GODDARD CONSULTING
Strategic Ecological Consulting

August 26, 2025

Ashland Conservation Commission
101 Main Street
Ashland, MA 01721

Re: Notice of Intent
9A and 10A Sewell Street, Ashland

Dear Conservation Commission,

Goddard Consulting, LLC (Goddard) is pleased to submit this Notice of Intent (NOI) on behalf of the applicant, Rimark LLC, for the property known as 9A and 10A Sewell St (Parcel Map 22 Lots 22, 23). The applicant proposes to construct a new single-family home within the buffer zone to Bordering Vegetated Wetland (BVW). The applicant seeks an Order of Conditions that would allow the work to proceed as designed. This NOI application is a joint filing under the MA Wetlands Protection Act (WPA) and the Ashland Wetlands Protection Bylaw (the Bylaw). Enclosed are the supporting documentation for the project for your review and approval.

A list of enclosed documents is as follows:

- NOI Application (WPA Form 3)
- Wetlands Fee Transmittal Form
- Local Fee Transmittal Form
- Local Bylaw Fee Check, Local Act Fee Check, and Stormwater Fees (for 2 homes) Check
- NOI Checklist
- Stormwater Checklist
- Affidavit of Service, Certified Abutters List, Notification to Abutters
- *Wetland Border Report*, Goddard Consulting, LLC, of:
    - DEP Bordering Vegetated Wetland Determination Form
    - USGS of Locus Site, Goddard Consulting, LLC
    - Orthophoto of Locus Site, Goddard Consulting, LLC
    - FEMA Flood Map of Locus Site, Goddard Consulting, LLC
    - NRCS Soil Survey of Locus Site, Goddard Consulting, LLC
- *Notice of Intent Site Plan of Lots 9A and 10A Sewell St in Ashland, MA by Connorstone Engineering dated June 24, 2025*
- *Stormwater Report and Documentation Sewell Street, Ashland by Connorstone Engineering dated June 24, 2025.*

1.0 EXISTING CONDITIONS

The site is located within two vacant, semi-wooded, lots known as 9A and 10A Sewell St (Assessors Map 22 and Parcels 22, 23).

A Bordering Vegetated Wetland (BVW) is located along the southeastern property line and was flagged with series GC 1-18 (see attached wetland border report by Goddard Consulting). This resource areas cast a 100' Buffer Zone and 25' No Disturbance Zone onto the site.

According to the MassGIS data layers for NHESP, this site is not located within Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species. No mapped certified or potential vernal pools are located on the site or nearby. The site is not mapped within an Area of Critical Environmental Concern (ACEC) or Outstanding Resource Waters (ORW) Area.

2.0 PROPOSED PROJECT

The applicant proposes to construct two single-family homes, one on each lot. The proposed home on lot 9A is outside all resource areas and the 100-ft buffer zone and therefore is not subject to the Act however may be subject to local stormwater standards (see attached stormwater report).

The second lot; 10A, a single-family house and all corresponding appurtenances is proposed within the 25-100-ft buffer zone to BVW. No work is proposed within the 0-25-ft no disturb zone. Work proposed within the 25-100-ft buffer zone consists of clearing, grading, a 1,104 sf single-family home with garage, and driveway.

No septic or wells are proposed since water and sewer connection is available. The roof runoff will be collected via roof and foundation drains and routed to a drywell and rain garden. The driveway runoff will be directed towards a proposed rain garden adjacent to the driveway on lot 10A.

Concrete bounds will be installed to demarcate the wetland line.

Erosion control barriers (ECB) will be installed at the limit of work (up-gradient of the 25-ft no disturb zone) prior to any earth disturbance to limit the potential for any erosion or sedimentation to leave the work area and travel offsite or towards the BVW resource area. This ECB will demarcate the limit of work and will be located as shown on the attached site plans. After all soil disturbance is complete, any disturbed areas will be loamed and seeded to establish permanent stability.

3.0 REGULATORY COMPLIANCE WITH WETLANDS PROTECTION ACT

3.1 BUFFER ZONE (100-FOOT)

ECB will be installed around the limit of work prior to any earth disturbance to protect downgradient resource areas. The WPA Regulations do not contain performance standards for Buffer Zone alteration (310 CMR 10.02(2)(b)). All reasonable efforts to avoid, minimize and mitigate adverse impacts on the Buffer Zone have been considered.

3.2 BORDERING VEGETATED WETLANDS (BVW)

No work is proposed within the delineated BVW. ECB will be installed at the limit of work prior to any earth disturbance to limit the potential for any erosion or sedimentation to leave the work area and travel offsite or towards the BVW area.

3.3 MASSDEP STORMWATER STANDARDS

Because proposed work is associated with a single-family home, the work is not subject to MassDEP's Stormwater Standards.

4.0 REGULATORY COMPLIANCE WITH ASHLAND BYLAWS

4.1 0-25-FT NO DISTURB ZONE

No work is proposed within the 0-25-ft no disturb zone and will remain vegetatively intact.

4.2 STORMWATER

Land disturbance for both lots trigger the local stormwater permit application process. Lot 1 will disturb 13,704 sf (100% of the lot) and Lot 2 will disturb 8,825 sf (61.4% of the lot).

The roof runoff will be collected via roof and foundation drains and routed to a drywell and rain garden. The driveway runoff will be directed towards a proposed rain garden adjacent to the driveway on lot 10A.

To ensure no erosion will occur on site erosion control barriers (ECB) will be installed at the limit of work (up-gradient of the 25-ft no disturb zone) prior to any earth disturbance to limit the potential for any erosion or sedimentation to leave the work area and travel offsite or towards the BVW resource area. This ECB will demarcate the limit of work and will be located as shown on the attached site plans. After all soil disturbance is complete, any disturbed areas will be loamed and seeded to establish permanent stability.

For more detailed information please refer to the enclosed Stormwater Report and Associated Documentation from Connorstone Engineering. Associated checks for this local permit are enclosed in this NOI submittal package.

5.0 CONCLUSION

In summary, Goddard Consulting believes that the proposed project will not have any adverse impacts on the interests identified in the Wetlands Protection Act or the Ashland Wetlands Protection Bylaw. The proposed project meets all regulatory compliance standards under the Wetlands Protection Act and the Bylaw; therefore, Goddard Consulting respectfully requests that the Conservation Commission issue an Order of Conditions approving the proposed project.

If you have any questions, please feel free to contact us at (508) 393-3784.

Sincerely,
Goddard Consulting, LLC

Nicole Hayes

Nicole Hayes, PWS
Senior Wetland Scientist

Cc: MassDEP Northeast Regional Office, 150 Presidential Way, Woburn, MA 01801

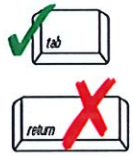
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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
Ashland
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):

9A and 10A Sewell Street — a. Street Address
Ashland — b. City/Town
01721 — c. Zip Code

Latitude and Longitude:
71.4280463 — d. Latitude
42.280463 — e. Longitude

Map 22 — f. Assessors Map/Plat Number
22 and 23 — g. Parcel /Lot Number

2. Applicant:

a. First Name
b. Last Name
RIMARK LLC — c. Organization
2 Chestnut Street — d. Street Address
Wayland — e. City/Town
MA — f. State
01778 — g. Zip Code
h. Phone Number
i. Fax Number
alanmarks1rex@aol.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):

Nicole — a. First Name
Hayes — b. Last Name
Goddard Consutling LLC — c. Company
291 Main St — d. Street Address
Northborough — e. City/Town
MA — f. State
01532 — g. Zip Code
508-393-3784 — h. Phone Number
i. Fax Number
Nicole@goddardconsultingllc.com — j. Email address

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

500.00 — a. Total Fee Paid
237.50 — b. State Fee Paid
262.50 — c. City/Town Fee Paid

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A. General Information (continued)

6. General Project Description:

Single family home proposed within 25-100-ft buffer zone to BVW

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:

Middlesex South	
a. County	b. Certificate # (if registered land)
1466	47
c. Book	d. Page Number

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

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

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

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

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

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

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

f. ☐ Riverfront Area

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

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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

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

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

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

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

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

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

5. ☐ Project Involves Stream Crossings

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

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   a. ☐ Yes ☒ No

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

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

   2001
   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 - Bourne 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 - Plymouth 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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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.

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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.

Notice of Intent Site Plan of Lots 9A and 10A Sewell Street in Ashland
a. Plan Title

Connorstone Engineering
b. Prepared By

Vito Colonna
c. Signed and Stamped by

June 24, 2025
d. Final Revision Date

20'
e. Scale

Stormwater Report + Documentation
f. Additional Plan or Document Title

6-24-25
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:

283 + 282
2. Municipal Check Number

7-18-25
3. Check date

284
4. State Check Number

7-18-25
5. Check date

ALLAN
6. Payor name on check: First Name

MARKS
7. Payor name on check: Last Name

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Provided by MassDEP:

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F. Signatures and Submittal Requirements

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

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

RIMARK LLC	7-18-25
1. Signature of Applicant	2. Date
3. Signature of Property Owner (if different)	4. Date
William P. Mark III	7-18-25
5. Signature of Representative (if any)	6. Date

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

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

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

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

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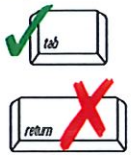
Bureau of Resource Protection - Wetlands

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:

a. Street Address	b. City/Town
9A and 10A Sewell	Ashland
c. Check number	**d. Fee amount**
284	237.50

2. Applicant Mailing Address:

a. First Name	b. Last Name

c. Organization: RIMARK LLC

d. Mailing Address: 2 Chestnut St

e. City/Town	f. State	g. Zip Code
Wayland	MA	01778

h. Phone Number	i. Fax Number	j. Email Address
		alanmarks1rex@aol.com

3. Property Owner (if different):

a. First Name	b. Last Name

c. Organization

d. Mailing Address

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

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

B. Fees

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

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

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

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

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Single family home construction	1	500.00	500.00

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee:	500.00 (a. Total Fee from Step 5)
State share of filing Fee:	237.50 (b. 1/2 Total Fee **less** $12.50)
City/Town share of filling Fee:	262.50 (c. 1/2 Total Fee **plus** $12.50)

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

Town of Ashland Conservation Commission

LOCAL FILING FEE CALCULATION WORKSHEET

1. NOTICE OF INTENT (NOI)

C1: Work on Existing Single Family Lot This includes pools, additions, etc.	$110.00	_____
C2: Construction of Single Family House, Crossings for Driveways, etc.	$500.00	_____
C3: Commercial Building, Road Construction, etc.	$1050.00	_____
C4: Crossings for Development or Commercial Road, Bridge, etc.	$1450.00	_____
C5: Work on Docks, Piers, Dikes, or other Engineering Structures in inland resource areas	_____ *$4= Linear Feet	_____
C6:Resource Area Delineation Review Includes boundary delineations for vegetated wetlands as part of a permit application (ANRAD/ RDA with delineations/ NOI with delineations)	_____ *$2= Linear Feet	_____
*single family lots limited to $200; $2000 limit for all others		
All NOIs add 50% of the fee for work in Riverfront Area	_____ *$0.5= Above Fee	_____

2. STORMWATER MANAGEMENT PERMIT

Basic Residential Application	$100.00	_____
Application for Residential Subdivision or Multifamily Development	$500.00	_____
Commercial Application	$750.00	_____
Notice of Completion for Non-Basic Residential	$150.00	_____
Permit Extension	$150.00	_____

True Copy Attest		$50.00	_____
Re-Inspection		$50.00	_____

3. OTHER PERMITS AND APPLICATIONS

Request for Determination of Applicability Without boundary delineation		$125.00	_____
Request for Permit Extension Not for Stormwater Management Permits		$100.00	_____
Amended Notice of Intent Significant Revisions		SEE NOI	_____
Certificate of Compliance Without boundary delineation	Single Family Lots All Other Projects	$100.00 $250.00	_____ _____
Reissuance/ True Copy Attest Not for Stormwater Management Permits		$50.00	_____

6. FILING FEE CALCULATION

Town Share of State Fees (See NOI Wetland Fee Transmittal Form) **(Check No. 1)**	$ 262.50
Local Filing Fee Calculated Above (Check No.2)	$ 500.00
State Share of Filing Fee (See NOI Wetland Fee Transmittal Form) **TOTAL Due DEP (Check No. 3)**	$ 237.50

7. ADVERTISING FEE (Paid by phone to newspaper) **TBD**

The fee will be the exact amount the newspaper charges for that specific advertisement. Once the advertisement is placed with the paper by the Conservation Commission, the applicant will be notified of the cost and will be expected to contact the newspaper for payment within the specified deadline.

Town of Ashland
MASSACHUSETTS

CONSERVATION COMMISSION

Applicant Checklist for NOI/ANRAD/ANOI

This checklist is meant as guide when preparing a permit application during the State of Emergency, which was declared on March 12, 2020. This process shall remain in effect during the State of Emergency and will terminate when the State of Emergency is lifted. Note that submittal dates remain in effect.

1. ☑ **Application**- submit 2 paper copies and 1 digital copy of all materials, and 1 Stormwater Management Checklist, if applicable. No spiral bindings!

2. ☑ **Narrative**- 1 copy of a written narrative explaining existing conditions, proposed conditions, wetland resource areas on site (protected under the Act (310 CMR 10.02 (1) and the Bylaw (chapter 280)), the 100 foot Buffer Zone, the 25' No Disturb Zone and vernal pools

3. ☑ **Locus Map**- 1 copy

4. ☑ **Site Plans-** (folded) 1 large copy, and 1 (one) 11"x17" copy, if all details can be read. Plans must show the following:
   a. ☑ Existing Conditions
   b. ☑ Proposed Conditions
   c. ☑ Erosion Control Barrier- where it will be installed and a detail of the barrier to be used (note, no hay bales!)
   d. ☑ All wetland resource areas (see item 2 above)
   e. ☐ Endangered Species Habitat N/A

5. ☑ **Application Fees**
   a. ☑ Wetland Fee Transmittal Form – 1 Copy
   b. ☑ One check to the Commonwealth: 1 copy, see 310 CMR 10.03 (7)(c) to determine the category. Once the category is confirmed, see 310 CMR 4.10 (8)(n)4. for the fee amount.
   c. ☑ One check to the Town of Ashland for the town share of the fee under the Wetlands Protection Act. 2 copies
   d. ☑ A second check to the Town of Ashland for the bylaw fee: 2 Copies (c. 348-2)

6. ☑ **Make an extra copy of everything from 1-5 and Submit your Application:**
   a. ☑ State: Electronically submit the application, locus map, narrative and site plans to DEP using eDEP.

b. ☑ State Fee: Submit the state check, transmittal fee form, and photocopy of the town checks to Dept. of Environmental Protection, PO. Box. 4062, Boston, MA. 02211

c. ☑ Conservation Commission: 101 Main Street, Ashland MA. 01721.c All documents listed above, as well as a pdf as indicated below, and to conservation@ashlandmass.com.

7. ☑ For items 1-5, provide a pdf of everything, and CAD Files georeferenced to State Plane NAD 83 ft., if applicable, and send it to conservation@ashlandmass.com

8. ☐ **Receive hearing date and time information** from the Conservation Agent, and receive a date and time for a **pre-hearing site visit**.

9. ☐**Legal Notice**. The Conservation Commission posts the legal notice. The applicant will get billed by Gatehouse Media.

10. ☑ **Notify Abutters** within 7 business days (no weekends or holidays).
    a. ☑ Obtain a Certified List of Abutters from the Assessor's Office
    b. ☑ Notify abutters (certified mailing or hand delivery only) of the hearing date and time using the Commission's template and fill out an Affidavit of Service.
    c. ☐ Mail the proof of Mailing to the Ashland Town Hall, at 101 Main Street. Note that it must be received before the scheduled meeting date. You can drop it off in the grey box located on the side of Town Hall.

11. ☐Attend the Zoom Meeting.

Town of Ashland
MASSACHUSETTS

CONSERVATION COMMISSION

Applicant Checklist for SMP

This checklist is meant as guide when preparing a Stormwater Management Permit for the Ashland Conservation Commission. Submit this with your application. **Note that you should make a copy for your records as well.** The Conservation Commission meets on the second and fourth Monday of every month, with some exceptions. Note that applications are due two weeks in advance of your desired hearing date. This checklist is pursuant to Chapter 343 Section 7.6, please refer to this section for further requirements and specific descriptions for each item on this checklist.

1. ☑ **Application**- submit 2 paper copies and 1 digital copy of all materials

2. ☑ **Narrative**- detailing the existing and proposed work, a list of other necessary permits (federal, state and local), the stormwater management plan , inspections and maintenance agreements, a description on how calculations were derived and which methods were used (see number 7.), construction sequencing, and a land use description. Make 1 copy

3. ☑ **Other Permits**- an electronic copy of all other permits obtained for your project that were issued by other town departments/boards, state, and federal agencies. Submit a pdf.

4. ☑ **Recorded plans and deed**- a copy of the most recent recorded plan for the site, and a copy of the deed for the lot with the book and page number on it. Submit a pdf.

5. ☑ **Locus Plan**- Make 1 copy

6. ☑ **Site plans-** Make 2 copies and submit CAD files and shapefile georeferenced to NAD State Plane 83 in feet. Size to submit are 11x17", or Arch D. Additional plans may be requested depending on details and scope of your plan.
    a. ☐ Wellhead protection zones, and the location of nearest public wells and private wells on abutting properties with distance and direction to them.
    b. ☐ Total lot area and areas of Floodplain District (Section 282-36 of the Ashland Town Code), and wetlands
    c. ☐ Existing conditions and proposed conditions of the site in percent and square feet of the impervious cover, open space, undisturbed open space, and limits of clearing and disturbance should be included.
    d. ☐ Natural features- water bodies, wetlands, floodplain, natural drainage courses, ledge outcropping, vegetation, and soils.
    e. ☐ Existing and proposed structures and impervious cover
    f. ☐ Pre and post development topography in two foot contours

g. ☐ Test pit locations and information to demonstrate the groundwater elevation in areas where stormwater runoff is proposed to be infiltrated into the ground. There shall be a lease **two feet of separation from the bottom of the infiltration device**, to the maximum elevation of groundwater.
h. ☐ Shortest distance between the existing and proposed areas on site to the surface and estimated seasonal high groundwater
i. ☐ Stormwater management, showing the location and elevations of the BMPs
j. ☐ Erosion, and sedimentation control BMPs- note **NO HAY BALES!**
k. ☐ Existing and proposed water supply on site if applicable.
l. ☐ Existing Construction Detail Sheet- details for site drainage and management.

7. ☑ **Calculations-** 1 copy.
   a. Drainage Calculations based on NOAA Atlas 14 precipitation data (see 343-7.6.12)
   b. Earth Removal/Fill calculations (See 343.13)
   c. Hydrologic and hydraulic design calculations and report (see 343-7.6.16 (c))

8. ☑ **Emergency Response Plan-** Make 1 copy (see 343-7.6.15)

9. ☑ **Stormwater Plan**- a plan stamped by a Qualified Professional, containing the information outlined in 343-7.6.16 (b). Make 1 copy

10. ☑ **Operation and Maintenance Plan-** Make 1 copy. See c. 343-7.16.17.1

11. ☑ **Certified List of Abutters-** get a certified list of abutters from the Assessor's Office. Make 1 copy.

