN LINK FENCE
39.05'
38.00'
94.65'
EXISTING CHAIN LINK FENCE
EXISTING GAS SERVICE
APPROX LOCATION OF EXISTING SEWER SERVICE
EXISTING 24" DRAIN LINE
EXISTING 54" COMBINED SEWER
EXISTING D.M.H. RIM=15.42' INV=10.07' INV=11.31' INV=10.11'
EXISTING 4" GAS MAIN
EXISTING C.S.M.H. RIM=15.66' INV=3.75'±
EXISTING 54" COMBINED SEWER
EXISTING UNDERGROUND ELECTRIC LINE
EXISTING 6" HSW WATER MAIN
LOT 8
16.46 CONTOUR FLOOD ELEVATION ZONE AE
MCKONE STREET
(PUBLIC WAY - 38' WIDE)
16.46 CONTOUR FLOOD ELEVATION ZONE AE
EXISTING 4" GAS MAIN
EXISTING UNDERGROUND ELECTRIC LINE
EXISTING 54" COMBINED SEWER

ZONING LEGEND

ZONING DISTRICT: 2F-5000 (TWO FAMILY RESIDENTIAL)

	REQUIRED	EXISTING	COMPLIANCE
MIN. AREA	5,000 S.F.	10,677± S.F.	YES
MIN. FRONTAGE	40'	77'	YES
MIN. YARD FRONT	15'	11.1'	EXISTING NON-CONFORMING
SIDE	10'	1.5'	EXISTING NON-CONFORMING
REAR	20'	24.1'	YES
REAR YARD OCC.	25%	0.0%	YES
USABLE OPEN SPACE PER DWELLING UNIT	750 S.F.	9,372.3± S.F.	YES
MIN. LOT WIDTH	40'	40.0'	YES
MAX. BLDG. HEIGHT	35'	26.7'±	YES
MAX. STORIES	2.5	2.0	YES
MAX. F.A.R.	0.5	-	-

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 4/13/2017.

2. DEED REFERENCE BOOK 57261 PAGE 288, CUFFOLK COUNTY REGISTRY OF DEEDS.

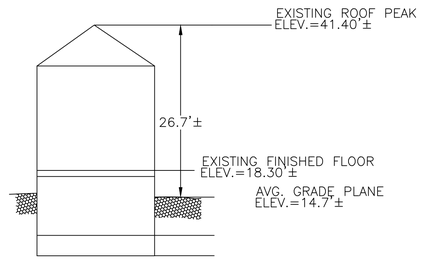
3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE AE (EL. 10), ON FLOOD HAZARD BOUNDARY MAP NUMBER 25025C0091J, PANEL NUMBER 0091J, COMMUNITY NUMBER: 250286, DATED MARCH 16, 2016.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAN NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

7. BASE FLOOD ELEVATION FOR ZONE AE BASED ON NAVD 88 DATUM = 10.0 (FEET). NAVD CONVERSION FACTOR TO CITY OF BOSTON BASE = +1.968 (METERS) OR 6.46 (FEET). THEREFOR BASE FLOOD ELEVATION FOR ZONE AE = 16.46', CITY OF BOSTON DATUM (AS SHOWN ON PLAN).



EXISTING PROFILE
NOT TO SCALE

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SCALE 1"=10'				
DATE 4/13/2017	REV	DATE	REVISION	BY
SHEET 1				
PLAN NO. 1 OF 1				
CLIENT:				
DRAWN BY				
CHKD BY PJN				
APPD BY PJN				

15 MCKONE STREET
BOSTON (DORCHESTER)
MASSACHUSETTS

EXISTIN CONDITIONS
SITE PLAN

COMMONWEALTH OF MASSACHUSETTS
PETER J. NOLAN 49185
REGISTERED PROFESSIONAL LAND SURVEYOR

SHEET NO.
1

PETER NOLAN & ASSOCIATES LLC
LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135
PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691
EMAIL: pnolan@pnasurveyors.com

RESERVED FOR BWSC USE ONLY

EXISTING LEGEND

SS	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
G	GAS LINE
	UTILITY POLE
GV	GAS VALVE
E	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
205	CONTOUR LINE (MJR)
195	CONTOUR LINE (MNR)
X	SPOT GRADE
D	DRAIN MANHOLE
	HYDRANT
	TREE

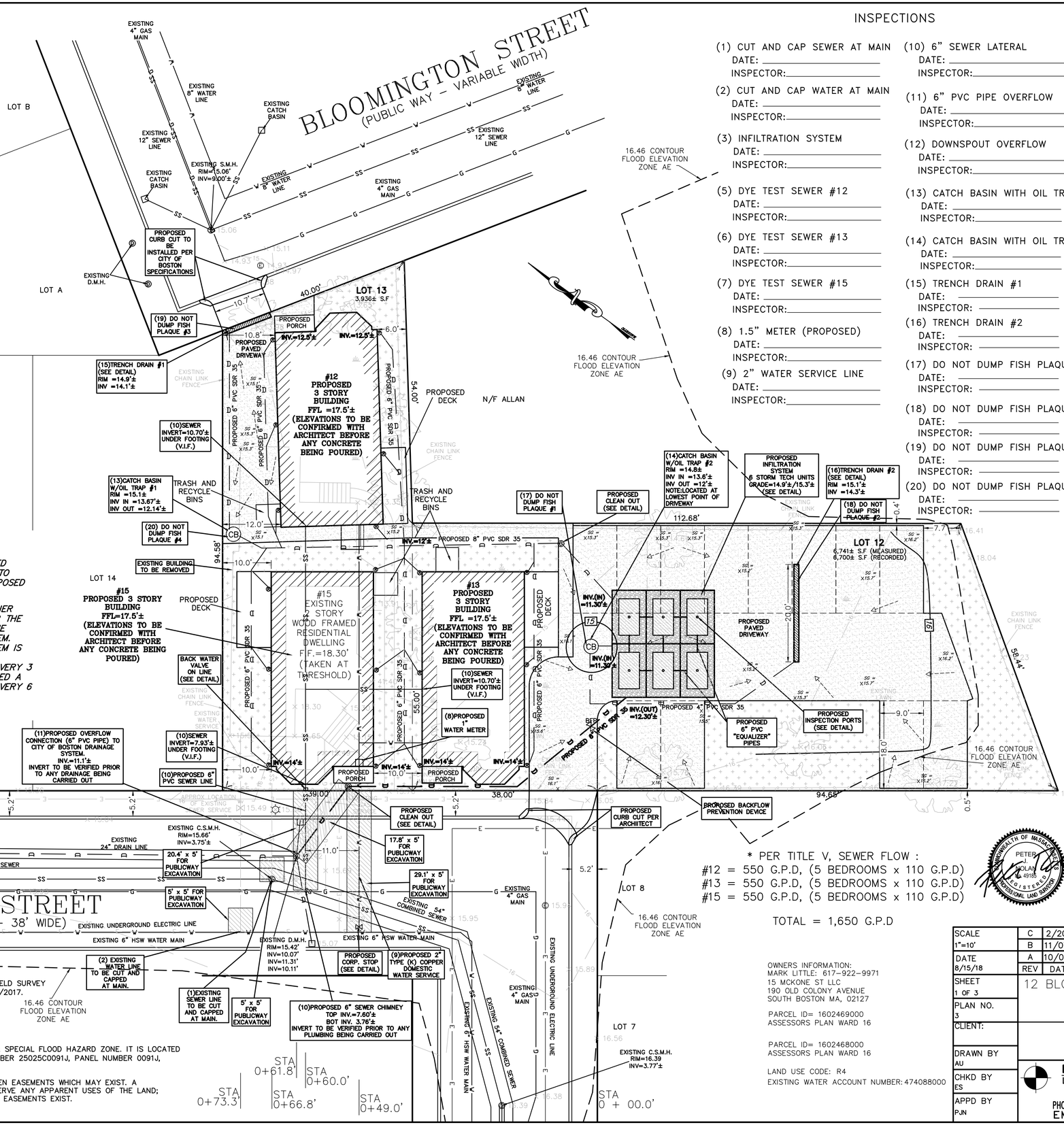
NOTE: CONTRACTOR TO CONFIRM LOCATION OF DOWN SPOUTS PRIOR TO CARRYING OUT ANY DRAINAGE WORKS

NOTE: SURFACE WATER TO BE DIVERTED FROM ALL SIDES OF FOUNDATION WALL

NOTE: STRUCTURAL ENGINEER TO ENSURE THERE IS A MINIMUM OF 8" FROM GRADE TO TOP OF FOUNDATION ON PROPOSED BUILDING

NOTE: ALL PROPOSED IMPERVIOUS AREAS TO BE SLOPED TO PROPOSED CATCH BASINS

NOTE: BUILDING OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE STORM WATER SYSTEM. STORM WATER SYSTEM IS TO BE INSPECTED A MINIMUM OF ONCE EVERY 3 MONTHS AND CLEANED A MINIMUM OF ONCE EVERY 6 MONTHS.



INSPECTIONS

(1) CUT AND CAP SEWER AT MAIN
DATE: _____
INSPECTOR: _____

(2) CUT AND CAP WATER AT MAIN
DATE: _____
INSPECTOR: _____

(3) INFILTRATION SYSTEM
DATE: _____
INSPECTOR: _____

(5) DYE TEST SEWER #12
DATE: _____
INSPECTOR: _____

(6) DYE TEST SEWER #13
DATE: _____
INSPECTOR: _____

(7) DYE TEST SEWER #15
DATE: _____
INSPECTOR: _____

(8) 1.5" METER (PROPOSED)
DATE: _____
INSPECTOR: _____

(9) 2" WATER SERVICE LINE
DATE: _____
INSPECTOR: _____

(10) 6" SEWER LATERAL
DATE: _____
INSPECTOR: _____

(11) 6" PVC PIPE OVERFLOW
DATE: _____
INSPECTOR: _____

(12) DOWNSPOUT OVERFLOW
DATE: _____
INSPECTOR: _____

(13) CATCH BASIN WITH OIL TRAP #1
DATE: _____
INSPECTOR: _____

(14) CATCH BASIN WITH OIL TRAP #2
DATE: _____
INSPECTOR: _____

(15) TRENCH DRAIN #1
DATE: _____
INSPECTOR: _____

(16) TRENCH DRAIN #2
DATE: _____
INSPECTOR: _____

(17) DO NOT DUMP FISH PLAQUE #1
DATE: _____
INSPECTOR: _____

(18) DO NOT DUMP FISH PLAQUE #2
DATE: _____
INSPECTOR: _____

(19) DO NOT DUMP FISH PLAQUE #3
DATE: _____
INSPECTOR: _____

(20) DO NOT DUMP FISH PLAQUE #4
DATE: _____
INSPECTOR: _____

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.

2. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS.

3. ALL WORK SHALL CONFORM TO CITY OF BOSTON GENERAL CONSTRUCTION STANDARDS.

4. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.

5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR.

6. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTRACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.

7. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.

8. NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6" OF THE WATER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12" ABOVE THE PIPES.

9. PAVEMENT AREA SHALL BE PAVED TO A THICKNESS AS SHOWN ON THE PLANS MEASURED AFTER COMPACTION, WITH A BINDER COURSE AND TOP COURSE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I–1.

10. BASE MATERIAL SHALL BE CLEAN BANK RUN GRAVEL, CONFORMING TO M.D.P.W. M1.03.1, WITH NO STONES LARGER THAN THREE (3) INCHES IN DIAMETER AND SHALL BE PLACED AND ROLLED WITH AT LEAST A TEN TON ROLLER. THE SURFACES SHALL BE WET DURING ROLLING TO BIND THE MATERIAL. ALL STONES OF 4" DIAMETER OR LARGER SHALL BE REMOVED FROM THE SUB-BASE PRIOR TO PLACING BASE MATERIAL.

11. ALL EXISTING PAVING TO BE DISTURBED SHALL BE CUT ALONG A STRAIGHT LINE THROUGH ITS ENTIRE THICKNESS. BUTT THE NEW PAVING INTO THE EXISTING PAVEMENT TO REMAIN.

12. ANY PAVEMENT REMOVED FOR UTILITY TRENCH EXCAVATION OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH A PAVEMENT SECTION CONSISTING OF 1 1/2" WEAR COURSE OVERLYING A 1/2" BINDER COURSE OVERLYING A 12" COMPACTED GRAVEL BASE COURSE.

13. THE CONTRACTOR SHALL APPLY FOR A STREET OPENING AND UTILITY CONNECTION PERMITS AND SIDEWALK CROSSING PERMIT WITH THE CITY OF BOSTON DPW.

14. A PREREQUISITE FOR FILING A GENERAL SERVICE APPLICATION WITH THE BOSTON WATER AND SEWER COMMISSION FOR NEW CONSTRUCTION IS THE ROUGH CONSTRUCTION SIGN-OFF DOCUMENT FROM THE CITY OF BOSTON'S INSPECTIONAL SERVICES DEPARTMENT.

15. THE OWNER IS RESPONSIBLE TO MAINTAIN THE DRAINAGE SYSTEM FOR PROPER OPERATION INCLUDING KEEPING THE DRAIN FREE FROM DEBRIS AND ICE BLOCKAGE.

SITE PLAN #: 18403

GRAPHIC SCALE

10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

* PER TITLE V, SEWER FLOW :
#12 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)
#13 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)
#15 = 550 G.P.D, (5 BEDROOMS x 110 G.P.D)

TOTAL = 1,650 G.P.D

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 4/13/2017.

2. DEED REFERENCE BOOK 57261 PAGE 288, CUFFOLK COUNTY REGISTRY OF DEEDS.

3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE AE (EL. 10), ON FLOOD HAZARD BOUNDARY MAP NUMBER 25025C0091J, PANEL NUMBER 0091J, COMMUNITY NUMBER: 250286, DATED MARCH 16, 2016.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAN NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

OWNERS INFORMATION:
MARK LITTLE: 617-922-9971
15 MCKONE ST LLC
190 OLD COLONY AVENUE
SOUTH BOSTON MA, 02127

PARCEL ID= 1602469000
ASSESSORS PLAN WARD 16

PARCEL ID= 1602468000
ASSESSORS PLAN WARD 16

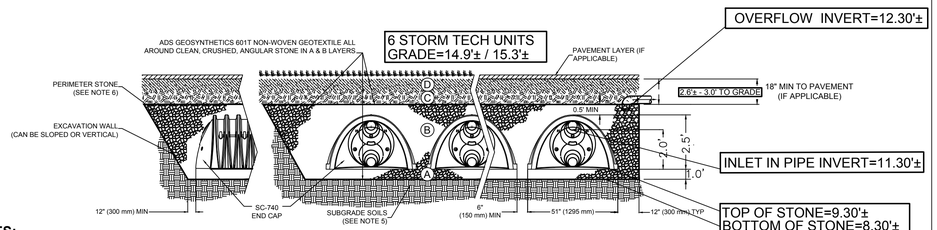
LAND USE CODE: R4
EXISTING WATER ACCOUNT NUMBER: 474088000

SCALE	C	2/20/19	F.F. ELEVATION AND FLOOD LINE ADDED	HM
1"=10'	B	11/07/18	REVISED AS PER BWSC COMMENTS	AU
DATE	A	10/02/18	REVISED AS PER BWSC COMMENTS	AU
8/15/18	REV	DATE	REVISION	BY
SHEET 1 OF 3	12 BLOOMINGTON ST, 13–15 McKONE ST DORCHESTER MASSACHUSETTS			
PLAN NO. 3				
CLIENT:	PLAN TO ACCOMPANY BWSC APPLICATION			
DRAWN BY AU	**PETER NOLAN & ASSOCIATES LLC**			
CHKD BY ES	LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS			
APPD BY PJN	697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135			
	PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691			
	EMAIL: pnolan@pnasurveyors.com			

SHEET NO. 1

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

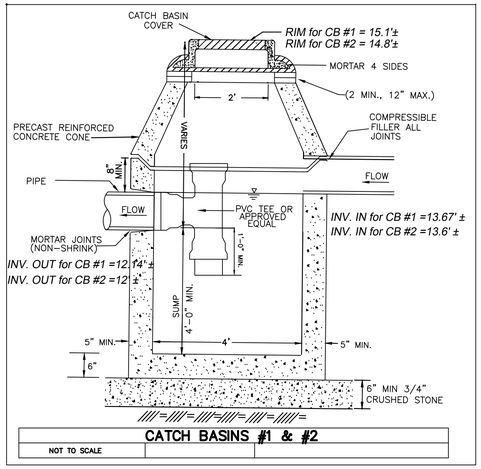


NOTES:

1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

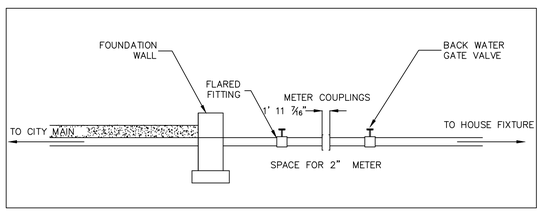
STORMTECH GENERAL NOTES

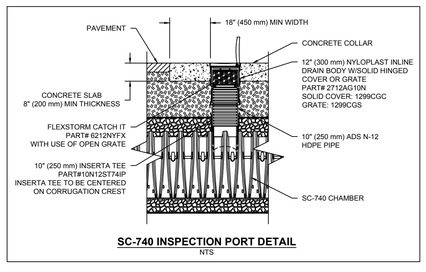
1. STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 96 INCHES.
3. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
4. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
5. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
6. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
8. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.



CATCH BASINS #1 & #2

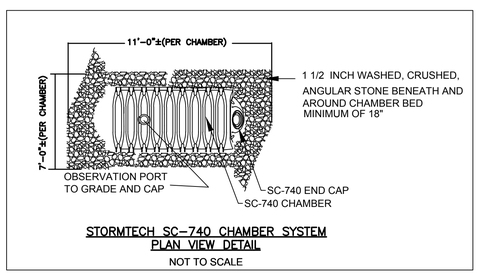
NOT TO SCALE





SC-740 INSPECTION PORT DETAIL

NTS

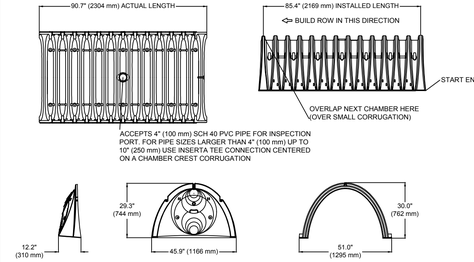


STORMTECH SC-740 CHAMBER SYSTEM PLAN VIEW DETAIL

NOT TO SCALE

SC-740 TECHNICAL SPECIFICATION

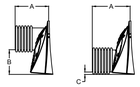
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



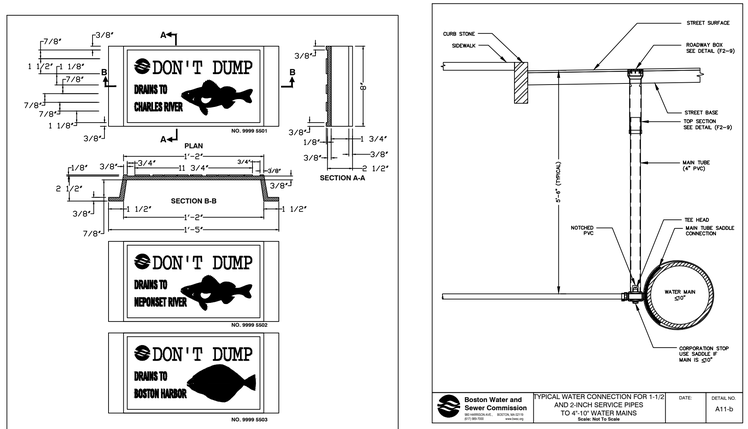
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

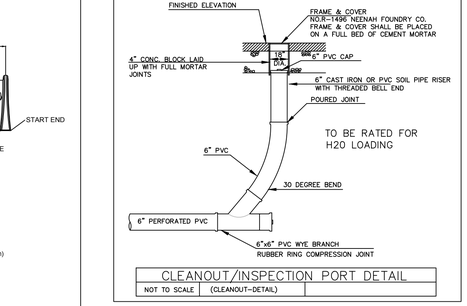
ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

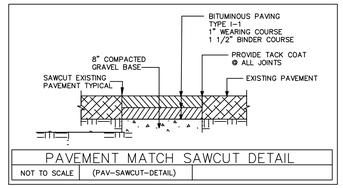


Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000	8" x14" CATCH BASIN SIGN SCALE: NOT TO SCALE	DATE: Jan 3, 2006	DETAIL NO. Model



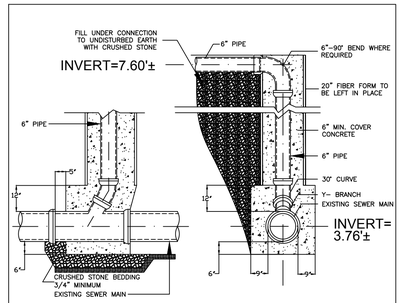
CLEANOUT/INSPECTION PORT DETAIL

NOT TO SCALE | (CLEANOUT-DETAIL)



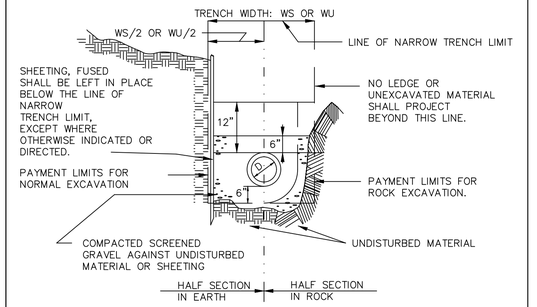
PAVEMENT MATCH SAWCUT DETAIL

NOT TO SCALE | (PAV-SAWCUT-DETAIL)



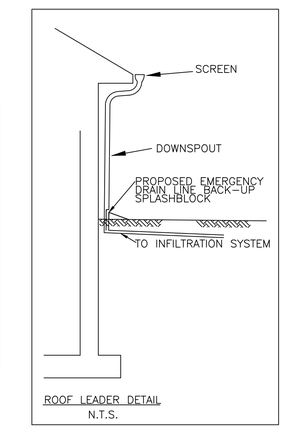
Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	**TYPICAL SEWER CHIMNEY** Scale: Not To Scale	DATE: 11/29/17	DETAIL NO. Model

Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	TYPICAL WATER CONNECTION FOR 1-1/2 AND 2-INCH SERVICE PIPES TO 4"-10" WATER MAINS Scale: Not To Scale	DATE:	DETAIL NO. A11-5



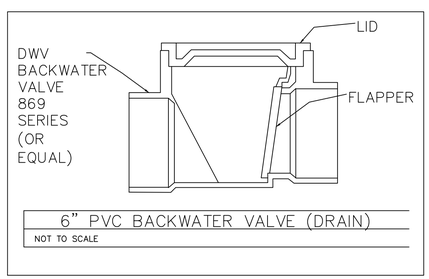
WATER TRENCH SECTION

NOT TO SCALE | (WTR&SEWER-TRENCH-SECTION)



ROOF LEADER DETAIL

N.T.S.



