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

58 FRANKFORT STREET

WARD 01 PARCEL 03945000

EAST BOSTON, MA

APPLICANT: 58 FRANKFORT STREET, LLC

SEPTEMBER 2020

PROJECT: 58 FRANKFORT STREET - EAST BOSTON

APPLICANT: 58 FRANKFORT STREET, LLC

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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

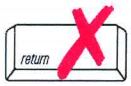
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

East Boston
City/Town

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



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

A. General Information

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

58 Frankfort Street — a. Street Address
East Boston — b. City/Town
02128 — c. Zip Code

Latitude and Longitude:
42 22' 14.05" N — d. Latitude
71 02' 05.17" W — e. Longitude

Ward 01 — f. Assessors Map/Plat Number
Parcel 03945000 — g. Parcel /Lot Number

2. Applicant:

Michael — a. First Name
Stuchins — b. Last Name
58 Frankfort Street, LLC — c. Organization
1535 Beacon Street — d. Street Address
Newton — e. City/Town
MA — f. State
02468 — g. Zip Code
617-281-1606 — h. Phone Number
i. Fax Number
mikestuch@gmail.com — j. Email Address

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

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

4. Representative (if any):

Steven — a. First Name
Eriksen — b. Last Name
Norse Environmental Services, Inc. — c. Company
92 Middlesex Road, Unit 4 — d. Street Address
Tyngsboro — 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):

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

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Provided by MassDEP:

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A. General Information (continued)

6. General Project Description:

Proposing redevelopment of the drainage system and rebuilding an existing patio located within Land Subject to Coastal Storm Flowage (LSCSF) for the renovation of an existing building.

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 Country District R.O.D.	
c. Book	d. Page Number
62220	172

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

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☐ Riverfront Area

1. Name of Waterway (if available) - **specify coastal or inland**

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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Provided by MassDEP:

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East Boston
City/Town

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	1,552.3 +/- 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

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   a. ☐ Yes ☒ No

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

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

   9/2020
   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

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* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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

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

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

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

(d) ☐ Vegetation cover type map of site

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

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

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

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

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

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

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

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

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

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

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

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

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

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

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

   b. ACEC

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

   a. ☐ Yes ☒ No

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

   a. ☐ Yes ☒ No

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

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

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

      2. ☒ A portion of the site constitutes redevelopment

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

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

      1. ☐ Single-family house

      2. ☐ Emergency road repair

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

D. Additional Information

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

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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D. Additional Information (cont'd)

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

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

58 Frankfort Street, East Boston
a. Plan Title

Peter Nolan & Assoc. & Spruhan Eng.
b. Prepared By

Peter Nolan & Edmund Spruhan
c. Signed and Stamped by

9/1/2020
d. Final Revision Date

1" = 10'
e. Scale

Existing Conditions Site Plan
f. Additional Plan or Document Title

9/1/20
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 #1059
2. Municipal Check Number

9/1/2020
3. Check date

Commonwealth of MA Check #1057
4. State Check Number

9/1/2020
5. Check date

Michael
6. Payor name on check: First Name

Stuchins
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

East Boston
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: 9/1/20

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date: 9/1/20

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.

58 FRANKFORT STREET LLC
1535 BEACON ST
WABAN, MA 02468

1057

53-7240/2113

DATE 9/1/2020

CHECK ARMOR FRAUD PROTECTION

PAY TO THE ORDER OF Commonwealth of MASSachusetts $ 512.50

Five hundred twelve and 50/100 DOLLARS

Security Features Details on Back.

Reading Cooperative Bank
READING, MA

FOR State filing fee

MP

---

58 FRANKFORT STREET LLC
1535 BEACON ST
WABAN, MA 02468

1059

53-7240/2113

DATE 9/1/20

CHECK ARMOR FRAUD PROTECTION

PAY TO THE ORDER OF City of Boston $ 600.00

Six hundred and no/100 DOLLARS

Security Features Details on Back.

Reading Cooperative Bank
READING, MA

FOR By-law fee

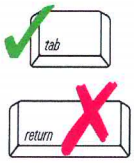
MP

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

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



A. Applicant Information

1. Location of Project:

58 Frankfort Street	East Boston
a. Street Address	b. City/Town
Check #1057	$512.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Michael	Stuchins	
a. First Name	b. Last Name	
58 Frankfort Street, LLC		
c. Organization		
1535 Beacon Street		
d. Mailing Address		
Newton	MA	02468
e. City/Town	f. State	g. Zip Code
617-281-1606		mikestuch@gmail.com
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

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

B. Fees

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

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

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

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

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

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

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

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

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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(a)	1	$1,050.00	$1,050.00

Step 5/Total Project Fee: $1,050.00

Step 6/Fee Payments:

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

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

City of Boston Environment

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

Boston File Number

MassDEP File Number

A. GENERAL INFORMATION

1. Project Location

58 Frankfort Street	East Boston	02128
a. Street Address	b. City/Town	c. Zip Code
Ward 01	Parcel 03945000	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant

Michael	Stuchins	58 Frankfort Street, LLC
a. First Name	b. Last Name	c. Company

1535 Beacon Street
d. Mailing Address

Newton	MA	02468
e. City/Town	f. State	g. Zip Code

617-281-1606		
h. Phone Number	i. Fax Number	j. Email address

3. Property Owner

	58 Frankfort Street, LLC	
a. First Name	b. Last Name	c. Company

1535 Beacon Street
d. Mailing Address

Newton	MA	02468
e. City/Town	f. State	g. Zip Code

617-281-1606		mikestuch@gmail.com
h. Phone Number	i. Fax Number	j. Email address

☐ Check if more than one owner

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

4. Representative (if any)

Steven	Eriksen	Norse Environmental Services, Inc.
a. First Name	b. Last Name	c. Company

92 Middlesex Road, Unit 4
d. Mailing Address

Tyngsborough	MA	01879
e. City/Town	f. State	g. Zip Code

978-649-9932		norseenvironmental@verizon.net
h. Phone Number	i. Fax Number	j. Email address

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

☒ Yes ☐ No

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

6. General Information

The applicant is proposing redevelopment of the drainage system and rebuilding an existing patio located withinin Land Subject to Coastal Storm Flowage (LSCSF) for the renovation of an existing building.

7. Project Type Checklist

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

8. Property recorded at the Registry of Deeds

Suffolk County District Registry of Deeds — a. County
172 — b. Page Number
62220 — c. Book
d. Certificate # (if registered land)

B. BUFFER ZONE & RESOURCE AREA IMPACTS

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

☐ Yes ☐ No

1. Coastal Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Coastal Flood Resilience Zone*	*Square feet*	*Square feet*	*Square feet*

❑ *25-foot Waterfront Area*	Square feet	Square feet	Square feet

2. Inland Resource Areas

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

C. OTHER APPLICABLE STANDARDS & REQUIREMENTS

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

   ❑ Yes ☒ No

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

   A. Submit Supplemental Information for Endangered Species Review

   ☐ Percentage/acreage of property to be altered:

   (1) within wetland Resource Area _____ percentage/acreage

   (2) outside Resource Area _____ percentage/acreage

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

2. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Yes

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

   ❑ Yes ☒ No

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

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

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

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

   ☒ Yes ☐ No

D. SIGNATURES AND SUBMITTAL REQUIREMENTS

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the Wetlands Protection Ordinance.

Signature of Applicant — Date: 9/1/20

Signature of Property Owner (if different) — Date

Signature of Representative (if any) — Date: 9/1/20

NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

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

A. **58 Frankfort Street, LLC** filed a Notice of Intent with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and Boston Wetlands Ordinance.

B. The address of the lot where the activity is proposed is **58 Frankfort Street – East Boston, MA.**

C. The project involves **installing a new drainage system and rebuilding a patio within Land Subject to Coastal Storm Flowage (LSCSF) for the renovation of an existing building.**

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

E. Copies of the Notice of Intent may be examined from the Applicant's Representative**; Norse Environmental Services, Inc.** between the hours of 8:00 am and 6:00 pm Monday thru Thursday/Friday until 12 pm at (978) 649-9932**.**

F. In accordance with the Commonwealth of Massachusetts Executive Order Suspending Certain Provisions of the Open Meeting Law, the public hearing will take place **virtually** at https://zoom.us/j/6864582044. If you are unable to access the internet, you can all 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

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

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

NOTE: Notice of the public hearing, including its date, tine, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance.

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

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

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

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

A. **58 Frankfort Street, LLC** ha presentado una solicitud a la Comisión de Conservación de Boston pidiendo permiso para modificar una zona sujeta a protección en virtud de la Ley de protección de los humedales (Leyes generales, capítulo 131, sección 40) y la Ordenanza sobre los humedales de Boston.

B. La dirección del lote donde se propone la actividad es **58 Frankfort Street – East Boston, MA.**

C. El proyecto consiste en **reurbanización del sistema de drenaje y reconstrucción de un patio dentro de la tierra sujeta al flujo de tormentas costeras (LSCSF) para la renovación de un edificio existente**.

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

E. Las copias de la notificación de intención pueden obtenerse en **Representante del Solicitante; Norse Environmental Services, Inc. entre las 8:00 am y 6:00 pm de lunes a jueves/viernes hasta las 12pm al (978) 649-9932.**

F. De acuerdo con el Decreto Ejecutivo de le Mancomunidad de Massachusetts que suspende ciertas disposiciones de la Ley de reuniones abiertas, la audiencia pública se llevará a cabo virtualmente en https://zoom.us/j/6864582044. Si no puede acceder a Internet, puede llamar al 1-929-2056099, ingresar ID de reunión 686 458 2044 # y usar # como su ID de participante.

G. La información relativa a la fecha y hora de la audiencia pública puede solicitarse a la **Comisión de Conservación de Boston** por correo electrónico a **CC@boston.gov** o llamando al **(617) 635-4416** entre las **9 AM y las 5 PM, de lunes a viernes.**

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

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

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

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

BABEL NOTICE

English:

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

Spanish:

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

Haitian Creole:

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

Traditional Chinese:

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

Vietnamese:

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

Simplified Chinese:

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

CITY of BOSTON

Cape Verdean Creole:

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

Arabic:

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

Russian:

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

Portuguese:

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

French:

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

CITY of BOSTON

PID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPCODE	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
103894010	EBCDC INC	EBCDC INC	72 MARGINAL STREET	EAST BOSTON MA	2128	120 -150 ORLEANS ST	EAST BOSTON	2128
103894012	CLARKE SUSAN	CLARKE SUSAN	150 ORLEANS ST #101	E BOSTON MA	2128	150 ORLEANS ST #101	EAST BOSTON	2128
103894014	JAMIJIAN KRISTEN	JAMIJIAN KRISTEN	150 ORLEANS ST # 102	EAST BOSTON MA	2128	150 ORLEANS ST #102	EAST BOSTON	2128
103894016	PINEDA ANTONIO	PINEDA ANTONIO	150 ORLEANS ST #103	E BOSTON MA	2128	150 ORLEANS ST #103	EAST BOSTON	2128
103894018	GOLDIE FAMILY 2003 TRUST	GOLDIE FAMILY 2003 TRUST	150 ORLEANS ST #104	EAST BOSTON MA	2128	150 ORLEANS ST #104	EAST BOSTON	2128
103894020	BOSTON COMMUNITY PROPERTIES	BOSTON COMMUNITY PROPERTIES	99 GOVE ST UNIT 15	BOSTON MA	2128	150 ORLEANS ST #105	EAST BOSTON	2128
103894022	DOLIBER PETER R	DOLIBER PETER R	150 ORLEANS ST #106	EAST BOSTON MA	2128	150 ORLEANS ST #106	EAST BOSTON	2128
103894024	MAHONEY PAUL C	MAHONEY PAUL C	80 A ST #2	SOUTH BOSTON MA	2127	150 ORLEANS ST #201	EAST BOSTON	2128
103894026	BELKAD LLC	BELKAD LLC	PO BOX 53	EAST BOSTON MA	2128	150 ORLEANS ST #202	EAST BOSTON	2128
103894028	DUNEGAN JESSICA D	DUNEGAN JESSICA D	1674 FOLLY RD #1029	CHARLESTON SC	19412	150 ORLEANS ST #203	EAST BOSTON	2128
103894030	SCHNEIDER VERA S	SCHNEIDER VERA S	150 ORLEANS ST # 204	EAST BOSTON MA	2128	150 ORLEANS ST #204	EAST BOSTON	2128
103894032	DEROSA RICHARD	DEROSA RICHARD	150 ORLEANS ST #205	EAST BOSTON MA	2128	150 ORLEANS ST #205	EAST BOSTON	2128
103894034	LOCK REBECCA B	LOCK REBECCA B	150 ORLEANS ST # 206	E BOSTON MA	2128	150 ORLEANS ST #206	EAST BOSTON	2128
103894036	SULLIVAN KAREN TS	SULLIVAN KAREN TS	150 ORLEANS ST #207	EAST BOSTON MA	2128	150 ORLEANS ST #207	EAST BOSTON	2128
103894038	YOUNG GRACE	YOUNG GRACE	150 ORLEANS ST NO 301	E BOSTON MA	2128	150 ORLEANS ST #301	EAST BOSTON	2128
103894040	BRUNO FLORIAN	BRUNO FLORIAN	150 ORLEANS ST #302	EAST BOSTON MA	2128	150 ORLEANS ST #302	EAST BOSTON	2128
103894042	EBCDC INC	EBCDC INC	72 MARGINAL ST	E BOSTON MA	2128	150 ORLEANS ST #303	EAST BOSTON	2128
103894044	LEWIS SUSAN A ZAMOS	LEWIS SUSAN A ZAMOS	150 ORLEANS ST #304	E BOSTON MA	2128	150 ORLEANS ST #304	EAST BOSTON	2128
103894046	ROSA ULISES A	ROSA ULISES A	150 ORLEANS ST #305	E BOSTON MA	2128	150 ORLEANS ST #305	EAST BOSTON	2128
103894048	HUNG SHING HAU	HUNG SHING HAU	150 ORLEANS ST #306	EAST BOSTON MA	2128	150 ORLEANS ST #306	EAST BOSTON	2128
103894050	MALIONEK THERESA	MALIONEK THERESA	150 ORLEANS ST #307	EAST BOSTON MA	2128	150 ORLEANS ST #307	EAST BOSTON	2128
103894052	HANLEY JORDAN	HANLEY JORDAN	37 LYONS FARM RD	BRADFORD MA	1835	150 ORLEANS ST #401	EAST BOSTON	2128
103894054	CRESTA RICHARD J	CRESTA RICHARD J	150 ORLEANS ST #402	E BOSTON MA	2128	150 ORLEANS ST #402	EAST BOSTON	2128
103894056	BRESNAHAN MARK W	BRESNAHAN MARK W	150 ORLEANS STREET #403	EAST BOSTON MA	2128	150 ORLEANS ST #403	EAST BOSTON	2128
103894058	ELIZABETH M FERGUSON	ELIZABETH M FERGUSON	150 ORLEANS ST #404	EAST BOSTON MA	2128	150 ORLEANS ST #404	EAST BOSTON	2128
103894060	PETTY GAIL C	PETTY GAIL C	150 ORLEANS ST #405	E BOSTON MA	2128	150 ORLEANS ST #405	EAST BOSTON	2128
103894062	GRODIN ROBERT	GRODIN ROBERT	150 ORLEANS ST #406	EAST BOSTON MA	2128	150 ORLEANS ST #406	EAST BOSTON	2128
103894064	OREILLY JANE	OREILLY JANE	150 ORLEANS ST #407	EAST BOSTON MA	2128	150 ORLEANS ST #407	EAST BOSTON	2128
103894066	DUFF CHRISTOPHER	DUFF CHRISTOPHER	150 ORLEANS ST #501	EAST BOSTON MA	2128	150 ORLEANS ST #501	EAST BOSTON	2128
103894068	LONG CATHERINE	LONG CATHERINE	150 ORLEANS ST #502	EAST BOSTON MA	2128	150 ORLEANS ST #502	EAST BOSTON	2128
103894070	QUIMBY TROY	QUIMBY TROY	150 ORLEANS ST #503	EAST BOSTON MA	2128	150 ORLEANS ST #503	EAST BOSTON	2128
103894072	WILLIAMS KENNETH A	WILLIAMS KENNETH A	150 ORLEANS ST #504	EAST BOSTON MA	2128	150 ORLEANS ST #504	EAST BOSTON	2128
103894074	DIFRISCO JOHN L	DIFRISCO JOHN L	24 BREMEN ST #3	E BOSTON MA	2128	150 ORLEANS ST #505	EAST BOSTON	2128
103894076	WANG DER HSIUNG	WANG DER HSIUNG	34 MOHAWK ROAD	MARBLEHEAD MA	1945	150 ORLEANS ST #506	EAST BOSTON	2128
103894078	TOMMASINI LIVING TRUST	TOMMASINI LIVING TRUST	33 STILL RIVER RD	BOLTON MA	1740	150 ORLEANS ST #507	EAST BOSTON	2128
103894080	LAPORTE LORI A	LAPORTE LORI A	150 ORLEANS ST #601	EAST BOSTON MA	2128	150 ORLEANS ST #601	EAST BOSTON	2128
103894082	ALDRICH-ORLEANS LLC	ALDRICH-ORLEANS LLC	150 ORLEANS ST #602	EAST BOSTON MA	2128	150 ORLEANS ST #602	EAST BOSTON	2128
103894084	GRIECI JEAN N	GRIECI JEAN N	150 ORLEANS ST #603	EAST BOSTON MA	2128	150 ORLEANS ST #603	EAST BOSTON	2128
103894086	YE XING	YE XING	150 ORLEANS ST #604	EAST BOSTON MA	2128	150 ORLEANS ST #604	EAST BOSTON	2128
103894088	SCHNEIDER MICHAEL J	SCHNEIDER MICHAEL J	150 ORLEANS ST # 605	EAST BOSTON MA	2128	150 ORLEANS ST #605	EAST BOSTON	2128
103894090	NEVIN AARON	NEVIN AARON	150 ORLEANS ST UNIT 606	EAST BOSTON MA	2128	150 ORLEANS ST #606	EAST BOSTON	2128
103894092	THIBODEAU JEREMY T	THIBODEAU JEREMY T	150 ORLEANS ST # 607	EAST BOSTON MA	2128	150 ORLEANS ST #607	EAST BOSTON	2128
103894094	ARNAOUT GEORGES	ARNAOUT GEORGES	150 ORLEANS ST #701	EAST BOSTON MA	2128	150 ORLEANS ST #701	EAST BOSTON	2128
103894096	PERLERA SAUL	PERLERA SAUL	150 ORLEANS ST #702	E BOSTON MA	2128	150 ORLEANS ST #702	EAST BOSTON	2128
103894098	NELSON FREDERICK A	NELSON FREDERICK A	150 ORLEANS ST #703	EAST BOSTON MA	2128	150 ORLEANS ST #703	EAST BOSTON	2128
103894100	BARLOW DOUGLAS	BARLOW DOUGLAS	150 ORLEANS ST #704	EAST BOSTON MA	2128	150 ORLEANS ST #704	EAST BOSTON	2128
103918002	CITY OF BOSTON	CITY OF BOSTON	BREMEN	EAST BOSTON MA	2128	BREMEN ST	EAST BOSTON	2128
103919001	EAST BOSTON NEIGHBORHOOD	EAST BOSTON NEIGHBORHOOD	10 GOVE ST	EAST BOSTON MA	2128	135 B BREMEN ST	EAST BOSTON	2128
103920001	MCORLEANS JC FAMILY LP	MCORLEANS JC FAMILY LP	23 BAYSWATER ST	EAST BOSTON MA	2128	172 ORLEANS ST	EAST BOSTON	2128
103920002	EAST BOSTON NEIGHBORHOOD	EAST BOSTON NEIGHBORHOOD	10 GROVE ST	E BOSTON MA	2128	164 ORLEANS ST	EAST BOSTON	2128
103920055	CITY OF BOSTON PARKS AND	CITY OF BOSTON PARKS AND	ORLEANS ST	E BOSTON MA	2128	ORLEANS ST	EAST BOSTON	2128
103922000	E BOSTON NEIGHBORHOOD HEALTH	E BOSTON NEIGHBORHOOD HEALTH	10 GOVE ST	EAST BOSTON MA	2128	147 149 ORLEANS ST	EAST BOSTON	2128
103923000	E BOSTON NEIGHBORHOOD HEALTH	E BOSTON NEIGHBORHOOD HEALTH	10 GOVE ST	EAST BOSTON MA	2128	155 157 ORLEANS ST	EAST BOSTON	2128
103924000	EAST BOSTON NEIGHBORHOOD	EAST BOSTON NEIGHBORHOOD	10 GROVE ST	E BOSTON MA	2128	161 163 ORLEANS ST	EAST BOSTON	2128

103926000	HUDSON 62 REALTY LLC	HUDSON 62 REALTY LLC	83 HARTWELL AVE	LEXINGTON MA	2421		ORLEANS ST	EAST BOSTON	2128
103927000	HUDSON 62 REALTY LLC	HUDSON 62 REALTY LLC	83 HARTWELL AVE	LEXINGTON MA	2421	175	ORLEANS ST	EAST BOSTON	2128
103934000	WHITE JENNIFER	WHITE JENNIFER	80 FRANKFORT ST	EAST BOSTON MA	2128	80	FRANKFORT ST	EAST BOSTON	2128
103935000	PIAZZA GIOVANNA	PIAZZA GIOVANNA	4 MICHAEL DR	DANVERS MA	1923	78	FRANKFORT ST	EAST BOSTON	2128
103936000	MARCHIONE CONCETTA	MARCHIONE CONCETTA	76 FRANKFORT ST	EAST BOSTON MA	2128	76	FRANKFORT ST	EAST BOSTON	2128
103937000	DIPIETRO IRMA	DIPIETRO IRMA	74 FRANKFORT ST	EAST BOSTON MA	2128	74	FRANKFORT ST	EAST BOSTON	2128
103938000	MAVERICK SQUARE MANAGEMENT	MAVERICK SQUARE MANAGEMENT	8 ALTON PLACE	BROOKLINE MA	2446	72	FRANKFORT ST	EAST BOSTON	2128
103939000	LAPLACA PHYLLIS	LAPLACA PHYLLIS	14 ARNOLD AV	READING MA	1867	70	FRANKFORT ST	EAST BOSTON	2128
103940000	PUOPOLO STEVEN TRST	PUOPOLO STEVEN TRST	68 FRANKFORT	EAST BOSTON MA	2128	68	FRANKFORT ST	EAST BOSTON	2128
103941000	TRIPLET HOLDINGS LLC	TRIPLET HOLDINGS LLC	1810 BEACON ST	BROOKLINE MA	2445	66	FRANKFORT ST	EAST BOSTON	2128
103942000	64 FRANKFORT STREET LLC	64 FRANKFORT STREET LLC	264 SALEM ST	MEDFORD MA	2155	64	FRANKFORT ST	EAST BOSTON	2128
103943000	FALZONE SALVATORE	FALZONE SALVATORE	62 FRANKFORT ST	EAST BOSTON MA	2128	62	FRANKFORT ST	EAST BOSTON	2128
103944000	FERRERA SALVATORE A JR TS	FERRERA SALVATORE A JR TS	60 FRANKFORT ST	EAST BOSTON MA	2128	60	FRANKFORT ST	EAST BOSTON	2128
103945000	APPIGNANI LUCY	APPIGNANI LUCY	58 FRANKFORT ST	EAST BOSTON MA	2128	58	FRANKFORT ST	EAST BOSTON	2128
103946000	QUINN WILLIAM F	QUINN WILLIAM F	56 FRANKFORT ST	EAST BOSTON MA	2128	56	FRANKFORT ST	EAST BOSTON	2128
103947000	MT CARMEL CONDO TR	MT CARMEL CONDO TR	83 PINE	PEABODY MA	1960	54	FRANKFORT ST	EAST BOSTON	2128
103965000	ONE-29 ORLEANS ST ASSOC TR	ONE-29 ORLEANS ST ASSOC TR	129 ORLEANS ST	EAST BOSTON MA	2128	129	ORLEANS ST	EAST BOSTON	2128
103965002	HAMMER BENJAMIN	HAMMER BENJAMIN	129 ORLEANS ST # 101	EAST BOSTON MA	2128	129	ORLEANS ST #101	EAST BOSTON	2128
103965004	MARKHAM CHRISTOPHER JESSE	MARKHAM CHRISTOPHER JESSE	129 ORLEANS ST # 201	EAST BOSTON MA	2128	129	ORLEANS ST #201	EAST BOSTON	2128
103965006	GOULD AARON A	GOULD AARON A	129 ORLEANS ST # 301	EAST BOSTON MA	2128	129	ORLEANS ST #301	EAST BOSTON	2128
103966000	WILLIAMD REALTY LLC	WILLIAMD REALTY LLC	900 LYNNFIELD ST #25	LYNNFIELD MA	1940	131	ORLEANS ST	EAST BOSTON	2128
103967000	TAURO BENITO TS	TAURO BENITO TS	133 ORLEANS	EAST BOSTON MA	2128	133	ORLEANS ST	EAST BOSTON	2128
103968000	135 ORLEANS LLC	135 ORLEANS LLC	193 HARVARD ST	BROOKLINE MA	2446	135	ORLEANS ST	EAST BOSTON	2128
103969000	NEWTON JOHN C	NEWTON JOHN C	105 HILL ST #8	STONEHAM MA	2180	137	ORLEANS ST	EAST BOSTON	2128
103970000	HENDRIX JAMES	HENDRIX JAMES	99 GOVE ST	EAST BOSTON MA	2128	141	ORLEANS ST	EAST BOSTON	2128
103970002	LYSIAK MARY A	LYSIAK MARY A	99 GOVE ST #1	EAST BOSTON MA	2128	48	FRANKFORT ST #1	EAST BOSTON	2128
103970004	BANKEY ERIK S	BANKEY ERIK S	99 GOVE ST	EAST BOSTON MA	2128	48	FRANKFORT ST #2	EAST BOSTON	2128
103970006	ALPEREN DARA	ALPEREN DARA	99 GOVE ST #3	EAST BOSTON MA	2128	48	FRANKFORT ST #3	EAST BOSTON	2128
103970008	SCA CONSULTING LLC	SCA CONSULTING LLC	231 E MAIN ST	WESTBORO MA	1581	48	FRANKFORT ST #4	EAST BOSTON	2128
103970010	DANIELE FRANCESCO F	DANIELE FRANCESCO F	99 GOVE ST #5	EAST BOSTON MA	2128	48	FRANKFORT ST #5	EAST BOSTON	2128
103970012	SICILIANO GREGORY A	SICILIANO GREGORY A	4 THE GREAT ROAD	WOBURN MA	1801	48	FRANKFORT ST #6	EAST BOSTON	2128
103970014	THOMAS J VACIRCA MARITAL	THOMAS J VACIRCA MARITAL	330 COREY ST	WEST ROXBURY MA	2132	48	FRANKFORT ST #7	EAST BOSTON	2128
103970016	CRAMER BRUCE J	CRAMER BRUCE J	99 GOVE ST #8	EAST BOSTON MA	2128	48	FRANKFORT ST #8	EAST BOSTON	2128
103970018	DINOCCO VINCENZA M	DINOCCO VINCENZA M	99 GOVE ST #9	EAST BOSTON MA	2128	48	FRANKFORT ST #9	EAST BOSTON	2128
103970020	MARR DONALD F TS	MARR DONALD F TS	99 GOVE ST #10	EAST BOSTON MA	2128	48	FRANKFORT ST #10	EAST BOSTON	2128
103970022	BLYTHE ERIC	BLYTHE ERIC	99 GOVE ST #11	E BOSTON MA	2128	48	FRANKFORT ST #11	EAST BOSTON	2128
103970024	FARRELL TODD M	FARRELL TODD M	99 GOVE ST #12	EAST BOSTON MA	2128	48	FRANKFORT ST #12	EAST BOSTON	2128
103970026	KOTHANDARAMAN MURALI	KOTHANDARAMAN MURALI	7 SHERBURNE ROAD	LEXINGTON MA	2421	48	FRANKFORT ST #13	EAST BOSTON	2128
103970028	NULTY THOMAS M	NULTY THOMAS M	99 GROVE ST #14	EAST BOSTON MA	2128	48	FRANKFORT ST #14	EAST BOSTON	2128
103970030	SCA CONSULTING LLC	SCA CONSULTING LLC	231 E MAIN ST	WESTBORO MA	1581	48	FRANKFORT ST #15	EAST BOSTON	2128
103970032	HARDIE JOHN S	HARDIE JOHN S	99 GOVE ST #16	E BOSTON MA	2128	48	FRANKFORT ST #16	EAST BOSTON	2128
103971000	MORALES ELSA	MORALES ELSA	44 FRANKFORT ST	EAST BOSTON MA	2128	44	FRANKFORT ST	EAST BOSTON	2128
103972000	DIFEO CARMINE	DIFEO CARMINE	42 FRANKFORT ST	EAST BOSTON MA	2128	42	FRANKFORT ST	EAST BOSTON	2128
103973000	SCARPA MICHAEL	SCARPA MICHAEL	40 FRANKFORT	EAST BOSTON MA	2128	40	FRANKFORT ST	EAST BOSTON	2128
103974000	WAHNSCHAFFT OLIVER M	WAHNSCHAFFT OLIVER M	27 MYOPIA ROAD	WINCHESTER MA	1890	38	FRANKFORT ST	EAST BOSTON	2128
103975000	SCALCIONE JOHN F ETAL	SCALCIONE JOHN F ETAL	36 FRANKFORT	EAST BOSTON MA	2128	36	FRANKFORT ST	EAST BOSTON	2128
103988001	FRANKFORT GOVE LLC	FRANKFORT GOVE LLC	220 BOYLSTON ST #1214	BOSTON MA	2116		FRANKFORT ST	EAST BOSTON	2128
103988002	FRANKFORT GOVE LLC	FRANKFORT GOVE LLC	220 BOYLSTON ST #1214	BOSTON MA	2116		FRANKFORT ST	EAST BOSTON	2128
103989000	CITY OF BOSTON	CITY OF BOSTON	COTTAGE	EAST BOSTON MA	2128	122	COTTAGE ST	EAST BOSTON	2128
104004000	DANIEL WEBSTER CONDO TR	DANIEL WEBSTER CONDO TR	72 LUBEC ST	EAST BOSTON MA	2128	72	LUBEC ST	EAST BOSTON	2128
104004002	GEARY JOSEPH M	GEARY JOSEPH M	72 LUBEC ST #1	EAST BOSTON MA	2128	72	LUBEC ST #1	EAST BOSTON	2128
104004004	VILLANI STEPHEN	VILLANI STEPHEN	72 LUBEC ST #2	EAST BOSTON MA	2128	72	LUBEC ST #2	EAST BOSTON	2128
104004006	ROSSETTI ELENA	ROSSETTI ELENA	72 LUBEC ST #3	EAST BOSTON MA	2128	72	LUBEC ST #3	EAST BOSTON	2128
104004008	PETRIN STEPHEN	PETRIN STEPHEN	529 COLUMBUS AVENUE APT 6	BOSTON MA	2118	72	LUBEC ST #4	EAST BOSTON	2128
104004010	PURDY MICHAEL A	PURDY MICHAEL A	72 LUBEC ST #5	EAST BOSTON MA	2128	72	LUBEC ST #5	EAST BOSTON	2128

104004012	LIU CHUN HUA	LIU CHUN HUA	72 LUBEC ST #6	E BOSTON MA	2128	72	LUBEC ST #6	EAST BOSTON	2128
104004014	CHO YUN WAI	CHO YUN WAI	72 LUBEC ST #7	EAST BOSTON MA	2128	72	LUBEC ST #7	EAST BOSTON	2128
104004016	FONG CHI C	FONG CHI C	72 LUBEC ST #8	EAST BOSTON MA	2128	72	LUBEC ST #8	EAST BOSTON	2128
104004018	CONLON KENDRA	CONLON KENDRA	72 LUBEC ST #9	EAST BOSTON MA	2128	72	LUBEC ST #9	EAST BOSTON	2128
104004020	BRUCE ALEX	BRUCE ALEX	72 LUBEC ST #10	EAST BOSTON MA	2128	72	LUBEC ST #10	EAST BOSTON	2128
104004022	LEE RAYMOND HOK MAN	LEE RAYMOND HOK MAN	72 LUBEC ST #20	EAST BOSTON MA	2128	72	LUBEC ST #11	EAST BOSTON	2128
104004024	DIPIETRO MADDALEN M	DIPIETRO MADDALEN M	72 LUBEC ST #12	EAST BOSTON MA	2128	72	LUBEC ST #12	EAST BOSTON	2128
104004026	ARAKELIAN MARK	ARAKELIAN MARK	72 LUBEC STREET #13	EAST BOSTON MA	2128	72	LUBEC ST #13	EAST BOSTON	2128
104004028	LEONG SHIN MON	LEONG SHIN MON	72 LUBEC ST #14	EAST BOSTON MA	2128	72	LUBEC ST #14	EAST BOSTON	2128
104004030	FUNG CHEUK HANG	FUNG CHEUK HANG	72 LUBEC ST #15	EAST BOSTON MA	2128	72	LUBEC ST #15	EAST BOSTON	2128
104004032	CASERTA BIANCAMIRTO	CASERTA BIANCAMIRTO	72 LUBEC ST #16	EAST BOSTON MA	2128	72	LUBEC ST #16	EAST BOSTON	2128
104004034	MURRAY RAYMOND P	MURRAY RAYMOND P	24 SMITH ST	CHAPPAQUA NY	10514	72	LUBEC ST #17	EAST BOSTON	2128
104004036	DEBENEDICTIS JOHN C	DEBENEDICTIS JOHN C	72 LUBEC ST #18	EAST BOSTON MA	2128	72	LUBEC ST #18	EAST BOSTON	2128
104004038	TANG YONG QIANG	TANG YONG QIANG	72 LUBEC ST #19	EAST BOSTON MA	2128	72	LUBEC ST #19	EAST BOSTON	2128
104004040	LEE RAYMOND HOK-MAN	LEE RAYMOND HOK-MAN	72 LUBEC ST #20	EAST BOSTON MA	2128	72	LUBEC ST #20	EAST BOSTON	2128
104004042	LUBEC STREET REALTY TRUST	LUBEC STREET REALTY TRUST	72 LUBEC ST #21	EAST BOSTON MA	2128	72	LUBEC ST #21	EAST BOSTON	2128
104004044	GOGUA ALEXANDER	GOGUA ALEXANDER	72 LUBEC ST #22	EAST BOSTON MA	2128	72	LUBEC ST #22	EAST BOSTON	2128
104004046	CURRY LORRAINE	CURRY LORRAINE	72 LUBEC ST #23	EAST BOSTON MA	2128	72	LUBEC ST #23	EAST BOSTON	2128
104004048	MORLEY GARY L JR	MORLEY GARY L JR	20 CHESTNUT ST #407	CAMBRIDGE MA	2139	72	LUBEC ST #24	EAST BOSTON	2128
104005000	64 LUBEC LLC	64 LUBEC LLC	154 MAVERICK ST	EAST BOSTON MA	2128	LUBEC ST		EAST BOSTON	2128
104006000	64 LUBEC LLC	64 LUBEC LLC	193 HARVARD ST	BROOKLINE MA	2446	64	LUBEC ST	EAST BOSTON	2128
104007000	SIXTY 2 LUBEC ST CONDO TR	SIXTY 2 LUBEC ST CONDO TR	62 LUBEC	EAST BOSTON MA	2128	62	LUBEC ST	EAST BOSTON	2128
104007002	NICRON LLC	NICRON LLC	PO BOX 53	EAST BOSTON MA	2128	62	LUBEC ST #101	EAST BOSTON	2128
104007004	NICRON LLC	NICRON LLC	PO BOX 53	EAST BOSTON MA	2128	62	LUBEC ST #102	EAST BOSTON	2128
104007006	NICRON LLC	NICRON LLC	PO BOX 53	EAST BOSTON MA	2128	62	LUBEC ST #201	EAST BOSTON	2128
104007008	NANCY J MILLS REVOCABLE	NANCY J MILLS REVOCABLE	PO BOX 53	E BOSTON MA	2128	62	LUBEC ST #202	EAST BOSTON	2128
104007010	BROWN RUBY D	BROWN RUBY D	62 LUBEC ST #301	E BOSTON MA	2128	62	LUBEC ST #301	EAST BOSTON	2128
104007012	DEEDY JANE M	DEEDY JANE M	44 HIGHLAND AV	WINTHROP MA	2152	62	LUBEC ST #302	EAST BOSTON	2128
104008000	MORALES TELESFORO M	MORALES TELESFORO M	60 LUBEC ST	EAST BOSTON MA	2128	60	LUBEC ST	EAST BOSTON	2128
104009000	DILIBERO NICOLA R JR TS	DILIBERO NICOLA R JR TS	30A WINDING OAKS WAY	BOXFORD MA	1921	58	LUBEC ST	EAST BOSTON	2128
104010000	FRANKFORT GOVE LLC	FRANKFORT GOVE LLC	220 BOYLSTON ST #1214	BOSTON MA	2116	128	134 GOVE ST	EAST BOSTON	2128
104015000	FRANKFORT GOVE LLC	FRANKFORT GOVE LLC	220 BOYLSTON ST #1214	BOSTON MA	2116	120	GOVE ST	EAST BOSTON	2128
104016000	GRILLO JULIO	GRILLO JULIO	32 ELLEN RD	STONEHAM MA	2180	63	FRANKFORT ST	EAST BOSTON	2128
104017000	CHARMOY STANLEY TS	CHARMOY STANLEY TS	1 ROBIN HILL RD	DANVERS MA	1923	65	FRANKFORT ST	EAST BOSTON	2128
104018000	SIXTY 7 FRANKFORT STREET	SIXTY 7 FRANKFORT STREET	67 FRANKFORT	EAST BOSTON MA	2128	67	FRANKFORT ST	EAST BOSTON	2128
104018002	PREVITE PETER M	PREVITE PETER M	120 HOLMES ST #217E	QUINCY MA	2171	67	FRANKFORT ST #101	EAST BOSTON	2128
104018004	SALK MICHAEL	SALK MICHAEL	67 FRANKFORT ST #102	EAST BOSTON MA	2128	67	FRANKFORT ST #102	EAST BOSTON	2128
104018006	PREVITE PETER M	PREVITE PETER M	120 HOLMES ST #217E	QUINCY MA	2171	67	FRANKFORT ST #201	EAST BOSTON	2128
104018008	PREVITE PETER M	PREVITE PETER M	120 HOLMES STREET #217E	QUINCY MA	2171	67	FRANKFORT ST #202	EAST BOSTON	2128
104018010	PREVITE PETER M	PREVITE PETER M	120 HOLMES STREET #217E	QUINCY MA	2171	67	FRANKFORT ST #301	EAST BOSTON	2128
104018012	ONEILL SEAN M	ONEILL SEAN M	67 FRANKFORT ST #302	EAST BOSTON MA	2128	67	FRANKFORT ST #302	EAST BOSTON	2128
104019000	GRILLO JULIO	GRILLO JULIO	69 FRANKFORT ST	EAST BOSTON MA	2128	69	FRANKFORT ST	EAST BOSTON	2128
104020000	BUENROSTRO BENJAMIN	BUENROSTRO BENJAMIN	71 FRANKFORT ST	EAST BOSTON MA	2128	71	FRANKFORT ST	EAST BOSTON	2128
104021000	SACCO ANTHONY J	SACCO ANTHONY J	146 GOVE ST	E BOSTON MA	2128	146	GOVE ST	EAST BOSTON	2128
104022000	142 GOVE LLC	142 GOVE LLC	226 HARVARD ST	BROOKLINE MA	2446	142	GOVE ST	EAST BOSTON	2128
104023000	SERPAS MARCOS A	SERPAS MARCOS A	55 LUBEC ST	E BOSTON MA	2128	55	LUBEC ST	EAST BOSTON	2128
104024000	MACDONALD BRIAN J	MACDONALD BRIAN J	S MADDISON LANE	LYNNFIELD MA	1940	57	LUBEC ST	EAST BOSTON	2128
104025000	EAST BOSTON MANAGEMENT	EAST BOSTON MANAGEMENT	8 ALTON PL # 2	BROOKLINE MA	2446	59	LUBEC ST	EAST BOSTON	2128
104026000	GRIMALDI JOHN TS	GRIMALDI JOHN TS	8 RICHARD ST	SAUGUS MA	1906	61	LUBEC ST	EAST BOSTON	2128
104027000	SIXTY 3 LUBEC ST CONDO TR	SIXTY 3 LUBEC ST CONDO TR	63 LUBEC ST	EAST BOSTON MA	2128	63	LUBEC ST	EAST BOSTON	2128
104027002	OLIVEIRA ALIDA	OLIVEIRA ALIDA	63 LUBEC ST #301	EAST BOSTON MA	2128	63	LUBEC ST #101	EAST BOSTON	2128
104027004	AVIKSIS DAVID TS	AVIKSIS DAVID TS	24 GAY ST	NEWTON MA	2460	63	LUBEC ST #102	EAST BOSTON	2128
104027006	MEDINA MARCO TS	MEDINA MARCO TS	45 PARROTT ST	LYNN MA	1902	63	LUBEC ST #201	EAST BOSTON	2128
104027008	CHANCE STEPHEN G	CHANCE STEPHEN G	26 ROLLING RIDGE LANE	PELHAM NH	3076	63	LUBEC ST #202	EAST BOSTON	2128
104027010	OLIVEIRA ALIDA	OLIVEIRA ALIDA	63 LUBEC ST #301 4	E BOSTON MA	2128	63	LUBEC ST #301	EAST BOSTON	2128

104027012	OLDING BENJAMIN P	OLDING BENJAMIN P	63 LUBEC ST	EAST BOSTON MA	2128	63	LUBEC ST #302	EAST BOSTON	2128
104028000	MEJIA PAULA	MEJIA PAULA	65 LUBEC ST	EAST BOSTON MA	2128	65	LUBEC ST	EAST BOSTON	2128

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 September 4, 2020 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 58 Frankford Street, LLC with the Boston Conservation Commission on September 4, 2020 for property located at 58 Frankfort Street – East Boston Ward 01 Parcel 03945000.