12. ☑ **Application Fee**- copies of the check, make 1 copy. The fees are itemized below:
   a. Basic Residential- $100.00
   b. Subdivision or Multifamily- $500.00
   c. Commercial Application- $750.00

13. ☑ **Submit all items above to the Ashland Conservation Commission, through its Agent.** The Agent will provide a copy to the Town Clerk. Submit a pdf of all documents and plans as outline to conservation@ashlandmass.com.

14. ☑ **You will receive hearing date and time from the Conservation Agent**. (You will also receive a date and time for a pre-hearing site visit). Note that we have 60 days to review the application before posting the hearing date. We post the legal notice, and the Applicant gets billed by Gatehouse Media.

15. ☑ **Notify Abutters**- Notify abutters (via certified mail) within five business days of the scheduled hearing. Notification must include information on the public hearing.

Town of Ashland, *Office of Conservation*

NOTIFICATION TO ABUTTERS

A/An Notice of Intent
has been filed with the **Ashland Conservation Commission** pursuant to the *Wetlands Protection Act (M.G.L. c. 131 §40), Wetlands Protection Act Regulations 310 C.M.R. 10.05 (4)(a)* and the *Wetlands Protection Bylaw Chapter 280 Section 9*, and/or the *Stormwater Management Regulations Chapter* 343.

The applicant is Rimark LLC

The proposed project is located at 9A and 10A Sewell Street
in Ashland, Massachusetts. The proposed project is:

Two single family houses are proposed. One will be outside wetland resource areas and buffer zone but is subject to the local stormwater standards the other is proposed within the 100-ft jurisidictional BVW Buffer Zone and is also subject to the local stormwater standards.

The filing may be examined by electronic means only. For more information, or to request a pdf filing submittal, please call 508-532-7924, and ask for the Conservation Agent.

The public hearing is scheduled for **Monday, September 8, 2025, at 7:05 p.m.** (*Note that all hearings are posted for 7:05 unless otherwise specified on the agenda. Hearings are taken in order of the posted agenda*). The hearing will be held using a **REMOTE format**, online via Zoom. **The link for the meeting can be found on the posted agenda 48 hours before the hearing is scheduled to meet, available on the Town of Ashland Website.** Otherwise, further information of the public hearing can be obtained from the Ashland Conservation Commission, by calling 508-532-7924.

Town of Ashland
MASSACHUSETTS

Conservation Commission

Affidavit of Service

I, Nicole Hayes, PWS, hereby certify under the pains and penalties of perjury that on 8-28-25, I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and 310 CMR 10.00, and Chapter 280 of the Ashland Town Code in connection with a Notice of Intent NOI permit application, filed under the Wetlands Protection Act, and the Ashland Wetlands Protection Bylaw by the applicant, RIMARK LLC. Said permit application was filed with the Ashland Conservation Commission on 8-28-25 for property located at 9A + 10A Sewell St, in Ashland, Massachusetts.

Nicole Hayes	8-28-25
Name	DATE
Nicole Hayes	8-28-25
Signature	DATE

Revised: January 10, 2017
Ashland Conservation Commission

July 21, 2025

To The Conservation Commission
0 Sewell Street
RIMARK LLC
Abutters To Map 22 Parcels 22 and 23

PARCEL ID	PARCEL ADDRESS	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY/TOWN	STATE	ZIP
014/022.0-0020-0000.0	2 YALE ST	ZANI PETER J & ROBERT M	TRUSTEES DONALD P ZANI IRREVOCABLE INCOME TRUST	2 YALE ST	ASHLAND	MA	1721
014/022.0-0021-0000.0	0 HARVARD ST	ZANI DONALD P	TRUSTEE D ZANI FAMILY FIRST 2009	2 YALE ST	ASHLAND	MA	1721
014/022.0-0024-0000.0	17 SEWELL ST	CHIDSEY KRISTIN		17 SEWELL ST	ASHLAND	MA	1721
014/022.0-0025-0000.0	15 SEWELL ST	NAGLE JOHN P	ROSAMARIA NAGLE	15 SEWELL ST	ASHLAND	MA	1721
014/022.0-0026-0000.0	11 SEWELL ST	SAFSTROM JOHN L	LAURETTA M SAFSTROM	11 SEWELL ST	ASHLAND	MA	1721
014/022.0-0031-0000.0	24 SEWELL ST	KANE MICHAEL G	TRUSTEE OF 158 POND STREET REALTY TRUST	162 POND ST	ASHLAND	MA	1721
014/022.0-0032-0000.0	20 SEWELL ST	GORE MICHAEL P & MARY F	TRSTS TWENTY SEWELL STREET RLTY TR	20 SEWELL ST	ASHLAND	MA	1721
014/022.0-0033-0000.0	16 SEWELL ST	MURPHY ROBERT	DONNA M MURPHY	16 SEWELL ST	ASHLAND	MA	1721
014/026.0-0030-0000.0	30 SEWELL ST	GOIS HOLDINGS BOSTON LLC		22 TINA LANE	WESTFIELD	MA	1085

The above reflects the latest information available on our records.

Terry Capen
Senior Clerk

Date 7/21/25

9 parcels/abutters

Wetland Border Report

Site Locus: Sewell St, Ashland
Prepared for: Realty Executives Boston West
Prepared by: Goddard Consulting LLC, 291 Main St, Suite 8, Northborough MA 01532
Date: 4-11-2025

INTRODUCTION

On April 2, 2025, the wetland resources were delineated on land located on or near Sewell St in Ashland, MA (refer to enclosed locus maps). The wetland border was flagged using the criteria in the most recent edition of MA Wetland Protection Act (WPA) and Regulations 310 CMR 10.00 et al and local wetland bylaws. Hydric soil indicators, vegetation changes, hydrological indicators, and topography were all considered for delineation purposes.

The titles of attached documents are as follows:

- DEP Bordering Vegetated Wetland Determination Forms
- Orthophoto of Locus Site, Goddard Consulting LLC
- Orthophoto with NRCS Soil Survey, Goddard Consulting LLC
- Orthophoto with DEP Mapped Wetlands, Goddard Consulting LLC
- Orthophoto with FEMA Flood Zones, Goddard Consulting LLC
- USGS of Locus Site, Goddard Consulting LLC

SUMMARY OF FINDINGS

One Bordering Vegetated Wetland (BVW) located on and off-site was delineated with flag series GC1-18. The sampling point for the wetland line determination took place near flag GC-11. Vegetation upgradient of the BVW is dominated by red oak, white pine, hay scented fern and bittersweet. Vegetation downgradient of the BVW is dominated by red maple, spicebush, highbush blueberry, poison ivy and wetland ferns. More detailed information about vegetation, hydrology and soils is included in the attached NRCS Soil Map and the DEP Bordering Vegetated Wetland Determination Forms.

On site there is an area of sensitive fern (wetland species) along with red oaks, pine and maple up-gradient of the wetland line. This area did not have wetland soils or 50% or more wetland vegetation and as a result was not included in the resource line.

According to the MassGIS data layers for the Natural Heritage & Endangered Species Program (NHESP), the locus site is not located within Estimated and/or Priority Habitat of Rare Wildlife nor an Area of Critical Environmental Concern (ACEC). The site is not located in a jurisdictional FEMA Flood Zone nor within 200-ft of a river. There are no mapped certified or potential vernal pools on the site.

Any work within this potential resource area including the 100-foot Buffer Zones may require a Request for Determination (RDA) or Notice of Intent (NOI) to be filed with the Conservation Commission.

DESCRIPTION OF REGULATED INLAND RESOURCE AREA

The table below provides the regulatory jurisdiction, flag numbers/colors, and wetland types and locations for the resource areas delineated.

Resource Area	Regulatory Jurisdiction	Flag Numbers and Color	Wetland Types and Locations
BVW	BVW and 100-ft Buffer zone	GC 1-18 (Blue flags)	Forested and scrub shrub wetlands

SITE PHOTOS

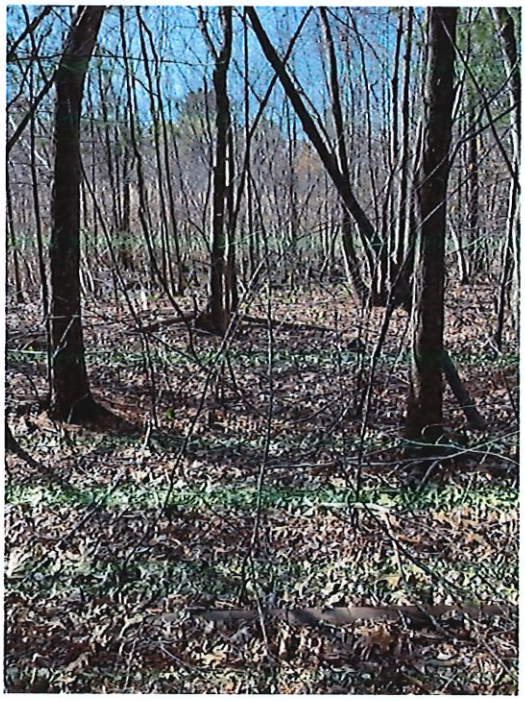
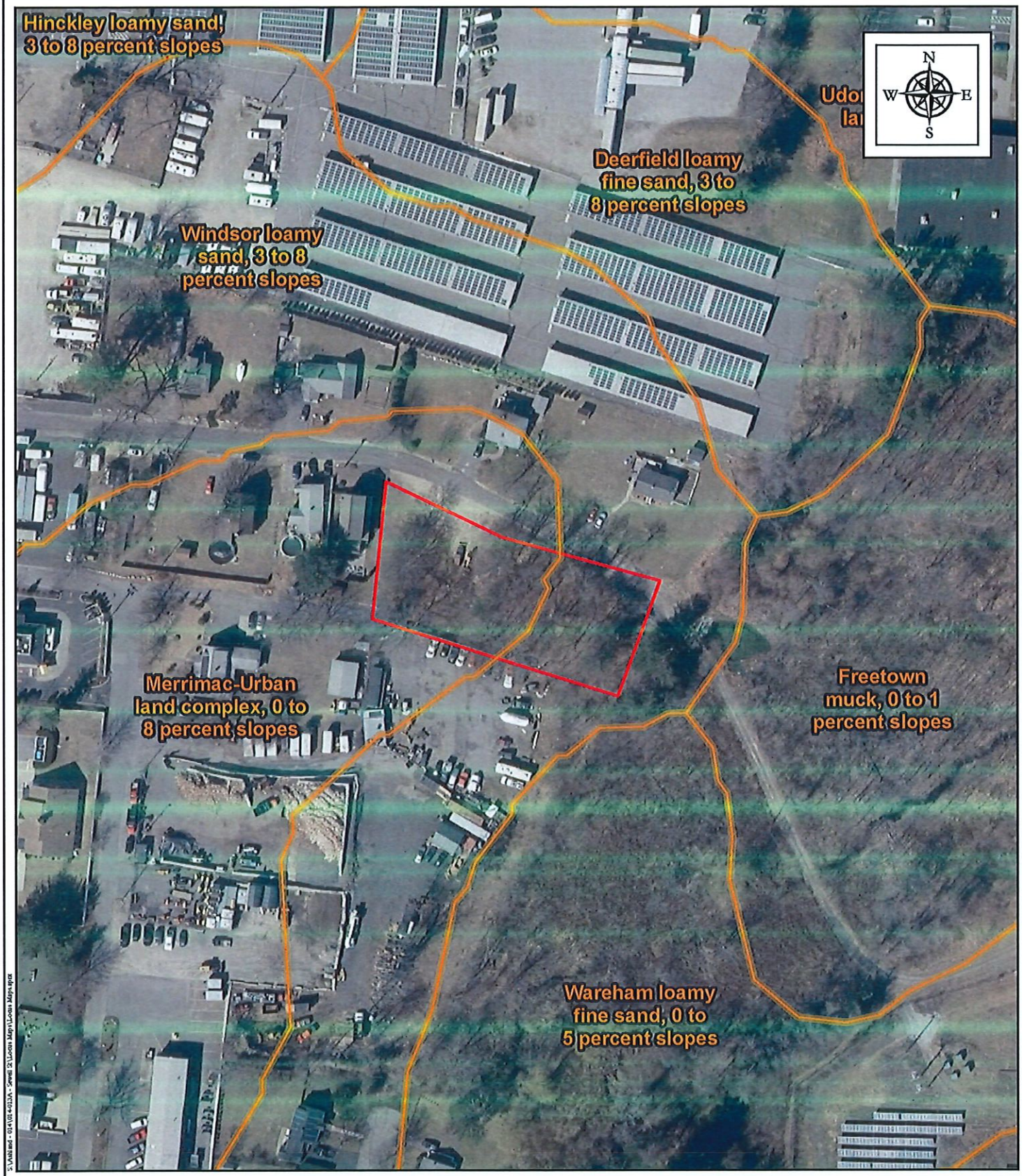


Photo 1. Wetland Area

Goddard Consulting, LLC.

Nicole Hayes

Nicole Hayes, PWS
Senior Wetland Scientist



S:\Ashland - 01\10\10-4-01\A - Sewell St Locus Map\Locus Map.aprx

GODDARD CONSULTING
Strategic Ecological Consulting

NRCS Soil Survey of Locus Site

Lots 9A & 10A Sewell Street
Ashland, MA 01721

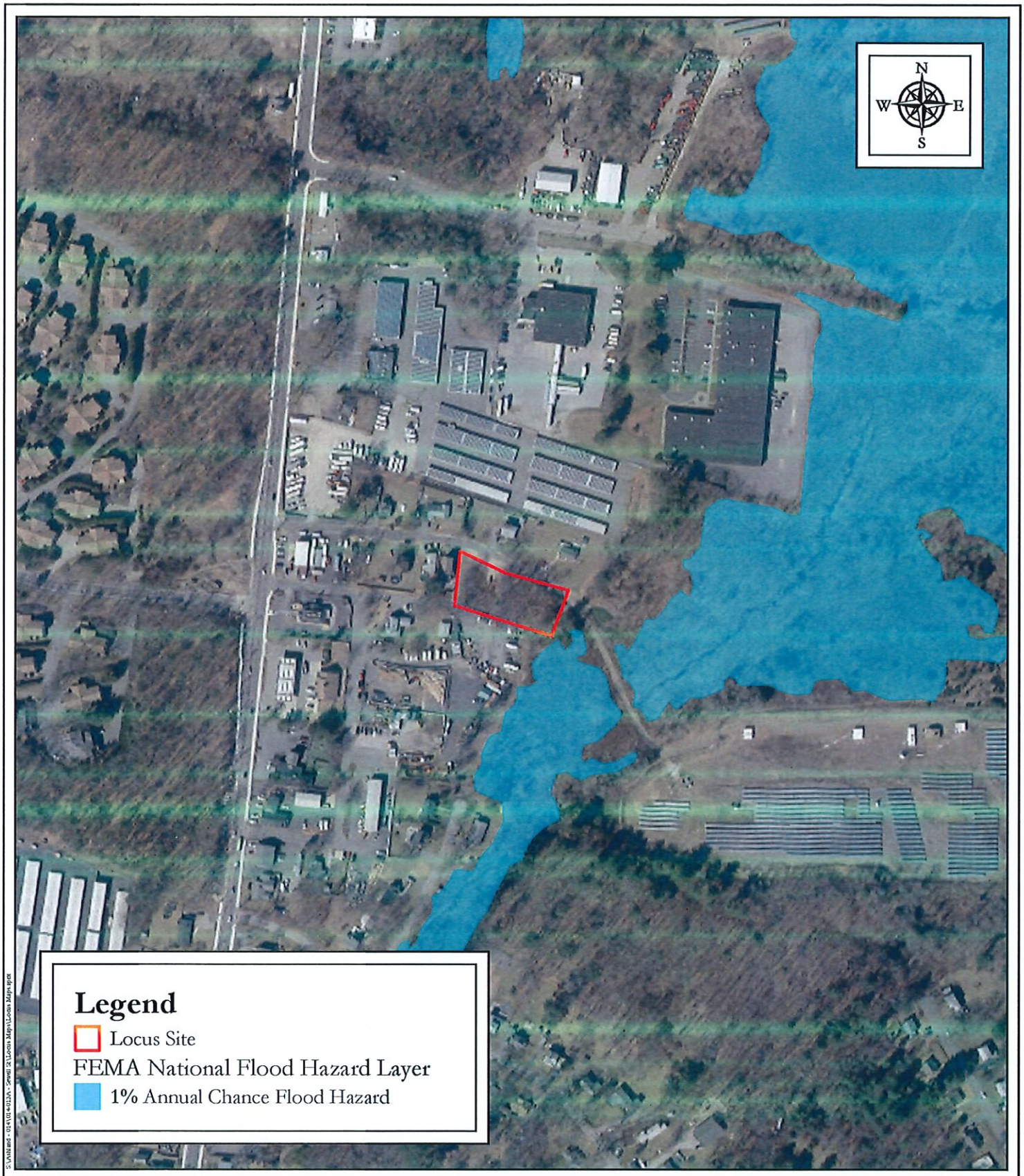
0 60 120 Feet

1" = 120'

71.4280463°W, 42.2480419°N

Parcel ID: 22-23-00-000

Date: 04/07/2025



GODDARD CONSULTING
Strategic Ecological Consulting

FEMA Flood Map of Locus Site

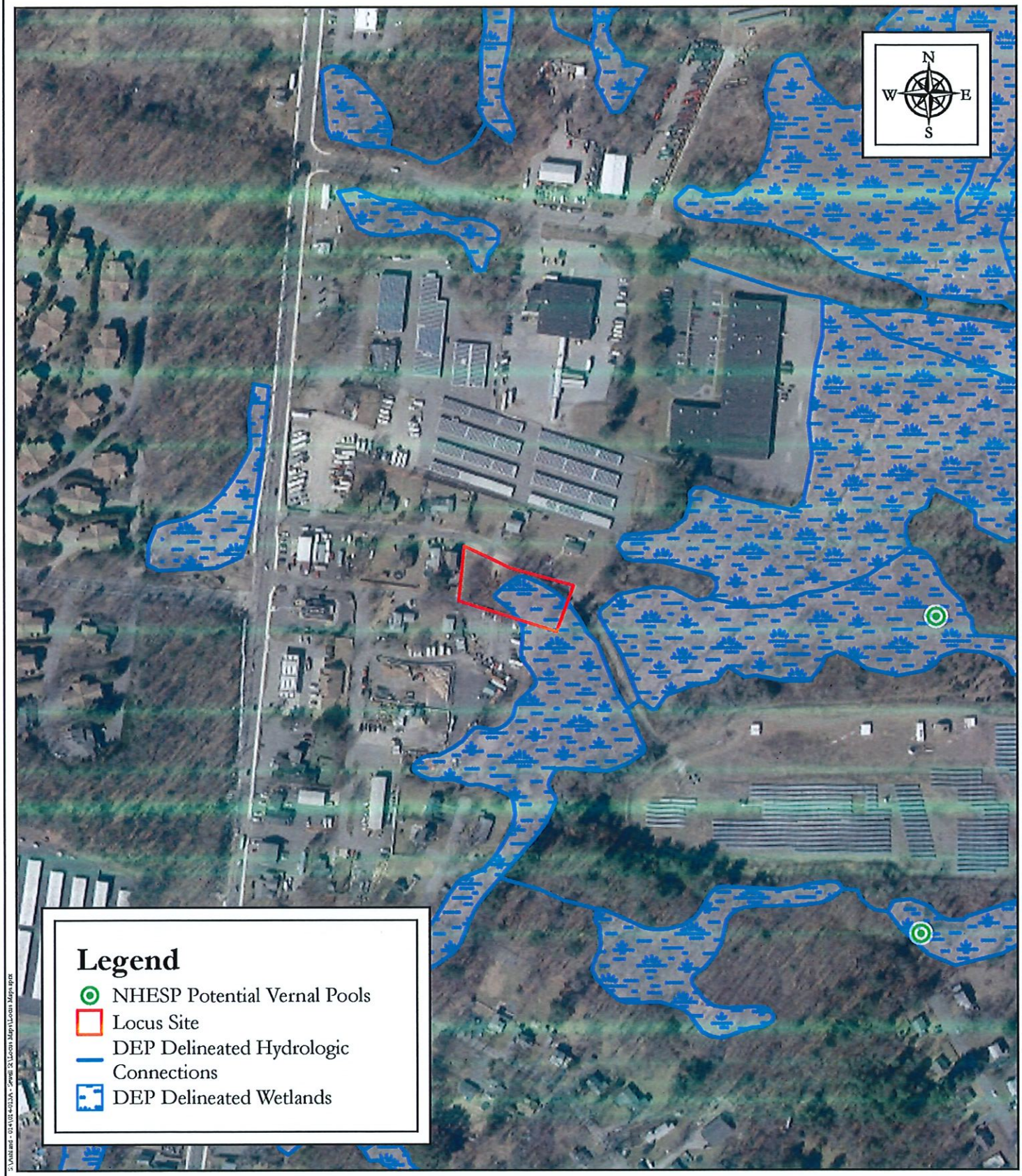
Lots 9A & 10A Sewell Street
Ashland, MA 01721