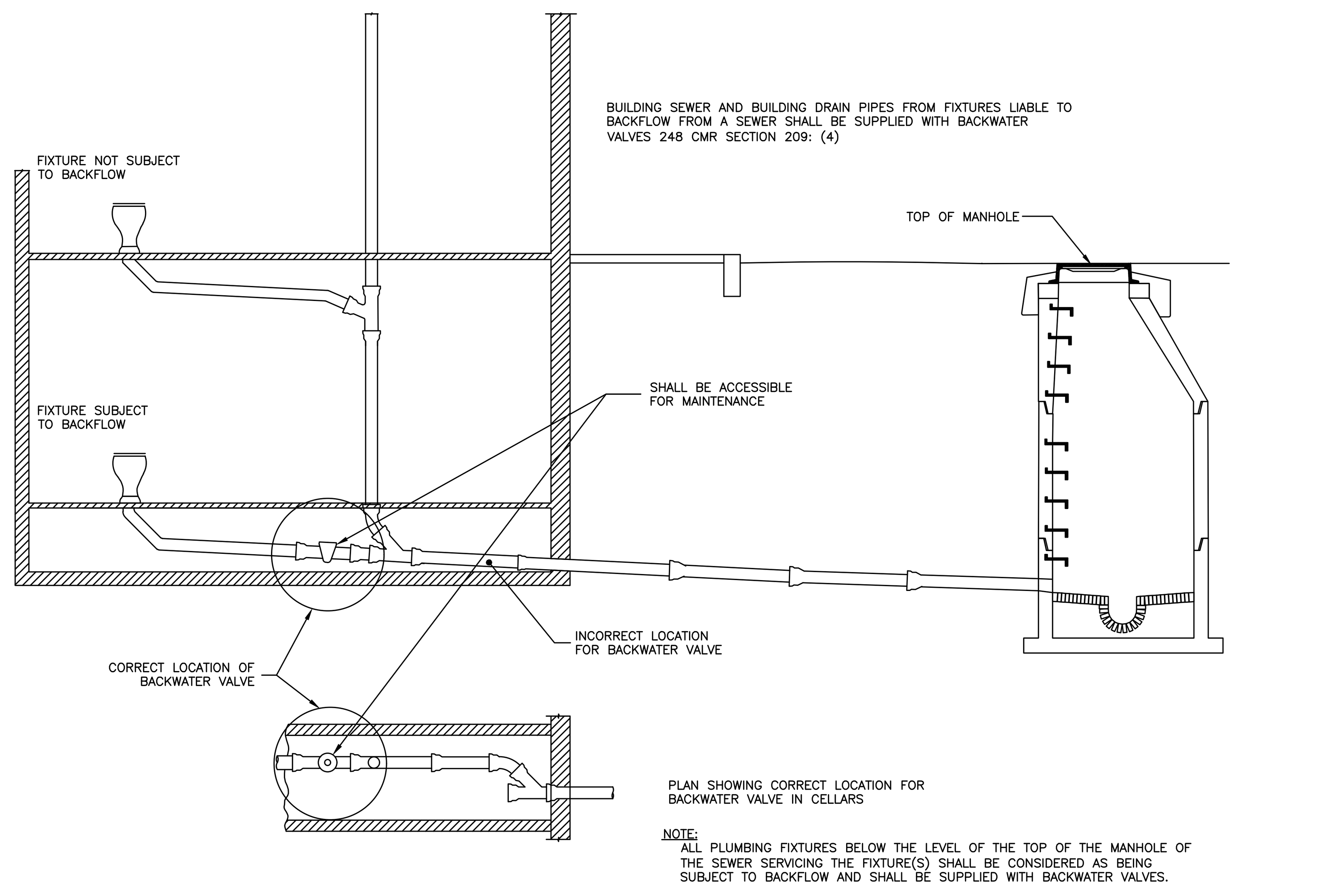
6" PVC BACKWATER VALVE (DRAIN)

NOT TO SCALE

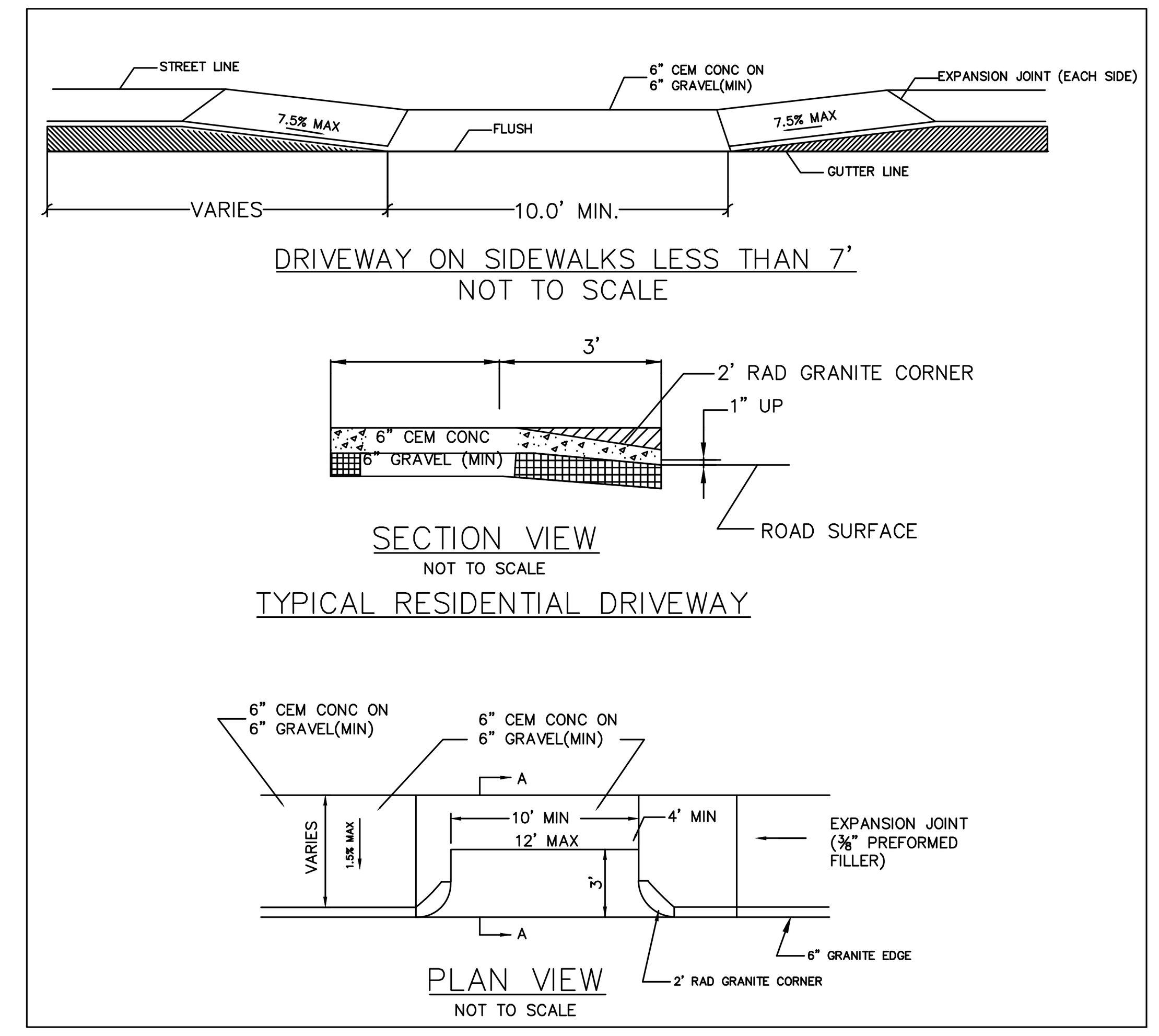
SCALE 1"=10'				
DATE 8/15/18	REV	DATE	REVISION	BY
SHEET 2 OF 3			12 BLOOMINGTON ST, 13-15 McKONE ST DORCHESTER MASSACHUSETTS	
PLAN NO. 2				
CLIENT:			PLAN TO ACCOMPANY BWSC APPLICATION	
DRAWN BY AU				
CHKD BY ES			**PETER NOLAN & ASSOCIATES LLC** LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS	
APPD BY PJN			697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135 PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691 EMAIL: pnolan@pnasurveyors.com	

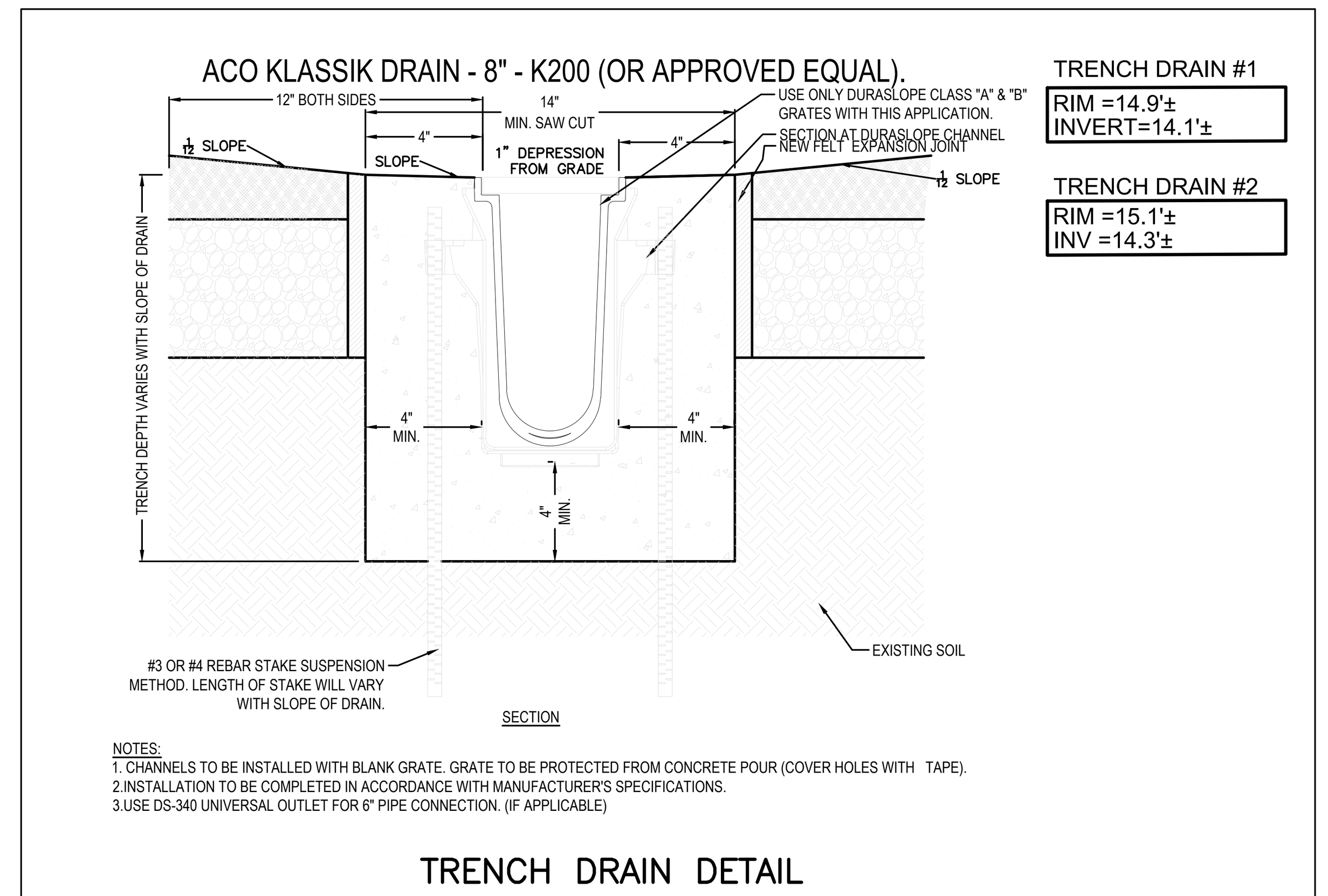
COMMONWEALTH OF MASSACHUSETTS EDMOND J. SPRAGUE 53316 CIVIL REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 2



Boston Water and Sewer Commission 980 HARRISON AVE., BOSTON, MA 02119 (617) 989-7000 www.bwsc.org	LOCATION OF BACKWATER VALVES IN CELLARS Scale: Not To Scale	DATE: Sept. 30, 2012	DETAIL NO. Model





POST-CONSTRUCTION (PROPOSED) STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:

Impervious Roof #12 Bloomington= 980.17 SF
Impervious Roof #13 Mckone= 1011.19 SF
Impervious Roof #15 Mckone= 1009.57 SF
Impervious Pavement = 4,521.36 SF
Total = 7,522.29 SF

Design For **1"** Rainstorm

Storage Volume Required:

V_R = (1"/12) (7,522.29 SF) = 626.85 CF

CAPACITY OF PROPOSED STORM TECH SYSTEM

Storage Capacity of single Storm Tech UNIT = 49 CF

Void Ratio =0.3

Total Volume= (11'x 7' x 4'$_{\text{depth (2.5ft for Storm Tech unit)}}$ x 6 units) =1,848 CF

Capacity for 6 UNIT = 294 CF

Storage Capacity in Crushed Stone = (Total Volume – Capacity of Units) x Void Ratio = (1,848 - 294) x 0.3 = 466.2 CF

Total Storage Provided = Capacity in Crushed Stone + Total Capacity in Units = 466.2 CF + 294 CF = 760.2 CF

Since Total Storage Provided (760.20 CF) > Total Storage Required (626.85 CF/D) **Therefore, utilize 6-Storm-Tech Chamber with 1 ft. of Crushed Stone Beneath to Contain 1" Storm Event**

PRE-CONSTRUCTION (EXISTING) STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:

Impervious Roof #15 Mckone= 1305.00 SF
Impervious Pavement = 305.00 SF
Total = 1,610.00 SF

Design For **1"** Rainstorm

Storage Volume Required:

V_R = (1"/12) (1,610.00 SF) = 134.16 CF

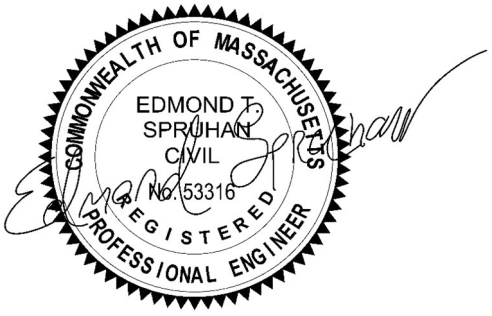
SCALE 1"=10'				
DATE 7/31/18	A	11/07/18	REVISED AS PER BWSC COMMENTS	AU
	REV	DATE	REVISION	BY
SHEET 3 OF 3	12 BLOOMINGTON ST, 13–15 McKONE ST DORCHESTER MASSACHUSETTS			
PLAN NO. 3				
CLIENT:	PLAN TO ACCOMPANY BWSC APPLICATION			
DRAWN BY AU	PETER NOLAN & ASSOCIATES LLC LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS 697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135 PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691 EMAIL: pnolan@pnasurveyors.com			
CHKD BY ES				
APPD BY PJN				

SHEET NO.
3

SPRUHAN ENGINEERING, P.C.

STORMWATER REPORT

12 Bloomington Street, 13-15 Mckone Street, Dorchester, MA



Prepared By: Spruhan Engineering, P.C.

11/07/2018

Contents

1.0 Introduction

Spruhan Engineering, P.C. has prepared this Storm water Report for the proposed redevelopment project located at 12 Bloomington Street, 13-15 Mckone Street, Dorchester, Massachusetts.

The proposed development consists of three 2 family residential dwellings and a new driveways and parking lots. The purpose of this report is to show the proposed and existing hydrological conditions and the efficiency of the proposed infiltration system.

The proposed infiltration system consists of 6 stormtech chambers and is sized for a 1 inch storm event for all the proposed impervious area per BWSC requirements.

2.0 Existing Conditions

The existing property is located at 12 Bloomington Street, 13-15 Mckone Street, Dorchester, Massachusetts. The site is bounded by residential dwellings on the sides, by Mckone St at the front and Bloomington St at the rear. The property is located at Mckone Street between Morrisey Blvd and Neponset Ave. The existing roof area on the lot is 1,305 S.F., the existing paved area is 304 S.F., and the existing landscaped area on the lot is 9,069 S.F.

2.1 Existing Topography and Drainage Infrastructure.

In general, the property slopes from southeast to west side ranging between approximately 1.50% and 1.67%. As there is no drainage system currently installed, all storm water scours across the surface at grade.

3.0 Proposed Conditions

3.1 Project Description

The proposed development consists of three 2-family new residential dwellings, 2 driveways and a parking lot. The total proposed area of the roof will have an area of 2,648.3 S.F. The proposed driveway and walkways will have an area of 4,772 S.F. The remaining landscaped area on the lot will have a proposed footprint of 3,258 S.F.

3.2 Storm Water Runoff

HydroCAD was used to model the site for the existing and proposed conditions for the 10-year, 25-year, and 100-year type III storm events based on Atlas-14 Rain information for Middlesex County Central Area (Refer to Chapter 5 of this report for further information on rainfall data of the site). HydroCAD calculations can be seen in Appendix A. The following table shows a summary of the existing and proposed conditions on the site as they relate to flowrate and volume of storm water runoff for each of the storm events.

	Summary Table			
	Rainfall Intensity		Volume of Runoff	
	EXISTING	PROPOSED	EXISTING	PROPOSED
10 Year Storm	0.30 cfs	0.18 cfs	1,208 cf	226 cf
25 Year Storm	0.48 cfs	0.86 cfs	1,771 cf	812 cf
100 Year Storm	0.82 cfs	1.50 cfs	2,777 cf	2,204 cf

4.0 Soil Information

The NRCS Web Soil Survey characterizes the soil as Hydrologic Soil Group ‘A’. The NRCS soils information can be found in appendix B of this report.

5.0 NOAA's Atlas Precipitation Data

The NOAA's National Weather Service contains in its website rainfall depth information necessary for the hydrological calculations performed in the chosen software for this report in its section called Precipitation Frequency Data Server.

The results for a 10 year, 25 year and 100 year, 24-hr storm are shown in the next table.