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.

	9-4-20
Name	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

58 Frankfort Street
East Boston, MA

Prepared For

58 Frankfort Street, LLC
1535 Beacon Street
Newton, MA 02458

Prepared By

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

September 2020

Narrative

The applicant is proposing redevelopment of the drainage system and rebuilding an existing patio located within Land Subject to Coastal Storm Flowage (LSCSF) per 310 CMR 10.04 and the Ordinance Protecting Local Wetlands and Promoting Climate Change Adaptation in the City of Boston for the renovation of an existing building. The site will be serviced by city sewer and water.

Site Description

The parcel consists of 2,882 +/- s.f. of land located on the northerly side of Frankfort Street in East Boston, MA. An existing (3) story residential dwelling of five units, walkway, patio, concrete walls, chain-link fence are located on the lot.

Soils

The Web Soil Survey maps this site as Urban land, wet substratum. Urban land, wet substratum consists of areas where 85 percent of the land surface is covered by structures or impervious surfaces such as buildings, pavement, industrial sites, and railroad yards, and where the underlying soil is dominated by fill material overlying wet soils. The underlying wet soils may include Freetown, Saco, Scarboro, and Swansea. A water table may be present in the lower substratum.

Resource Area

Approximately 1,552.3 +/- s.f. of the site is located within LSCSF. 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". According to the FEMA Flood Insurance Rate Map the portion of the site in LSCSF is designated as Zone AE, elevation 10 ft., or 16.46 ft. Boston City Base (BCB).

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 existing dwelling, walkway and patio or approximately 1,250.3 +/- s.f. is located within LSCSF. Presently the site does not appear to provide any infiltration or drainage.

The total proposed impervious area within LSCSF will not change. The applicant is not proposing any fill within LSCSF excepting for material for the renovated patio.

As mitigation, the applicant is proposing to improve the existing conditions by infiltrating the roof top runoff, walkway and patio.

Climate Change Resilience

The project designed has implemented and integrated climate change and adaptation planning considerations in the project design. These considerations include sea level rise, increase heat waves, extreme precipitation events, stormwater runoff, changing precipitation patterns and costal and stormwater flooding.

Under existing conditions, roof gutters are connected to a drain line, but we do not know what it may connect to.

The proposal adapts to potential sea level rise by redoing the entire drainage system, using a new sump pump on the infiltration unit overflow pumping through a 4" pvc line to municipal drainage, providing additional cleanouts and inspection ports, and maintaining clear outlets pathways for flooding. The new drainage system will be a significant improvement over the nonexistent drainage currently in place.

For increased heat waves, we have maximized available green space to the extend feasible, what is now weeds and gravel will be maintained lawn and landscaped area. Construction will allow for new energy efficient AC and heating, new windows, and upgrades to all interior fixtures.

Stormwater

The project has been designed to meet the stormwater standards to the maximum extent practicable. The applicant has incorporated infiltration chambers, area drain and manhole sumps into the design. One hundred percent of the roof runoff will be captured and directed into the infiltration chambers at the rear of the dwelling.

The project site will be maintained and there will be no discharge of any pollutants during construction (see enclosed Stormwater Checklist & Operation and Maintenance Plan).

Estimated and/or Priority Habitat

There is no Estimated and/or 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 (map enclosed).

Outstanding Resource Water

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

Construction Phase Activity

The limited access to the site poses challenges for construction. We anticipate all work will be done by hand as there is no access for machines on site.

- Erosion controls, silt fence, will be installed to prevent inadvertent erosion and sedimentation to adjacent properties.
- The existing patio blocks will first be removed off site.
- The existing concrete walkway will be jackhammered and removed as necessary. Waste material will be taken off site.
- The proposed drain lines will be excavated as necessary for installation of the drainage system.
- Drain lines will be installed, backfilled with clean bank run gravel with no stones greater than 3" and compacted thoroughly.
- Excavation of the infiltration units will be performed by hand. Unsuitable material will be removed from the site and replaced with clean sand and gravel materials.
- Backfill will consist of clean stone and sand or sand and gravel.
- Replacement of patio stones will be by hand as well.

- New topsoil will be added to open areas to allow for plantings or ornamentals or grass and shrubs.

The following permits and approvals will be required:

- Alteration permit from Boston ISD for renovation of existing multi family
- Sprinkler and Fire Alarm Permits for installation of Life Safety Systems
- HVAC/Sheet Metal Permit
- Electrical Permit
- Plumbing Permit
- BWSC Approval for installation of new Domestic Water and Sprinkler Water line and new drainage system
- Conservation Committee approval

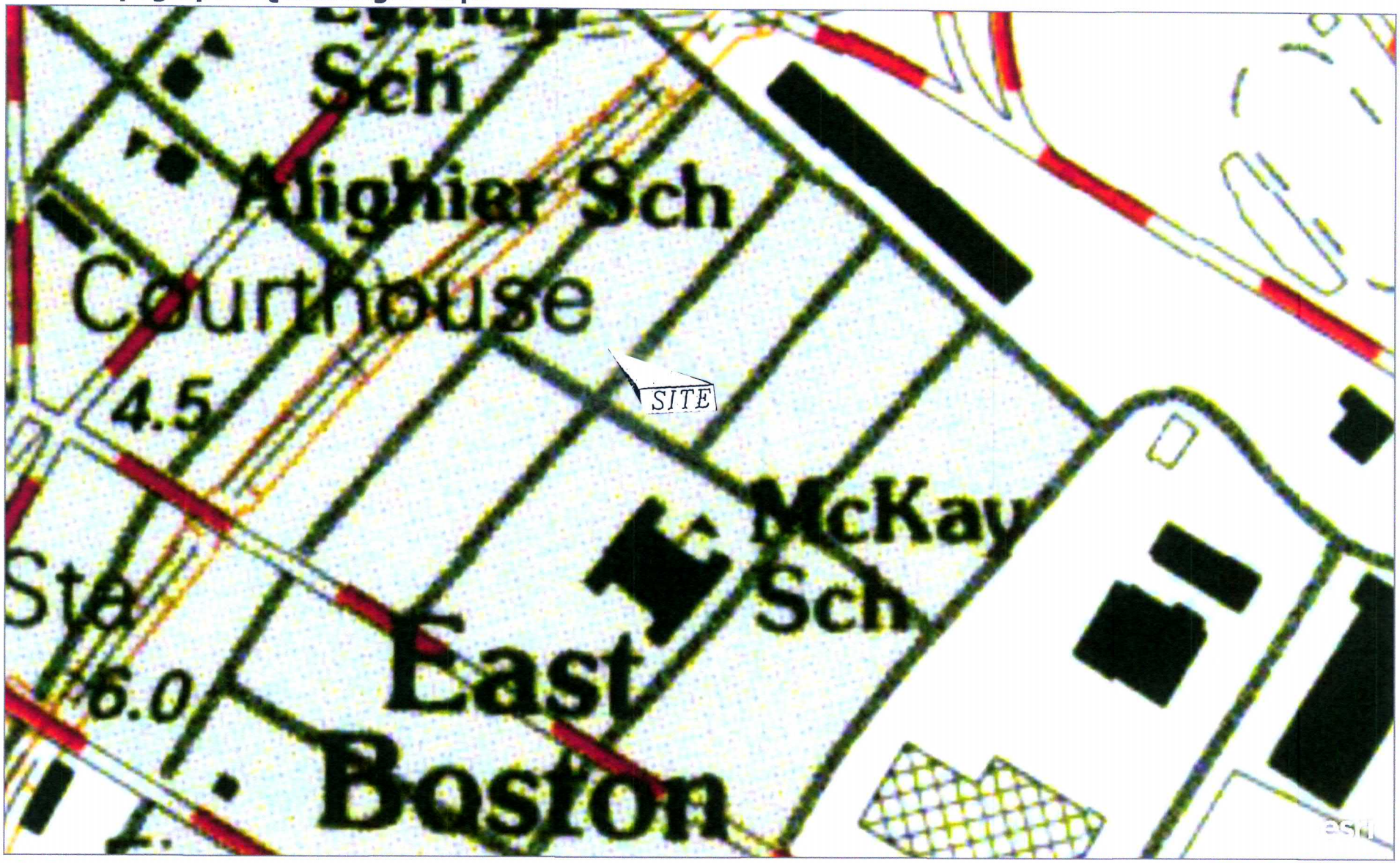
An ALT permit will be applied for relating to 58 Frankfort Street, East Boston. The permit application is to request a full renovation of an existing 3 story multi family. The renovation of the building is interior only with the exception of site work which includes the new domestic water line and fire/sprinkler line as well as a request to install a drainage system in the rear yard. The interior renovation includes the following:

- Full Interior Renovation of multifamily
- Interior demolition
- New Electrical, Plumbing and HVAC
- New Life Safety systems including
    - Addressable Fire Alarm monitored through a UL listed central station
    - 13R Sprinkler System also monitored through the Addressable Fire Alarm System
- All New Windows and Interior Doors
- Insulation
- Blueboard and Plaster
- New Floors, Kitchens and Baths
- Paint Interior


Boston Tax Parcel Viewer
0103945000
Show search results for 0103945000
SITE
COVE ST
ORLEANS ST
FRANKFORT ST
LUBEC ST
40ft

East Boston
Logan International Airport
BOSTON
South Boston
BOSTON INNER HARBOR
CHELSEA RIVER
MYSTIC RIVER
Reserved Channel
ORIENT HEIGHTS
JEFFRIES POINT
Terminal A
Terminal B
Terminal C
Terminal D
Terminal E
East Boston Memorial Park
Constitution Beach
East Boston Yacht Club
Wood Island
Governors Island
Charlestown Navy Yard
Boston National Historical Park
USS Constitution
Christopher Columbus Park
Aquarium
Long Wharf
Commercial Wharf
Boston Yacht Haven
Central Wharf
India Wharf
Rowes Wharf
Lewis Wharf
Sargents Wharf
Union Wharf
Lincoln Wharf
Battery Wharf
Constitution Wharf
Coast Guard Sta
Fan Pier
Moakley Federal Court House
Commonwealth Pier
Fish Pier
World Trade Ctr
Fleet Boston Pavilion
Boston Tea Party Ship
Children's Mus
Computer Mus
South Postal Annex
Boston Convention Center
Massport Marine Terminal
Boston Marine Ind Pk
Harbor Ind Pk
Peninsula Yacht Club
Black Falcon Terminal
Conley Terminal
Fort Independence Park
Castle Island
Pleasure Bay
Water Shuttle
Harborside Hyatt Hotel
Logan Airport Water Shuttle
MBTA Commuter Boat To Hull & Quincy
MBTA Commuter Boat To Hingham
TED WILLIAMS TUNNEL (TOLL WESTBOUND)
SUMNER TUNNEL
CALLAHAN TUNNEL
LIBERTY TUNNEL
O'NEIL TUNNEL
Tobin Mem Bridge (TOLL) (SOUTHBOUND)
EAST BOSTON EXPRESSWAY
McCLELLAN HWY
MARGINAL STREET
BENNINGTON ST
SARATOGA ST
SUMMER ST
BROADWAY
Waterfront Pk (MDC)
ADMIRAL'S HILL
Mystic Wharf
Marine Railway
Barry PG
Umana/ Barnes MS
Central Sq
Maverick Sq
Lo Presti Park
Piers Park
Porzio Park
Adams ES
Otis
Eagle Sq
American Legion
Day Sq
Noyes PG
Orient Hgts
Breed Sq
Suffolk Downs
Independence Sq
Lee PG
Condon MS
6 HANCOCK ST
7 JEFFERSON ST
8 LEXINGTON AV
9 LEXINGTON ST
10 CONCORD AV
11 CEDAR ST
12 APPIAN PL
13 MARION CT
14 LOWLAND PL
15 NOBLE CT
16 BRIGHAM ST
17 LAMSON CT
0 .25 .5 MILE
0 .25 .5 KILOMETER
© Copyright ARROW MAP, INC
JOINS PAGE 16
14
15
16

USGS Topographic Quadrangle Maps



USGS 1:25,000 Topographic Maps for Massachusetts

300ft

City of Boston, MassGIS, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA | USGS, MassGIS

Soil Map—Norfolk and Suffolk Counties, Massachusetts
(58 Frankfort Street - East Boston)

Map Scale: 1:306 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 4 9 18 27

Feet
0 10 20 40 60

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 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Sep 11, 2019—Oct 5, 2019

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

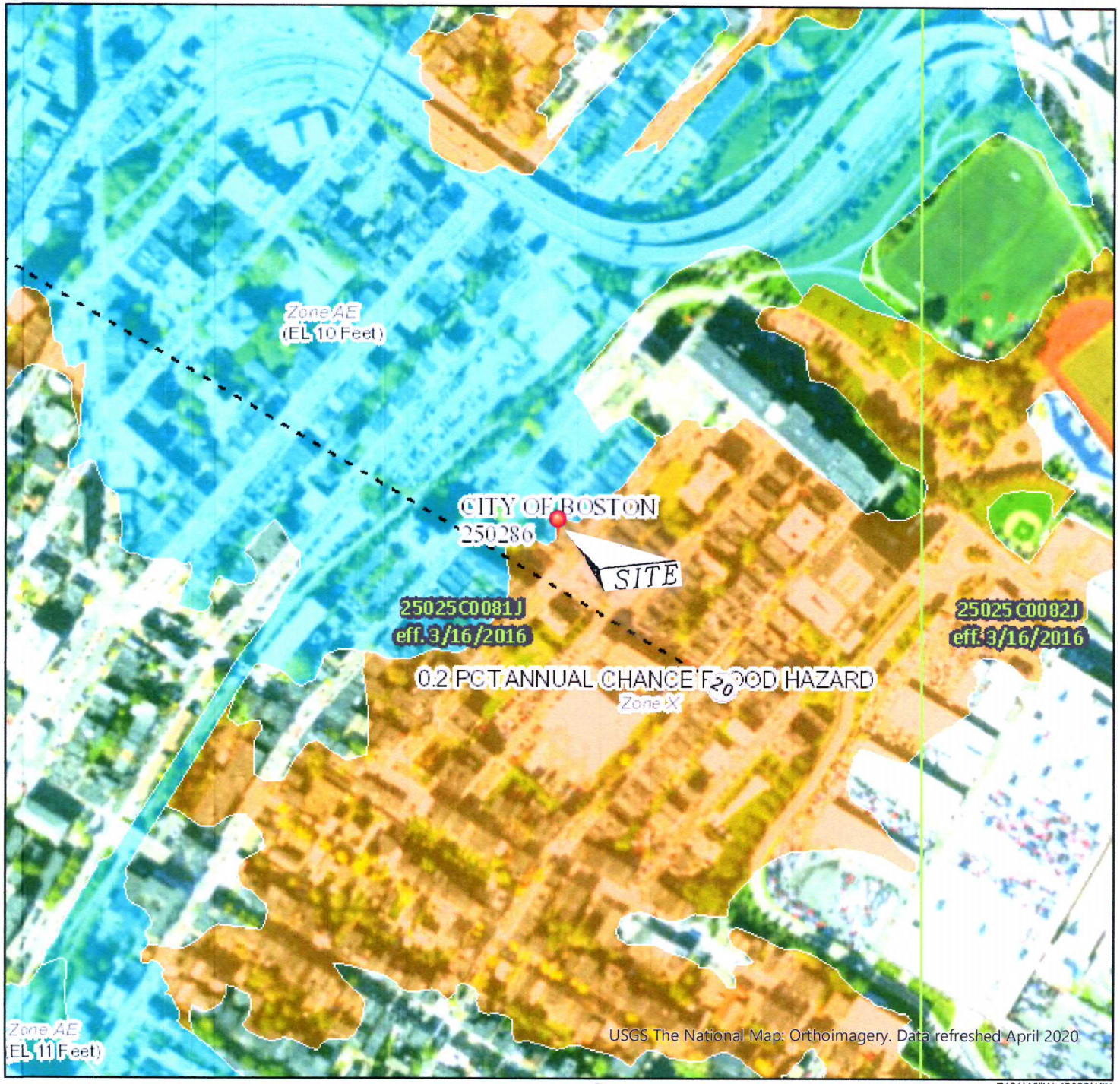
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	0.1	100.0%
Totals for Area of Interest		**0.1**	**100.0%**

National Flood Hazard Layer FIRMette

FEMA

71°2'23"W 42°22'27"N



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

1:6,000

71°1'46"W 42°22'1"N

Legend

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

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

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

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

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

OTHER FEATURES
- 20.2 / 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.

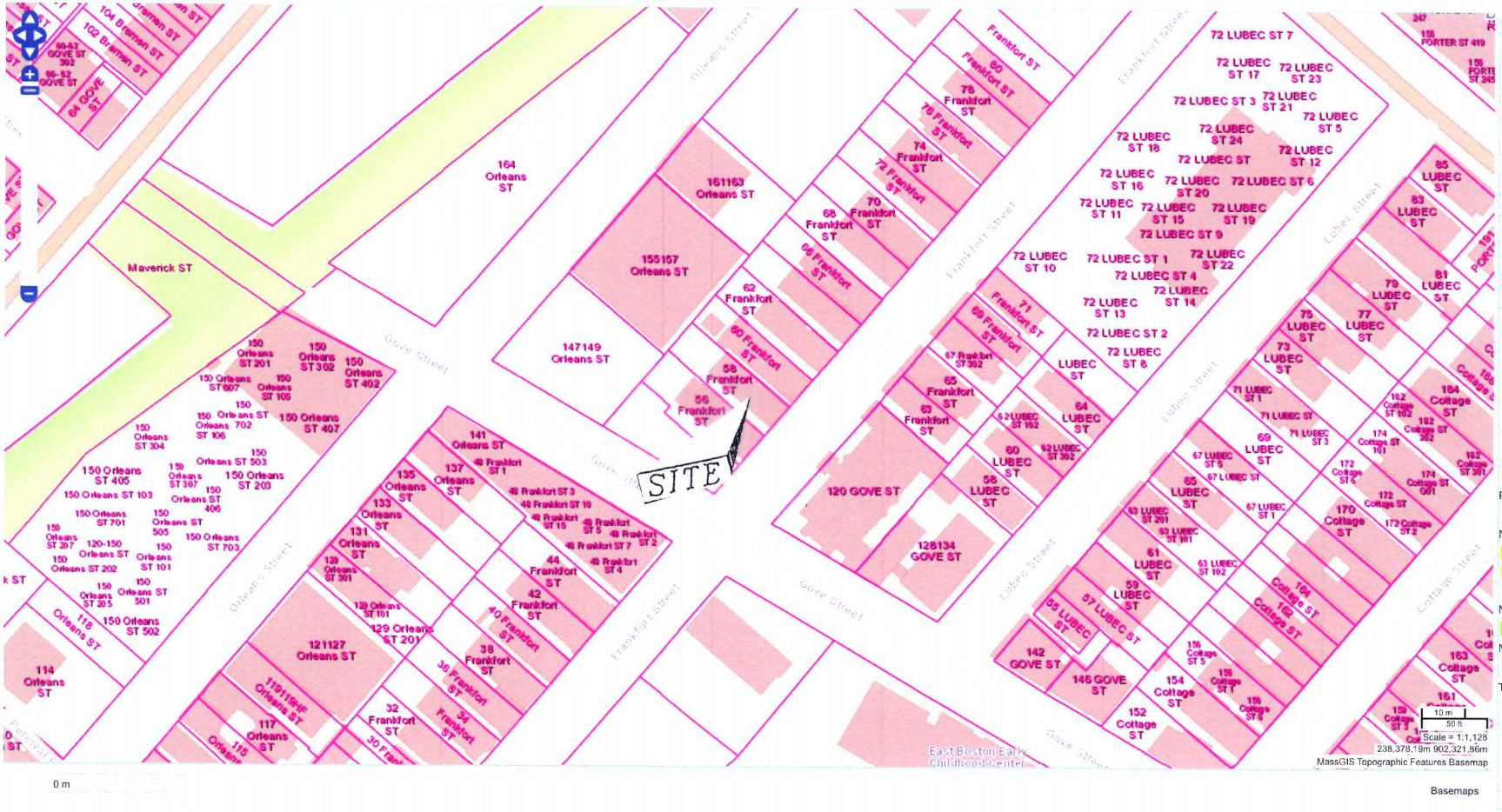
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/1/2020 at 9:24 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

Search for a location Zoom to a town



Available Data Layers

Search data layers

- Census 2010
- Coastal and Marine Features
- Conservation / Recreation
  - Areas of Critical Environmental Conc
  - Community Preservation Act
  - Natural Heritage Data
    - BioMap2
    - NHESP Ecoregions
    - NHESP Certified Vernal Pools
    - NHESP Estimated Habitats of Ra
    - NHESP Natural Communities
    - NHESP Priority Habitats of Rare
    - Potential Vernal Pools
  - Office of Fishing and Boating Access
  - Openspace

Active Data Layers

Check all Uncheck all

- Potential Vernal Pools
- NHESP Priority Habitats of Rare S
- NHESP Estimated Habitats of Rar
- NHESP Certified Vernal Pools
- Tax Parcels for Query
- Detailed Features
- Tax Parcels for Display

Legend

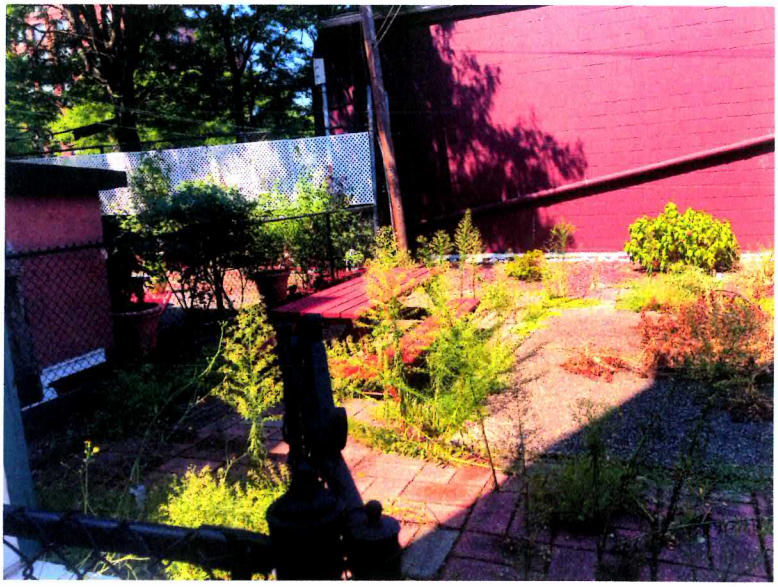
Potential Vernal Pools

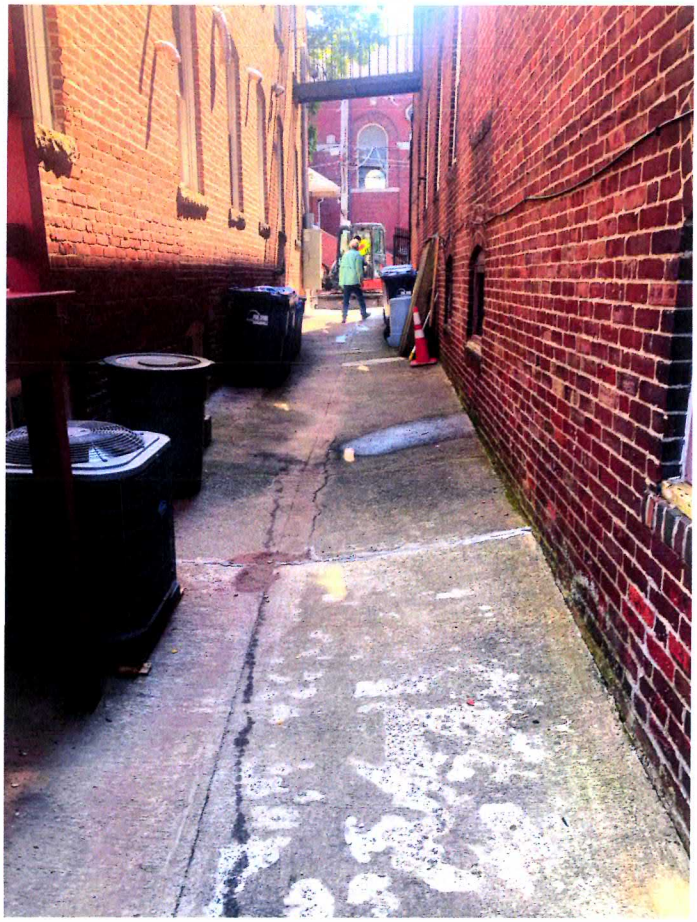
NHESP Priority Habitats of Rare Species

NHESP Estimated Habitats of Rare Wildlife

NHESP Certified Vernal Pools

Tax Parcels for Query





58 FRANKFORT STREET – EAST BOSTON

58 FRANKFORT STREET – EAST BOSTON

boston planning & development agency

Climate Resiliency Checklist

NOT FOR FILING

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

A.1 - Project Information

Project Name:	58 Frankfort Street			
Project Address:	58 Frankfort Street, East Boston 02128			
Project Address Additional:				
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:	58 Frankfort Street LLC/Michael Stuchins
Architect:	GCD Architects
Engineer:	Edmond Spruhan, P.E.
Sustainability / LEED:	A9 Green
Permitting:	
Construction Management:	Ryan Built Construction

A.3 - Project Description and Design Conditions

List the principal Building Uses:	0105 Residential Multi Family
List the First Floor Uses:	Apartment
List any Critical Site Infrastructure and or Building Uses:	Residential

Site and Building:

Site Area:	*2,882SF*	Building Area:	*1,458 SF*
Building Height:	*35.5 Ft*	Building Height:	*3 Stories*
Existing Site Elevation – Low:	*15.18Ft BCB*	Existing Site Elevation – High:	*17.95Ft BCB*
Proposed Site Elevation – Low:	*15.18Ft BCB*	Proposed Site Elevation – High:	*17.95Ft BCB*
Proposed First Floor Elevation:	*20.39 Ft BCB*	Below grade levels:	*1 Stories*

Article 37 Green Building:

LEED Version - Rating System :	N/A	LEED Certification:	*No*
Proposed LEED rating:	*N/A*	Proposed LEED point score:	*N/A*

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:	*TBD*	Number of Power Units:	NA
System Type:	*NA*	Fuel Source:	NA

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

Electric:	*NA*	Heating:	*NA*
		Cooling:	*NA*

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:

We have hired a HERS rater to assist with design and energy efficiency

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:

Cultec Infiltration System (Storm Tech Units) and Drain Overflow Sytstem

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):

Cultec Infiltration System (Storm Tech Units) and Drain Overflow Sytstem

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*		AE
		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*

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:	*19.5 Ft BCB*		
Sea Level Rise - Design Flood Elevation:	*21.5 Ft BCB*	First Floor Elevation:	*20.39Ft BCB*
Site Elevations at Building:	*17.95Ft BCB*	Accessible Route Elevation:	*17.89Ft 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 above BFE per ASCE 24

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:

NA

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

All structures 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.:

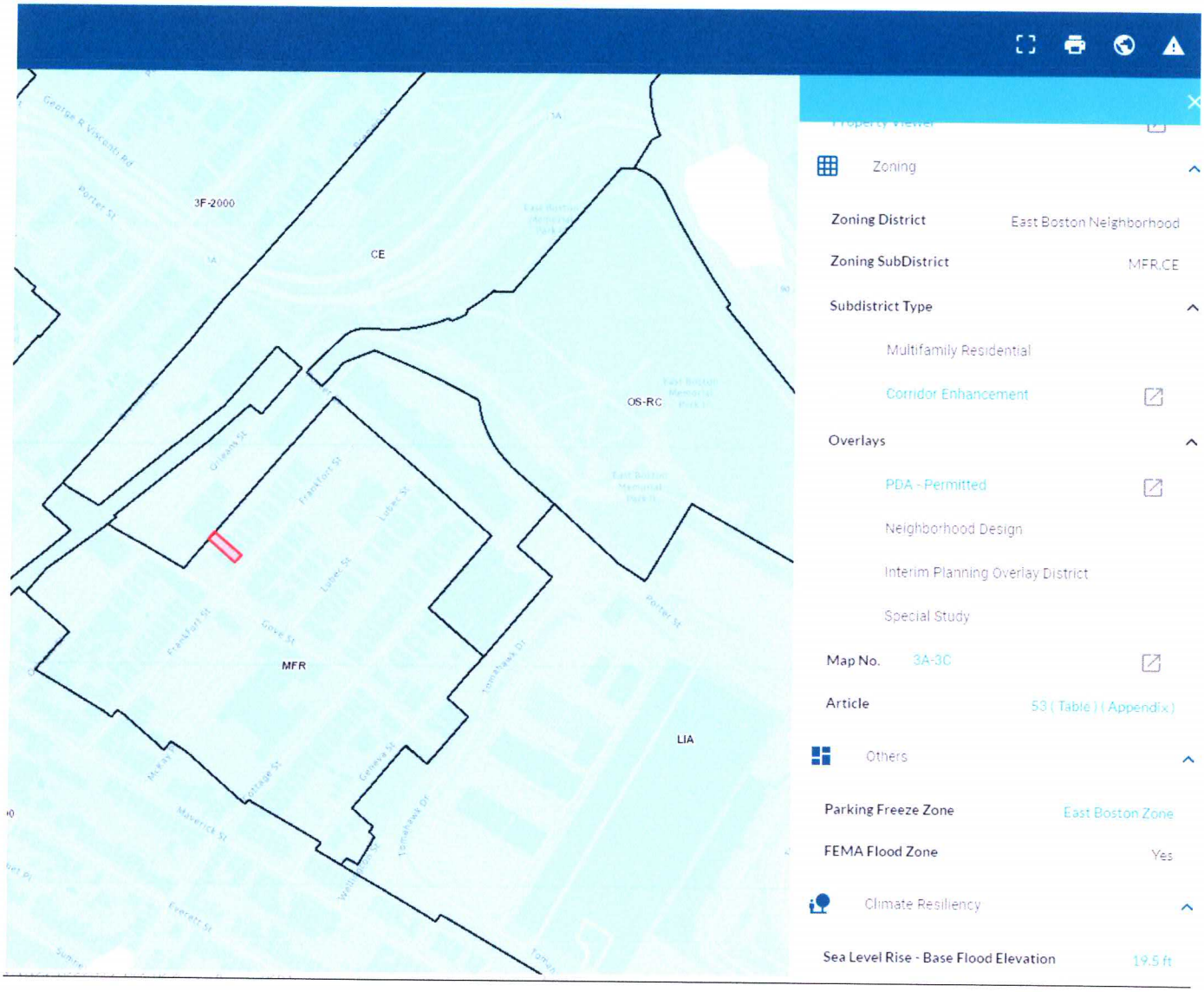
NA

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

NA

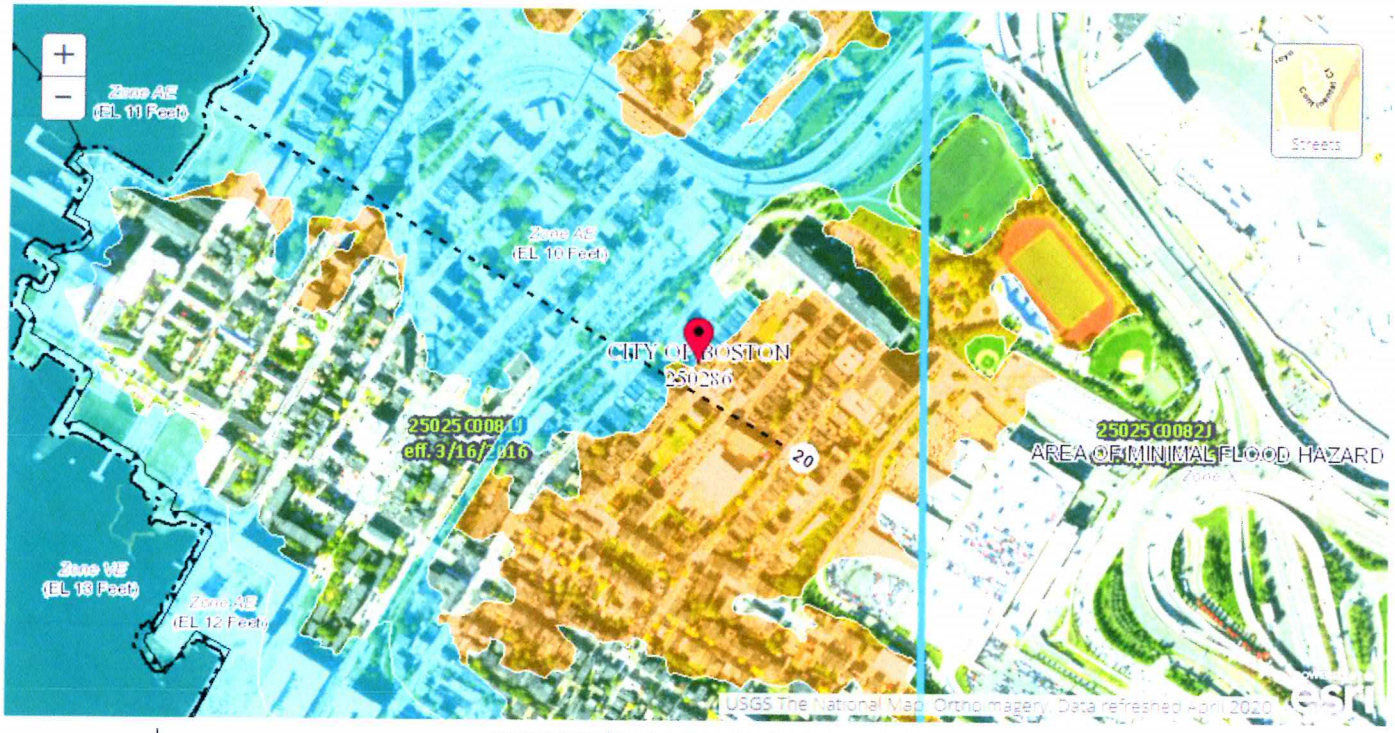
A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

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


3F-2000
CE
OS-RC
MFR
LIA
Zoning
Zoning District
East Boston Neighborhood
Zoning SubDistrict
MFR/CE
Subdistrict Type
Multifamily Residential
Corridor Enhancement
Overlays
PDA - Permitted
Neighborhood Design
Interim Planning Overlay District
Special Study
Map No.
3A-3C
Article
53 (Table) (Appendix)
Others
Parking Freeze Zone
East Boston Zone
FEMA Flood Zone
Yes
Climate Resiliency
Sea Level Rise - Base Flood Elevation
19.5 ft

You can choose a new flood map or make the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette. If you are a person with a disability, are blind or have low vision, and need assistance, please contact a map specialist.

Go To NFHL Viewer »



PIN
- Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
- Selected FloodMap Boundary
- Digital Data Available
- No Digital Data Available
- Unmapped

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D
- Otherwise Protected Area
- Coastal Barrier Resource System Area

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

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

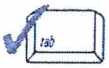
GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

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

Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

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

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

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

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

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

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

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

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

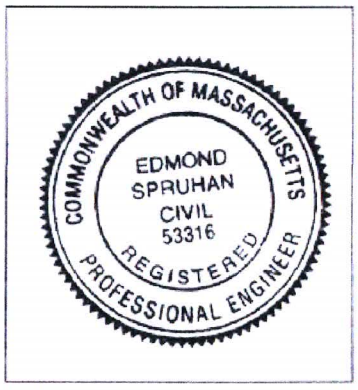
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



09/01/20

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:

- [x] 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
- [x] Other (describe): Storm-Tech Units with Crushed stone bed

Standard 1: No New Untreated Discharges

- [x] 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.

ILLICIT DISCHARGE COMPLIANCE STATEMENT

I verify that no illicit discharges exist from the 58 Frankfort St. East Boston. MA residential building. Through the implementation of the Operation and Maintenance Plan measures are set forth to prevent illicit discharges from entering the stormwater management drainage system.

Signature	Print Name	Date
	Michael Stuchins	9/2/2020

Title	Company
Manager	58 Frankfort Street LLC

Signature	Print Name	Date

Title	Company

Note: This certification must be signed before stormwater is conveyed to the proposed stormwater drainage system in accordance with Standard 10 of the Massachusetts Stormwater Management Standards.

SPRUHAN ENGINEERING

80 Jewett St Unit One Newton, MA 02458
phone: 617-816-0722 email: edmond@spruhaneng.com

July 20th, 2020

Attn: Luis Melara
Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119

RE: 58 Frankfort St, East Boston, MA

Dear Mr. Melara:

The purpose of this letter is to explain the latest modifications regarding the building located at #58 Frankfort Street, East Boston, MA.

The existing sewer line will remain, contractor will send Sewer CCTV video before approval. Proposed water and fire lines were relocated to the left side of the building. The size of the drainage system has been increased to 3 Stormtech units. The drain overflow pipe has been removed and the drainage system will overflow in the patio via area drain.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Edmond Spruhan

Edmond Spruhan P.E.
(617)–816–0722

Calculations by: HM
Date: July 20, 2020

STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:

Impervious Roof = 1,458 SF
Impervious Walkway & Patio = 1423 SF
Total = 2,881 SF

Design For **1"** Rainstorm

Storage Volume Required:

V_R = (1"/12) (2,881 SF) =240 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 3 unit) =924 CF

Capacity for 3 UNIT = 147 CF

Storage Capacity in Crushed Stone = (Total Volume – Capacity of Units) x Void Ratio = (924 - 147) x 0.3 = 233.1 CF

Total Storage Provided = Capacity in Crushed Stone + Total Capacity in Units = 233.1 CF + 147 CF = 380.1 CF

Since Total Storage Provided (380.10 CF) > Total Storage Required (240.0 CF/D)
Therefore, utilize 3-Storm-Tech Chamber with 1 ft. of Crushed Stone Beneath to Contain 1" Storm Event

OPERATION AND MAINTENANCE PLAN
58 FRANKFORT STREET,
EAST BOSTON, MASSACHUSETTS

30-AUG-20

Prepared by Spruhan Engineering, P.C.

The proposed project includes stormwater runoff controls associated with the development of a three-story addition to an existing building. The three-story building (5 units) that will require continued maintenance by the proponent and then homeowner(s) upon sale. The major components associated with maintenance needs are the drain manhole, sump pump, area drain, cleanouts and infiltration system. These will need to be inspected and cleaned periodically as noted below. Cleaning of these structures shall be contracted by the proponent and then homeowner(s) upon sale via a specialty contractor with hydraulic cleaning ability. In addition to the facilities noted below, the homeowners should maintain any roof gutters/drains on a regular basis to prevent clogging and carry over of debris into the drainage systems. The property owner should also provide for the periodic cleaning of the backyard to remove large debris, grass cuttings, and sand particles prior to discharge through the area drains. The following outlines the major maintenance issues associated with the project:

Maintenance Responsibilities:

The maintenance of the stormwater runoff controls is the responsibility of the proponent until the property is sold; after any sale, the responsibility shifts to the homeowner(s) or successive homeowner(s).

The actual work to inspect and clean the drain lines, area drain, drain manhole, sump pump, and infiltration systems shall be subcontracted to a company that specializes in the cleaning of storm drainage facilities.

Area Drain & Manhole Sumps:

The area drain and manhole sump shall be inspected after completion of construction to assure that all debris has been removed and construction material will not cause the system to clog. This inspection should also include the drain lines and clean outs within the system.

The drain manhole should be inspected twice per year; if depth of sediment in sumps exceeds 50% capacity, sediment must be removed. The structures should be cleaned with a hydraulic vacuum system at least once per year to remove accumulated solids and debris. At the same time, the drain lines and clean outs should be inspected and cleaned, if needed. Assuming the structures and drain lines are maintained and cleaning is in accordance with normal standards, the solids removal efficiency should be as required to prevent carry over of large solids to the infiltration systems.

Sump Pump:

Consult the original manufacturer's guidelines. Consider the timing to schedule your maintenance.

MECHANICAL INSPECTION

1. Check that mounting points are secure
2. Inspect the mechanical seal and packing
3. Inspect the pump flanges for leaks
4. Inspect the couplings
5. Inspect and clean filters

LUBRICATION

Lubricate the motor and pump bearing per manufacturer's guidelines. Be sure not to over lubricate. More bearing damage occurs as a result of over greasing than under greasing.