0 150 300 Feet 1" = 300'

71.4280463°W, 42.2480419°N

Parcel ID: 22-23-00-000

Date: 04/07/2025



GODDARD CONSULTING
Strategic Ecological Consulting

Orthophoto of Locus Site

Lots 9A & 10A Sewell Street
Ashland, MA 01721

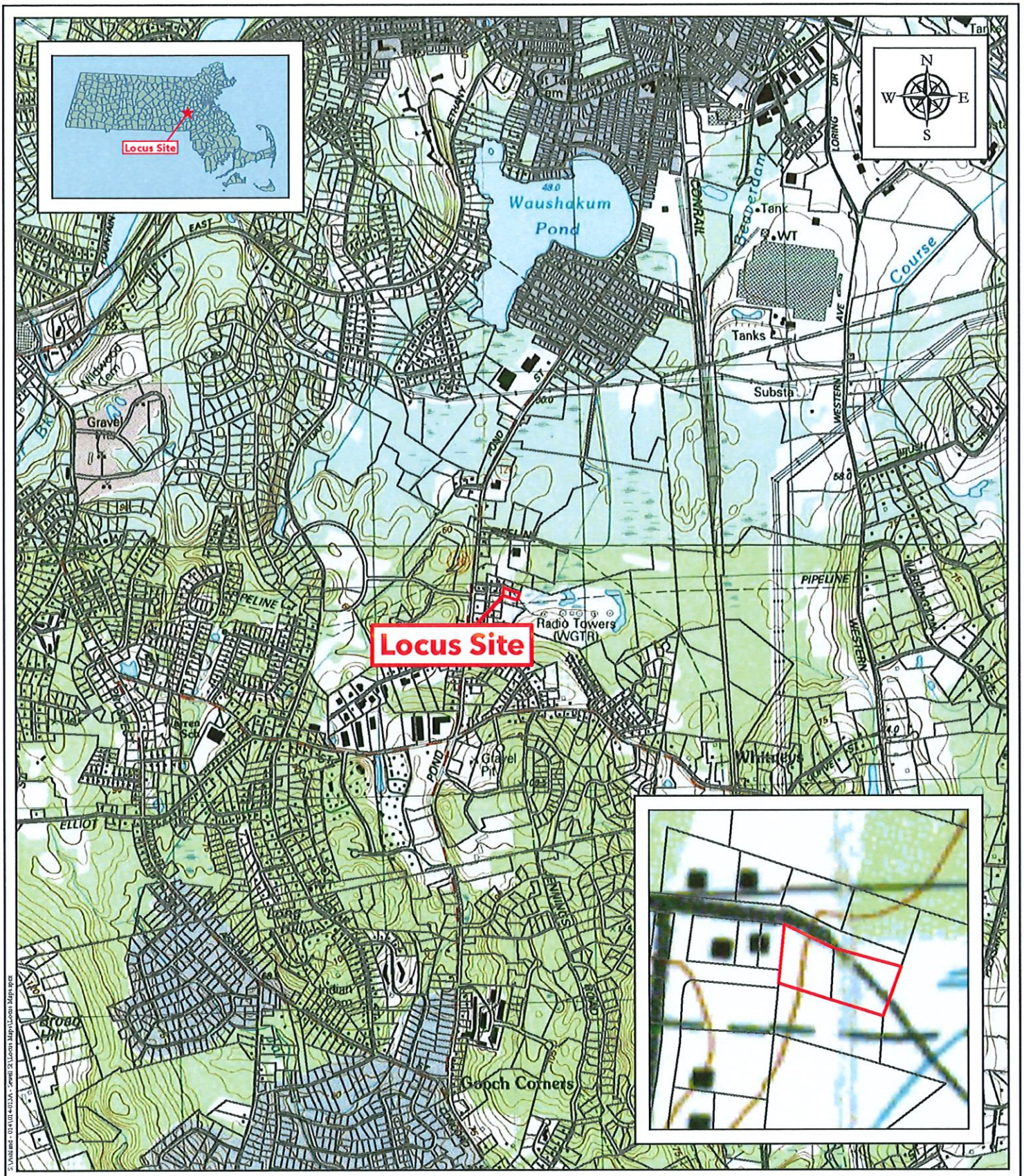
Date: 04/07/2025

0 150 300 Feet

1" = 300'

71.4280463°W, 42.2480419°N

Parcel ID: 22-23-00-000



GODDARD CONSULTING
Strategic Ecological Consulting

USGS of Locus Site

Lots 9A & 10A Sewell Street
Ashland, MA 01721

Date: 04/07/2025

0 1,000 2,000 Feet 1" = 2,000'

71.4280463°W, 42.2480419°N

Parcel ID: 22-23-00-000

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site:	Sewell St	City/Town: Ashland	Sampling Date: 4/2/25
Applicant/Owner:	Realty Executives Boston West	Sampling Point or Zone:	GC 11
Investigator(s):	Nicole Hayes	Latitude/Longitude:	42.2480419, -71.4280463
Soil Map Unit Name:	Windsor	NWI or DEP Classification:	Forested Wetland and scrub shrub wetland

UPGRADIENT

Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? (If yes, explain in Remarks)

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc

Wetland vegetation criterion met?	Yes _____	No X	Is the Sampled Area within a Wetland?	Yes _____	No X
Hydric Soils criterion met?	Yes _____	No X			
Wetlands hydrology present?	Yes _____	No X			

Remarks, Photo Details, Flagging, etc.:

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes	No X	Depth (in)
Water Table Present?	Yes	No X	Depth (in)
Saturation Present (including capillary fringe)?	Yes	No X	Depth (in)

Wetland Hydrology Indicators

Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
___ Water-stained leaves	___ Hydrological records	___ Direct observation of inundation
___ Evidence of aquatic fauna	___ Free water in a soil test hole	___ Drainage patterns
___ Iron deposits	___ Saturated soil	___ Drift lines
___ Algal mats or crusts	___ Water marks	___ Scoured areas
___ Oxidized rhizospheres/pore linings	___ Moss trim lines	___ Sediment deposits
___ Thin muck surfaces	___ Presence of reduced iron	___ Surface soil cracks
___ Plants with air-filled tissue (aerenchyma)	___ Woody plants with adventitious roots	___ Sparsely vegetated concave surface
___ Plants with polymorphic leaves	___ Trees with shallow root systems	___ Microtopographic relief
___ Plants with floating leaves	___ Woody plants with enlarged lenticels	___ Geographic position (depression, toe of slope, fringing lowland)
___ Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

Sampling Point GC 11

VEGETATION -- Use both common and scientific names of plants.

Tree Stratum Plot size 30'

	Common Name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)	% Dominant
1	Red Oak	Quercus rubra	FACU	38.0%	X		50.0%
2	Red Maple	Acer rubrum	FAC	38.0%	X	X	50.0%
3							
4							
5							
6							
7							
8							
9							
				76.0%	=Total Cover		

Shrub/Sapling Stratum Plot size 15'

	Common Name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)	% Dominant
1	White Pine	Pinus strobus	FACU	10.5%	X		100.0%
2							
3							
4							
5							
6							
7							
8							
9							
				10.5%	=Total Cover		

Herb Stratum Plot size 5'

	Common Name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)	% Dominant
1	Sensitive Fern	Onoclea sensibilis	FACW	20.5%	X	X	66.1%
2	Hay Scented Fern	Dennstaedtia punctilobula	UPL	10.5%	X		33.9%
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
				31.0%	=Total Cover		

VEGETATION -- continued.

Woody Vine Stratum	Plot size 30'						
	Common Name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)	% Dominant
1	Oriental Bittersweet	Celastrus orbiculatus	FACU	20.6%	X		100.0%
2							
3							
4							
				20.6%	=Total Cover		

Rapid Test:	Do all dominant species have an indicator status of OBL or FACW?			Yes		No	X
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species?			
	6	2		Yes		No	X
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result			
	OBL species	0%	x1	=	0%		
	FACW species	21%	x2	=	41%		
	FAC species	38%	x3	=	114%		
	FACU species	69%	x4	=	276%		
	UPL species	11%	x5	=	53%		
	Column Totals (A)	138%		(B)	484%		
	Prevalence Index	B/A=	3.50	Is the Prevalence Index ≤ 3.0?			
				Yes		No	X
Wetland vegetation criterion met?	Yes	No X					

Definitions of Vegetation Strata

Tree	Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
Shrub/Sapling	Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall
Herb	All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall
Woody vines	All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.00%
6-15 %	10.50%
15-25 %	20.50%
26-50 %	38.00%
51-75 %	63.00%
76-95 %	85.50%
96-100 %	98.00%

Sampling Point GC 11

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]	Texture	Remarks
0-10"	10YR2/2	100			C=Concentration	M=Matrix		
10-20"	10YR5/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
___ Histosol (A1)	___ Sandy Redox (S5)	___ 2 cm Muck (A10)
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 5 cm Mucky Peat or Peat (S3)
___ Black Histic (A3)	___ Polyvalue Below Surface (S8)	___ Dark Surface (S7)
___ Hydrogen Sulfide (A4)	___ Thin Dark Surface (S9)	___ Polyvalue Below Surface (S8)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1)	___ Thin Dark Surface (S9)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Mesic Spodic (A17)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F8)	___ Very Shallow Dark Surface (TF12)
___ Dark Surface (S7)		___ Other (Include Explanation in Remarks)

Restrictive Layer (if observed) Type: Depth (inches):

Remarks

Hydric Soils criterion met? Yes No X

DOWNGRADIENT

Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? (If yes, explain in Remarks)
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc

Wetland vegetation criterion met?	Yes X	No _____	Is the Sampled Area within a Wetland?	Yes X	No ____
Hydric Soils criterion met?	Yes X	No _____			
Wetlands hydrology present?	Yes X	No _____			

Remarks, Photo Details, Flagging, etc.:

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes	No X	Depth (in)
Water Table Present?	Yes	No X	Depth (in)
Saturation Present (including capillary fringe)?	Yes	No X	Depth (in)

Wetland Hydrology Indicators

Reliable Indicators of Wetlands	Indicators that can be Reliable with	Indicators of the Influence of Water
X Water-stained leaves	___ Hydrological records	___ Direct observation of inundation
___ Evidence of aquatic fauna	___ Free water in a soil test hole	X Drainage patterns
___ Iron deposits	X Saturated soil	___ Drift lines
___ Algal mats or crusts	___ Water marks	___ Scoured areas
___ Oxidized rhizospheres/pore linings	___ Moss trim lines	___ Sediment deposits
___ Thin muck surfaces	___ Presence of reduced iron	___ Surface soil cracks
___ Plants with air-filled tissue (aerenchyma)	___ Woody plants with adventitious roots	___ Sparsely vegetated concave surface
___ Plants with polymorphic leaves	___ Trees with shallow root systems	___ Microtopographic relief
___ Plants with floating leaves	___ Woody plants with enlarged lenticels	___ Geographic position (depression, toe of slope, fringing lowland)
___ Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

Sampling Point GC 11

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 30'

	Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominant
1	Red Maple	Acer rubrum	FAC	38.0%	X	X	100.0%
2							
3							
4							
5							
6							
7							
8							
9							
				38.0%	=Total Cover		

Shrub/Sapling Stratum Plot size 15'

	Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominant
1	Rambler Rose	Rosa multiflora	FACU	3.0%	X		100.0%
2							
3							
4							
5							
6							
7							
8							
9							
				3.0%	=Total Cover		

Herb Stratum Plot size 5'

	Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominant
1	Sensitive Fern	Onoclea sensibilis	FACW	86.0%	X	X	100.0%
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
				86.0%	=Total Cover		

VEGETATION -- continued.

Woody Vine Stratum	Plot size 30'					
	Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland indictor?	% Dominant
1							
2							
3							
4							
				0.0%	=Total Cover		

Rapid Test:	Do all dominant species have an indicator status of OBL or FACW?		Yes		No	X
Dominance Test:	Number of dominant species	Number of dominant species that are	Do wetland indicator plants make			
	3	2	Yes X	No		
Prevalence Index:		Total % Cover	Multiply by:	Result		
	OBL species	0%	x1	=	0%	
	FACW species	86%	x2	=	172%	
	FAC species	38%	x3	=	114%	
	FACU species	3%	x4	=	12%	
	UPL species	0%	x5	=	0%	
	Column Totals (A)	127%		(B)	298%	
	Prevalence Index	B/A=	2.35	Is the Prevalence Index ≤ 3.0?		
				Yes X	No	
Wetland vegetation criterion met?	Yes X	No				

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Sampling Point GC 11

SOIL

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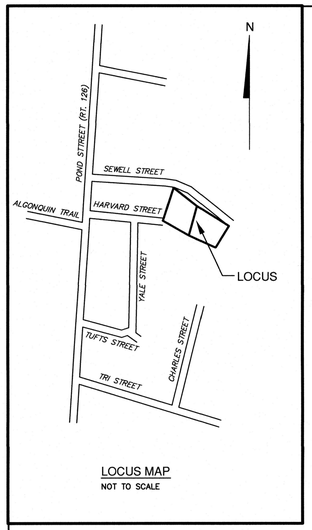
___ Dark Surface (S7)		___ Other (Include Explanation in Remarks)

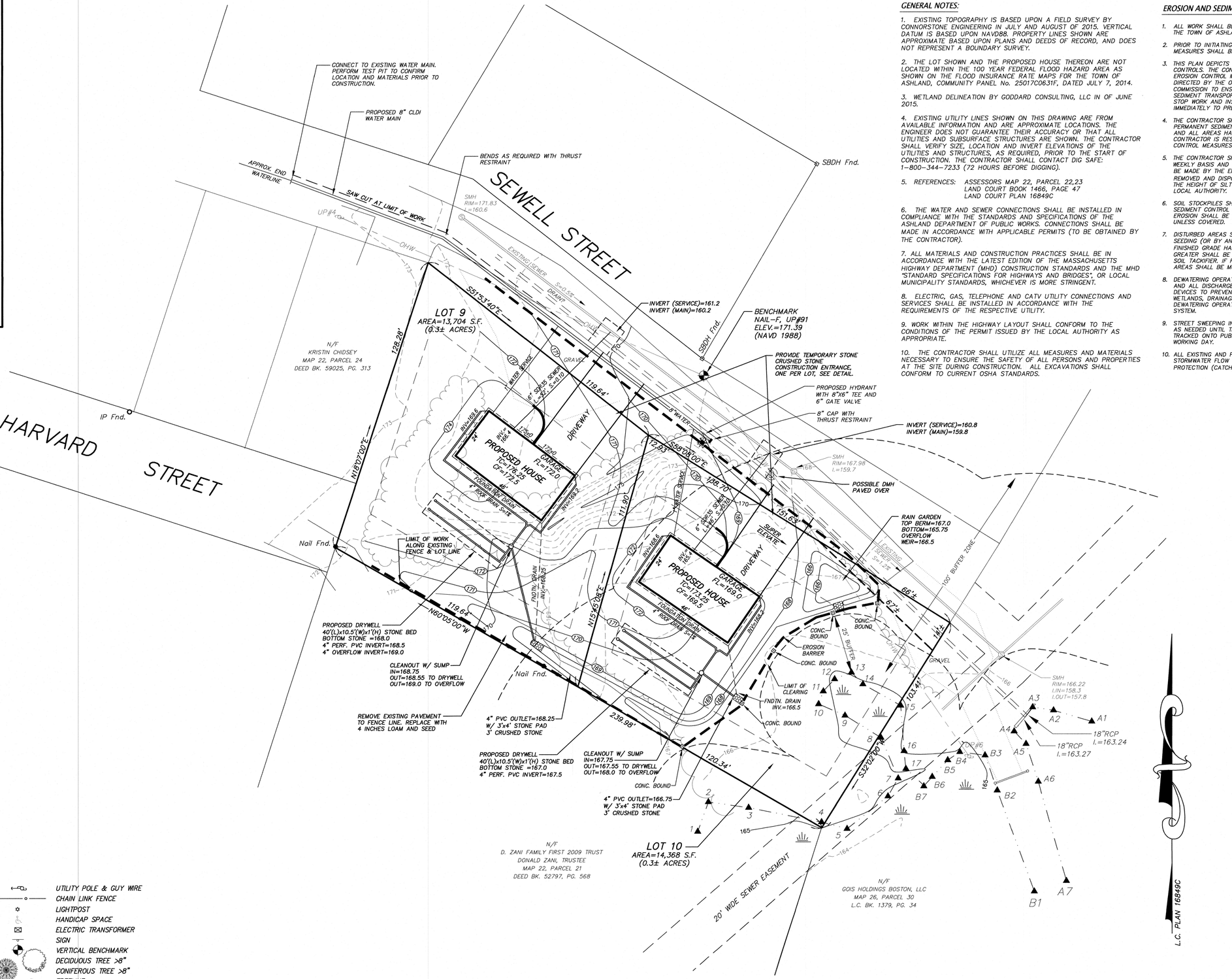
Restrictive Layer (if observed) Type: Depth (inches):

Remarks

Hydric Soils criterion met? Yes X No



LOCUS MAP
NOT TO SCALE



GRAPHIC SCALE: 1"=20'

0 5 10 15 20 25 30 40 50 75 100 FEET
0 1 2 3 4 5 10 15 20 25 30 METERS

GENERAL NOTES:

1. EXISTING TOPOGRAPHY IS BASED UPON A FIELD SURVEY BY CONNORSTONE ENGINEERING IN JULY AND AUGUST OF 2015. VERTICAL DATUM IS BASED UPON NAVD88. PROPERTY LINES SHOWN ARE APPROXIMATE BASED UPON PLANS AND DEEDS OF RECORD, AND DOES NOT REPRESENT A BOUNDARY SURVEY.