NOAA Atlas 14, Volume 10, Version 2
Location name: Dorchester, Massachusetts, USA*
Latitude: 42.2899°, Longitude: -71.0469°
Elevation: 7.88 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	**0.302** (0.248-0.368)	**0.374** (0.307-0.456)	**0.492** (0.402-0.602)	**0.590** (0.478-0.727)	**0.725** (0.564-0.949)	**0.829** (0.630-1.12)	**0.932** (0.685-1.32)	**1.08** (0.736-1.56)	**1.27** (0.829-1.92)	**1.42** (0.899-2.20)
10-min	**0.428** (0.351-0.521)	**0.530** (0.434-0.646)	**0.698** (0.569-0.853)	**0.836** (0.677-1.03)	**1.03** (0.800-1.34)	**1.17** (0.892-1.58)	**1.32** (0.971-1.87)	**1.53** (1.04-2.21)	**1.80** (1.17-2.73)	**2.01** (1.27-3.11)
15-min	**0.504** (0.413-0.613)	**0.624** (0.511-0.760)	**0.821** (0.669-1.00)	**0.984** (0.797-1.21)	**1.21** (0.941-1.58)	**1.38** (1.05-1.86)	**1.55** (1.14-2.20)	**1.80** (1.23-2.60)	**2.12** (1.38-3.21)	**2.37** (1.50-3.66)
30-min	**0.689** (0.565-0.837)	**0.854** (0.700-1.04)	**1.13** (0.918-1.38)	**1.35** (1.09-1.66)	**1.66** (1.29-2.17)	**1.90** (1.44-2.56)	**2.14** (1.57-3.03)	**2.48** (1.69-3.58)	**2.93** (1.90-4.42)	**3.27** (2.07-5.05)
60-min	**0.873** (0.716-1.06)	**1.08** (0.888-1.32)	**1.43** (1.17-1.75)	**1.72** (1.39-2.11)	**2.11** (1.64-2.76)	**2.41** (1.84-3.25)	**2.72** (2.00-3.85)	**3.15** (2.15-4.56)	**3.73** (2.43-5.63)	**4.16** (2.64-6.44)
2-hr	**1.12** (0.922-1.35)	**1.41** (1.16-1.70)	**1.88** (1.54-2.28)	**2.27** (1.85-2.77)	**2.80** (2.20-3.65)	**3.22** (2.46-4.32)	**3.63** (2.69-5.13)	**4.25** (2.91-6.10)	**5.07** (3.31-7.59)	**5.70** (3.62-8.72)
3-hr	**1.30** (1.08-1.56)	**1.64** (1.35-1.97)	**2.19** (1.80-2.64)	**2.64** (2.16-3.22)	**3.27** (2.57-4.24)	**3.76** (2.89-5.02)	**4.24** (3.16-5.96)	**4.97** (3.41-7.10)	**5.95** (3.89-8.84)	**6.68** (4.25-10.2)
6-hr	**1.70** (1.42-2.03)	**2.12** (1.76-2.54)	**2.81** (2.33-3.37)	**3.38** (2.78-4.09)	**4.16** (3.29-5.35)	**4.77** (3.68-6.31)	**5.37** (4.01-7.48)	**6.28** (4.33-8.87)	**7.48** (4.91-11.0)	**8.39** (5.35-12.6)
12-hr	**2.21** (1.85-2.62)	**2.72** (2.28-3.23)	**3.54** (2.96-4.23)	**4.23** (3.50-5.08)	**5.17** (4.11-6.59)	**5.90** (4.58-7.73)	**6.63** (4.96-9.11)	**7.69** (5.32-10.7)	**9.09** (5.99-13.2)	**10.1** (6.49-15.1)
24-hr	**2.69** (2.27-3.17)	**3.32** (2.80-3.92)	**4.35** (3.65-5.15)	**5.20** (4.34-6.21)	**6.38** (5.11-8.07)	**7.29** (5.69-9.48)	**8.20** (6.18-11.2)	**9.56** (6.64-13.2)	**11.4** (7.52-16.4)	**12.7** (8.18-18.8)
2-day	**3.05** (2.60-3.58)	**3.85** (3.27-4.52)	**5.16** (4.36-6.08)	**6.25** (5.24-7.40)	**7.74** (6.24-9.76)	**8.89** (7.00-11.5)	**10.0** (7.66-13.7)	**11.9** (8.31-16.4)	**14.4** (9.55-20.6)	**16.3** (10.5-23.8)
3-day	**3.35** (2.86-3.91)	**4.22** (3.59-4.92)	**5.63** (4.78-6.60)	**6.80** (5.73-8.03)	**8.41** (6.81-10.6)	**9.66** (7.64-12.5)	**10.9** (8.35-14.8)	**13.0** (9.06-17.7)	**15.7** (10.4-22.3)	**17.8** (11.5-25.8)
4-day	**3.63** (3.11-4.23)	**4.53** (3.87-5.27)	**5.98** (5.09-6.99)	**7.19** (6.07-8.46)	**8.85** (7.19-11.1)	**10.1** (8.03-13.0)	**11.4** (8.77-15.5)	**13.6** (9.49-18.4)	**16.4** (10.9-23.2)	**18.6** (12.0-26.8)
7-day	**4.42** (3.80-5.11)	**5.34** (4.59-6.18)	**6.84** (5.85-7.95)	**8.09** (6.86-9.46)	**9.80** (8.00-12.2)	**11.1** (8.86-14.2)	**12.5** (9.58-16.7)	**14.7** (10.3-19.8)	**17.6** (11.7-24.6)	**19.8** (12.8-28.3)
10-day	**5.14** (4.43-5.92)	**6.08** (5.24-7.01)	**7.62** (6.54-8.82)	**8.89** (7.57-10.4)	**10.7** (8.71-13.1)	**12.0** (9.57-15.2)	**13.4** (10.3-17.7)	**15.5** (10.9-20.8)	**18.4** (12.3-25.6)	**20.6** (13.3-29.2)
20-day	**7.20** (6.26-8.24)	**8.23** (7.14-9.43)	**9.90** (8.56-11.4)	**11.3** (9.68-13.1)	**13.2** (10.8-16.0)	**14.7** (11.7-18.2)	**16.2** (12.3-20.9)	**18.1** (12.8-23.9)	**20.7** (13.9-28.4)	**22.6** (14.7-31.7)
30-day	**8.90** (7.77-10.1)	**9.99** (8.71-11.4)	**11.8** (10.2-13.5)	**13.3** (11.4-15.3)	**15.3** (12.6-18.4)	**16.9** (13.4-20.7)	**18.5** (14.0-23.4)	**20.2** (14.4-26.5)	**22.5** (15.2-30.6)	**24.2** (15.8-33.8)
45-day	**11.0** (9.66-12.5)	**12.2** (10.7-13.9)	**14.1** (12.3-16.1)	**15.7** (13.6-18.0)	**17.9** (14.7-21.3)	**19.6** (15.6-23.7)	**21.2** (16.1-26.6)	**22.8** (16.3-29.7)	**24.8** (16.8-33.6)	**26.4** (17.2-36.5)
60-day	**12.8** (11.3-14.5)	**14.0** (12.3-15.9)	**16.0** (14.0-18.2)	**17.7** (15.3-20.2)	**20.0** (16.5-23.6)	**21.7** (17.3-26.2)	**23.5** (17.7-29.1)	**24.9** (17.9-32.3)	**26.8** (18.2-36.1)	**28.2** (18.5-38.9)

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

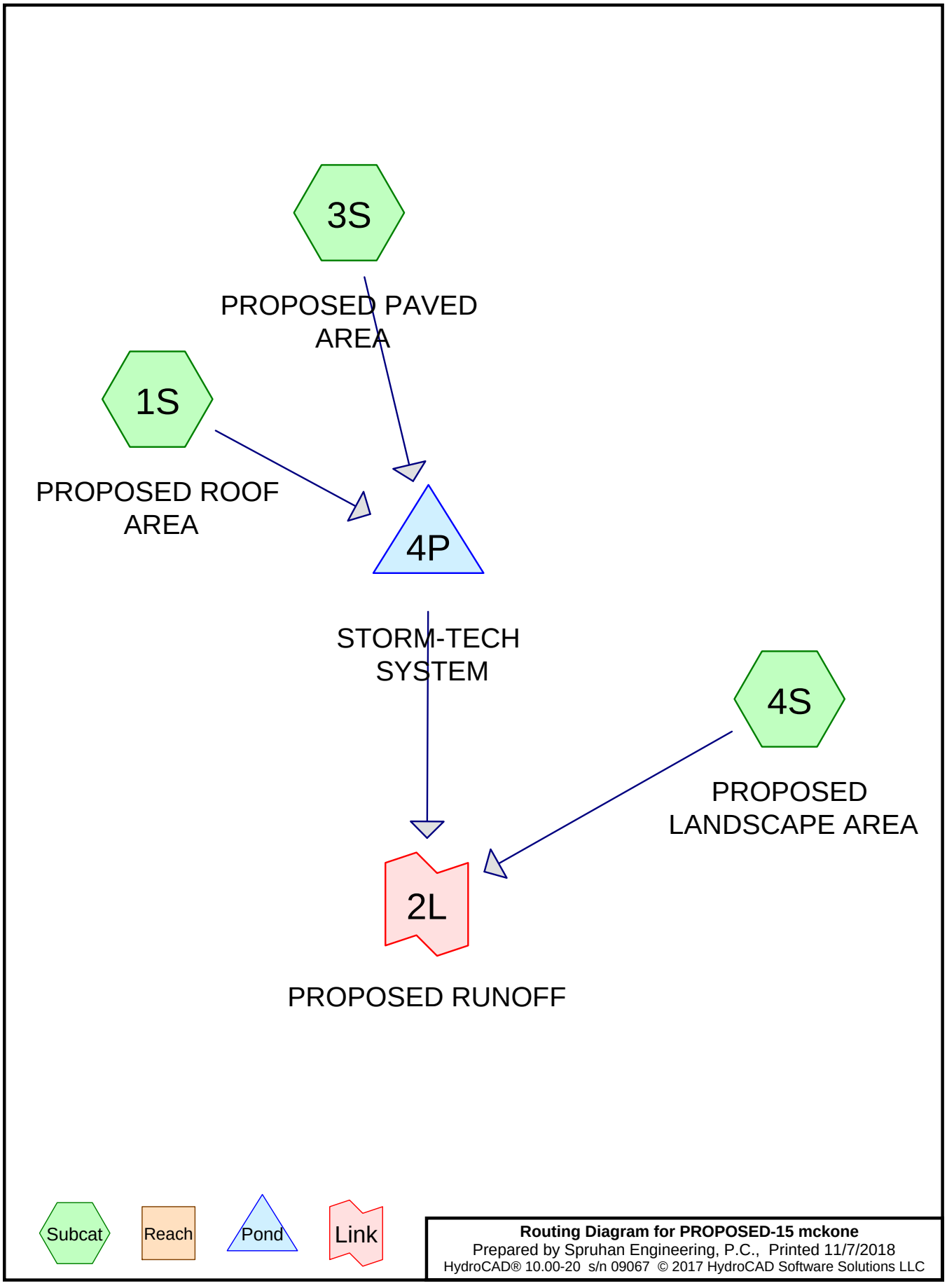
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper 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

Appendix A – HydroCAD Calculations



Routing Diagram for PROPOSED-15 mckone
Prepared by Spruhan Engineering, P.C., Printed 11/7/2018

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
3,258	49	50-75% Grass cover, Fair, HSG A (4S)
4,772	98	Paved roads w/curbs & sewers, HSG A (3S)
2,648	98	Roofs, HSG A (1S)
10,678	**83**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
10,678	HSG A	1S, 3S, 4S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
10,678		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
3,258	0	0	0	0	3,258	50-75% Grass cover, Fair
4,772	0	0	0	0	4,772	Paved roads w/curbs & sewers
2,648	0	0	0	0	2,648	Roofs
10,678	**0**	**0**	**0**	**0**	**10,678**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.32 cfs 1,095 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.57 cfs 1,972 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>0.72"
Tc=5.0 min CN=49 Runoff=0.04 cfs 195 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=12.61' Storage=759 cf Inflow=0.89 cfs 3,067 cf
Discarded=0.05 cfs 2,311 cf Primary=0.15 cfs 31 cf Outflow=0.19 cfs 2,342 cf

Link 2L: PROPOSED RUNOFF Inflow=0.18 cfs 226 cf
Primary=0.18 cfs 226 cf

Total Runoff Area = 10,678 sf Runoff Volume = 3,262 cf Average Runoff Depth = 3.67"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

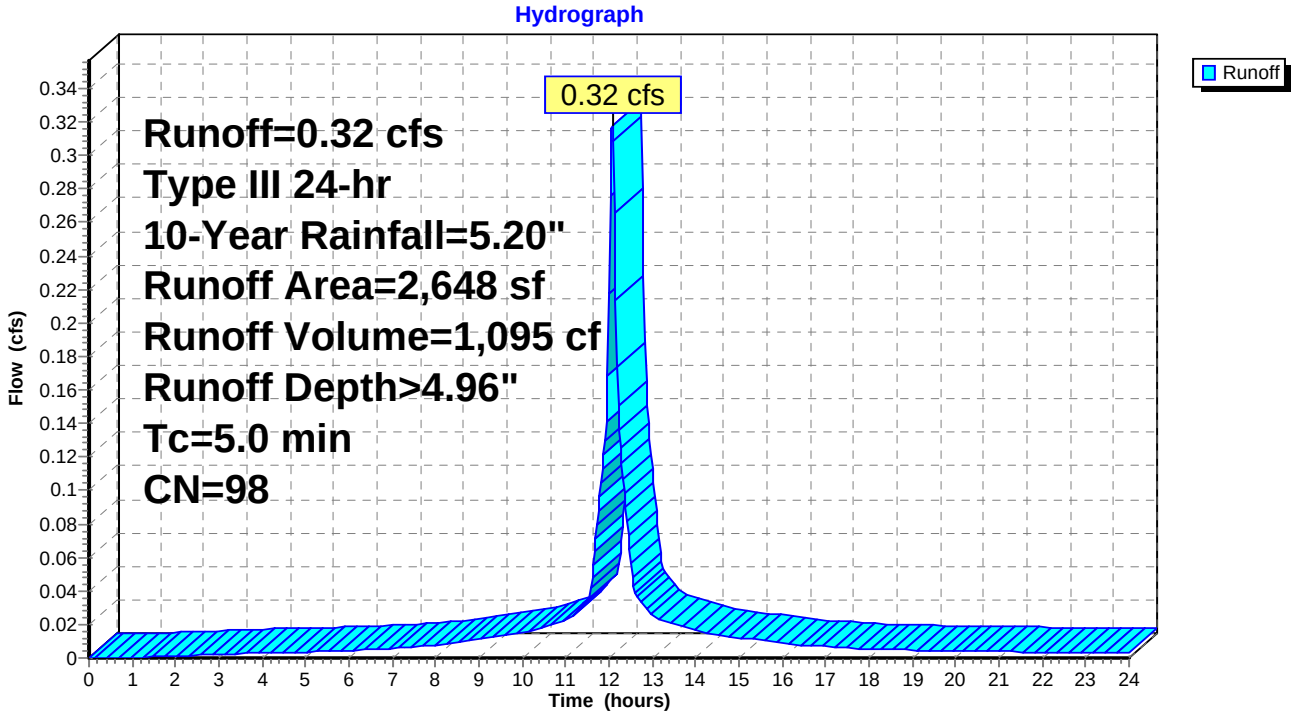
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,095 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

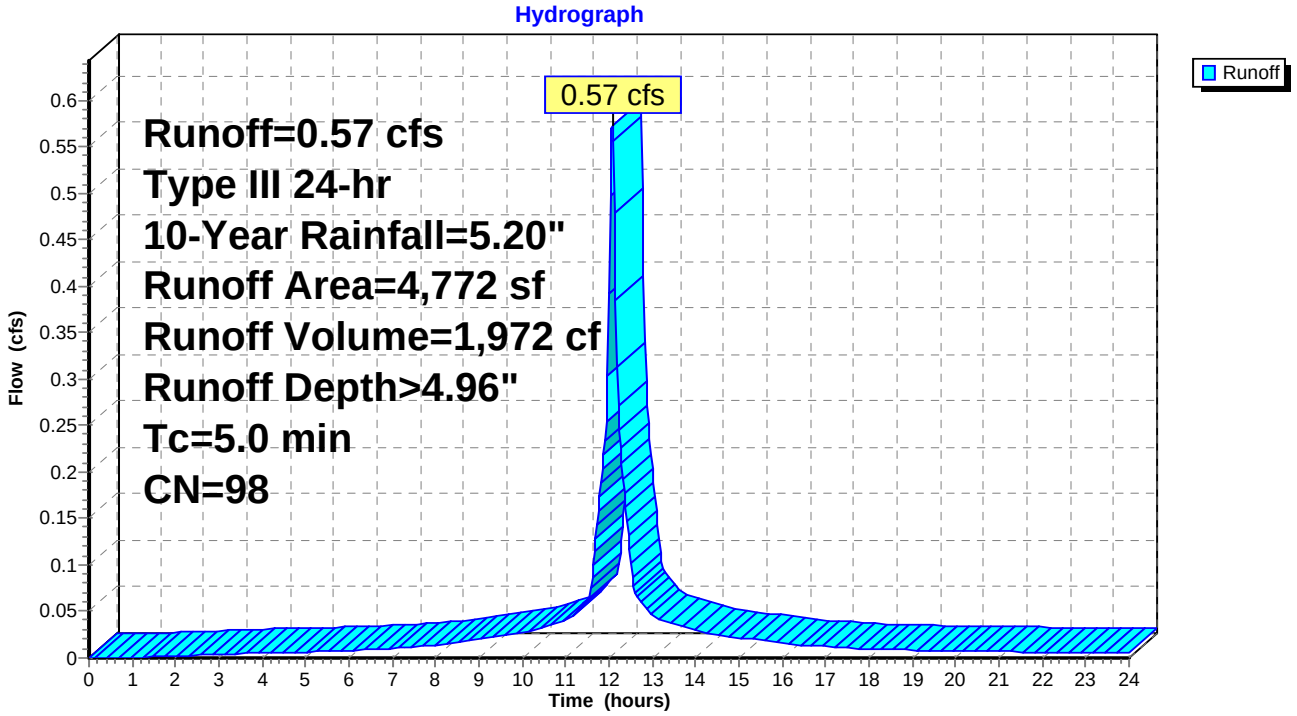
Runoff = 0.57 cfs @ 12.07 hrs, Volume= 1,972 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

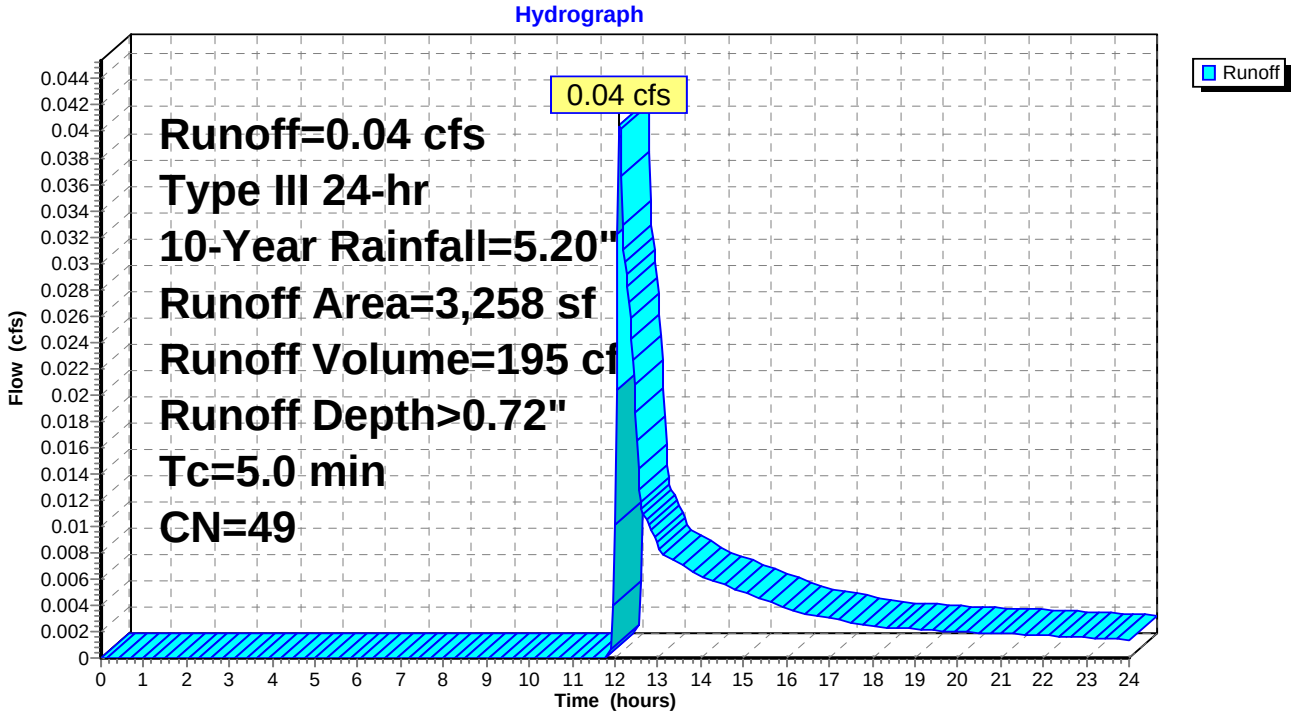
Runoff = 0.04 cfs @ 12.11 hrs, Volume= 195 cf, Depth> 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 4.96" for 10-Year event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,067 cf
Outflow = 0.19 cfs @ 12.07 hrs, Volume= 2,342 cf, Atten= 78%, Lag= 0.0 min
Discarded = 0.05 cfs @ 12.06 hrs, Volume= 2,311 cf
Primary = 0.15 cfs @ 12.07 hrs, Volume= 31 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 12.61' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 234.8 min calculated for 2,339 cf (76% of inflow)
Center-of-Mass det. time= 151.1 min (897.1 - 746.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.06 hrs HW=12.52' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.13 cfs @ 12.07 hrs HW=12.51' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 0.13 cfs @ 1.58 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

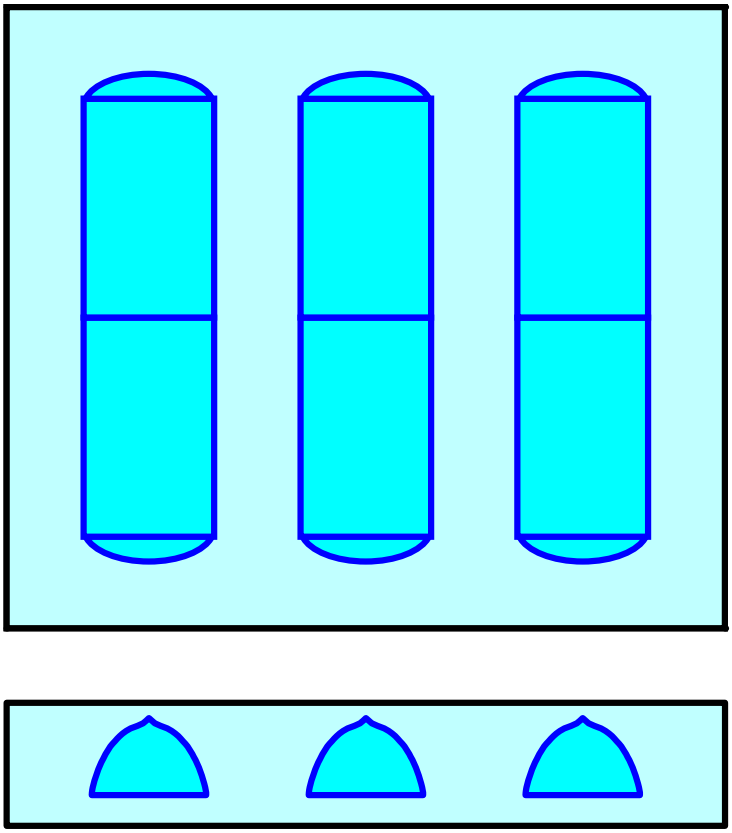
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

