

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

Provided by MassDEP:

# WPA Form 3 – Notice of Intent

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

MassDEP File Number

Document Transaction Number

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):

41½ KERNWOOD AVE

a. Street Address

HAVERHILL, MA

b. City/Town

01830

c. Zip Code

Latitude and Longitude:

633-10

f. Assessor's Map/Plat Number

42.806071

d. Latitude

-71.091230

e. Longitude

116a

g. Parcel/Lot Number

2. Applicant:

a. First Name

TINH VIEN QUAN AM

b. Last Name

c. Organization

41 ½ KERNWOOD AVE

d. Street Address

HAVERHILL

e. City/Town

MA

f. State

01930

g. Zip Code

617-283-5962

h. Phone Number

i. Fax Number

SYVO617@VERIZON.NET

j. Email Address

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

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

a. First Name

b. Last Name

c. Company

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

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

500

a. Total Fee Paid

237.5

b. State Fee Paid

262.5

c. City/Town Fee Paid



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**A. General Information (continued)**

6. General Project Description:

PAVE AND STRIPE THE PARKING LOT FOR THE TEMPLE-BUFFER ZONE ONLY WORK

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                          |   |

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:

ESSEX

a. County

33446

c. Book

b. Certificate # (if registered land)

6

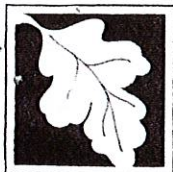
d. Page Number

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

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

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





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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	0
b. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	8417 IN BUFFER	0
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	0
	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) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

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

square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet

b. square feet within 100 ft.

c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI?

☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996?

☐ Yes ☐ No

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

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



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MassDEP File Number \_\_\_\_\_

Document Transaction Number \_\_\_\_\_

City/Town \_\_\_\_\_

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

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

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

<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 _____ 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>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 _____ 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	
	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 \_\_\_\_\_

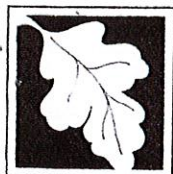
b. square feet of Salt Marsh \_\_\_\_\_

5. ☐ Project Involves Stream Crossings

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

6/13/2025

b. Date of map

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

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

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

(a) within wetland Resource Area

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

(b) outside Resource Area

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

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

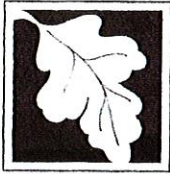
2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*\*

- (a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)
- (b) ☐ Photographs representative of the site

\*\* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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



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

- (c) ☐ MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

- (d) ☐ Vegetation cover type map of site
- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries
- (f) ☐ OR Check One of the Following

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

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

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

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

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

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

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

North Shore - Plymouth to New Hampshire border:

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

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

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

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

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





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

**Online Users:**

Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the

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.

site plan 41 1/2 kernwood ave for tinh vien quan am pagoda

a. Plan Title

l.j.b.

b. Prepared By

5/12/2025

d. Final Revision Date

leonard joseph bouffard pls james a herrick

pe

Stamp Stamped by

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:

1021

2. Municipal Check Number

1020

4. State Check Number

Thanh Hoa Nguyen

6. Payor name on check: First Name

07/15/2025

3. Check date

07/15/2025

5. Check date

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.

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

4. Date

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.

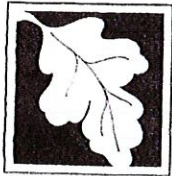
**For MassDEP:**

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:

41 1/2 KERNWOOD AVE

a. Street Address

HAVERHILL

b. City/Town

c. Check number

d. Fee amount

### 2. Applicant Mailing Address:

a. First Name

TIEN VIEN QUAN AM

b. Last Name

c. Organization

41 1/2 KERNWOOD AVENUE

d. Mailing Address

HAVERHILL

e. City/Town

MA

f. State

01830

g. Zip Code

617-283-5962

h. Phone Number

i. Fax Number

SYVO617@VERIZON.NET

j. Email Address

### 3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

## B. Fees

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

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

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

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

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

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

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

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





Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2B-PARKING LOT	1	500	500
Step 5/Total Project Fee:			500

Total Project Fee:	<u>500</u>
	a. Total Fee from Step 5
State share of filing Fee:	<u>237.50</u>
	b. 1/2 Total Fee less \$12.50
City/Town share of filling Fee:	<u>262.50</u>
	c. 1/2 Total Fee plus \$12.50

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.

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.

noifeetf.doc • Wetland Fee Transmittal Form • rev. 10/11



# City of Haverhill Conservation Commission

HCC Local Application Form 3  
Notice of Intent

CITY OF HAVERHILL  
CONSERVATION DEPARTMENT

JUL 17 2023

RECEIVED

## A. STATUTE APPLICABILITY

This application is being filed with the Commission in accordance with the following (check all that apply):

- ☐ Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40
- ☐ Haverhill Municipal Ordinance Chapter 253

## B. GENERAL INFORMATION

Applicant Tinh Vien Quan Am  
Property Owner \_\_\_\_\_  
Representative \_\_\_\_\_  
Location (Street Address) 41 1/2 Kernwood Ave Haverhill, MA 01830  
Assessor's Parcel Identification \_\_\_\_\_

## C. APPLICATION CHECKLIST

The Commission requires the submittal of this original, completed Form; one (1) paper copy of site plans; and one (1) paper copy of all other materials. Additionally, the Commission requires the submittal of individual PDFs of this Form and all listed application materials. If practical, related items may be combined into a single PDF. PDFs should not mix larger format sheets (e.g. site plans) with smaller sheets (e.g. letters). These submittal requirements also apply to supplemental information provided during the public hearing. The following materials shall be submitted with this form:

- ☐ Completed, current WPA Form 3, 3A, or 4 and NOI Wetland Fee Transmittal Form
- ☐ Project Narrative with description of resource areas & delineation methodology and demonstration of compliance with pertinent Performance Standards
- ☐ Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan
- ☐ Site Plans clearly describing the location and nature of the work, including such information as site boundaries, wetlands, topography, existing and proposed conditions, vegetation cover, soils, erosion & sedimentation controls, Title 5 compliance, flood storage calculations...(24" x 36" max. sheet size)
- ☐ MassDEP Bordering Vegetated Wetland Delineation Field Data Forms, as appropriate
- ☐ Wetland Resource Area Impact Mitigation Plan prepared in accordance with MA Inland Wetland Replication Guidelines, if applicable
- ☐ Demonstration of compliance with MA River & Stream Crossing Standards, if applicable (The HCC applies the General Standards to all resource area crossings for wildlife passage.)
- ☐ Simplified or Detailed Wildlife Habitat Evaluation (Appendix A or B), if applicable (See "MA Wildlife Habitat Protection Guidance for Inland Wetlands")
- ☐ Demonstration of compliance with MA Stormwater Management Standards, including but not limited to
  - ☐ Stormwater Report with pertinent calculations based on NOAA Atlas 14 rainfall data
  - ☐ Checklist for Stormwater Report
  - ☐ Long-Term Pollution Prevention Plan
  - ☐ Operation and Maintenance Plan
  - ☐ Illicit Discharge Compliance Statement

City Hall Room 300 • 4 Summer Street • Haverhill, MA 01830 • [www.cityofhaverhill.org](http://www.cityofhaverhill.org)





# City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

## G. AFFIDAVIT OF SERVICE FOR ABUTTER NOTIFICATION

I, Thanh Hoa Nguyen, hereby certify under the pains and penalties of perjury that on  
(NAME OF PERSON MAKING AFFIDAVIT)

07-16-2025

(DATE)

I gave notification to all abutters pursuant to the requirements of the second paragraph of Massachusetts General Laws Chapter 131, Section 40, the DEP Guide to Abutter Notification dated April 8, 1994, and Haverhill Municipal Ordinance Chapter 253, Section 5 in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act and said ordinance by  
Tinh Vien Quam Am with the Haverhill Conservation Commission on  
(NAME OF APPLICANT)

07-16-2025

(DATE)

for property located at 41 1/2 Kernwood Ave, Haverhill MA 01830

(STREET ADDRESS AND ASSESSOR'S PARCEL ID)

The list of the abutters to whom the Abutter Notification Form sent, with their addresses and Assessor's parcel identification information that corresponds with the submitted map section, are attached to this application.

Signed:

(Signature)  
(NAME OF PERSON MAKING AFFIDAVIT)

07/16/2025  
(DATE)



# City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

- ☐ 8½" x 11" sections of the following maps with project location clearly identified
- ☐ USGS Quadrangle
  - ☐ MassGIS Orthophoto
  - ☐ City of Haverhill Parcel ID Map, also identifying properties within 300' of subject property
  - ☐ NRCS Soils Map and Resource Report
  - ☐ FEMA Flood Insurance Rate Map, if applicable
  - ☐ MA NHESP Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species, if applicable
  - ☐ MassDEP/UMass-Amherst Habitat of Potential Regional or Statewide Importance, if applicable
- ☐ Proof of NOI filing with the MA Natural Heritage & Endangered Species Program, if applicable
- ☐ Appropriate Filing Fees, payable to the City of Haverhill, under the Act and Ordinance
- ☐ Other: \_\_\_\_\_

## D. LOCAL PERMIT DOCUMENTATION

In accordance with 310 CMR 10.05(4)(e), list all obtainable permits, variances, and approvals required by local ordinance with respect to the proposed activity and status of same: \_\_\_\_\_

## E. APPLICATION CERTIFICATION

I have read the Department of Environmental Protection's "Instructions for Completing Application" and the City's Municipal Ordinance under Chapter 253, with all applicable regulations and policies, for the filing of this application with the Haverhill Conservation Commission and agree to its terms and conditions, as amended. I understand the submitted NOI, its plans, and all its supporting materials are public records and may be uploaded to the City's website for public review. As required by the Commission, the wetland resource area(s) are flagged, the corners of proposed structures are staked, and the centerline of proposed roadway(s) and/or driveway(s) are marked, as appropriate, to facilitate site inspections by Commissioners and Conservation Staff.

Signed: \_\_\_\_\_

(APPLICANT)

07/16/2025  
(DATE)

## F. SITE ACCESS ACKNOWLEDGEMENT

I hereby grant the Haverhill Conservation Commission and its officials permission to enter upon my property at \_\_\_\_\_ to review the filed Notice of Intent and

(STREET ADDRESS AND ASSESSOR'S PARCEL ID)

future site conditions for compliance with the issued Order of Conditions. The sole purpose of this acknowledgement is to allow the Commission and its officials to perform their duties under the Massachusetts Wetlands Protection Act and the City's wetlands protection ordinance.