2. THE LOT SHOWN AND THE PROPOSED HOUSE THEREON ARE NOT LOCATED WITHIN THE 100 YEAR FEDERAL FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR THE TOWN OF ASHLAND, COMMUNITY PANEL No. 25017C0631F, DATED JULY 7, 2014.

3. WETLAND DELINEATION BY GODDARD CONSULTING, LLC IN OF JUNE 2015.

4. EXISTING UTILITY LINES SHOWN ON THIS DRAWING ARE FROM AVAILABLE INFORMATION AND ARE APPROXIMATE LOCATIONS. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION AND INVERT ELEVATIONS OF THE UTILITIES AND STRUCTURES, AS REQUIRED, PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CONTACT DIG SAFE: 1-800-344-7233 (72 HOURS BEFORE DIGGING).

5. REFERENCES: ASSESSORS MAP 22, PARCEL 22,23
LAND COURT BOOK 1466, PAGE 47
LAND COURT PLAN 16849C

6. THE WATER AND SEWER CONNECTIONS SHALL BE INSTALLED IN COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE ASHLAND DEPARTMENT OF PUBLIC WORKS. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH APPLICABLE PERMITS (TO BE OBTAINED BY THE CONTRACTOR).

7. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MASSACHUSETTS HIGHWAY DEPARTMENT (MHD) CONSTRUCTION STANDARDS AND THE MHD "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", OR LOCAL MUNICIPALITY STANDARDS, WHICHEVER IS MORE STRINGENT.

8. ELECTRIC, GAS, TELEPHONE AND CATV UTILITY CONNECTIONS AND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY.

9. WORK WITHIN THE HIGHWAY LAYOUT SHALL CONFORM TO THE CONDITIONS OF THE PERMIT ISSUED BY THE LOCAL AUTHORITY AS APPROPRIATE.

10. THE CONTRACTOR SHALL UTILIZE ALL MEASURES AND MATERIALS NECESSARY TO ENSURE THE SAFETY OF ALL PERSONS AND PROPERTIES AT THE SITE DURING CONSTRUCTION. ALL EXCAVATIONS SHALL CONFORM TO CURRENT OSHA STANDARDS.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE ORDER OF CONDITIONS ISSUED BY THE TOWN OF ASHLAND CONSERVATION COMMISSION.
2. PRIOR TO INITIATING CONSTRUCTION, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND DETAIL DRAWINGS.
3. THIS PLAN DEPICTS THE MINIMUM REQUIRED SEDIMENTATION AND EROSION CONTROLS. THE CONTRACTOR SHALL EMPLOY ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS NECESSITATED BY SITE CONDITIONS, OR AS DIRECTED BY THE OWNER, THE OWNER'S REPRESENTATIVE, OR THE CONSERVATION COMMISSION TO ENSURE PROTECTION OF ALL WETLAND RESOURCES AND CONTROL SEDIMENT TRANSPORT. IF SEDIMENTATION PLUMES OCCUR, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL SEDIMENTATION CONTROL DEVICES IMMEDIATELY TO PREVENT FURTHER SEDIMENTATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY AND PERMANENT SEDIMENTATION AND EROSION CONTROLS UNTIL WORK IS COMPLETE AND ALL AREAS HAVE BEEN PERMANENTLY STABILIZED. AT SUCH TIME THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SEDIMENTATION AND EROSION CONTROL MEASURES.
5. THE CONTRACTOR SHALL INSPECT SEDIMENTATION AND EROSION CONTROLS ON A WEEKLY BASIS AND IMMEDIATELY BEFORE/AFTER EACH RAINFALL; REPAIRS SHALL BE MADE BY THE END OF THE WORKING DAY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WHEN THE VOLUME REACHES ½ THE HEIGHT OF SILT FENCE OR SEDIMENT TRAP CAPACITY, OR AS DIRECTED BY THE LOCAL AUTHORITY.
6. SOIL STOCKPILES SHALL BE STABILIZED TO PREVENT EROSION, AND A PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED. NO MATERIALS SUBJECT TO EROSION SHALL BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF A WETLAND UNLESS COVERED.
7. DISTURBED AREAS SHALL BE STABILIZED WITH MINIMUM 4 INCHES OF LOAM AND SEEDING (OR BY ANOTHER APPROVED METHOD) AS SOON AS POSSIBLE AFTER THE FINISHED GRADE HAS BEEN MET. DISTURBED AREAS WITH SLOPES 3:1 (H:V) OR GREATER SHALL BE COVERED WITH LOAM AND STABILIZED WITH HYDRO-SEED AND SOIL TACKIFIER. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON AREAS SHALL BE MULCHED WITH STRAW AND SECURED.
8. DEWATERING OPERATIONS, IF REQUIRED, SHALL DISCHARGE ONTO STABILIZED AREAS AND ALL DISCHARGE WATER IS TO PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON WATER BODIES, BORDERING VEGETATED WETLANDS, DRAINAGE SYSTEMS AND ABUTTING PROPERTIES. NO DISCHARGES FROM DEWATERING OPERATIONS SHALL BE DISCHARGED DIRECTLY TO THE DRAINAGE SYSTEM.
9. STREET SWEEPING IN THE VICINITY OF THE PROJECT AREA SHALL BE PERFORMED AS NEEDED UNTIL THE PROJECT LIMITS HAVE BEEN STABILIZED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
10. ALL EXISTING AND PROPOSED DRAINAGE SYSTEM INLETS, WHICH MAY RECEIVE STORMWATER FLOW FROM DISTURBED AREAS, SHALL BE PROVIDED WITH INLET PROTECTION (CATCH BASIN INSERTS).

LEGEND

- DRAIN MAN HOLE
- DRAINAGE LINE
- CATCH BASIN
- SEWER LINE
- SEWER MAN HOLE
- BITUMINOUS CURBING
- EDGE OF PAVEMENT
- GUARD RAIL
- APPROX. WATERLINE
- HYDRANT
- WATERGATE
- APPROX. GAS LINE
- GAS GATE
- UTILITY POLE & GUY WIRE
- CHAIN LINK FENCE
- LIGHTPOST
- HANDICAP SPACE
- ELECTRIC TRANSFORMER
- SIGN
- VERTICAL BENCHMARK
- DECIDUOUS TREE >8"
- CONIFEROUS TREE >8"
- TREELINE
- SPOT GRADE
- WETLAND LINE
- TELEPHONE MAN HOLE

COMMONWEALTH OF MASSACHUSETTS
VITO COLONNA
No. 47635
REGISTERED PROFESSIONAL ENGINEER
6/24/2025

ZONED: VILLAGE COMMERCE CV
ZONED: POND STREET MIXED USE OVERLAY
AREA = 15,000 sf
FRONTAGE = 100 feet
SETBACKS: FRONT = 20 feet
SIDE = 10 feet
REAR = 20 feet

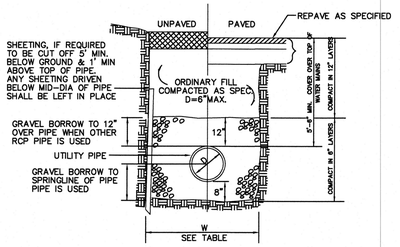
OWNER:
RIMARK LLC
2 CHESTNUT STREET
WAYLAND, MA 01778

CONNORSTONE ENGINEERING INC.
CIVIL ENGINEERS AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532
PHONE: 508-393-9727 FAX: 508-393-5242

NOTICE OF INTENT SITE PLAN
OF
LOTS 9A & 10A SEWELL STREET
IN
ASHLAND, MA

REVISED:	DESCRIPTION:
DRAWN BY: RM	CHECK BY: VC
DATE: JUNE 24, 2025	
SCALE: 1"=20'	SHEET 1 OF 2

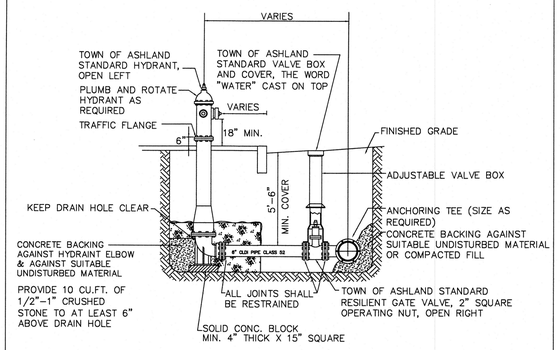
TRENCH WIDTH (W)		
D DIAMETER OF PIPE	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'



IF LEDGE IS ENCOUNTERED, REMOVE TO 12" BELOW BOTTOM OF PIPE AND A MINIMUM TRENCH WIDTH OF PIPE DIAMETER PLUS 12" EITHER SIDE OF PIPE.

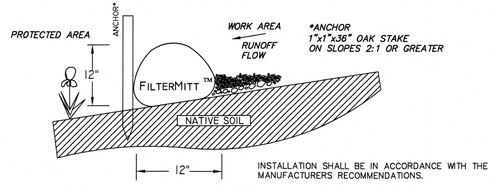
TYPICAL TRENCH SECTION

NOT TO SCALE



TYPICAL HYDRANT & VALVE DETAIL

NOT TO SCALE



SECTION VIEW

EROSION BARRIER / MULCH FILTER SOCK DETAIL

NOT TO SCALE

GENERAL SEQUENCE OF CONSTRUCTION ACTIVITIES:

1. INSTALL SILTATION BARRIERS AS INDICATED ON THE PLANS
2. ROUGH GRADE ENTRANCE AND INSTALL CONSTRUCTION STONE ENTRANCE. CONSTRUCTION STONE ENTRANCE TO BE REPLACED AS NEEDED TO PROVIDE ADEQUATE STORAGE CAPACITY FOR ACCUMULATED SEDIMENT STORAGE FROM VEHICLES LEAVING THE SITE.
3. CUT AND REMOVE TREES.
4. REMOVE AND DISPOSE OF STUMPS.
5. PREPARE STOCKPILE AREAS.
6. STRIP AND STOCKPILE TOP AND SUB SOIL.
7. PERFORM SITE GRADING.
8. CONSTRUCT BUILDING FOUNDATIONS.
9. BACKFILL FOUNDATIONS.
10. CONSTRUCT STRUCTURES, WATER LINES, SEWER LINES, ETC..
11. INSTALL ROOF DRAIN DRYWELLS FOR EACH DWELLING AS THEY ARE CONSTRUCTED. KEEP SEDIMENT OUT OF DRYWELL AREAS.
12. AND PERFORM FINAL GRADING.
13. CONSTRUCT AND PAVE DRIVEWAYS
14. STABILIZE DISTURBED AREAS WITH LOAM AND SEED.
15. ONCE SITE IS COMPLETE REMOVE ALL SEDIMENT CONTROL DEVISES.

WATER SYSTEM NOTES:

1. THE WATER SYSTEM SHALL BE INSTALLED IN COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE ASHLAND DEPARTMENT OF PUBLIC WORKS, WATER AND SEWER DIVISION, ZONING DIVISION 5 CHAPTER 334.
2. TEST PITS SHALL BE PERFORMED PRIOR TO CONSTRUCTION AT OREGON ROAD TO VERIFY THE LOCATION, SIZE, MATERIAL AND CONDITION OF THE EXISTING MAIN, AND TO DETERMINE WHAT FITTINGS, ADAPTERS, ETC. ARE BE REQUIRED.
3. UNLESS OTHERWISE SPECIFIED BY THE LOCAL AUTHORITY, WATER MAINS SHALL BE 8-INCH CEMENT LINED DUCTILE IRON PIPE, CLASS 52. FITTINGS SHALL BE CLASS 250 DUCTILE IRON OR CAST IRON. CLASS 350 SHORT BODIED FITTINGS MAY BE USED AT THE CONTRACTOR'S OPTION, UNLESS OTHERWISE INDICATED, FITTINGS SHALL HAVE RESTRAINED MECHANICAL JOINTS.
4. THE FINAL LOCATION OF HYDRANTS AND CONFIRMATION OF THE EXACT LOCATION DURING CONSTRUCTION SHALL BE REVIEWED BY THE ASHLAND FIRE CHIEF.
5. MINIMUM FIVE FEET OF COVER SHALL BE PROVIDED OVER ALL PROPOSED WATER MAINS AND SERVICES. APPROPRIATE THRUST BLOCKING SHALL BE INSTALLED.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, TO KEEP ACCURATE MEASUREMENTS / RECORDS OF THE WATER MAIN AND SERVICE INSTALLATION.

OPERATION AND MAINTENANCE PLAN:

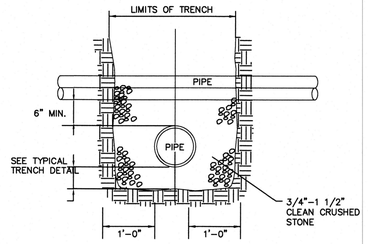
1. DRYWELLS: MAINTENANCE AND INSPECTION OF THE DRYWELL AND ASSOCIATED COMPONENTS SHOULD BE PERFORMED A MINIMUM OF TWICE PER YEAR. INSPECTIONS SHOULD BE PERFORMED AFTER A RAINFALL EVENT OVER 1/2 INCH. GUTTERS SHOULD BE CLEANED TO ENSURE CAPACITY AND REDUCE DEBRIS INTO THE DRYWELL. THE INLET SUMP SHALL BE OPENED, CLEANED OF DEBRIS, AND VERIFY CONDITION OF OUTLET TEE. HEAVY ACCUMULATION IN THE SUMP OR GUTTERS MAY INDICATE INCREASED CLEANING IS REQUIRED. THE DRYWELL SHOULD BE OPENED AND INSPECTED TO SEE IF IT IS DRAINING PROPERLY. THE INSPECTOR SHALL UTILIZE THE INSPECTION PORT ON THE END OF THE SYSTEM. IF THE DRYWELL DOES NOT DRAIN WITHIN 72 HOURS OF THE END OF A STORM, THEN REMEDIATION IS NECESSARY AND REPLACEMENT MAY BE REQUIRED. AT A MINIMUM DRYWELLS SHALL BE INSPECTED ONCE ANNUALLY.

2. VEGETATION: THE INITIAL VEGETATION INSPECTION SHALL OCCUR FOUR (4) WEEKS AFTER FINAL STABILIZATION; VEGETATION SHOULD BE DENSE. THE INSPECTOR SHALL DETERMINE: (1) WHETHER FERTILIZING IS REQUIRED (2) THE AREAS WHERE GRASS SHOULD BE MOWED, AND (3) THE AREAS WHICH SHOULD BE PROTECTED AGAINST EROSION. IN ADDITION, RECENTLY SEEDED AREAS SHOULD BE INSPECTED FOR FAILURES.

ERODED AREAS SHOULD BE FILLED AND COMPACTED, IF NECESSARY, AND RESEEDED AS SOON AS POSSIBLE. IF AN AREA ERODES TWICE, THEN A GEOTEXTILE FABRIC IS TO BE INSTALLED TO STABILIZE THE AREA TO ALLOW VEGETATION TO BE ESTABLISHED. THESE MAINTENANCE ACTIVITIES SHOULD TAKE PLACE DURING THE PLANTING SEASON. AREAS AFFECTED BY LACK OF RAINFALL SHOULD BE WATERED. IF A RECENTLY ESTABLISHED VEGETATED AREA IS DETERMINED TO BE INADEQUATE FOR EROSION CONTROL IT SHALL BE REFERTILIZED WITH MICROBIAL RELEASE, NOT SULFUR ENCAPSULATED, FERTILIZER, (USING HALF OF THE RATE ORIGINALLY APPLIED). IF THE STAND IS MORE THAN 60% DAMAGED, IT SHOULD BE REESTABLISHED, FOLLOWING THE ORIGINAL PREPARATION AND SEEDING INSTRUCTIONS. AREAS OF REPEATED EROSION/SCOUR PROBLEMS SHOULD BE LINED WITH RIPRAP ONLY AFTER TWICE ATTEMPTING TO STABILIZE THE AREA WITH GEOTEXTILE FABRIC.

3. SOURCE CONTROL/POLLUTION PREVENTION. THE FOLLOWING SOURCE CONTROL AND POLLUTION PREVENTION MEASURES SHALL BE EMPLOYED ON THE SITE TO PREVENT CONTAMINATION OF STORMWATER RUNOFF:

- STORE LAWN AND DEICING CHEMICALS UNDER COVER
- APPLY FERTILIZERS AND PESTICIDES SPARINGLY TO PREVENT WASH-OFF
- USE OF SLOW RELEASE NITROGEN AND LOW PHOSPHORUS FERTILIZERS IS REQUIRED
- NO FERTILIZATION OR PESTICIDE APPLICATION IN OR NEAR ANY WETLAND RESOURCE AREA
- PICK UP PET WASTE, DISPOSE OF PROPERLY IN TRASH
- STORE, USE AND DISPOSE OF HOUSEHOLD HAZARDOUS WASTES PROPERLY
- LIMIT EXTERIOR WASHING OF VEHICLES TO LOCATIONS THAT DRAIN TO PERVIOUS SURFACES AND AWAY FROM STORM DRAINS
- MAINTAIN VEHICLES AND CLEAN UP FLUID SPILLS/DRIPS FROM PAVEMENT AREAS
- USE ALTERNATIVE DEICERS SUCH AS CALCIUM CHLORIDE AND MAGNESIUM CHLORIDE IN LIEU OF SODIUM BASED DEICERS
- NO COAL TAR-BASED PAVEMENT SEALANTS ARE TO BE USED ON SITE.

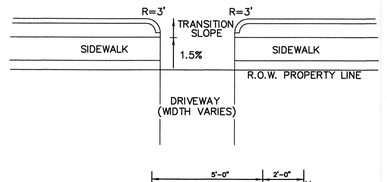


NOTE: FOR WATER AND SEWER CROSSINGS MANTAIN 18 INCHES OF SEPERATION BETWEEN PIPES. LAY PIPES SUCH THAT CONNECTION JOINTS ARE 10 FEET EITHER SIDE OF THE CROSSING. ALL WATER PIPES LAID OVER SEWER PIPES.

SEWER PIPE SHALL BE CLASS 150 PRESSURE PIPE.