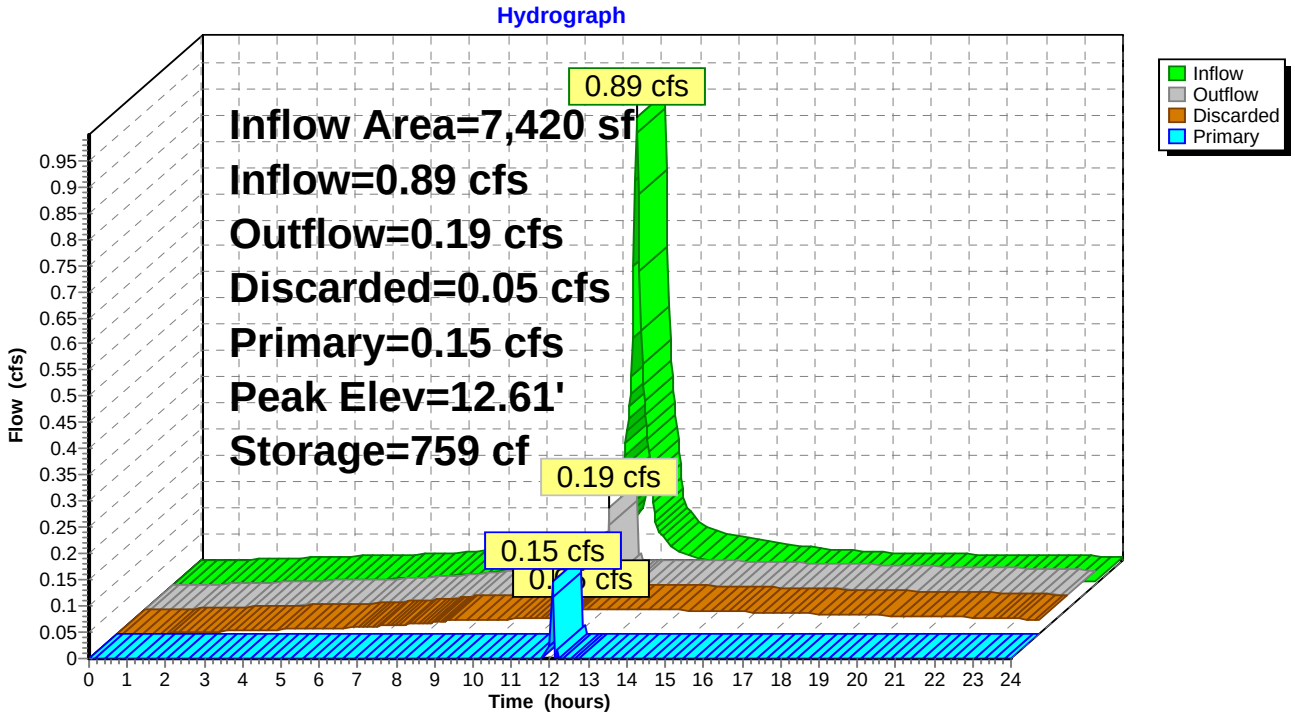
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

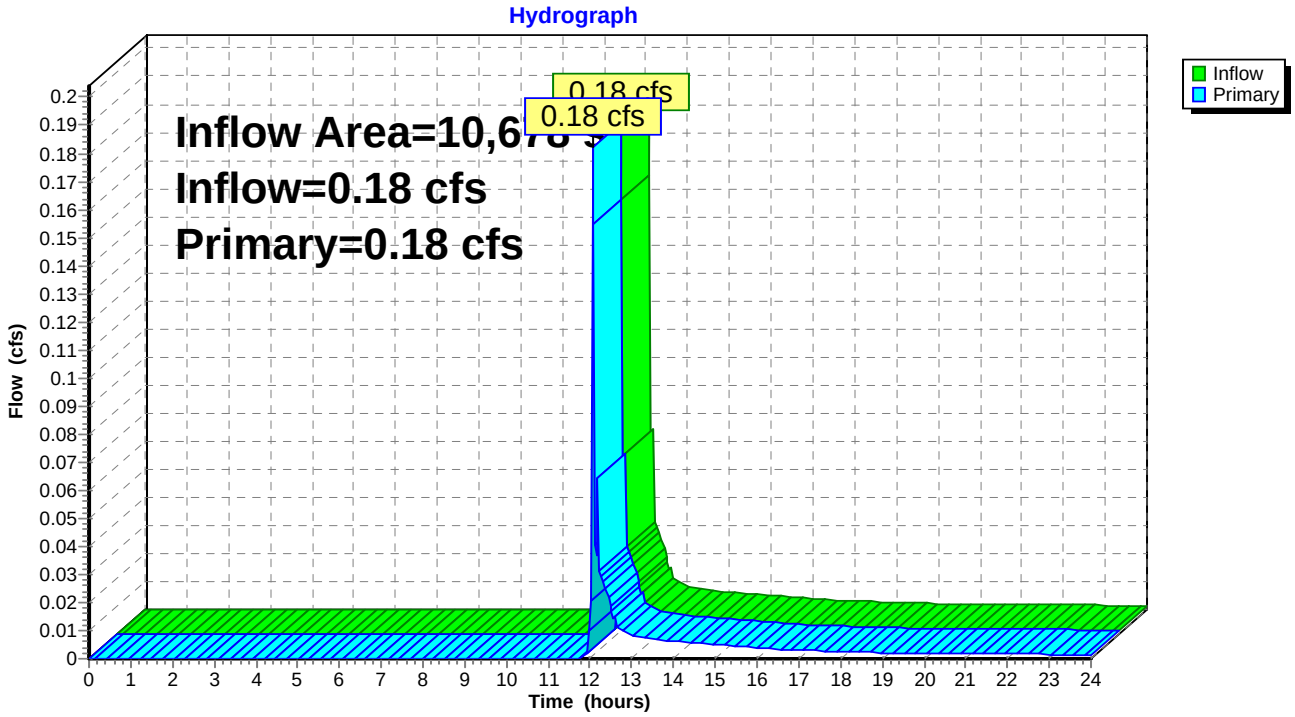


Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 0.25" for 10-Year event
Inflow = 0.18 cfs @ 12.07 hrs, Volume= 226 cf
Primary = 0.18 cfs @ 12.07 hrs, Volume= 226 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF



Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.39 cfs 1,354 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.71 cfs 2,441 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>1.25"
Tc=5.0 min CN=49 Runoff=0.09 cfs 341 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=13.21' Storage=759 cf Inflow=1.10 cfs 3,795 cf
Discarded=0.05 cfs 2,466 cf Primary=0.77 cfs 471 cf Outflow=0.81 cfs 2,937 cf

Link 2L: PROPOSED RUNOFF Inflow=0.86 cfs 812 cf
Primary=0.86 cfs 812 cf

Total Runoff Area = 10,678 sf Runoff Volume = 4,136 cf Average Runoff Depth = 4.65"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

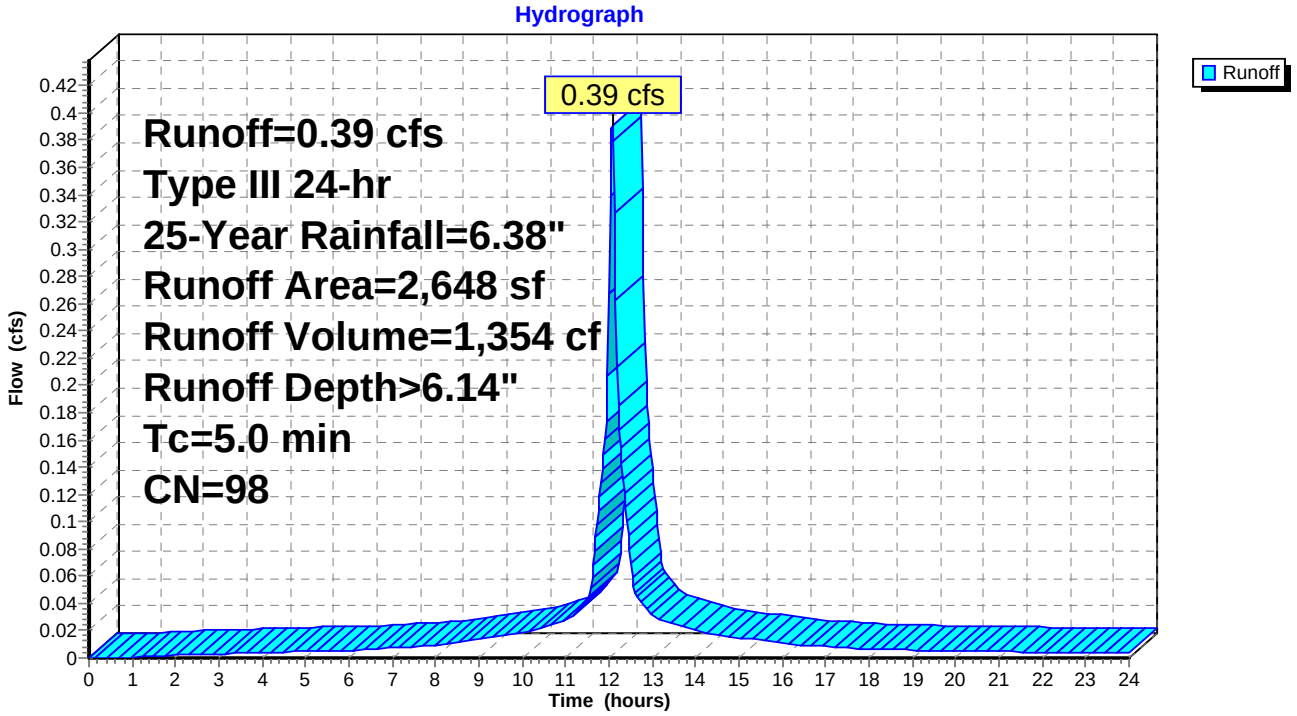
Runoff = 0.39 cfs @ 12.07 hrs, Volume= 1,354 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

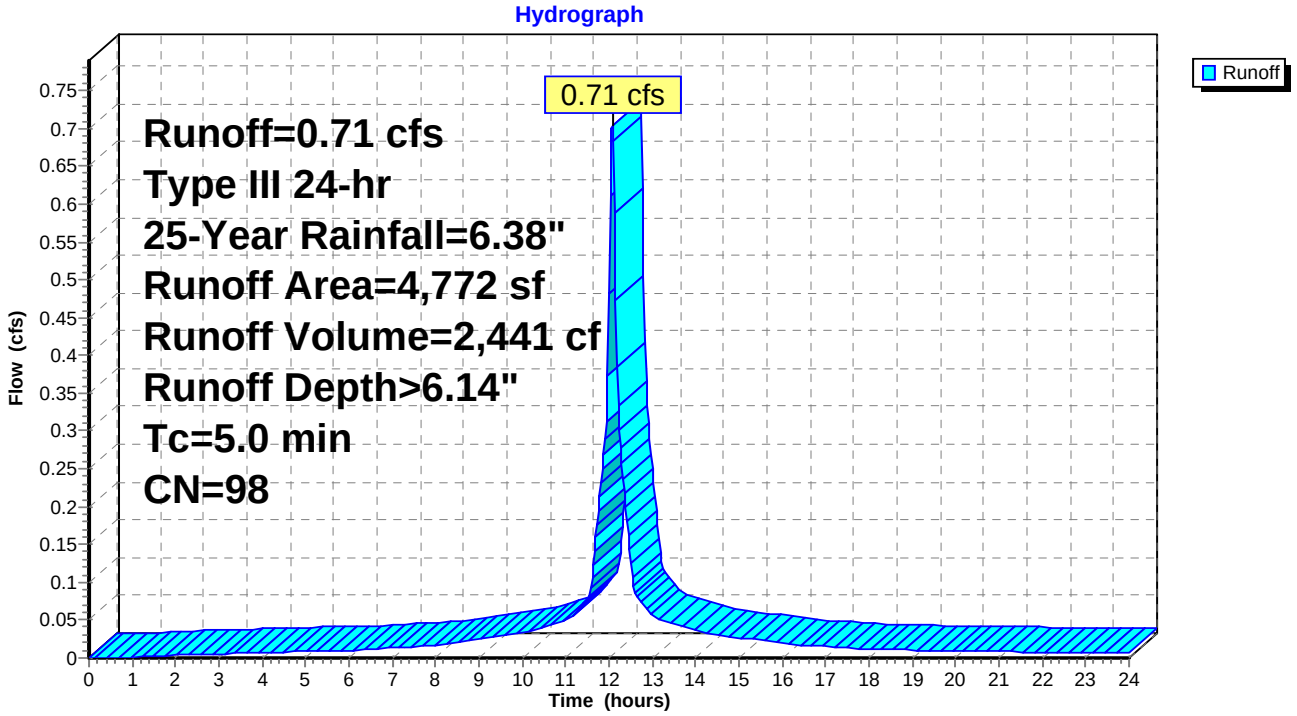
Runoff = 0.71 cfs @ 12.07 hrs, Volume= 2,441 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

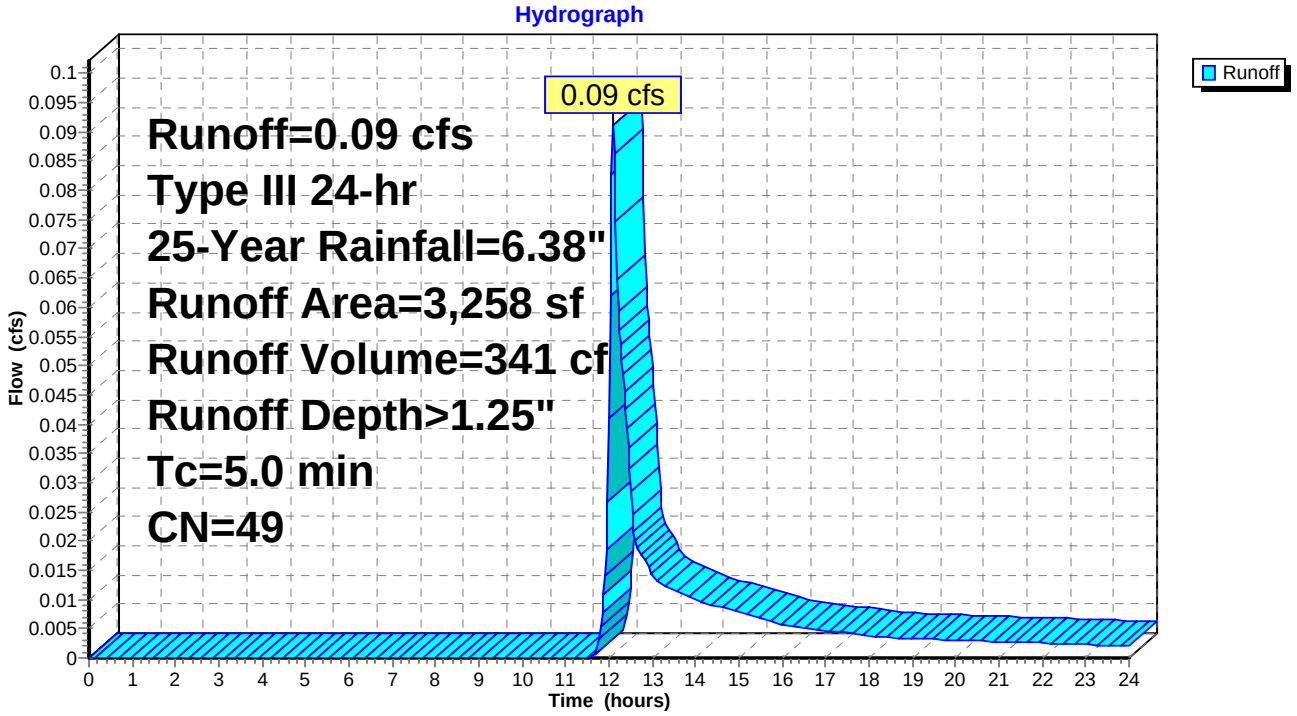
Runoff = 0.09 cfs @ 12.09 hrs, Volume= 341 cf, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 6.14" for 25-Year event
Inflow = 1.10 cfs @ 12.07 hrs, Volume= 3,795 cf
Outflow = 0.81 cfs @ 12.07 hrs, Volume= 2,937 cf, Atten= 26%, Lag= 0.0 min
Discarded = 0.05 cfs @ 12.00 hrs, Volume= 2,466 cf
Primary = 0.77 cfs @ 12.07 hrs, Volume= 471 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 13.21' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 198.3 min calculated for 2,933 cf (77% of inflow)
Center-of-Mass det. time= 116.0 min (859.0 - 742.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.00 hrs HW=12.75' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.75 cfs @ 12.07 hrs HW=13.18' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 0.75 cfs @ 3.83 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

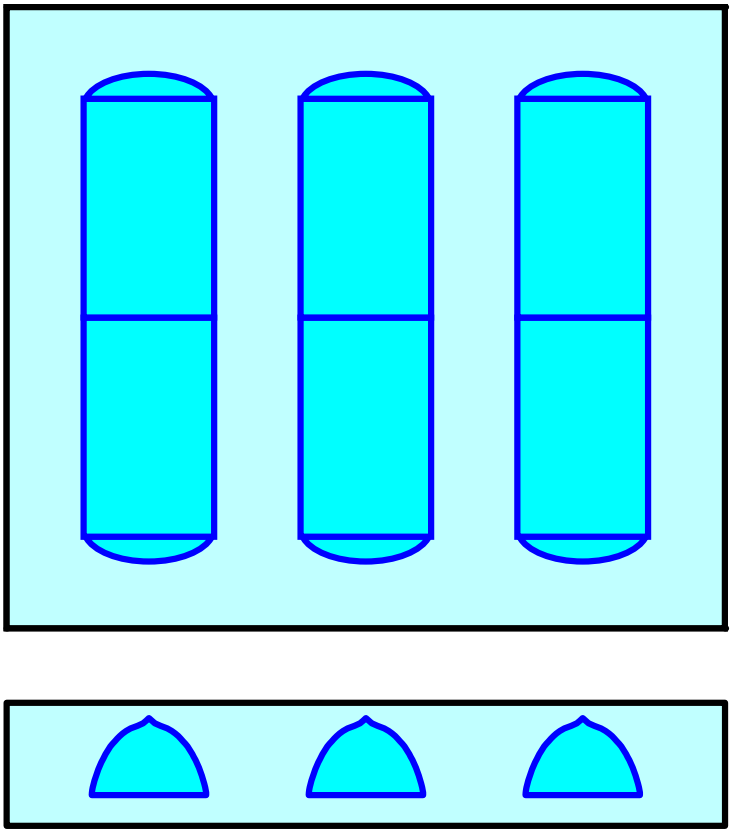
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

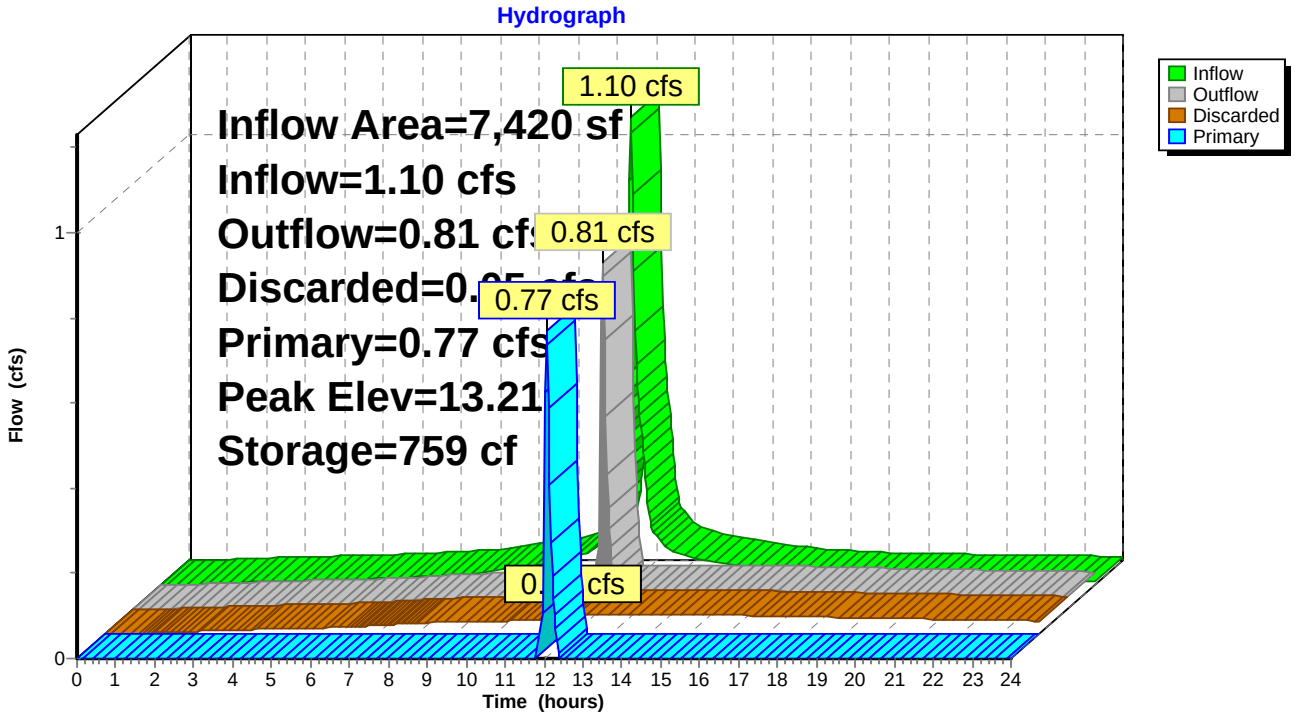
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