ELECTRICAL/MOTOR INSPECTION

*Check that all terminations are tight

*Inspect motor vents and windings for dust/dirt build-up and clean according to manufacturer's guidelines

*Inspect starter/contractor for arcing, overheating, etc.

REPLACE DAMAGED SEALS AND HOSES

If any hoses, seals, or O-rings show wear or damage, replace immediately. Using a temporary rubber assembly lubricant will ensure a tight fit and prevent leaks or slips.

Infiltration System:

The storage/infiltration system should be inspected after completion of construction to assure that all debris has been removed and construction material will not cause the systems to clog.

The storage/infiltration system should be inspected two times over the first year of operation to determine the level of required maintenance. This inspection should be performed by the proponent's/homeowner's engineer. As a preliminary schedule, the system piping should be cleaned once a year to remove any accumulated sediments and sediments in the infiltration chambers should be removed when they reach two inches in depth.

Other Activities:

Pavement Sweeping: The paved areas shall be swept twice per year, once in the spring right after snowmelt, and once in the fall.

Lawn and Landscape Repairs: The lawn and landscaped areas on the site shall be inspected in the spring and fall of each year and the areas shall be restabilized as needed by seeding as lawn or mulching of landscaped areas.

OPERATION & MAINTENANCE PLAN
LOG SHEET
58 FRANKFURT STREET,
EAST BOSTON, MASSACHUSETTS

INSPECTION REPORT:

Inspection Firm: _____

Inspector's Name:_____Date:_____

Components Inspected:_____

_____

Signed: _____

SYSTEM MAINTENANCE:

Maintenance Firm:_____Date:_____

Area Drain:
Yes_____No_____Comments:_____

_____

Sump Pump:
Yes_____No_____Comments:_____

_____

Drain Manhole:
Yes_____No_____Comments:_____

_____

Drain Lines & Cleanouts:
Inspected: Yes_____No_____Comments:_____

_____

Infiltration System Cleaned:
Yes_____No_____Comments:_____

_____

Estimate of Material Removed: _____

Other Comments: _____

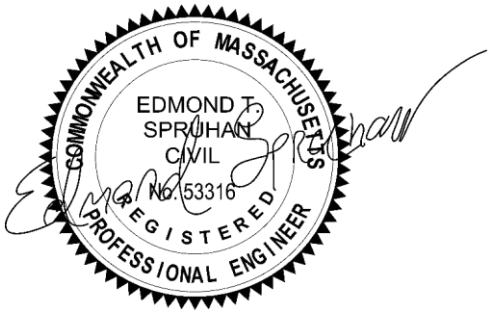
_____

Signed: _____

SPRUHAN ENGINEERING, P.C.

STORMWATER REPORT

58 Frankfort Street, East Boston, MA



Prepared By: Spruhan Engineering, P.C.

Contents

Contents

1.0 Introduction

Spruhan Engineering, P.C. has prepared this Storm water Report for the proposed redevelopment project located at 58 Frankfort Street, East Boston, Massachusetts.

The proposed development consists of the interior and utilities renovation of a 3-story building. The purpose of this report is to demonstrate that the proposed conditions do not create any increased runoff from the site. This is achieved by installing an infiltration system.

2.0 Existing Conditions

The existing property is located at 58 Frankfort Street, East Boston, Massachusetts. The site is bounded by residential dwellings on both sides and rear and by Frankfort Street at the front. The property is located at Frankfort Street between Gove Street and Porter Street. The existing roof area on the lot is 1,453 S.F., the existing paved area is 515 S.F., the existing unconnected impervious on the lot is 612 S.F. and the existing landscaped area on the lot is 302 S.F.

2.1 Existing Topography and Drainage Infrastructure.

In general, the lot slopes from South (Front) to North (Rear) ranging between approximately at 2.1%. 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 an interior and utilities renovation of a 3-Story Residential building. Therefore, the impervious areas do not change with respect to the existing ones, staying as it follows. Proposed area of the roof will have an area of 1,453 S.F., the existing paved area is 515 S.F., the existing unconnected impervious on the lot will have an area of 612 S.F. and the existing landscaped area on the lot will be 302 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
2 Year Storm	0.20 cfs	0.10 cfs	669 cf	315 cf
10 Year Storm	0.32 cfs	0.16 cfs	1,104 cf	649 cf
25 Year Storm	0.40 cfs	0.20 cfs	1,378 cf	922 cf
100 Year Storm	0.52 cfs	0.41 cfs	1,800 cf	1,333 cf

4.0 Soil Information

The NRCS Web Soil Survey provides one Map Unit on the area of the project. This is listed next:

- Map unit symbol: 603; Name: Urban land, wet substratum, 0 to 3 percent slopes.
- Map unit symbol: 655; Name: Udorthents, wet substratum.

The NRCS Web Soil Survey does not show any Hydrologic Soil Group in this case. Therefore, the most conservative soil group ("NCRS D") and infiltration ratio of .02 in/hr (Rawl's rates) where used for this analysis.

Further detailed information is described in Appendix B.

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 2 year,10 year, 25 year and 100 year, 24-hr storm are shown in the next table.

6.0 DEP Stormwater Management Standards

-

Standard 1: No New Untreated Discharges

There are no new untreated discharges for this project.

Standard 2: Peak Rate Attenuation

As can be seen from the summary table, there is no increase in the theoretical peak rate of runoff from the site for any of the design storms.

Standard 3: Recharge

The attached calculations show that the required volume of runoff is recharged through the use of surface and subsurface recharge systems. The design provides for the recharge of runoff from 100%. No impervious areas are proposed on site.

Standard 4: Water Quality

Stormwater runoff from existing impervious areas is treated for sediment through the use of storm tech units. No impervious areas are proposed on site.

Standard 5: Land Uses with Higher Potential Pollutant Loads

Not applicable

Standard 6: Critical Areas

No impervious areas are proposed on critical areas.

Standard 7: Redevelopment and Other Projects Subjects to the Standards only to the maximum extent practicable

Not applicable

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

Not applicable

Standard 9: Operation and Maintenance Plan

An Operation and Maintenance Plan is contained herein

Standard 10: Prohibition of Illicit Discharges

There are no illicit discharges associated with the project

NOAA Atlas 14, Volume 10, Version 3
Location name: East Boston, Massachusetts, USA*
Latitude: 42.3902°, Longitude: -71.0111°
Elevation: 21.26 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	**0.298** (0.240-0.368)	**0.366** (0.295-0.453)	**0.478** (0.384-0.594)	**0.571** (0.455-0.714)	**0.699** (0.537-0.922)	**0.794** (0.597-1.08)	**0.896** (0.653-1.27)	**1.02** (0.691-1.47)	**1.20** (0.782-1.80)	**1.36** (0.862-2.08)
10-min	**0.422** (0.340-0.521)	**0.519** (0.418-0.642)	**0.678** (0.543-0.842)	**0.809** (0.645-1.01)	**0.990** (0.761-1.31)	**1.12** (0.845-1.52)	**1.27** (0.925-1.80)	**1.44** (0.979-2.08)	**1.71** (1.11-2.55)	**1.93** (1.22-2.95)
15-min	**0.496** (0.400-0.613)	**0.610** (0.492-0.755)	**0.796** (0.638-0.989)	**0.951** (0.758-1.19)	**1.16** (0.895-1.54)	**1.32** (0.994-1.79)	**1.49** (1.09-2.12)	**1.70** (1.15-2.45)	**2.01** (1.30-3.00)	**2.27** (1.44-3.47)
30-min	**0.665** (0.536-0.822)	**0.819** (0.659-1.01)	**1.07** (0.858-1.33)	**1.28** (1.02-1.60)	**1.57** (1.20-2.07)	**1.78** (1.34-2.41)	**2.01** (1.47-2.85)	**2.29** (1.55-3.29)	**2.70** (1.76-4.05)	**3.06** (1.94-4.68)
60-min	**0.834** (0.672-1.03)	**1.03** (0.827-1.27)	**1.34** (1.08-1.67)	**1.61** (1.28-2.01)	**1.97** (1.51-2.60)	**2.23** (1.68-3.03)	**2.52** (1.84-3.58)	**2.87** (1.95-4.14)	**3.40** (2.21-5.10)	**3.86** (2.44-5.90)
2-hr	**1.08** (0.875-1.32)	**1.34** (1.09-1.65)	**1.78** (1.44-2.19)	**2.14** (1.72-2.66)	**2.64** (2.04-3.46)	**3.00** (2.28-4.05)	**3.40** (2.50-4.81)	**3.90** (2.66-5.57)	**4.67** (3.04-6.93)	**5.34** (3.39-8.09)
3-hr	**1.26** (1.02-1.54)	**1.57** (1.28-1.92)	**2.08** (1.69-2.56)	**2.51** (2.02-3.11)	**3.10** (2.41-4.05)	**3.53** (2.68-4.74)	**4.00** (2.96-5.64)	**4.59** (3.13-6.52)	**5.52** (3.60-8.14)	**6.33** (4.02-9.52)
6-hr	**1.64** (1.35-2.00)	**2.04** (1.67-2.48)	**2.69** (2.20-3.29)	**3.24** (2.62-3.98)	**3.98** (3.11-5.17)	**4.53** (3.47-6.04)	**5.13** (3.81-7.16)	**5.88** (4.03-8.28)	**7.06** (4.62-10.3)	**8.07** (5.15-12.0)
12-hr	**2.11** (1.74-2.55)	**2.60** (2.15-3.15)	**3.41** (2.80-4.13)	**4.07** (3.32-4.97)	**4.99** (3.92-6.41)	**5.66** (4.35-7.47)	**6.40** (4.76-8.82)	**7.30** (5.03-10.2)	**8.70** (5.72-12.6)	**9.91** (6.34-14.6)
24-hr	**2.54** (2.11-3.05)	**3.15** (2.62-3.79)	**4.16** (3.44-5.01)	**4.99** (4.10-6.05)	**6.14** (4.86-7.85)	**6.98** (5.40-9.15)	**7.91** (5.93-10.8)	**9.07** (6.27-12.5)	**10.9** (7.18-15.6)	**12.5** (8.00-18.2)
2-day	**2.87** (2.40-3.41)	**3.64** (3.04-4.34)	**4.90** (4.07-5.86)	**5.94** (4.91-7.15)	**7.38** (5.89-9.40)	**8.43** (6.58-11.0)	**9.60** (7.28-13.2)	**11.1** (7.71-15.2)	**13.6** (8.99-19.2)	**15.8** (10.2-22.7)
3-day	**3.13** (2.63-3.72)	**3.96** (3.32-4.71)	**5.32** (4.44-6.34)	**6.44** (5.34-7.72)	**7.99** (6.40-10.1)	**9.12** (7.14-11.9)	**10.4** (7.91-14.2)	**12.0** (8.36-16.4)	**14.8** (9.77-20.7)	**17.2** (11.1-24.6)
4-day	**3.39** (2.85-4.01)	**4.24** (3.57-5.03)	**5.64** (4.72-6.70)	**6.80** (5.65-8.12)	**8.39** (6.73-10.6)	**9.55** (7.50-12.4)	**10.8** (8.28-14.8)	**12.6** (8.74-17.0)	**15.4** (10.2-21.5)	**17.9** (11.6-25.5)
7-day	**4.10** (3.47-4.82)	**4.98** (4.21-5.86)	**6.42** (5.40-7.58)	**7.61** (6.36-9.04)	**9.26** (7.46-11.6)	**10.5** (8.24-13.4)	**11.8** (9.02-15.9)	**13.6** (9.47-18.2)	**16.5** (11.0-22.8)	**19.0** (12.3-26.9)
10-day	**4.75** (4.04-5.57)	**5.65** (4.80-6.63)	**7.13** (6.02-8.39)	**8.35** (7.00-9.89)	**10.0** (8.11-12.5)	**11.3** (8.89-14.4)	**12.6** (9.66-16.8)	**14.4** (10.1-19.2)	**17.3** (11.5-23.8)	**19.8** (12.8-27.8)
20-day	**6.64** (5.67-7.73)	**7.63** (6.51-8.89)	**9.25** (7.86-10.8)	**10.6** (8.94-12.5)	**12.4** (10.1-15.2)	**13.8** (10.9-17.3)	**15.3** (11.6-19.8)	**17.0** (12.0-22.4)	**19.6** (13.1-26.6)	**21.7** (14.1-30.1)
30-day	**8.20** (7.04-9.51)	**9.27** (7.94-10.8)	**11.0** (9.39-12.8)	**12.4** (10.5-14.6)	**14.4** (11.7-17.5)	**15.9** (12.5-19.7)	**17.5** (13.2-22.3)	**19.1** (13.6-25.0)	**21.4** (14.4-28.9)	**23.2** (15.1-32.0)
45-day	**10.2** (8.77-11.8)	**11.3** (9.74-13.1)	**13.2** (11.3-15.3)	**14.7** (12.5-17.2)	**16.9** (13.7-20.3)	**18.5** (14.6-22.6)	**20.1** (15.1-25.3)	**21.7** (15.5-28.2)	**23.8** (16.1-31.9)	**25.2** (16.5-34.5)
60-day	**11.8** (10.2-13.6)	**13.0** (11.3-15.0)	**15.0** (12.9-17.3)	**16.6** (14.2-19.3)	**18.8** (15.3-22.5)	**20.6** (16.2-25.0)	**22.3** (16.7-27.7)	**23.8** (17.0-30.8)	**25.7** (17.4-34.3)	**27.0** (17.6-36.8)

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

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

Please refer to NOAA Atlas 14 document for more information.

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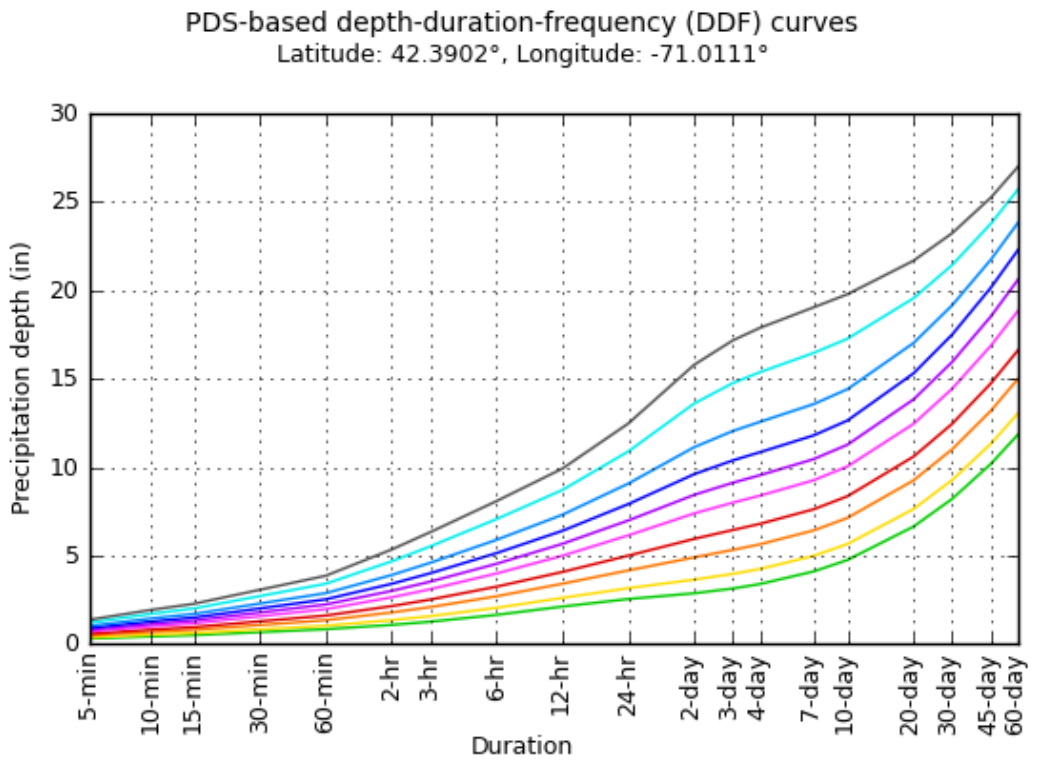
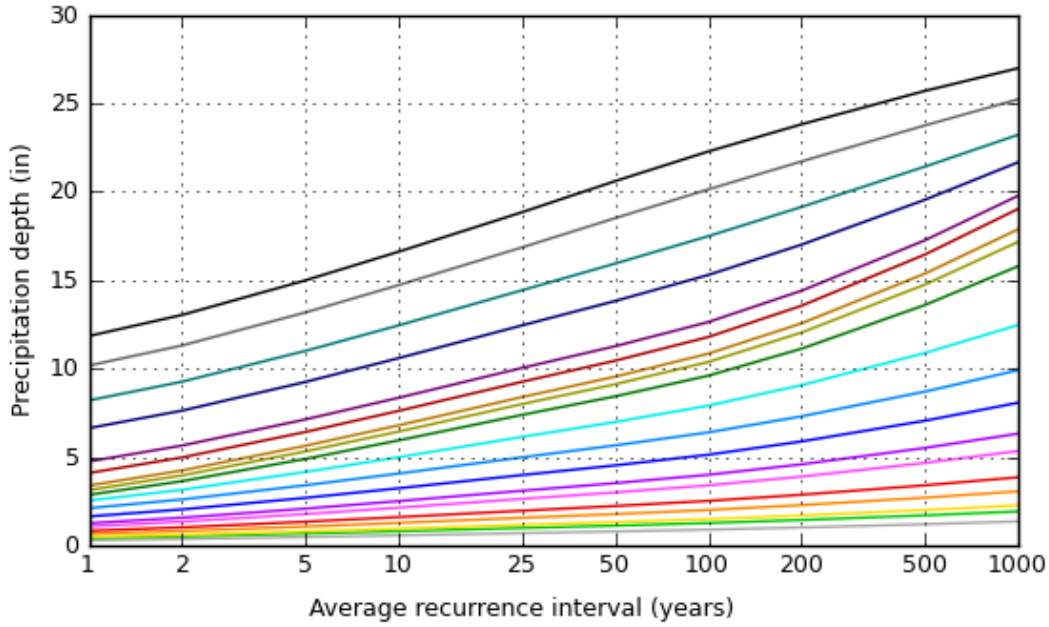
PF graphical





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Created (GMT): Fri Nov 15 14:59:06 2019

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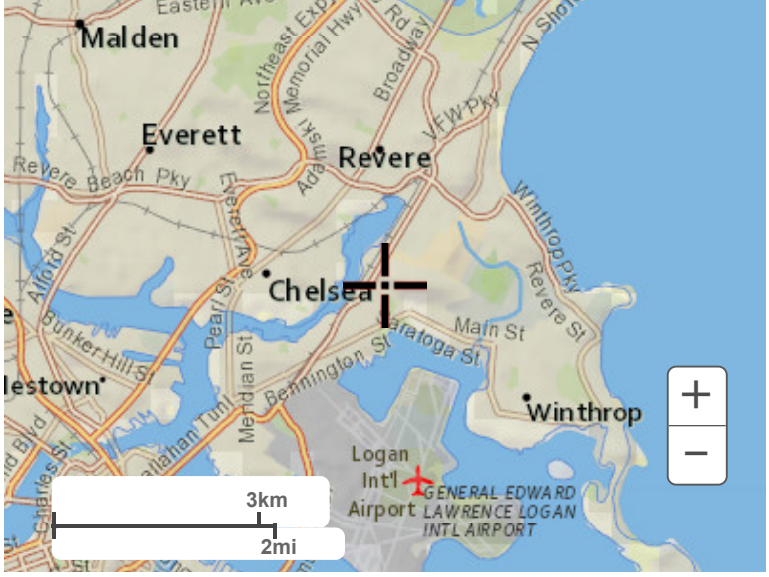
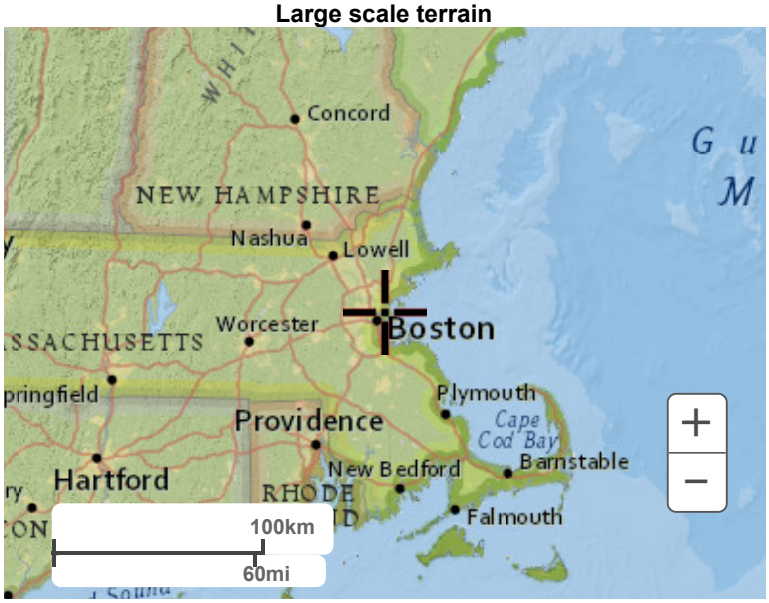
Maps & aerials

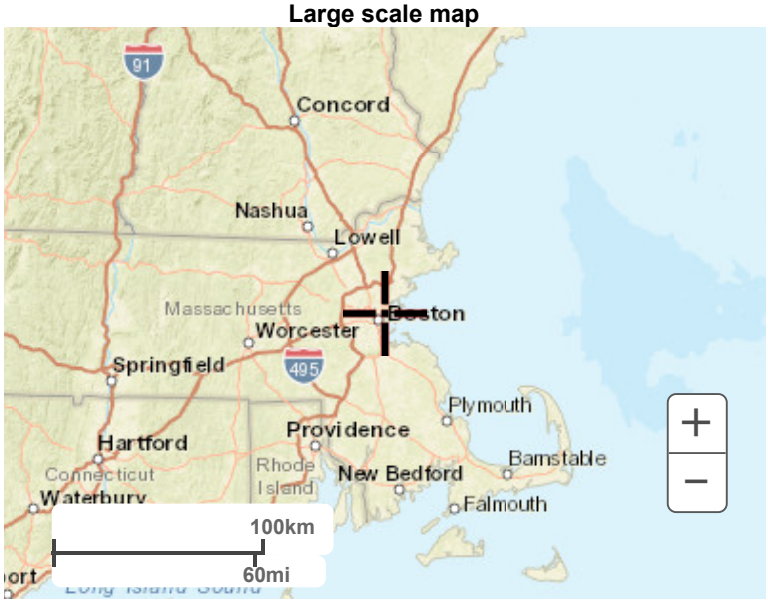
Small scale terrain



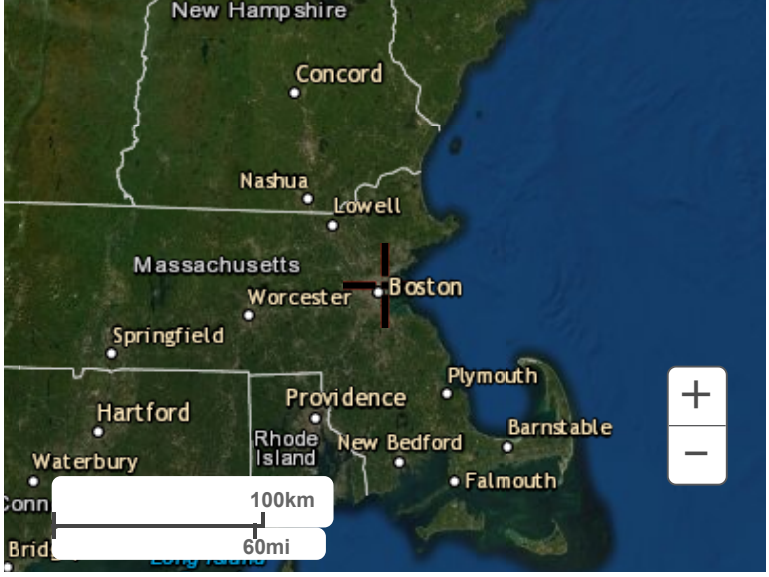
Large scale terrain



Large scale map



Large scale aerial



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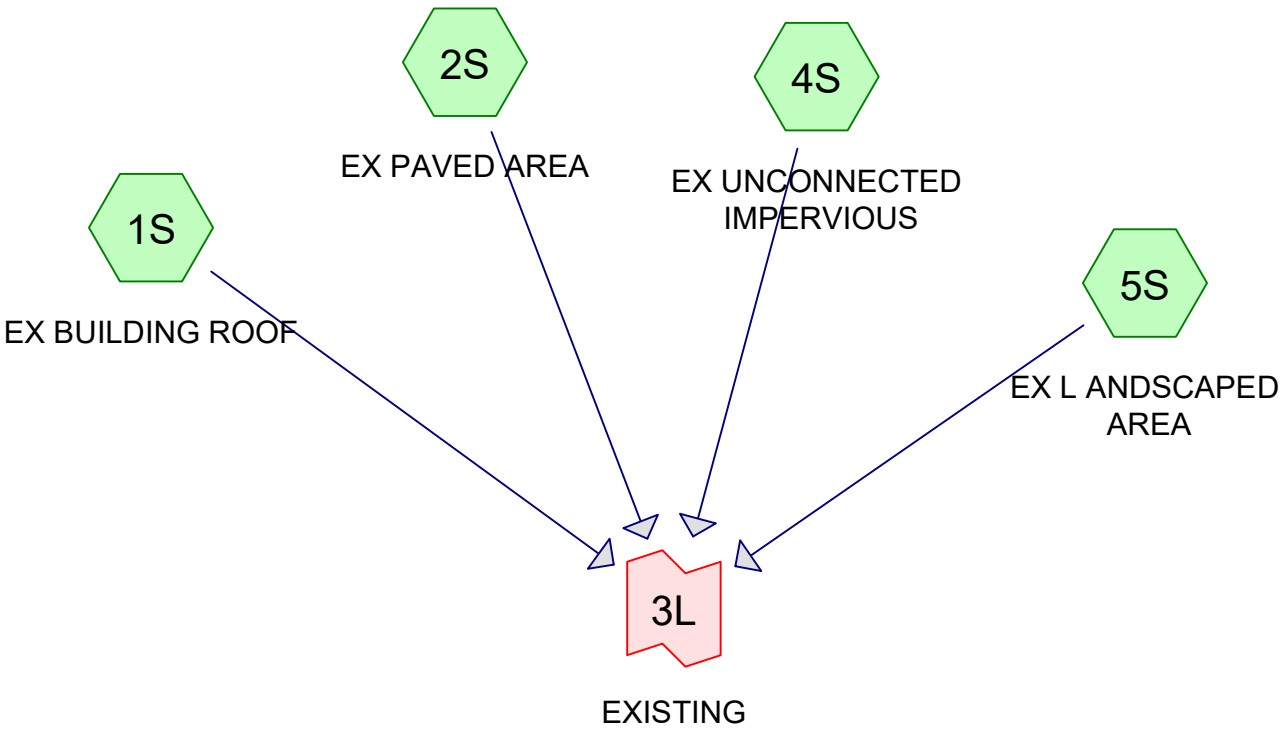
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Appendix A – HydroCAD Calculations



Subcat Reach Pond Link

Routing Diagram for EXISTING

Prepared by {enter your company name here}, Printed 04/09/2020

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
302	84	50-75% Grass cover, Fair, HSG D (5S)
1,127	98	Paved parking, HSG D (2S, 4S)
1,453	98	Roofs, HSG D (1S)
2,882	**97**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
2,882	HSG D	1S, 2S, 4S, 5S
0	Other	
2,882		**TOTAL AREA**

Summary for Subcatchment 1S: EX BUILDING ROOF

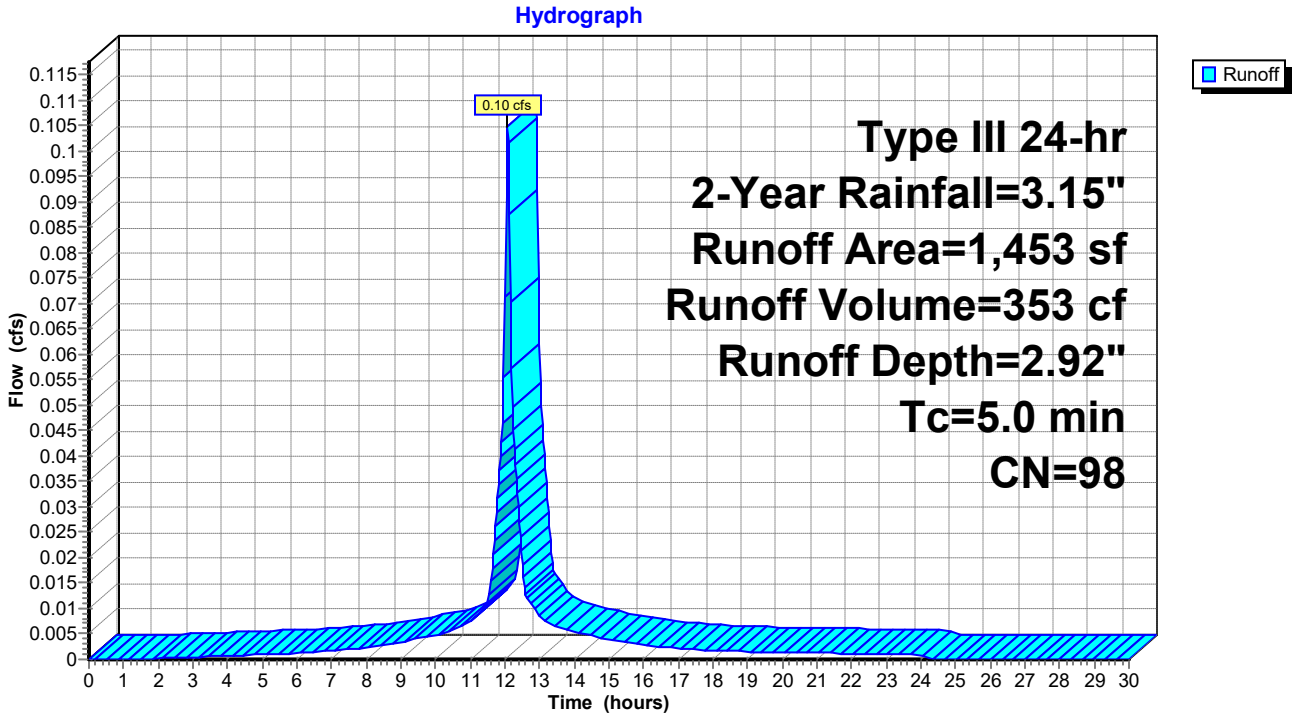
Runoff = 0.10 cfs @ 12.07 hrs, Volume= 353 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: EX BUILDING ROOF



Summary for Subcatchment 2S: EX PAVED AREA

Runoff = 0.04 cfs @ 12.07 hrs, Volume= 125 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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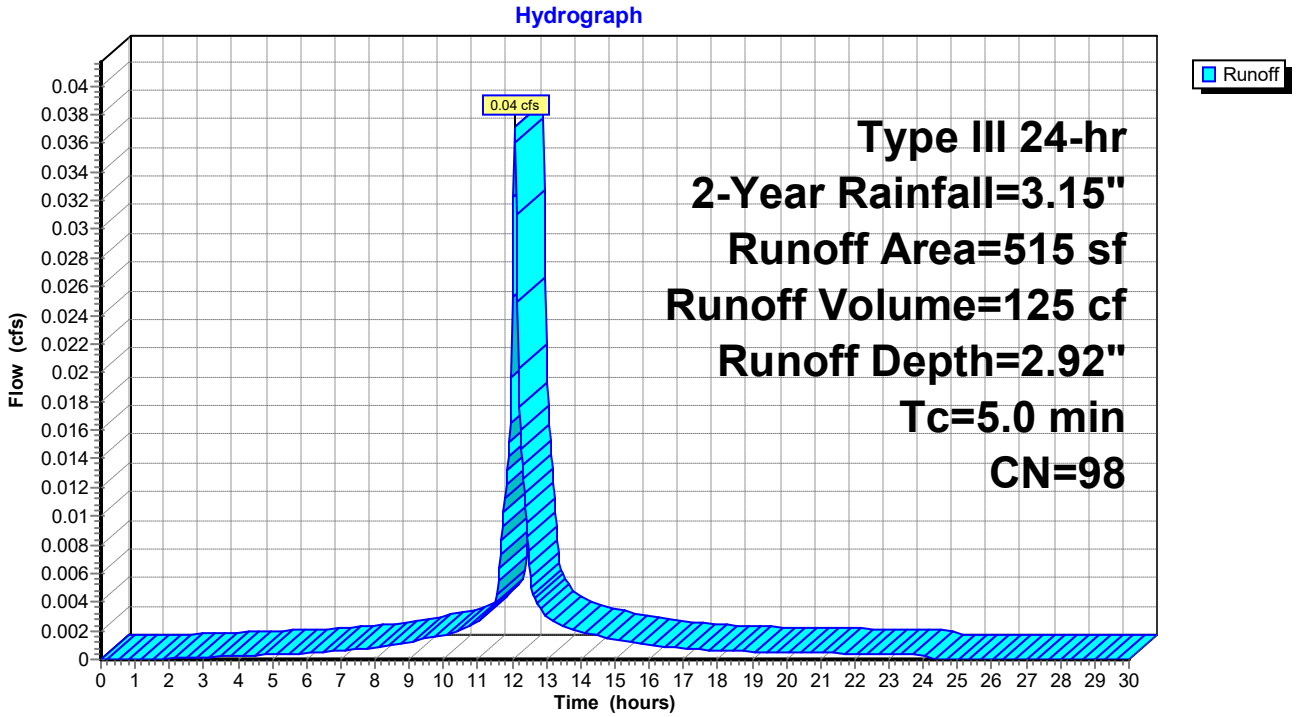
Subcatchment 2S: EX PAVED AREA



Summary for Subcatchment 4S: EX UNCONNECTED IMPERVIOUS

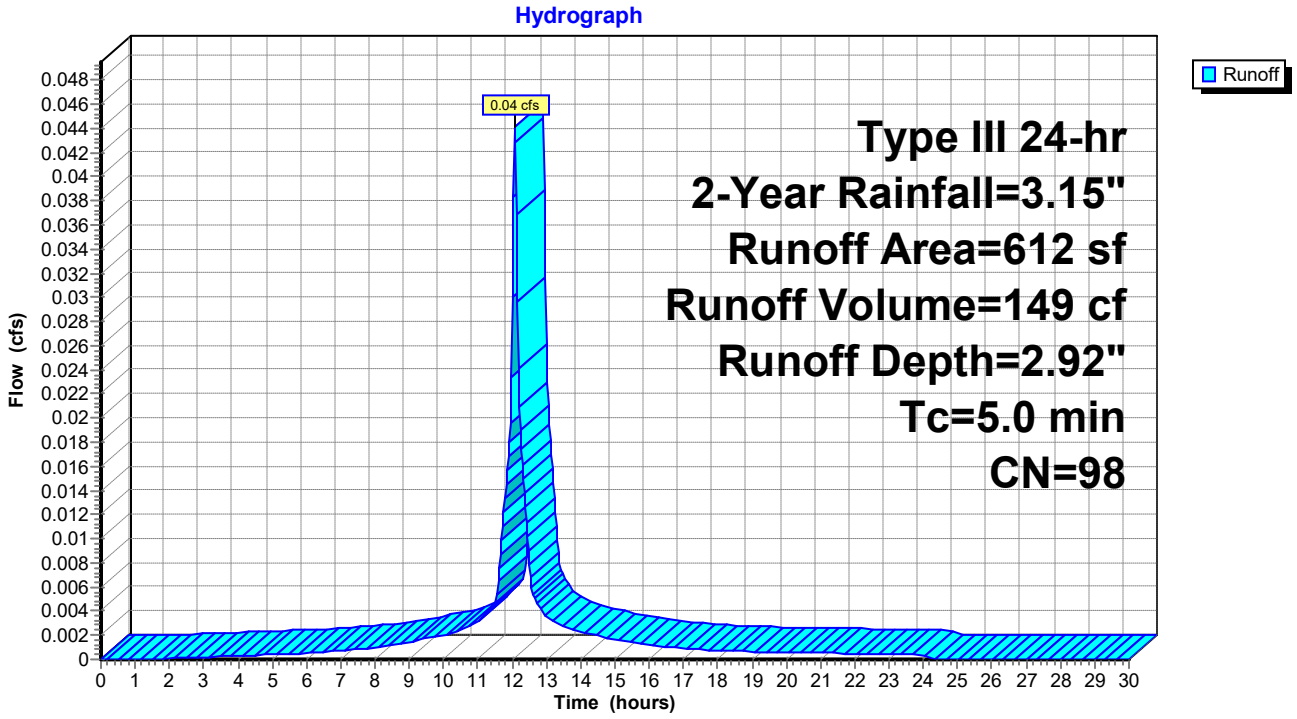
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 149 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: EX UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: EX L ANDSCAPED AREA

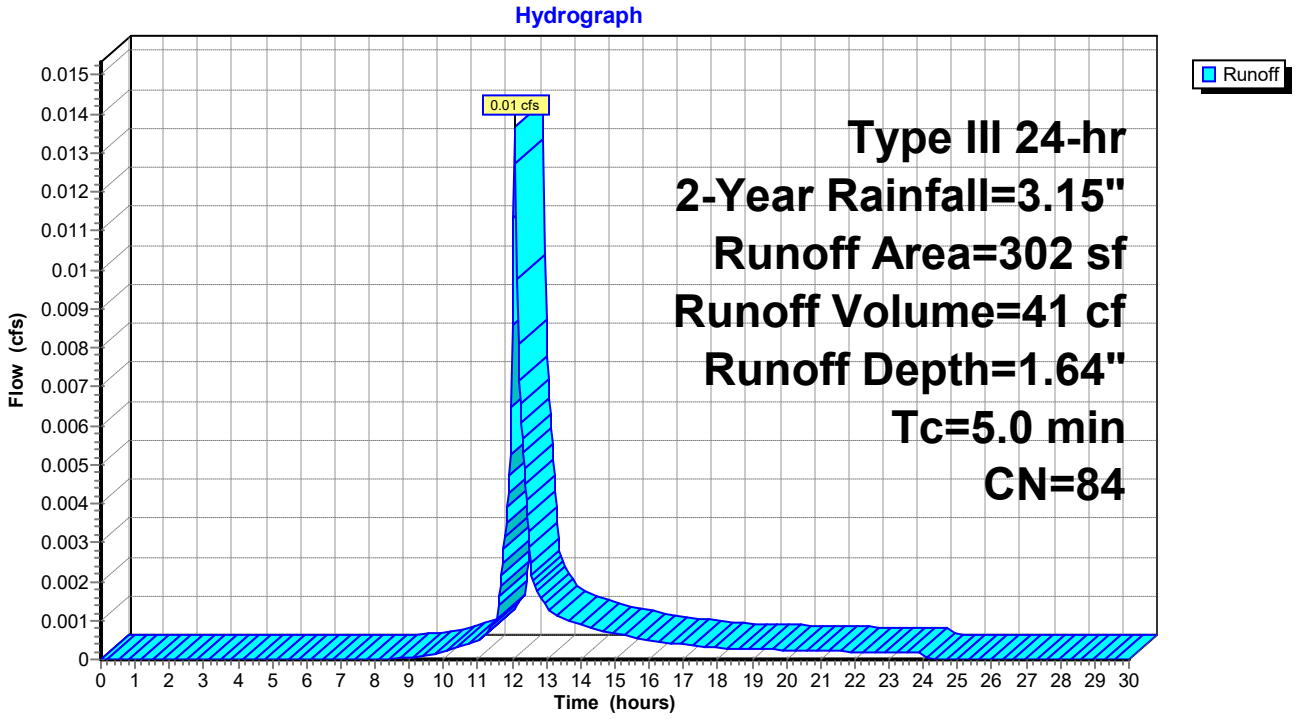
Runoff = 0.01 cfs @ 12.08 hrs, Volume= 41 cf, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: EX L ANDSCAPED AREA