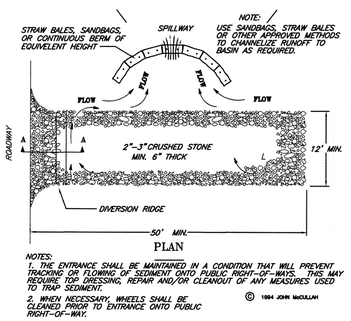
UTILITY CROSSING DETAIL

NOT TO SCALE



TYPICAL DRIVEWAY SCHEMATIC

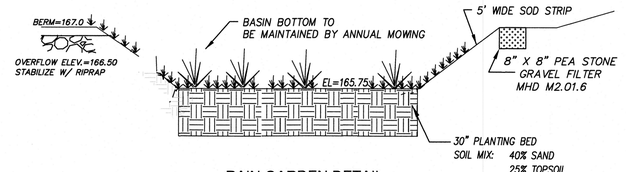
NOT TO SCALE



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

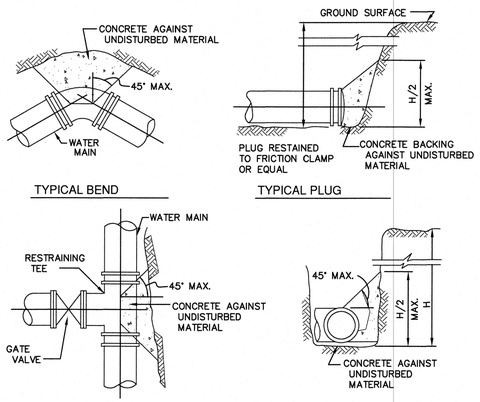
NOT TO SCALE

SEED BOTTOM OF RAIN GARDEN WITH:
NEW ENGLAND EROSION CONTROL/RESTORATION MIX
(FOR DETENTION BASIN AND MOIST SITES)
PLANT PERIMETER OF BASIN AND SIDE SLOPES WITH:
INK BERRY (3 MINIMUM) AND WINTERBERRY (3 MINIMUM)



RAIN GARDEN DETAIL

NOT TO SCALE



TYPICAL BEND — TYPICAL PLUG

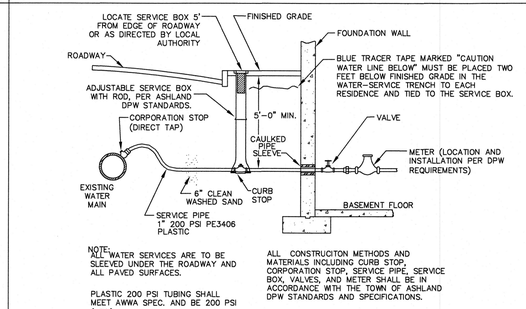
TYPICAL TEE & VALAVE — TYPICAL SECTION

NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)				
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES
6 AND 8	8	8		8
10 AND 12	22	13	8	16

TYPICAL THRUST BLOCK DETAIL

NOT TO SCALE



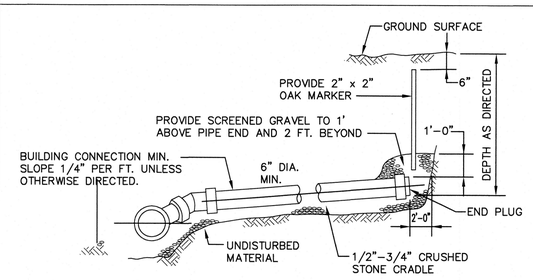
NOTE: ALL WATER SERVICES ARE TO BE SLEEVED UNDER THE ROADWAY AND ALL PAVED SURFACES.

PLASTIC 200 PSI TUBING SHALL MEET AWWA SPEC. AND BE 200 PSI (MIN.)

ALL CONSTRUCITON METHODS AND MATERIALS INCLUDING CURB STOP, CORPORATION STOP, SERVICE PIPE, SERVICE BOX, VALVES, AND METER SHALL BE IN ACCORDANCE WITH THE TOWN OF ASHLAND DPW STANDARDS AND SPECIFICATIONS.

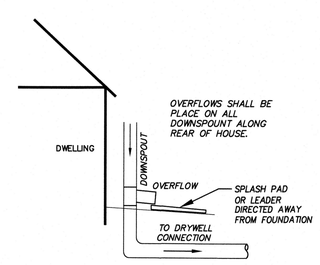
TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE



TYPICAL BUILDING CONNECTION

NOT TO SCALE



ROOF GUTTER
CONNECTION SCHEMATIC

NOT TO SCALE

OWNER:

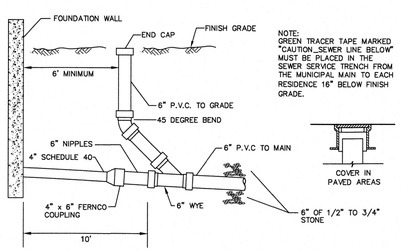
RIMARK LLC
2 CHESTNUT STREET
WAYLAND, MA 01778

CONNORSTONE ENGINEERING INC.

CIVIL ENGINEERS AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532
PHONE: 508-393-9727 FAX: 508-393-5242

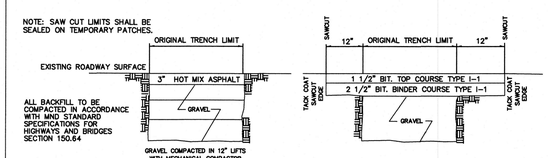
NOTICE OF INTENT SITE PLAN OF LOTS 9A & 10A SEWELL STREET IN ASHLAND, MA

REVISED:	DESCRIPTION:
DRAWN BY: RM	CHECK BY: VC
DATE: JUNE 24, 2025	
SCALE: 1"=20'	SHEET 2 OF 2.



SEWER SERVICE LINES CLEANOUT & FITTINGS

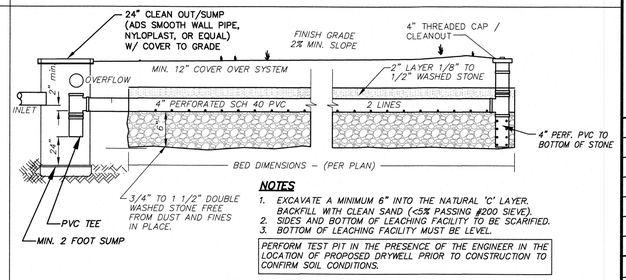
NOT TO SCALE



TEMPORARY PATCH — PERMANENT PATCH

TYPICAL PAVEMENT PATCH DETAIL

NOT TO SCALE



NOTES

1. EXCAVATE A MINIMUM 6" INTO THE NATURAL 'C' LAYER. BACKFILL WITH CLEAN SAND (<5% PASSING #200 SIEVE).
2. SIDES AND BOTTOM OF LEACHING FACILITY TO BE SCARIFIED.
3. BOTTOM OF LEACHING FACILITY MUST BE LEVEL.

PERFORM TEST PIT IN THE PRESENCE OF THE ENGINEER IN THE LOCATION OF PROPOSED DRYWELL PRIOR TO CONSTRUCTION TO CONFIRM SOIL CONDITIONS.

DRYWELL LEACHING BED

NOT TO SCALE

STORMWATER REPORT & DOCUMENTATION

Sewell Street
Ashland, Massachusetts

June 24, 2025

Prepared by:
Connorstone Engineering, Inc.
10 Southwest Cutoff, Suite 7
Northborough, MA

The purpose of this analysis is to design a Stormwater Management System in accordance with the Ashland Stormwater Management Bylaw and the Massachusetts Stormwater Standards. This report provides a summary of the Stormwater Management System, and required documentation to verify compliance with the Standards. The overall stormwater design has incorporated the development of both lots.

Project Narrative:

Location: The subject site consists of two parcels located at the end of Sewell Street containing a total of 0.64 acres. The parcels are shown on Assessors Map 22 as parcels 23 and 22. The site falls within the Village Commerce (VC) zoning district which requires minimum 15,000 sq. ft. lot area with 100 feet of frontage.

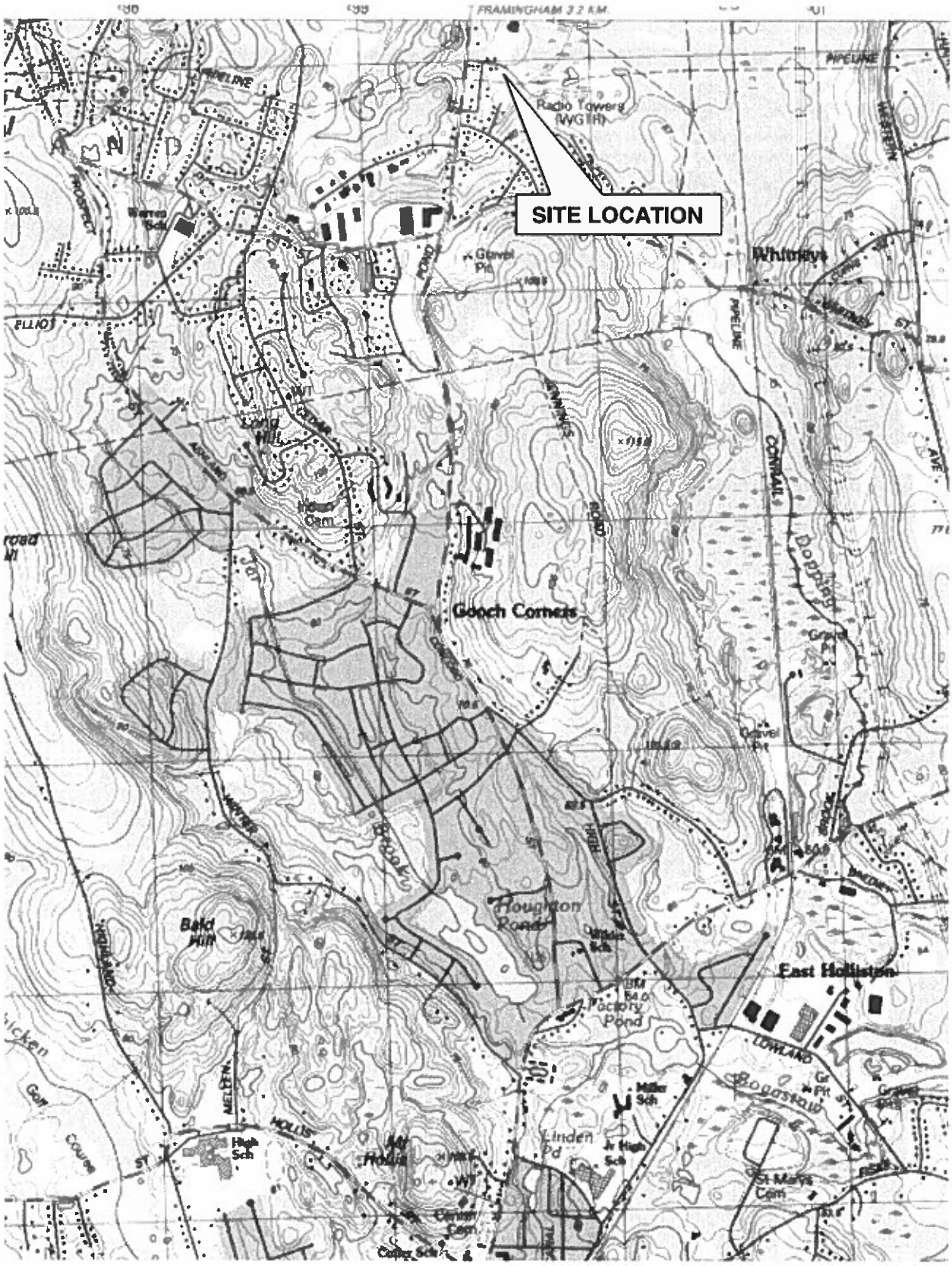
Existing Conditions: The existing conditions are undeveloped, but the site has been previously disturbed over the years. The site conditions generally include a soil stockpile in the center of the site that has been overgrown with vegetation, and the adjacent flatter areas on either side consist of gravel or compacted dirt surfaces. Areas to the easterly side are wooded and slope down to a regulated wetland.

Soils: The Natural Resource Conservation Service has mapped the soils as Windsor and Merrimac soils, which are well drained soils with good depth to groundwater and ledge. Both are classified as a hydrologic soil group (HSG) A soil.

Proposed Project: The proposed plan includes development of the parcel with two (2) single family dwelling units. Each unit will be connected to Town sewer, which is located within Sewell Street. Water will be extended 285 feet down Sewell Street to service the units, and a hydrant will be added at the end of the line. The proposed development will result in an increase of new impervious area of approximately 1,700 square feet, and will require a land disturbance area of approximately 23,000 sq. ft.

The proposed stormwater management system has provided roof drain drywells designed to infiltrate all runoff through the ten year 4.7 inch storm. The drywells provide both recharge to groundwater and peak rate control. As well as a rain garden to allow for extra groundwater recharge. The remaining uncollected areas discharge via sheet flow or along the gutter line of Sewell Street toward the downgradient wetlands. A minimum 25 foot undisturbed vegetated buffer has been maintained upgradient of the on-site wetland resource areas.

USGS LOCUS MAP



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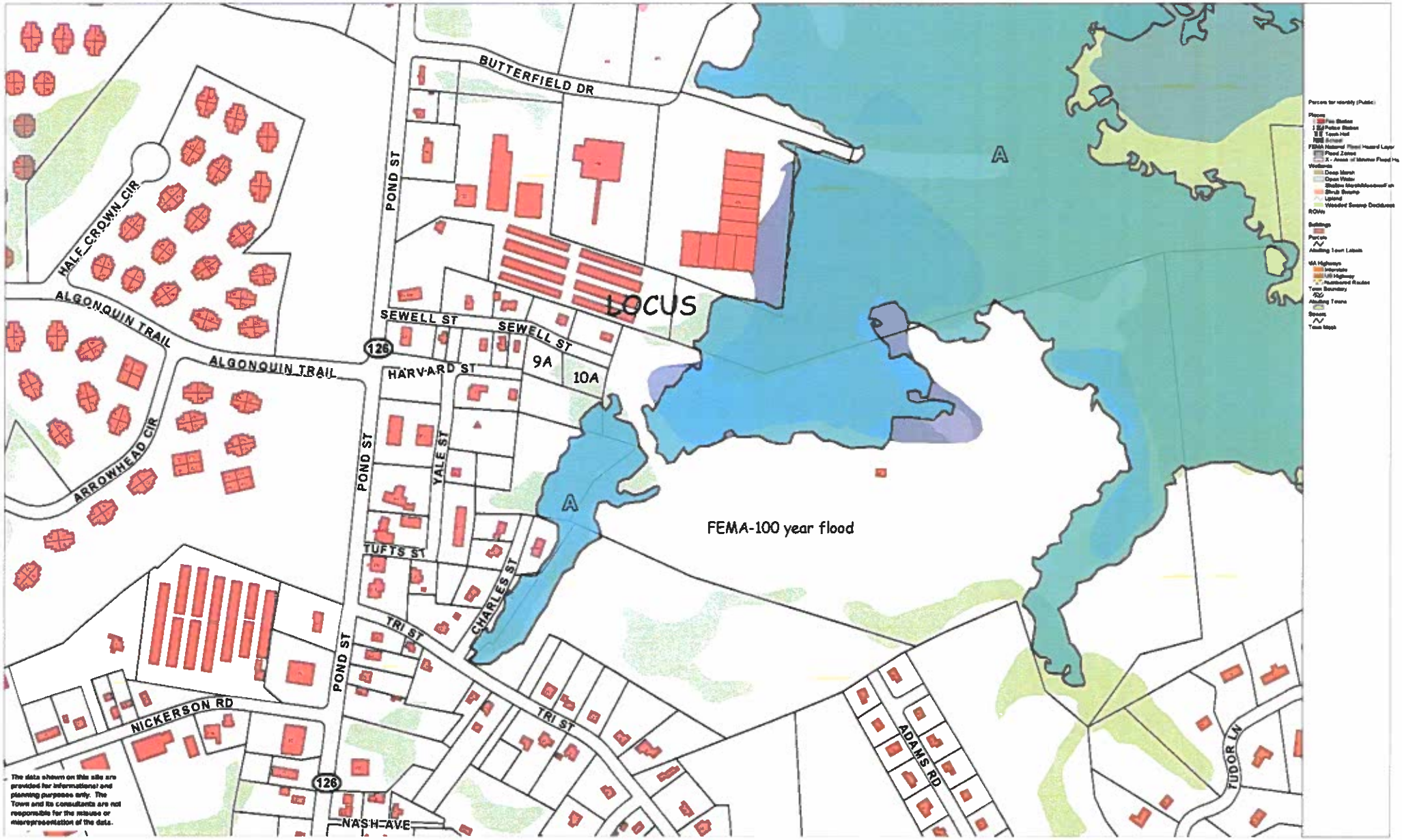
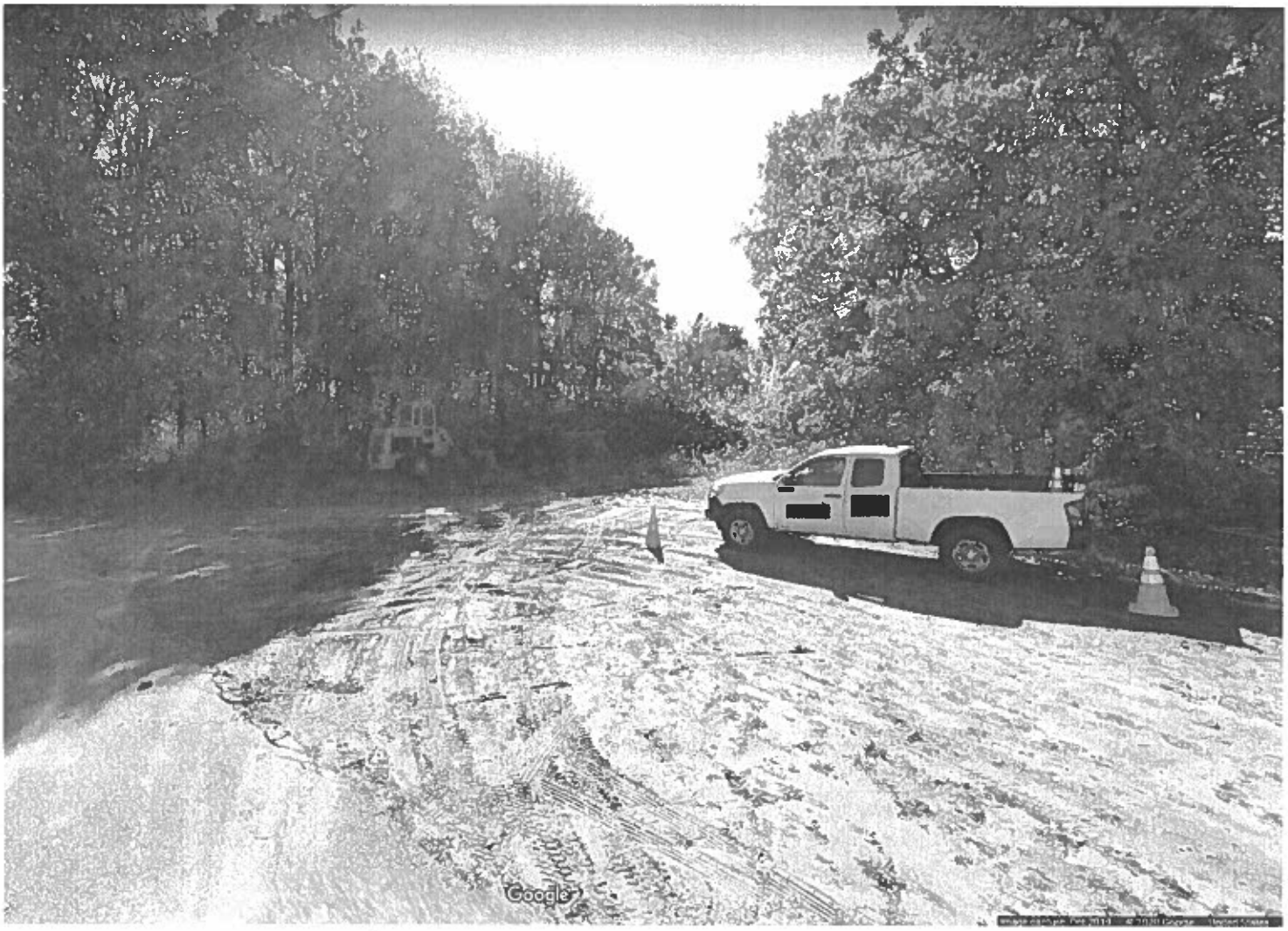
MapsOnline


BUTTERFIELD DR
POND ST
HALF CROWN CIR
ALGONQUIN TRAIL
ALGONQUIN TRAIL
SEWELL ST
SEWELL ST
LOCUS
126
HARVARD ST
9A
10A
ARROWHEAD CIR
POND ST
YALE ST
A
A
FEMA-100 year flood
TUFTS ST
CHARLES ST
TRI ST
TRI ST
POND ST
NICKERSON RD
126
NASH AVE
ADAMS RD
FUDOR LN
The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.
0
350
700 ft
Printed on 11/17/2016 at 01:52 PM
MapsOnline

GOOGLE STREET VIEW – OCT 2019



MA D.E.P. STORMWATER STANDARDS

Standard 1: No New Untreated Discharges

1. There are no new untreated point discharges to any wetland resource area.

2. Stormwater discharge outlets have been protected with stone aprons

Standard 2: Peak Rate Attenuation

An analysis was performed to determine the peak rate of stormwater runoff leaving the site, and design a stormwater management system in accordance with the Massachusetts Department of Environmental Protection Stormwater Management Standard 2.