Signed: \_\_\_\_\_

(PROPERTY OWNER)

07/16/2025  
(DATE)

City Hall Room 300 • 4 Summer Street • Haverhill, MA 01830 • [www.cityofhaverhill.org](http://www.cityofhaverhill.org)





# City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

## H. ABUTTER NOTIFICATION FORM

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 (the Wetlands Protection Act) and Haverhill Municipal Ordinance Chapter 253, Section 5, you are hereby notified of the following:

1. The name of the applicant is Tinh Vien Quan AM
2. Brief Project Description: 2B Parking LOT
3. The applicant has filed a Notice of Intent ("NOI") with the Haverhill Conservation Commission seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act and/or Haverhill Municipal Ordinance Chapter 253 and/or to perform work within the buffer zone of such an Area.
4. The address of the lot where the activity is proposed is 41 1/2 KERNWOOD AVE HAVERHILL MA 01830  
(INCLUDE ASSESSOR'S MAP/BLOCK/LOT)
5. Copies of the NOI may be examined at the *Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also find helpful application materials on the "Projects Under Review" section of the Commission's website.
6. Copies of the NOI may be obtained from either (check one) the applicant \_\_\_\_\_, or the applicant's representative \_\_\_\_\_, by calling this telephone number (617) 784 - 8165 between the hours of \_\_\_\_\_ and \_\_\_\_\_ on the following days of the week \_\_\_\_\_
7. Information regarding the *date, time, and place* of the public hearing may be obtained from the *Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also consult the "Agenda" section of the Commission's website.

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

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in Haverhill City Hall not less than forty-eight (48) hours in advance.

NOTE: You may contact the Haverhill Conservation Department for more information about this application, the Wetlands Protection Act, and Haverhill Municipal Ordinance Chapter 253. Please note the Department has only one staff person; every effort will be made to assist you in a timely manner.

Website: [http://www.cityofhaverhill.org/departments/conservation\\_commission/index.php](http://www.cityofhaverhill.org/departments/conservation_commission/index.php).

Email: [conservation@cityofhaverhill.com](mailto:conservation@cityofhaverhill.com)

Phone: 978.374.2334

NOTE: For additional information about this application and the Act, you may contact the MA Department of Environmental Protection Northeast Regional Office Service Center.

Website: <http://www.mass.gov/eea/agencies/massdep/about/contacts/northeast-region.html>

Phone: 978.694.3200

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# City of Haverhill Conservation Commission

HCC Local Application Form 3

Notice of Intent

## I. LOCAL ORDINANCE FEE CALCULATION FORM

ACTIVITY	LOCAL ORDINANCE FEE	# of Activities or Measurement	Subtotal
<b>*Abbrev. Notice of Resource Area Delineation (ANRAD)</b>			
Single Family House Project	\$1/linear foot, first 100'; \$0.50/lf, second 100'; \$0.10/lf, each additional foot		
All Other Projects	***\$1/linear foot, first 1000'; \$0.50/lf, second 1000'; \$0.10/lf, each additional foot		
<b>***Notices of Intent (NOI)</b>			
Category 1 Activity	\$100		
Category 2 Activity	\$250		
Category 3 Activity	\$525		
Category 4 Activity	\$725		
Category 5 Activity	\$2/foot		
Category 6 Activity - If no ANRAD was filed for the project site, then a local Cat. 6 fee must be paid in accordance with the ANRAD fee schedule	See ANRAD fee schedule		
<b>Resource Area Alterations</b>			
Buffer Zone, 75'-100' from resource area boundary	\$0.05 / square foot		
Buffer Zone, 35'-75' from resource area boundary	\$0.10 / square foot		
Buffer Zone, 0'-35' from resource area boundary	\$0.25 / square foot		
Bordering Vegetated Wetland	\$0.50 / square foot		
Bank	\$5 / linear foot		
Land Under Water	\$0.50 / square foot		
Land Subject to Flooding	\$0.05 / square foot		
Riverfront Area	\$0.05 / square foot		
Riverfront Area with the watershed of a potable water supply	\$0.50 / square foot		
Land within 100' of a Certified Vernal Pool	\$0.25 / square foot		
Local-only Jurisdictional Resource Area	\$0.25 / square foot		
Land within 200' of a potable water supply	\$0.50 / square foot		
<b>ADVERTISING FEE*</b>			\$45
<b>LOCAL ORDINANCE FEE TOTAL</b>			
<b>For filings resulting from enforcement action, double the Local Ordinance Fee Total</b>			
<b>NOTES:</b>			
*Application is subject to an additional \$45 Local Advertising Fee payable to the City of Haverhill prior to EACH advertising			
***Local Ordinance Fee maximum of \$100 for applications exceeding 1000'. Commission requires review by outside consultant under M.G.L. Ch. 44, sec. 53G for projects exceeding 1000'. Applicant shall post escrow in accordance with HCC Rules for Hiring Outside Consultants. Cap passed by a 5-0 vote of the Commission on March 7, 2019.			
%Local Ordinance Fees for RDA, NOI, & RMOC increase 50% when project is also proposed within a Riverfront Area			
Local Ordinance Fees passed by a 7 – 0 vote of the Commission on October 28, 2010, effective January 1, 2011			

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116 WHITTAKER AVENUE REALTY TR JOHN B.  
TUTTLE-TRUSTEE  
116 WHITTAKER AVE