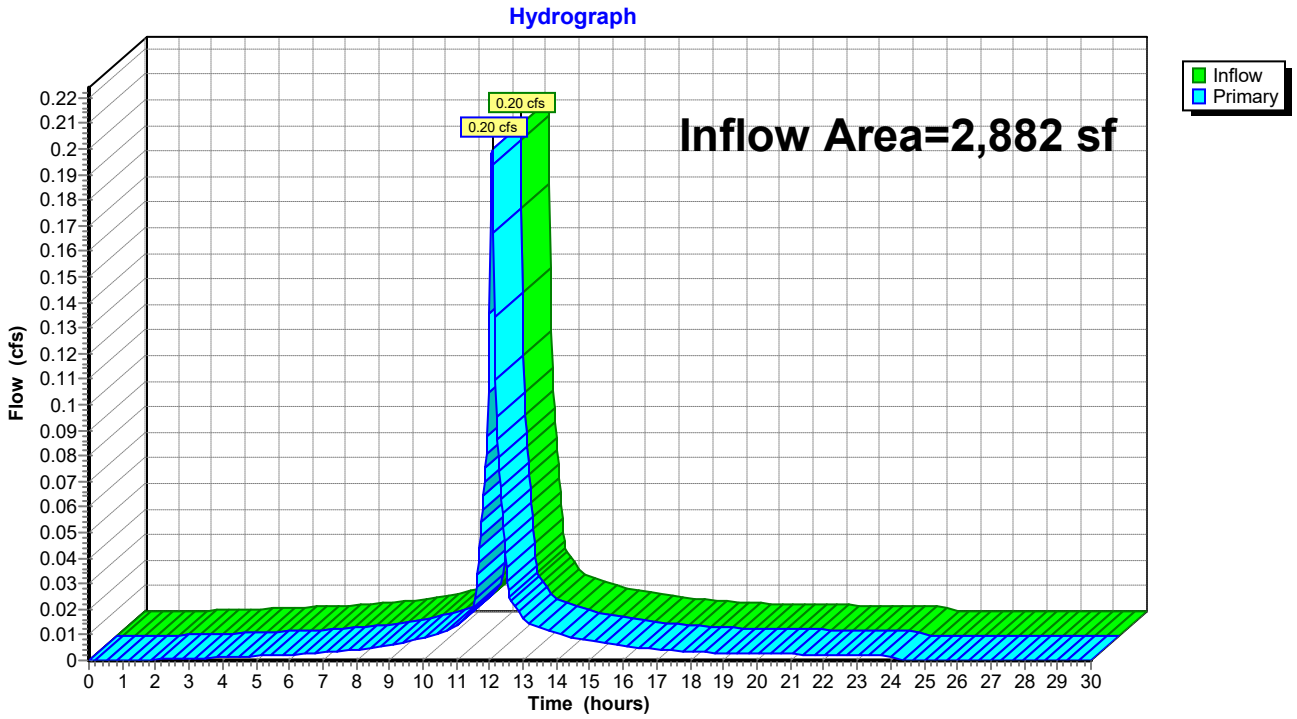


Summary for Link 3L: EXISTING

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 2.78" for 2-Year event
Inflow = 0.20 cfs @ 12.07 hrs, Volume= 669 cf
Primary = 0.20 cfs @ 12.07 hrs, Volume= 669 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: EXISTING



Summary for Subcatchment 1S: EX BUILDING ROOF

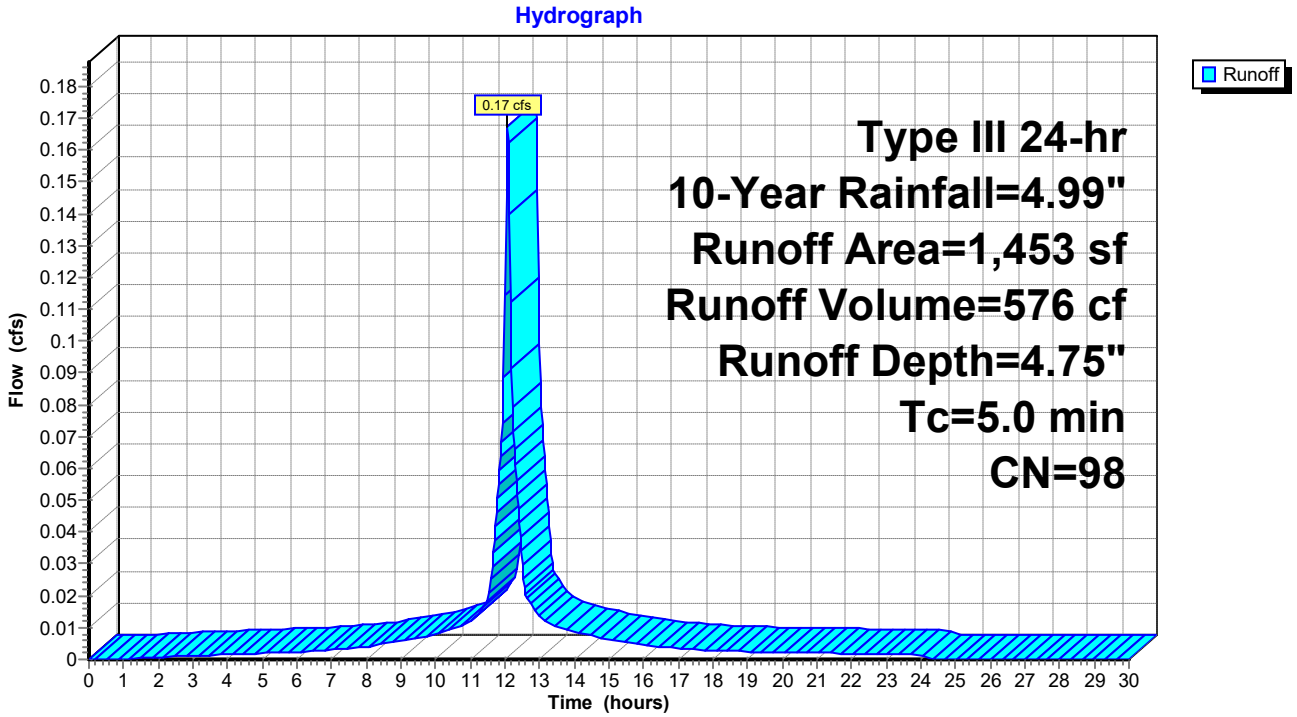
Runoff = 0.17 cfs @ 12.07 hrs, Volume= 576 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: EX BUILDING ROOF



Summary for Subcatchment 2S: EX PAVED AREA

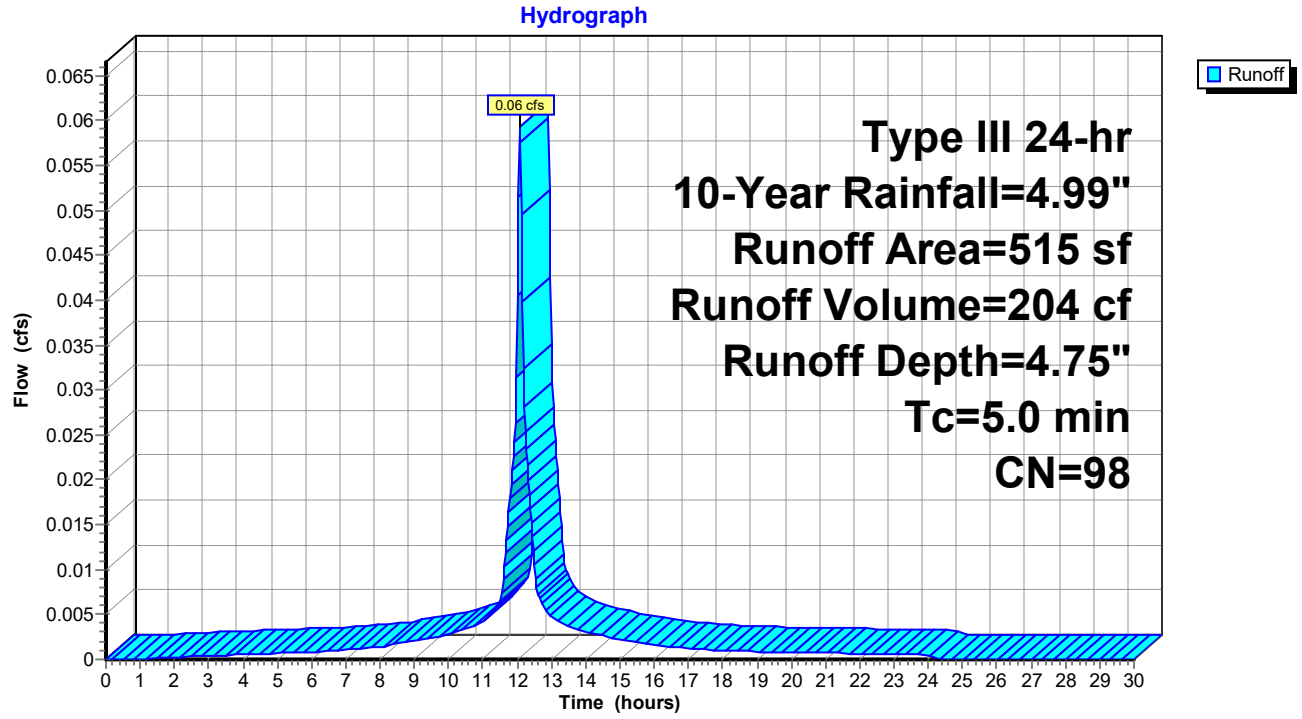
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 204 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: EX PAVED AREA



Summary for Subcatchment 4S: EX UNCONNECTED IMPERVIOUS

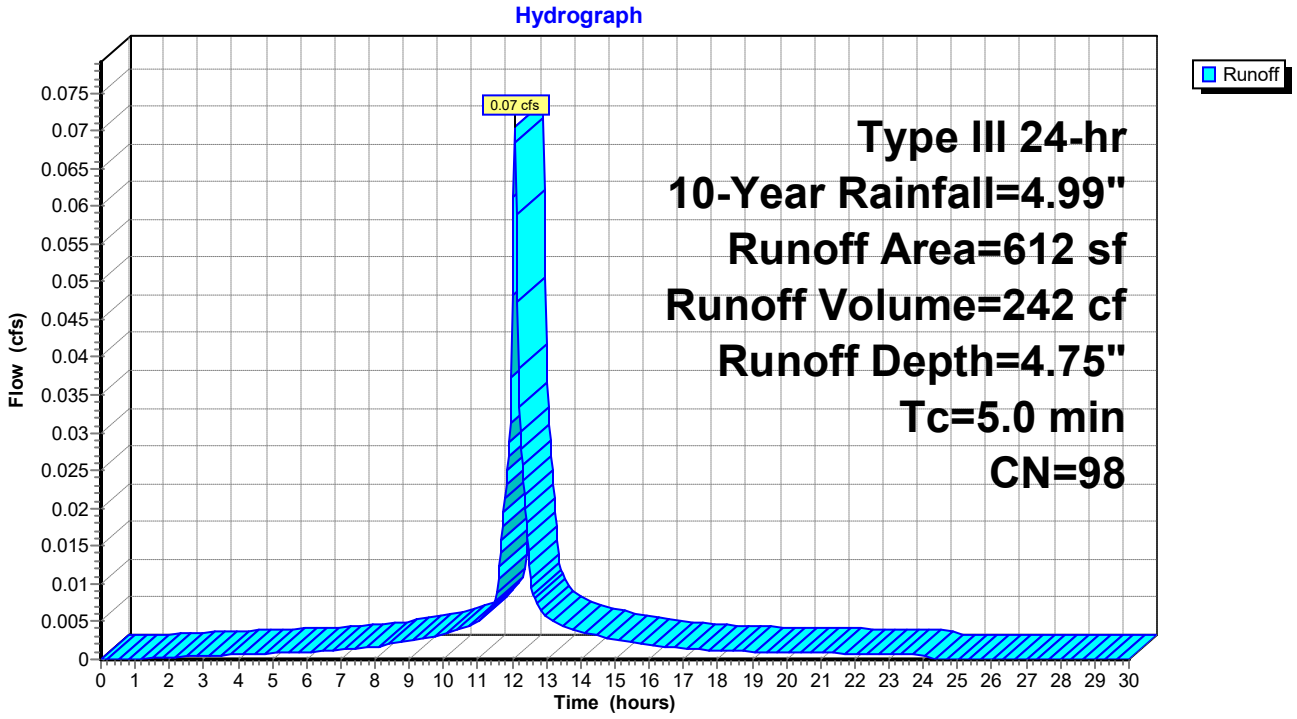
Runoff = 0.07 cfs @ 12.07 hrs, Volume= 242 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: EX UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: EX L ANDSCAPED AREA

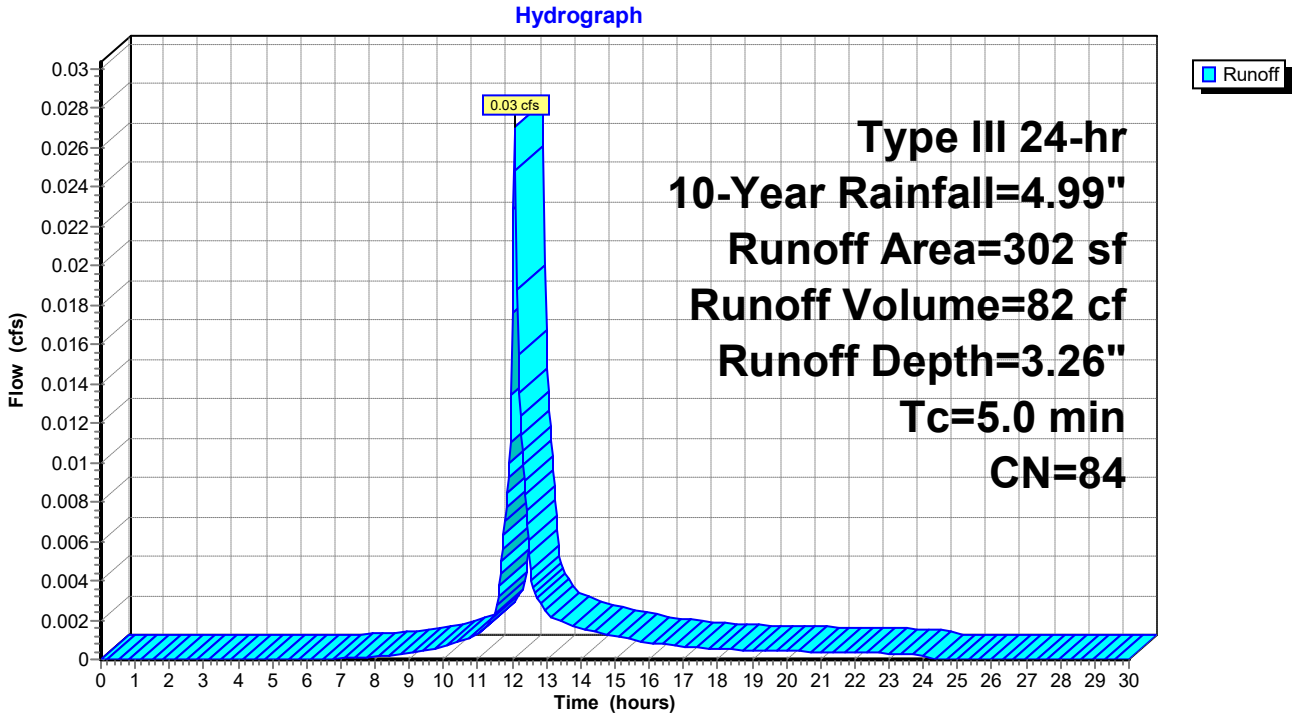
Runoff = 0.03 cfs @ 12.07 hrs, Volume= 82 cf, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: EX L ANDSCAPED AREA

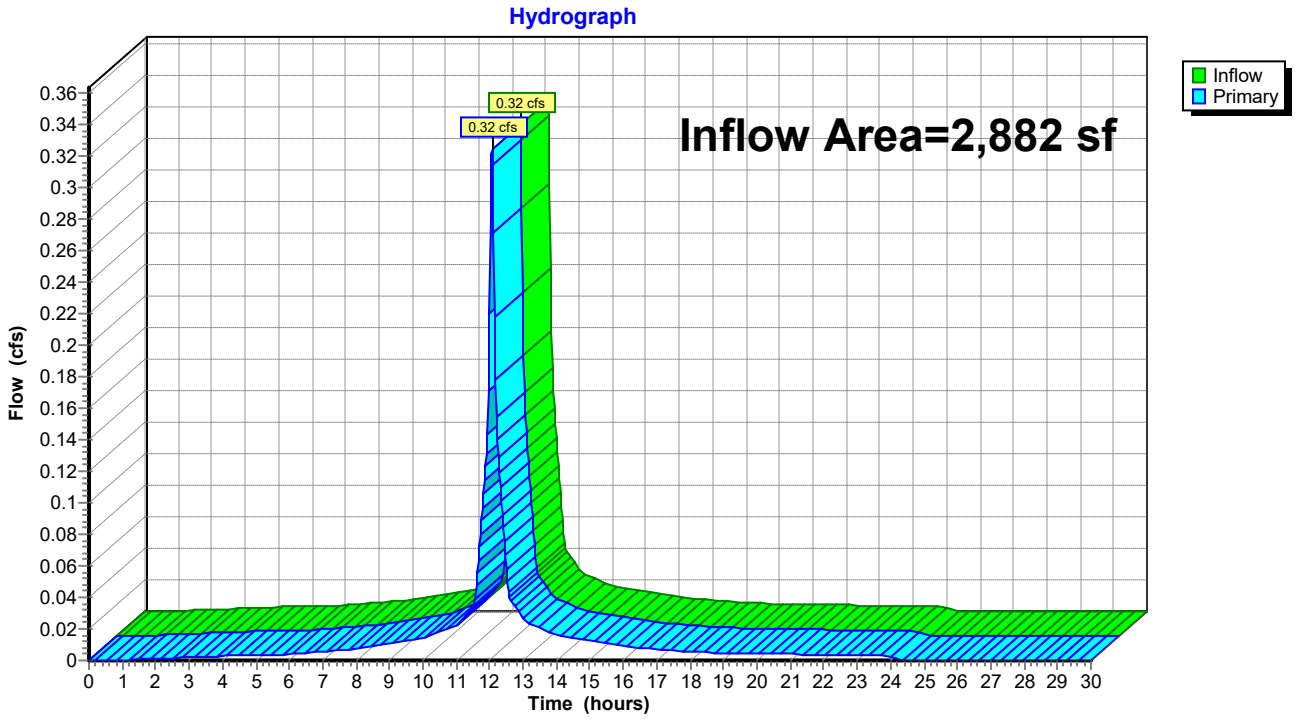


Summary for Link 3L: EXISTING

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 4.60" for 10-Year event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,104 cf
Primary = 0.32 cfs @ 12.07 hrs, Volume= 1,104 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: EXISTING



Summary for Subcatchment 1S: EX BUILDING ROOF

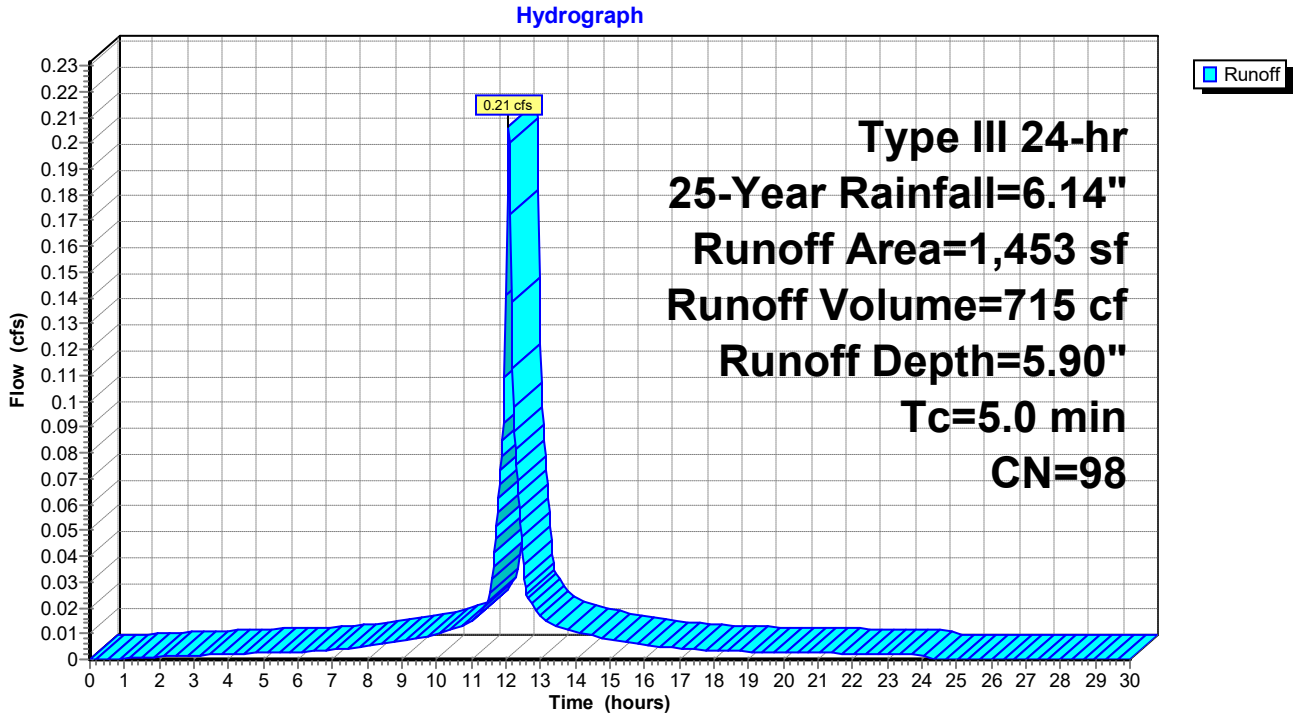
Runoff = 0.21 cfs @ 12.07 hrs, Volume= 715 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: EX BUILDING ROOF



Summary for Subcatchment 2S: EX PAVED AREA

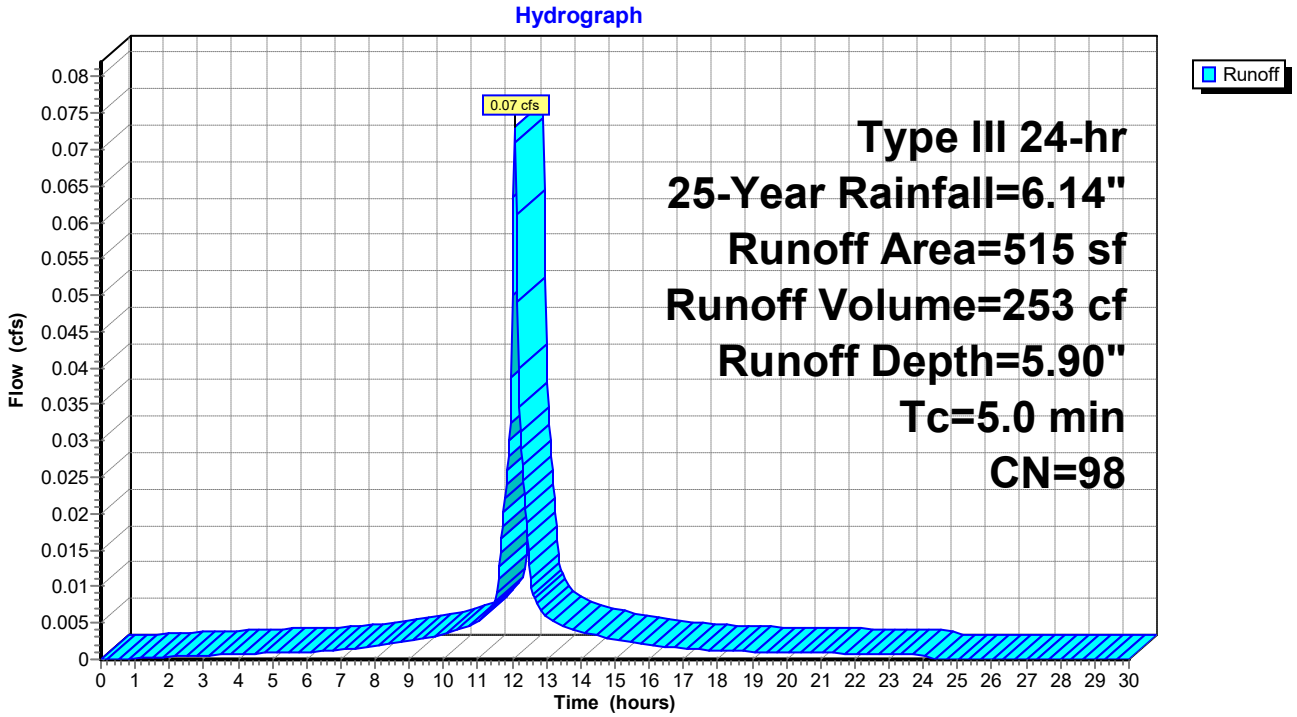
Runoff = 0.07 cfs @ 12.07 hrs, Volume= 253 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: EX PAVED AREA



Summary for Subcatchment 4S: EX UNCONNECTED IMPERVIOUS

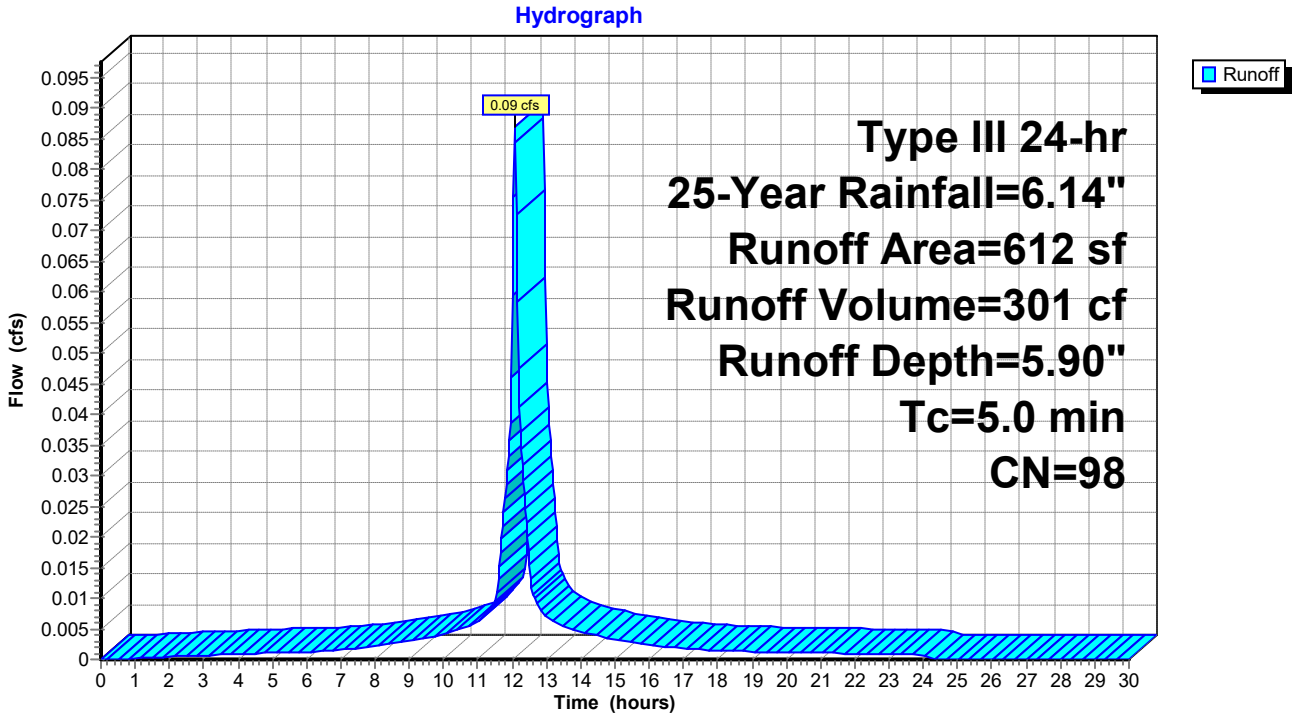
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 301 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: EX UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: EX L ANDSCAPED AREA

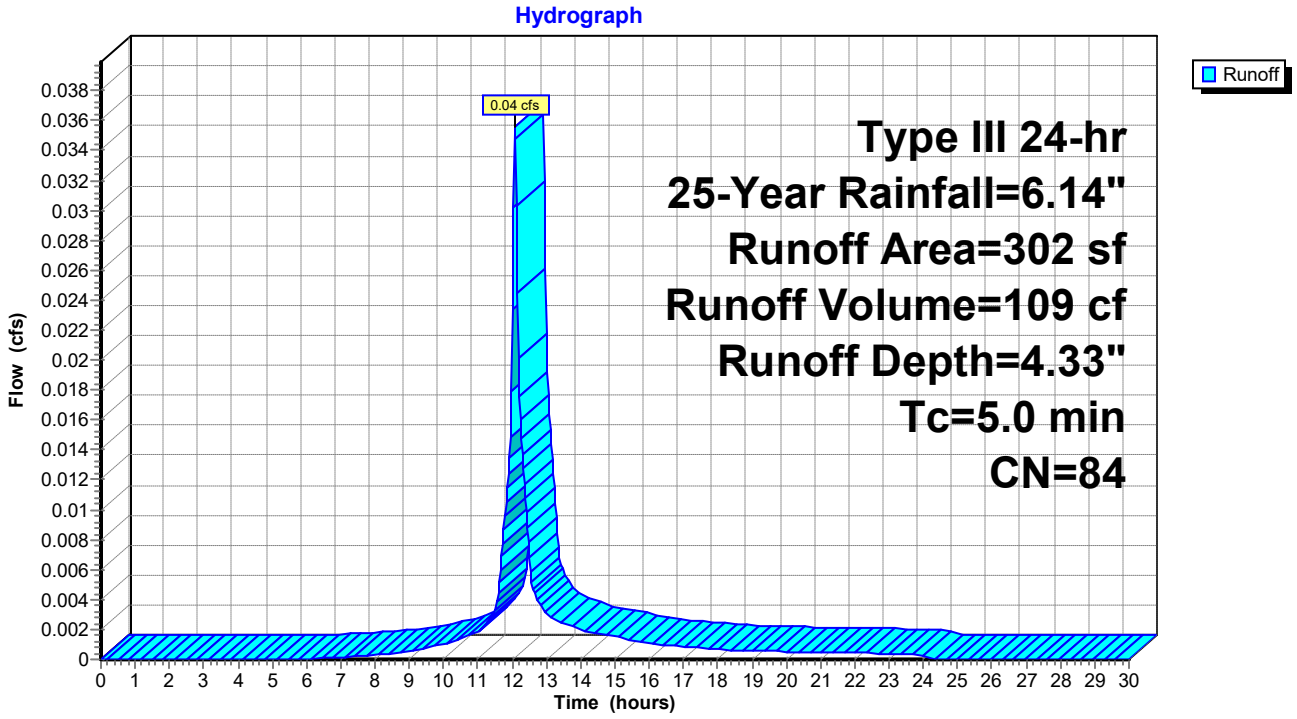
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 109 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: EX L ANDSCAPED AREA

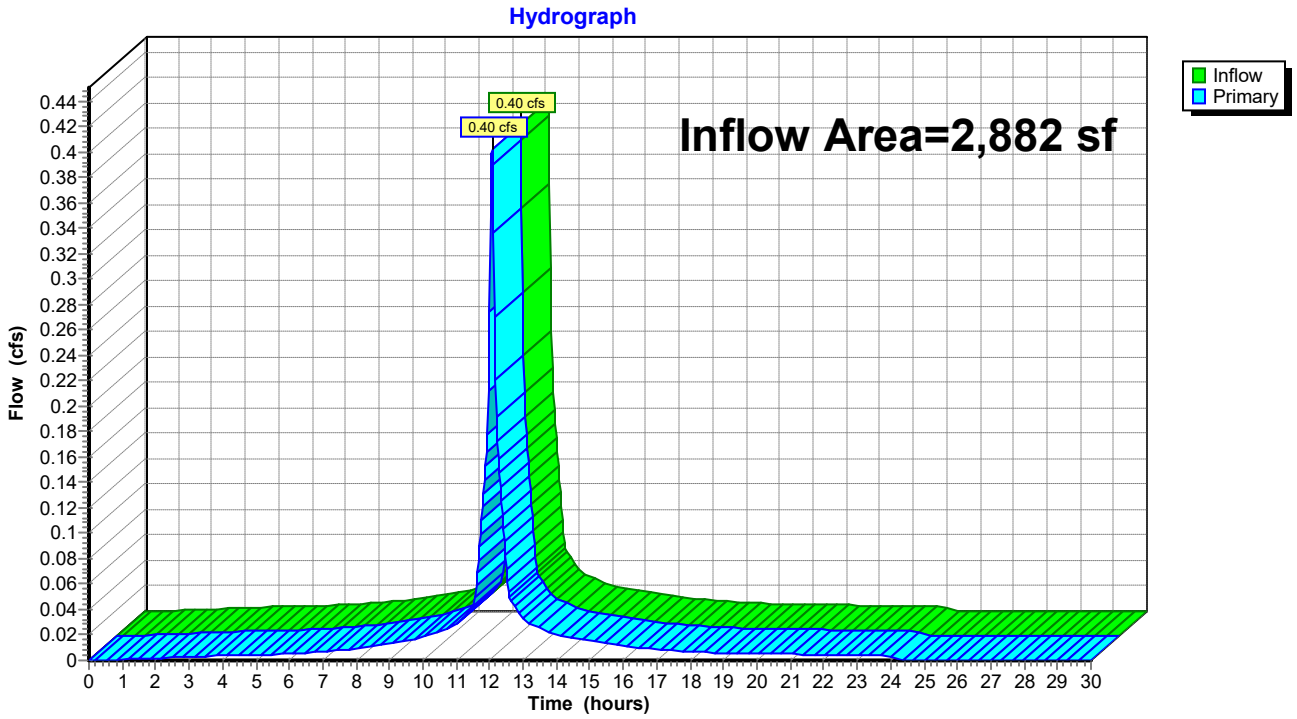


Summary for Link 3L: EXISTING

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 5.74" for 25-Year event
Inflow = 0.40 cfs @ 12.07 hrs, Volume= 1,378 cf
Primary = 0.40 cfs @ 12.07 hrs, Volume= 1,378 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: EXISTING



Summary for Subcatchment 1S: EX BUILDING ROOF

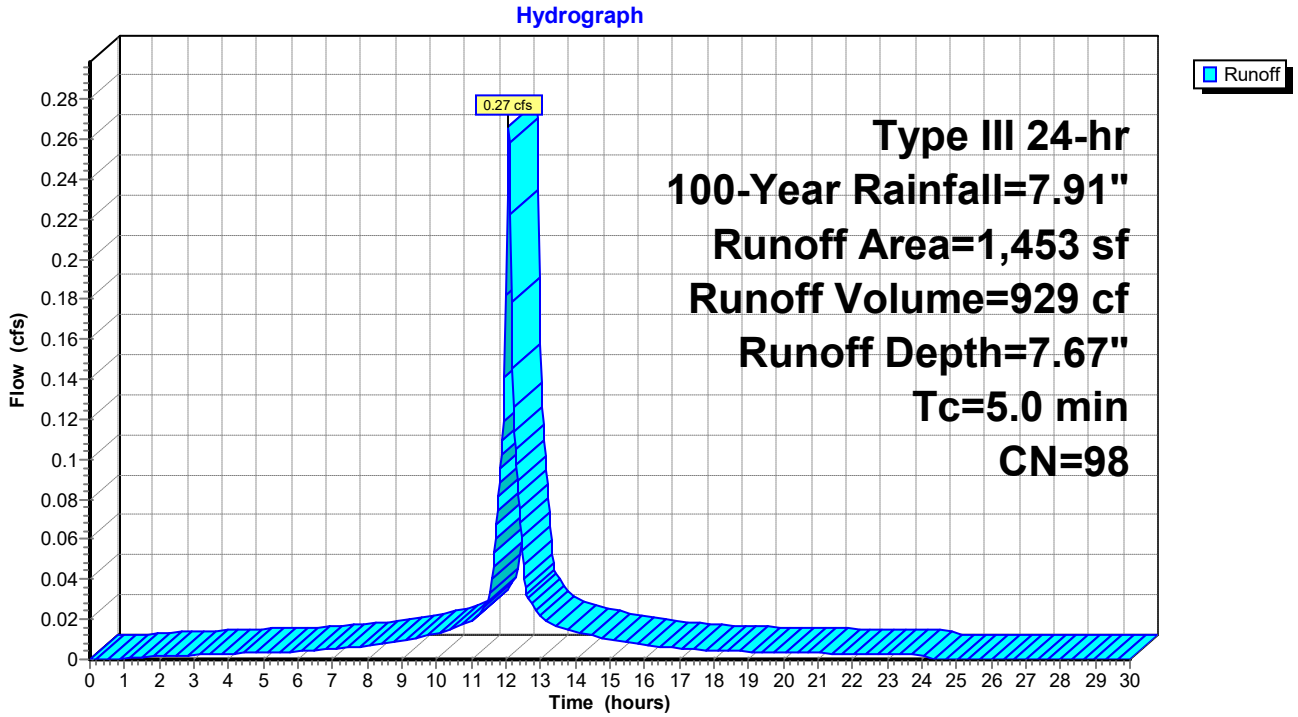
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 929 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: EX BUILDING ROOF



Summary for Subcatchment 2S: EX PAVED AREA

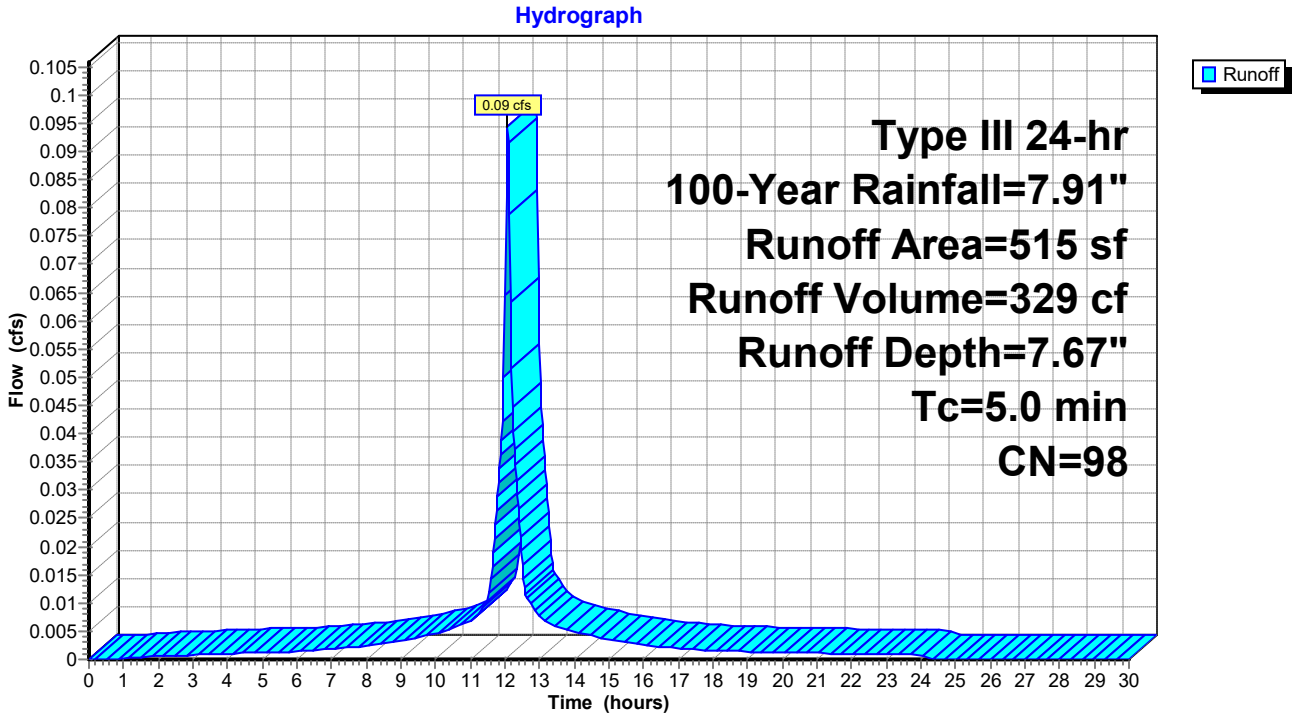
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 329 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: EX PAVED AREA



Summary for Subcatchment 4S: EX UNCONNECTED IMPERVIOUS

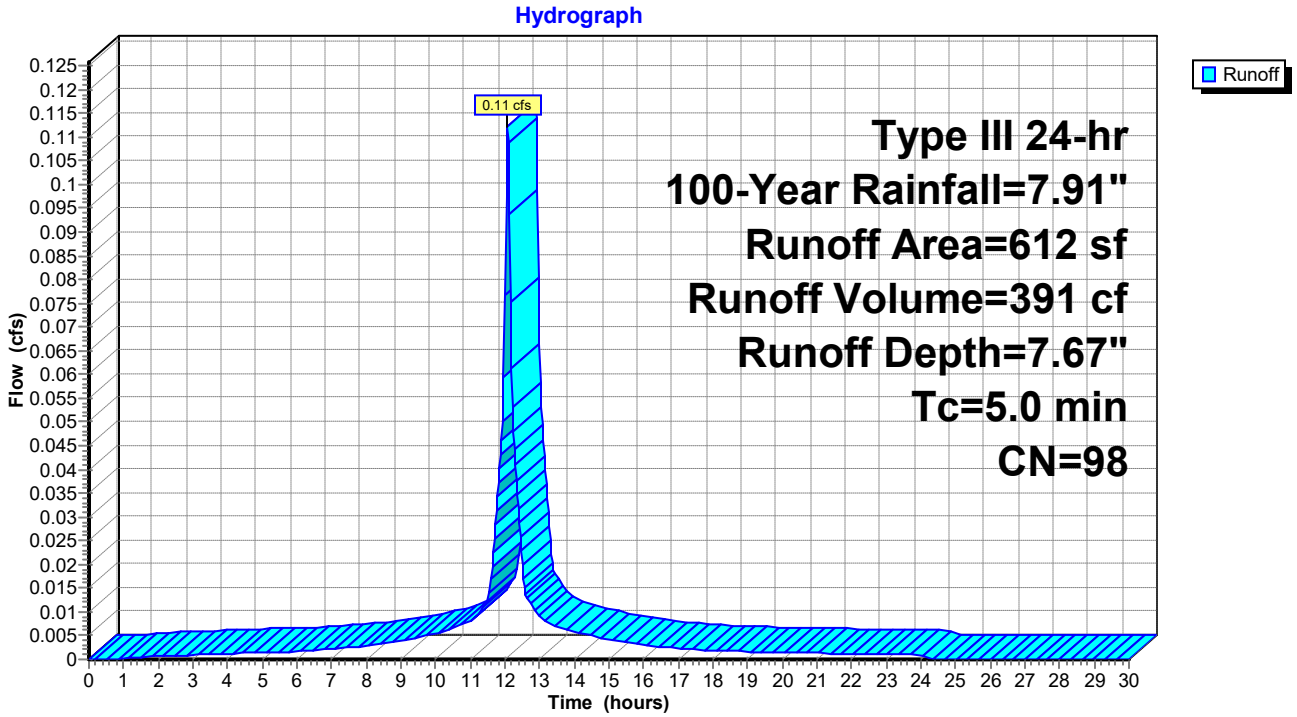
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 391 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: EX UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: EX L ANDSCAPED AREA

