

## ***Notice of Intent***

For Landscape Improvements and Vegetation  
Restoration at a Single Family Home

**239 Concord Road**  
Sudbury, Massachusetts

Prepared By:  
**Matthew Cunningham Landscape Design, LLC**

Prepared For:  
**Hillary and Karl Zimmermann**

May 24, 2021

# ***Exhibit A***

## ***Table of Contents***

### 1. WPA Form 3: Notice of Intent Act M.G.L. C. 131. 40

### 2. Filing Information

Fee Transmittal Form

Copy of Checks

### 3. Project Narrative

### 4. Maps

USGS Locus Map

FEMA Map

NHESP Map

### 5. Plans & Supporting Documentation

Existing Photos (1 of 2)

Existing Photos (2 of 2)

EX-1 Existing Conditions Plan , dated 10/18/18 (1 Sheet)

L-1.0 Landscape Plan, dated 5/24/21 (1 Sheet)

L-4.0 Landscape Details, dated 5/24/21 (1 Sheet)

Land Management Plan, dated 5/24/21 (23 pages)

### 6. Abutter Information

Abutter's List

Abutter Notification

Proof of Mailing

Letter of Support from the Sudbury Valley Trustees



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

**WPA Form 3 – Notice of Intent**

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

**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):

239 Concord Road

a. Street Address

Sudbury

b. City/Town

01776

c. Zip Code

Latitude and Longitude:

N 42° 22' 41.6994"

d. Latitude

e. Longitude

Lot B - 401 of 2013-

f. Assessors Map/Plat Number

H09-0206

g. Parcel /Lot Number

2. Applicant:

Hillary and Karl

a. First Name

Zimmermann

b. Last Name

c. Organization

239 Concord Road

d. Street Address

Sudbury

e. City/Town

MA

f. State

01776

g. Zip Code

603-667-6082

h. Phone Number

i. Fax Number

karl.zimmermann@bain.com

j. Email Address

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

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Jen

a. First Name

Stephens

b. Last Name

Matthew Cunningham Landscape Design LLC

c. Company

411 Main Street

d. Street Address

Stoneham

e. City/Town

MA

f. State

02180

g. Zip Code

978.424.1624

h. Phone Number

i. Fax Number

jen@matthew-cunningham.com

j. Email address

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

\$110

a. Total Fee Paid

\$42.50

b. State Fee Paid

\$67.50

c. City/Town Fee Paid



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**WPA Form 3 – Notice of Intent**

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

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City/Town

**A. General Information (continued)**

6. General Project Description:

Regrading of dangerous drop-off at corner of property; installation of simple wood & wire fence; management of existing invasive species and mitigation with proposed native plants.

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

- |   |   |
|---|---|
| 1. <input checked="" 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 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 CMR 10.24(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

47875

a. County

b. Certificate # (if registered land)

67008

192

c. Book

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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Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

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

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Document Transaction Number

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <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
	Size of Proposed Alteration	Proposed Replacement (if any)
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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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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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**

March, 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 <https://www.mass.gov/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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Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

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MassDEP File Number

Document Transaction Number

City/Town

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

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

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

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

(d) ☐ Vegetation cover type map of site

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

(f) ☐ OR Check One of the Following

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

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. ☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

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

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

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

North Shore - Hull 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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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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

**Online Users:**

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

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?  
a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.  
b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?  
a. ☐ Yes ☒ No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?  
a. ☐ Yes ☒ No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?  
a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:  
1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)  
2. ☐ A portion of the site constitutes redevelopment  
3. ☐ Proprietary BMPs are included in the Stormwater Management System.  
b. ☒ No. Check why the project is exempt:  
1. ☒ Single-family house  
2. ☐ Emergency road repair  
3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

**D. Additional Information**

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



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

**WPA Form 3 – Notice of Intent**

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

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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.
- L-1.0 Proposed Landscape Plan
- |   |                          |
|---|--------------------------|
| a. Plan Title                           |                          |
| Matthew Cunningham Landscape Design LLC | Matthew Cunningham       |
| b. Prepared By                          | c. Signed and Stamped by |
| 5/24/2021                               | 1"=10'-0"                |
| d. Final Revision Date                  | e. Scale                 |
| See Exhibit A                           |                          |
| 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:

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 2699/2700                          | 5/3/21                            |
| 2. Municipal Check Number          | 3. Check date                     |
| 2698                               | 5/3/21                            |
| 4. State Check Number              | 5. Check date                     |
| Karl                               | Zimmermann                        |
| 6. Payor name on check: First Name | 7. Payor name on check: Last Name |



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Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

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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

3. Signature of Property Owner (if different)

5. Signature of Representative (if any)

2. Date

4. Date

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

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## A. Applicant Information

### 1. Location of Project:

239 Concord Rd

a. Street Address

2698/2699

c. Check number

Sudbury, MA

b. City/Town

\$110.00

d. Fee amount

### 2. Applicant Mailing Address:

Hillary and Karl

a. First Name

Zimmermann

b. Last Name

c. Organization

239 Concord Road

d. Mailing Address

Sudbury

e. City/Town

603-667-6082

h. Phone Number

MA

f. State

01776

g. Zip Code

karl.zimmermann@bain.com

j. Email Address

i. Fax Number

### 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

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
Category 1	1	\$110	\$110

**Step 5/Total Project Fee:**

**Step 6/Fee Payments:**

	\$110
Total Project Fee:	a. Total Fee from Step 5
	\$42.50
State share of filing Fee:	b. 1/2 Total Fee <b>less</b> \$12.50
	\$67.50
City/Town share of filing Fee:	c. 1/2 Total Fee <b>plus</b> \$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.)