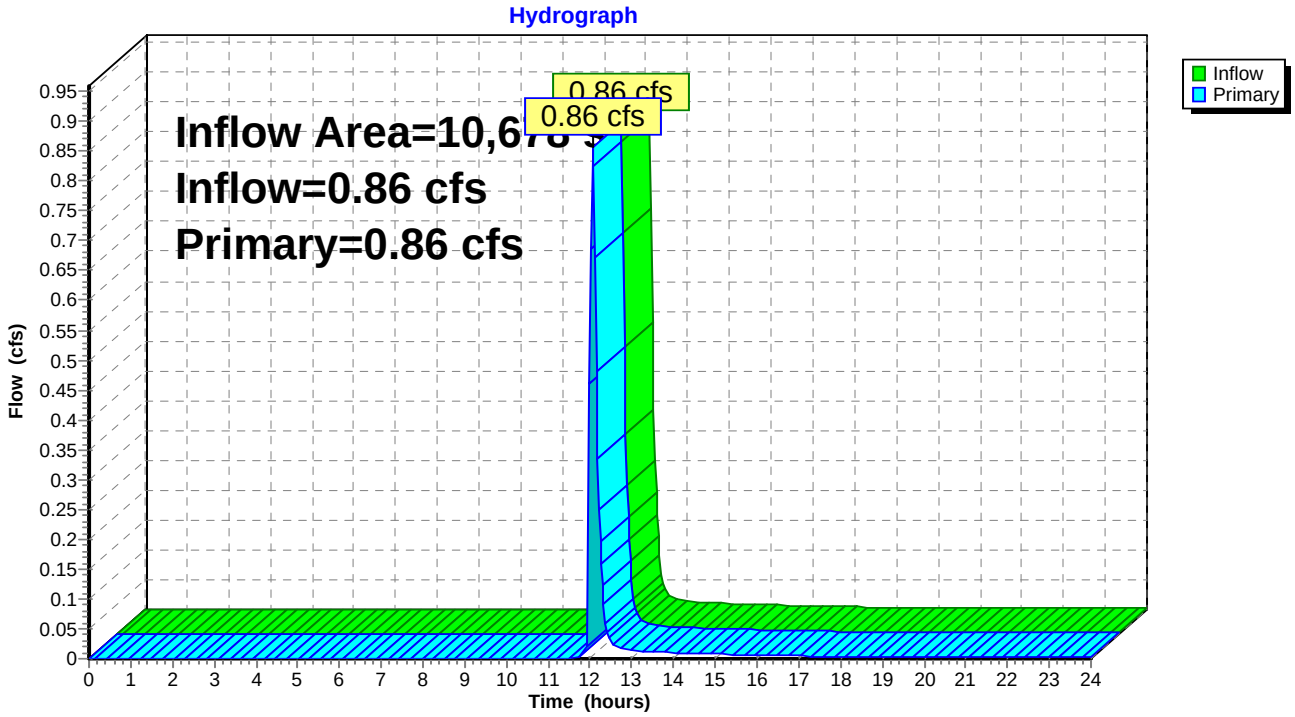


Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 0.91" for 25-Year event
Inflow = 0.86 cfs @ 12.07 hrs, Volume= 812 cf
Primary = 0.86 cfs @ 12.07 hrs, Volume= 812 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF



Time span=0.00-24.00 hrs, dt=0.03 hrs, 801 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 1S: PROPOSED ROOF Runoff Area=2,648 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.50 cfs 1,756 cf

Subcatchment 3S: PROPOSED PAVED Runoff Area=4,772 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.91 cfs 3,164 cf

Subcatchment 4S: PROPOSED LANDSCAPE Runoff Area=3,258 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.19 cfs 614 cf

Pond 4P: STORM-TECH SYSTEM Peak Elev=14.48' Storage=759 cf Inflow=1.41 cfs 4,919 cf
Discarded=0.05 cfs 2,659 cf Primary=1.31 cfs 1,590 cf Outflow=1.36 cfs 4,249 cf

Link 2L: PROPOSED RUNOFF Inflow=1.50 cfs 2,204 cf
Primary=1.50 cfs 2,204 cf

Total Runoff Area = 10,678 sf Runoff Volume = 5,534 cf Average Runoff Depth = 6.22"
30.51% Pervious = 3,258 sf 69.49% Impervious = 7,420 sf

Summary for Subcatchment 1S: PROPOSED ROOF AREA

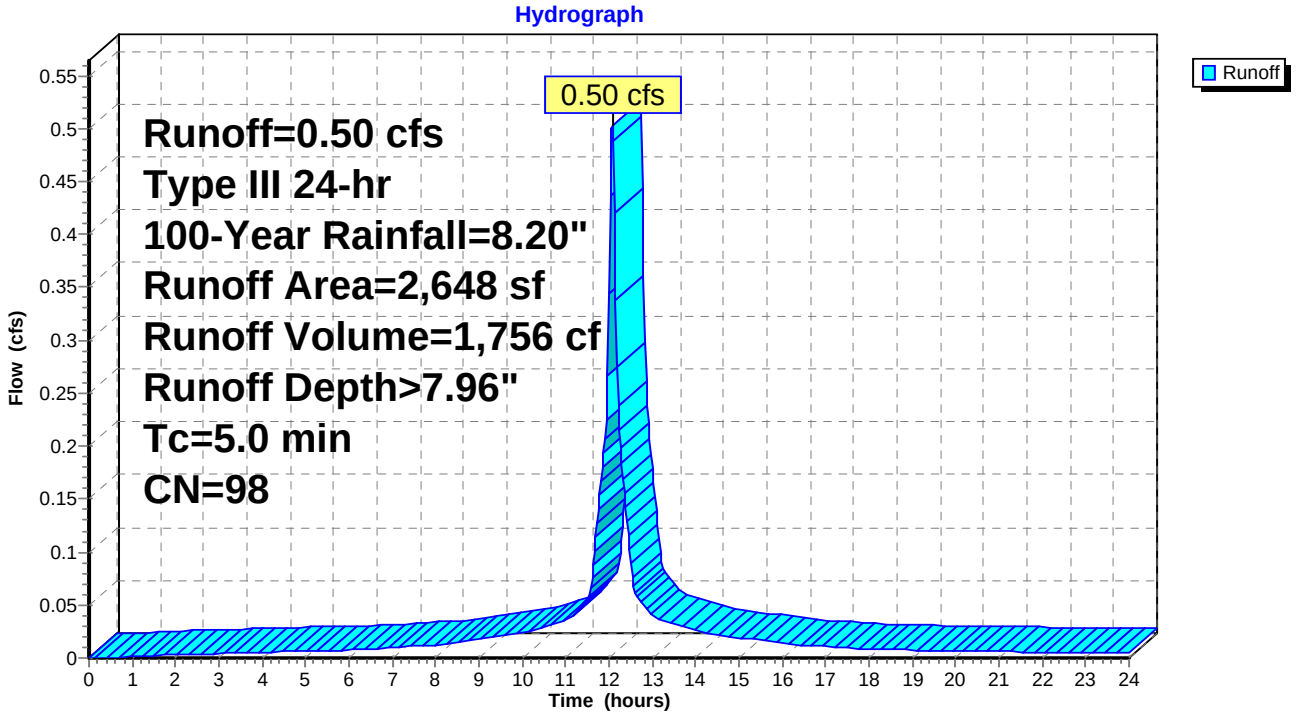
Runoff = 0.50 cfs @ 12.07 hrs, Volume= 1,756 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
2,648	98	Roofs, HSG A
2,648		100.00% Impervious Area

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

Subcatchment 1S: PROPOSED ROOF AREA



Summary for Subcatchment 3S: PROPOSED PAVED AREA

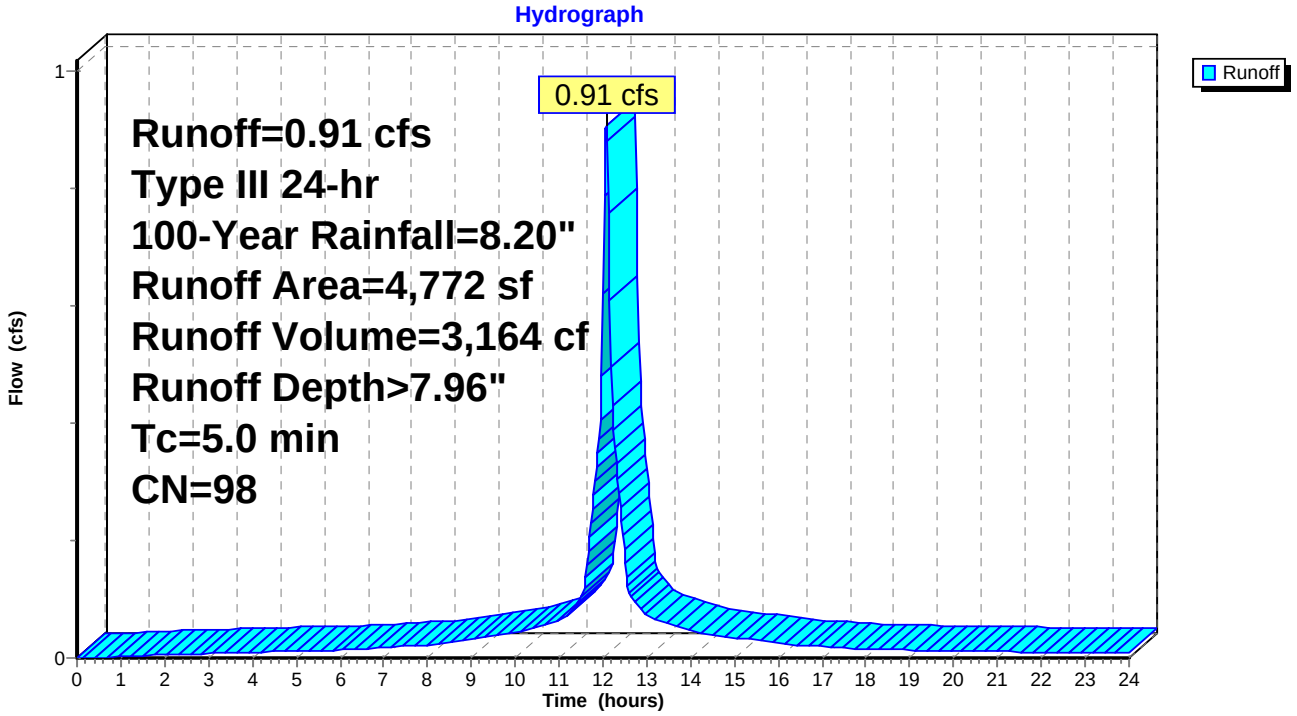
Runoff = 0.91 cfs @ 12.07 hrs, Volume= 3,164 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
4,772	98	Paved roads w/curbs & sewers, HSG A
4,772		100.00% Impervious Area

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

Subcatchment 3S: PROPOSED PAVED AREA



Summary for Subcatchment 4S: PROPOSED LANDSCAPE AREA

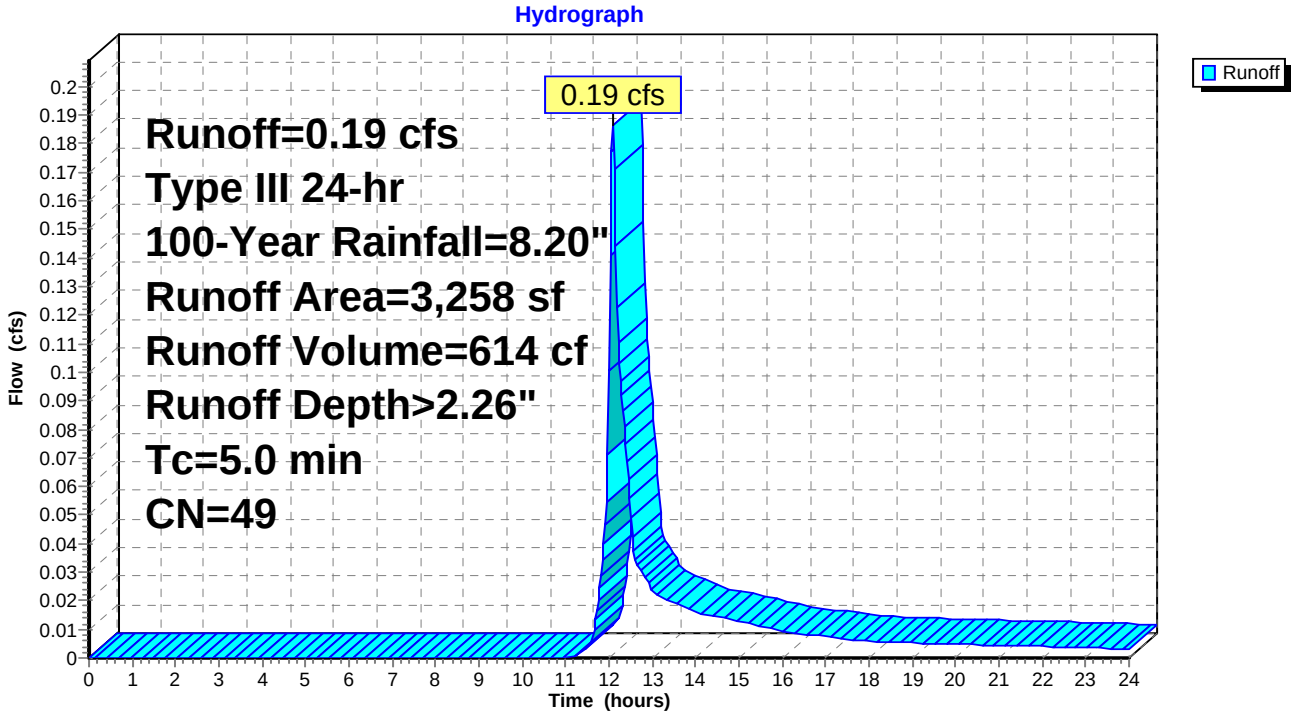
Runoff = 0.19 cfs @ 12.09 hrs, Volume= 614 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
3,258	49	50-75% Grass cover, Fair, HSG A
3,258		100.00% Pervious Area

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

Subcatchment 4S: PROPOSED LANDSCAPE AREA



Summary for Pond 4P: STORM-TECH SYSTEM

Inflow Area = 7,420 sf,100.00% Impervious, Inflow Depth > 7.96" for 100-Year event
Inflow = 1.41 cfs @ 12.07 hrs, Volume= 4,919 cf
Outflow = 1.36 cfs @ 12.07 hrs, Volume= 4,249 cf, Atten= 4%, Lag= 0.0 min
Discarded = 0.05 cfs @ 11.82 hrs, Volume= 2,659 cf
Primary = 1.31 cfs @ 12.07 hrs, Volume= 1,590 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 14.48' @ 12.07 hrs Surf.Area= 471 sf Storage= 759 cf

Plug-Flow detention time= 135.1 min calculated for 4,244 cf (86% of inflow)
Center-of-Mass det. time= 73.9 min (813.5 - 739.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	8.30'	483 cf	**23.35'W x 20.19'L x 4.00'H Field A** 1,886 cf Overall - 276 cf Embedded = 1,610 cf x 30.0% Voids
#2A	9.30'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 2 Chambers
#3	15.00'	1,000 cf	**PONDING** Listed below -Impervious
		1,759 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
15.00	0
16.70	1,000

Device	Routing	Invert	Outlet Devices
#1	Primary	12.30'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Discarded	8.30'	**2.400 in/hr Exfiltration over Wetted area**
#3	Primary	14.80'	**30.0" Horiz. CB RIM** C= 0.600 Limited to weir flow at low heads
#4	Primary	15.10'	**12.0" x 240.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 11.82 hrs HW=12.71' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=1.29 cfs @ 12.07 hrs HW=14.42' (Free Discharge)
├**1=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.58 fps)
├**3=CB RIM** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)

Pond 4P: STORM-TECH SYSTEM - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 33.6" Spacing = 84.6" C-C Row Spacing

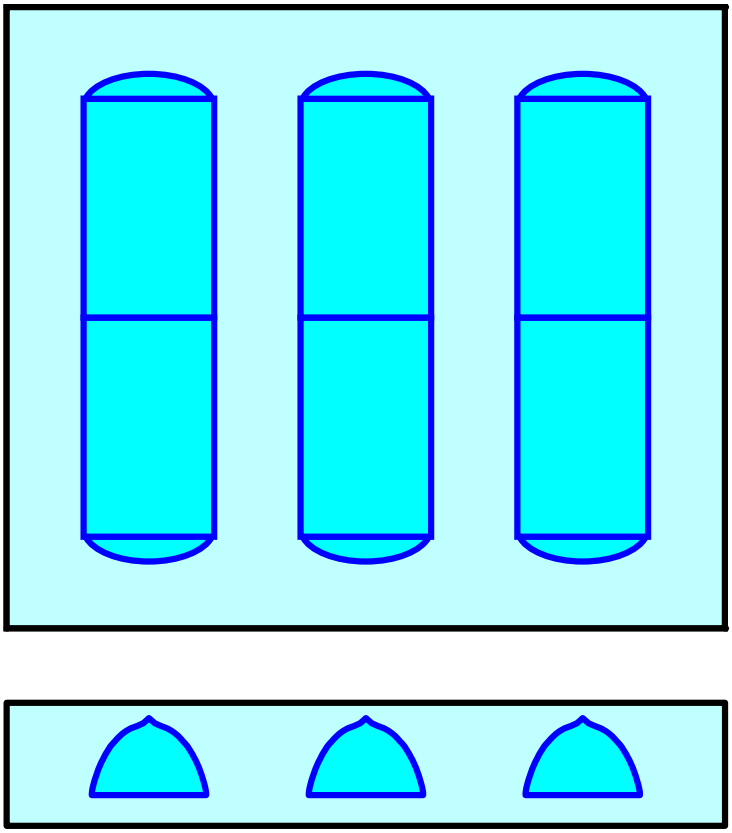
2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +26.0" End Stone x 2 = 20.19' Base Length
3 Rows x 51.0" Wide + 33.6" Spacing x 2 + 30.0" Side Stone x 2 = 23.35' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

6 Chambers x 45.9 cf = 275.6 cf Chamber Storage

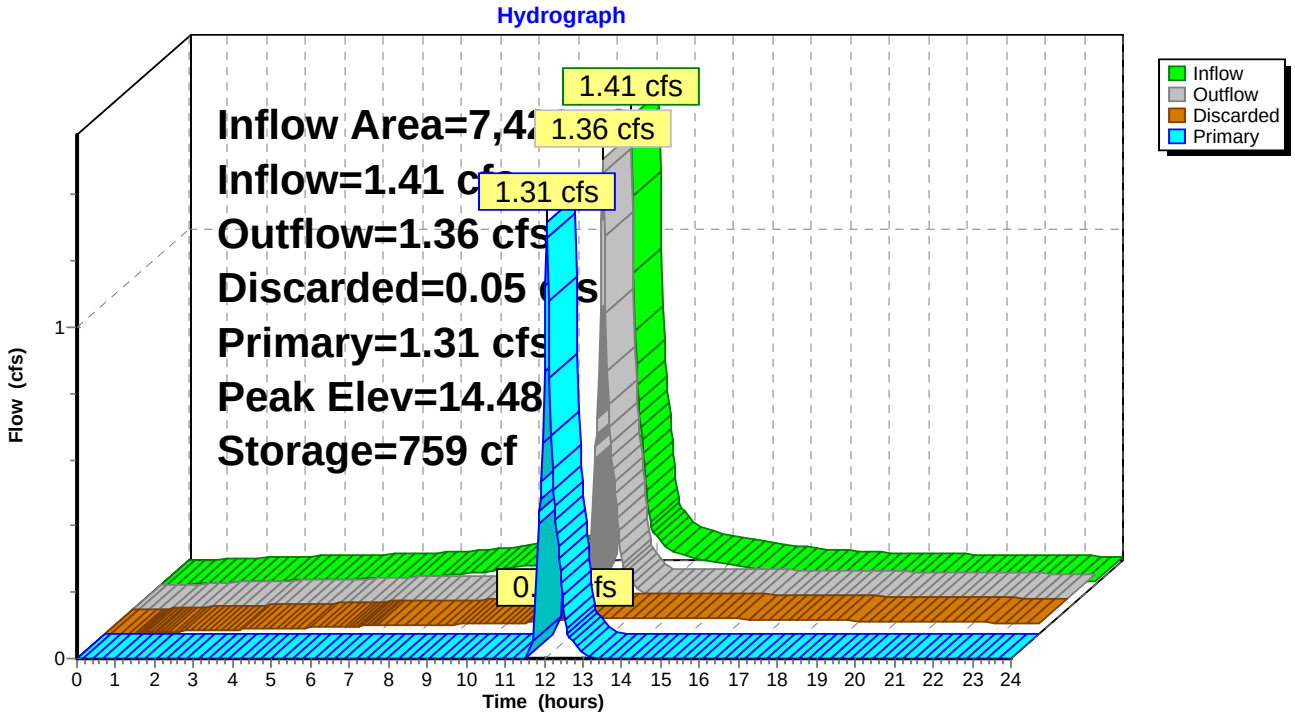
1,885.7 cf Field - 275.6 cf Chambers = 1,610.1 cf Stone x 30.0% Voids = 483.0 cf Stone Storage

Chamber Storage + Stone Storage = 758.7 cf = 0.017 af
Overall Storage Efficiency = 40.2%
Overall System Size = 20.19' x 23.35' x 4.00'