GUERRA EDWARD ALEXANDER  
11 OAKLAND AVE

HARKIN-DAVID CARRIE V  
39 KERNWOOD AVE

TUFTS MEDICINE CARE AT HOME INC  
847 ROGERS ST, STE #201

WEINSTEIN BEATRICE S  
30 COLUMBIA PARK

WEINSTEIN BEATRICE S  
30 COLUMBIA PARK

COOPER ZACHARY E ETUX COOPER CORINNE L  
36 OAKLAND AVE

SMITH FRED E VIRGINIA L SMITH  
33 FAIRLAWN AVE

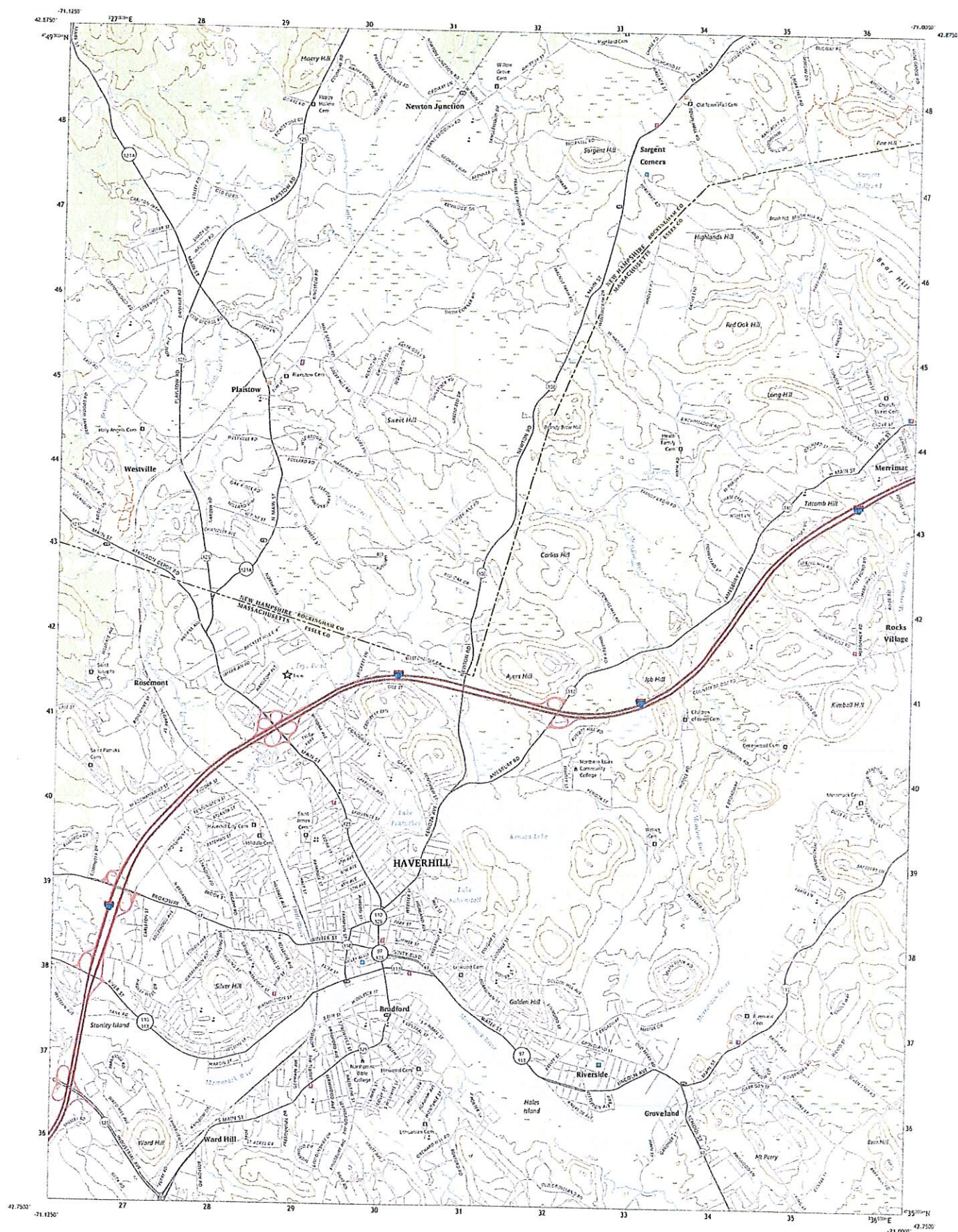
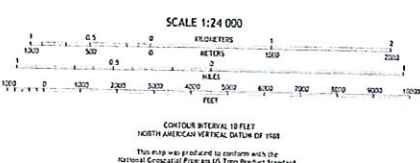
THOMPSON JOSEPH M-ETAL CASTIGLIONE MARIA  
A  
110 WOODMONT AV

SMITH FRED E VIRGINIA L SMITH  
33 FAIRLAWN AVE

STARBLE JANET M ETAL VINCENT JANE J  
79 HANSCOM AVENUE

SMALLEY JEREMY-ETAL McCORMACK MARISSA  
71 HANSCOM AVE

PICARD LEO ETUX PICARD VALERIE  
75 HANSCOM AVENUE

[illegible]