## Project Narrative

The project area is located on a single family residential property located at 239 Concord Road. The approximately two acre lot is under Conservation Restriction, and the proposed work has been reviewed and approved by the Sudbury Valley Trustees. With eighteen feet of grade change from east to west, the developed area of the property slopes down towards a densely vegetated resource area and buffer. The Wetland Resource Area was delineated by Lucas Environmental, LLC on September 5, 2018.

The project scope addresses a dangerous three to four foot drop in elevation that occurs abruptly at the southwest corner of the yard. Raising the elevation with clean fill, and blending the grade into the surrounding context will provide a smoother and safer transition in the yard. This grading exercise will disturb an approximately 3,200 square foot area within the 100-foot Buffer Zone from an intermittent stream. There is also a simple wood and wire mesh fence proposed to enclose the back yard to serve as a safety barrier for the family's dog and 4 young children. Approximately 222 linear feet of mesh fence is also proposed within the 100-foot Buffer Zone. The fence design provides adequate opportunity for wildlife movement, and posts will be direct burial to minimize ground disturbance (details are provided). No impervious surface area is proposed with the 100-foot Buffer Zone. All of the proposed ground disturbance associated with regrading and installation of the proposed fence occurs outside the 50-foot Buffer Zone.

Presently the area is vegetated with a variety of invasive species including, but not limited to, Glossy Buckthorn (*Frangula alnus*), Oriental Bittersweet (*Celastrus orbiculatus*), Multiflora Rose (*Rosa multiflora*), Garlic Mustard (*Alliaria petiolata*) and Ground Elder (*Aegopodium podagraria*). In addition to the proposed grading and fencing improvements, this plan includes a complete vegetative restoration of the area, presenting an overall net benefit to the resource area.

After new grades are established, the entire disturbed area within the 100-foot Buffer Zone will be planted in full with native species. A total area of approximately 4,500 square feet will be replanted within the 100-foot Buffer Zone. For all proposed species quantities and sizes, please refer to the proposed *Land Management Plan*, prepared by Parterre Ecological Services, who will be managing the initial installation of the project as well as subsequent management of invasive species. Drought tolerance, hardiness and wildlife value have all been considered in the species selection. The proposed planting will require no irrigation beyond the establishment period, and will provide improved habitat and foraging opportunities for a variety of wildlife. All proposed new plantings will occur outside the 50-foot Buffer Zone.

As part of the proposed restoration efforts, this plan also proposes ongoing land management of a 15,275 square foot area with the Sudbury Valley Trustees Conservation Area. The boundary line indicated represents the point at which the allowed use transitions from "residential" (to the east) and "natural" (to the west). Invasive species would be controlled within the first fifty feet of the Conservation Area from the established boundary line, and all efforts would be performed by Parterre Ecological Services as outlined in the attached *Land Management Plan*. This work includes approximately 5,000 square feet within the 50-foot Buffer Zone, and 120 square feet within the 25-foot Buffer Zone. Controlling the invasive species within the resource area buffer will protect the viability of the native species, which play a critical role in the long term health of the resource area by stabilizing the soil and preventing erosion, providing natural filtration, shade, and improved wildlife habitat.

In conclusion, we believe the scope of work meets the required performance standards for work within the 100-foot Buffer Zone. The proposed activities will employ all Best Management Practices for erosion and sediment control to ensure no negative impact to the resource area.