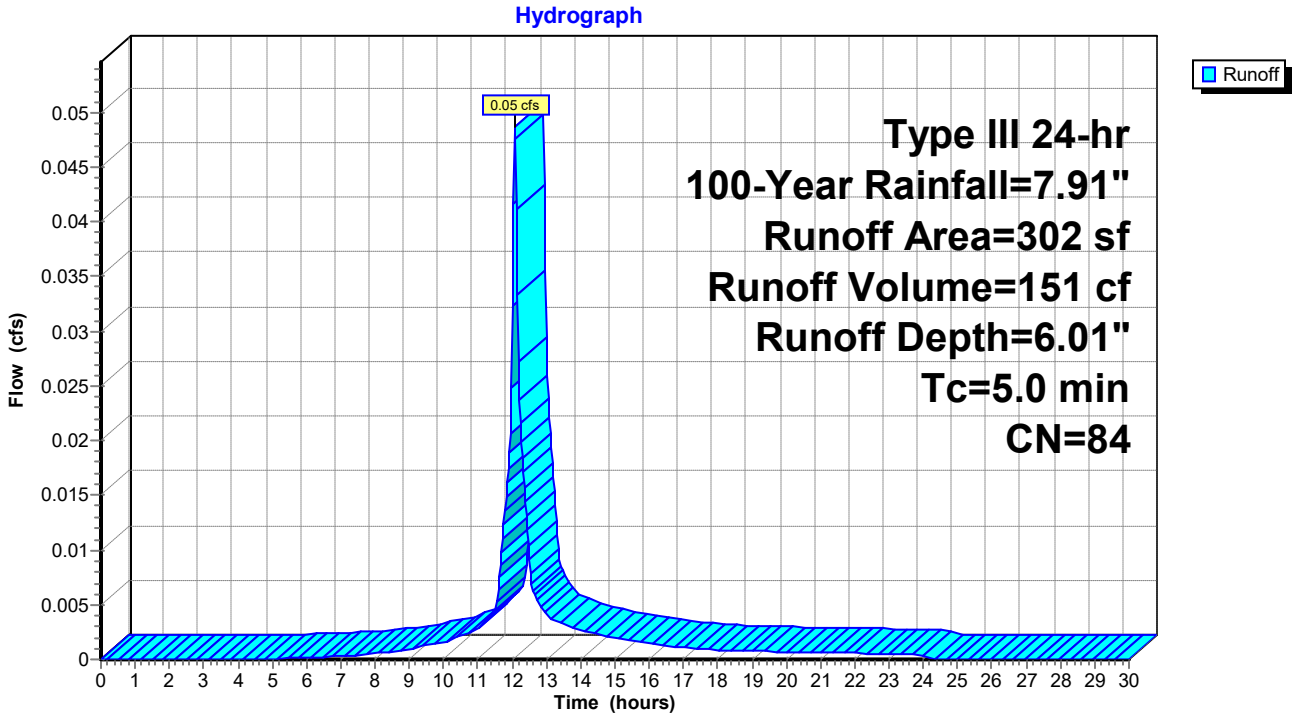
Runoff = 0.05 cfs @ 12.07 hrs, Volume= 151 cf, Depth= 6.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: EX L ANDSCAPED AREA

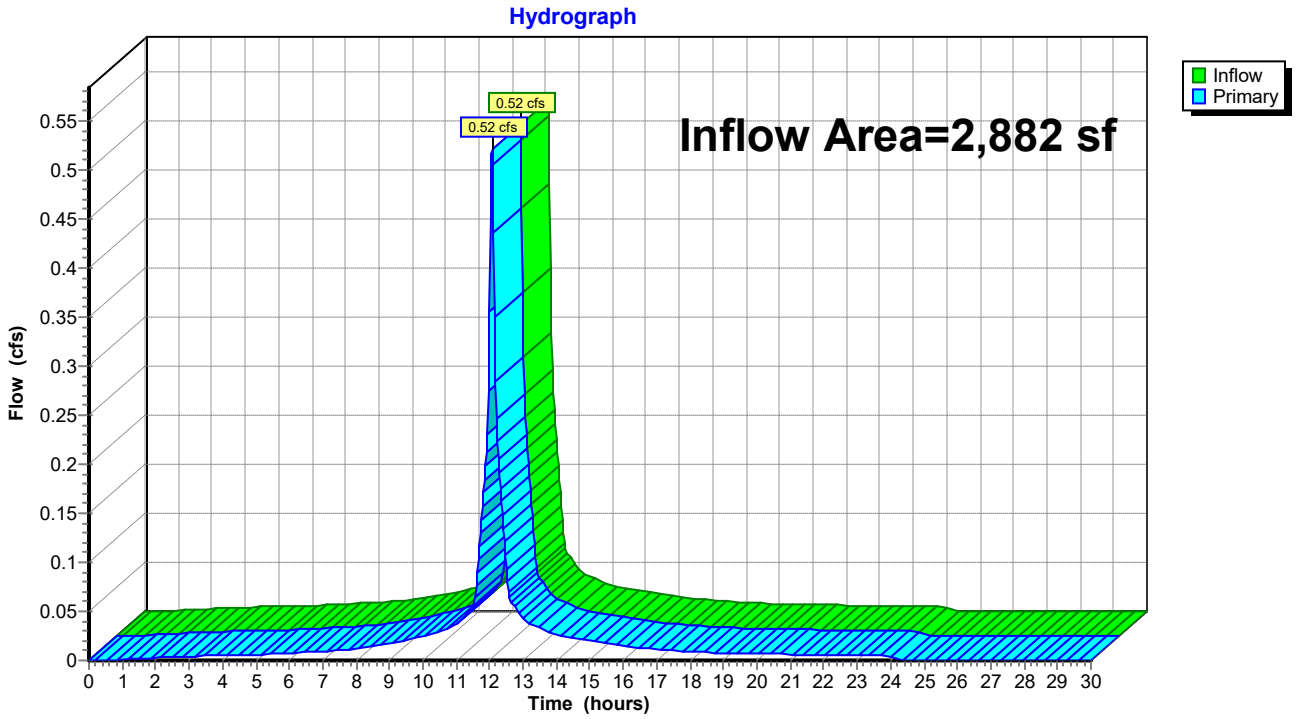


Summary for Link 3L: EXISTING

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 7.50" for 100-Year event
Inflow = 0.52 cfs @ 12.07 hrs, Volume= 1,800 cf
Primary = 0.52 cfs @ 12.07 hrs, Volume= 1,800 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: EXISTING



Summary for Subcatchment 1S: EX BUILDING ROOF

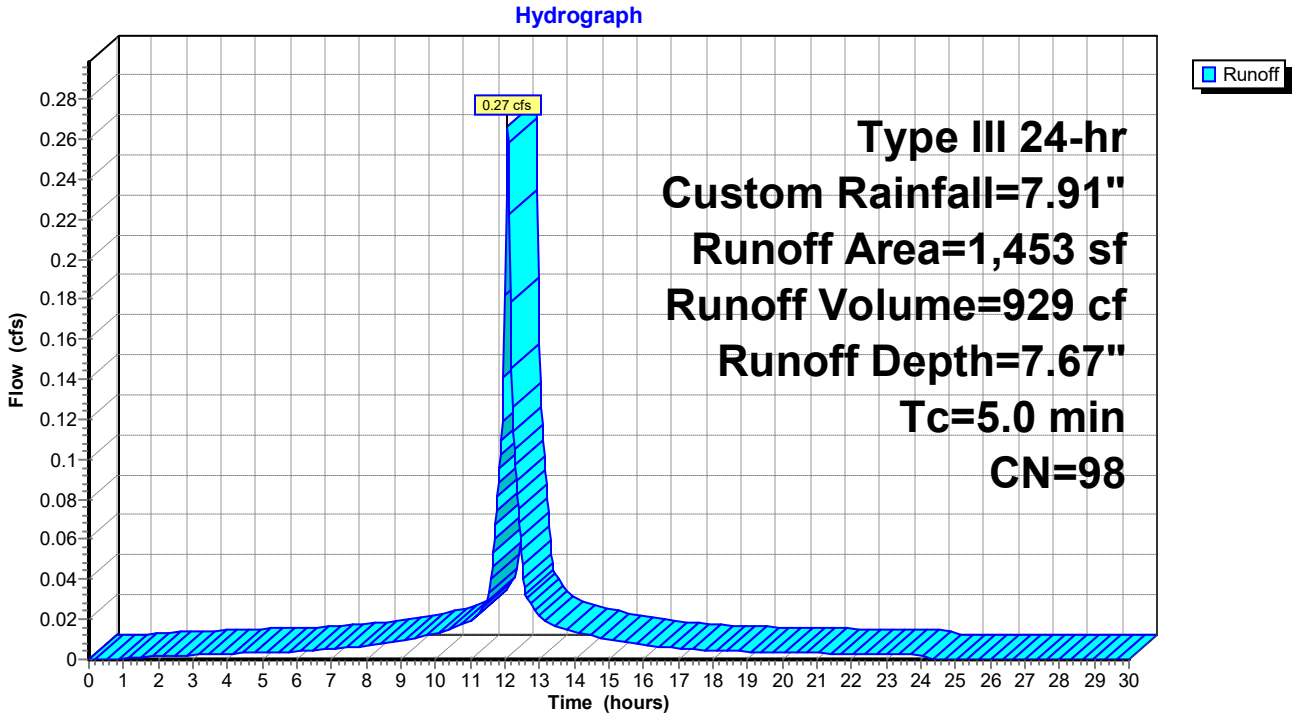
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 929 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr Custom Rainfall=7.91"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: EX BUILDING ROOF



Summary for Subcatchment 2S: EX PAVED AREA

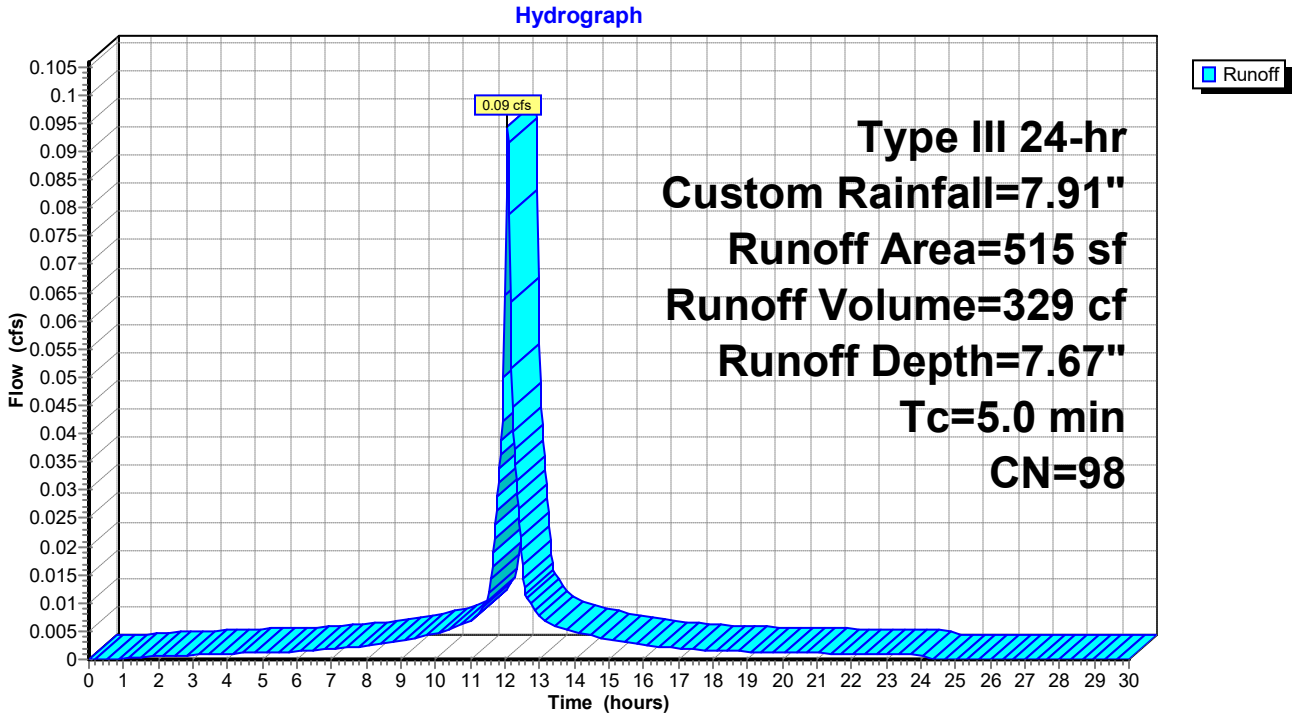
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 329 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr Custom Rainfall=7.91"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: EX PAVED AREA



Summary for Subcatchment 4S: EX UNCONNECTED IMPERVIOUS

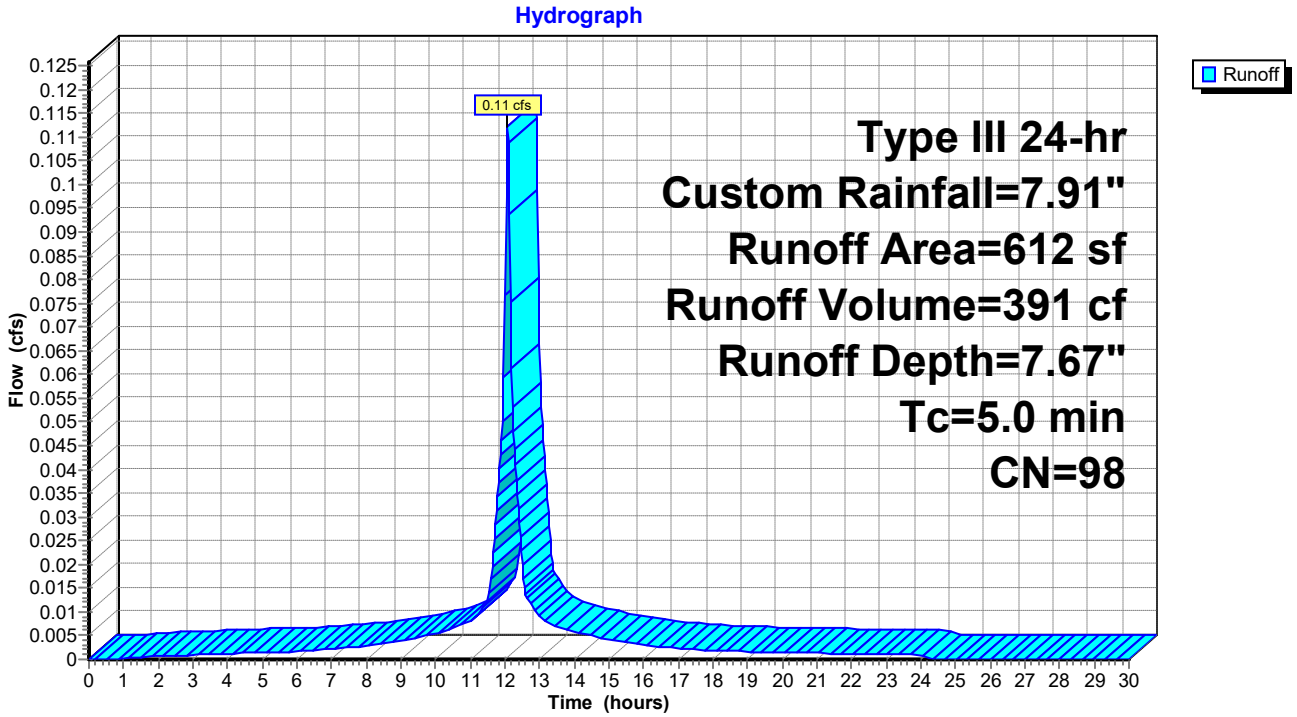
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 391 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr Custom Rainfall=7.91"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: EX UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: EX L ANDSCAPED AREA

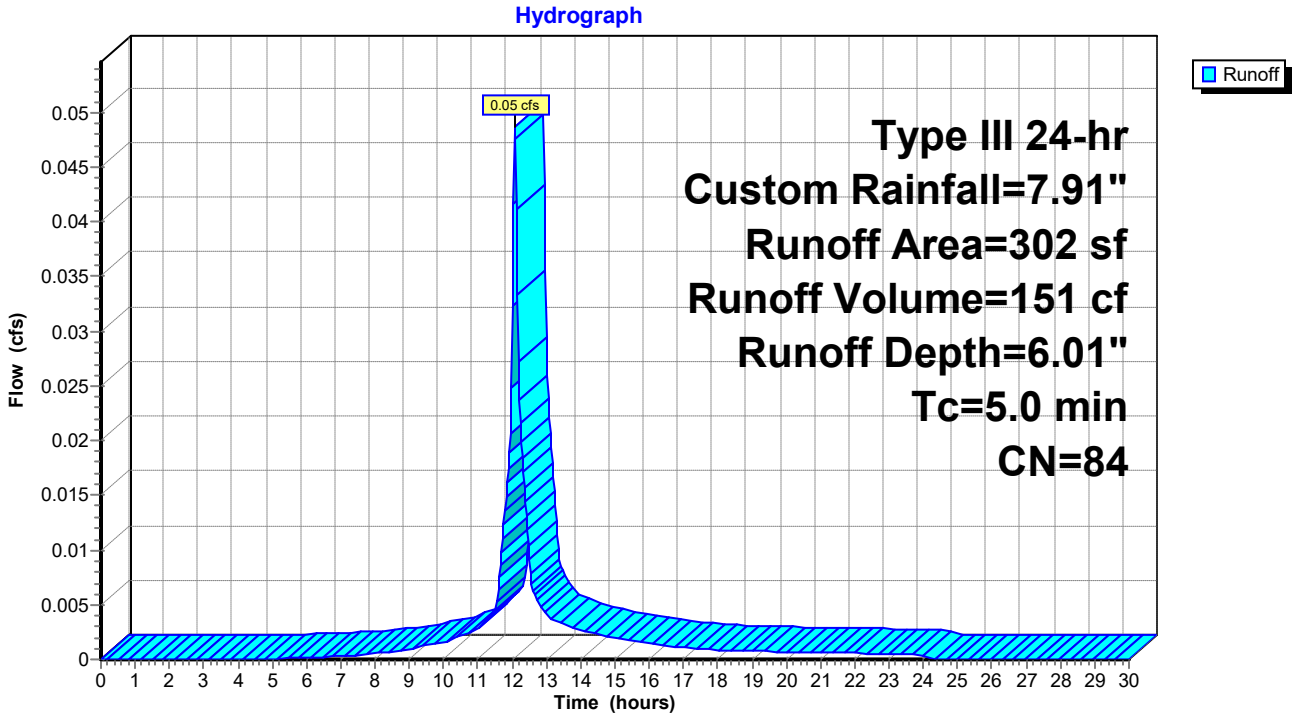
Runoff = 0.05 cfs @ 12.07 hrs, Volume= 151 cf, Depth= 6.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr Custom Rainfall=7.91"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: EX L ANDSCAPED AREA

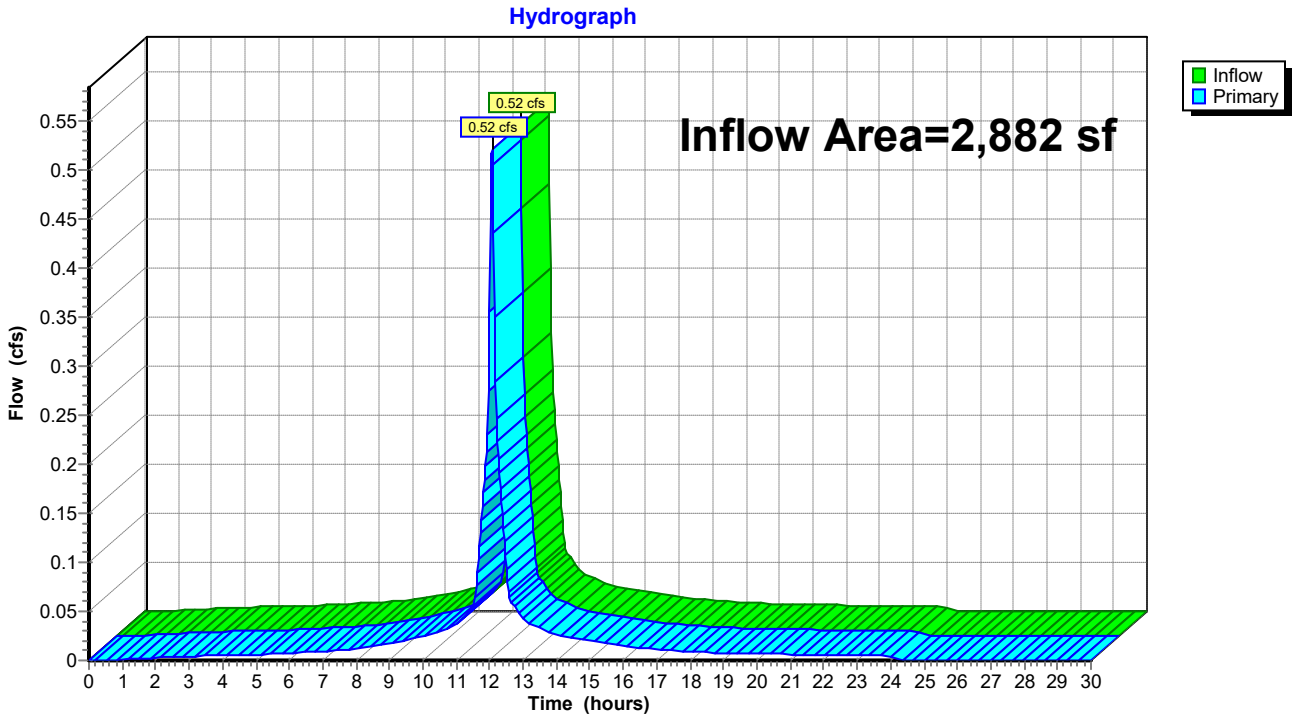


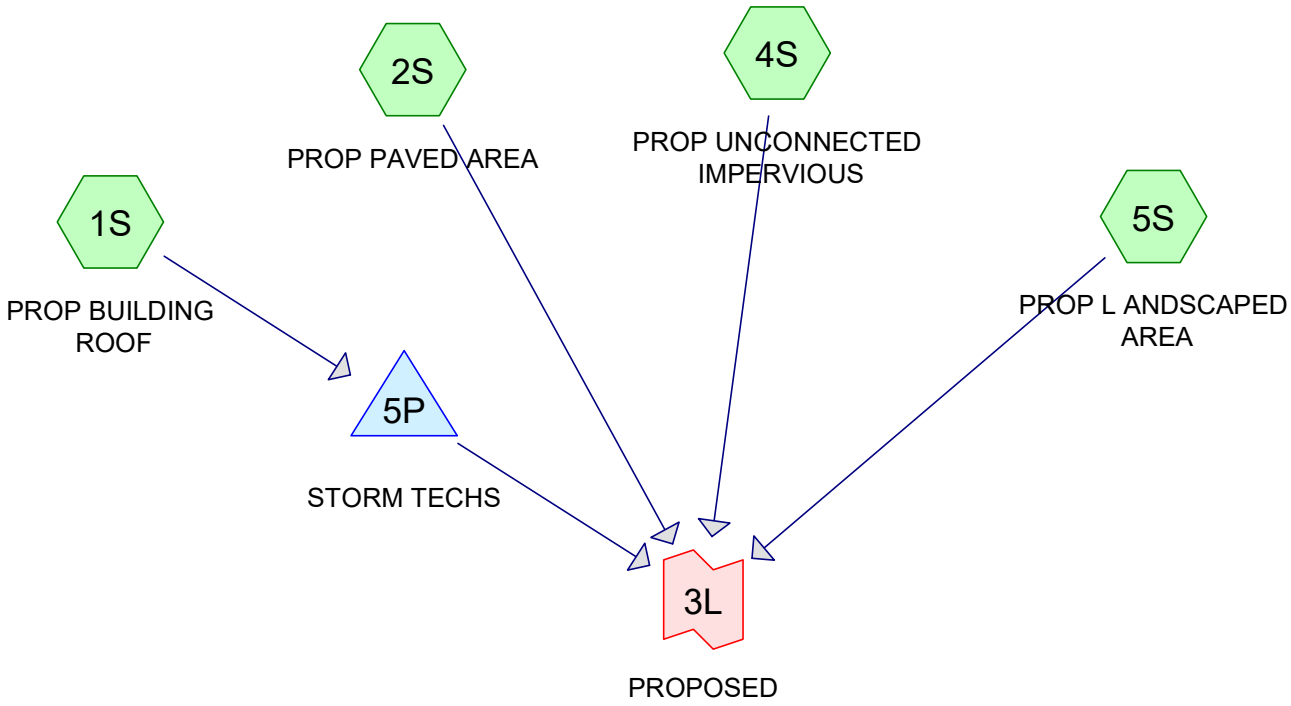
Summary for Link 3L: EXISTING

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 7.50" for Custom event
Inflow = 0.52 cfs @ 12.07 hrs, Volume= 1,800 cf
Primary = 0.52 cfs @ 12.07 hrs, Volume= 1,800 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: EXISTING





Subcat Reach Pond Link

Routing Diagram for PROPOSED

Prepared by {enter your company name here}, Printed 04/09/2020

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
302	84	50-75% Grass cover, Fair, HSG D (5S)
1,127	98	Paved parking, HSG D (2S, 4S)
1,453	98	Roofs, HSG D (1S)
2,882	**97**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
2,882	HSG D	1S, 2S, 4S, 5S
0	Other	
2,882		**TOTAL AREA**

Summary for Subcatchment 1S: PROP BUILDING ROOF

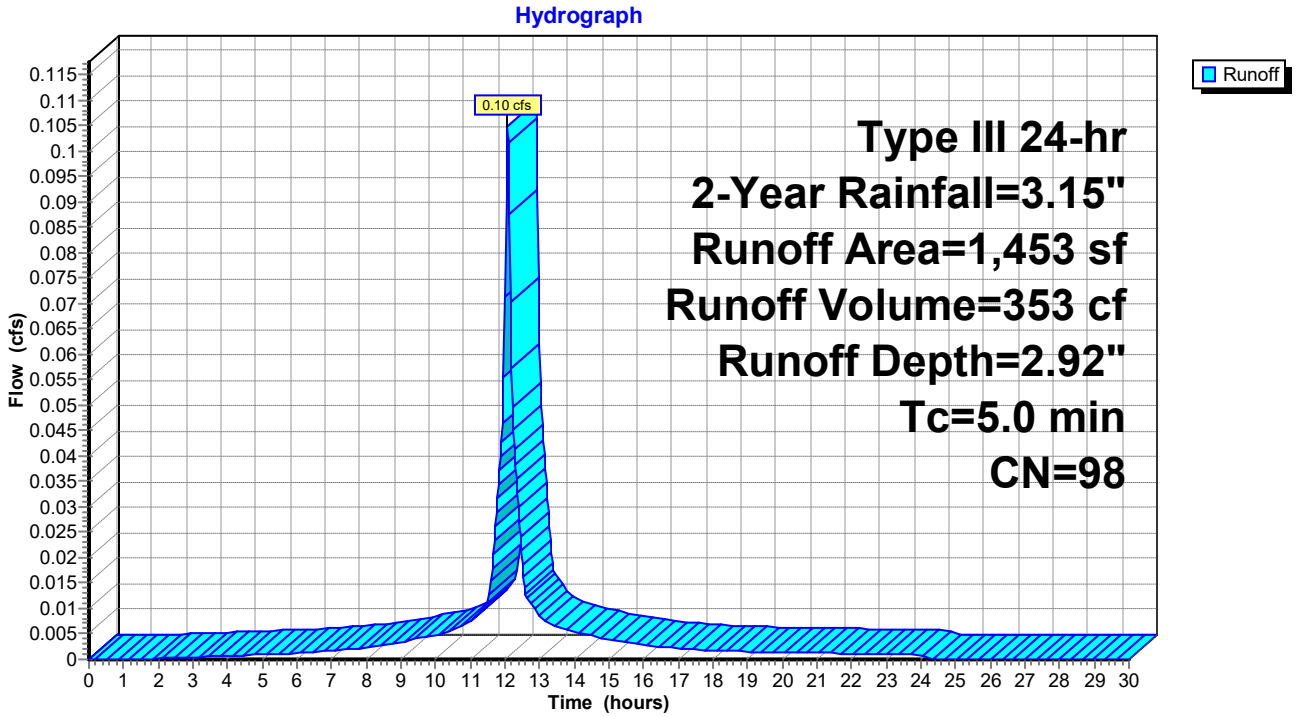
Runoff = 0.10 cfs @ 12.07 hrs, Volume= 353 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: PROP BUILDING ROOF



Summary for Subcatchment 2S: PROP PAVED AREA

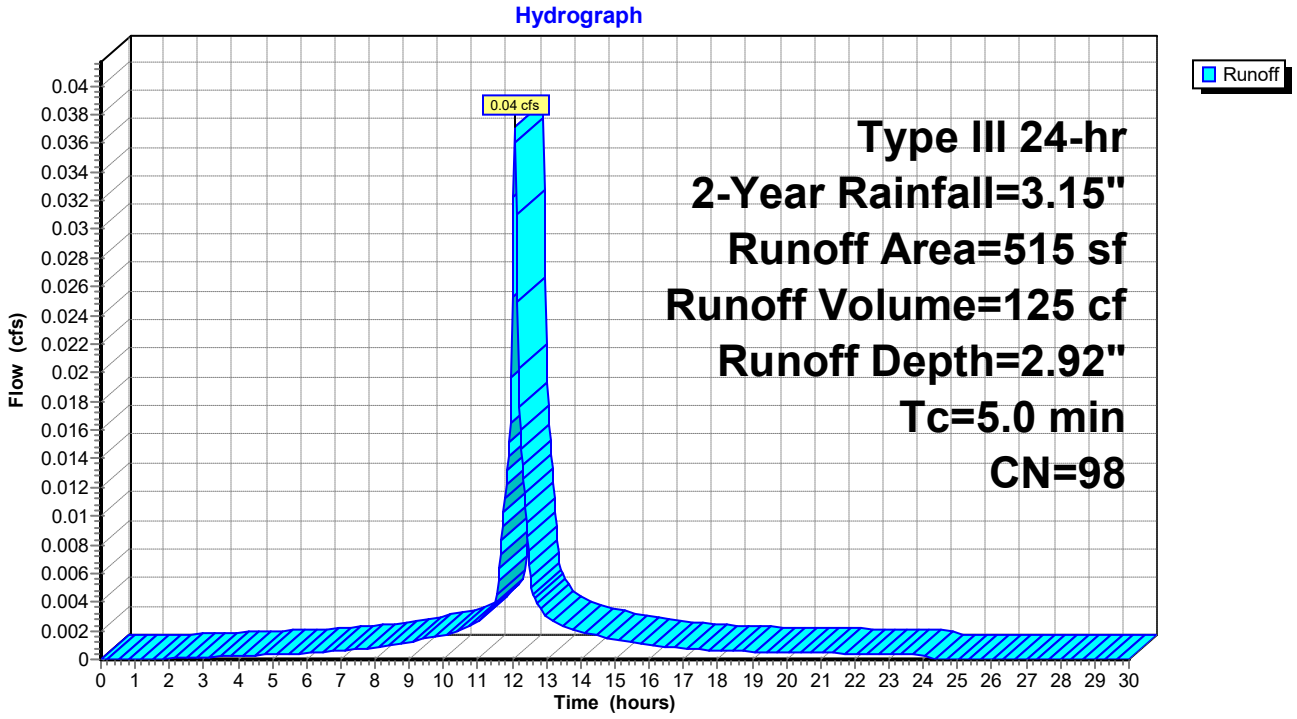
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 125 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: PROP PAVED AREA



Summary for Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS

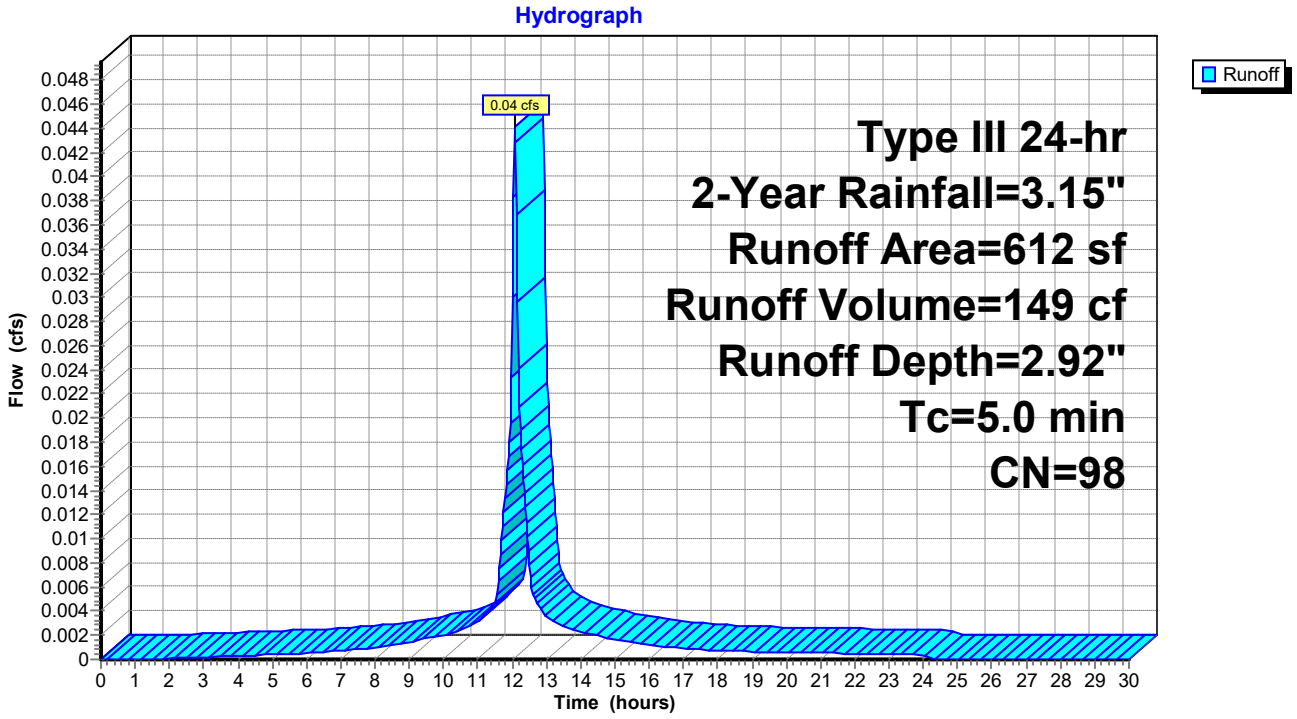
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 149 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: PROP L ANDSCAPED AREA

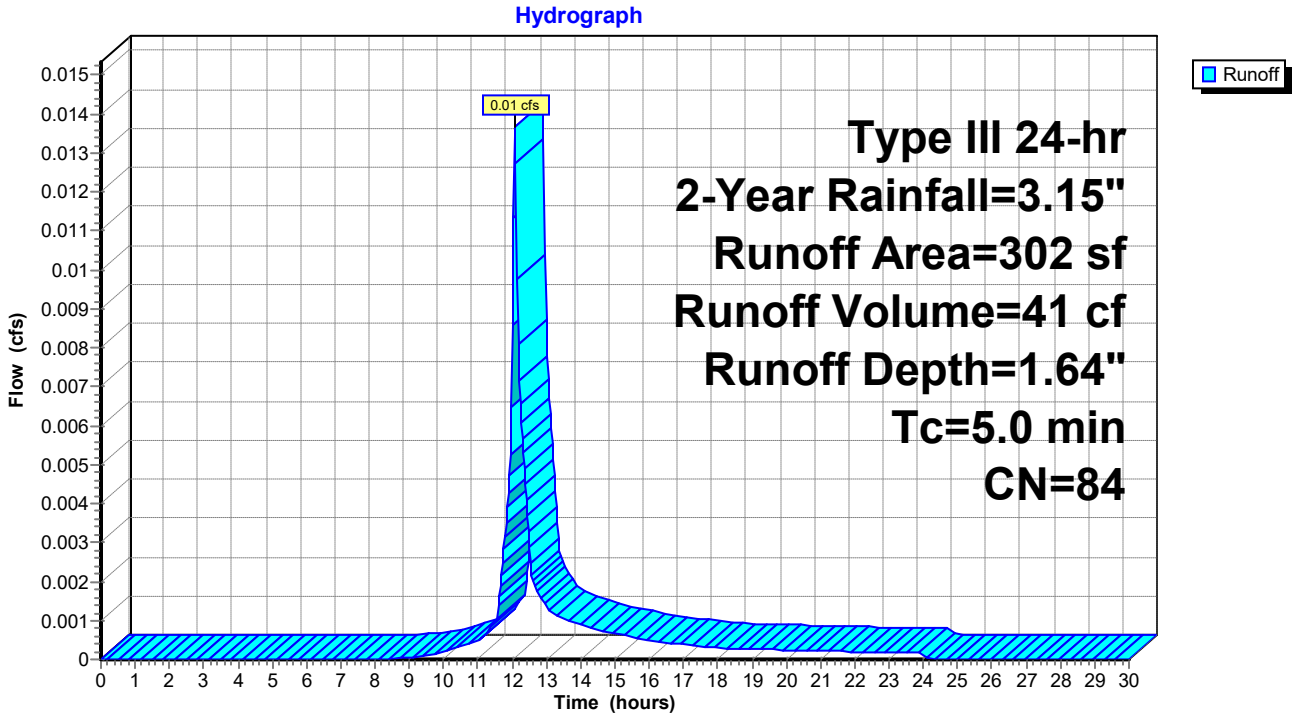
Runoff = 0.01 cfs @ 12.08 hrs, Volume= 41 cf, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-Year Rainfall=3.15"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: PROP L ANDSCAPED AREA



Summary for Pond 5P: STORM TECHS

Inflow Area = 1,453 sf,100.00% Impervious, Inflow Depth = 2.92" for 2-Year event
Inflow = 0.10 cfs @ 12.07 hrs, Volume= 353 cf
Outflow = 0.00 cfs @ 5.07 hrs, Volume= 10 cf, Atten= 100%, Lag= 0.0 min
Discarded = 0.00 cfs @ 5.07 hrs, Volume= 10 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 11.90' @ 24.13 hrs Surf.Area= 233 sf Storage= 345 cf

Plug-Flow detention time= 748.8 min calculated for 10 cf (3% of inflow)
Center-of-Mass det. time= 257.4 min (1,013.2 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	9.00'	318 cf	**21.08'W x 11.07'L x 4.00'H Field A** 934 cf Overall - 138 cf Embedded = 796 cf x 40.0% Voids
#2A	10.00'	138 cf	**ADS_StormTech SC-740 +Cap** x 3 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 Chambers in 3 Rows
#3	13.00'	10 cf	**Ponding** Listed below -Impervious
		466 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
13.00	0
15.40	5
15.60	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	9.00'	**0.020 in/hr Exfiltration over Horizontal area**
#2	Primary	12.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 5.07 hrs HW=9.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=9.00' (Free Discharge)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 5P: STORM TECHS - 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 + 21.0" Spacing = 72.0" C-C Row Spacing