The pre- and post-development stormwater runoff has been analyzed using HydroCAD 9.10, which is a stormwater modeling computer program utilizing a collection of techniques for the generation and routing of hydrographs, including Soil Conservation Service (SCS) Technical Release No. 20 (TR-20) and SCS Technical Release 55 (TR-55), *Urban Hydrology for Small Watersheds.*

Rainfall depths for the design storms were taken from NOAA's National Weather Service Atlas 14. The rainfall depths used in the calculations are listed below:

2 year	3.35
10 year	5.24
25 year	6.42
100 year	8.24

One analysis point was utilized for the existing and proposed conditions:
Analysis Point A Downgradient Wetland

Existing conditions were compared to proposed conditions to ensure that the proposed design will not increase the rate of runoff from the site and/or result in downstream impacts. A summary of the results is as follows:

Analysis Point A: Downgradient Wetland

	2-Year Storm Existing (Proposed)	10-Year Storm Existing (Proposed)	25-Year Storm Existing (Proposed)	100-Year Storm Existing (Proposed)
Runoff (cfs)	0.01 cfs (0.00 cfs)	0.18 cfs (0.08 cfs)	0.48 cfs (0.25 cfs)	1.14 cfs (0.79 cfs)
Volume (af)	0.00 af (0.00 af)	0.03 af (0.02 af)	0.06 af (0.04 af)	0.12 af (0.09 af)

Standard 3: Stormwater Recharge

The proposed Stormwater management system has been designed to provide recharge of stormwater in excess of that required by Standard 3. Recharge has been provided through the proposed drywells.

Required Recharge Volume:

Post development impervious area = 4,350 S.F.
Onsite hydrologic soil group = A (0.6 inches of runoff)
Required Volume = 4,350 S.F. x 0.6 x 1/12 = **217.5 Cubic Feet**

Proposed Recharge Volume: **840 Cubic Feet**

Separation to Groundwater

Depth to groundwater has been assumed based upon available soil mapping and surface indications including elevation of on-site wetlands. Groundwater has been assumed to be at elevation 165. A note has been shown on the plans requiring a test pit prior to construction to confirm soil conditions.

Draw down Time (maximum 72 hours allowable):

Drywell – (420 cubic feet) / (8.27 in/hr * 1/12 * 420 sq. ft.) = 1.5 hours
A mounding analysis has also been attached to verify the drawdown and breakout.

Standard 4: Water Quality

The proposed paved areas will include residential driveways, which typically do not generate large amounts of pollutants. The proposed project is below the thresholds that would require treatment under the Massachusetts DEP Stormwater Standards (four or fewer dwelling units). However, a rain garden has been proposed as part of the project based upon Town input for treatment of the lower drive area closest to the wetland areas.

Tributary driveway area = 760 s.f. x 1" water quality volume = 63 cubic feet required
Proposed water quality volume within rain garden = 220 cubic feet proposed

TSS Removal = 90% per latest MassDEP Stormwater Handbook

Standard 5: Land Uses With Higher pollutant Loads

Not applicable - The proposed use is not classified as a land use with higher pollutant loads.

Standard 6: Critical Areas

Not applicable – The site does not contain any critical areas.

Standard 7: Redevelopment

Not applicable

Standard 8: Construction Period Controls

A Construction Period Pollution Prevention / Erosion Control measures have been provided on the site plans along with a typical sequencing plan.

Standard 9: Operation and Maintenance Plan

A recommended Operation and Maintenance Plan has been provided on the plans.

Standard 10: Illicit Discharges

Based upon site observations, no illicit discharges have been observed on the site.

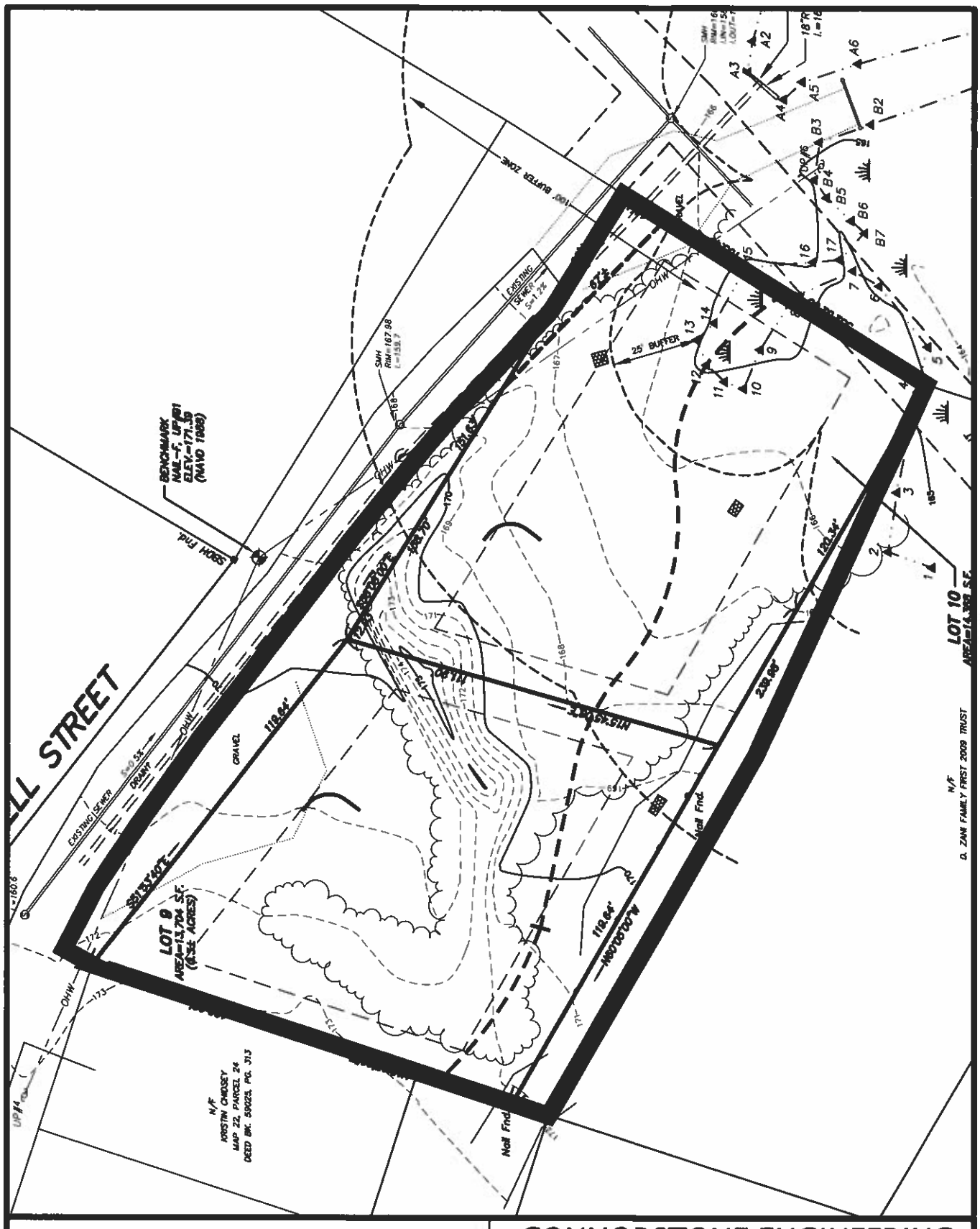
Illicit discharges are prohibited. Each dwelling unit will be connected to the municipal sewer collection system.

HYDROCAD CALCULATIONS

EXISTING CONDITION
2 Year, 10 Year,
& 100 Year Storm
Calculation Sheets

AND

PROPOSED CONDITION
2 Year, 10 Year,
& 100 Year Storm
Calculation Sheets



EXISTING DRAINAGE AREAS
SEWELL STREET
ASHLAND, MA
SCALE 1"=40'

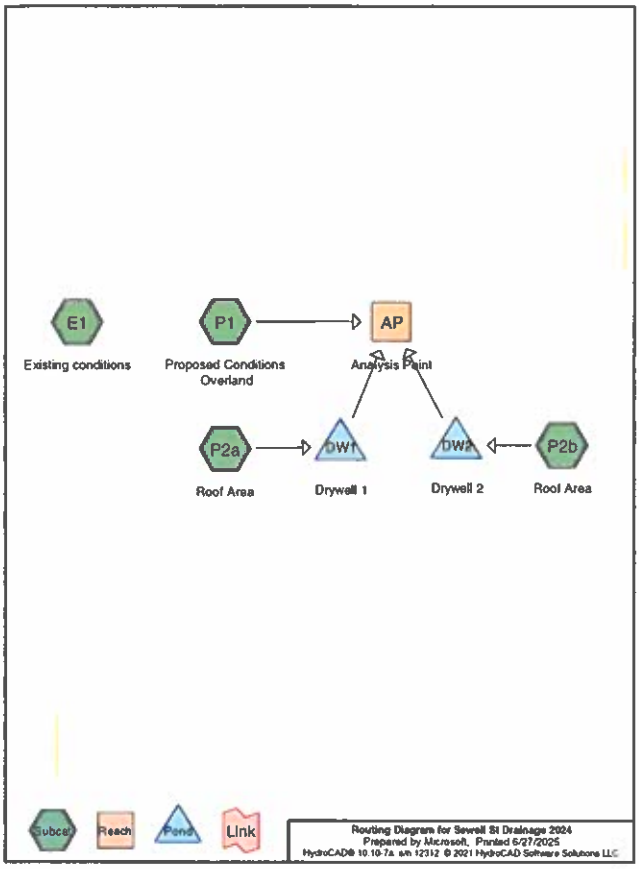
CONNORSTONE ENGINEERING

CONSULTING CIVIL ENGINEERS
AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532

PROPOSED DRAINAGE AREAS
SEWELL STREET
ASHLAND, MA
SCALE 1"=40'

CONNORSTONE ENGINEERING

CONSULTING CIVIL ENGINEERS
AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532



Summary for Subcatchment E1: Existing conditions

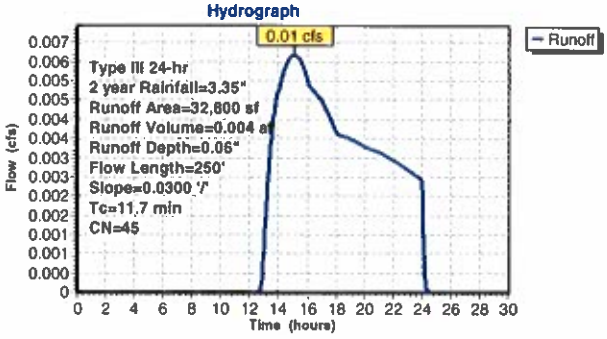
Runoff = 0.01 cfs @ 15.11 hrs, Volume= 0.004 af, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.35"

Area (sf)	CN	Description
3,400	76	Gravel roads, HSG A
7,650	49	50-75% Grass cover, Fair, HSG A
19,100	30	Woods, Good, HSG A
2,650	98	Paved parking, HSG A
32,800	45	Weighted Average
30,150		91.92% Pervious Area
2,650		8.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	50	0.0300	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.20"
1.2	200	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
11.7	250	Total			

Subcatchment E1: Existing conditions



Summary for Subcatchment P1: Proposed Conditions Overland

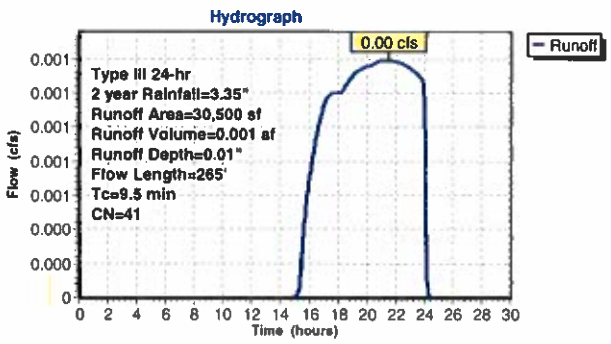
Runoff = 0.00 cfs @ 21.49 hrs, Volume= 0.001 af, Depth= 0.01"
Routed to Reach AP : Analysis Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.35"

Area (sf)	CN	Description
600	76	Gravel roads, HSG A
23,450	39	>75% Grass cover, Good, HSG A
5,000	30	Woods, Good, HSG A
0	98	Roofs, HSG A
1,450	98	Paved parking, HSG A
30,500	41	Weighted Average
29,050		95.25% Pervious Area
1,450		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0200	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.20"
1.3	215	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.5	265	Total			

Subcatchment P1: Proposed Conditions Overland



Summary for Subcatchment P2a: Roof Area

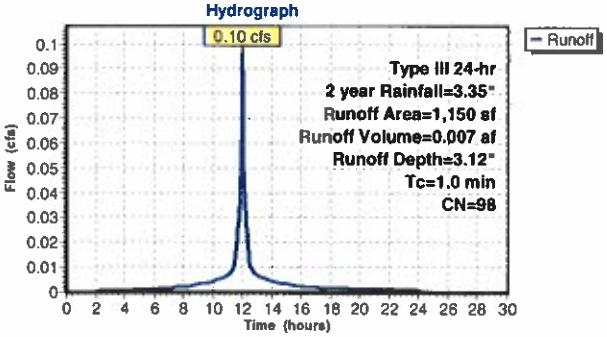
Runoff = 0.10 cfs @ 12.01 hrs, Volume= 0.007 af, Depth= 3.12"
Routed to Pond DW1 : Drywell 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.35"

Area (sf)	CN	Description
1,150	98	Paved parking, HSG A
1,150		100.00% Impervious Area

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

Subcatchment P2a: Roof Area



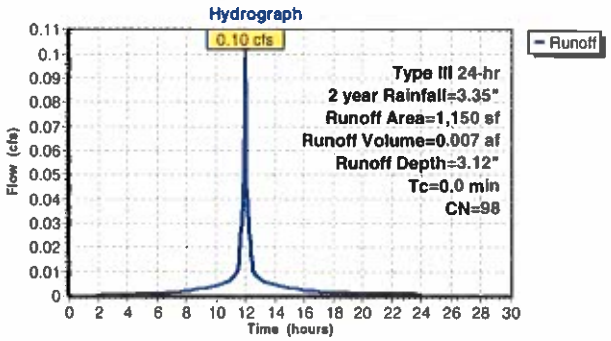
Summary for Subcatchment P2b: Roof Area

Runoff = 0.10 cfs @ 12.00 hrs, Volume= 0.007 af, Depth= 3.12"
Routed to Pond DW2 : Drywell 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.35"

Area (sf)	CN	Description
1,150	98	Roofs, HSG A
1,150		100.00% Impervious Area

Subcatchment P2b: Roof Area

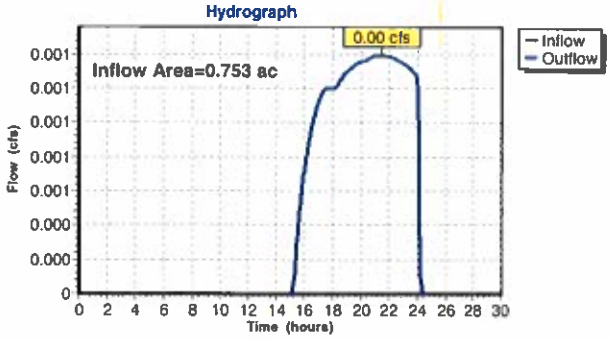


Summary for Reach AP: Analysis Point

Inflow Area = 0.753 ac, 11.43% Impervious, Inflow Depth = 0.01" for 2 year event
Inflow = 0.00 cfs @ 21.49 hrs, Volume= 0.001 af
Outflow = 0.00 cfs @ 21.49 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

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

Reach AP: Analysis Point



Summary for Pond DW1: Drywell 1

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 3.12" for 2 year event
Inflow = 0.10 cfs @ 12.01 hrs, Volume= 0.007 af
Outflow = 0.08 cfs @ 12.00 hrs, Volume= 0.007 af, Atten= 16%, Lag= 0.0 min
Discarded = 0.08 cfs @ 12.00 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.04' @ 12.05 hrs Surf.Area= 420 sf Storage= 6 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.8 min (751.6 - 750.8)

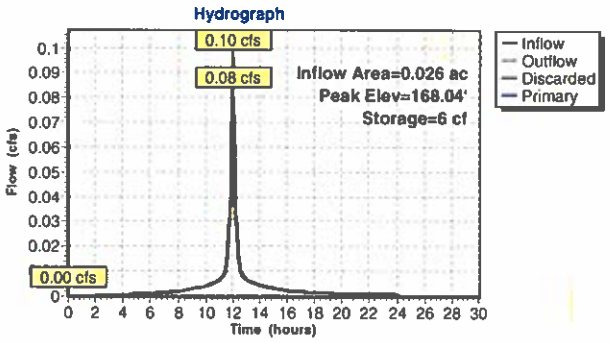
Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	0 cf	0.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	168.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**9.270 in/hr Exfiltration over Surface area**
#2	Primary	169.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 12.00 hrs HW=168.03' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=168.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW1: Drywell 1



Summary for Pond DW2: Drywell 2

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 3.12" for 2 year event
Inflow = 0.10 cfs @ 12.00 hrs, Volume= 0.007 af
Outflow = 0.08 cfs @ 12.03 hrs, Volume= 0.007 af, Atten= 17%, Lag= 1.5 min
Discarded = 0.08 cfs @ 12.03 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 167.03' @ 12.04 hrs Surf.Area= 420 sf Storage= 6 cf

Plug-Flow detention time= 1.5 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 0.8 min (750.6 - 749.9)

