



## CONNORSTONE ENGINEERING, INC.

10 SOUTHWEST CUTOFF, SUITE #1  
NORTHBOROUGH, MASSACHUSETTS 01532  
T: (508) 393-9121

121 BOSTON POST ROAD  
SUDBURY, MASSACHUSETTS 01716  
T: (978) 443-9566

Town of Ashland Conservation Commission  
101 Main Street, 2nd Floor  
Ashland, MA 01721

February 10, 2026

**Subject: Notice of Intent & Application for a Stormwater Management Permit  
55 Tilton Avenue**

Dear Members of the Commission:

On behalf of the applicant (Tilton Sunrise LLC), please find the enclosed Notice of Intent and Application for a Stormwater Management Permit related to the proposed mixed-use building at 55 Tilton Avenue. The proposed project (with some minor revisions) was previously submitted to the commission as a determination of applicability. The commission previously reviewed the project via public meeting, and requested the current application be submitted for review.

Enclosed are the following materials;

- Signed Notice of Intent and Application for a Stormwater Management Permit
- Stormwater Report for 55 Tilton Avenue, dated January 23, 2026.
- "Proposed Site Plan of 55 Tilton Avenue in Ashland, MA," prepared by Connorstone Engineering, Inc. dated April 3, 2025, revised through January 23, 2026 (2 copies).
- Certified list of abutters and notification forms.
- Two Separate Checks in the amount of:
  - \$1,800 – Local permit application fee – including SW Permit Application fee (\$750) plus Local Wetlands Protection Bylaw fee (\$1,050).
  - \$537.50 – Town share of Notice of Intent fee
  - The State's share of the Notice of Intent fee (\$512.50) has been delivered to MassDEP.

**Project Narrative:**

**Location:** The subject site consists of a 0.5 acre parcel located at 55 Tilton Avenue shown on Map 14 as Parcel 30.

**Existing Conditions:** The lot is currently developed with a single family home, and the site has been nearly fully cleared over the years. The site conditions generally include some landscape areas around the house and the majority of the lot being lawn with a small strip of woodland to the very rear of the site. This wooded area is to the westerly side and the general topography of the site is very flat with a slight pitch towards the train tracks to the south of site. The site also includes a 36-inch drainage line located on the south portion of the site. This drain appears to convey runoff from the abutting commercial use property and a culvert under the Rail Road. As outlined in the project application documents, the site is located within the Nyanza Chemical plume and is subject to an Activities Use Limitation "AUL." The presence of potential contamination would preclude the possibility of groundwater infiltration or artificial recharge on-site.

Soils: The Natural Resource Conservation Service has mapped the soils as Udorthents-Urban land complex, which are typically mixed soils with good depth to groundwater and ledge. It does not have a Hydrologic Soil rating.

Wetland Resource areas: A wetland resource area was delineated by Goddard Consulting LLC in 2015 and are located on the opposite side of the railroad tracks from the proposed project. The resource areas include Bordering Vegetated Wetlands and a stream channel. The stream enters a 36-inch culvert at the edge of the railroad embankment, which then flows over 200 feet in length under the railroad tracks and through/under the subject site. An existing manhole is located within the rear yard of the site providing access to the culvert. It is our understanding the culvert and manhole were recently replaced by the Town and upgraded to HDPE pipe. The portion of the stream flowing through the culvert would remain jurisdictional as a stream as outlined in 10.04 – “*A portion of a stream may flow through a culvert or beneath a bridge.*”

We understand there has been discussion on the perennial vs. intermittent status of the stream. In the event the stream was to be considered perennial, the 200-foot riverfront area would end at a line perpendicular to the culvert entrance on the opposite side of the MBTA tracks, and would not impact the project site. Per 10.58(2)(a)3 – “*Where a river runs through a culvert more than 200 feet in length, the riverfront area stops at a perpendicular line at the upstream end of the culvert and resumes at the downstream end.*”

The regulatory 100-foot buffer zone would extend from the BVW across the railroad tracks and cover approximately 4 square feet of the southwest corner of the site. No work has currently been proposed within this area.

Proposed Project: The proposed plan includes the demolition of the existing house and construction of a Mixed-Use building. The building will be connected to Town sewer, which is located within Tilton Avenue. Water and electric service will also be provided from Tilton Avenue. The proposed development will result in approximately 14,395 square feet of new impervious area on the lot, and will require a land disturbance area of approximately 25,500 sq. ft. This includes work off-site to close the existing curb cut and improve the sidewalk in Tilton Avenue.

The proposed on-site drainage system would consist of two items:

1. The roof collection system including the system of downspouts/gutters and an area drain off the rear corner of the building. This system consisting of clean runoff would be connected directly to the existing manhole within the rear yard.
2. Parking area drainage system including collection and pretreatment through two deep sump catch basins, and the final treatment through the use of a hydrodynamic separators (Stormceptor, or equal) sized to removal at least 80% of the total suspended solids. This system discharging pretreated runoff would also be connected directly to the existing manhole within the rear yard.

The connection points to the existing manhole have been located above the normal flow line and would be cored from the exterior of the manhole to minimize/mitigate potential impact.

As outlined in the Site Plan Application documents, the applicant has requested a waiver from certain aspects of the Stormwater Bylaw, which would be precluded due to the AUL and associated restrictions (attachment A).

Proposed work within the buffer zone:

No work is currently proposed within the 100-foot buffer zone to the resource area(s) delineated on the proposed site plans. Proposed erosion controls have been placed between the limit of work and the buffer zone.

If you have any questions or require any additional information, please contact this office at (508) 393-9727.

Sincerely,  
Connorstone Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Vito Colonna', with a stylized flourish at the end.

Vito Colonna, P.E.

c. MassDEP Northeast Region

## **Attachment A - Excerpt from Site Plan Application – RE: Stormwater Waiver**

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Stormwater on this small site may be viewed as inconsequential. During the 1-inch event the increase in volume and runoff is 0.005 acre-feet and 0.05 cfs respectively. 1-inch storms constitute about 90% of rainfall events. The Stormwater Bylaw provides:

*§ 247-11. Waivers. A. The Commission may waive strict compliance with some of the requirements of this bylaw or the rules and regulations promulgated hereunder, if it determines that some of the application requirements are unwarranted because of the size or character of the development project or because of the natural conditions at the site and where such action: (1) Is allowed by federal, state and local statutes and/or regulations; (2) Is in the overriding public interest; and (3) Is not inconsistent with the purpose and intent of this bylaw.*

This site is in the Nyanza AUL and any impacts to the plume are not warranted. Tomas Williamson, LSP, in his report to Mr. Dudley on the redevelopment of the site states

*“Storm water management – develop a storm water management plan that will identify the procedures to manage storm water and limit potential effects to current ground water characteristics from storm water infiltration. Based upon the information contained within the USEPA documents, storm water collection and infiltration are not recommended. Storm water run-off should be directed to existing storm water structures on the site and site vicinity, and/or consideration of permeable asphalt and concrete surface materials. It may be beneficial to limit the square footage of non-porous materials utilized during redevelopment (i.e. asphalt, concrete, etc.) and utilize as many parking spaces on the abutting auxiliary parcel of 60 Pleasant Street property as possible thus reducing the volume of storm water run-off to manage onsite.” (see page 3 of his letter portion of the report attached hereto)*

IN addition, from the report Mr. Williamson provides a cautionary note for-

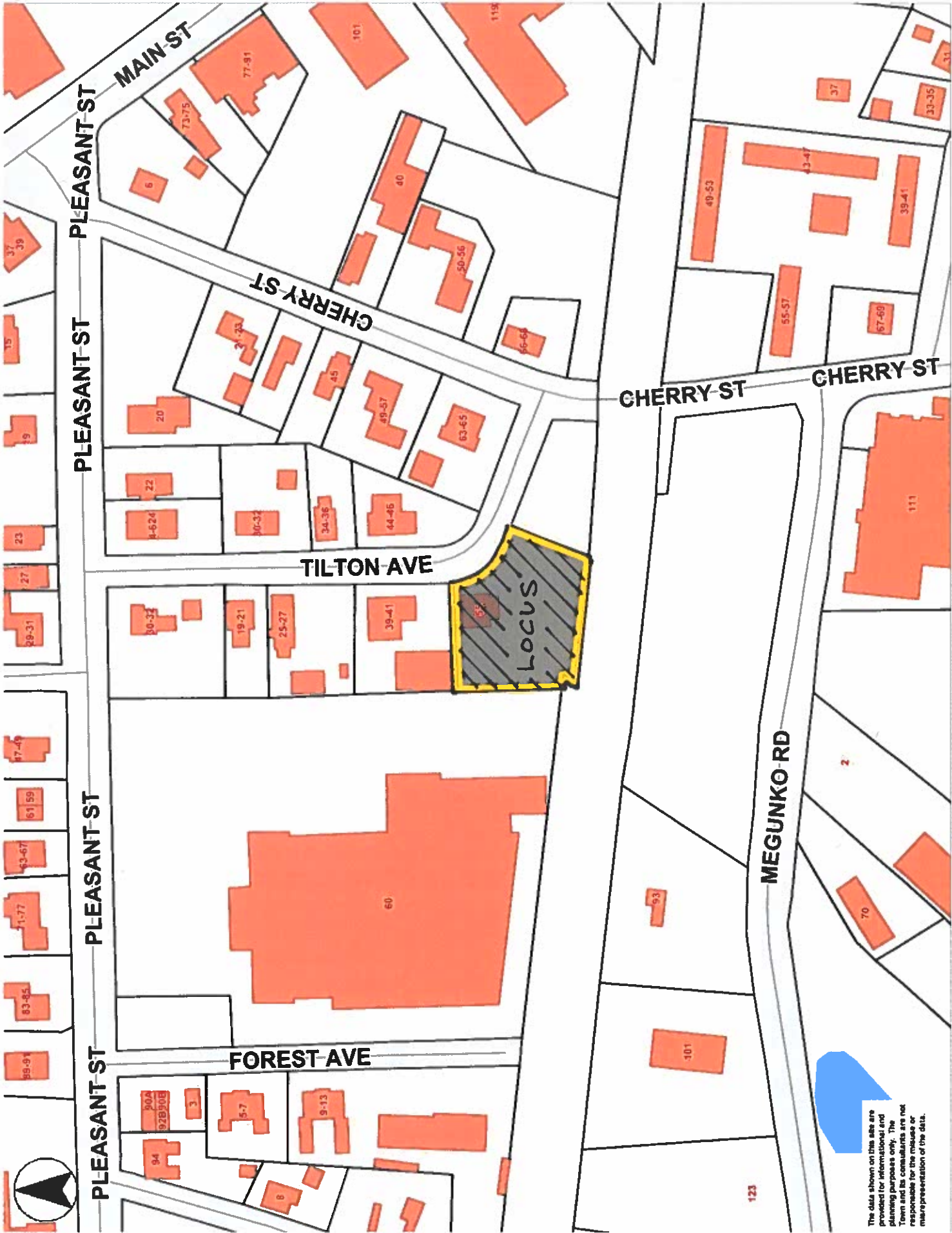
*“Construction workers exposed to shallow ground water or volatile organic compounds in trench air while performing excavation work” (see page 2)*

The site is generally designed to minimize excavations deeper than 4-5 feet. Various stormwater management products would easily require significant land disturbances, underground pathway interruptions, contact with and the necessary removal of encountered groundwater during construction activities below 4-5 feet. Accordingly for safety, maintenance of the groundwater status quo, and minimal increases in volume/rate the Stormwater Bylaw requirements are requested to be waived.