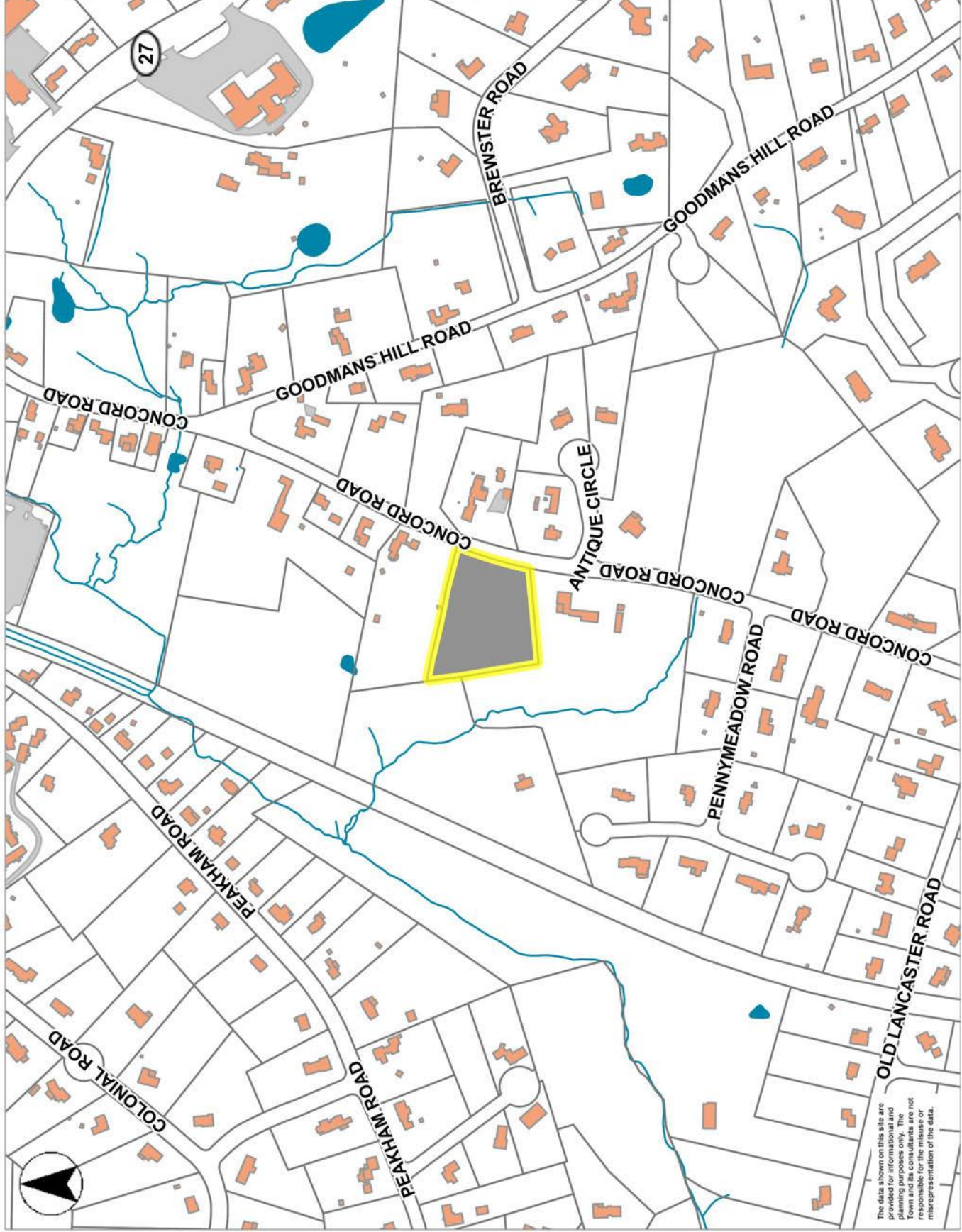








- Bridges
- Driveways
- Parking Lots
- Medians
- Sidewalks
- Curbs
- Roads
- Paved Roads
- Unpaved Roads
- Parcels
- Streams Ortho
- Streams CIR
- Lake/Reservoir
- MA FEMA Q3 Flood Zones
- A
- AE
- AO
- V
- VE
- ANI
- X500
- D
- UNDES
- Buildings
- MA Highways
- Interstate
- US Highway
- Numbered Routes
- Town Boundary
- Streets



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the use or misrepresentation of the data.

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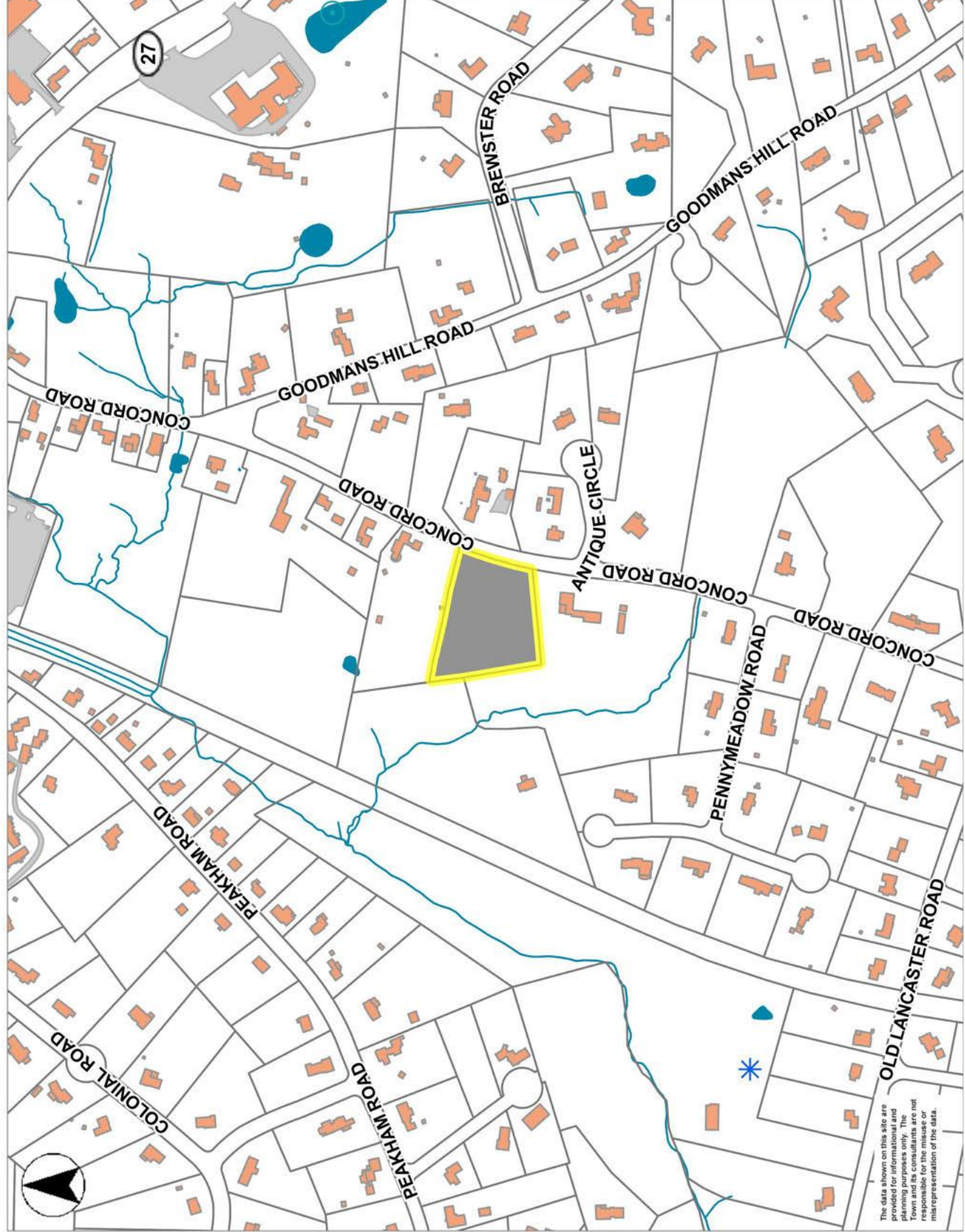
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## 239 Concord Road - FEMA