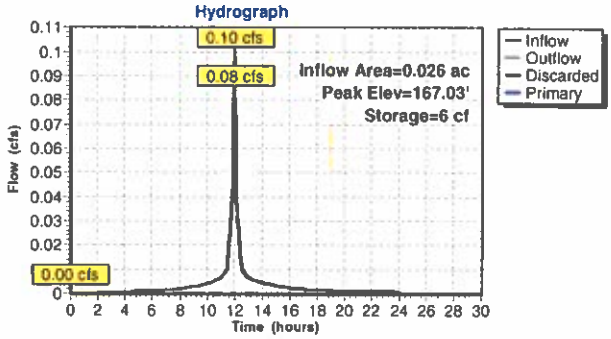
Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0 cf	8.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	167.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	8.270 in/hr Exfiltration over Surface area
#2	Primary	168.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 12.03 hrs HW=167.03' (Free Discharge)
↳**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' (Free Discharge)
↳**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW2: Drywell 2



Summary for Subcatchment E1: Existing conditions

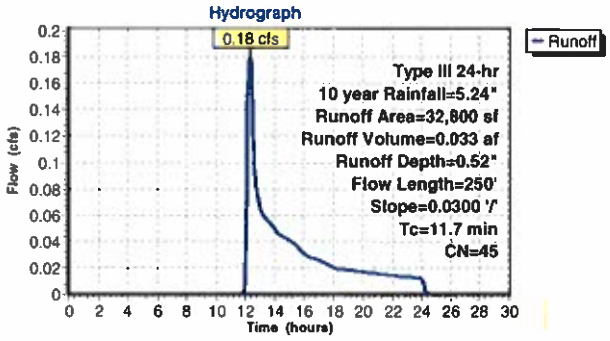
Runoff = 0.18 cfs @ 12.36 hrs, Volume= 0.033 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.24"

Area (sf)	CN	Description
3,400	76	Gravel roads, HSG A
7,650	49	50-75% Grass cover, Fair, HSG A
19,100	30	Woods, Good, HSG A
2,650	98	Paved parking, HSG A
32,800	45	Weighted Average
30,150		91.92% Pervious Area
2,650		8.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.20"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.7	250	Total			

Subcatchment E1: Existing conditions



Summary for Subcatchment P1: Proposed Conditions Overland

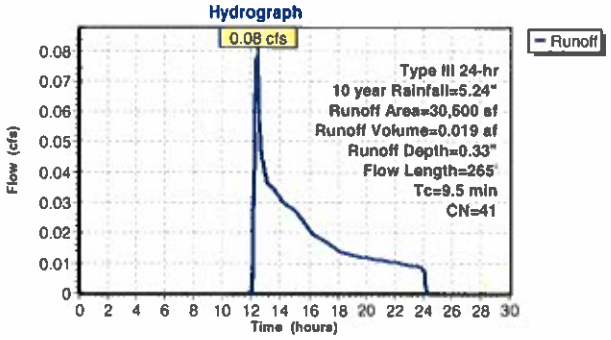
Runoff = 0.08 cfs @ 12.43 hrs, Volume= 0.019 af, Depth= 0.33"
Routed to Reach AP : Analysis Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.24"

Area (sf)	CN	Description
600	76	Gravel roads, HSG A
23,450	39	>75% Grass cover, Good, HSG A
5,000	30	Woods, Good, HSG A
0	98	Roofs, HSG A
1,450	98	Paved parking, HSG A
30,500	41	Weighted Average
29,050		95.25% Pervious Area
1,450		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0200	0.10		Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"
1.3	215	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	265	Total			

Subcatchment P1: Proposed Conditions Overland



Summary for Subcatchment P2a: Roof Area

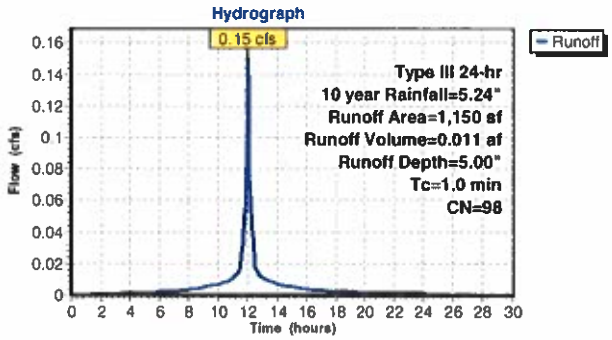
Runoff = 0.15 cfs @ 12.01 hrs, Volume= 0.011 af, Depth= 5.00"
Routed to Pond DW1 : Drywell 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.24"

Area (sf)	CN	Description
1,150	98	Paved parking, HSG A
1,150		100.00% Impervious Area

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

Subcatchment P2a: Roof Area



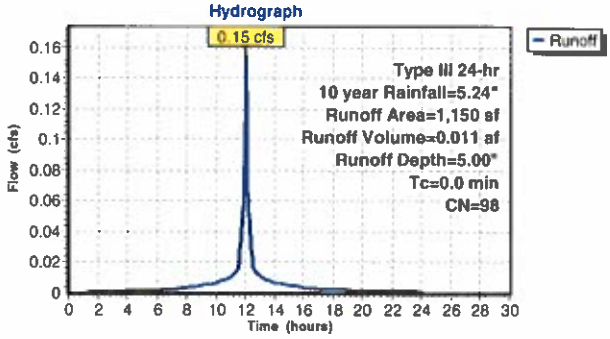
Summary for Subcatchment P2b: Roof Area

Runoff = 0.15 cfs @ 12.00 hrs, Volume= 0.011 af, Depth= 5.00"
Routed to Pond DW2 : Drywell 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.24"

Area (sf)	CN	Description
1,150	98	Roofs, HSG A
1,150		100.00% Impervious Area

Subcatchment P2b: Roof Area

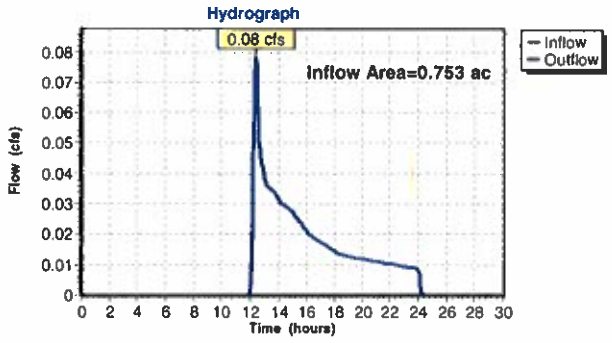


Summary for Reach AP: Analysis Point

Inflow Area = 0.753 ac, 11.43% Impervious, Inflow Depth = 0.31" for 10 year event
Inflow = 0.08 cfs @ 12.43 hrs, Volume= 0.019 af
Outflow = 0.08 cfs @ 12.43 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

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

Reach AP: Analysis Point



Summary for Pond DW1: Drywell 1

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 5.00" for 10 year event
Inflow = 0.15 cfs @ 12.01 hrs, Volume= 0.011 af
Outflow = 0.08 cfs @ 11.95 hrs, Volume= 0.011 af, Atten= 47%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.95 hrs, Volume= 0.011 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.17' @ 12.11 hrs Surf.Area= 420 sf Storage= 29 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 1.6 min (744.2 - 742.6)

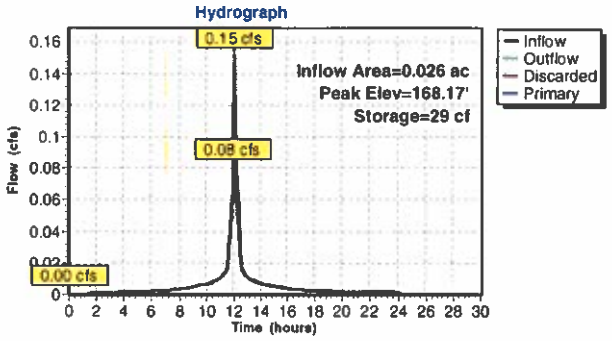
Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	0 cf	0.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	168.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	8.270 in/hr Exfiltration over Surface area
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.95 hrs HW=168.03' (Free Discharge)
↳1=Exfiltration (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=168.00' (Free Discharge)
↳2=Orifice/Grate (Controls 0.00 cfs)

Pond DW1: Drywell 1



Summary for Pond DW2: Drywell 2

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 5.00" for 10 year event
Inflow = 0.15 cfs @ 12.00 hrs, Volume= 0.011 af
Outflow = 0.08 cfs @ 11.95 hrs, Volume= 0.011 af, Atten= 48%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.95 hrs, Volume= 0.011 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 167.17' @ 12.10 hrs Surf.Area= 420 sf Storage= 28 cf

Plug-Flow detention time= 1.9 min calculated for 0.011 af (100% of inflow)
Center-of-Mass det. time= 1.5 min (743.2 - 741.7)

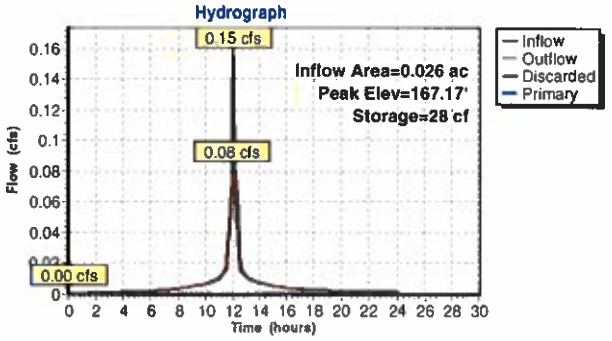
Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0 cf	0.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	167.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	8.270 in/hr Exfiltration over Surface area
#2	Primary	168.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.95 hrs HW=167.03' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW2: Drywell 2



Summary for Subcatchment E1: Existing conditions

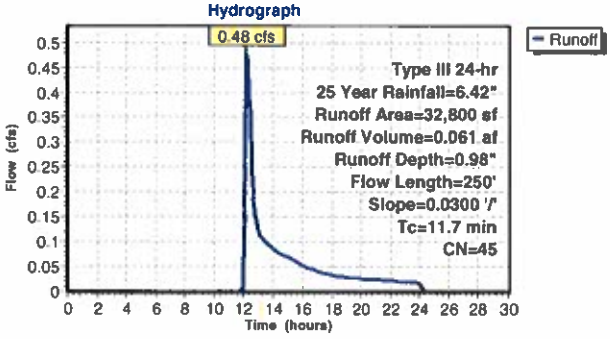
Runoff = 0.48 cfs @ 12.22 hrs, Volume= 0.061 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=6.42"

Area (sf)	CN	Description
3,400	76	Gravel roads, HSG A
7,650	49	50-75% Grass cover, Fair, HSG A
19,100	30	Woods, Good, HSG A
2,650	98	Paved parking, HSG A
32,800	45	Weighted Average
30,150		91.92% Pervious Area
2,650		8.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	50	0.0300	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.20"
1.2	200	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
11.7	250	Total			

Subcatchment E1: Existing conditions



Summary for Subcatchment P1: Proposed Conditions Overland

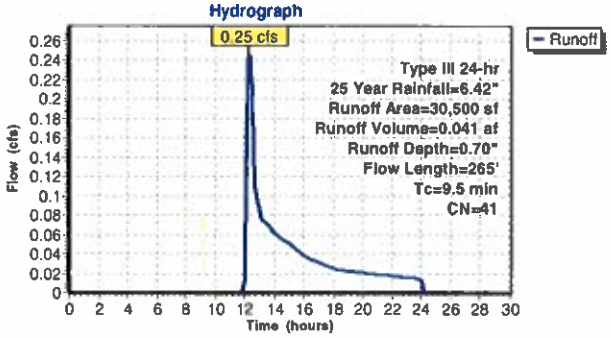
Runoff = 0.25 cfs @ 12.27 hrs, Volume= 0.041 af, Depth= 0.70"
Routed to Reach AP : Analysis Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=6.42"

Area (sf)	CN	Description
600	76	Gravel roads, HSG A
23,450	39	>75% Grass cover, Good, HSG A
5,000	30	Woods, Good, HSG A
0	98	Roofs, HSG A
1,450	98	Paved parking, HSG A
30,500	41	Weighted Average
29,050		95.25% Pervious Area
1,450		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0200	0.10		Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"
1.3	215	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	265	Total			

Subcatchment P1: Proposed Conditions Overland



Summary for Subcatchment P2a: Roof Area

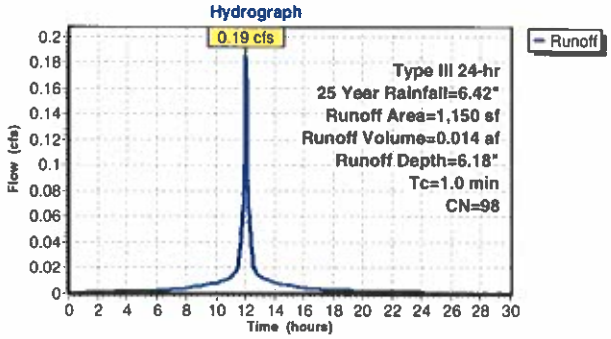
Runoff = 0.19 cfs @ 12.01 hrs, Volume= 0.014 af, Depth= 6.18"
Routed to Pond DW1 : Drywell 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=6.42"

Area (sf)	CN	Description
1,150	98	Paved parking, HSG A
1,150		100.00% Impervious Area

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

Subcatchment P2a: Roof Area



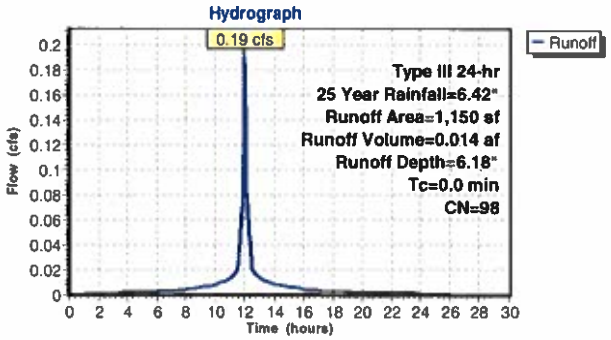
Summary for Subcatchment P2b: Roof Area

Runoff = 0.19 cfs @ 12.00 hrs, Volume= 0.014 af, Depth= 6.18"
Routed to Pond DW2 : Drywell 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=6.42"

Area (sf)	CN	Description
1,150	98	Roofs, HSG A
1,150		100.00% Impervious Area

Subcatchment P2b: Roof Area

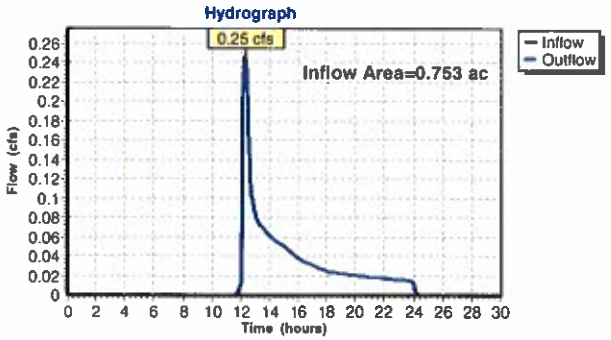


Summary for Reach AP: Analysis Point

Inflow Area = 0.753 ac, 11.43% Impervious, Inflow Depth = 0.65" for 25 Year event
Inflow = 0.25 cfs @ 12.27 hrs, Volume= 0.041 af
Outflow = 0.25 cfs @ 12.27 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

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

Reach AP: Analysis Point



Summary for Pond DW1: Drywell 1

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 6.18" for 25 Year event
Inflow = 0.19 cfs @ 12.01 hrs, Volume= 0.014 af
Outflow = 0.08 cfs @ 11.95 hrs, Volume= 0.014 af, Atten= 57%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.95 hrs, Volume= 0.014 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.29' @ 12.15 hrs Surf.Area= 420 sf Storage= 48 cf

Plug-Flow detention time= 4.4 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 2.5 min (742.0 - 739.5)

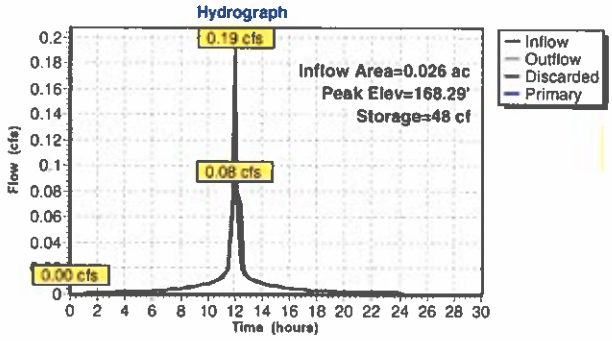
Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	0 cf	**0.33'D x 2.00'H Vertical Cone/Cylinder** -Impervious
#2	168.00'	168 cf	**10.50'W x 40.00'L x 1.00'H Prismatoid** 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**8.270 in/hr Exfiltration over Surface area**
#2	Primary	169.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.95 hrs HW=168.05' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=168.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW1: Drywell 1



Summary for Pond DW2: Drywell 2

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 6.18" for 25 Year event
Inflow = 0.19 cfs @ 12.00 hrs, Volume= 0.014 af
Outflow = 0.08 cfs @ 11.90 hrs, Volume= 0.014 af, Atten= 58%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.90 hrs, Volume= 0.014 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 167.28' @ 12.12 hrs Surf.Area= 420 sf Storage= 48 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2.4 min (741.0 - 738.6)

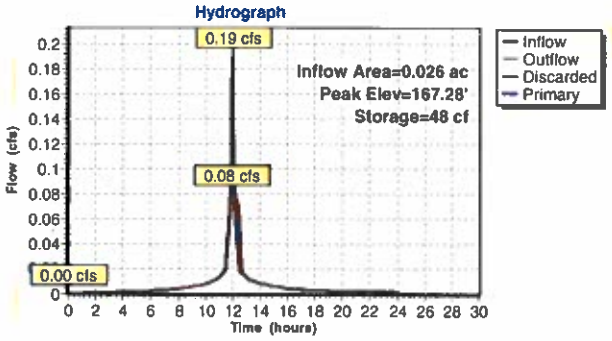
Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0 cf	**0.33'D x 2.00'H Vertical Cone/Cylinder** -Impervious
#2	167.00'	168 cf	**10.50'W x 40.00'L x 1.00'H Prismatoid** 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**8.270 in/hr Exfiltration over Surface area**
#2	Primary	168.00'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.90 hrs HW=167.02' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW2: Drywell 2



Summary for Subcatchment E1: Existing conditions

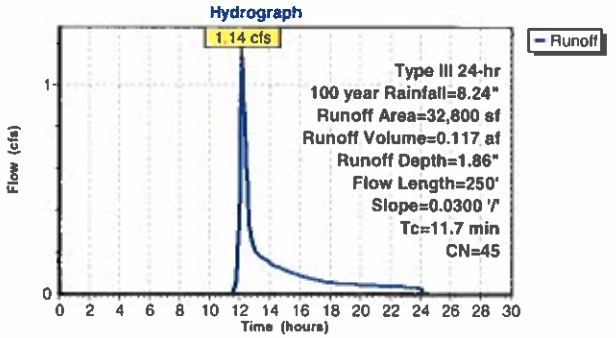
Runoff = 1.14 cfs @ 12.19 hrs, Volume= 0.117 af, Depth= 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.24"