# LOCUS MAPPING



- Parcels for Identify (Pu)
- Places
  - Fire Station
  - Police Station
  - Town Hall
  - School
  - ROWs
- Buildings
- Parcels
- Abutting Town Labels
- MA Highways
  - Interstate
  - US Highway
  - Numbered Route
- Town Boundary
- Abutting Towns
- Streets
- Streams
- Town Mask



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.



# 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):

**55 Tilton Avenue**

a. Street Address

**Ashland**

b. City/Town

**01721**

c. Zip Code

Latitude and Longitude:

**42.260670**

d. Latitude

**-71.468618**

e. Longitude

**Map 14**

f. Assessors Map/Plat Number

**Parcel 30**

g. Parcel /Lot Number

2. Applicant:

**John**

a. First Name

**Dudley**

b. Last Name

**Tilton Sunrise LLC**

c. Organization

**60 Pleasant Street, Suite #1**

d. Street Address

**Ashland**

e. City/Town

**MA**

f. State

**01721**

g. Zip Code

**508-881-8555**

h. Phone Number

i. Fax Number

**johnjr@unitedhomeexperts.com**

j. Email Address

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

**Same as applicant**

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):

**Vito**

a. First Name

**Colonna**

b. Last Name

**Connorstone Engineering, Inc.**

c. Company

**10 Southwest Cutoff, Suite #7**

d. Street Address

**Northborough**

e. City/Town

**MA**

f. State

**01532**

g. Zip Code

**508-393-9727**

h. Phone Number

i. Fax Number

**vc@csei.net**

j. Email address

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

**\$1050.00**

a. Total Fee Paid

**\$512.50**

b. State Fee Paid

**\$537.50**

c. City/Town Fee Paid

**Local Bylaw Fee = \$1050**



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## A. General Information (continued)

6. General Project Description:

**Construction of a mixed use building including driveway access, parking, utilities, drainage, site grading, landscaping, and required site work as shown on the enclosed plans.**

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Single Family Home   | 2. <input type="checkbox"/> Residential Subdivision       |
| 3. <input type="checkbox"/> Commercial/Industrial  | 4. <input type="checkbox"/> Dock/Pier                     |
| 5. <input type="checkbox"/> Utilities  | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry)                    | 8. <input type="checkbox"/> Transportation                |
| 9. <input checked="" type="checkbox"/> Other – <i>Mixed commercial &amp; residential</i> |   |

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:

**South Middlesex**

a. County

**79938**

c. Book

b. Certificate # (if registered land)

**23**

d. Page Number

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

- 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.
- 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. <input type="checkbox"/> Bank                                 | 1. linear feet              | 2. linear feet                |
| b. <input type="checkbox"/> Bordering Vegetated Wetland          | 1. square feet              | 2. square feet                |
| c. <input type="checkbox"/> Land Under Waterbodies and Waterways | 1. square feet              | 2. square feet                |
|  | 3. cubic yards dredged      |                               |

| Resource Area  | Size of Proposed Alteration   | Proposed Replacement (if any) |
|--|---|-------------------------------|
| d. <input type="checkbox"/> Bordering Land Subject to Flooding | 1. square feet  | 2. square feet                |
|  | 3. cubic feet of flood storage lost                                   | 4. cubic feet replaced        |
| e. <input type="checkbox"/> Isolated Land Subject to Flooding  | 1. square feet  |                               |
|  | 2. cubic feet of flood storage lost                                   | 3. cubic feet replaced        |
| f. <input type="checkbox"/> Riverfront Area                    | 1. Name of Waterway (if available) - <b>specify coastal or inland</b> |                               |

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.

| <u>Resource Area</u>                              | <u>Size of Proposed Alteration</u>                             | <u>Proposed Replacement (if any)</u> |
|---|--|--------------------------------------|
| a. <input type="checkbox"/> Designated Port Areas | Indicate size under Land Under the Ocean, below                |                                      |
| b. <input type="checkbox"/> Land Under the Ocean  | 1. square feet<br>2. cubic yards dredged                       |                                      |
| c. <input type="checkbox"/> Barrier Beach         | Indicate size under Coastal Beaches and/or Coastal Dunes below |                                      |
| d. <input type="checkbox"/> Coastal Beaches       | 1. square feet   | 2. cubic yards beach nourishment     |
| e. <input type="checkbox"/> Coastal Dunes         | 1. square feet   | 2. cubic yards dune nourishment      |

| <u>Resource Area</u>  | <u>Size of Proposed Alteration</u>  | <u>Proposed Replacement (if any)</u>   |
|---|---|--|
| f. <input type="checkbox"/> Coastal Banks                         | 1. linear feet  |  |
| g. <input type="checkbox"/> Rocky Intertidal Shores               | 1. square feet  |  |
| h. <input type="checkbox"/> Salt Marshes                          | 1. square feet  | 2. sq ft restoration, rehab., creation |
| i. <input type="checkbox"/> Land Under Salt Ponds                 | 1. square feet<br>2. cubic yards dredged  |  |
| j. <input type="checkbox"/> Land Containing Shellfish             | 1. square feet  |  |
| k. <input type="checkbox"/> Fish Runs                             | Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above<br>1. cubic yards dredged |  |
| l. <input type="checkbox"/> 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

**0**  
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](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**

08/01/2021

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review\*

1.  Percentage/acreage of property to be altered:

(a) within wetland Resource Area

\_\_\_\_\_ percentage/acreage

(b) outside Resource Area

\_\_\_\_\_ percentage/acreage

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

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

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

(b)  Photographs representative of the site

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

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



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

(c)  MESA filing fee (fee information available at [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/ mesa/ mesa\\_fee\\_schedule.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_fee_schedule.htm)). Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

(d)  Vegetation cover type map of site

(e)  Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

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

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

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

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

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

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

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

Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
1213 Purchase Street – 3rd Floor  
New Bedford, MA 02740-6694  
Email: [DMF.EnvReview-South@state.ma.us](mailto:DMF.EnvReview-South@state.ma.us)

North Shore - Hull to New Hampshire border:

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

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



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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.

**Proposed Site Plan of 55 Tilton Avenue in Ashland, MA**

a. Plan Title

**Connorstone Engineering, Inc.**

**Vito Colonna, PE**

b. Prepared By

c. Signed and Stamped by

**12/18/2025**

**1"=20'**

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

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:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



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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.

|   |  |         |
|---|--|---------|
|   | George F. CONNORS, ESQ.                  | 2-17-26 |
| 1. Signature of Applicant                     |  | 2. Date |
|   | Agent for Owner: GEORGE F. CONNORS, ESQ. | 2-17-26 |
| 3. Signature of Property Owner (if different) |  | 4. Date |
|   | GEORGE F. CONNORS, ESQ.                  | 2-17-26 |
| 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.



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

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



**A. Applicant Information**

1. Location of Project:

**55 Tilton Avenue**

a. Street Address

**Ashland**

b. City/Town

**\$262.50**

d. Fee amount

c. Check number

2. Applicant Mailing Address:

**John**

a. First Name

**Dudley**

b. Last Name

**Tilton Sunrise LLC**

c. Organization

**60 Pleasant Street, Suite #1**

d. Mailing Address

**Ashland**

e. City/Town

**MA**

f. State

**01721**

g. Zip Code

**508-881-8555**

h. Phone Number

i. Fax Number

**Johnjr@unitedhomeexperts.com**

j. Email Address

3. Property Owner (if different):

**Same as applicant**

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**

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.

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



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

**B. Fees** (continued)

| Step 1/Type of Activity       | Step 2/Number of Activities | Step 3/Individual Activity Fee | Step 4/Subtotal Activity Fee |
|-------------------------------|-----------------------------|--------------------------------|------------------------------|
| <i>3. Commercial Building</i> | <i>1</i>                    | <i>\$1050</i>                  | <i>\$1050</i>                |
|                               |                             |                                |                              |
|                               |                             |                                |                              |
|                               |                             |                                |                              |
|                               |                             |                                |                              |
|                               |                             |                                |                              |
|                               |                             |                                |                              |
|                               |                             |                                |                              |

**Step 5/Total Project Fee:** \_\_\_\_\_

**Step 6/Fee Payments:**

|                                 |                               |
|---------------------------------|-------------------------------|
| Total Project Fee:              | <b>\$1050</b>                 |
| State share of filing Fee:      | <b>\$512.50</b>               |
| City/Town share of filling Fee: | <b>\$537.50</b>               |
|                                 | a. Total Fee from Step 5      |
|                                 | b. 1/2 Total Fee less \$12.50 |
|                                 | 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.)

STORMWATER MANAGEMENT

343 Attachment 1

Application for a Stormwater Management Permit

SMP# \_\_\_\_\_

Refer to the "Stormwater Management Regulations" available from the Conservation Commission for details on the information and fees required for this application. Contact the Commission at 508-881-0100 x 656 with any questions concerning the Regulations. Incomplete applications may be denied.

Please type or print your application.

- 1. Location and Street Address of Site 55 Tilton Avenue  
Name of Proposed Development \_\_\_\_\_
- 2. Applicant's Name: John Dudley, Tilton Sunrise LLC  
Address: 60 Pleasant Street, Suite 1, Ashland, MA  
Telephone 508-881-8555
- 3. Record Owner's Name: Tilton Sunrise, LLC  
Address: 60 Pleasant Street, Suite 1, Ashland, MA  
Telephone 508-881-8555
- 4. Zoning District(s) of Parcel(s) ADD-C  
Town Atlas Map(s)/ Parcel Number(s) Map 14, Parcel 30
- 5 a) Total Area of Development 0.5 ac.    b) Total Area of Land Disturbed 0.5 ac. on-site  
c) Total area of land disturbed with slope of 15% of greater 0 ac.    d) Percent of  
impervious land 71% on-site    e) Total gross floor area of buildings proposed \_\_\_\_\_  
f) Method of sewage disposal Public Sewer
- 6. Deed Book & Page number(s) or Land Court Certificate number(s): --- Book 79938 / Page 23

The undersigned hereby apply to the Conservation Commission for a public hearing and an SMP under the Bylaw.