- Bridges
- Driveways
- Parking Lots
- Medians
- Sidewalks
- Curbs
- Roads
- Paved Roads
- Unpaved Roads
- Parcels
- Certified Vernal Pools
- Estimated Habitats of Rare Species
- Potential Vernal Pools - 12
- Priority Habitats of Rare Species
- Streams Ortho
- Streams CIR
- Lake/Reservoir
- Buildings
- MA Highways
- Interstate
- Highway
- Non-paved Routes
- Town Boundary
- Streets



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## 239 Concord Road - NHESP Map

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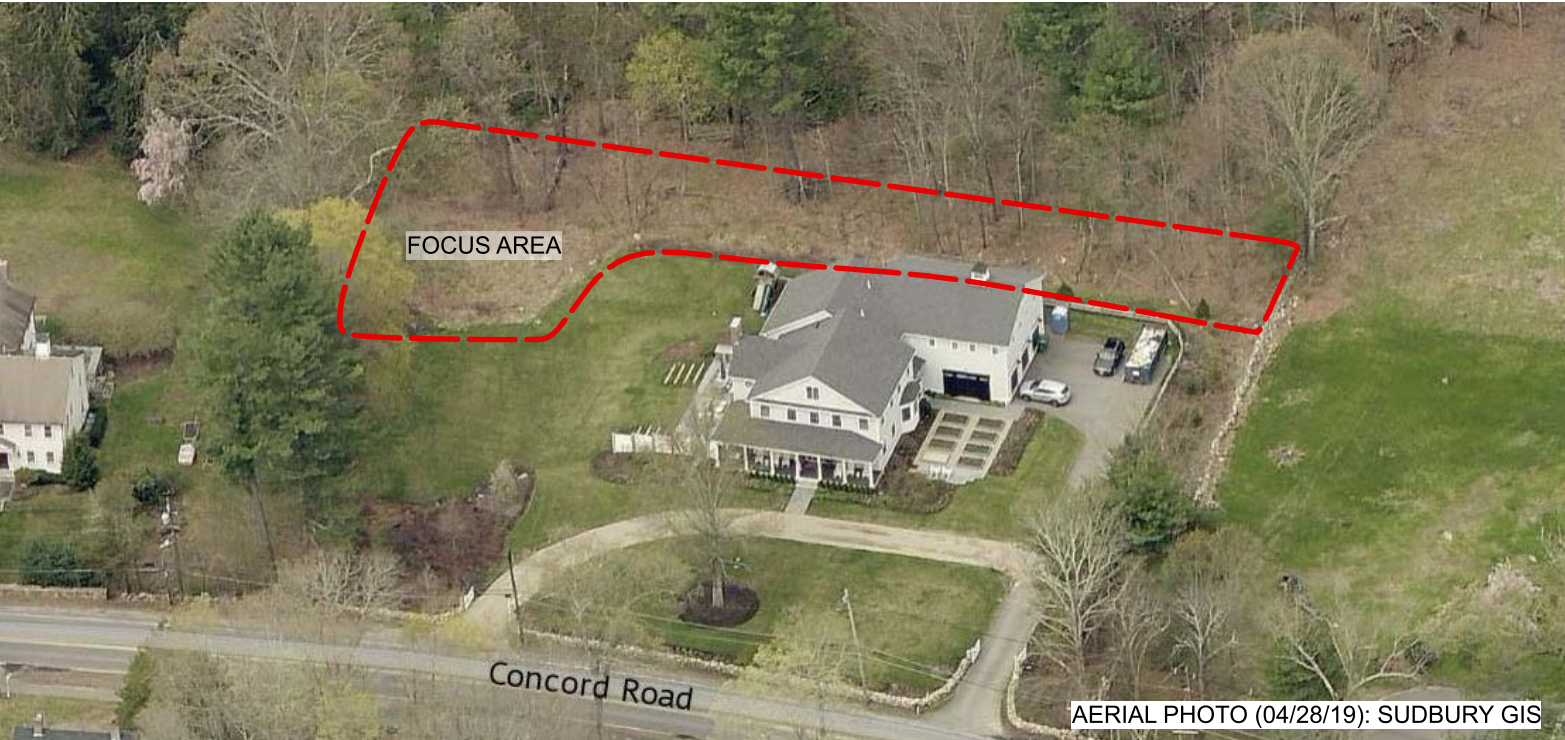