6 Chambers
69.8 cy Field
59.6 cy Stone



Pond 4P: STORM-TECH SYSTEM

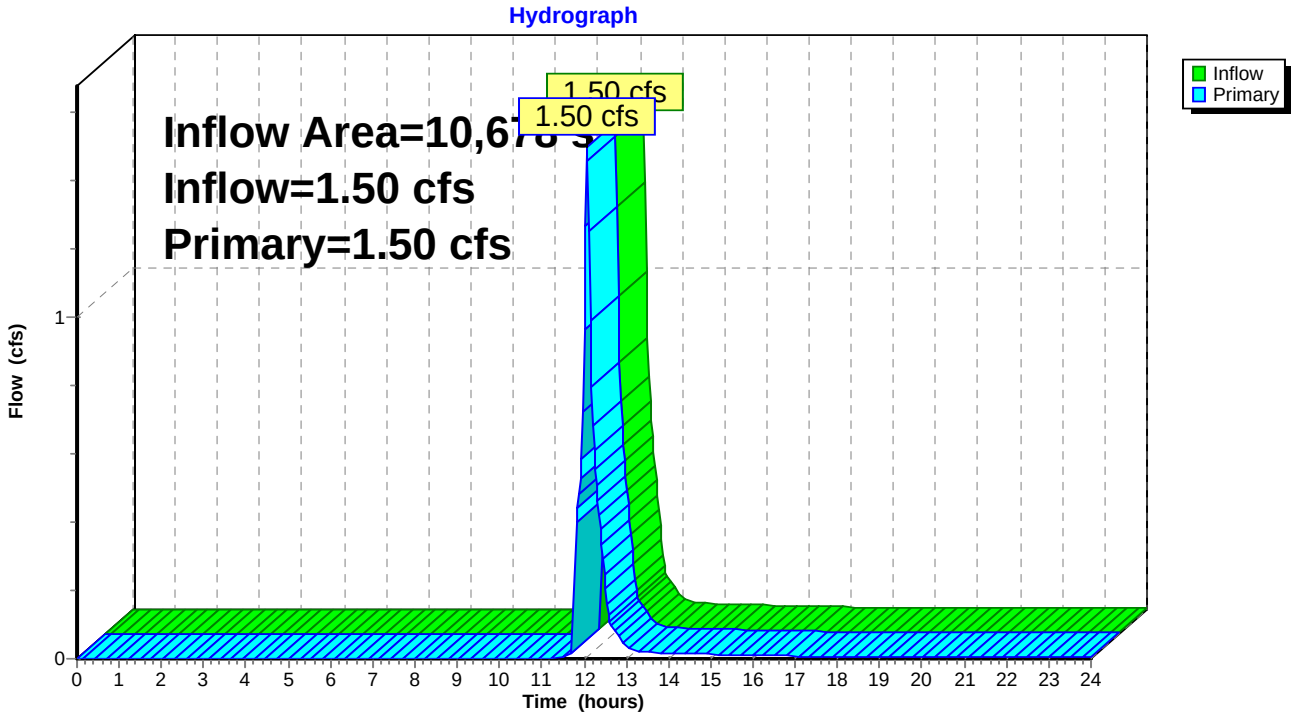


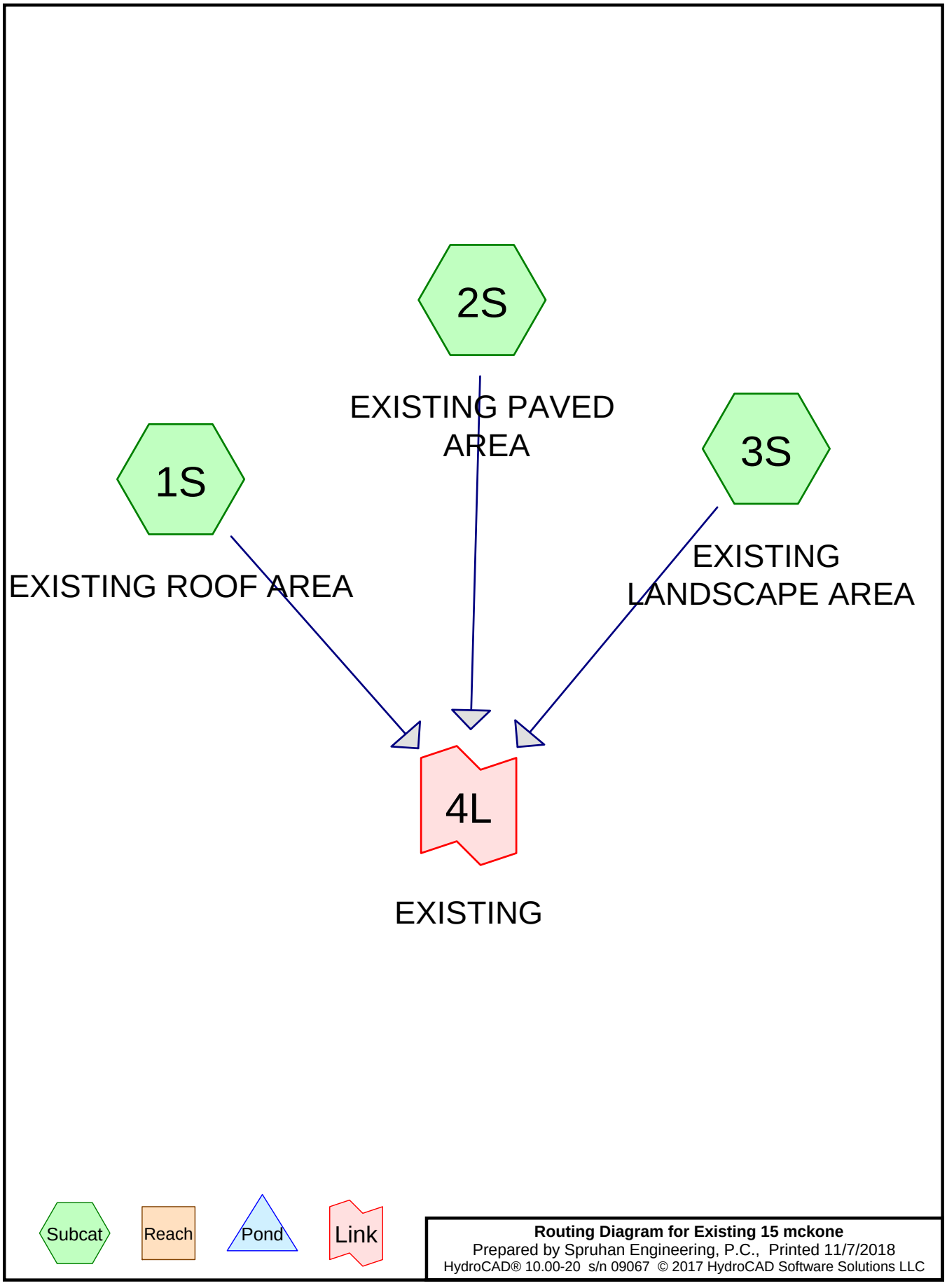
Summary for Link 2L: PROPOSED RUNOFF

Inflow Area = 10,678 sf, 69.49% Impervious, Inflow Depth > 2.48" for 100-Year event
Inflow = 1.50 cfs @ 12.07 hrs, Volume= 2,204 cf
Primary = 1.50 cfs @ 12.07 hrs, Volume= 2,204 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.03 hrs

Link 2L: PROPOSED RUNOFF





Routing Diagram for Existing 15 mckone
Prepared by Spruhan Engineering, P.C., Printed 11/7/2018

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
9,069	49	50-75% Grass cover, Fair, HSG A (3S)
304	98	Paved roads w/curbs & sewers, HSG A (2S)
1,305	98	Roofs, HSG A (1S)
10,678	**56**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
10,678	HSG A	1S, 2S, 3S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
10,678		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
9,069	0	0	0	0	9,069	50-75% Grass cover, Fair
304	0	0	0	0	304	Paved roads w/curbs & sewers
1,305	0	0	0	0	1,305	Roofs
10,678	**0**	**0**	**0**	**0**	**10,678**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.16 cfs 539 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>4.96"
Tc=5.0 min CN=98 Runoff=0.04 cfs 126 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>0.72"
Tc=5.0 min CN=49 Runoff=0.11 cfs 543 cf

Link 4L: EXISTING Inflow=0.30 cfs 1,208 cf
Primary=0.30 cfs 1,208 cf

Total Runoff Area = 10,678 sf Runoff Volume = 1,208 cf Average Runoff Depth = 1.36"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

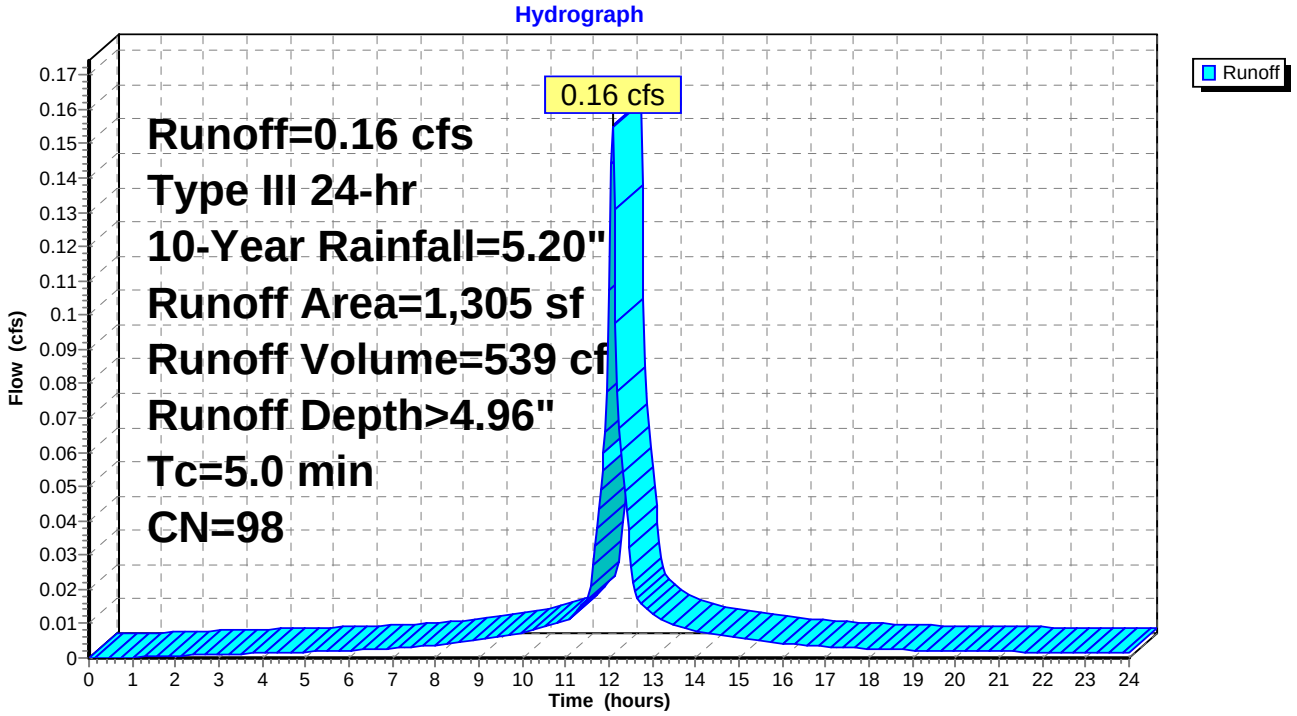
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 539 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

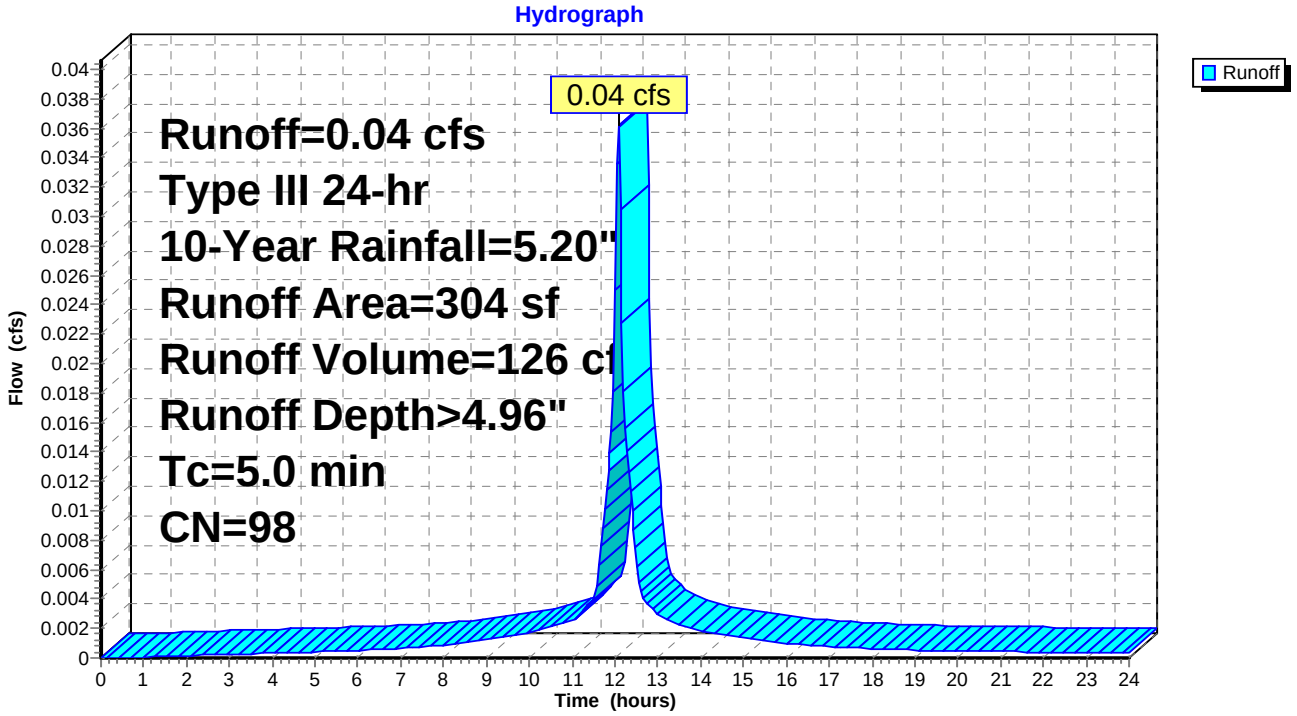
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 126 cf, Depth> 4.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

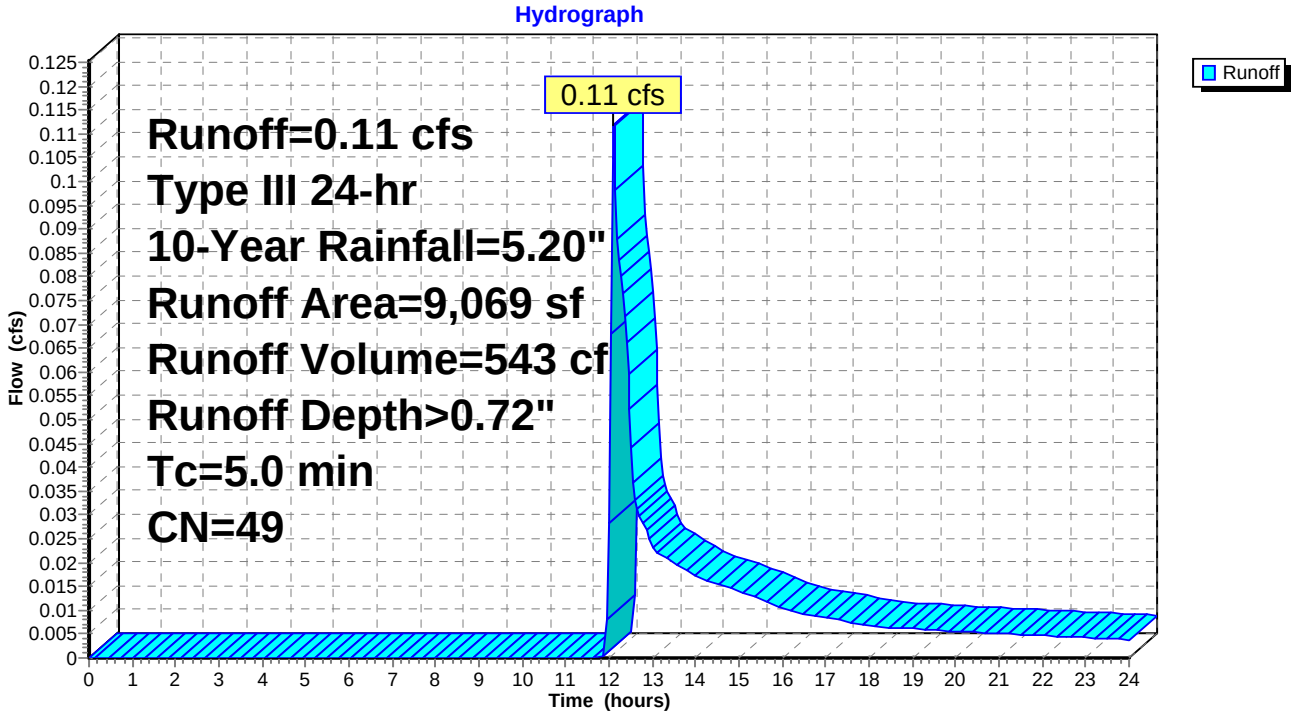
Runoff = 0.11 cfs @ 12.11 hrs, Volume= 543 cf, Depth> 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

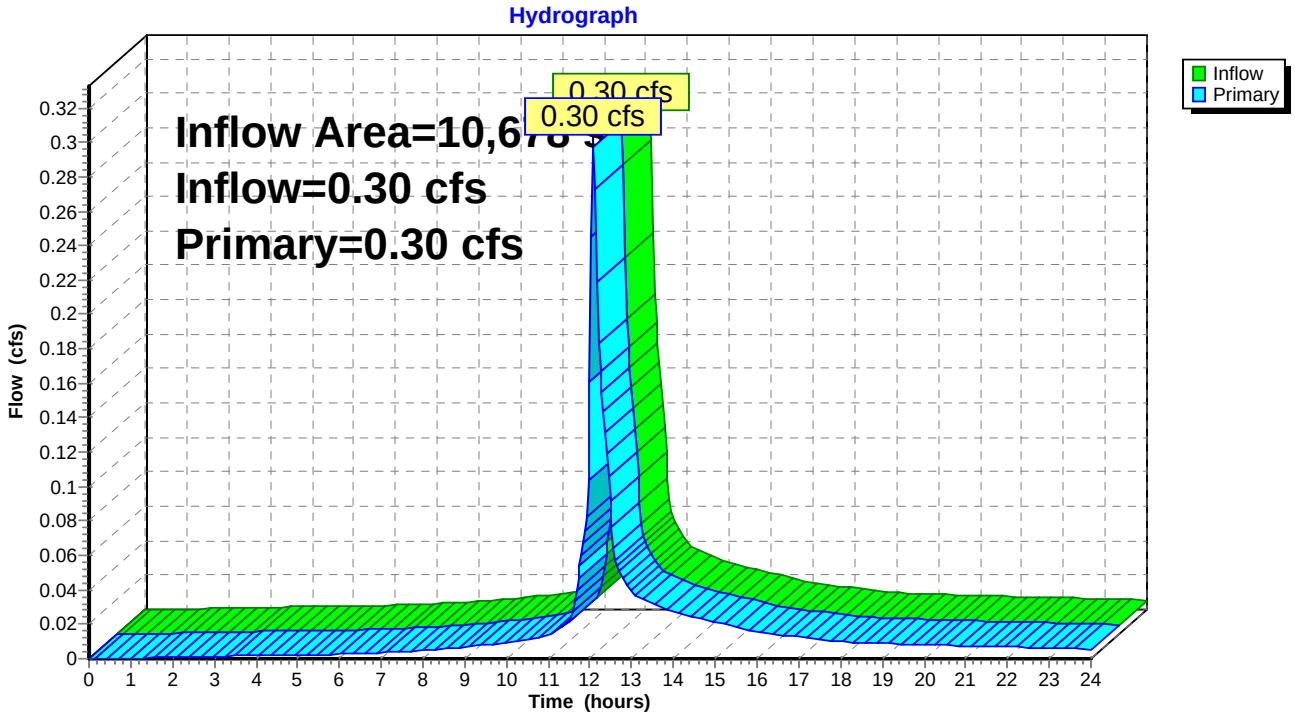


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 1.36" for 10-Year event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 1,208 cf
Primary = 0.30 cfs @ 12.09 hrs, Volume= 1,208 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.19 cfs 668 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>6.14"
Tc=5.0 min CN=98 Runoff=0.04 cfs 156 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>1.25"
Tc=5.0 min CN=49 Runoff=0.25 cfs 948 cf

Link 4L: EXISTING Inflow=0.48 cfs 1,771 cf
Primary=0.48 cfs 1,771 cf

Total Runoff Area = 10,678 sf Runoff Volume = 1,771 cf Average Runoff Depth = 1.99"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