The undersigned hereby certify that the information on this application and plans submitted herewith is correct, and that the application complies with all applicable provisions of Statutes, Regulations, and Bylaws to the best of his/her knowledge. The above is subscribed to and executed by the undersigned under the penalties of perjury in accordance with Section 1-A of Chapter 268, General Laws of the Commonwealth of Massachusetts.

\_\_\_\_\_  
Signature of Petitioner(s)                      Signature of Petitioner(s)                      \_\_\_\_\_  
Date

RECORD OWNER'S KNOWLEDGE AND CONSENT

I hereby assert that I have knowledge of and give my consent to the application presented above.

 \_\_\_\_\_  
Signature of Record Owner(s)                      GEORGE F. CONNORS, ESQ.                      2.17.26  
Date

# Town of Ashland Conservation Commission

## LOCAL FILING FEE CALCULATION WORKSHEET

### 1. NOTICE OF INTENT (NOI)

|  |           |   |
|--|-----------|---|
| <b>C1: Work on Existing Single Family Lot</b><br>This includes pools, additions, etc.  | \$110.00  | _____   |
| <b>C2: Construction of Single Family House, Crossings for Driveways, etc.</b>  | \$500.00  | _____   |
| <b>C3: Commercial Building, Road Construction, etc.</b>  | \$1050.00 | $\times 1 = \underline{\$1,050}$                      |
| <b>C4: Crossings for Development or Commercial Road, Bridge, etc.</b>  | \$1450.00 | _____   |
| <b>C5: Work on Docks, Piers, Dikes, or other Engineering Structures in inland resource areas</b>   | _____     | $\text{Linear Feet} * \$4 = \underline{\hspace{2cm}}$ |
| <b>C6: Resource Area Delineation Review</b><br>Includes boundary delineations for vegetated wetlands as part of a permit application (ANRAD/ RDA with delineations/ NOI with delineations) | _____     | $\text{Linear Feet} * \$2 = \underline{\hspace{2cm}}$ |
| <br>*single family lots limited to \$200;<br>\$2000 limit for all others   |           |   |
| <b>All NOIs add 50% of the fee for work in Riverfront Area</b>   | _____     | $\text{Above Fee} * \$0.5 = \underline{\hspace{2cm}}$ |

### 2. STORMWATER MANAGEMENT PERMIT

|   |          |                                |
|---|----------|--------------------------------|
| <b>Basic Residential Application</b>                                      | \$100.00 | _____                          |
| <b>Application for Residential Subdivision or Multifamily Development</b> | \$500.00 | _____                          |
| <b>Commercial Application</b>   | \$750.00 | $\times 1 = \underline{\$750}$ |
| <b>Notice of Completion for Non-Basic Residential</b>                     | \$150.00 | _____                          |
| <b>Permit Extension</b>   | \$150.00 | _____                          |

|                         |         |       |
|-------------------------|---------|-------|
| <b>True Copy Attest</b> | \$50.00 | _____ |
| <b>Re-Inspection</b>    | \$50.00 | _____ |

**3. OTHER PERMITS AND APPLICATIONS**

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

**6. FILING FEE CALCULATION**

|   |                    |
|---|--------------------|
| <b>Town Share of State Fees</b> (See NOI Wetland Fee Transmittal Form) <b>(Check No. 1)</b> | \$ <u>537.50</u>   |
| <b>Local Filing Fee Calculated Above (Check No.2)</b>                                       | \$ <u>1,800.00</u> |
| <b>State Share of Filing Fee</b> (See NOI Wetland Fee Transmittal Form)                     |                    |
| <b>TOTAL Due DEP (Check No. 3)</b>  | \$ <u>512.50</u>   |

**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.

## ***Abutter Notification Forms***

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November 24, 2025

To The Conservation Commission  
55 Tilton Ave  
Tilton Sunrise, LLC  
Abutter To Map 14 Parcel 30

| PARCEL ID             | PARCEL ADDRESS | OWNER NAME 1                    | OWNER NAME 2 | MAILING ADDRESS        | CITY/TOWN  | STATE | ZIP   |
|-----------------------|----------------|---------------------------------|--------------|------------------------|------------|-------|-------|
| 014/013.0-0085-0000.0 | 60 PLEASANT ST | SIXTY PLEASANT REALTY LLC       |              | 60 PLEASANT ST SUITE I | ASHLAND    | MA    | 01721 |
| 014/014.0-0029-0000.0 | 39 TILTON AVE  | CRIRO INVESTMENT PROPERTIES LLC |              | 16 SEWELL ST           | FRAMINGHAM | MA    | 01702 |
| 014/014.0-0032-0000.0 | 0 TILTON AVE   | TOWN OF ASHLAND                 |              | 101 MAIN ST            | ASHLAND    | MA    | 01721 |
| 014/014.0-0033-0000.0 | 63 CHERRY ST   | JDL PROPERTIES LLC              |              | PO BOX 66234           | AUBURNDALE | MA    | 02466 |
| 014/014.0-0034-0000.0 | 44 TILTON AVE  | YAU KWONG KI                    | JOYCE K YAU  | 44-46 TILTON AVE       | ASHLAND    | MA    | 01721 |
| 014/014.0-0044-0000.0 | 0 MEGUNKO RD   | TDM MEGUNKO LLC                 |              | 65 UNION ST            | ASHLAND    | MA    | 01721 |

The above reflects the latest information available on our records.

  
 Terry Capen  
 Senior Clerk

11/24/25  
 Date

6 parcels/abutters



## 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 **Tilton Sunrise, LLC / John Dudley**

The proposed project is located at **55 Tilton Avenue**  
in Ashland, Massachusetts. The proposed project is:  
**Construction of proposed Mix Use Building along with associated parking, driveways, utilities, and related site work.**

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, March 9<sup>th</sup>, 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. Otherwise, further information of the public hearing can be obtained from the Ashland Conservation Commission, by calling 508-532-7924.



## Town of Ashland, Office of Conservation

### Notification to Abutters: Letter

A Stormwater Management Permit has been filed with the Ashland Conservation Commission pursuant to the Stormwater Management Bylaw (Chapter 247), and the Stormwater Management Regulations (Chapter 343), under the Town of Ashland's Town Code.

Applicant's Name: John Dudley  
First Last  
Organization: Tilton Sunrise LLC  
ORGANIZATION NAME

The proposed project is located at: 55 Tilton Avenue in Ashland, Massachusetts.

The proposed project includes the:

Construction of proposed Mix Use Building along with associated parking, driveways, utilities, and related site work.

The filing may be examined at the Ashland Town Hall, 101 Main Street, by appointment during business hours on the weekdays as follows:

**Monday, Tuesday, and Thursday from 8:00 am – 3:30 pm**

**Wednesday from 8:00 am – 6:30 pm**

Note that Town Hall is closed to the public on Fridays, and is closed for most federal and state holidays. For more information, or to schedule a time to review the filing, please call 508-532-7924, and ask for the Conservation Agent. To view the filing online, you can file a Public Records Request with the Town clerk's Office. Fees may apply.

The public hearing is scheduled for [Click or tap to enter a date](#). At 7:05 pm (Note: all hearings are posted for 7:05 pm. Hearings are taken in order of the posted Agenda). The hearing will be held using video conferencing through Zoom. The meeting link is accessible through the posted agenda on the Town of Ashland website. Otherwise, further information of the public hearing can be obtained from the Ashland Conservation Commission.



## Town of Ashland, Office of Conservation

### Affidavit of Service

I, Vito Colonna, Connorstone Engineering, hereby certify under the pains and penalties of perjury that on Feb. 19<sup>th</sup>, 2026, I gave notice to abutters in compliance with Chapter 247 and chapter 343 of the Ashland Town Code in connection with a Stormwater Management Permit application, that was filed under the Ashland Stormwater Management Bylaw, and its regulations by the applicant, John Dudley / Tilton Sunrise LLC.

-and-

I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994 in connection with a Notice of Intent filed under the Massachusetts Wetlands Protection Act and the Town of Ashland Wetland Protection Bylaw.

Said permit application was filed with the Ashland Conservation Commission on Feb 19<sup>th</sup>, 2026, for the property located at 55 Tilton Avenue in Ashland, Massachusetts.

Vito Colonna

Printed Name

VAC

Signature

2-17-26

Date

# ***Stormwater Report***

---

# **STORMWATER REPORT**

**FOR**

**55 Tilton Avenue  
Ashland, MA**

***January 23, 2026***

---

**PREPARED BY:  
Connorstone Engineering, Inc.  
10 Southwest Cutoff, Suite 7  
Northborough, MA 01532  
Phone: (508) 393-9727 Fax: (508) 393-5242**

## **TABLE OF CONTENTS**

---

### **1. STORMWATER REPORT**

- Project Narrative
- Checklist for Stormwater Report
- Summary of MassDEP's Stormwater Standards

### **2. WATER QUALITY STRUCTURE SIZING**

### **3. HYDROLOGIC MODEL OUTPUT (HYDROCAD CALCULATIONS)**

### **4. STORMWATER OPERATIONS AND MAINTENANCE PLAN AND LONG TERM POLLUTION PREVENTION PROGRAM**

### **5. NRCS SOIL MAPPING**

## ***STORMWATER NARRATIVE***

---

**55 Tilton Avenue  
Ashland, MA**

### **Existing Site Conditions**

The site includes 0.5-acre parcel of land located at 55 Tilton Avenue, and is currently developed as a single-family home. The site is abutted to the rear by the Rail Road and a commercial use property, to the east by Town owned land, and to the north by a residential use. The site also includes a 36-inch drainage line located across the rear portion of the site. This drain appears to convey runoff from the abutting commercial use property and a culvert under the Rail Road. As outlined in the project application documents, the site is located within the Nyanza Chemical plume and is subject to an Activities Use Limitation "AUL." The presence of potential contamination would preclude the possibility of groundwater infiltration or artificial recharge on-site.

### **Proposed Project**

The propose development includes the construction of a mixed use building including office/commercial and residential with on-site parking and driveway interconnection with the abutting commercial property. The overall increase to impervious surfaces within the project limits would be 14,935 Square feet (3,165 square feet existing vs. 18,100 square feet proposed).