Area (sf)	CN	Description
3,400	76	Gravel roads, HSG A
7,650	49	50-75% Grass cover, Fair, HSG A
19,100	30	Woods, Good, HSG A
2,650	98	Paved parking, HSG A
32,800	45	Weighted Average
30,150		91.92% Pervious Area
2,650		8.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.20"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.7	250	Total			

Subcatchment E1: Existing conditions



Summary for Subcatchment P1: Proposed Conditions Overland

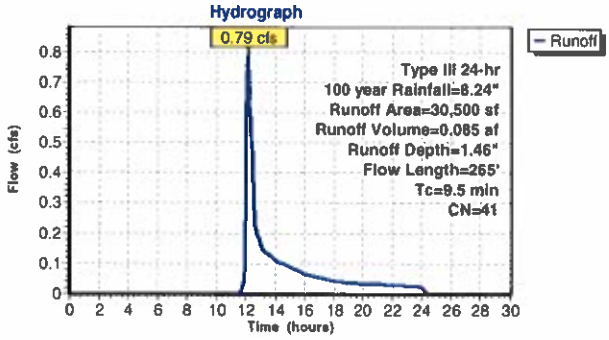
Runoff = 0.79 cfs @ 12.17 hrs, Volume= 0.085 af, Depth= 1.46"
Routed to Reach AP : Analysis Point

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.24"

Area (sf)	CN	Description
600	76	Gravel roads, HSG A
23,450	39	>75% Grass cover, Good, HSG A
5,000	30	Woods, Good, HSG A
0	98	Roofs, HSG A
1,450	98	Paved parking, HSG A
30,500	41	Weighted Average
29,050		95.25% Pervious Area
1,450		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	50	0.0200	0.10		Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"
1.3	215	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.5	265	Total			

Subcatchment P1: Proposed Conditions Overland



Summary for Subcatchment P2a: Roof Area

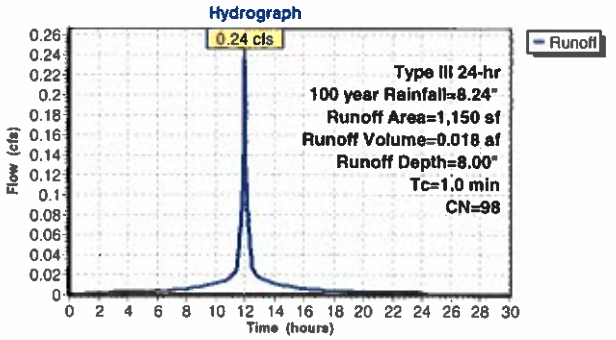
Runoff = 0.24 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 8.00"
Routed to Pond DW1 : Drywell 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.24"

Area (sf)	CN	Description
1,150	98	Paved parking, HSG A
1,150		100.00% Impervious Area

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

Subcatchment P2a: Roof Area



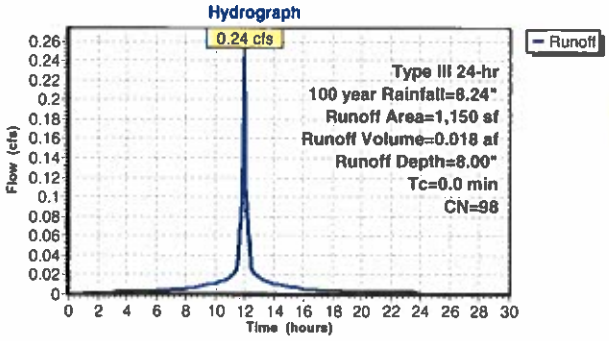
Summary for Subcatchment P2b: Roof Area

Runoff = 0.24 cfs @ 12.00 hrs, Volume= 0.018 af, Depth= 8.00"
Routed to Pond DW2 : Drywell 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.24"

Area (sf)	CN	Description
1,150	98	Roofs, HSG A
1,150		100.00% Impervious Area

Subcatchment P2b: Roof Area

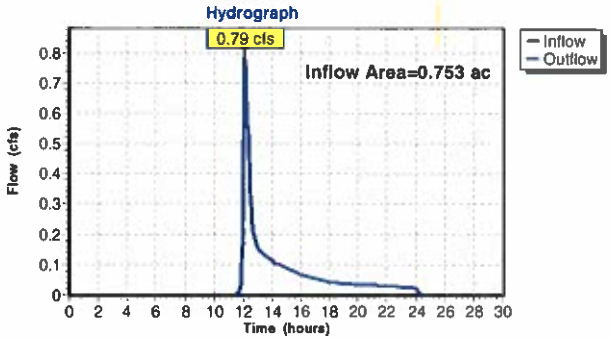


Summary for Reach AP: Analysis Point

Inflow Area = 0.753 ac, 11.43% Impervious, Inflow Depth = 1.35" for 100 year event
Inflow = 0.79 cfs @ 12.17 hrs, Volume= 0.085 af
Outflow = 0.79 cfs @ 12.17 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min

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

Reach AP: Analysis Point



Summary for Pond DW1: Drywell 1

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 8.00" for 100 year event
Inflow = 0.24 cfs @ 12.01 hrs, Volume= 0.018 af
Outflow = 0.08 cfs @ 11.85 hrs, Volume= 0.018 af, Atten= 66%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.85 hrs, Volume= 0.018 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.52' @ 12.23 hrs Surf.Area= 420 sf Storage= 88 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 4.6 min (740.8 - 736.2)

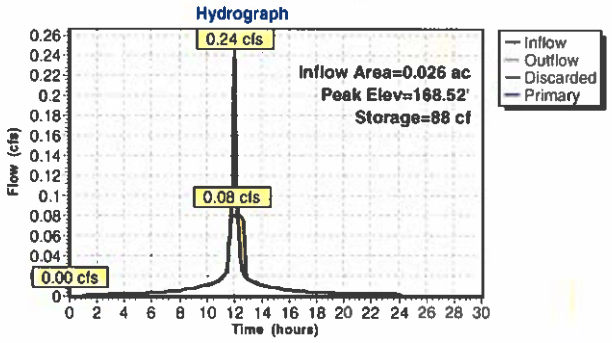
Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	0 cf	0.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	168.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	8.270 in/hr Exfiltration over Surface area
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.85 hrs HW=168.03' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=168.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW1: Drywell 1



Summary for Pond DW2: Drywell 2

Inflow Area = 0.026 ac,100.00% Impervious, Inflow Depth = 8.00" for 100 year event
Inflow = 0.24 cfs @ 12.00 hrs, Volume= 0.018 af
Outflow = 0.08 cfs @ 11.80 hrs, Volume= 0.018 af, Atten= 67%, Lag= 0.0 min
Discarded = 0.08 cfs @ 11.80 hrs, Volume= 0.018 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach AP : Analysis Point

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 167.52' @ 12.22 hrs Surf.Area= 420 sf Storage= 87 cf

Plug-Flow detention time= 6.6 min calculated for 0.018 af (100% of inflow)
Center-of-Mass det. time= 4.3 min (739.6 - 735.3)

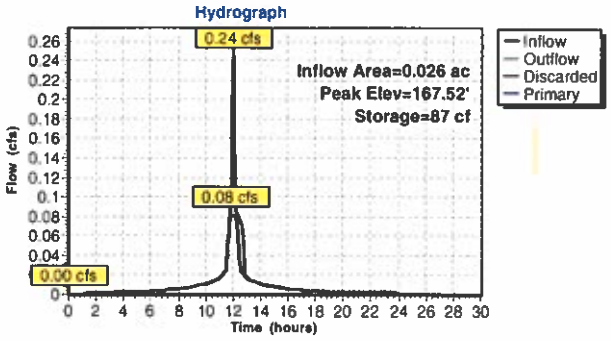
Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0 cf	0.33'D x 2.00'H Vertical Cone/Cylinder -Impervious
#2	167.00'	168 cf	10.50'W x 40.00'L x 1.00'H Prismatoid 420 cf Overall x 40.0% Voids
		168 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	8.270 in/hr Exfiltration over Surface area
#2	Primary	168.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.08 cfs @ 11.80 hrs HW=167.02' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond DW2: Drywell 2



Soil Map—Middlesex County, Massachusetts
(Lot 9 & 10 Sewell St.)

Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

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 1:24,000.

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: Middlesex County, Massachusetts
Survey Area Data: Version 24, Aug 27, 2024

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

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

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
32B	Wareham loamy fine sand, 0 to 5 percent slopes	0.5	9.0%
52A	Freetown muck, 0 to 1 percent slopes	0.1	2.5%
255B	Windsor loamy sand, 3 to 8 percent slopes	2.3	39.1%
256B	Deerfield loamy fine sand, 3 to 8 percent slopes	0.1	1.3%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	2.8	48.1%
Totals for Area of Interest		**5.8**	**100.0%**

STORMWATER OPERATIONS & MAINTENANCE PLAN

Stormwater Operations and Management Plan
for
Lot 9 Sewell Street, Ashland, MA

June 24, 2025

StormWater Management System Owner: and Responsible Party Property Owner

General Conditions:

- System Components:
  - Roof Drywell
  - Roof Drain collection (collection system of gutters and drains)
- The Town Engineer shall be notified prior to any work performed on the Stormwater System and shall be afforded the opportunity to inspect the work.
- Discharge of any material other that stormwater to the stormwater system (drywell) is not permitted.
- Herbicides, pesticides and fertilizers shall be used as minimally as possible and always in accordance with manufacture's recommendations and federal law.
- All fertilizers shall be used sparingly and shall be low Phosphorus & Nitrogen.
- All future Owners shall be notified of the O&M requirements outlined herein
- The conservation commission shall be notified of an any change in ownership
- Sweep driveways a minimum of twice per year or more frequently if any sediment buildup is noted.
- Roof gutters shall be cleaned at least twice per year, and whenever debris is noted.

Continuing Inspection/Maintenance

Stormwater systems should be inspected at least twice per year, and be scheduled, whenever possible, within 48 hours of a 1" or larger storm event. Upon completion of inspection, the inspector should specify any necessary corrective actions to be taken by ownership of the infiltration facility. Items to be inspected and maintained are described in the following sections. All assessments can be based upon visual inspections. Based on the comments and recommendations in The Report, the Responsible Party shall immediately schedule the appropriate maintenance.

Drywells (located to rear of house)

The system should inspect via the cleanout sump and inspection ports one to two days after a rainfall of at least 1 inch to ensure that the facility has drained to the appropriate level. If significant water remains ponded in the system three (3) days after the latest rainfall, sediment removal/blockage removal activities should be investigated and/or performed. The owner should contact an Engineer for review. Any sediment or debris within the cleanout sump should be removed at the time of inspection. The outlet shall be inspected for scour and/or stone displacement. Any repairs shall be completed as soon as possible. In areas or repeated stone displacement a larger stone size shall be placed.

Roof gutters should be cleaned at least twice annually (and whenever debris is noted) to help prevent debris from clogging the collection system and from entering the drywell. More frequent cleaning and reduction of debris entering the drywell will extend the lifespan of the system. It should be noted that there should be little to no sediment accumulation within the drywell.

The ground surface above the system should exhibit no visible signs of erosion, settlement, slope failure, wildlife damage, or vehicle damage. Damaged areas should be repaired using similar fill of adequate permeability. Eroded areas should be reseeded as appropriate. Vehicles should not be allowed to pass over the drywell area.

Site Vegetation: Initial vegetation inspection shall occur four (4) weeks after final stabilization of the site; vegetation shall be dense (and aesthetically acceptable on all portions of the project, including the side slopes, buffer strips and the embankments). The inspector shall determine and document: (1) whether fertilizing is required (2) the areas where grass shall be mowed, and (3) the areas which shall be protected against erosion. In addition, recently seeded areas shall be inspected for failures.

Eroded areas shall be filled and compacted, if necessary, and reseeded as soon as possible. If an area erodes twice, then a geotextile fabric is to be installed to stabilize the area to allow vegetation to be established. These maintenance activities shall take place during the planting season. Areas of repeated erosion/scour problems shall be lined with riprap only after attempting to stabilize the area with geotextile fabric.

Reporting and Record Keeping

The responsible party will be responsible for maintaining accurate Maintenance Logs for all maintenance and inspections. The maintenance logs shall be kept on site for a minimum of three (3) years and be available for inspection by the Town municipal departments or other auditing authority, including inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and the disposal location). This will be a perpetual requirement of the Owners or their Designated Party.

The Site Maintenance Log will be completed as described above, and at a minimum will include the following items:

- Date activity performed;
- Last rain event;
- BMP's inspected and condition;
- Specific maintenance task;
- Staff or contractor performing activity;
- Verification of maintenance activity;
- For disposal include type of material and the disposal location; and
- Recommended additional maintenance tasks.

Estimated Budget

The estimated annual budget to perform the routine scheduled maintenance is approximately $1,000 for the common/shared BMP's. This estimate does not include the repair of structures, pipes, embankments; cleaning drain lines; snow plowing; or other non-routine tasks.

Easements - None required.

Spill Control Practices – Any spills of gas/oil or other hazardous materials shall be contained and cleaned up immediately. If appropriate, the Massachusetts Department of Environmental Protection (DEP) shall be notified.

In the event that hazardous material, gasoline or other petroleum is released, the following procedure should be followed:

1. Immediately contact the following agencies:
   Ashland Fire Department (508) 881-2323
   MassDEP Emergency Response (888) 304-1133
2. Provide support to agencies listed above, which may include contacting an outside contractor to provide clean-up or contacting a Licensed Site Professional (LSP) to lead the clean-up.

If the volume of spill has reached the drainage system, the structures should be cleaned by a licensed liquid waste hauler. The outlet to the drainage system should be inspected. If there is evidence of discharge from the drainage system or it has reached downgradient areas, additional corrective actions may be required extending to the receiving water or beyond.

Stormwater Operations and Management Plan
for
Lot 10 Sewell Street, Ashland, MA

June 24, 2025

StormWater Management System Owner: and Responsible Party Property Owner

General Conditions:

- System Components:
  - Roof Drywell
  - Roof Drain collection (collection system of gutters and drains)
  - Rain Garden
- The Town Engineer shall be notified prior to any work performed on the Stormwater System and shall be afforded the opportunity to inspect the work.
- Discharge of any material other that stormwater to the stormwater system (drywell) is not permitted.
- Herbicides, pesticides and fertilizers shall be used as minimally as possible and always in accordance with manufacture's recommendations and federal law.
- All fertilizers shall be used sparingly and shall be low Phosphorus & Nitrogen.
- All future Owners shall be notified of the O&M requirements outlined herein
- The conservation commission shall be notified of an any change in ownership
- Sweep driveways a minimum of twice per year or more frequently if any sediment buildup is noted.
- Roof gutters shall be cleaned at least twice per year, and whenever debris is noted.

Continuing Inspection/Maintenance

Stormwater systems should be inspected at least twice per year, and be scheduled, whenever possible, within 48 hours of a 1" or larger storm event. Upon completion of inspection, the inspector should specify any necessary corrective actions to be taken by ownership of the infiltration facility. Items to be inspected and maintained are described in the following sections. All assessments can be based upon visual inspections. Based on the comments and recommendations in The Report, the Responsible Party shall immediately schedule the appropriate maintenance.

Drywells (located to rear of house)

The system should inspect via the cleanout sump and inspection ports one to two days after a rainfall of at least 1 inch to ensure that the facility has drained to the appropriate level. If significant water remains ponded in the system three (3) days after the latest rainfall, sediment removal/blockage removal activities should be investigated and/or performed. The owner should contact an Engineer for review. Any sediment or debris within the cleanout sump should be removed at the time of inspection. The outlet shall be inspected for scour and/or stone displacement. Any repairs shall be completed as soon as possible. In areas or repeated stone displacement a larger stone size shall be placed.

Roof gutters should be cleaned at least twice annually (and whenever debris is noted) to help prevent debris from clogging the collection system and from entering the drywell. More frequent cleaning and reduction of debris entering the drywell will extend the lifespan of the system. It should be noted that there should be little to no sediment accumulation within the drywell.

The ground surface above the system should exhibit no visible signs of erosion, settlement, slope failure, wildlife damage, or vehicle damage. Damaged areas should be repaired using similar fill of adequate permeability. Eroded areas should be reseeded as appropriate. Vehicles should not be allowed to pass over the drywell area.

Site Vegetation initial vegetation inspection shall occur four (4) weeks after final stabilization of the site; vegetation shall be dense (and aesthetically acceptable on all portions of the project, including the side slopes, buffer strips and the embankments). The inspector shall determine and document: (1) whether fertilizing is required (2) the areas where grass shall be mowed, and (3) the areas which shall be protected against erosion. In addition, recently seeded areas shall be inspected for failures.

Eroded areas shall be filled and compacted, if necessary, and reseeded as soon as possible. If an area erodes twice, then a geotextile fabric is to be installed to stabilize the area to allow vegetation to be established. These maintenance activities shall take place during the planting season. Areas of repeated erosion/scour problems shall be lined with riprap only after attempting to stabilize the area with geotextile fabric.

Rain Garden

Rain gardens require attention while plants are being established and seasonal landscaping maintenance thereafter.

Activity	*Time of Year*	*Frequency*
Inspect & remove trash	Year round	Monthly
Mulch	Spring	Annually
Remove dead vegetation	Spring or Fall	Annually
Replace dead vegetation	Spring or Fall	Annually
Prune	Spring or Fall	Annually
Replace entire media &all vegetation	Late Spring/early Summer	As needed
Inspect Overflow outlet	Spring or Fall	Annually

Paying careful attention to pretreatment and operation & maintenance can extend the life of the Soil media. In many cases, during routine landscaping the maintenance tasks can be completed. Inspect regularly for sediment build-up, structural damage, and standing water.

Inspect soil and repair eroded areas monthly. Re-mulch void areas as needed. Remove litter and debris monthly. Treat diseased vegetation as needed. Remove and replace dead vegetation twice per year (spring and fall). Proper selection of plant species and support during establishment of vegetation should minimize—if not eliminate—the need for fertilizers and pesticides. Remove invasive species as needed to prevent these species from spreading into the bio-retention area. Replace mulch every two years, in the early spring. Upon failure, excavate bio-retention area, scarify bottom and sides, replace filter fabric and soil, replant, and mulch. A summary of maintenance activities can be found above.

Cold Climate Considerations - Never store snow in bioretention areas. If snow is plowed into the cells, runoff may bypass the cell and drain into down gradient wetlands without first receiving the required water quality treatment, and without recharging the groundwater.

Reporting and Record Keeping

The responsible party will be responsible for maintaining accurate Maintenance Logs for all maintenance and inspections. The maintenance logs shall be kept on site for a minimum of three (3) years and be available for inspection by the Town municipal departments or other auditing authority, including inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and the disposal location). This will be a perpetual requirement of the Owners or their Designated Party.

The Site Maintenance Log will be completed as described above, and at a minimum will include the following items:

- Date activity performed;
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- Staff or contractor performing activity;
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- Recommended additional maintenance tasks.

Estimated Budget
The estimated annual budget to perform the routine scheduled maintenance is approximately $1,000 for the common/shared BMP's. This estimate does not include the repair of structures, pipes, embankments; cleaning drain lines; snow plowing; or other non-routine tasks.

Easements - None required.

Spill Control Practices – Any spills of gas/oil or other hazardous materials shall be contained and cleaned up immediately. If appropriate, the Massachusetts Department of Environmental Protection (DEP) shall be notified.

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