Existing Site Photos - pg 1 (of 2)





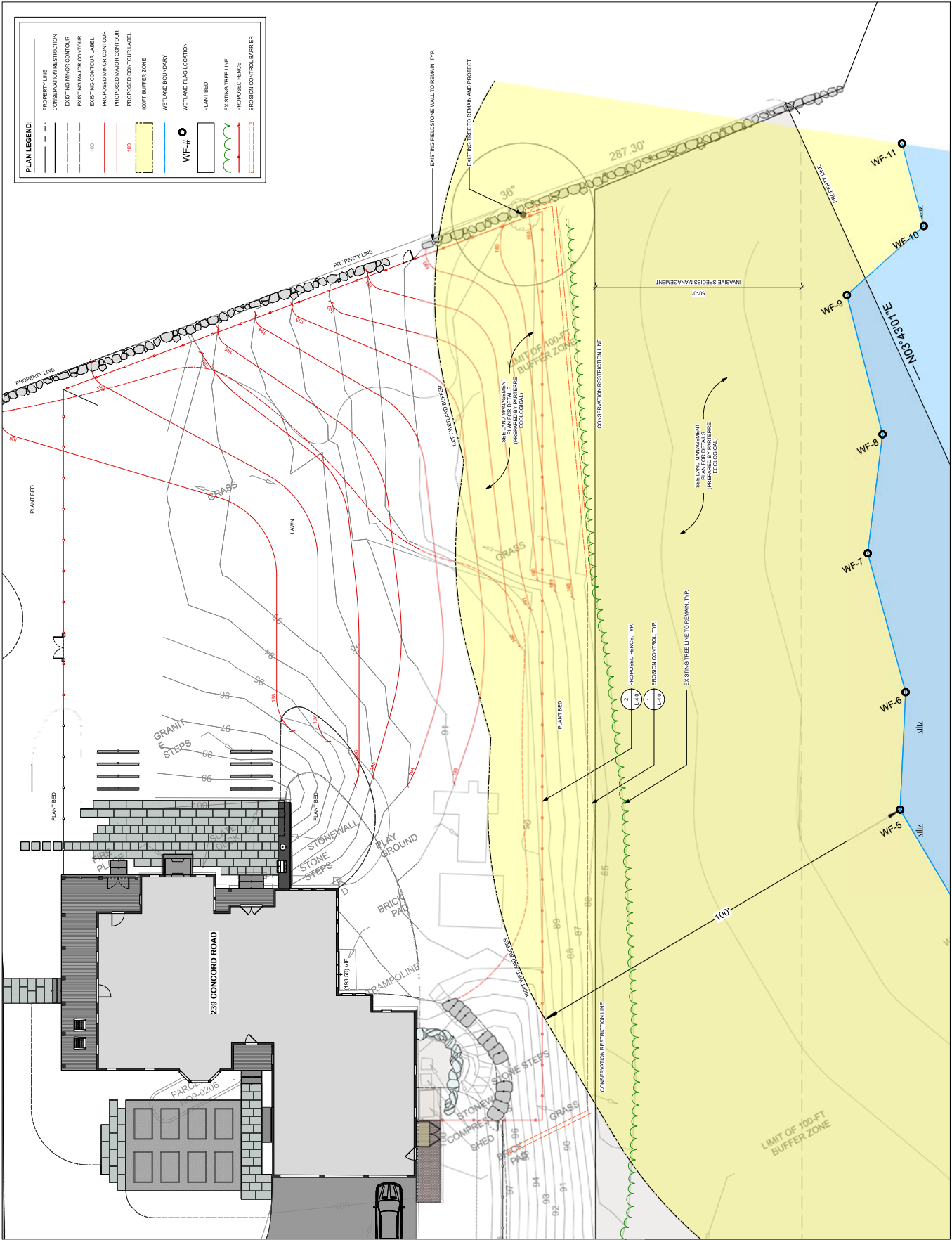
Existing Site Photos - pg 2 (of 2)











**PLAN LEGEND:**

PROPERTY LINE	CONSERVATION RESTRICTION
EXISTING MAJOR CONTOUR	EXISTING MINOR CONTOUR
PROPOSED MAJOR CONTOUR	PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR LABEL	PROPOSED MINOR CONTOUR LABEL
100' BUFFER ZONE	WETLAND PLANT LOCATION
WETLAND BOUNDARY	WETLAND PLANT LOCATION
PLANT BED	EXISTING TREE LINE
PROPOSED FENCE	EROSION CONTROL BARRIER

**Zimmermann Residence**  
239 Concord Road  
Sudbury, MA

General Notes:  
1. All work shall be in accordance with the Massachusetts Department of Environmental Protection (Mass DEP) and the Massachusetts Department of Conservation and Recreation (Mass DCR) regulations.  
2. The wetland boundary shall be established in accordance with the Massachusetts Department of Environmental Protection (Mass DEP) and the Massachusetts Department of Conservation and Recreation (Mass DCR) regulations.  
3. The wetland boundary shall be established in accordance with the Massachusetts Department of Environmental Protection (Mass DEP) and the Massachusetts Department of Conservation and Recreation (Mass DCR) regulations.  
4. The wetland boundary shall be established in accordance with the Massachusetts Department of Environmental Protection (Mass DEP) and the Massachusetts Department of Conservation and Recreation (Mass DCR) regulations.