The proposed stormwater management system has been included to provide:

- Surface collection of all paved and impervious surfaces through deep sump catch basins and stormwater pretreatment prior to connection to the replaced drainage trunk line.
- Stormwater pretreatment of all paved surfaces would be provided through the use of a hydrodynamic separators (Stormceptor, or equal), that have been sized to removal at least 80% of the total suspended solids.

As outlined in the Site Plan Application documents, the applicant has requested a waiver from certain aspects of the Stormwater Bylaw, which would be precluded due to the AUL and associated restrictions. An explanation of each standard is provided in this report.

# LOCUS LOCUS MAPPING





# Checklist for Stormwater Report

## B. Stormwater Checklist and Certification

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

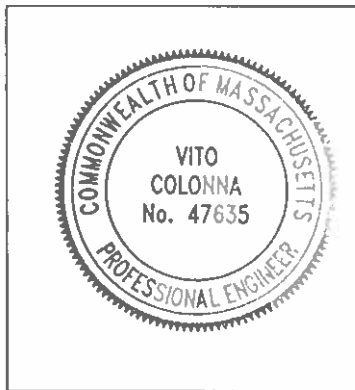
*Note:* Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that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

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

### Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



*[Handwritten Signature]* 2/26/2025  
Signature and Date

## Checklist

**Project Type:** Is the application for new development, redevelopment, or a mix of new and redevelopment?

New development

Redevelopment

Mix of New Development and Redevelopment



# Checklist for Stormwater Report

---

## Checklist (continued)

**LID Measures:** Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas
- Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- Reduced Impervious Area (Redevelopment Only)
- Minimizing disturbance to existing trees and shrubs
- LID Site Design Credit Requested:
  - Credit 1
  - Credit 2
  - Credit 3
- Use of "country drainage" versus curb and gutter conveyance and pipe
- Bioretention Cells (includes Rain Gardens)
- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- Treebox Filter
- Water Quality Swale
- Grass Channel
- Green Roof
- Other (describe): \_\_\_\_\_

### Standard 1: No New Untreated Discharges

- No new untreated discharges
- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



# Checklist for Stormwater Report

## Checklist (continued)

### Standard 2: Peak Rate Attenuation - WAIVER REQUESTED

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

### Standard 3: Recharge - WAIVER REQUESTED

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
  - Static
  - Simple Dynamic
  - Dynamic Field<sup>1</sup>
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
  - Site is comprised solely of C and D soils and/or bedrock at the land surface
  - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  - Solid Waste Landfill pursuant to 310 CMR 19.000
  - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.



# Checklist for Stormwater Report

<sup>1</sup> 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

## Checklist (continued)

### Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

### Standard 4: Water Quality

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

- Good housekeeping practices;
  - Provisions for storing materials and waste products inside or under cover;
  - Vehicle washing controls;
  - Requirements for routine inspections and maintenance of stormwater BMPs;
  - Spill prevention and response plans;
  - Provisions for maintenance of lawns, gardens, and other landscaped areas;
  - Requirements for storage and use of fertilizers, herbicides, and pesticides;
  - Pet waste management provisions;
  - Provisions for operation and management of septic systems;
  - Provisions for solid waste management;
  - Snow disposal and plowing plans relative to Wetland Resource Areas;
  - Winter Road Salt and/or Sand Use and Storage restrictions;
  - Street sweeping schedules;
  - Provisions for prevention of illicit discharges to the stormwater management system;
  - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
  - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
  - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
  - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
    - is within the Zone II or Interim Wellhead Protection Area
    - is near or to other critical areas
    - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
    - involves runoff from land uses with higher potential pollutant loads.
  - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
  - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



# Checklist for Stormwater Report

## Checklist (continued)

### Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
  - The ½" or 1" Water Quality Volume or
  - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

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

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted *prior to* the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does *not* cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has *not* been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

N/A -

### Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



# Checklist for Stormwater Report

## Checklist (continued)

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

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
- Limited Project
  - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
  - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
  - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
  - Bike Path and/or Foot Path
  - Redevelopment Project
- Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report. *-SEE WANTED REQUESTS*
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

- Narrative;
  - Construction Period Operation and Maintenance Plan;
  - Names of Persons or Entity Responsible for Plan Compliance;
  - Construction Period Pollution Prevention Measures;
  - Erosion and Sedimentation Control Plan Drawings;
  - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
  - Vegetation Planning;
  - Site Development Plan;
  - Construction Sequencing Plan;
  - Sequencing of Erosion and Sedimentation Controls;
  - Operation and Maintenance of Erosion and Sedimentation Controls;
  - Inspection Schedule;
  - Maintenance Schedule;
  - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report. *ON THE SITE PLAN*



# Checklist for Stormwater Report

## Checklist (continued)

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

- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

### Standard 9: Operation and Maintenance Plan

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
  - Name of the stormwater management system owners;
  - Party responsible for operation and maintenance;
  - Schedule for implementation of routine and non-routine maintenance tasks;
  - Plan showing the location of all stormwater BMPs maintenance access areas; - SITE PLANS
  - Description and delineation of public safety features;
  - Estimated operation and maintenance budget; and
  - Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
  - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
  - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

### Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached;
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.

## MA D.E.P. STORMWATER STANDARDS

### **Standard 1: No New Untreated Discharges**

There are no new untreated discharges to any areas subject to the Wetlands Protection Act or the 100 foot buffer zone. All site discharges would be pretreated to remove a minim 80% of the total suspended solids prior to connection to the drainage system.

### **Standard 2: Peak Rate Attenuation**

As outlined in the Site Plan Application documents the Nyanza AUL places limitations on the site, and the LSP report has recommended stormwater runoff directed to the existing stormwater facilities. The peak flow rates for each design storm along with hydrographs have been provided in the model output. The stormwater runoff has been analyzed using HydroCAD, and rainfall depths for the design storms were taken from the most recent NOAA Atlas 14 for Ashland, MA.

The analysis and results below represent the total runoff generated from the project area under the existing and proposed conditions. A summary of each storm event is listed below.

| <b>Storm Event</b>        | <b>Peak Rate of Runoff<br/>Existing<br/>(Proposed)</b> | <b>Volume of Runoff<br/>Existing<br/>(Proposed)</b> |
|---------------------------|--|---|
| 1-inch storm<br>(1 inch)  | 0.00 cfs<br>(0.05 cfs)                                 | 0.000 acre-ft<br>(0.005 acre-ft)                    |
| 2-year<br>(3.36 inches)   | 0.00 cfs<br>(1.30 cfs)                                 | 0.003 acre-ft<br>(0.078 acre-ft)                    |
| 10-year<br>(5.25 inches)  | 0.14 cfs<br>(2.56 cfs)                                 | 0.025 acre-ft<br>(0.155 acre-ft)                    |
| 25-year<br>(6.42 inches)  | 0.35 cfs<br>(3.37 cfs)                                 | 0.046 acre-ft<br>(0.206 acre-ft)                    |
| 100-year<br>(8.24 inches) | 0.86 cfs<br>(4.62 cfs)                                 | 0.088 acre-ft<br>(0.287 acre-ft)                    |

### **Standard 3: Stormwater Recharge**

The site lies within an Activities and Use Limitation (AUL) under MassDEP related to the Nyanza groundwater plume. The letter from the LSP has been included with the Site Plan Application, and the presence of potential contamination would appear to preclude the possibility of groundwater infiltration or artificial recharge on-site.

**Standard 4: Water Quality**

The proposed project has been designed to provide an improvement to water quality through the installation of new deep sump catch basins and water quality structures (Stormceptors) sized to remove a greater than 80% of the annual total suspended solids. A recommended long-term pollution prevention plan is also provided as part of the attached Operation and Maintenance Plan.

**Water Quality Structure 1**

| <b>1<br/>BMP</b>             | <b>2<br/>TSS<br/>Removal</b> | <b>3<br/>Starting TSS</b> | <b>4<br/>TSS Removal<br/>( 2 * 3 )</b> | <b>5<br/>Remaining TSS<br/>( 3 - 4 )</b> |
|------------------------------|------------------------------|---------------------------|--|--|
| Deep Sump<br>Catch Basin     | 25%                          | 100%                      | 25%                                    | 75%                                      |
| Stormceptor 450              | 84%                          | 75%                       | 63%                                    | 12%                                      |
| <b>Total TSS<br/>Removal</b> |                              |                           | <b>88%</b>                             |  |

STC-450: TSS removal = 84%

Water quality flow rate (WQF) = 0.35 cfs

Per MassDEP Guidance

$WQF = (qu) \times (\text{imp. area in square miles}) \times (1\text{-inch})$

where  $qu = 835$  (per guidance figure 4)

$A = 11,830 \text{ s.f.} = 0.00042 \text{ sq. mi.}$

**Standard 5: Land Uses with Higher Potential Pollutant Loads**

Not applicable – The site does not contain any land uses with higher pollutant loads. However, the project has been designed to meet the requirement of Standard 5 where groundwater recharge has not been proposed and the selected BMP's are suitable for the land use.

**Standard 6: Critical Areas**

Not applicable – The site is not located within any critical areas.

**Standard 7: Redevelopment**

Not applicable – The site does not qualify as a redevelopment project.

**Standard 8: Construction Period Controls**

Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan have been provided on the site plans. The overall limit of work is less than 1-acre and would not be covered under the NPDES General Construction Permit.

**Standard 9: Operation and Maintenance Plan**

A recommended Operation and Maintenance Plan has been attached with this report.

**Standard 10: Illicit Discharge Statement**

Illicit discharges are prohibited. Existing building are to be removed and replaced with new utility connections and connections to the municipal sewer system within Tilton Avenue. All of the pre-existing plumbing and utility connections will be removed and/or otherwise decommissioned. Any new floor drains would be connected to oil/water separators and then connected to the municipal sewerage system per the Plumbing Code requirements.

Certification: To the best of my knowledge, the attached plans, computations and specifications meet the requirements of Standard 10 of the Massachusetts Stormwater Handbook regarding illicit discharges to the stormwater management system. Based upon available information, no known illicit discharges exist on the site, and future Illicit discharges are prohibited. The proposed sewerage utilities and/or floor drains shall be connected to the municipal sewerage system. All current documents and attachments were prepared under my direction and qualified personnel properly gathered and evaluated the information submitted.