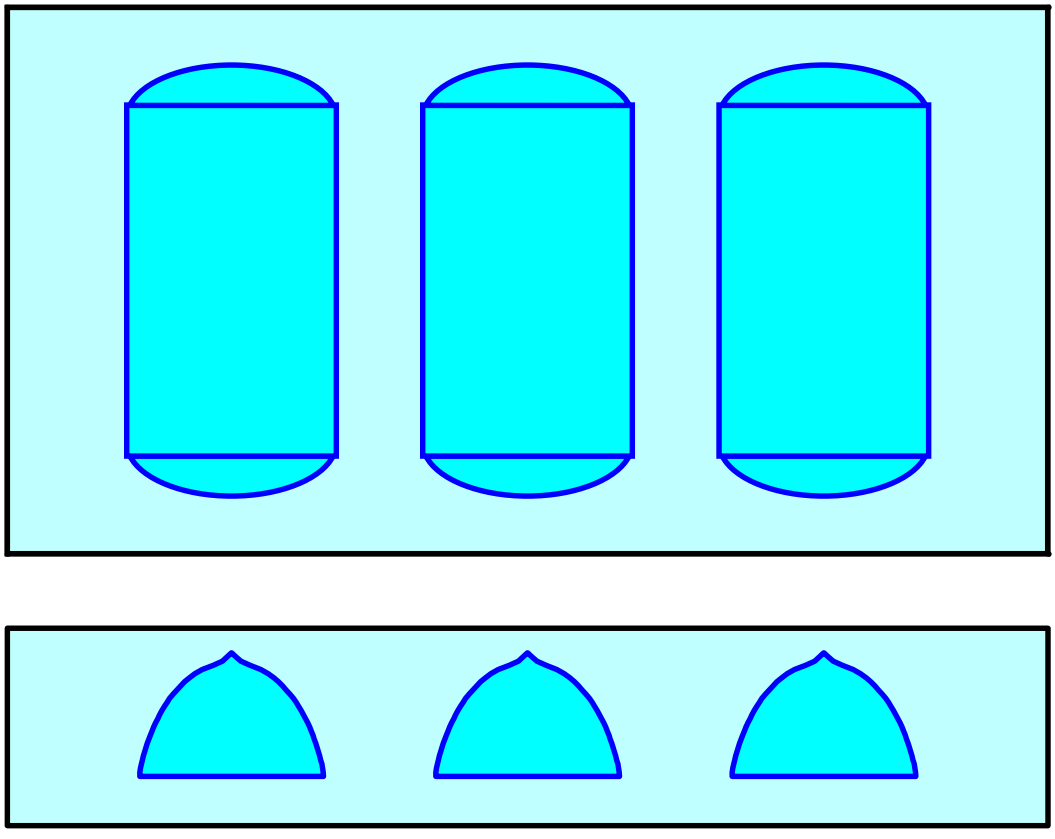
1 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 8.74' Row Length +14.0" End Stone x 2 = 11.07' Base Length
3 Rows x 51.0" Wide + 21.0" Spacing x 2 + 29.0" Side Stone x 2 = 21.08' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

3 Chambers x 45.9 cf = 137.8 cf Chamber Storage

933.6 cf Field - 137.8 cf Chambers = 795.7 cf Stone x 40.0% Voids = 318.3 cf Stone Storage

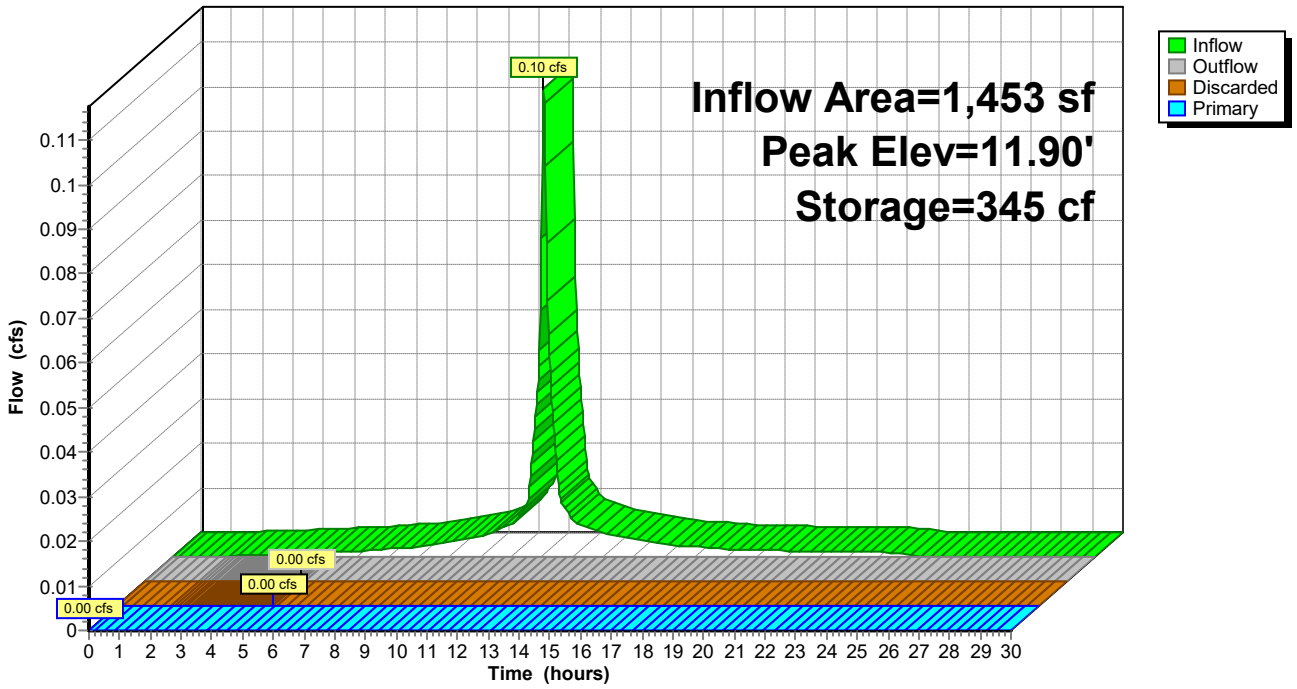
Chamber Storage + Stone Storage = 456.1 cf = 0.010 af
Overall Storage Efficiency = 48.9%
Overall System Size = 11.07' x 21.08' x 4.00'

3 Chambers
34.6 cy Field
29.5 cy Stone



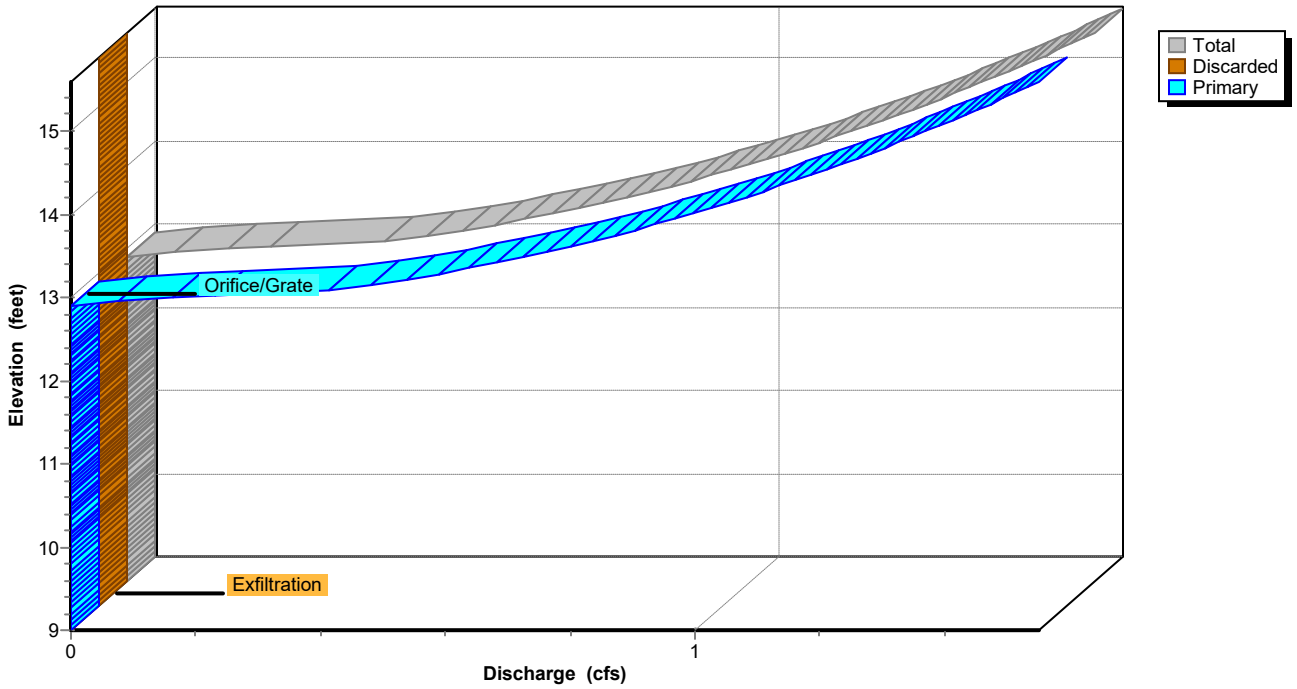
Pond 5P: STORM TECHS

Hydrograph

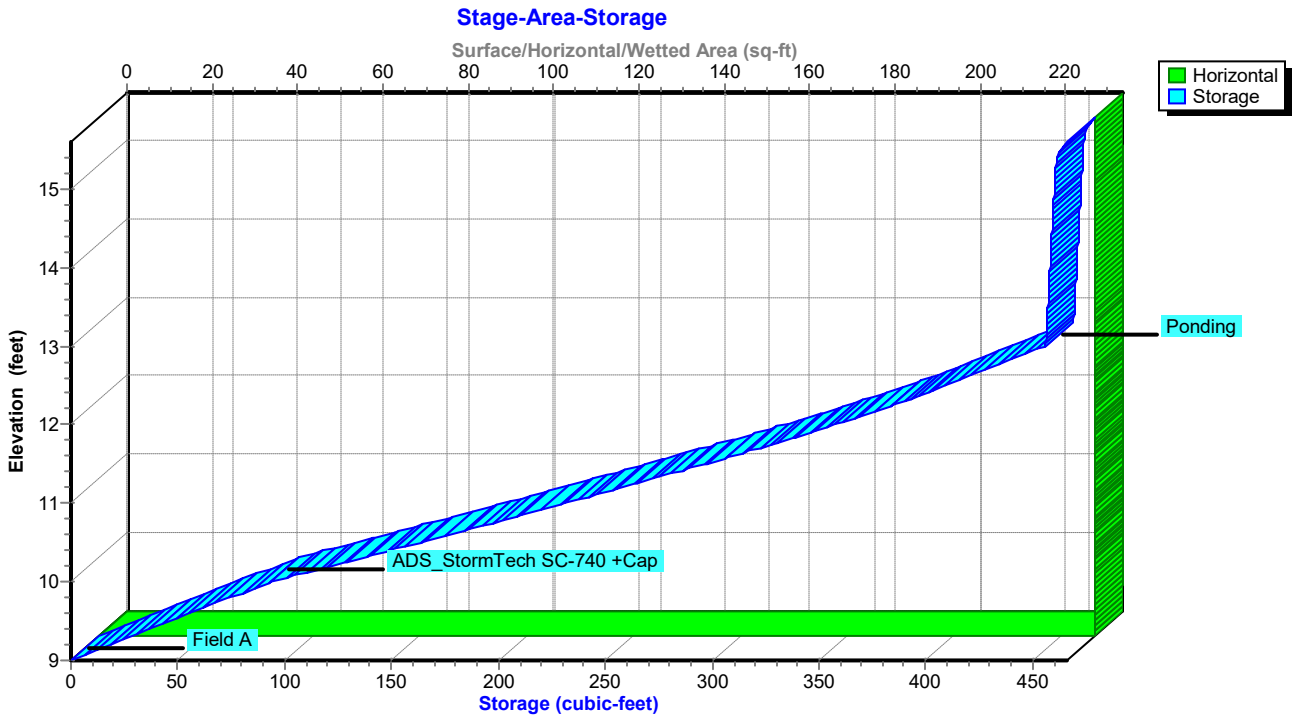


Pond 5P: STORM TECHS

Stage-Discharge



Pond 5P: STORM TECHS

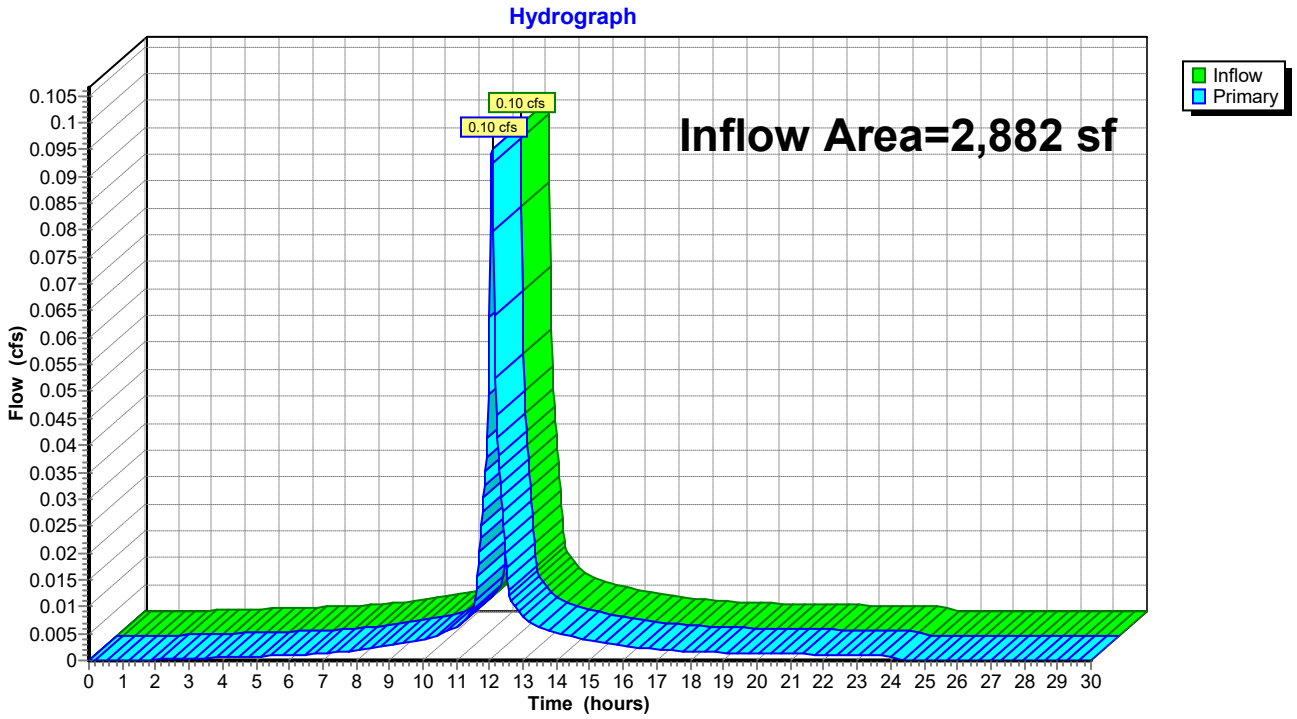


Summary for Link 3L: PROPOSED

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 1.31" for 2-Year event
Inflow = 0.10 cfs @ 12.07 hrs, Volume= 315 cf
Primary = 0.10 cfs @ 12.07 hrs, Volume= 315 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: PROPOSED



Summary for Subcatchment 1S: PROP BUILDING ROOF

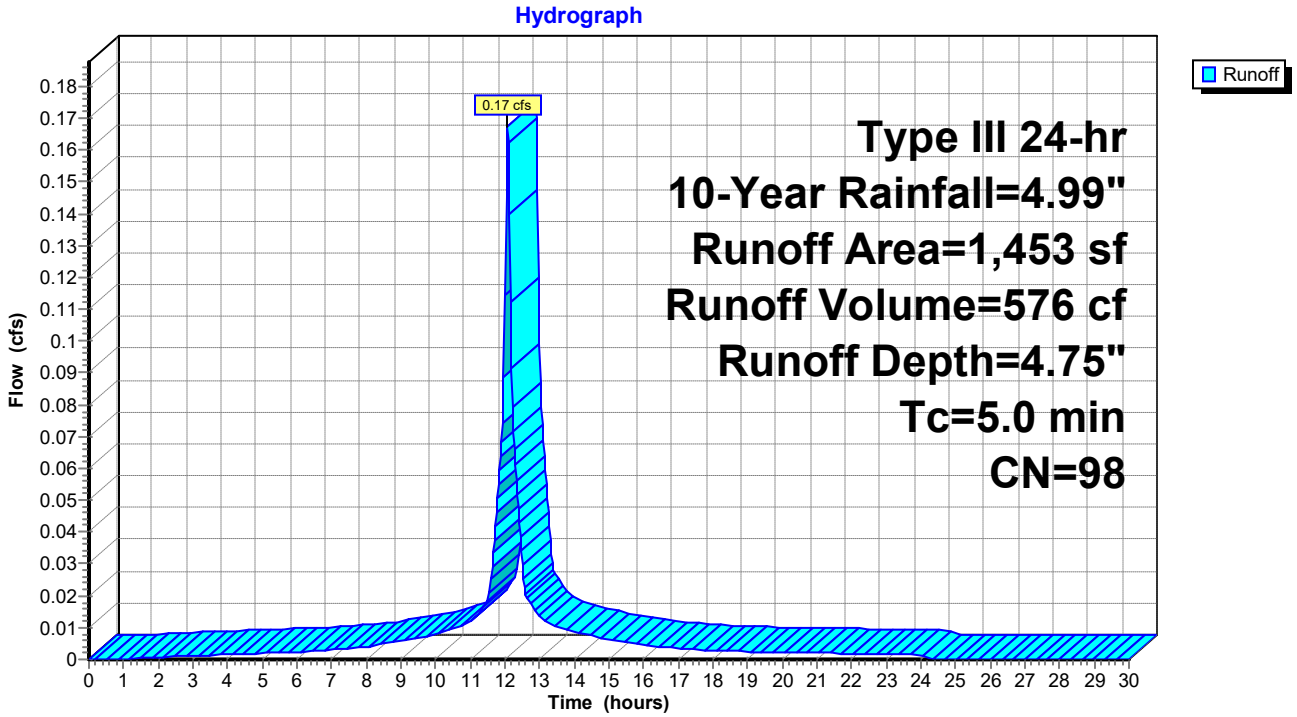
Runoff = 0.17 cfs @ 12.07 hrs, Volume= 576 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: PROP BUILDING ROOF



Summary for Subcatchment 2S: PROP PAVED AREA

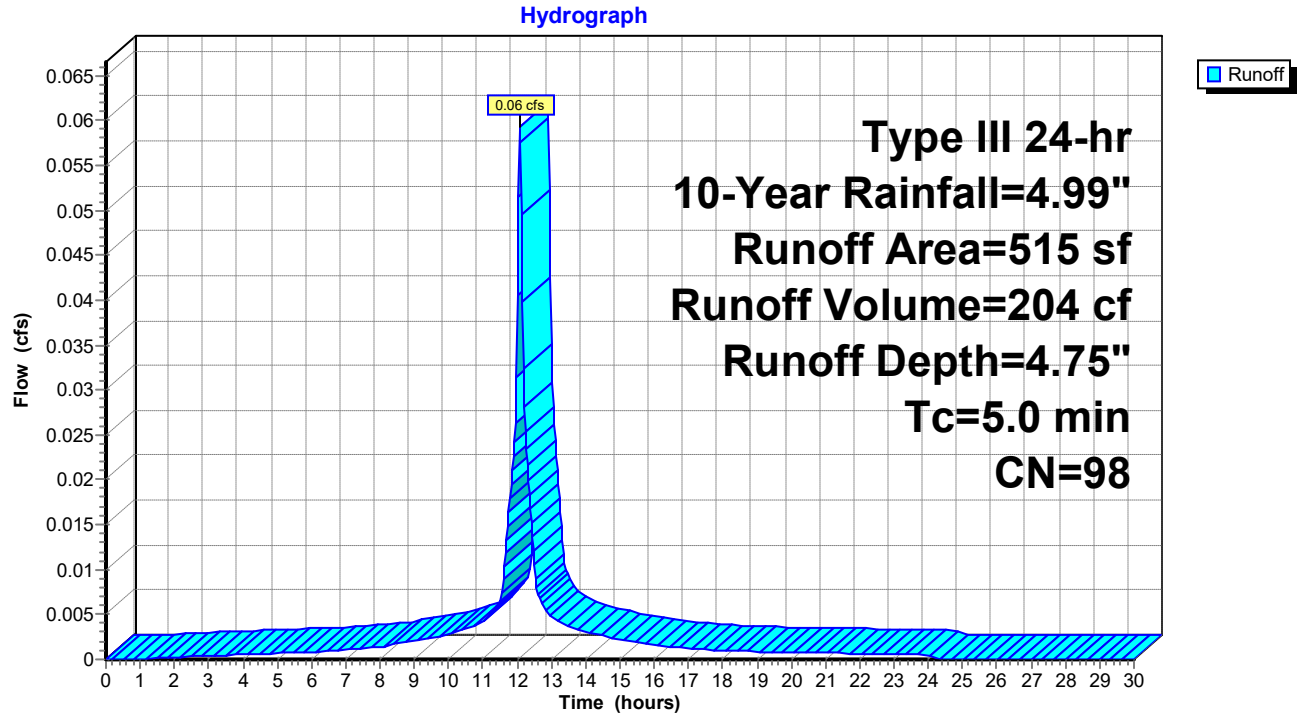
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 204 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: PROP PAVED AREA



Summary for Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS

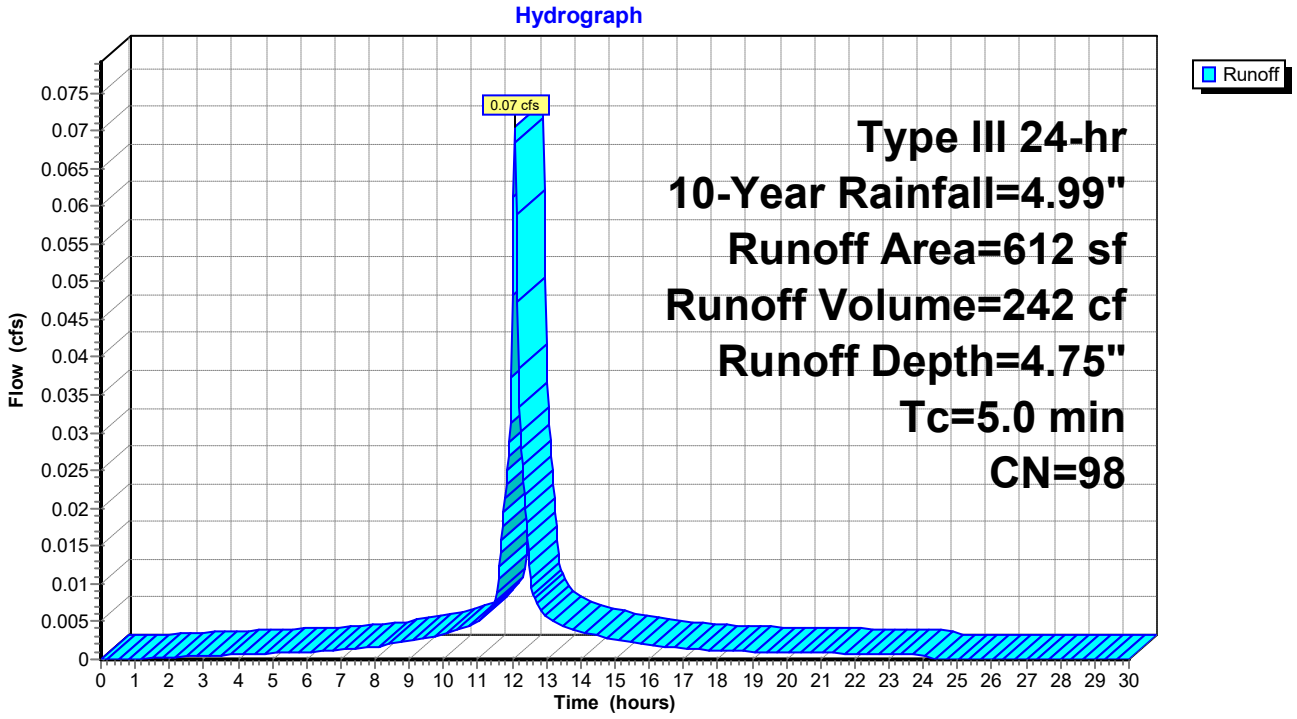
Runoff = 0.07 cfs @ 12.07 hrs, Volume= 242 cf, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: PROP L ANDSCAPED AREA

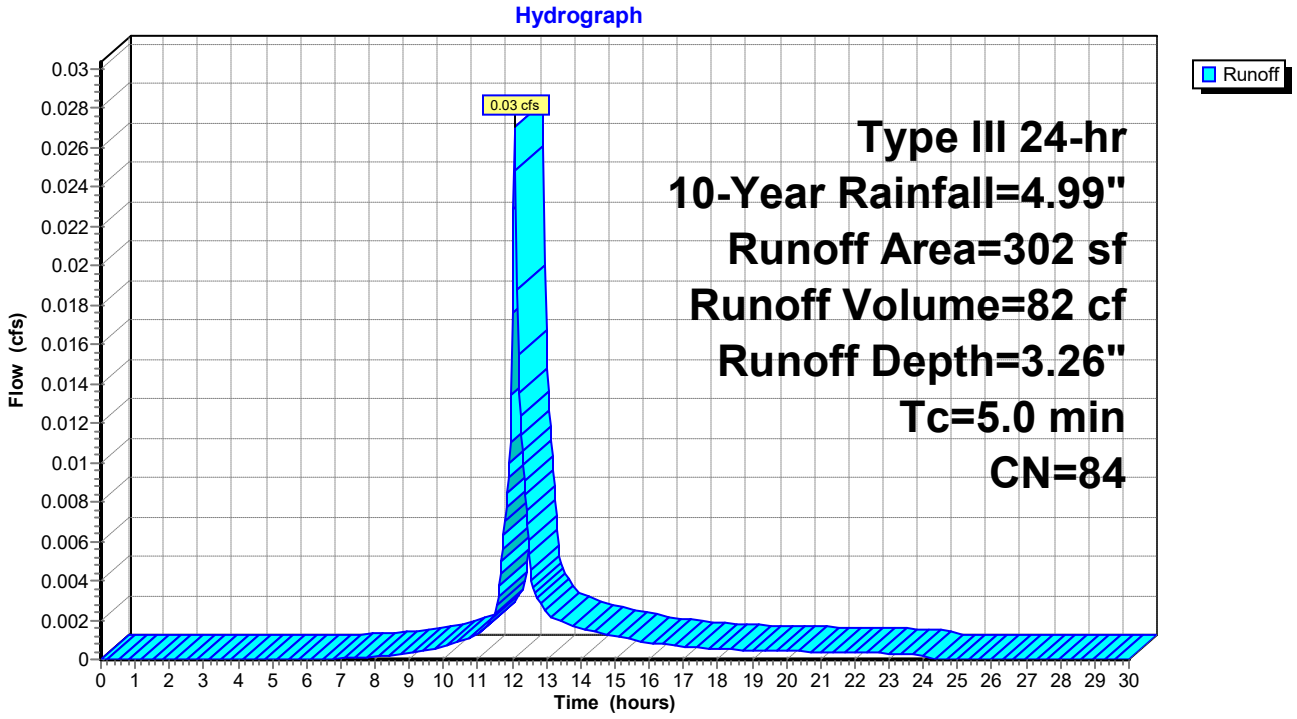
Runoff = 0.03 cfs @ 12.07 hrs, Volume= 82 cf, Depth= 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 10-Year Rainfall=4.99"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: PROP L ANDSCAPED AREA



Summary for Pond 5P: STORM TECHS

Inflow Area = 1,453 sf,100.00% Impervious, Inflow Depth = 4.75" for 10-Year event
Inflow = 0.17 cfs @ 12.07 hrs, Volume= 576 cf
Outflow = 0.01 cfs @ 13.85 hrs, Volume= 131 cf, Atten= 95%, Lag= 106.8 min
Discarded = 0.00 cfs @ 3.48 hrs, Volume= 11 cf
Primary = 0.01 cfs @ 13.85 hrs, Volume= 120 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 12.91' @ 13.85 hrs Surf.Area= 233 sf Storage= 447 cf

Plug-Flow detention time= 525.6 min calculated for 131 cf (23% of inflow)
Center-of-Mass det. time= 285.1 min (1,032.2 - 747.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	9.00'	318 cf	**21.08'W x 11.07'L x 4.00'H Field A** 934 cf Overall - 138 cf Embedded = 796 cf x 40.0% Voids
#2A	10.00'	138 cf	**ADS_StormTech SC-740 +Cap** x 3 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 Chambers in 3 Rows
#3	13.00'	10 cf	**Ponding** Listed below -Impervious
		466 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
13.00	0
15.40	5
15.60	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	9.00'	**0.020 in/hr Exfiltration over Horizontal area**
#2	Primary	12.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 3.48 hrs HW=9.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 13.85 hrs HW=12.91' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.28 fps)

Pond 5P: STORM TECHS - 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 + 21.0" Spacing = 72.0" C-C Row Spacing

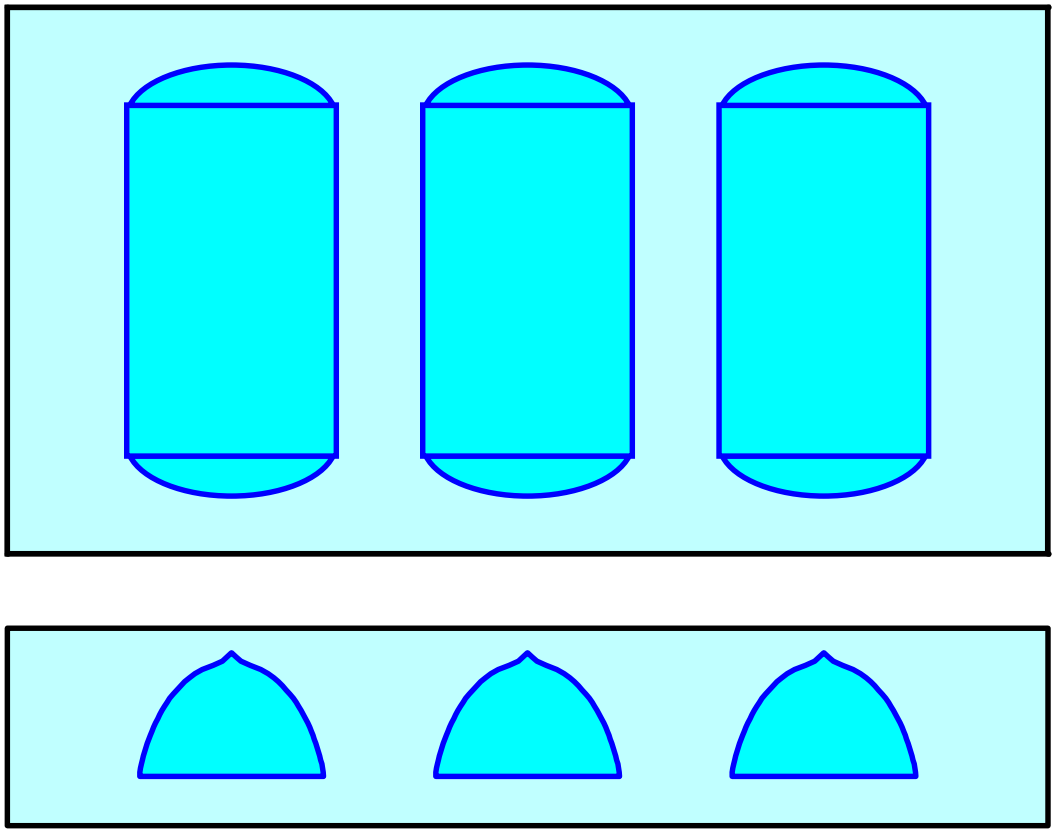
1 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 8.74' Row Length +14.0" End Stone x 2 = 11.07' Base Length
3 Rows x 51.0" Wide + 21.0" Spacing x 2 + 29.0" Side Stone x 2 = 21.08' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

3 Chambers x 45.9 cf = 137.8 cf Chamber Storage

933.6 cf Field - 137.8 cf Chambers = 795.7 cf Stone x 40.0% Voids = 318.3 cf Stone Storage

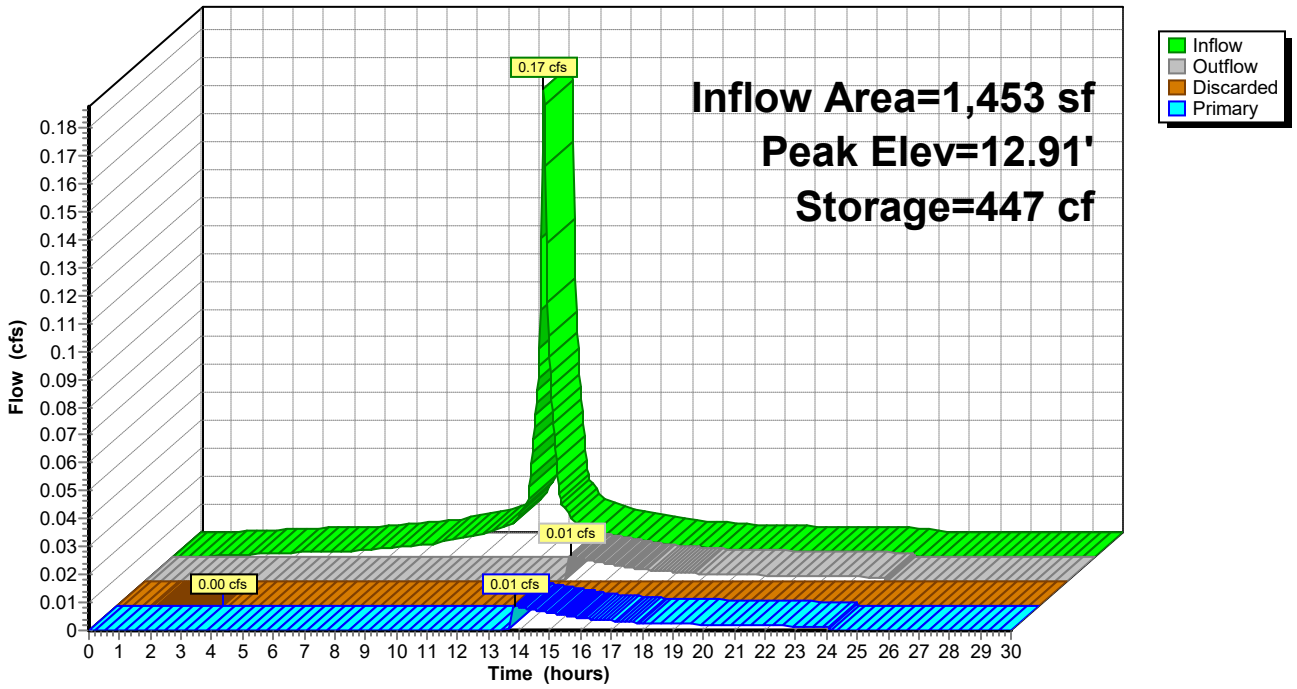
Chamber Storage + Stone Storage = 456.1 cf = 0.010 af
Overall Storage Efficiency = 48.9%
Overall System Size = 11.07' x 21.08' x 4.00'

3 Chambers
34.6 cy Field
29.5 cy Stone



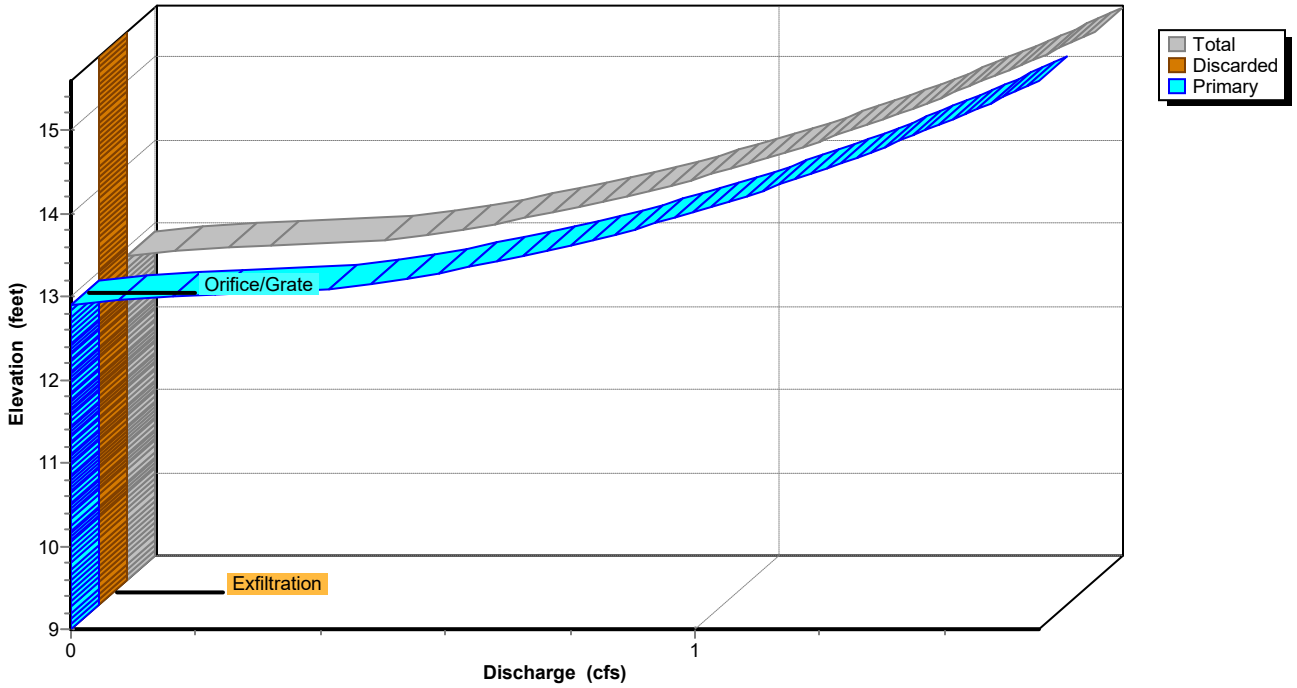
Pond 5P: STORM TECHS

Hydrograph

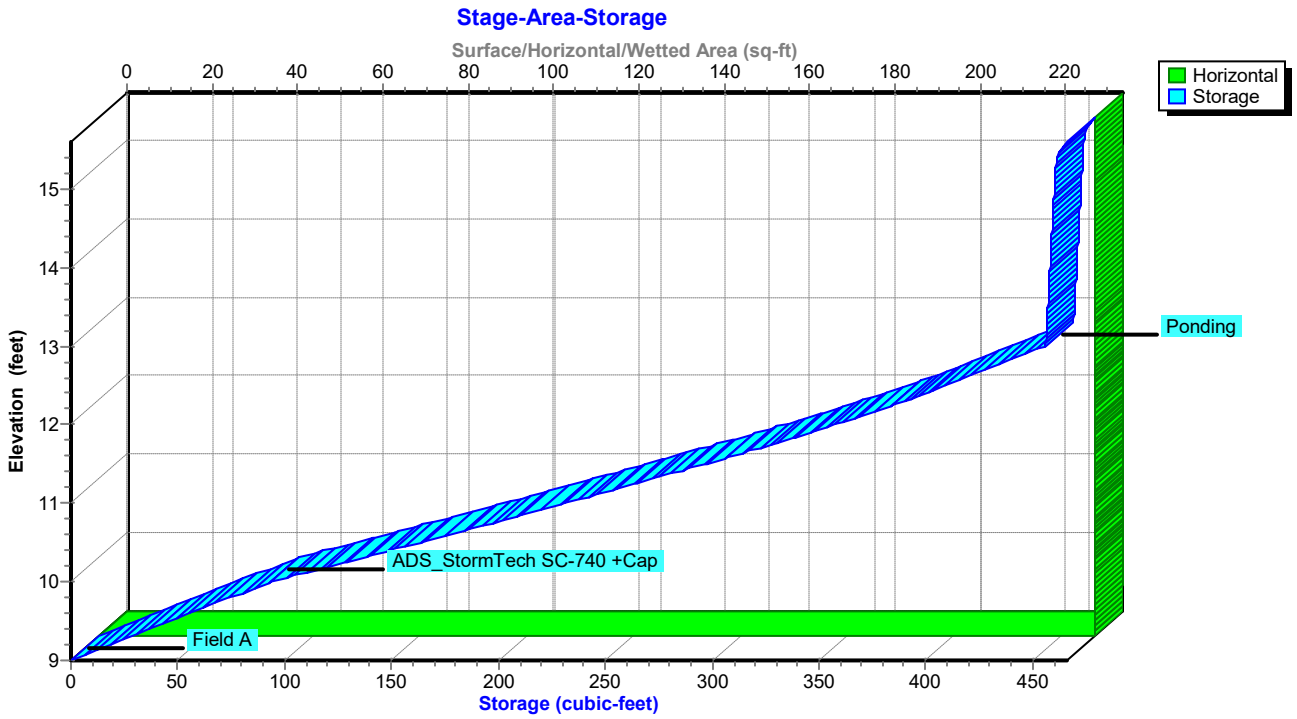


Pond 5P: STORM TECHS

Stage-Discharge



Pond 5P: STORM TECHS

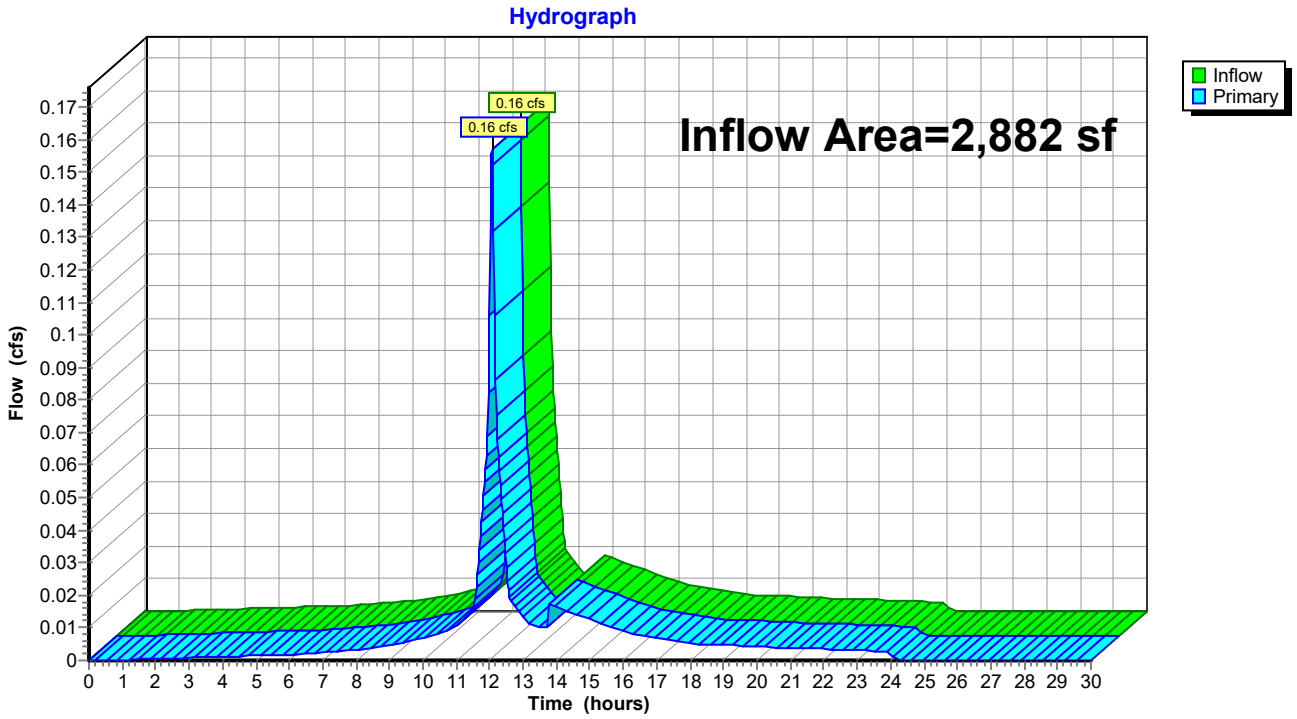


Summary for Link 3L: PROPOSED

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 2.70" for 10-Year event
Inflow = 0.16 cfs @ 12.07 hrs, Volume= 649 cf
Primary = 0.16 cfs @ 12.07 hrs, Volume= 649 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: PROPOSED