**ROAD CLASSIFICATION**

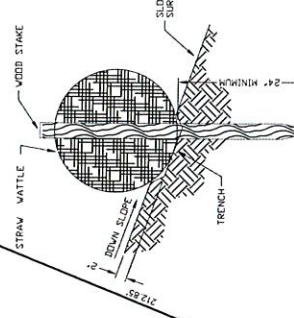
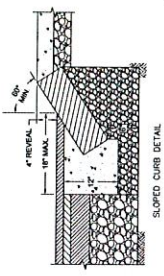
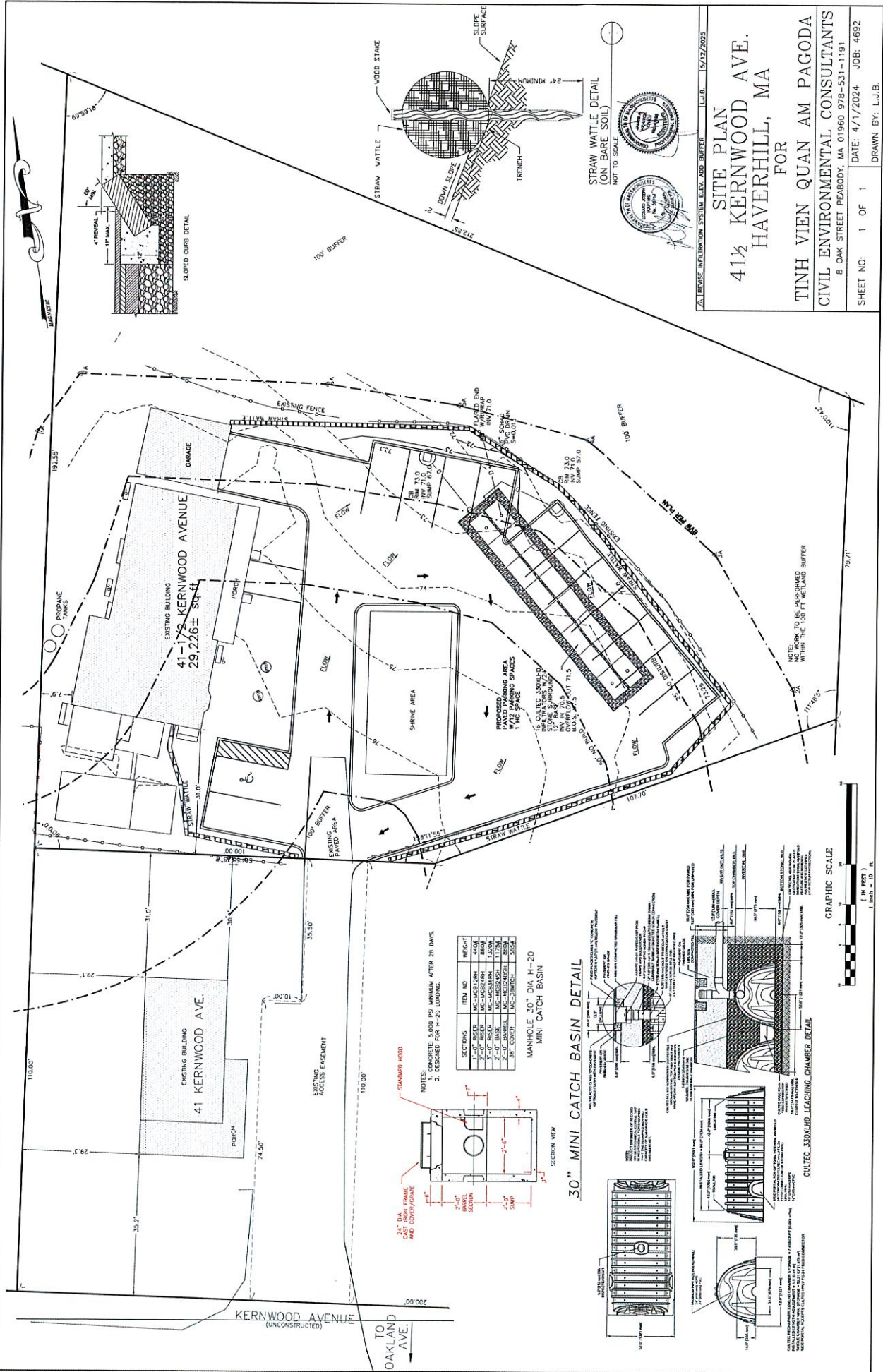
☐ Local Collector      ☐ Local Road      ☐ RTD

☐ US Route      ☐ State Route

1	2	3
4		5
6	7	8

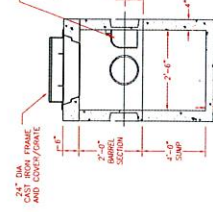
1 Sandown  
 2 Kingston  
 3 Exeter  
 4 Salern Depot  
 5 Newburyport  
 6 Lawrence





**SITE PLAN**  
**41½ KERNWOOD AVE.**  
**HAVERHILL, MA**  
**FOR**  
**TINH VIEN QUAN AM PAGODA**  
**CIVIL ENVIRONMENTAL CONSULTANTS**  
8 OAK STREET PEABODY, MA 01960 978-531-1191  
DATE: 4/1/2024 JOB: 4692  
SHEET NO: 1 OF 1 DRAWN BY: L.J.B.

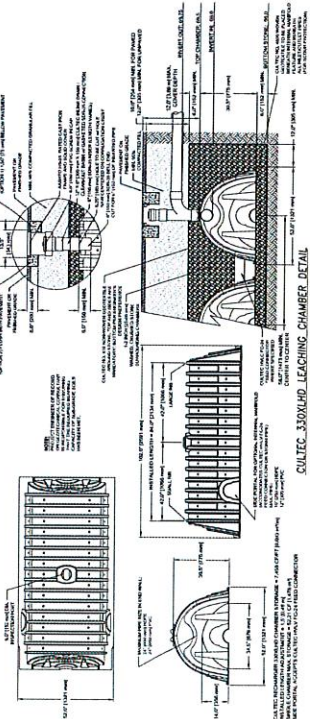
NOTES:  
1. CONCRETE 5,000 PSI MINIMUM AFTER 28 DAYS.  
2. DESIGNED FOR H-20 LOADING.