Name: Vito Colonna

Organization: Connorstone Engineering

Signature: [Handwritten Signature]

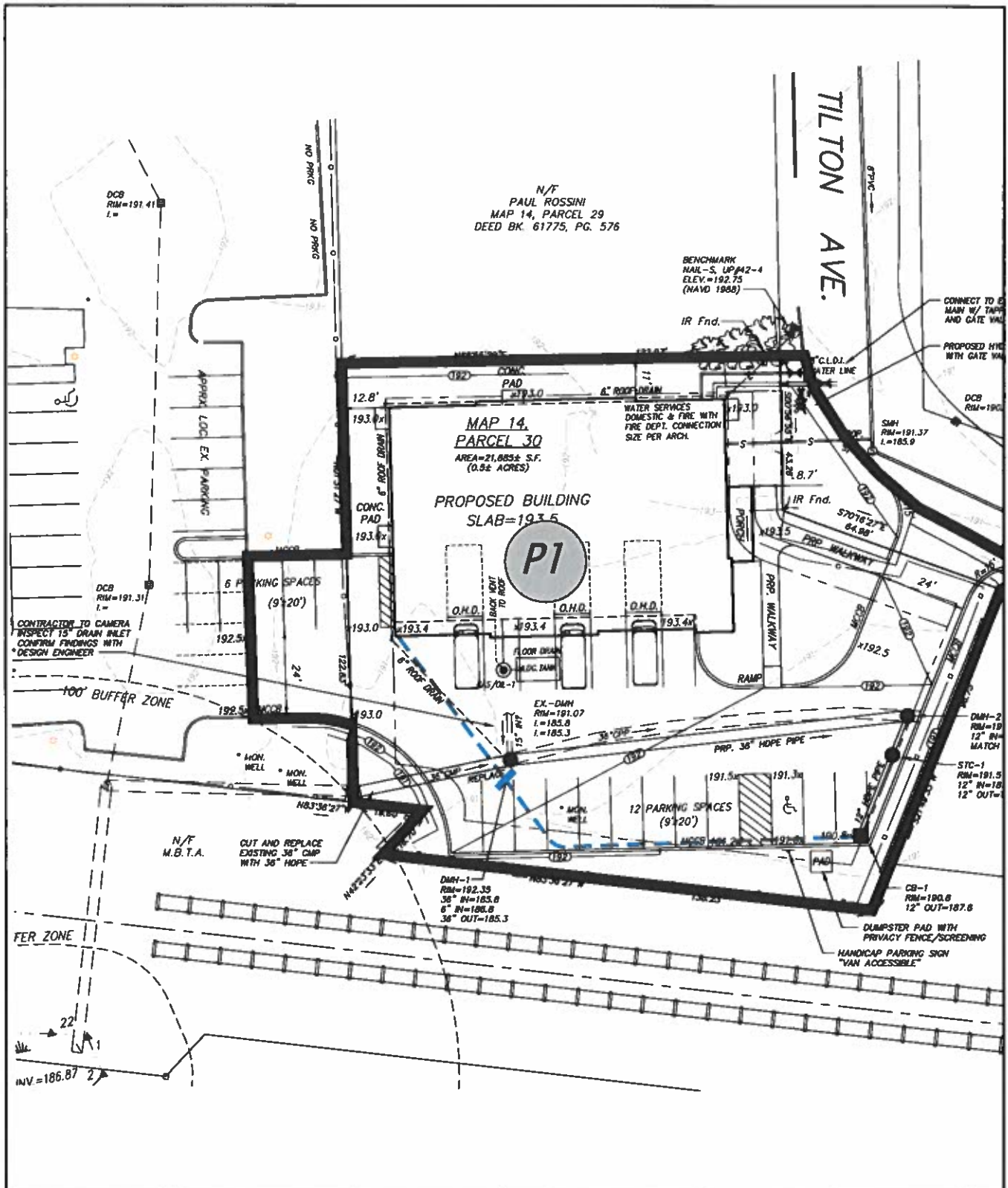
Date: 2/26/2025

## **HYDROCAD CALCULATIONS**

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**PROPOSED CONDITION  
1-inch, 2 Year, 10 Year, 25 Year  
& 100 Year Storm  
Calculation Sheets**





N/F  
PAUL ROSSINI  
MAP 14, PARCEL 29  
DEED BK. 61775, PG. 576

TILTON AVE.

MAP 14,  
PARCEL 30  
AREA=21,885± S.F.  
(0.5± ACRES)

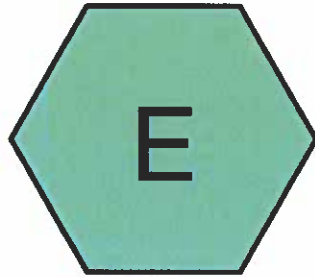
PROPOSED BUILDING  
SLAB=193.5

P1

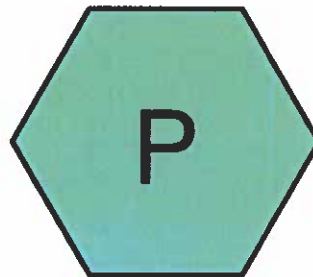
**PROPOSED CONDITIONS  
SUBCATCHMENT MAP**

**55 TILTON AVENUE  
ASHLAND, MA**

**SCALE: 1"=40'**



Existing



Proposed



**Summary for Subcatchment E: Existing**

**Summary for Subcatchment P: Proposed**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff = 0.05 cfs @ 12.06 hrs, Volume= 0.005 af, Depth= 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 1-inch Rainfall=1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 1-inch Rainfall=1.00"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 1,430     | 98 | Roofs, HSG A                  |
| 1,735     | 98 | Paved parking, HSG A          |
| 18,385    | 39 | >75% Grass cover, Good, HSG A |
| 3,050     | 30 | Woods, Good, HSG A            |
| 24,600    | 45 | Weighted Average              |
| 21,435    |    | 87.13% Pervious Area          |
| 3,165     |    | 12.87% Impervious Area        |

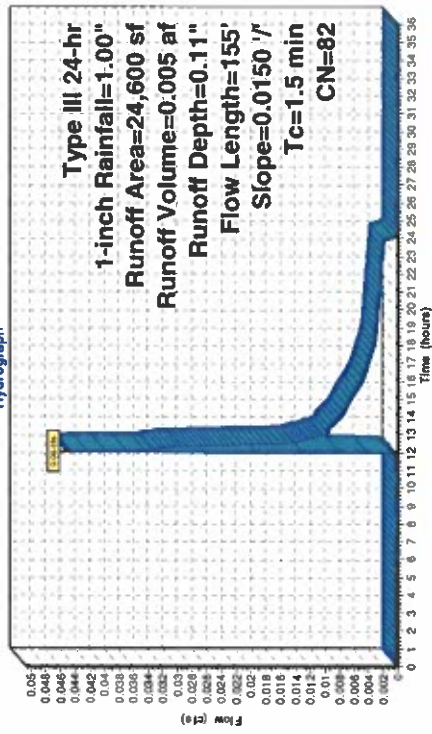
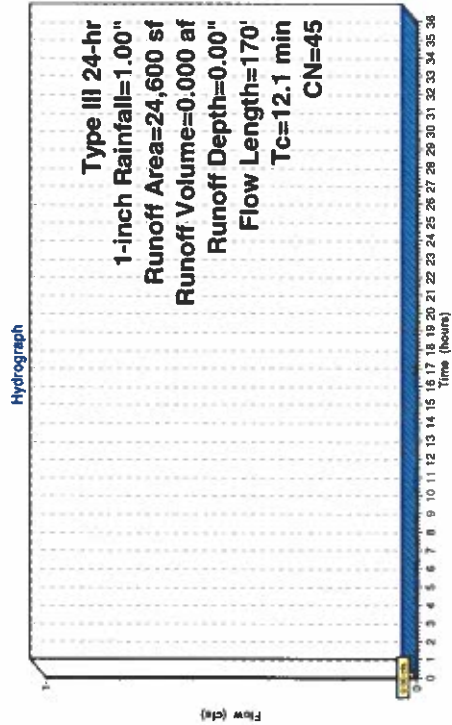
| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 6,270     | 98 | Roofs, HSG A                  |
| 11,830    | 98 | Paved parking, HSG A          |
| 6,500     | 39 | >75% Grass cover, Good, HSG A |
| 24,600    | 82 | Weighted Average              |
| 6,500     |    | 26.42% Pervious Area          |
| 18,100    |    | 73.58% Impervious Area        |

| Tc (min) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description  |
|----------|---------------|-------------------|----------------|--|
| 9.2      | 50            | 0.0150            | 0.09           | Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"                |
| 2.9      | 120           | 0.0100            | 0.70           | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 12.1     | 170           | Total             |                |  |

| Tc (min) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                    |
|----------|---------------|-------------------|----------------|--|
| 0.8      | 50            | 0.0150            | 1.07           | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20" |
| 0.7      | 105           | 0.0150            | 2.49           | Shallow Concentrated Flow, Paved Kv= 20.3 fps  |
| 1.5      | 155           | Total             |                |  |

**Subcatchment E: Existing**

**Subcatchment P: Proposed**



Summary for Subcatchment E: Existing

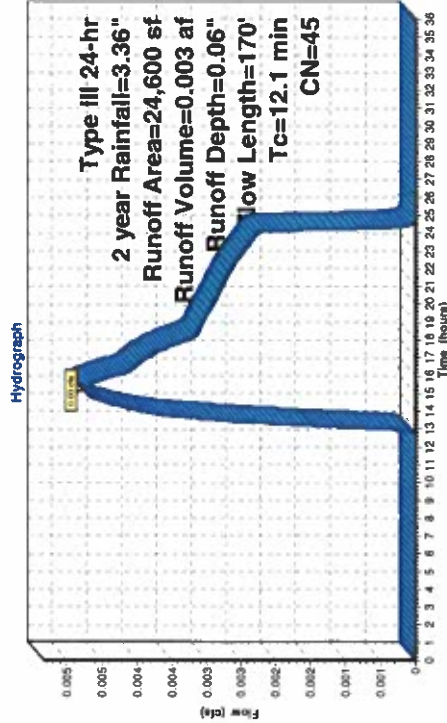
Runoff = 0.00 cfs @ 15.10 hrs, Volume= 0.003 af, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 2 year Rainfall=3.36"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 1,430     | 98 | Roofs, HSG A                  |
| 1,735     | 98 | Paved parking, HSG A          |
| 18,385    | 39 | >75% Grass cover, Good, HSG A |
| 3,050     | 30 | Woods, Good, HSG A            |
| 24,600    | 45 | Weighted Average              |
| 21,435    |    | 87.13% Pervious Area          |
| 3,165     |    | 12.87% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 9.2      | 50            | 0.0150        | 0.09              |                | Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"                 |
| 2.9      | 120           | 0.0100        | 0.70              |                | Shallow Concentrated Flow, Short Grass Pasture, Kv= 7.0 fps |
| 12.1     | 170           | Total         |                   |                |   |