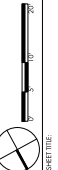
1. The contractor shall verify all existing grades in the field and provide a final landscape design.
2. Grading shall be done to ensure positive drainage away from the building and to prevent pooling of water.
3. Provide vertical curves or roadways of abrupt change in grade to be established. Based on minimum 100-foot radius.
4. All existing grades of existing plant material.
5. All new material shall be taken from the existing site or from a nearby source.
6. All new material shall be taken from the existing site or from a nearby source.
7. All new material shall be taken from the existing site or from a nearby source.
8. All new material shall be taken from the existing site or from a nearby source.
9. All new material shall be taken from the existing site or from a nearby source.



**MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC**  
matthew@cunninghamlandscape.com  
156 Elm Street, Portland, ME 04101

REVISIONS:

#	DATE	DESCRIPTION
1	08/24/2021	DATE: 08/24/2021

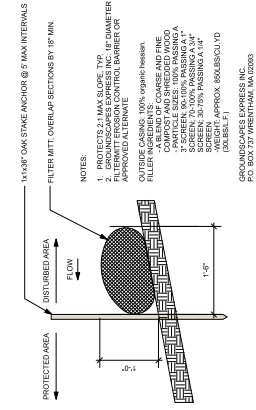


**Proposed Landscape Plan**  
SHEET NUMBER: L-1.0

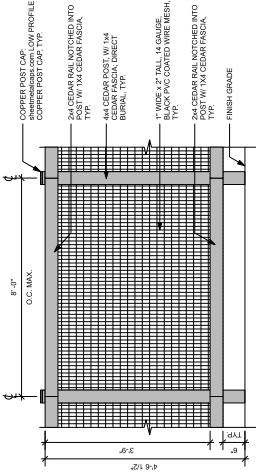
NOT FOR CONSTRUCTION



<b>REVISIONS:</b>		
#	DATE:	DESCRIPTION:
SCALE: As Shown		DATE: May 24, 2021



1 Erosion Control Barrier  
Scale: 1" = 1'-0"



2

Fence

Scale: 3/4" = 1'-0"



**PRECEDENT IMAGE**

# Land Management Plan

A Narrative for Invasive Plant Management  
and Native Plant Restoration

239 Concord Road  
Sudbury, MA

May 24, 2021



PARTERRE  
ECOLOGICAL



## Table of Contents

<b>Introduction &amp; Primary Goals</b>	<b>1</b>
<b>Invasive Plant Inventory and Plan</b>	<b>2-5</b>
<b>Invasive Plant Management Techniques</b>	<b>6-8</b>
<i>Descriptions of proposed Manual Removal and Herbicide Application Management Methods</i>	
<b>Bittersweet and Vines</b>	<b>7</b>
<b>Management Calendar</b>	<b>8</b>
<b>Native Plant Inventory and Restoration</b>	<b>9-11</b>
<b>Inventory</b>	<b>9-10</b>
<b>Restoration planting plan</b>	<b>11</b>
<b>Restoration strategies and species</b>	<b>12</b>
<b>Management and Maintenance Schedule</b>	<b>13</b>
<b>Invasive Species Descriptions</b>	<b>14-19</b>
<b>Identification and Qualifications of Applicant</b>	<b>20</b>
<b>Precedent Restoration Project Images</b>	<b>21</b>





## Introduction and Primary Goals

The Zimmermann residence is located at 239 Concord Road in Sudbury. A portion of the property lies within the 100' wetland buffer and the property backs up to land managed by Sudbury Valley Trustees (SVT). An inventory of existing native and invasive plant species can be found in this plan.

The primary goal of this plan is to seek approval from the Sudbury Conservation Commission to offset the installation of a fence and regrading an eroded portion of lawn within the 100' Wetland Buffer. We propose control of all invasive plant species identified on site and 50' into SVT managed lands and restore the native plant community along the southwest property line.

Additionally the wetland buffer has identified invasive plant species that we propose removing by manual hand methods and cut & dab herbicide application. The plan proposes removal of invasive understory species across the wetland buffer and restoration of native species (beyond wetland requirements) of native species to accessible areas dominated by invasive species.



Pagoda Dogwood (*Cornus alternifolia*) growing along the boundary of the Sudbury Valley Trustees boundary. The Land Management Plan proposes offsetting landscape enhancement construction by controlling invasive species populations and restoring areas with native plant species that will further support wildlife along the boundary.