SECTIONS	ITEM NO	HEIGHT
1. 30" MINI CATCH BASIN	MC-30-1	4.00'
2. 30" MINI CATCH BASIN	MC-30-2	4.00'
3. 30" MINI CATCH BASIN	MC-30-3	4.00'
4. 30" MINI CATCH BASIN	MC-30-4	4.00'
5. 30" MINI CATCH BASIN	MC-30-5	4.00'
6. 30" MINI CATCH BASIN	MC-30-6	4.00'
7. 30" MINI CATCH BASIN	MC-30-7	4.00'
8. 30" MINI CATCH BASIN	MC-30-8	4.00'
9. 30" MINI CATCH BASIN	MC-30-9	4.00'
10. 30" MINI CATCH BASIN	MC-30-10	4.00'

MANHOLE 30" DIA H-20

30" MINI CATCH BASIN DETAIL

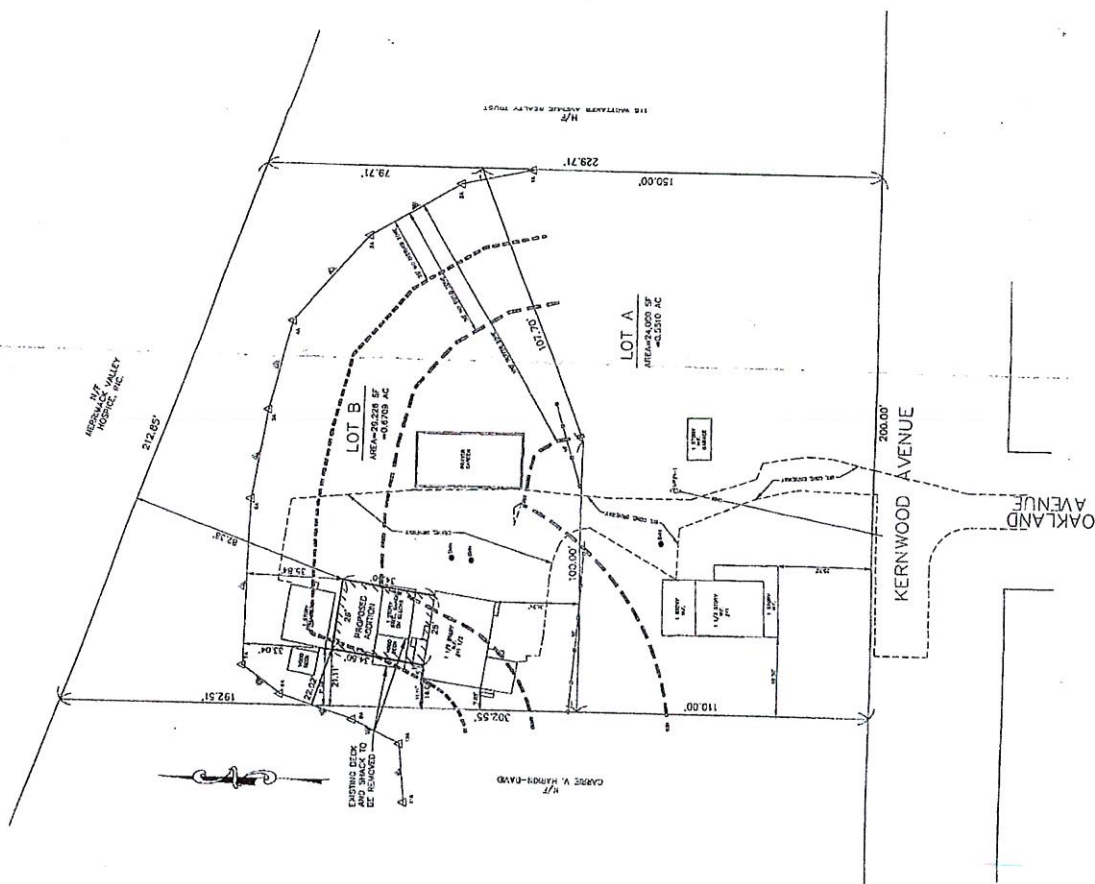


GRAPHIC SCALE



1. SEE CITY OF HAVERTHILL PARCEL ID #033-10-110 FOR LOT A AND #033-10-116A FOR LOT B DEED BOOK #33446 PAGE #8 ESSED FOR SITE.
2. WETLANDS DELINEATED BY NORSE ENVIRONMENTAL SERVICES, TYNGSBOROUGH, MA APRIL 2023.

N/F	NOW OR FORMERLY
FND	FOUND
W.F.	WOOD FRAME
BIT. CONC.	BITUMINOUS CONCRETE
• S/H	SEWER MANHOLE
CO <sub>2</sub> UP	UTILITY POLE
OHW	OVERHEAD WIRES
VF	VINYL FENCE
W	EDGE OF WETLANDS
ΔA	WETLAND FIELD FLAG



# SITE PLAN

IN  
HAVERHILL, MASSACHUSETTS  
SHOWING PROPOSED BUILDING ADDITION  
PREPARED FOR  
TINH VIEN QUAN AM TEMPLE  
41 1/2 KERNWOOD AVENUE  
HAVERHILL, MASSACHUSETTS 01930

SCALE: 1"=20'



**MERRIMACK ENGINEERING SERVICES**  
66 PARK STREET  
ANDOVER, MASSACHUSETTS 01810  
TEL: (978) 475-3555 FAX: (978) 476-1448



# BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 41 1/2 Kernwood Ave City/Town: Haverhill MA Sampling Date: 4/2023  
 Applicant/Owner: Tinh Vien Quan Am Sampling Point or Zone: \_\_\_\_\_  
 Investigator(s): Norse Environmental Latitude / Longitude: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI or DEP Classification: \_\_\_\_\_

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

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

Wetland vegetation criterion met?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input type="checkbox"/>
Hydric Soils criterion met?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetlands hydrology present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Remarks, Photo Details, Flagging, etc.: flag locations taken from attached plan. entitled norse enviromental plan		

## HYDROLOGY

<b>Field Observations:</b>		
Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches) _____
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches) _____
Saturation Present (including capillary fringe)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches) _____
<b>Wetland Hydrology Indicators</b>		
<b>Reliable Indicators of Wetlands Hydrology</b> <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Evidence of aquatic fauna <input type="checkbox"/> Iron deposits <input type="checkbox"/> Algal mats or crusts <input type="checkbox"/> Oxidized rhizospheres/pore linings <input type="checkbox"/> Thin muck surfaces <input type="checkbox"/> Plants with air-filled tissue (aerenchyma) <input type="checkbox"/> Plants with polymorphic leaves <input type="checkbox"/> Plants with floating leaves <input type="checkbox"/> Hydrogen sulfide odor	<b>Indicators that can be Reliable with Proper Interpretation</b> <input type="checkbox"/> Hydrological records <input type="checkbox"/> Free water in a soil test hole <input type="checkbox"/> Saturated soil <input type="checkbox"/> Water marks <input type="checkbox"/> Moss trim lines <input type="checkbox"/> Presence of reduced iron <input type="checkbox"/> Woody plants with adventitious roots <input type="checkbox"/> Trees with shallow root systems <input type="checkbox"/> Woody plants with enlarged lenticels	<b>Indicators of the Influence of Water</b> <input type="checkbox"/> Direct observation of inundation <input type="checkbox"/> Drainage patterns <input type="checkbox"/> Drift lines <input type="checkbox"/> Scoured areas <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Surface soil cracks <input type="checkbox"/> Sparsely vegetated concave surface <input type="checkbox"/> Microtopographic relief <input type="checkbox"/> Geographic position (depression, toe of slope, fringing lowland)
Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):		

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

**VEGETATION** – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							

0.0 \_\_\_\_\_ = Total Cover

<u>Shrub/Sapling Stratum</u>		Plot size _____		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							

0.0 \_\_\_\_\_ = Total Cover

<u>Herb Stratum</u>		Plot size _____		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							

0.0 \_\_\_\_\_ = Total Cover



**VEGETATION – continued.**

<u>Woody Vine Stratum</u>		Plot size _____			
		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name			
1.					
2.					
3.					
4.					
		0.0 = Total Cover			

<b>Rapid Test:</b> Do all dominant species have an indicator status of OBL or FACW?				Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Dominance Test:</b>	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up $\geq 50\%$ of dominant plant species?
				Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Prevalence Index:</b>		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index $\leq 3.0$ ? Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Wetland vegetation criterion met?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>				

**Definitions of Vegetation Strata**

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

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

Sampling Point \_\_\_\_\_

Form Revised July 2023



## **TSS Removal Calculation Sheet Instructions**

Either a completed automated form or non-automated form must be submitted as part of the Stormwater Report accompanying the Wetlands NOI

### **Automated Version Instructions**

The automated version may be used EXCEPT when a Proprietary BMP is proposed. This is because Proprietary BMPs have variable removal rates. The only exceptions are for Proprietary BMPs reviewed through the TARP Tier II Field Protocol for which MassDEP has granted written reciprocity. BMPs must be designed in accordance with the Design Specifications contained in Mass. Stormwater Handbook Volume II to receive the TSS Removal Rating.

Separate Excel spreadsheets must be completed for each stormwater outlet or BMP train. E.g. if there are two separate BMP trains discharging to two separate stormwater outlets, two separate sheets must be submitted.

Separate sheets must be submitted for Pretreatment (e.g. for 44% TSS removal prior to recharge) and Treatment (e.g. 80% TSS removal for new development).

To use automated sheet:

Click on Worksheet Tab labeled Automated Sheet

Click on Cell B11 (Shaded Blue)

Carrot Appears in lower right side of Cell B11

Click on Carrot

Drop Down Menu of BMPs will open. The BMPs are those listed in Volume I. No proprietary BMPs are listed in Drop Down Menu. BMPs are listed alphabetically

Select One BMP per block. Start with most upgradient practices.

After BMP is selected in Cell B11, Cell C11 will automatically be populated with the DEP assigned TSS Removal Rate.

If there are multiple BMPs, go to Cell B12, select BMP, and so on (i.e. select BMPs in Cell B13, B14, and B15).

Final result is returned in Cell E16

All cells are locked except for Column B (to select BMPs) and Location, Project, Prepared By, and Date blocks. Complete Location, Project, Prepared by, and Date blocks.

### **Non-automated Sheet**

The non-automated version must be completed if any Proprietary BMPs or traditional non-listed BMPs are proposed. The non-automated version is locked to prevent it from being manipulated.

The non-automated version must be printed and completed by hand or typewriter.

Write name of BMP in Column B.