Subcatchment E: Existing



Summary for Subcatchment P: Proposed

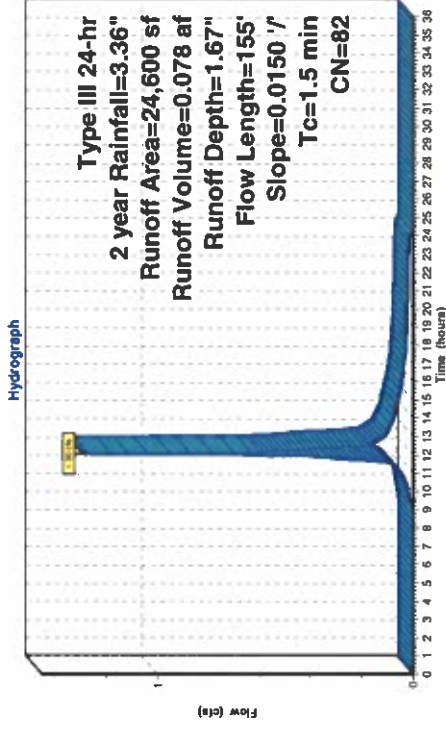
Runoff = 1.30 cfs @ 12.02 hrs, Volume= 0.078 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 2 year Rainfall=3.36"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 6,270     | 98 | Roofs, HSG A                  |
| 11,830    | 98 | Paved parking, HSG A          |
| 6,500     | 39 | >75% Grass cover, Good, HSG A |
| 24,600    | 82 | Weighted Average              |
| 6,500     |    | 26.42% Pervious Area          |
| 18,100    |    | 73.58% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                    |
|----------|---------------|---------------|-------------------|----------------|--|
| 0.8      | 50            | 0.0150        | 1.07              |                | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20" |
| 0.7      | 105           | 0.0150        | 2.49              |                | Shallow Concentrated Flow, Paved, Kv= 20.3 fps |
| 1.5      | 155           | Total         |                   |                |  |

Subcatchment P: Proposed



Type III 24-hr 10 year Rainfall=5.25"  
 Printed 2/27/2025

Type III 24-hr 10 year Rainfall=5.25"  
 Printed 2/27/2025

Summary for Subcatchment E: Existing

Runoff = 0.14 cfs @ 12.38 hrs. Volume= 0.025 af, Depth= 0.52"

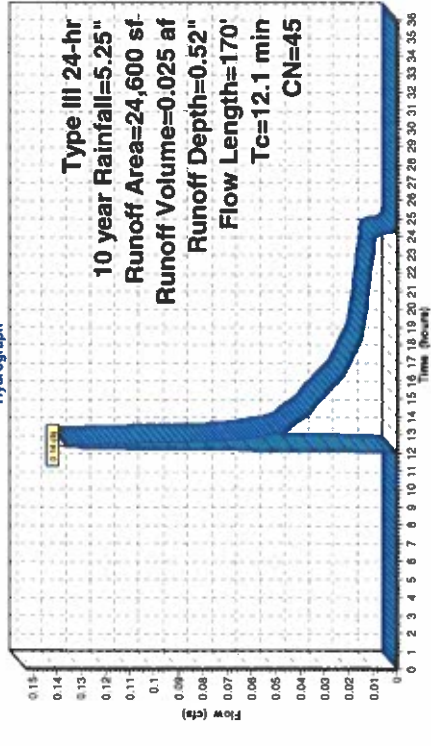
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 10 year Rainfall=5.25"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 1,430     | 98 | Roofs, HSG A                  |
| 1,735     | 98 | Paved parking, HSG A          |
| 18,385    | 39 | >75% Grass cover, Good, HSG A |
| 3,050     | 30 | Woods, Good, HSG A            |
| 24,600    | 45 | Weighted Average              |
| 21,435    |    | 87.13% Pervious Area          |
| 3,165     |    | 12.87% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 9.2      | 50            | 0.0150        | 0.09              |                | Sheet Flow,<br>Grass: Dense n= 0.240 P2= 3.20"                |
| 2.9      | 120           | 0.0100        | 0.70              |                | Shallow Concentrated Flow,<br>Short Grass Pasture Kv= 7.0 fps |
| 12.1     | 170           | Total         |                   |                |   |

Subcatchment E: Existing

Hydrograph



Summary for Subcatchment P: Proposed

Runoff = 2.56 cfs @ 12.02 hrs. Volume= 0.155 af, Depth= 3.30"

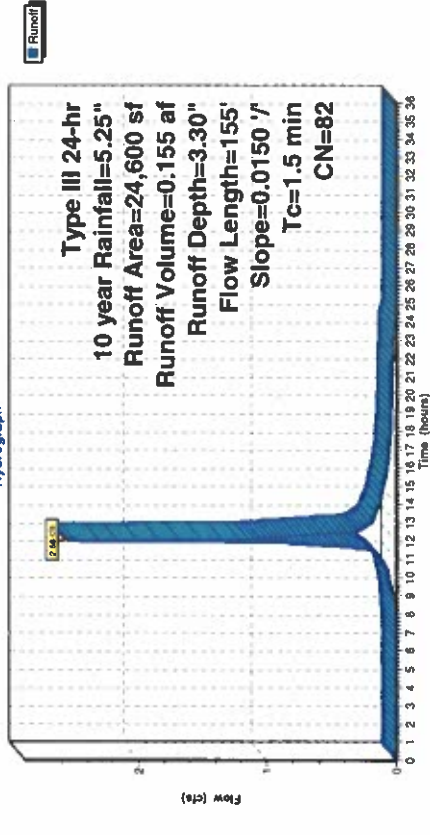
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 10 year Rainfall=5.25"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 6,270     | 98 | Roofs, HSG A                  |
| 11,830    | 98 | Paved parking, HSG A          |
| 6,500     | 39 | >75% Grass cover, Good, HSG A |
| 24,600    | 82 | Weighted Average              |
| 6,500     |    | 26.42% Pervious Area          |
| 18,100    |    | 73.58% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---|
| 0.8      | 50            | 0.0150        | 1.07              |                | Sheet Flow,<br>Smooth surfaces n= 0.011 P2= 3.20" |
| 0.7      | 105           | 0.0150        | 2.49              |                | Shallow Concentrated Flow,<br>Paved Kv= 20.3 fps  |
| 1.5      | 155           | Total         |                   |                |   |

Subcatchment P: Proposed

Hydrograph



**Summary for Subcatchment E: Existing**

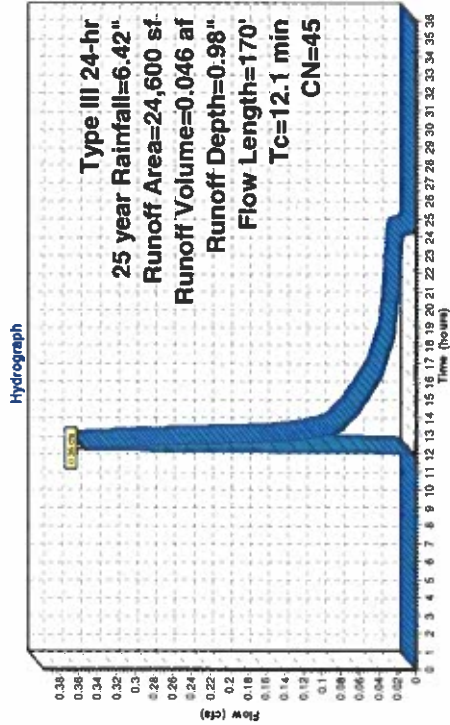
Runoff = 0.35 cfs @ 12.22 hrs, Volume= 0.046 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 25 year Rainfall=6.42"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 1,430     | 98 | Roofs, HSG A                  |
| 1,735     | 98 | Paved parking, HSG A          |
| 18,385    | 39 | >75% Grass cover, Good, HSG A |
| 3,050     | 30 | Woods, Good, HSG A            |
| 24,600    | 45 | Weighted Average              |
| 21,435    |    | 87.13% Pervious Area          |
| 3,165     |    | 12.87% Impervious Area        |

| Tc (min) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description  |
|----------|---------------|-------------------|----------------|--|
| 9.2      | 50            | 0.0150            | 0.09           | Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"                |
| 2.9      | 120           | 0.0100            | 0.70           | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 12.1     | 170           | Total             |                |  |

**Subcatchment E: Existing**



**Summary for Subcatchment P: Proposed**

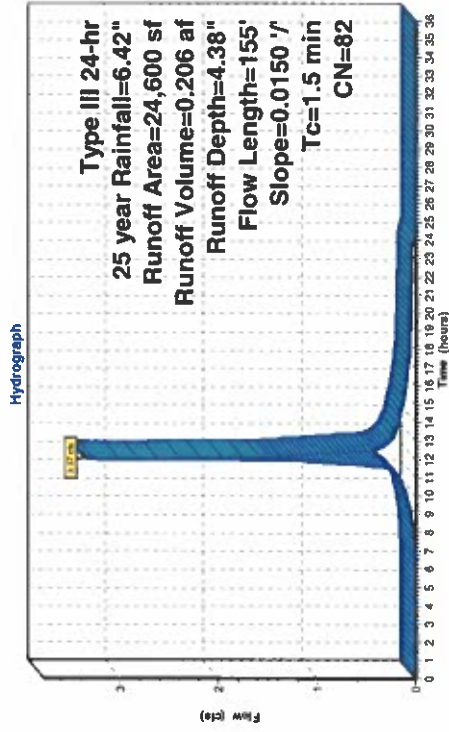
Runoff = 3.37 cfs @ 12.02 hrs, Volume= 0.206 af, Depth= 4.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 25 year Rainfall=6.42"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 6,270     | 98 | Roofs, HSG A                  |
| 11,830    | 98 | Paved parking, HSG A          |
| 6,500     | 39 | >75% Grass cover, Good, HSG A |
| 24,600    | 82 | Weighted Average              |
| 6,500     |    | 26.42% Pervious Area          |
| 18,100    |    | 73.58% Impervious Area        |

| Tc (min) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                    |
|----------|---------------|-------------------|----------------|--|
| 0.8      | 50            | 0.0150            | 1.07           | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20" |
| 0.7      | 105           | 0.0150            | 2.49           | Shallow Concentrated Flow, Paved Kv= 20.3 fps  |
| 1.5      | 155           | Total             |                |  |