Summary for Subcatchment 1S: PROP BUILDING ROOF

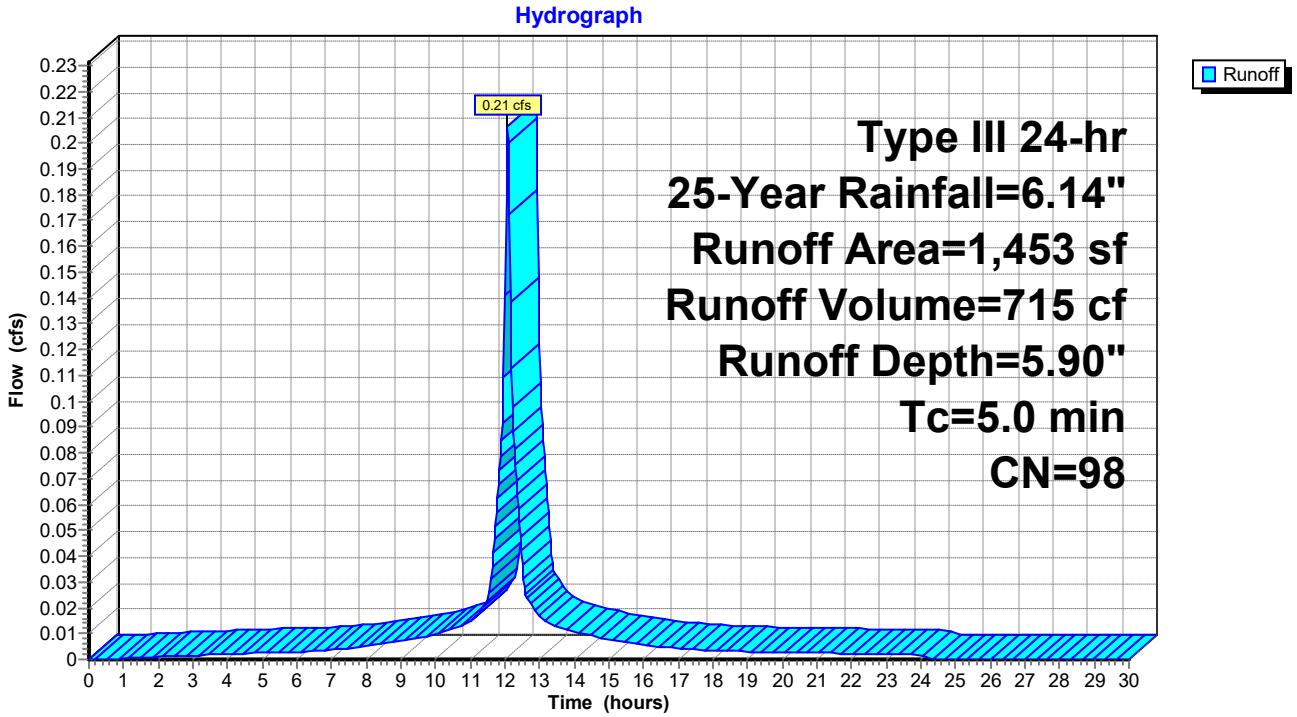
Runoff = 0.21 cfs @ 12.07 hrs, Volume= 715 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: PROP BUILDING ROOF



Summary for Subcatchment 2S: PROP PAVED AREA

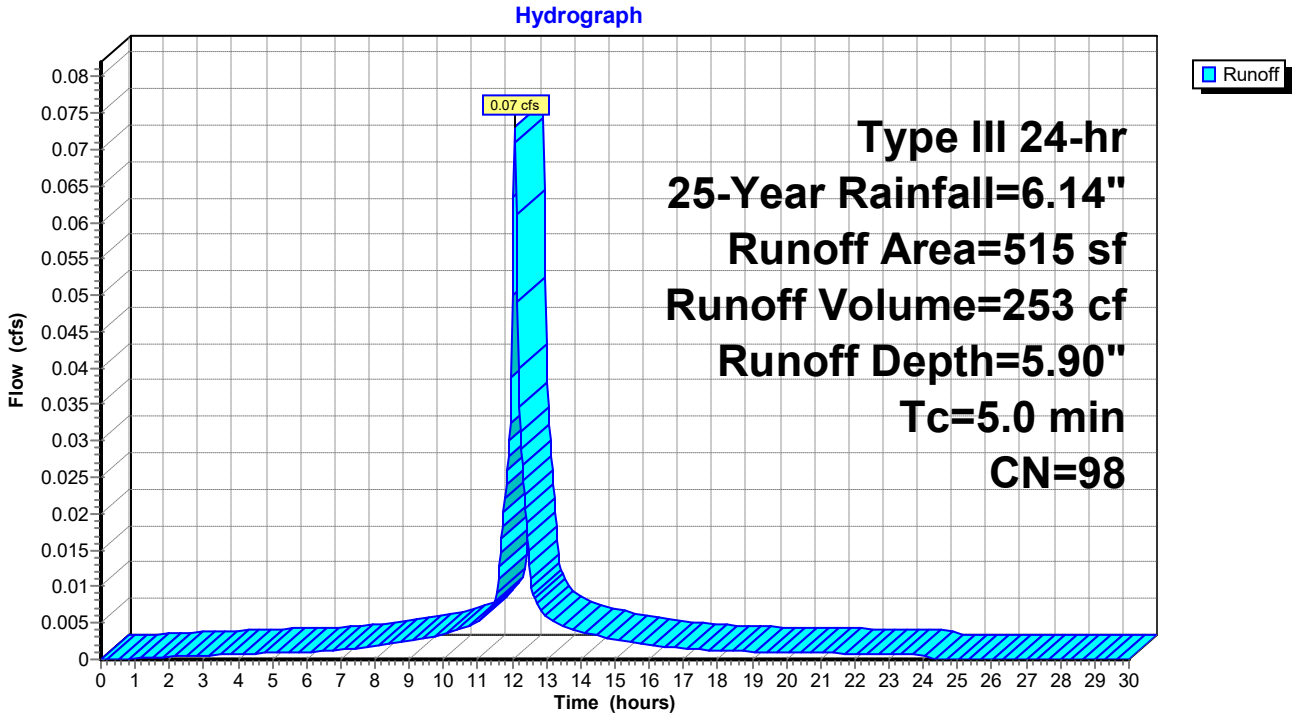
Runoff = 0.07 cfs @ 12.07 hrs, Volume= 253 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: PROP PAVED AREA



Summary for Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS

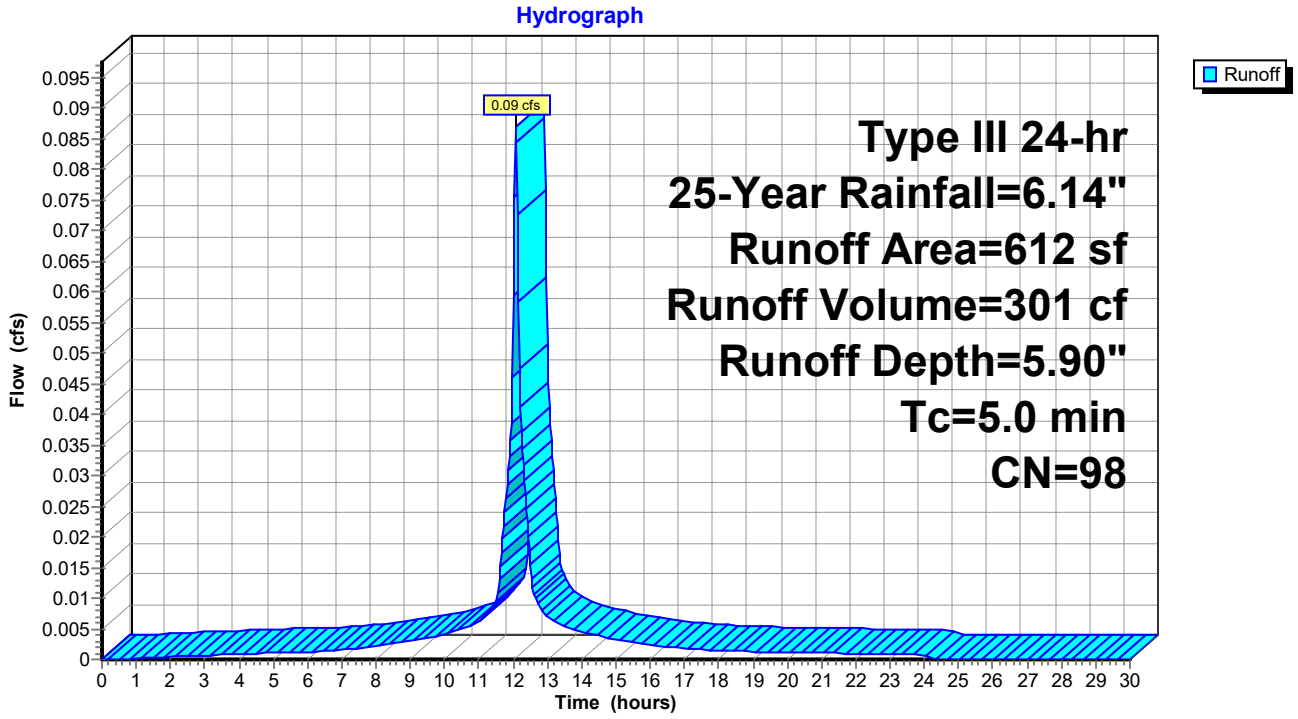
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 301 cf, Depth= 5.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: PROP L ANDSCAPED AREA

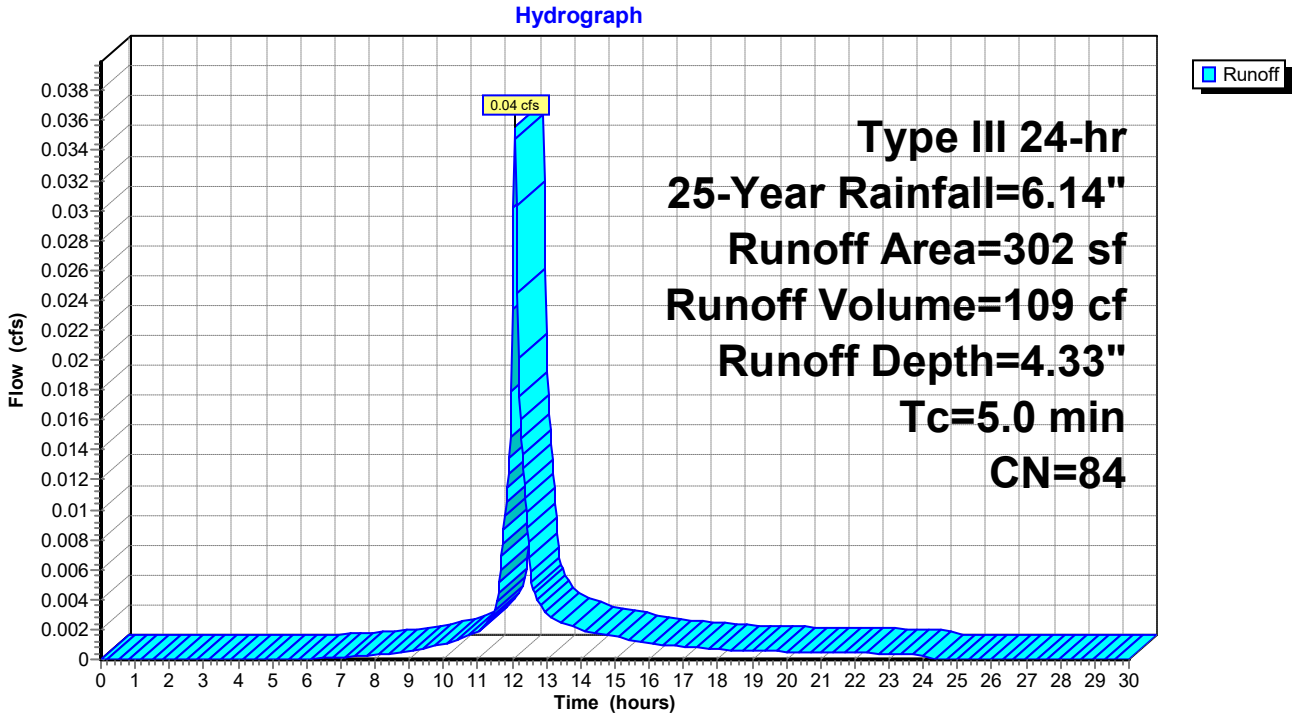
Runoff = 0.04 cfs @ 12.07 hrs, Volume= 109 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 25-Year Rainfall=6.14"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: PROP L ANDSCAPED AREA



Summary for Pond 5P: STORM TECHS

Inflow Area = 1,453 sf,100.00% Impervious, Inflow Depth = 5.90" for 25-Year event
Inflow = 0.21 cfs @ 12.07 hrs, Volume= 715 cf
Outflow = 0.06 cfs @ 12.40 hrs, Volume= 270 cf, Atten= 71%, Lag= 19.5 min
Discarded = 0.00 cfs @ 2.91 hrs, Volume= 11 cf
Primary = 0.06 cfs @ 12.40 hrs, Volume= 259 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 12.95' @ 12.40 hrs Surf.Area= 233 sf Storage= 451 cf

Plug-Flow detention time= 349.9 min calculated for 270 cf (38% of inflow)
Center-of-Mass det. time= 182.7 min (926.6 - 743.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	9.00'	318 cf	**21.08'W x 11.07'L x 4.00'H Field A** 934 cf Overall - 138 cf Embedded = 796 cf x 40.0% Voids
#2A	10.00'	138 cf	**ADS_StormTech SC-740 +Cap** x 3 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 Chambers in 3 Rows
#3	13.00'	10 cf	**Ponding** Listed below -Impervious
		466 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
13.00	0
15.40	5
15.60	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	9.00'	**0.020 in/hr Exfiltration over Horizontal area**
#2	Primary	12.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.91 hrs HW=9.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.05 cfs @ 12.40 hrs HW=12.95' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.05 cfs @ 0.70 fps)

Pond 5P: STORM TECHS - 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 + 21.0" Spacing = 72.0" C-C Row Spacing

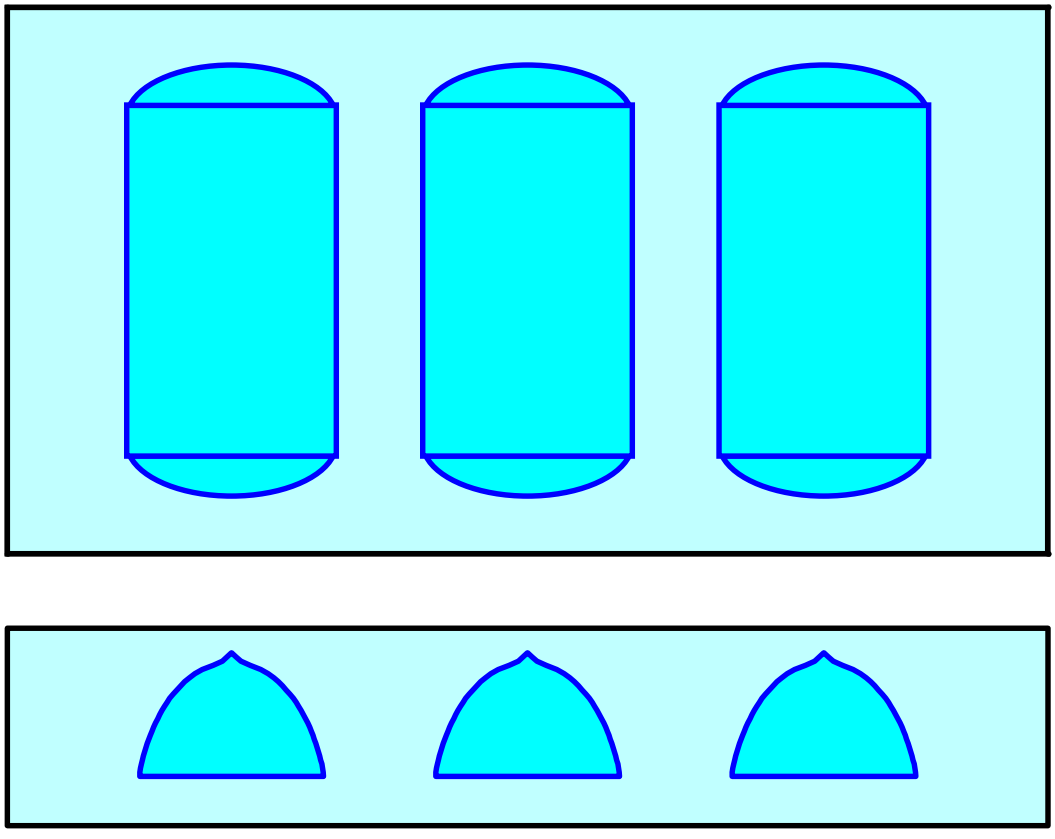
1 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 8.74' Row Length +14.0" End Stone x 2 = 11.07' Base Length
3 Rows x 51.0" Wide + 21.0" Spacing x 2 + 29.0" Side Stone x 2 = 21.08' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

3 Chambers x 45.9 cf = 137.8 cf Chamber Storage

933.6 cf Field - 137.8 cf Chambers = 795.7 cf Stone x 40.0% Voids = 318.3 cf Stone Storage

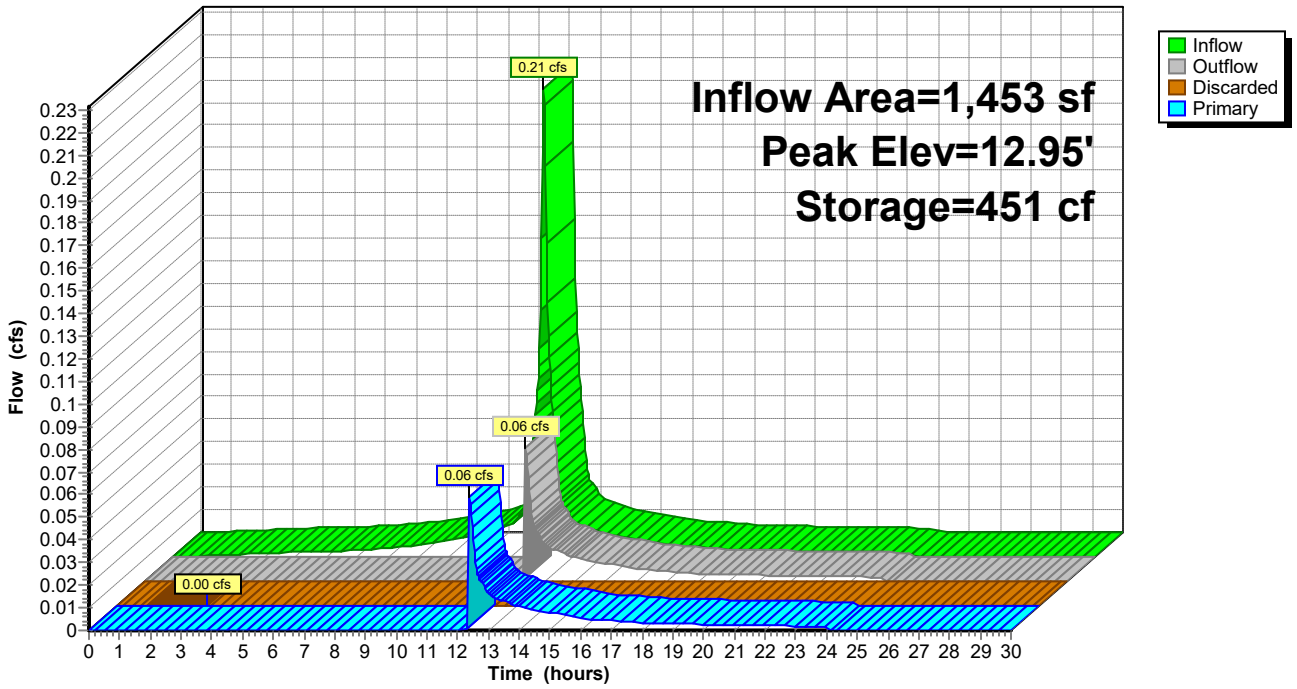
Chamber Storage + Stone Storage = 456.1 cf = 0.010 af
Overall Storage Efficiency = 48.9%
Overall System Size = 11.07' x 21.08' x 4.00'

3 Chambers
34.6 cy Field
29.5 cy Stone



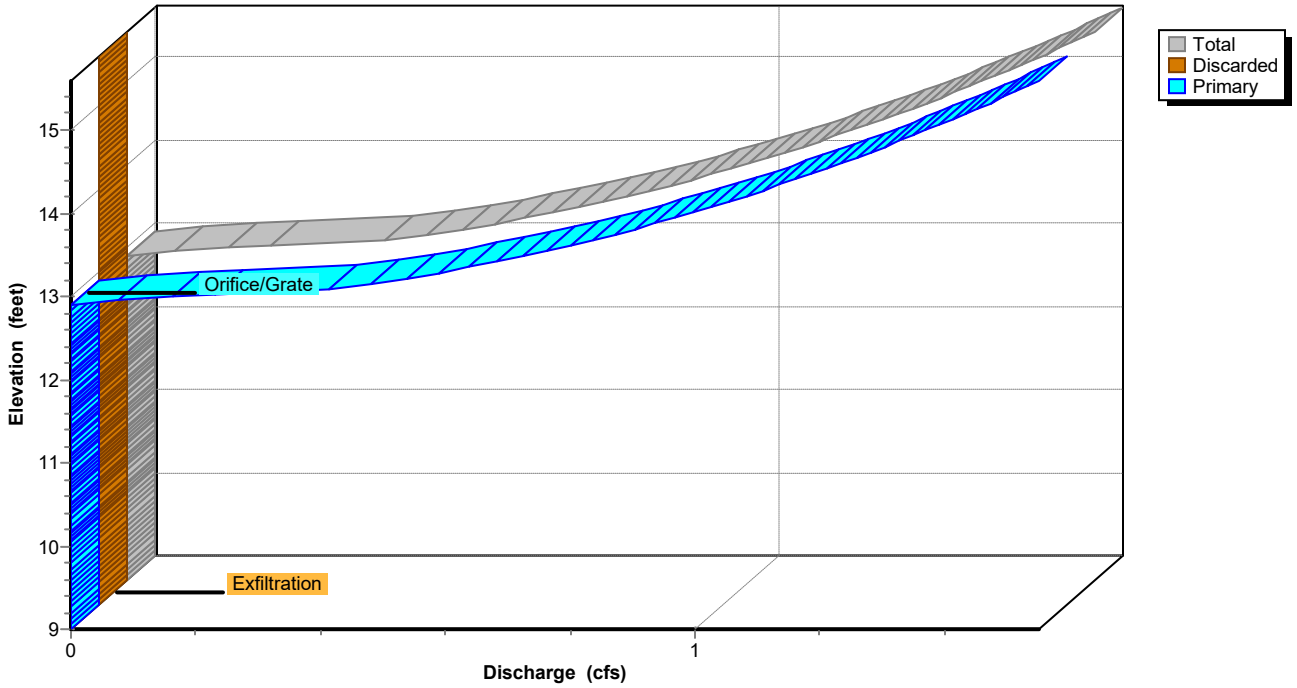
Pond 5P: STORM TECHS

Hydrograph

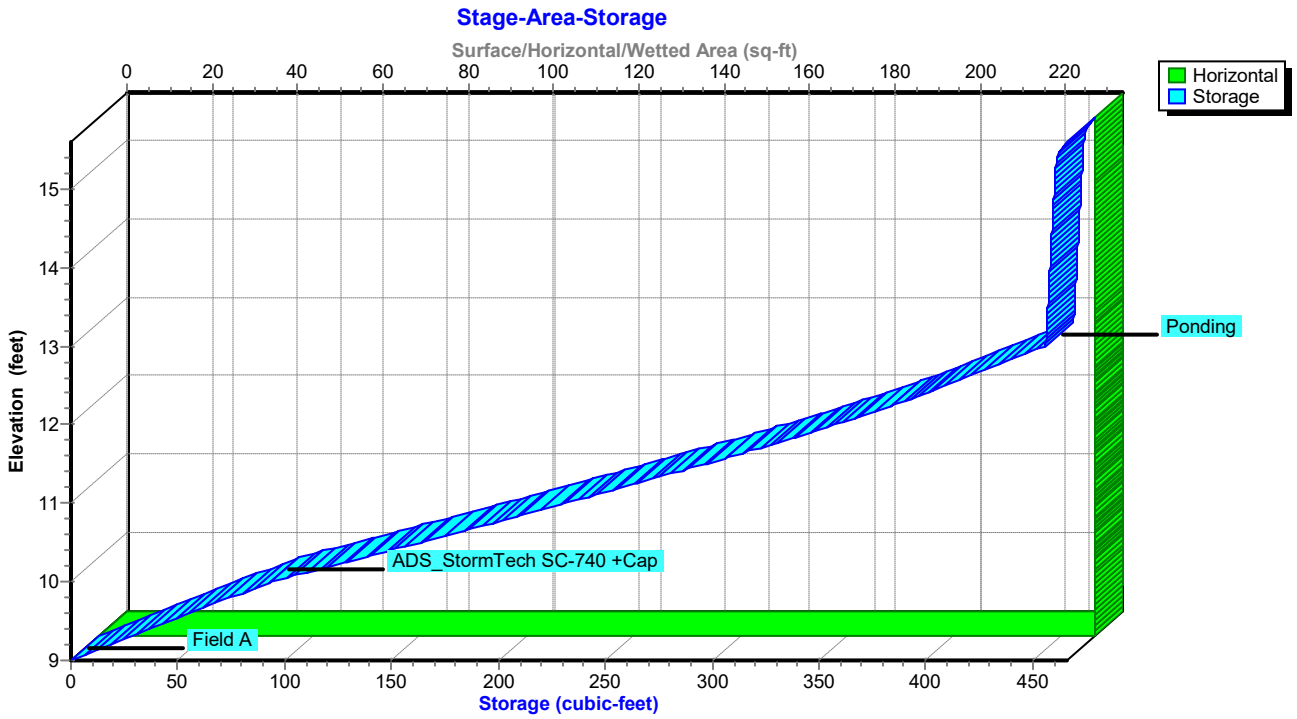


Pond 5P: STORM TECHS

Stage-Discharge



Pond 5P: STORM TECHS

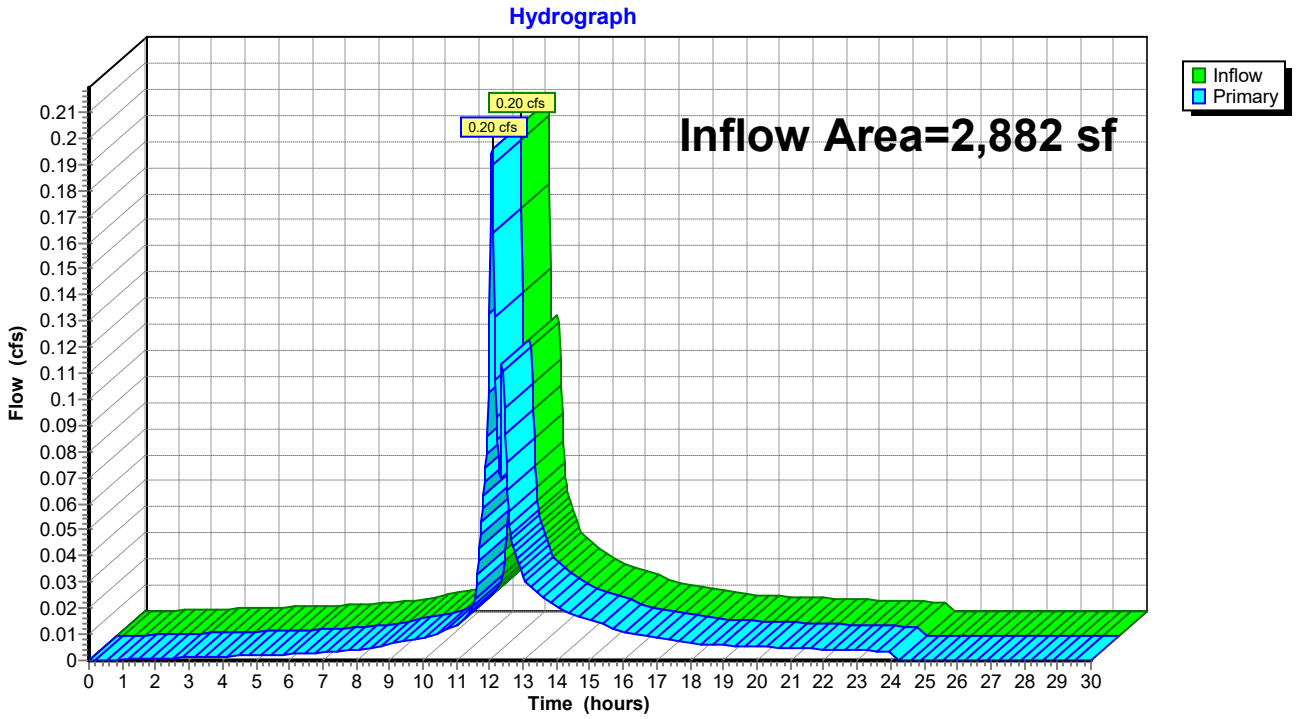


Summary for Link 3L: PROPOSED

Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 3.84" for 25-Year event
Inflow = 0.20 cfs @ 12.07 hrs, Volume= 922 cf
Primary = 0.20 cfs @ 12.07 hrs, Volume= 922 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: PROPOSED



Summary for Subcatchment 1S: PROP BUILDING ROOF

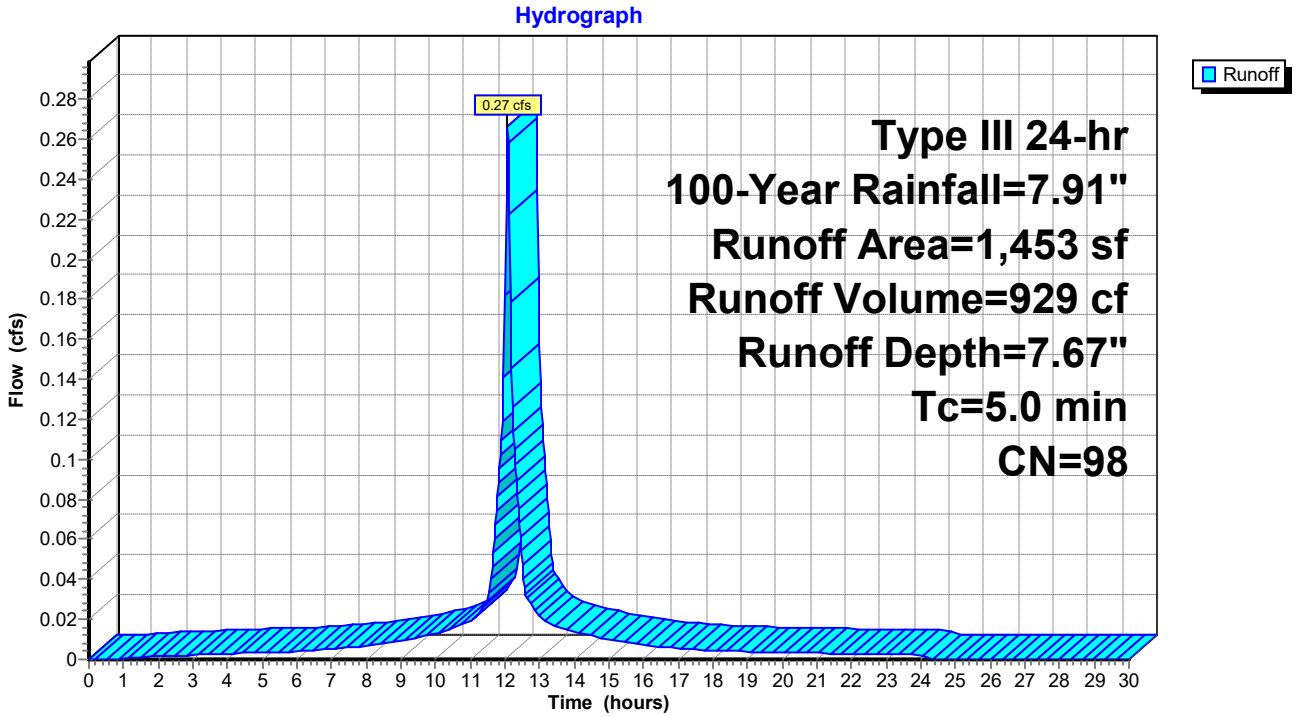
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 929 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
1,453	98	Roofs, HSG D
1,453		100.00% Impervious Area

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

Subcatchment 1S: PROP BUILDING ROOF



Summary for Subcatchment 2S: PROP PAVED AREA

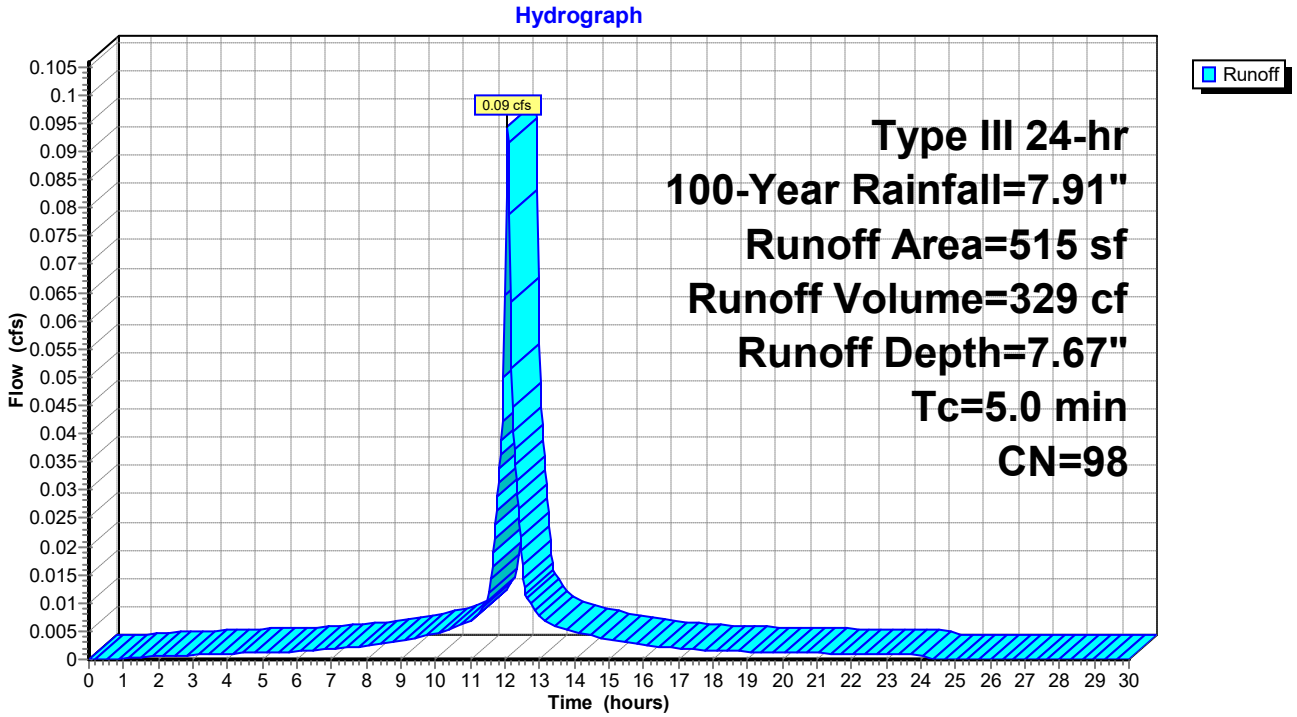
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 329 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
515	98	Paved parking, HSG D
515		100.00% Impervious Area

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

Subcatchment 2S: PROP PAVED AREA



Summary for Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS

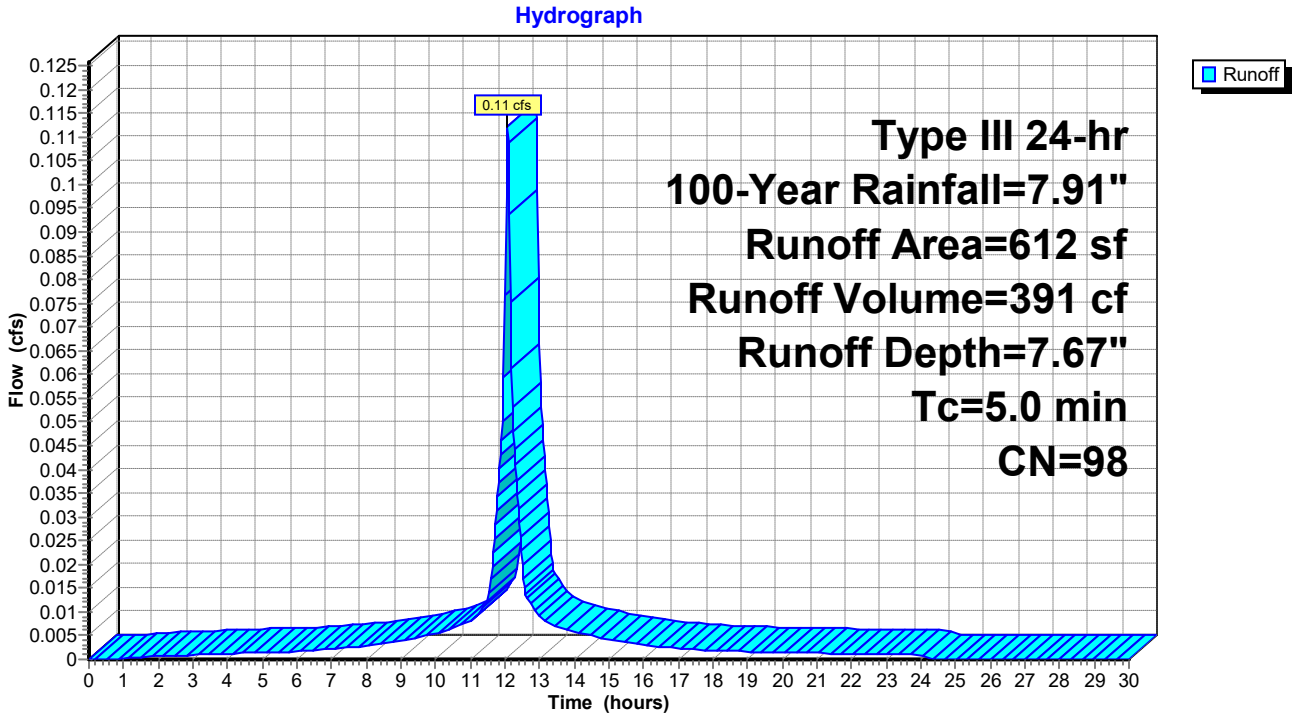
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 391 cf, Depth= 7.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
612	98	Paved parking, HSG D
612		100.00% Impervious Area