Write annual TSS removal rate in Column C (written documentation must be submitted to issuing authority substantiating TSS removal claim)

Multiply Column C by Starting Load in Column D and enter Result in Column E (e.g. Deep Sump CB  $0.25 \times 1 = 0.25$ , Enter 0.25 in Column E). Subtract Column E from D, Enter Result in Column F (e.g.  $1.00 - 0.25 = 0.75$ , Enter 0.75 in Column F).

Enter new BMP in Column B, next row down. Enter TSS Removal Rate in that same row.

In Column D, enter Starting Load from prior Row (e.g. 0.75).

Multiply Column C TSS Removal Rate by new starting load, and enter result into Column E, and so on. Add up all the values listed in Column E.

Enter final result in Cell E16, block that is labeled Total TSS Removal.

Complete Location, Project, Prepared by, and Date Blocks.

## **Documentation**

VERSION 1, March 4, 2008

Automated Sheet

Drop Down Menu in Column B created using "Data Validation"

Column C populated using data array from hidden table using "Vertical Lookup"

Column D values from Column F

Column E values products of Column C x Column D values

Column F values Column D - Column E



**INSTRUCTIONS:**

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location:

201 Copeland St. Quincy

## TSS Removal Calculation Worksheet

B	C	D	E	F
BMP <sup>1</sup>	TSS Removal Rate <sup>1</sup>	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
Subsurface Infiltration Structure	0.80	0.75	0.60	0.15
Proprietary Treatment Practice		0.15	0.00	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15

**Total TSS Removal =**

85%

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: 201 Copeland St. Quincy  
Prepared By: l.j.b.

Date: 10/17/23

\*Equals remaining load from previous BMP (E) which enters the BMP



INSTRUCTIONS:

1. Sheet is nonautomated. Print sheet and complete using hand calculations. Column A and B: See MassDEP Structural BMP Table
2. The calculations must be completed using the Column Headings specified in Chart and Not the Excel Column Headings
3. To complete Chart Column D, multiple Column B value within Row X Column C value within Row
4. To complete Chart Column E value, subtract Column D value within Row from Column C within Row
5. Total TSS Removal = Sum All Values in Column D

Location:

## TSS Removal Calculation Worksheet

A	B	C	D	E
BMP <sup>1</sup>	TSS Removal Rate <sup>1</sup>	Starting TSS Load*	Removed Amount (B*C)	Remaining Load (C-D)
		1.00		

Total TSS Removal =

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project:   
Prepared By:   
Date:

\*Equals remaining load from previous BMP (E) which enters the BMP



TSS Removal Efficiencies for Best Management Practices	
Best Management Practice (BMP)	TSS Removal Efficiency
<b>Non-Structural Pretreatment BMPs</b>	
Street Sweeping	0-10%. See Volume 2, Chapter 1.
<b>Structural Pretreatment BMPs</b>	
Deep Sump Catch Basins	25% only if used for pretreatment and only if off-line
Oil Grit Separator	25% only if used for pretreatment and only if off-line
Proprietary Separators	Varies – see Volume 2, Chapter 4.
Sediment Forebays	25% if used for pretreatment
Vegetated filter strips	10% if at least 25 feet wide, 45% if at least 50 feet wide
<b>Treatment BMPs</b>	
Bioretention Areas including rain gardens	80% provided it is combined with adequate pretreatment
Constructed Stormwater Wetlands	80% provided it is combined with a sediment forebay
Extended Dry Detention Basins	50% provided it is combined with a sediment forebay
Gravel Wetlands	80% provided it is combined with a sediment forebay
Proprietary Media Filters	Varies – see Volume 2, Chapter 4
Sand/Organic Filters	80% provided it is combined with sediment forebay
Treebox filter	80% provided it is combined with adequate pretreatment
Wet Basins	80% provided it is combined with sediment forebay
<b>Conveyance</b>	
Drainage Channels	For conveyance only. No TSS Removal credit.
Grass Channels (formerly biofilter swales)	50% if combined with sediment forebay or equivalent
Water Quality Swale – wet & dry	70% provided it is combined with sediment forebay or equivalent
<b>Infiltration BMPs</b>	
Dry Wells	80% for runoff from non-metal roofs; may also be used for runoff from metal roofs but only if metal roof is not located within a Zone II, or IWPA or at an industrial site
<b>Infiltration Basins &amp; Infiltration Trenches</b>	
	80% provided it is combined with adequate pretreatment (sediment forebay or vegetated filter strip, grass channel, water quality swale) prior to infiltration
Leaching Catch Basins	80% provided a deep sump catch basin is used for pretreatment
Subsurface Structure	80% provided they are combined with one or more pretreatment BMPs prior to infiltration.
<b>Other BMPs</b>	
Dry Detention Basins	For peak rate attenuation only. No TSS Removal credit.
Green Roofs	See Volume 2, Chapter 2. May reduce required water quality volume. No TSS Removal Credit.
Porous Pavement	80% if designed to prevent runoff and with adequate storage capacity. Limited to uses identified in Volume 2, Chapter 2.
Rain Barrels and Cisterns	May reduce required water quality volume. No TSS Removal Credit.

## ILLICIT DISCHARGE COMPLIANCE STATEMENT

I verify that no illicit discharges exist from 41 Kernwood Avenue Haverhill MA project. Through the implementation of the Operation and Maintenance Plan, measures are set forth to prevent illicit discharges from entering the stormwater management drainage system.

 THANH HOA NGUYEN 07/15/2025  
Signature Print Name Date

\_\_\_\_\_  
Title Company

\_\_\_\_\_  
Signature Print Name Date

\_\_\_\_\_  
Title Company

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