## 239 Concord Road

### Invasive Plant Inventory

Mature invasive species have developed isolated populations along the boundary to land managed by Sudbury Valley Trustees and threaten to spread into an otherwise healthy native ecosystem. We propose controlling invasive plant species that have developed self sustaining populations on the Zimmermann property and restoring with native species. Additionally, we propose control of invasive species 50' within the Sudbury Valley Trustees boundary to protect the healthy ecosystem from further incursion. The physiology of the invasive plants has enabled them to out compete the native plant community and compromise the ecological value of the native plant community. The dominant invasive plants, including Bittersweet, along the woodland edge poses a safety hazard as it entangles native tree species and disrupts the formation of a healthy understory. All invasive shrubs proposed for control will be removed from the site. Poison Ivy is a native species with valuable ecological benefits. We propose control the vine along the proposed fence line and areas of human traffic.

#### ***Invasive Plant Species Identified:***

*Acer platanoides*, Norway Maple  
*Alliaria petiolata*, Garlic Mustard  
*Berberis thunbergii*, Japanese Barberry  
*Celastrus orbiculatus*, Asiatic Bittersweet  
*Euonymus alatus*, Burning Bush  
*Frangula alnus*, Glossy Buckthorn  
*Lonicera morrowii*, Morrow's Honeysuckle  
*Rosa multiflora*, Multiflora Rose

#### ***\* Likely Invasive Plant Species Identified:***

*Ligustrum vulgare*, Wild Privet

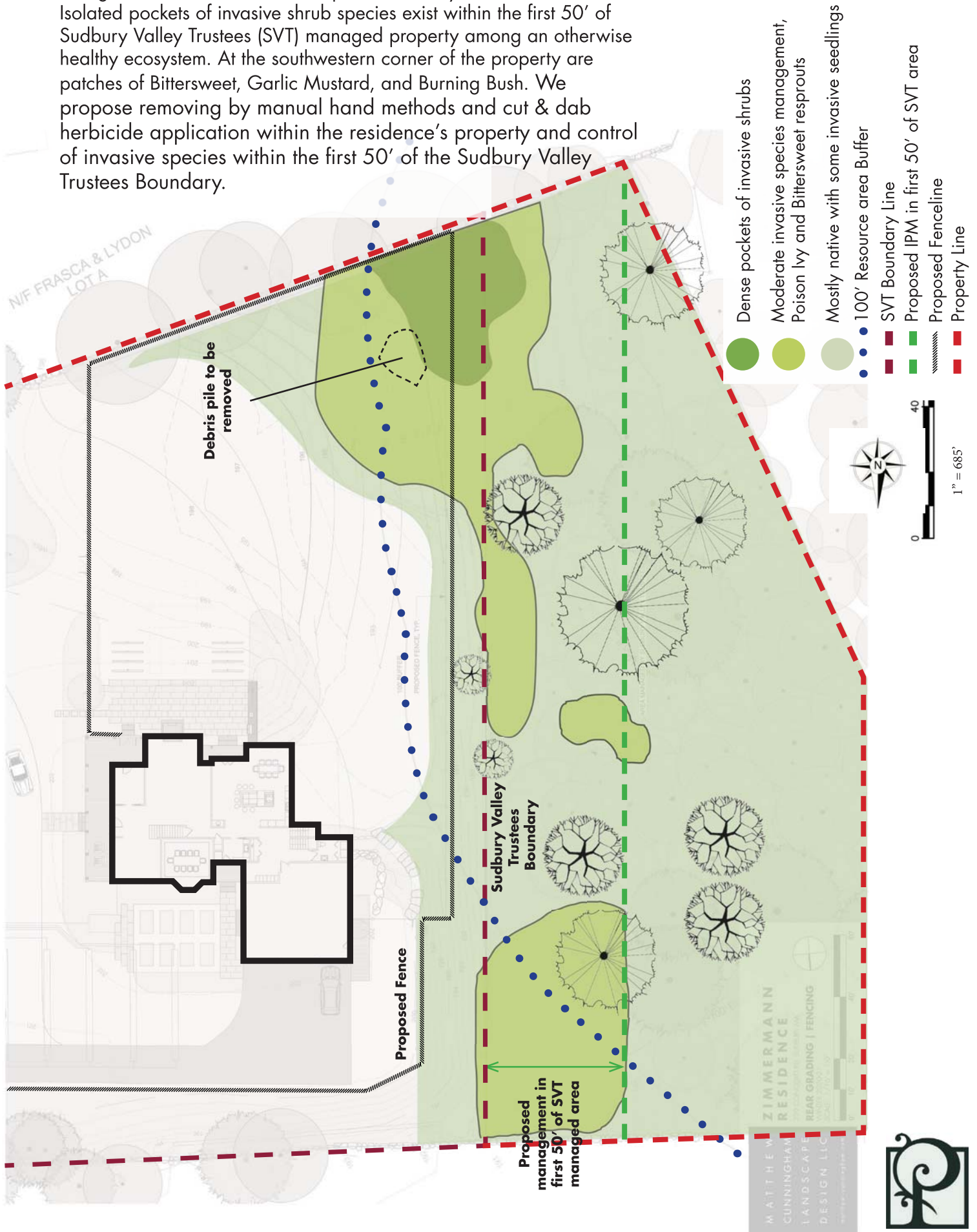
\* While not listed as an Invasive Species by MIPAG (Massachusetts Invasive Plant Advisory Group) these species can dominate the shrub layer and crowd out native trees and shrubs. We recommend removal of Wild Privet along with listed invasive plant species in wetland buffers and replace with native shrubs and trees. Although Poison Ivy is a native species with valuable ecological benefits, we propose control of the plant along the proposed fence line and other areas of human traffic



Bittersweet climbing a native Chokecherry (*Prunus virginiana*) along the southern property line. Climbing vines threaten to suppress or replace the native shrub understory.