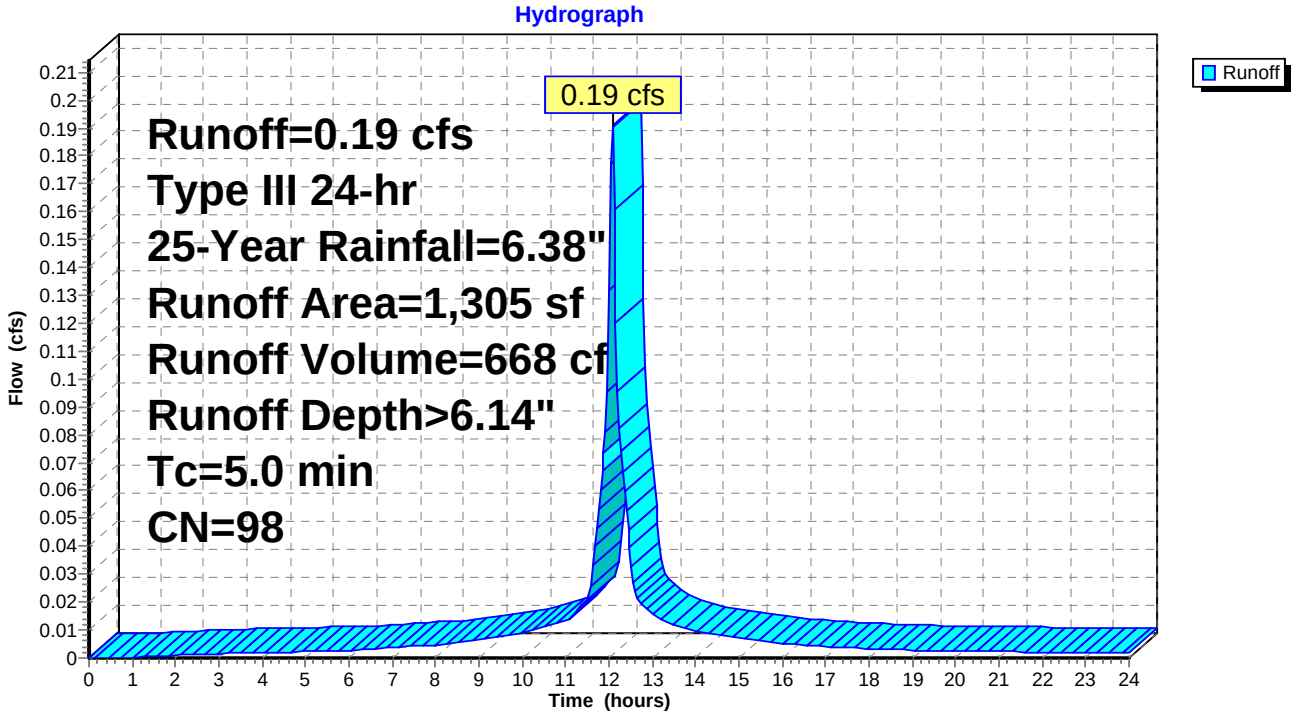
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 668 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

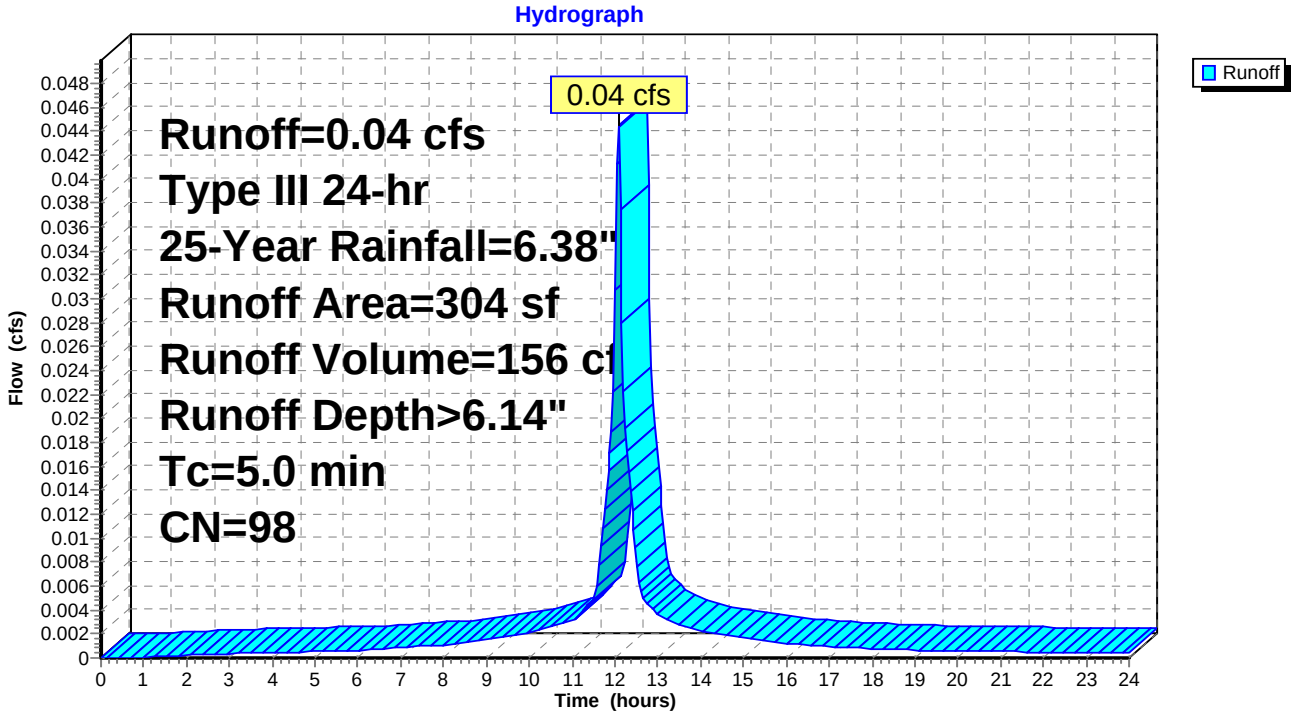
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 156 cf, Depth> 6.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

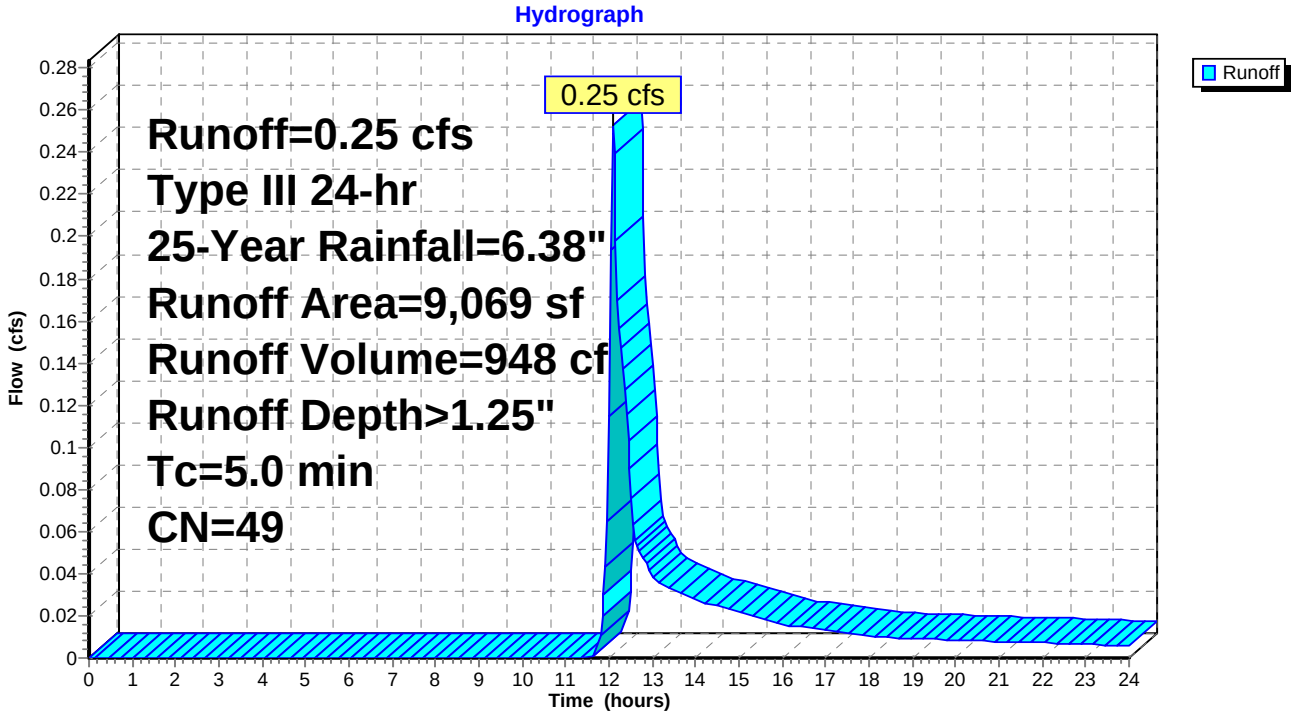
Runoff = 0.25 cfs @ 12.09 hrs, Volume= 948 cf, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25-Year Rainfall=6.38"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

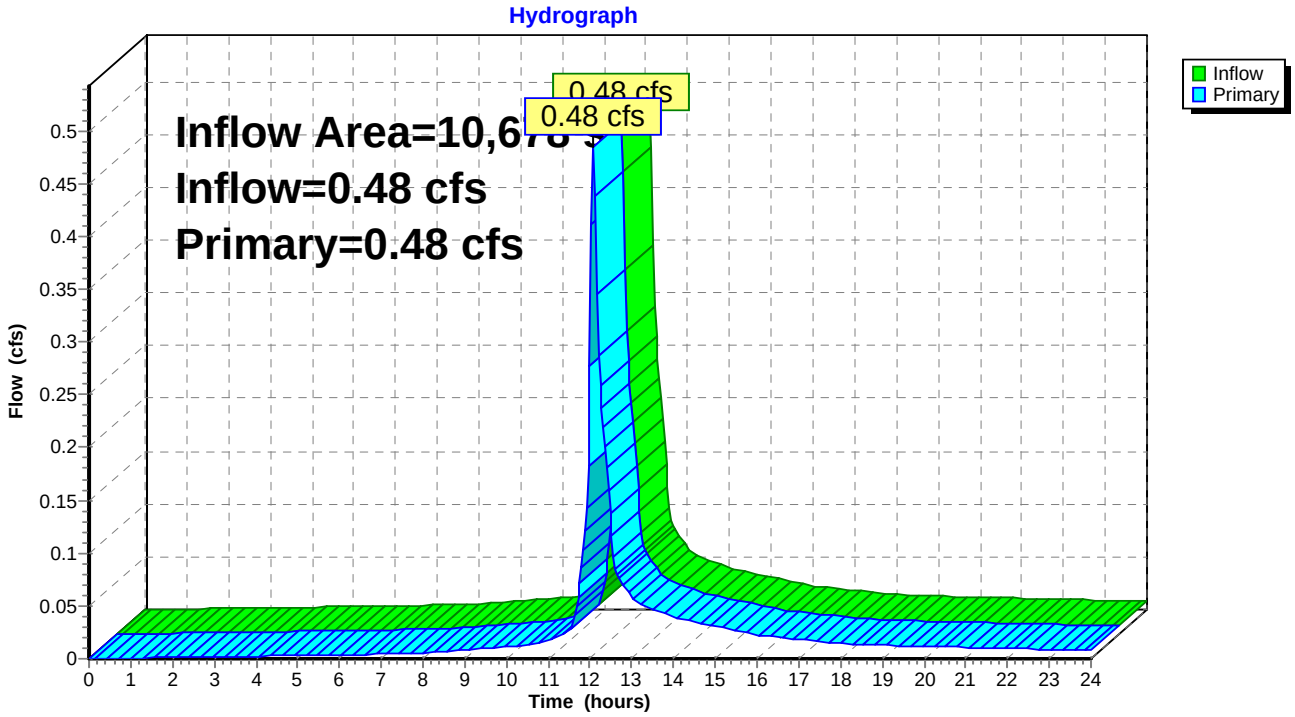


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 1.99" for 25-Year event
Inflow = 0.48 cfs @ 12.08 hrs, Volume= 1,771 cf
Primary = 0.48 cfs @ 12.08 hrs, Volume= 1,771 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.25 cfs 865 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.06 cfs 202 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.52 cfs 1,710 cf

Link 4L: EXISTING Inflow=0.82 cfs 2,777 cf
Primary=0.82 cfs 2,777 cf

Total Runoff Area = 10,678 sf Runoff Volume = 2,777 cf Average Runoff Depth = 3.12"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

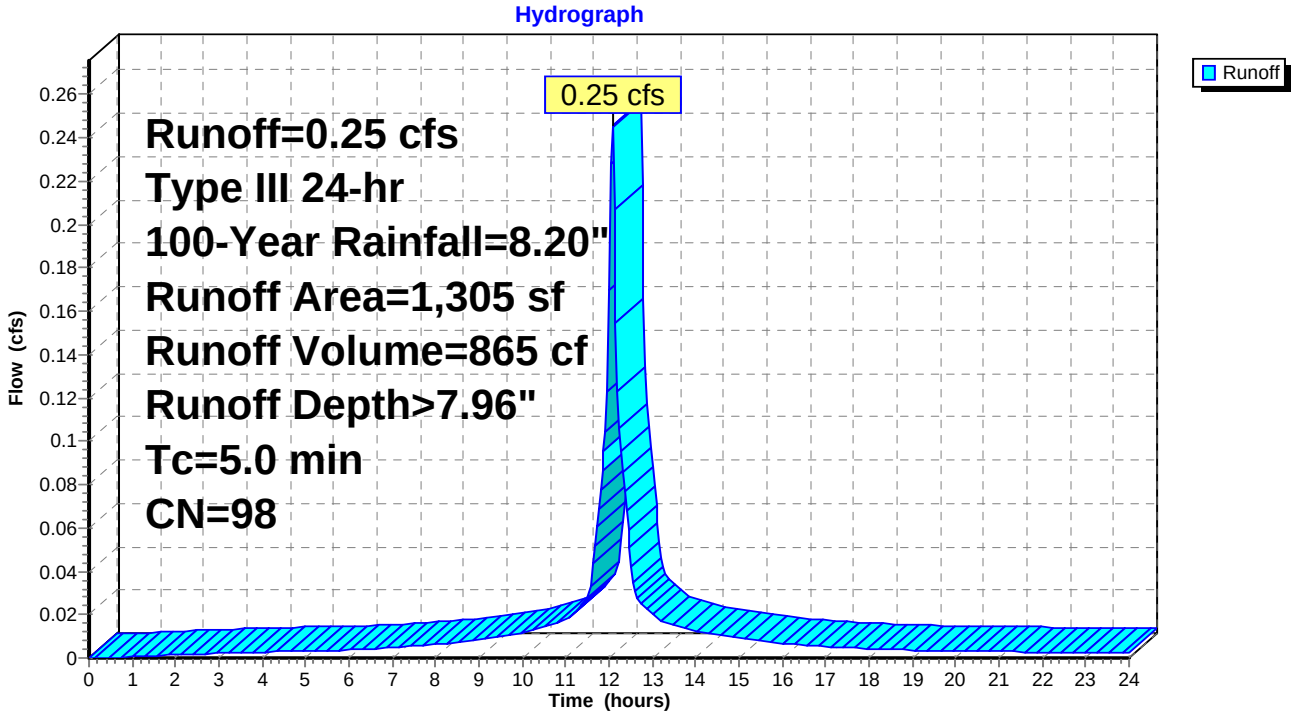
Runoff = 0.25 cfs @ 12.07 hrs, Volume= 865 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

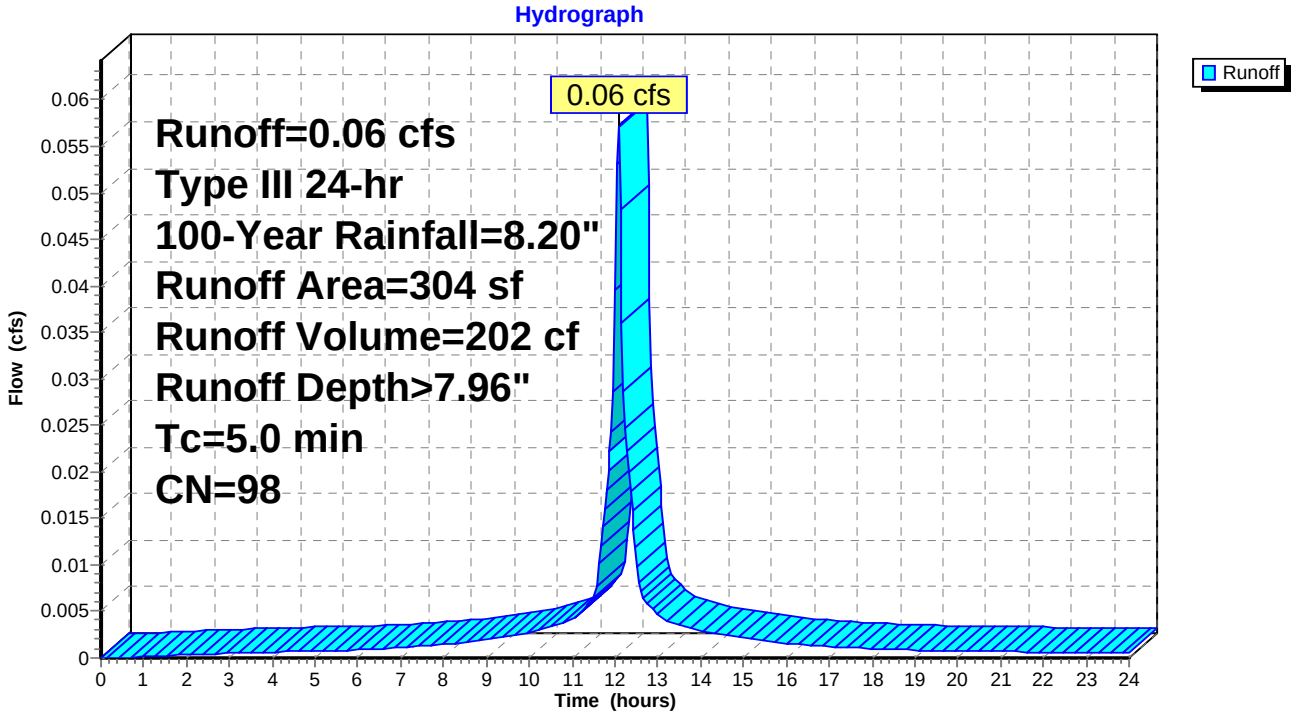
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 202 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

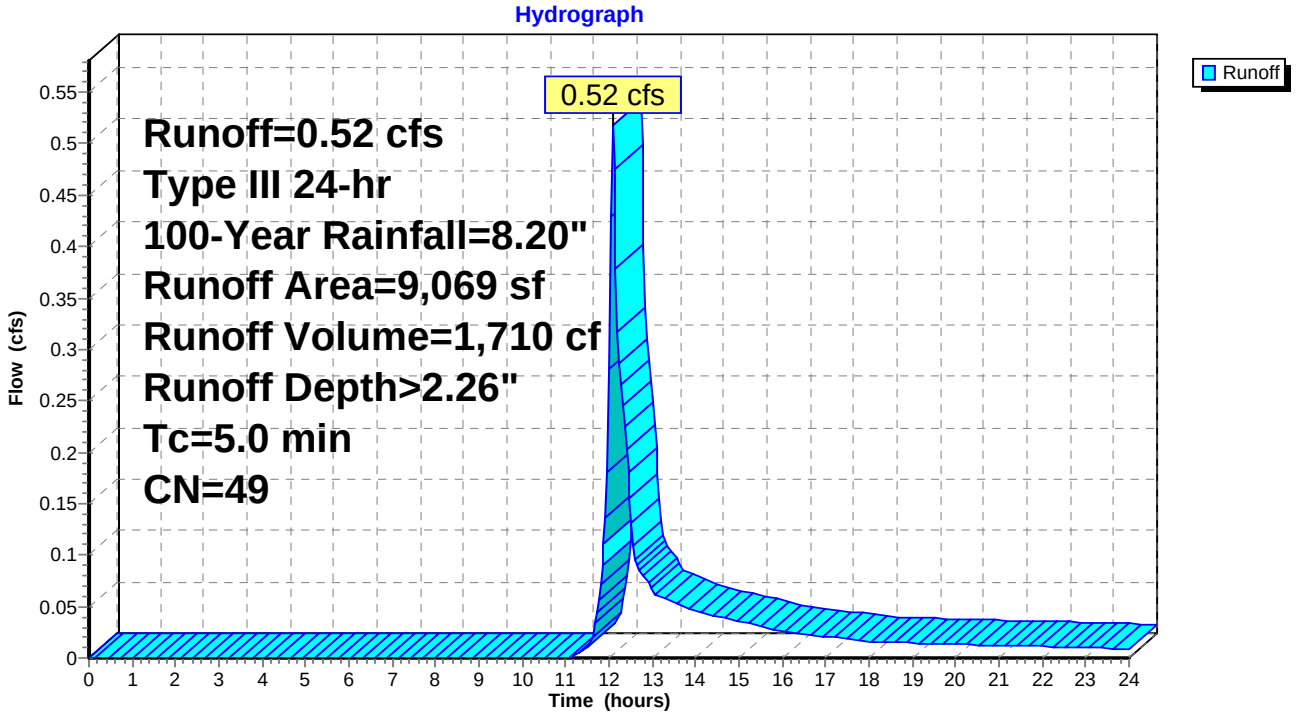
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,710 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