**Subcatchment P: Proposed**



**Summary for Subcatchment E: Existing**

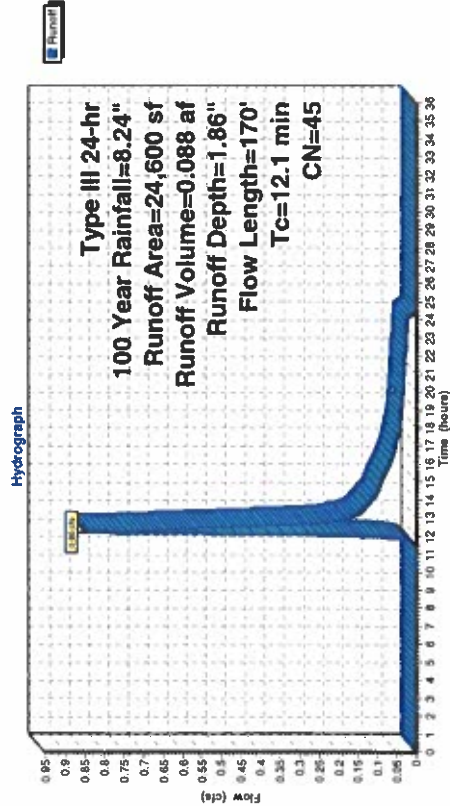
Runoff = 0.85 cfs @ 12.19 hrs, Volume= 0.088 af, Depth= 1.86"  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 100 Year Rainfall=8.24"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 1,430     | 98 | Roofs, HSG A                  |
| 1,735     | 98 | Paved parking, HSG A          |
| 18,385    | 39 | >75% Grass cover, Good, HSG A |
| 3,050     | 30 | Woods, Good, HSG A            |
| 24,600    | 45 | Weighted Average              |
| 21,435    |    | 87.13% Pervious Area          |
| 3,165     |    | 12.87% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description  |
|----------|---------------|---------------|-------------------|----------------|--|
| 9.2      | 50            | 0.0150        | 0.09              |                | Sheet Flow, Grass: Dense n= 0.240 P2= 3.20"                |
| 2.9      | 120           | 0.0100        | 0.70              |                | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 12.1     | 170           | Total         |                   |                |  |

**Subcatchment E: Existing**



**Summary for Subcatchment P: Proposed**

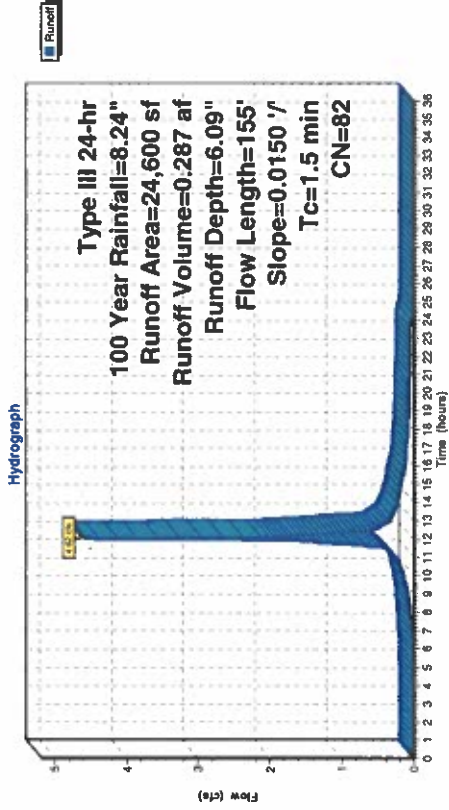
Runoff = 4.62 cfs @ 12.02 hrs, Volume= 0.287 af, Depth= 6.09"  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs  
 Type III 24-hr 100 Year Rainfall=8.24"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 6,270     | 98 | Roofs, HSG A                  |
| 11,830    | 98 | Paved parking, HSG A          |
| 6,500     | 39 | >75% Grass cover, Good, HSG A |
| 24,600    | 82 | Weighted Average              |
| 6,500     |    | 26.42% Pervious Area          |
| 18,100    |    | 73.58% Impervious Area        |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                    |
|----------|---------------|---------------|-------------------|----------------|--|
| 0.8      | 50            | 0.0150        | 1.07              |                | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20" |
| 0.7      | 105           | 0.0150        | 2.49              |                | Shallow Concentrated Flow, Paved Kv= 20.3 fps  |
| 1.5      | 155           | Total         |                   |                |  |

**Subcatchment P: Proposed**



## **WATER QUALITY STRUCTURE SIZING DATA**

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## Stormceptor Design Summary

### PCSWMM for Stormceptor

#### Project Information

|                |               |
|----------------|---------------|
| Date           | 2/27/2025     |
| Project Name   | 55 Tilton Ave |
| Project Number | -             |
| Location       | Ashland       |

#### Designer Information

|         |      |
|---------|------|
| Company | CASI |
| Contact | -    |

#### Notes

|     |
|-----|
| N/A |
|-----|

#### Drainage Area

|                    |     |
|--------------------|-----|
| Total Area (ac)    | 0.3 |
| Imperviousness (%) | 100 |

The Stormceptor System model STC 450i achieves the water quality objective removing 84% TSS for a NJDEP (clay, silt, sand) particle size distribution; providing continuous positive treatment for a stormwater quality flow rate of 0.35 cfs.

#### Rainfall

|                  |                  |
|------------------|------------------|
| Name             | WORCESTER WSO AP |
| State            | MA               |
| ID               | 9923             |
| Years of Records | 1948 to 2005     |
| Latitude         | 42°16'2"N        |
| Longitude        | 71°52'34"W       |

#### Water Quality Objective

|                    |      |
|--------------------|------|
| TSS Removal (%)    | 80   |
| WQ Flow Rate (cfs) | 0.35 |

#### Upstream Storage

| Storage (ac-ft) | Discharge (cfs) |
|-----------------|-----------------|
| 0               | 0               |

#### Stormceptor Sizing Summary

| Stormceptor Model | TSS Removal |
|-------------------|-------------|
|                   | %           |
| STC 450i          | 84          |
| STC 900           | 90          |
| STC 1200          | 90          |
| STC 1800          | 90          |
| STC 2400          | 92          |
| STC 3600          | 93          |
| STC 4800          | 95          |
| STC 6000          | 95          |
| STC 7200          | 96          |
| STC 11000         | 97          |
| STC 13000         | 97          |
| STC 16000         | 98          |

← MODEL  
SELECTED



### Particle Size Distribution

Removing silt particles from runoff ensures that the majority of the pollutants, such as hydrocarbons and heavy metals that adhere to fine particles, are not discharged into our natural water courses. The table below lists the particle size distribution used to define the annual TSS removal.

| NJDEP (clay, silt, sand) |                   |                  |                           |  |                     |                   |                  |                           |
|--------------------------|-------------------|------------------|---------------------------|--|---------------------|-------------------|------------------|---------------------------|
| Particle Size<br>µm      | Distribution<br>% | Specific Gravity | Settling Velocity<br>ft/s |  | Particle Size<br>µm | Distribution<br>% | Specific Gravity | Settling Velocity<br>ft/s |
| 1                        | 5                 | 2.65             | 0.0012                    |  |                     |                   |                  |                           |
| 4                        | 15                | 2.65             | 0.0012                    |  |                     |                   |                  |                           |
| 29                       | 25                | 2.65             | 0.0025                    |  |                     |                   |                  |                           |
| 75                       | 15                | 2.65             | 0.0133                    |  |                     |                   |                  |                           |
| 175                      | 30                | 2.65             | 0.0619                    |  |                     |                   |                  |                           |
| 375                      | 5                 | 2.65             | 0.1953                    |  |                     |                   |                  |                           |
| 750                      | 5                 | 2.65             | 0.4266                    |  |                     |                   |                  |                           |

### Stormceptor Design Notes

- Stormceptor performance estimates are based on simulations using PCSWMM for Stormceptor.
- Design estimates listed are only representative of specific project requirements based on total suspended solids (TSS) removal.
- Only the STC 450i is adaptable to function with a catch basin inlet and/or inline pipes.
- Only the Stormceptor models STC 450i to STC 7200 may accommodate multiple inlet pipes.
- Inlet and outlet invert elevation differences are as follows:

| Inlet and Outlet Pipe Invert Elevations Differences |          |                     |                        |
|---|----------|---------------------|------------------------|
| Inlet Pipe Configuration                            | STC 450i | STC 900 to STC 7200 | STC 11000 to STC 16000 |
| Single inlet pipe                                   | 3 in.    | 1 in.               | 3 in.                  |
| Multiple inlet pipes                                | 3 in.    | 3 in.               | Only one inlet pipe.   |

- Design estimates are based on stable site conditions only, after construction is completed.
- Design estimates assume that the storm drain is not submerged during zero flows. For submerged applications, please contact your local Stormceptor representative.
- Design estimates may be modified for specific spills controls. Please contact your local Stormceptor representative for further assistance.
- For pricing inquiries or assistance, please contact Rinker Materials 1 (800) 909-7763 [www.rinkerstormceptor.com](http://www.rinkerstormceptor.com)

## **STORMWATER OPERATION & MAINTENANCE PLAN**

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# **Stormwater Operations and Management Plan and Long-term Pollution Prevention Program**

55 Tilton Avenue  
Ashland, MA

**Stormwater Management System Owner:  
AND Responsible Party** \_\_\_\_\_

This Operation and Maintenance Plan has been prepared in accordance with the MA Department of Environmental Protection stormwater standards and recommendations outlined in the stormwater handbook. This plan outlines the minimum efforts necessary to ensure that the stormwater collection and treatment system and sedimentation and erosion control system for this site operates in accordance with Massachusetts Department of Environmental Protection (DEP) stormwater management policy. Efforts in addition to the minimum listed herein may be required to ensure adequate stormwater management.

This plan includes general site restrictions, routing/non-routine operation and maintenance; reporting and record keeping; and an estimated budget.

## **General Conditions**

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1. The following site conditions are imposed as part of this Plan.
  - Illicit discharges into stormwater management system are perpetually prohibited.
  - The use of fertilizers should be limited to slow-release, low-nitrogen fertilizers.
2. The Town Engineer shall be notified before maintenance work is performed and shall be afforded the opportunity to inspect the work. Copies of any contracts, inspection reports, and invoices for the work performed shall be retained and made available if requested by the Town Engineer.
3. All material removed from the drainage system (i.e. catch basin cleanings) shall be legally disposed of off-site.

## **Operation and Maintenance:**

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Stormwater management facilities should be inspected a minimum of four times per year and following at least one major storm per year. Upon completion of inspection, the inspector should specify any necessary corrective actions to be taken by ownership of the facility. The items to be inspected and maintained are described in the following sections.