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

Subcatchment 4S: PROP UNCONNECTED IMPERVIOUS



Summary for Subcatchment 5S: PROP L ANDSCAPED AREA

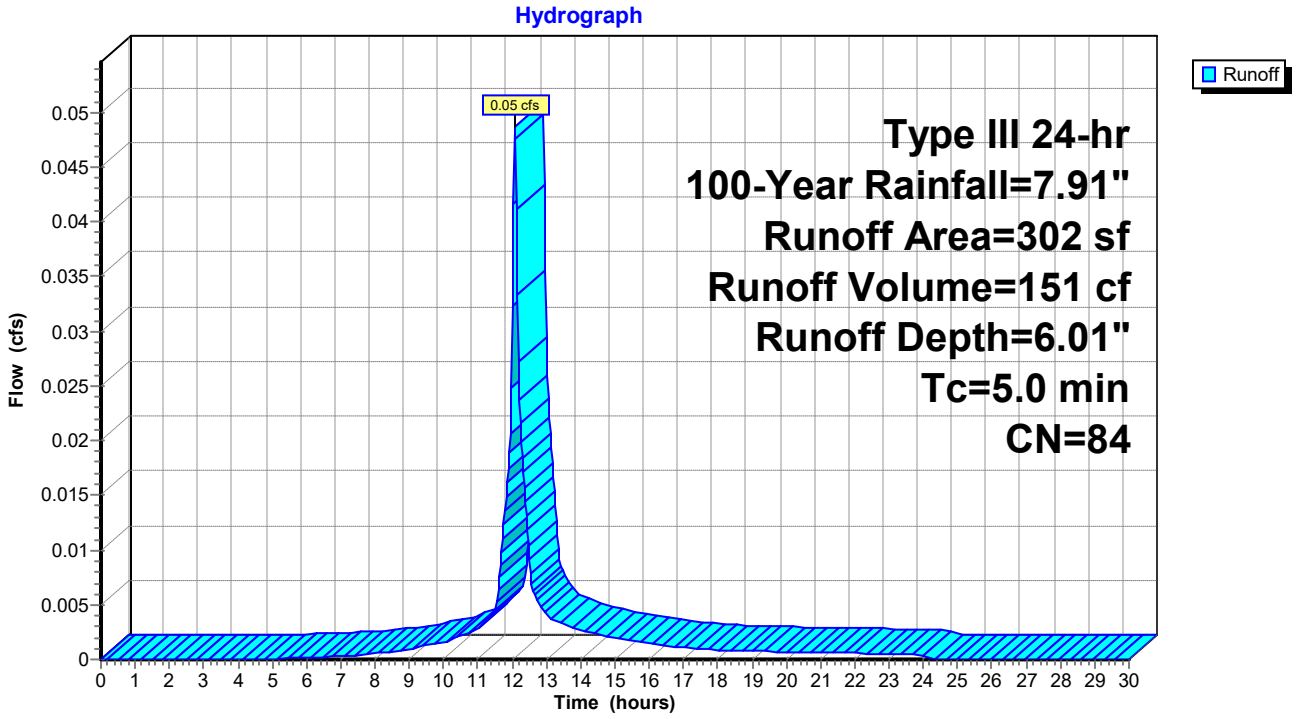
Runoff = 0.05 cfs @ 12.07 hrs, Volume= 151 cf, Depth= 6.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 100-Year Rainfall=7.91"

Area (sf)	CN	Description
302	84	50-75% Grass cover, Fair, HSG D
302		100.00% Pervious Area

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

Subcatchment 5S: PROP L ANDSCAPED AREA



Summary for Pond 5P: STORM TECHS

Inflow Area = 1,453 sf,100.00% Impervious, Inflow Depth = 7.67" for 100-Year event
Inflow = 0.27 cfs @ 12.07 hrs, Volume= 929 cf
Outflow = 0.16 cfs @ 12.12 hrs, Volume= 473 cf, Atten= 42%, Lag= 3.0 min
Discarded = 0.00 cfs @ 2.31 hrs, Volume= 11 cf
Primary = 0.16 cfs @ 12.12 hrs, Volume= 462 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs / 2
Peak Elev= 13.00' @ 12.12 hrs Surf.Area= 233 sf Storage= 456 cf

Plug-Flow detention time= 265.5 min calculated for 473 cf (51% of inflow)
Center-of-Mass det. time= 133.8 min (874.3 - 740.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	9.00'	318 cf	**21.08'W x 11.07'L x 4.00'H Field A** 934 cf Overall - 138 cf Embedded = 796 cf x 40.0% Voids
#2A	10.00'	138 cf	**ADS_StormTech SC-740 +Cap** x 3 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 Chambers in 3 Rows
#3	13.00'	10 cf	**Ponding** Listed below -Impervious
		466 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Cum.Store (cubic-feet)
13.00	0
15.40	5
15.60	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	9.00'	**0.020 in/hr Exfiltration over Horizontal area**
#2	Primary	12.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.31 hrs HW=9.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.15 cfs @ 12.12 hrs HW=13.00' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.15 cfs @ 1.02 fps)

Pond 5P: STORM TECHS - 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 + 21.0" Spacing = 72.0" C-C Row Spacing

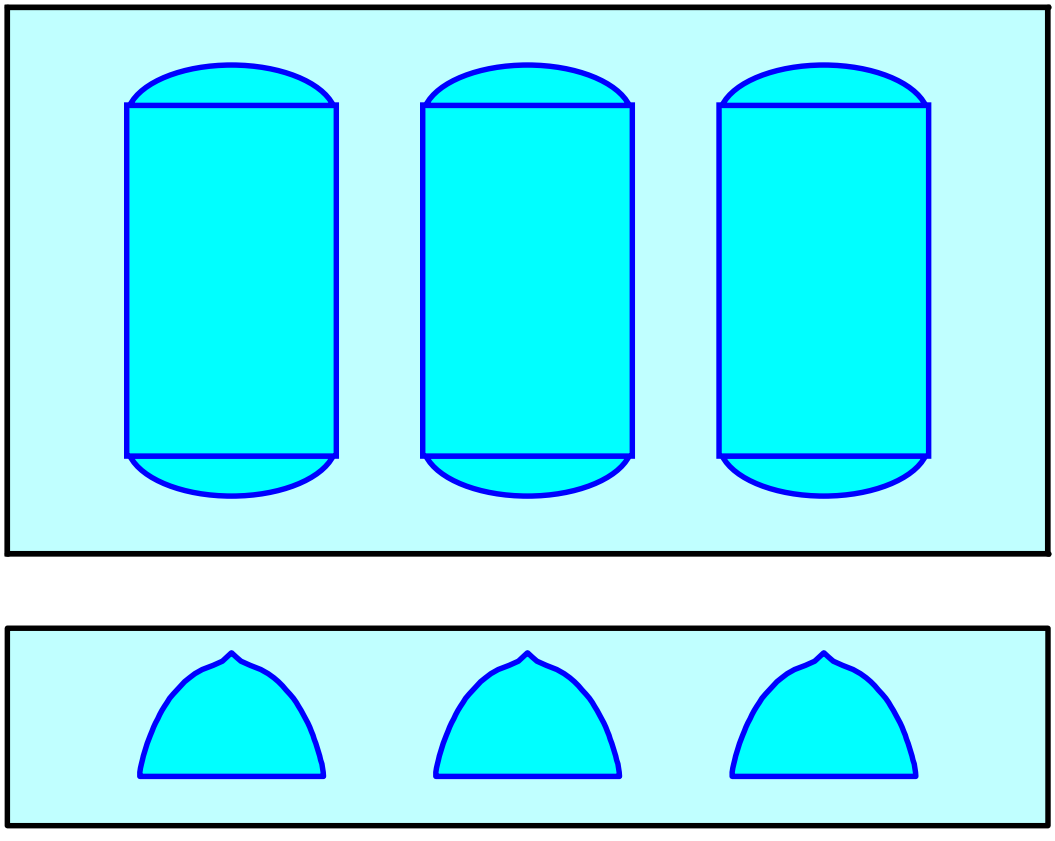
1 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 8.74' Row Length +14.0" End Stone x 2 = 11.07' Base Length
3 Rows x 51.0" Wide + 21.0" Spacing x 2 + 29.0" Side Stone x 2 = 21.08' Base Width
12.0" Base + 30.0" Chamber Height + 6.0" Cover = 4.00' Field Height

3 Chambers x 45.9 cf = 137.8 cf Chamber Storage

933.6 cf Field - 137.8 cf Chambers = 795.7 cf Stone x 40.0% Voids = 318.3 cf Stone Storage

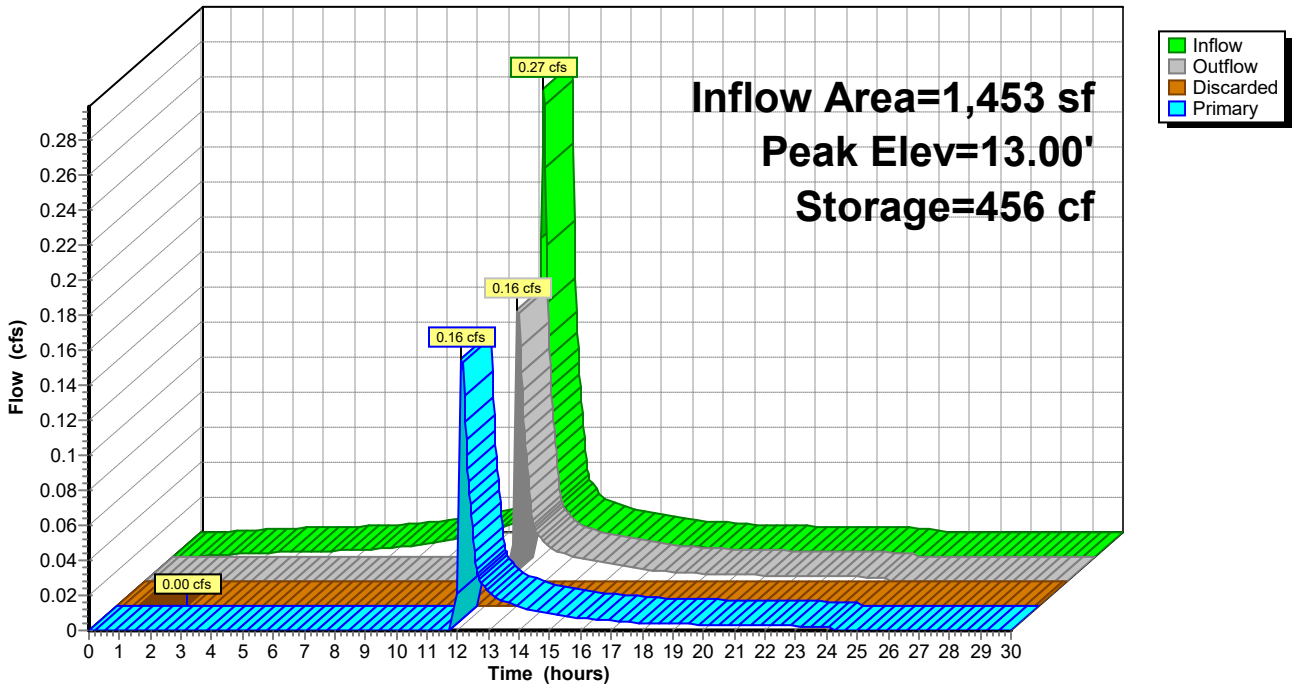
Chamber Storage + Stone Storage = 456.1 cf = 0.010 af
Overall Storage Efficiency = 48.9%
Overall System Size = 11.07' x 21.08' x 4.00'

3 Chambers
34.6 cy Field
29.5 cy Stone



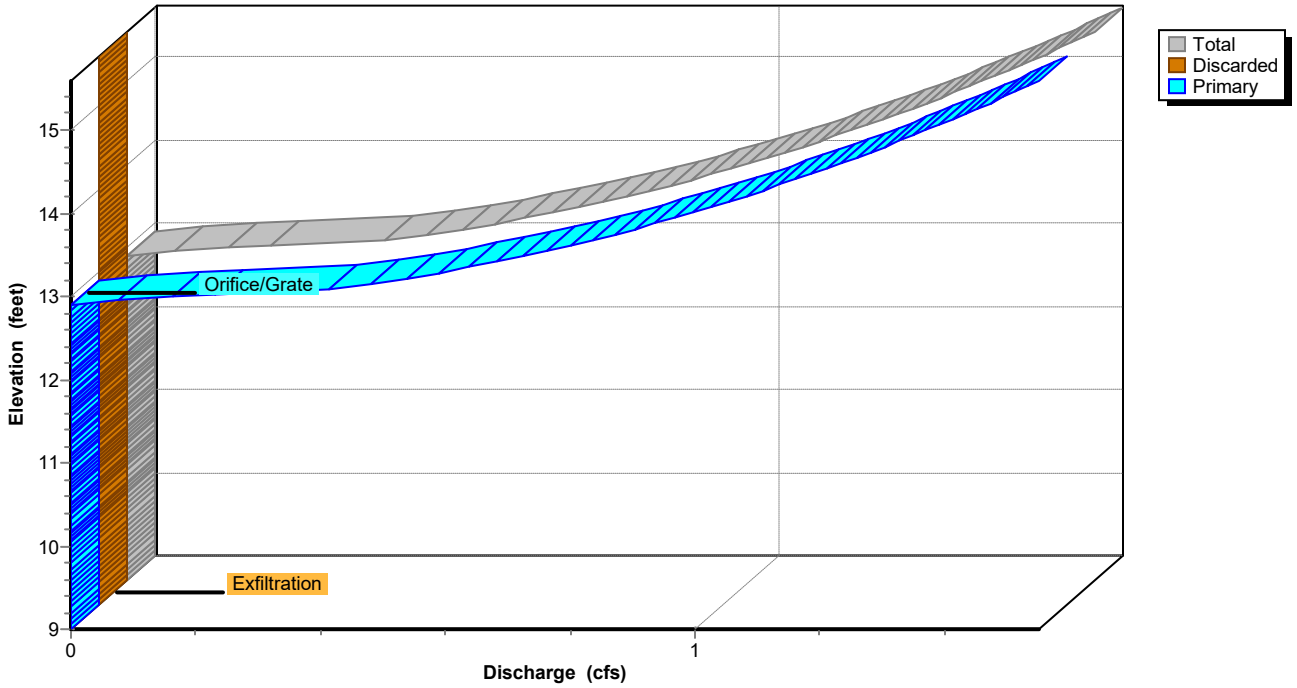
Pond 5P: STORM TECHS

Hydrograph

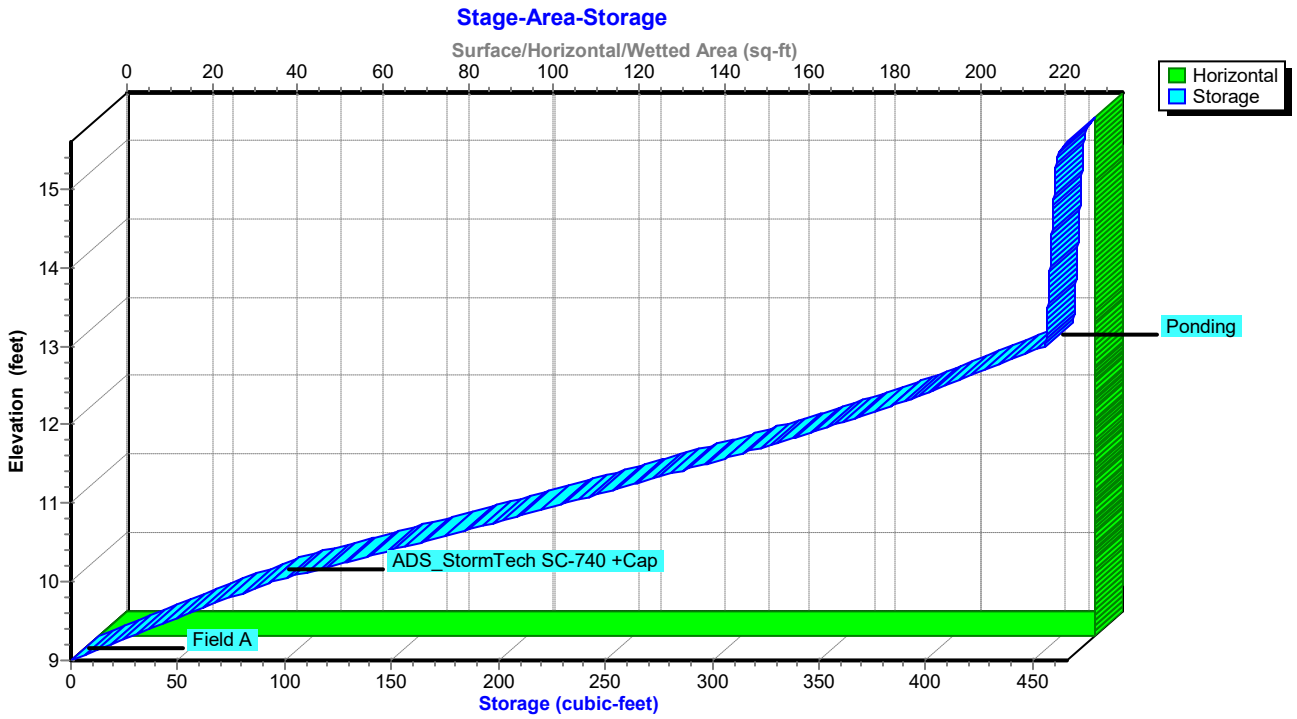


Pond 5P: STORM TECHS

Stage-Discharge



Pond 5P: STORM TECHS

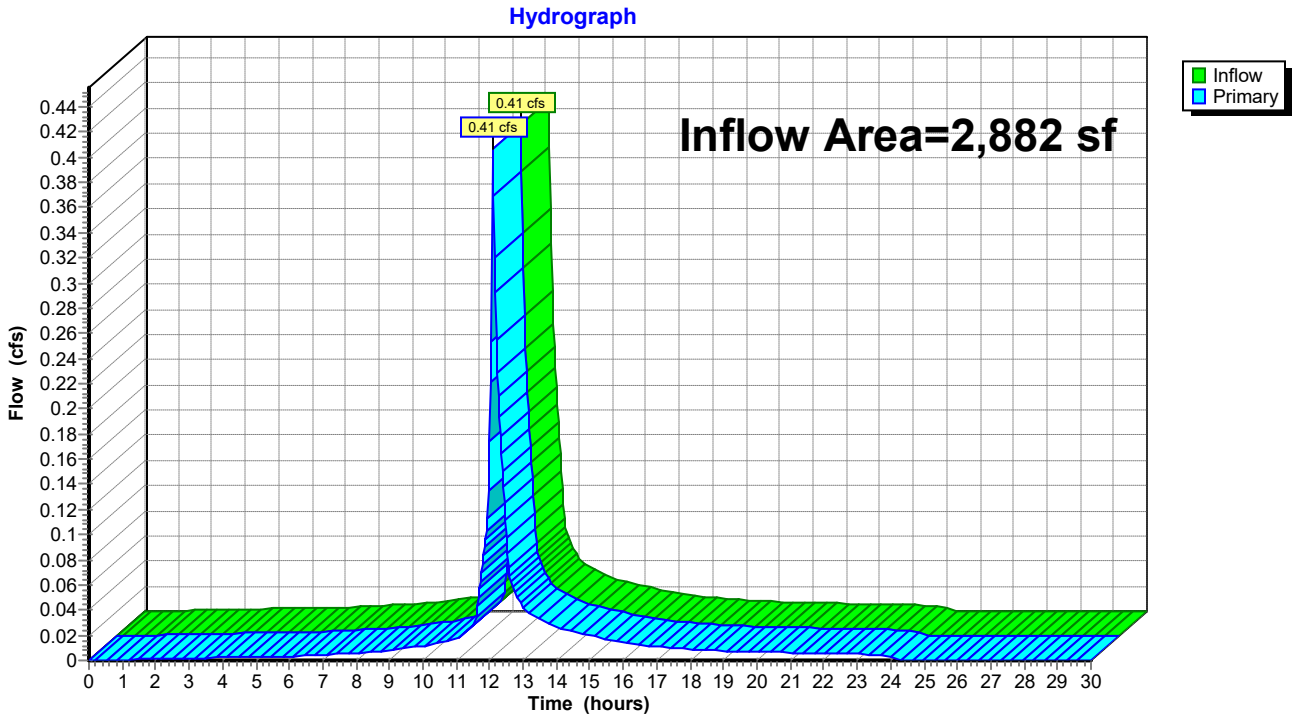


Summary for Link 3L: PROPOSED

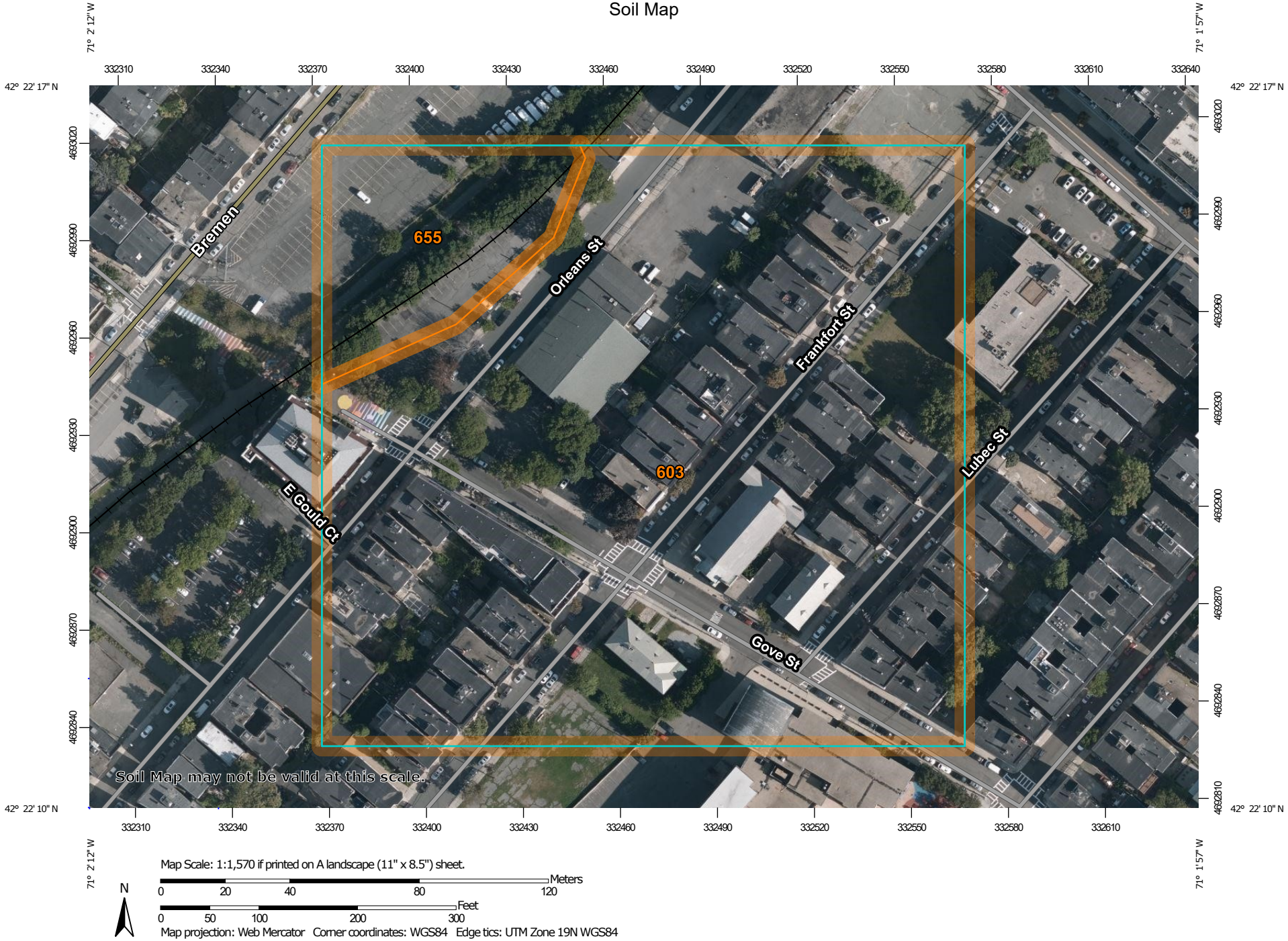
Inflow Area = 2,882 sf, 89.52% Impervious, Inflow Depth = 5.55" for 100-Year event
Inflow = 0.41 cfs @ 12.10 hrs, Volume= 1,333 cf
Primary = 0.41 cfs @ 12.10 hrs, Volume= 1,333 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 3L: PROPOSED



Custom Soil Resource Report
Soil Map



Map Scale: 1:1,570 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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

MAP LEGEND

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

Soils
- Soil 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 16, Jun 11, 2020

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

Date(s) aerial images were photographed: Sep 11, 2019—Oct 5, 2019

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	8.1	88.9%
655	Udorthents, wet substratum	1.0	11.1%
Totals for Area of Interest		**9.1**	**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

603—Urban land, wet substratum, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: vkyl
Mean annual precipitation: 32 to 50 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Parent material: Excavated and filled land over herbaceous organic material and/or alluvium and/or marine deposits

Minor Components

Udorthents

Percent of map unit: 13 percent
Hydric soil rating: Unranked

Beaches

Percent of map unit: 2 percent
Hydric soil rating: Unranked

655—Udorthents, wet substratum

Map Unit Setting

National map unit symbol: vkyd
Elevation: -30 to 310 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Landform position (two-dimensional): Footslope, shoulder
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Excavated and filled sandy and gravelly human transported material over highly-decomposed herbaceous organic material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Minor Components

Urban land

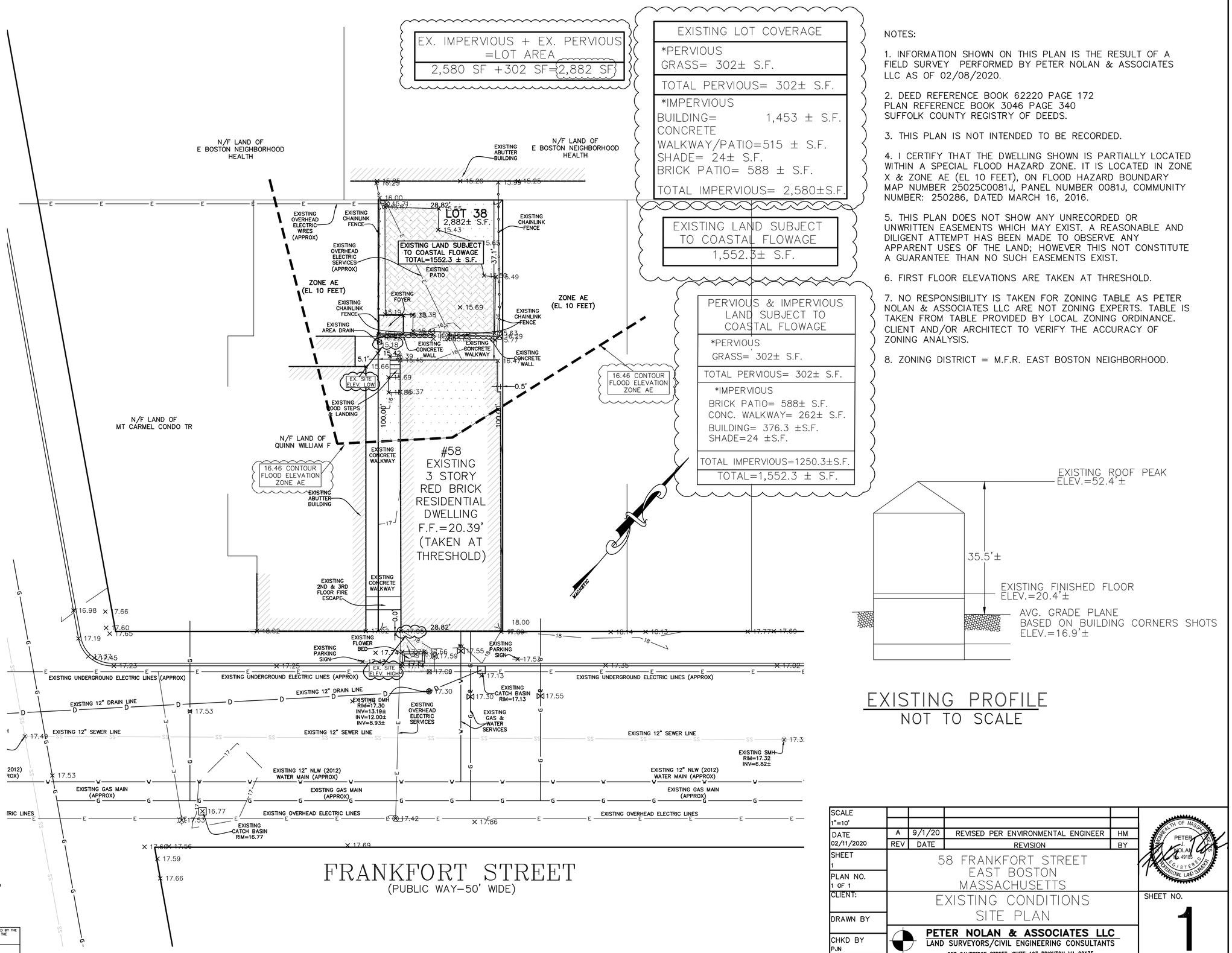
Percent of map unit: 3 percent
Hydric soil rating: Unranked

Ipswich

Percent of map unit: 2 percent
Landform: Marshes
Hydric soil rating: Yes

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



NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 02/08/2020.

2. DEED REFERENCE BOOK 62220 PAGE 172
PLAN REFERENCE BOOK 3046 PAGE 340
SUFFOLK COUNTY REGISTRY OF DEEDS.

3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS PARTIALLY LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE X & ZONE AE (EL 10 FEET), ON FLOOD HAZARD BOUNDARY MAP NUMBER 25025C0081J, PANEL NUMBER 0081J, 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. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS PETER NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.

8. ZONING DISTRICT = M.F.R. EAST BOSTON NEIGHBORHOOD.

EXISTING PROFILE
NOT TO SCALE

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

SCALE 1"=10'				
DATE 02/11/2020	A	9/1/20	REVISED PER ENVIRONMENTAL ENGINEER	HM
	REV	DATE	REVISION	BY
SHEET 1	58 FRANKFORT STREET EAST BOSTON MASSACHUSETTS			
PLAN NO. 1 OF 1				
CLIENT:	EXISTING CONDITIONS SITE PLAN			
DRAWN BY				
CHKD BY PJN				
APPD BY PJN				

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

COMMONWEALTH OF MASSACHUSETTS PETER J. NOLAN No. 49183 REGISTERED PROFESSIONAL LAND SURVEYOR

SHEET NO. 1

INSPECTIONS

(1)1.5" WATER SERVICE
DATE: _____
INSPECTOR:_____

(2)1" WATER METER
DATE: _____
INSPECTOR:_____

(3)2.0" PROTECTION FIRE LINE
DATE: _____
INSPECTOR:_____

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

(5) SEWER VIDEO INSPECTION
DATE: _____
INSPECTOR:_____

(6)INFILTRATION SYSTEM
DATE: _____
INSPECTOR:_____

(7)#1 CLEAN OUT (DRAIN)
DATE: _____
INSPECTOR:_____

(8)AREA DRAIN
DATE: _____
INSPECTOR:_____

(9)DO NOT DUMP PLAQUE
DATE: _____
INSPECTOR:_____

(10)AS BUILT PREPARATION FEE
DATE: _____
INSPECTOR:_____

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

(12)DYE TEST (DRAIN)
DATE: _____
INSPECTOR:_____

(13) SUMP PUMP TANK
DATE: _____
INSPECTOR:_____

(14)DRAIN MANHOLE
DATE: _____
INSPECTOR:_____

RESERVED FOR BWSC USE ONLY

PROPOSED IMPERVIOUS + PROPOSED PERVIOUS= LOT AREA
2,580 SF +302 SF=2,882 SF)

PROPOSED LOT COVERAGE	
*PERVIOUS	
GRASS= 302± S.F.	
TOTAL PERVIOUS= 302± S.F.	
*IMPERVIOUS	
BUILDING=	1,453 ± S.F.
CONCRETE	
WALKWAY/PATIO=	515 ± S.F.
SHADE= 24± S.F.	
BRICK PATIO= 588 ± S.F.	
TOTAL IMPERVIOUS= 2,580±S.F.	

PROPOSED LAND SUBJECT TO COASTAL FLOWAGE
1,552.3± S.F.

EXISTING LEGEND

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

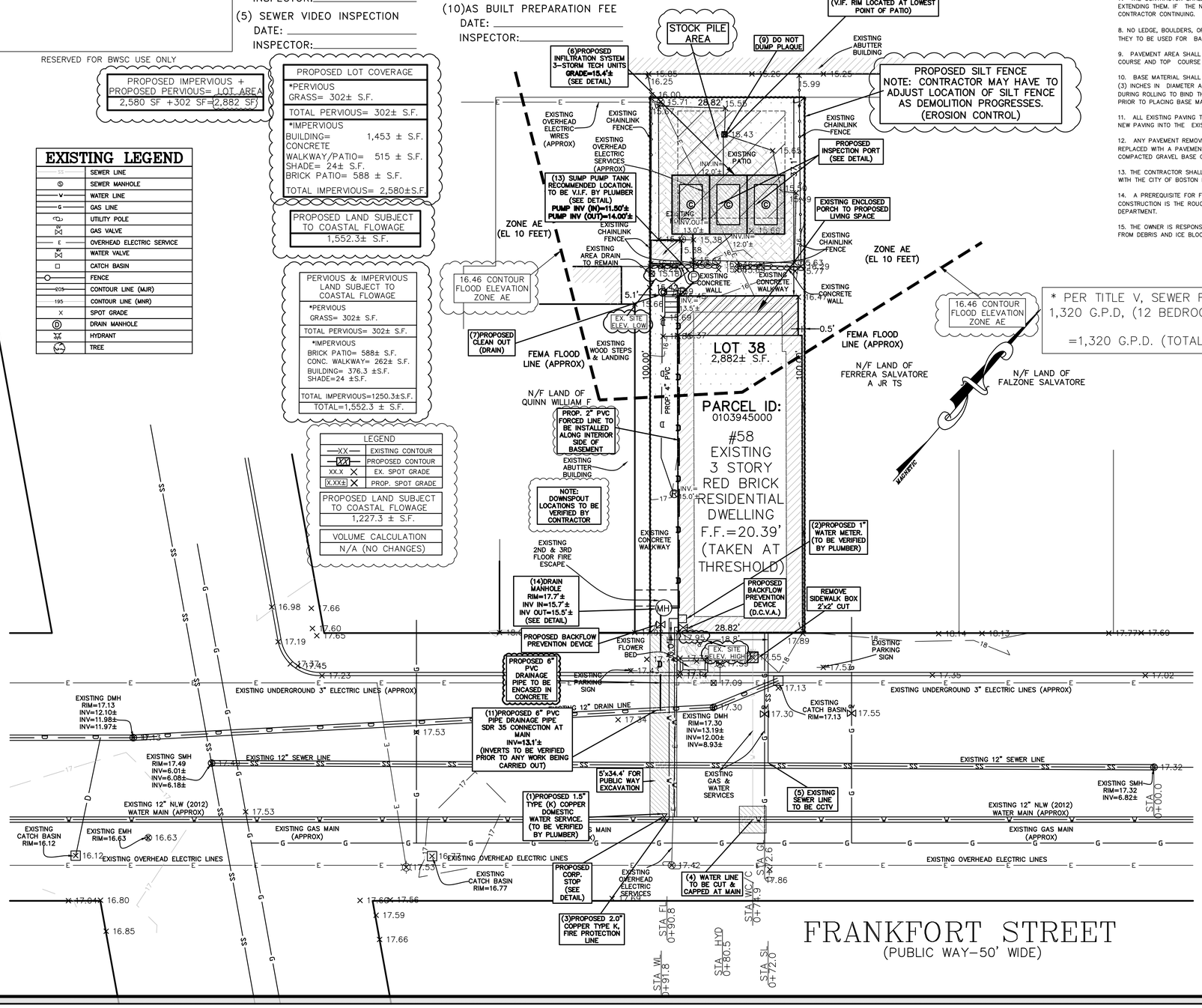
PERVIOUS & IMPERVIOUS LAND SUBJECT TO COASTAL FLOWAGE

*PERVIOUS	
GRASS= 302± S.F.	
TOTAL PERVIOUS= 302± S.F.	
*IMPERVIOUS	
BRICK PATIO= 588± S.F.	
CONC. WALKWAY= 262± S.F.	
BUILDING= 376.3 ±S.F.	
SHADE=24 ±S.F.	
TOTAL IMPERVIOUS=1250.3±S.F.	
TOTAL=1,552.3 ± S.F.	

LEGEND	
XX	EXISTING CONTOUR
XX	PROPOSED CONTOUR
XX.X	EX. SPOT GRADE
X.XX±	PROP. SPOT GRADE

PROPOSED LAND SUBJECT TO COASTAL FLOWAGE
1,227.3 ± S.F.

VOLUME CALCULATION
N/A (NO CHANGES)



* PER TITLE V, SEWER FLOW RESIDENTIAL
1,320 G.P.D, (12 BEDROOMS x 110 G.P.D.)

=1,320 G.P.D. (TOTAL SEWER FLOW)

Calculations by: HM
Date: July 20, 2020

STORMWATER MANAGEMENT CALCULATIONS

Design Criteria:
Impervious Roof = 1,458 SF
Impervious Walkway & Patio = 1423 SF
Total = 2,881 SF

Design For 1" Rainstorm

Storage Volume Required:

$V_R = (1"/12)\ (2,881\ SF) = 240\ CF$

CAPACITY OF PROPOSED STORM TECH SYSTEM

Storage Capacity of single Storm Tech UNIT = 49 CF

Void Ratio =0.3

Total Volume= $(11'\text{x}\ 7'\text{x}\ 4'_{depth\ (2.5ft.\ for\ Storm\ Tech\ unit)}\ \text{x}\ 3\ \text{unit}) = 924\ CF$

Capacity for 3 UNIT = 147 CF

Storage Capacity in Crushed Stone = (Total Volume – Capacity of Units) x Void Ratio = (924 - 147) x 0.3 = 233.1 CF

Total Storage Provided = Capacity in Crushed Stone + Total Capacity in Units = 233.1 CF + 147 CF = 380.1 CF

Since Total Storage Provided (380.10 CF) > Total Storage Required (240.0 CF/D)
Therefore, utilize 3-Storm-Tech Chamber with 1 ft. of Crushed Stone Beneath to Contain 1" Storm Event

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8. ZONING DISTRICT = M.F.R. EAST BOSTON NEIGHBORHOOD.

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 #: 20158

OWNERS INFORMATION:

MIKE STUCHINS: 617–281–1606
58 FRANKFORT STREET, LLC
1535 BEACON STREET
NEWTON MA, 02468

PARCEL ID=0103945000
ASSESSORS PLAN WARD 01
LAND USE CODE: R4 (5 UNITS)
EX. WATER ACCOUNT NUMBER: 1119510

PETER NOLAN & ASSOCIATES, LLC
LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
697 CAMBRIDGE STREET, (SUIT103),
BRIGHTON, MA 02135
Tel: 857–891–7478
617–782–1533
Fax: 617–2025691

SPRUHAN ENGINEERING, P.C.
80 JEWETT ST, (SUITE 1)
NEWTON, MA 02458
Tel: 617–816–0722
Email: edmond@spruhaneng.com

COMMONWEALTH OF MASSACHUSETTS — PETER J. NOLAN — No. 49185 — REGISTERED PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS — EDMOND J. SPRUHAN — CIVIL — No. 53316 — REGISTERED PROFESSIONAL ENGINEER

58 FRANKFORT STREET, EAST BOSTON, MASSACHUSETTS

REVISION BLOCK

DESCRIPTION	DATE
REVISED AS PER BWSC COMMENTS	04/28/2020
REVISED AS PER BWSC COMMENTS	06/03/2020
REVISED PER CLIENT	07/20/2020
REVISED AS PER BWSC COMMENTS	07/27/2020
REVISED AS PER ENVIRONMENTAL ENGINEER	9/1/2020

PLAN TO ACCOMPANY BWSC APPLICATION

PLAN:	1 OF 2
SCALE:	1" = 10'
DATE:	3-23-20
DRAWN BY:	HM
CHECKED BY:	PN
APPROVED BY:	ES

SHEET: 001