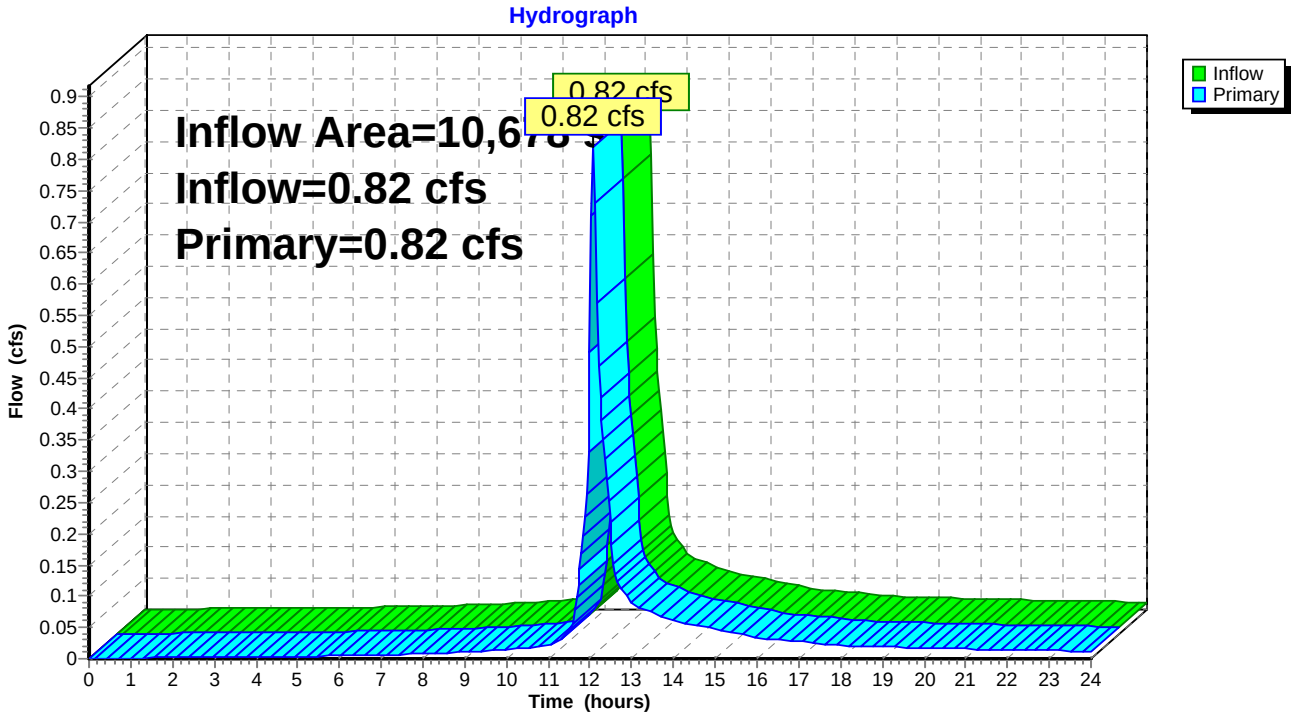


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 3.12" for 100-Year event
Inflow = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf
Primary = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: EXISTING ROOF AREA Runoff Area=1,305 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.25 cfs 865 cf

Subcatchment 2S: EXISTING PAVED AREA Runoff Area=304 sf 100.00% Impervious Runoff Depth>7.96"
Tc=5.0 min CN=98 Runoff=0.06 cfs 202 cf

Subcatchment 3S: EXISTING LANDSCAPE Runoff Area=9,069 sf 0.00% Impervious Runoff Depth>2.26"
Tc=5.0 min CN=49 Runoff=0.52 cfs 1,710 cf

Link 4L: EXISTING Inflow=0.82 cfs 2,777 cf
Primary=0.82 cfs 2,777 cf

Total Runoff Area = 10,678 sf Runoff Volume = 2,777 cf Average Runoff Depth = 3.12"
84.93% Pervious = 9,069 sf 15.07% Impervious = 1,609 sf

Summary for Subcatchment 1S: EXISTING ROOF AREA

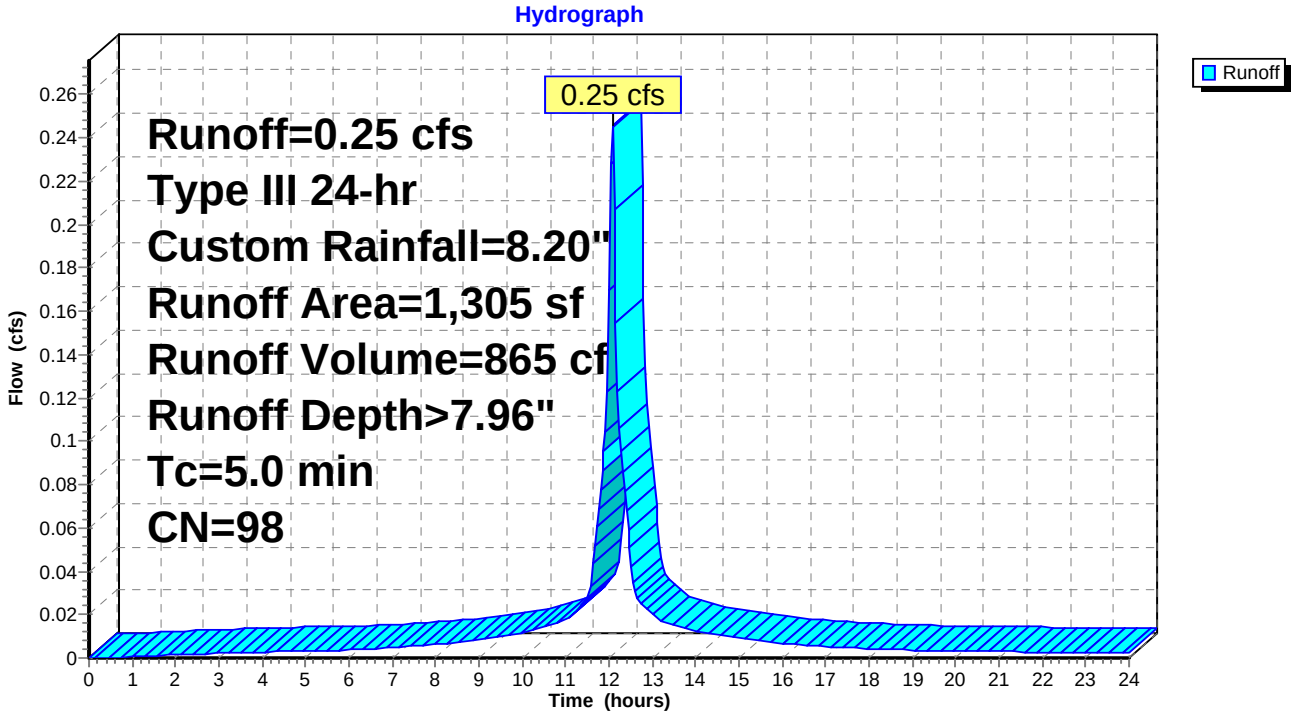
Runoff = 0.25 cfs @ 12.07 hrs, Volume= 865 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
1,305	98	Roofs, HSG A
1,305		100.00% Impervious Area

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

Subcatchment 1S: EXISTING ROOF AREA



Summary for Subcatchment 2S: EXISTING PAVED AREA

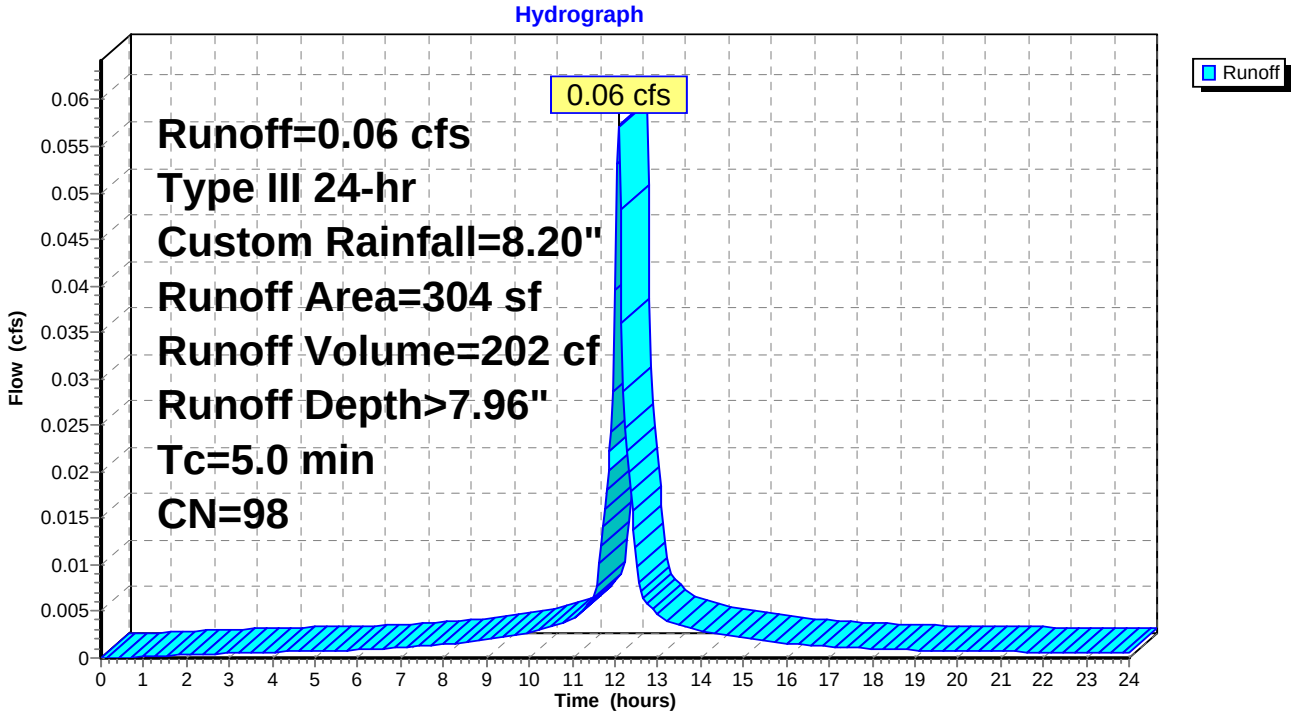
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 202 cf, Depth> 7.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
304	98	Paved roads w/curbs & sewers, HSG A
304		100.00% Impervious Area

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

Subcatchment 2S: EXISTING PAVED AREA



Summary for Subcatchment 3S: EXISTING LANDSCAPE AREA

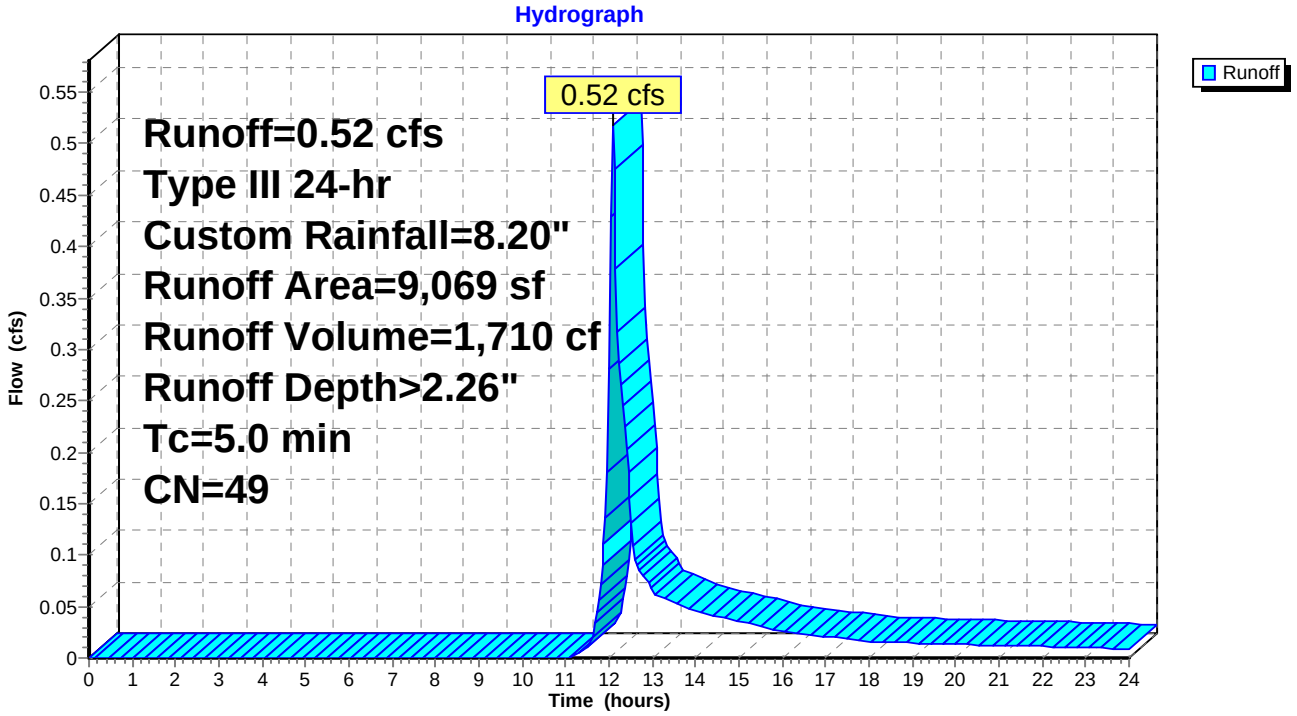
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,710 cf, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr Custom Rainfall=8.20"

Area (sf)	CN	Description
9,069	49	50-75% Grass cover, Fair, HSG A
9,069		100.00% Pervious Area

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

Subcatchment 3S: EXISTING LANDSCAPE AREA

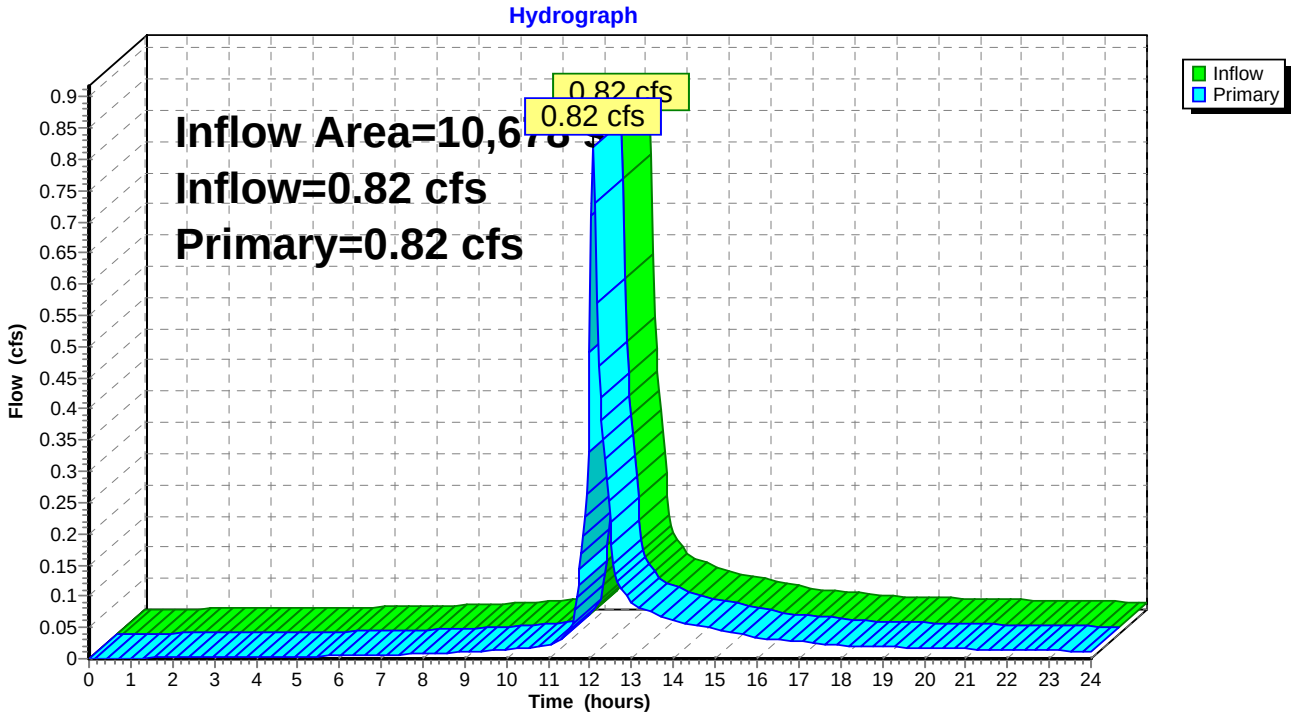


Summary for Link 4L: EXISTING

Inflow Area = 10,678 sf, 15.07% Impervious, Inflow Depth > 3.12" for Custom event
Inflow = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf
Primary = 0.82 cfs @ 12.08 hrs, Volume= 2,777 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 4L: EXISTING



Appendix B – Soils Information

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:366 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data: Version 14, Sep 12, 2018

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	0.7	100.0%
Totals for Area of Interest		**0.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Norfolk and Suffolk Counties, Massachusetts

626B—Merrimac-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyr9
Elevation: 0 to 820 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Merrimac and similar soils: 45 percent
Urban land: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Merrimac

Setting

Landform: Outwash terraces, outwash plains, kames, eskers, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw1 - 10 to 22 inches: fine sandy loam
Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand
2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A

Hydric soil rating: No

Description of Urban Land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Hinckley

Percent of map unit: 5 percent
Landform: Outwash plains, eskers, kames, deltas
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash plains, terraces, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Windsor

Percent of map unit: 5 percent
Landform: Outwash terraces, deltas, outwash plains, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

boston planning & development agency

Climate Resiliency Checklist

NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

A.1 - Project Information

REVISED 4/4/19.

Project Name:	RESIDENTIAL APARTMENTS			
Project Address:	13 & 15 MCKONE ST., DORCHESTER			
Project Address Additional:	12 BLOOMINGTON ST., DORCHESTER			
Filing Type (*select*)	*Initial (PNF, EPNF, NPC or other substantial filing)* *Design / Building Permit (prior to final design approval), or* *Construction / Certificate of Occupancy (post construction completion)*			
Filing Contact	*Name*	*Company*	*Email*	*Phone*
Is MEPA approval required	*Yes/no*		*Date*	

A.3 - Project Team

Owner / Developer:	15 MCKONE ST., LLC
Architect:	TIM JOHNSON ARCHITECT, LLC
Engineer:	PETER NOLAN & ASSOC., LLC
Sustainability / LEED:	
Permitting:	
Construction Management:	

A.3 - Project Description and Design Conditions

List the principal Building Uses:	R-3, TWO-FAMILY.
List the First Floor Uses:	
List any Critical Site Infrastructure and or Building Uses:	

Site and Building:

Site Area:	10,638 SF	Building Area:	8,820 SF
Building Height:	33.5 Ft	Building Height:	3 Stories
Existing Site Elevation – Low:	12.63 Ft BCB	Existing Site Elevation – High:	18.23 Ft BCB
Proposed Site Elevation – Low:	15.10 Ft BCB	Proposed Site Elevation – High:	18.23 Ft BCB
Proposed First Floor Elevation:	17.5 Ft BCB	Below grade levels:	N/A Stories

Article 37 Green Building:

LEED Version - Rating System :		LEED Certification:	*Yes / No*
Proposed LEED rating:	*Certified/Silver/ Gold/Platinum*	Proposed LEED point score:	*Pts.*

Building Envelope

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:	*(R)*	Exposed Floor:	*(R)*
Foundation Wall:	*(R)*	Slab Edge (at or below grade):	*(R)*

Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):

Area of Opaque Curtain Wall & Spandrel Assembly:	*(%)*	Wall & Spandrel Assembly Value:	*(U)*
Area of Framed & Insulated / Standard Wall:	*(%)*	Wall Value	*(R)*
Area of Vision Window:	%	Window Glazing Assembly Value:	*(U)*
		Window Glazing SHGC:	*(SHGC)*
Area of Doors:	%	Door Assembly Value:	*(U)*

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined			
Annual Electric:	*(kWh)*	Peak Electric:	*(kW)*
Annual Heating:	*(MMbtu/hr)*	Peak Heating:	*(MMbtu)*
Annual Cooling:	*(Tons/hr)*	Peak Cooling:	*(Tons)*
Energy Use - Below ASHRAE 90.1 - 2013:	%	Have the local utilities reviewed the building energy performance?:	*Yes / no*
Energy Use - Below Mass. Code:	%	Energy Use Intensity:	*(kBtu/SF)*

Back-up / Emergency Power System

Electrical Generation Output:	*(kW)*	Number of Power Units:	
System Type:	*(kW)*	Fuel Source:	

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	*(kW)*	Heating:	*(MMbtu/hr)*
		Cooling:	*(Tons/hr)*

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions: *(Tons)*

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

Describe any energy efficiency assistance or support provided or to be provided to the project:

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2˚F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:	*Deg.*	Temperature Range - High:	*Deg.*
Annual Heating Degree Days:		Annual Cooling Degree Days	

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°:	#	Days – Above 100°:	#
Number of Heatwaves / Year:	#	Average Duration of Heatwave (Days):	#

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm: *In.*

Describe all building and site measures for reducing storm water run-off:

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?	(Yes) / No	What Zone:	A, (AE), AH, AO, AR, A99, V, VE
		Current FEMA SFHA Zone Base Flood Elevation:	16.46 Ft BCB

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online BPDA SLR-FHA Mapping Tool to assess the susceptibility of the project site.	Yes / (No)

If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online BPDA SLR-FHA Mapping Tool to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	16.46 Ft BCB		
Sea Level Rise - Design Flood Elevation:	17.5 Ft BCB	First Floor Elevation:	17.5 Ft BCB
Site Elevations at Building:	15.20 Ft BCB	Accessible Route Elevation:	15.20 Ft BCB

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

N/A

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

ALL UTILITY SERVICE SHUT-OFFS LOCATED 1.0 FT ABOVE BFE.

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

N/A

Describe any strategies that would support rapid recovery after a weather event:

PER SECTION R322, FIRST FLOOR ELEVATION 1.0FT ABOVE BFE. & ALL STRUCTURE AT OR BELOW BFE CONSTRUCTED W/ FLOOD DAMAGE-RESISTANT MATERIALS.

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

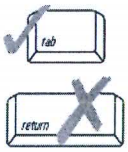
For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov

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.

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[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

03/14/19

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): Storm-Tech Units with Crushed stone bed

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.