Based on the observed conditions, the Responsible Party shall immediately schedule the appropriate maintenance. Some minor maintenance, such as the removal of blockages, debris and saplings in the basins may be conducted at the time of the inspection. More difficult maintenance activities, requiring special equipment, will have to be scheduled, such as the removal of excessive sediment or the repair of eroded areas. All sediment must be removed at least once per year.

### Catch Basins, and Stormceptors.

The actual removal of sediments and associated pollutants and trash occurs only when sumps are cleaned out; therefore, regular maintenance is required. The more frequent the cleaning, the less likely sediments will be resuspended and subsequently discharged. Frequent cleaning also results in more volume available for future storms and enhances the overall performance.

At a minimum, catch basins and Stormceptors should be inspected four times annually, and cleaned whenever sediment accumulation exceeds 12 inches in catch basins and 8 inches in Stormceptors. Disposal of the accumulated sediment and hydrocarbons must be in accordance with applicable local, state, and federal guidelines and regulations. At each inspection, inspect gas trap hoods and repair as necessary. Inspect outlet pipe and remove debris. Vacuum trucks shall be utilized for all cleanings.

### Street Sweeping

Street sweeping of the roadway should be performed at least twice per year, preferably in the spring after the snow has melted and in the fall, prior to snowfall. Disposal of the sweepings must be in accordance with applicable local, state, and federal guidelines and regulations.

### Debris Accumulation

The inspector shall check basins and channels for both sediment and debris accumulations. Debris and sediment shall be removed at the time of the inspection, if feasible. Sediment shall not be allowed to accumulate and restrict flows. Most debris can be removed by hand or with hand tools (e.g. shovel). Some larger objects, such as fallen tree limbs, may have to be cut up before removal by hand is possible.

### Vegetation

The 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 affected by lack of rainfall shall 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 shall be reestablished, following the original preparation and seeding instructions. Areas of repeated erosion/scour problems shall be lined with riprap only after twice attempting to stabilize the area with geotextile fabric.

### Pipe Outlets

Pipe outlets shall be checked for: (1) signs of seepage, (2) signs of scour, (3) cracks, breaks, or deterioration of materials, and (4) rip rap condition / undermining. The outlet channel itself shall be free from obstruction (e.g., fallen trees). Vegetation and riprap shall be in good condition (e.g., grass shall be dense and healthy looking; riprap shall be free from undermining and/or deterioration). If scour is evident, the damaged area shall be filled, compacted and reseeded, stabilized with a geotextile fabric, or lined with riprap in that order. If rip rapped areas have been damaged, the riprap shall be replaced or supplemented. The use of concentrated flow dissipation devices, such as level spreaders, may help to eliminate inlet scour problems.

### Snow Removal

Snow shall not be plowed toward the wetland areas. All catch basins shall be uncovered and functional immediately after snow plowing.

### Public Safety Features

The driveway shall be kept free of snow and debris for emergency vehicle access. Storage shall not be allowed in these areas.

| Activity   | Frequency   |
|--|---|
| Perform Inspection of all System Components and Prepare Report | Four times per year   |
| Clean Catch Basins & Stormceptor                               | Minimum once per year or when sediment reaches 12-inches in catch basins or 8-inches in Stormceptor |
| Street Sweeping  | Minimum twice per year (spring and fall)  |
| Clean Gutters  | Minimum twice per year or whenever debris is noted  |

### 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 \$5,000.00. This estimate does not include the repair of structures, pipes, embankments; cleaning drain lines; snow plowing; or other non-routine tasks.

## **Emergency Response Plan / Spill Control Practices**

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On-site storage of hazardous materials shall not be allowed.

In the event of an accident in the roadway or on individual lots, where a significant amount of gasoline or other petroleum product is released, the following procedure should be followed:

1. Immediately contact the following agencies:

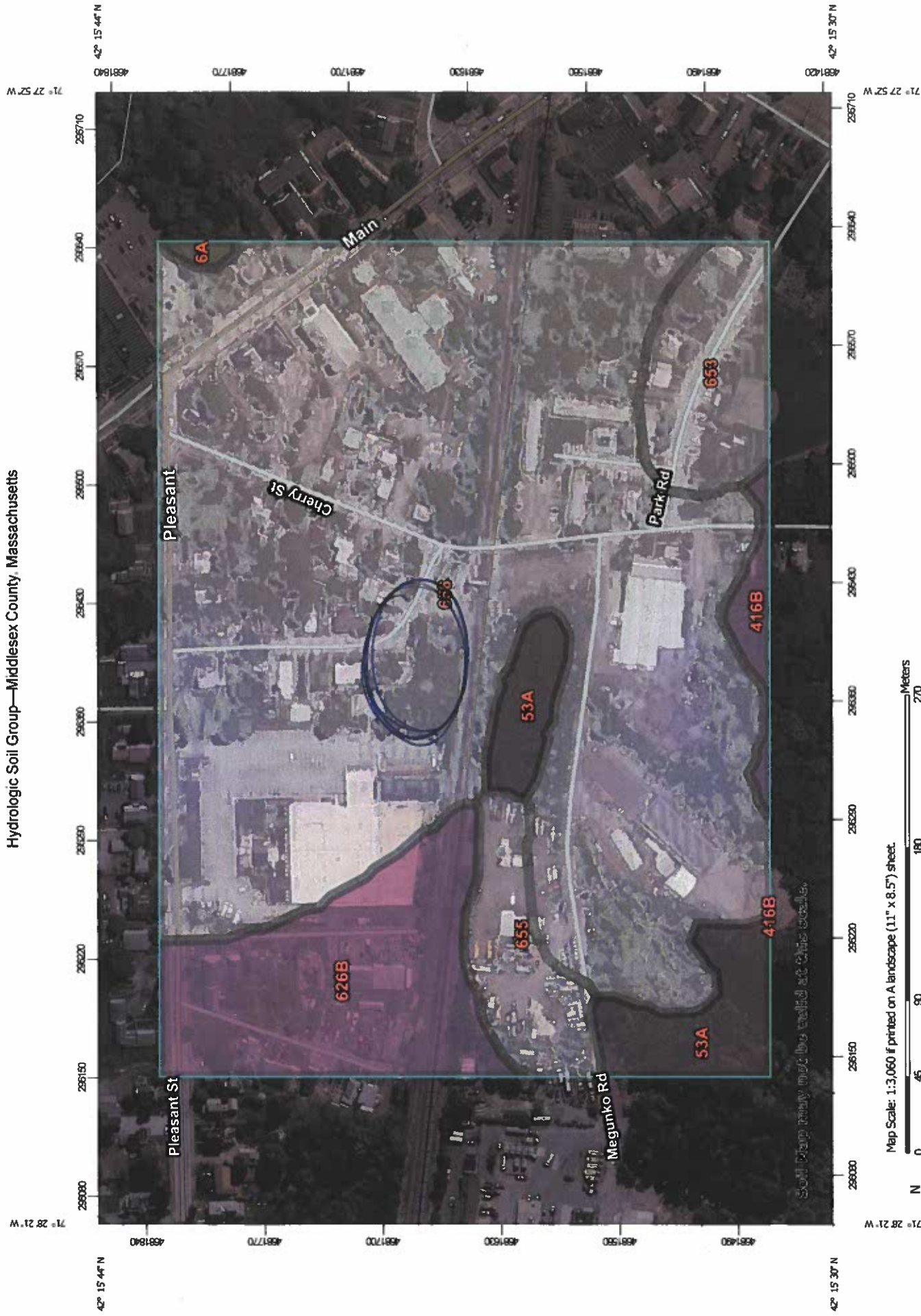
|                            |                |
|----------------------------|----------------|
| Ashland Fire Department    | (508) 881-2323 |
| MassDEP Emergency response | (888) 304-1133 |

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 catch basins, 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, additional corrective actions must be taken extending to the receiving water or beyond.

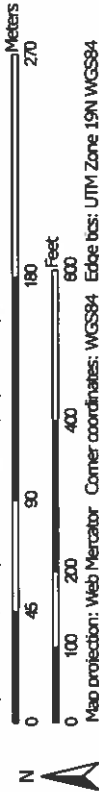


Hydrologic Soil Group—Middlesex County, Massachusetts



Soil Data may not be valid at this scale.






































Map Scale: 1:3,060 if printed on A landscape (11" x 8.5") sheet.



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

## MAP LEGEND

|  |  |
|--|--|
|  Area of Interest (AOI)       |  C                          |
|  Area of Interest (AOI)       |  C/D                        |
| <b>Soils</b>   |  D                          |
| <b>Soil Rating Polygons</b>  |  Not rated or not available |
|  A                            | <b>Water Features</b>  |
|  A/D                          |  Streams and Canals         |
|  B                            | <b>Transportation</b>  |
|  B/D                          |  Rails                      |
|  C                            |  Interstate Highways        |
|  C/D                          |  US Routes                  |
|  D                            |  Major Roads                |
|  Not rated or not available   |  Local Roads                |
| <b>Soil Rating Lines</b>   | <b>Background</b>  |
|  A                            |  Aerial Photography         |
|  A/D                          |  |
|  B                            |  |
|  B/D                          |  |
|  C                            |  |
|  C/D                          |  |
|  D                            |  |
|  Not rated or not available   |  |
| <b>Soil Rating Points</b>  |  |
|  A                            |  |
|  A/D                          |  |
|  B                            |  |
|  B/D                         |  |
|  C                          |  |
|  C/D                        |  |
|  D                          |  |
|  Not rated or not available |  |

## 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.

## Hydrologic Soil Group

| Map unit symbol                    | Map unit name   | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------|--------------|----------------|
| 6A                                 | Scarboro mucky fine sandy loam, 0 to 3 percent slopes     | A/D    | 0.1          | 0.3%           |
| 53A                                | Freetown muck, ponded, 0 to 1 percent slopes              | B/D    | 2.4          | 5.3%           |
| 416B                               | Narragansett silt loam, 3 to 8 percent slopes, very stony | A      | 0.6          | 1.3%           |
| 626B                               | Merrimac-Urban land complex, 0 to 8 percent slopes        | A      | 5.1          | 11.6%          |
| 653                                | Udorthents, sandy   |        | 2.4          | 5.5%           |
| 655                                | Udorthents, wet substratum                                |        | 1.9          | 4.2%           |
| 656                                | Udorthents-Urban land complex                             |        | 31.7         | 71.7%          |
| <b>Totals for Area of Interest</b> |   |        | <b>44.2</b>  | <b>100.0%</b>  |