Along the East border is a dense patch of Honeysuckle and Privet. Isolated pockets of invasive shrub species exist within the first 50' of Sudbury Valley Trustees (SVT) managed property among an otherwise healthy ecosystem. At the southwestern corner of the property are patches of Bittersweet, Garlic Mustard, and Burning Bush. We propose removing by manual hand methods and cut & dab herbicide application within the residence's property and control of invasive species within the first 50' of the Sudbury Valley Trustees Boundary.

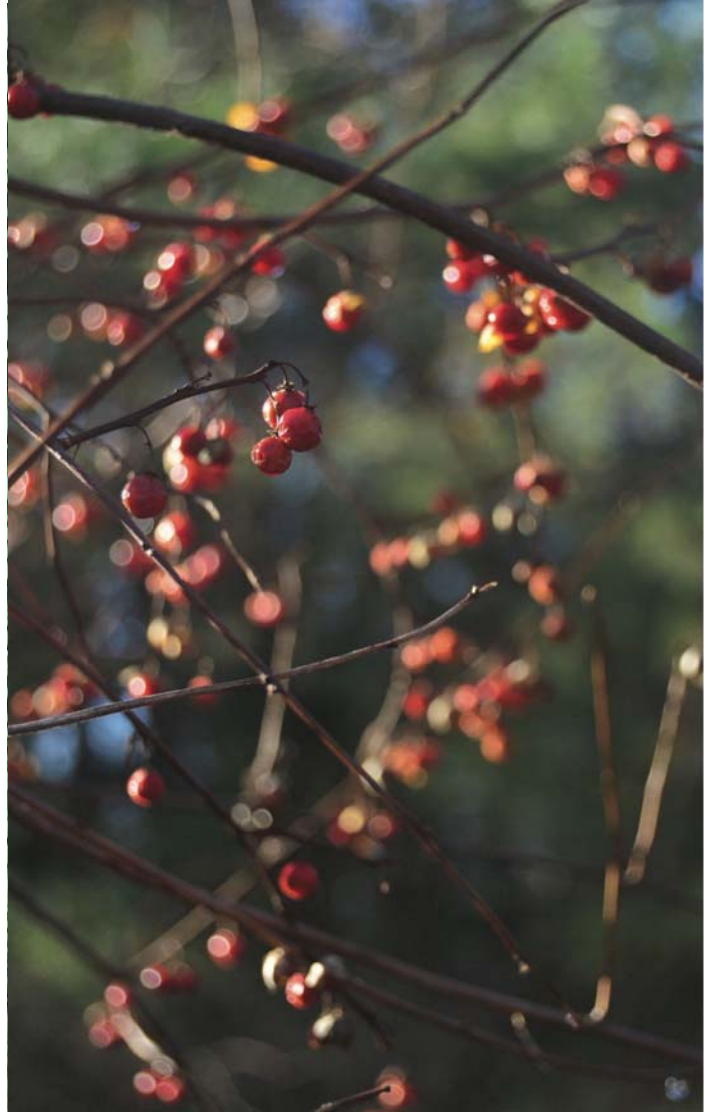




**239 Concord Road**  
**Invasive Plant Images**



A dense patch of Privet (*Ligustrum* sp.) along the southwestern property line



Oriental Bittersweet (*Celastrus orbiculatus*) berries climbing a snag along with Poison Ivy



Japanese Barberry (*Berberis thunbergii*) threatens to spread into healthier areas



Garlic Mustard (*Alliaria petiolata*) growing in dense patches in the area proposed for regrading



Bittersweet amongst Burning Bush (*Euonymus alatus*)





**239 Concord Road**  
**Invasive Plant Images**



Oriental Bittersweet (*Celastrus orbiculatus*) berries climbing a Spicebush (*Lindera benzoin*). Burning Bush, *Euonymus alatus*, was historically planted along the edge of the lawn and has begun seeding itself into the woodland understory.



Multiflora Rose (*Rosa multiflora*) among *Rubus* sp. in the open area along the southwest border





## 239 Concord Road

### Invasive management techniques

We propose a combination of manual hand removal and cut & dab herbicide to control invasive plant species within the identified project areas over a phased time line. Once the initial identified invasive plant species have been removed by manual methods (described below), we propose seeding all exposed soil with native seed blend and begin planting identified tree, shrub and perennial plant species selected from the native plant community list that will increase the density and diversity of the existing wetland buffers.

#### Manual Hand Removal Methods:

Manual methods of invasive plant management will include hand pulling or cutting. To minimize soil disturbance, shallow-rooted invasive plants less than 1" in caliper will be hand pulled from the soil. Invasive plant species greater than 1" in diameter will be cut. All invasive plant material will be disposed of off site. Manual hand pulling and cutting will remove all invasive plants from the wetland buffer.

**Cut and Dab and Foam application:** All invasive plant species that have a base greater than 1" in caliper are proposed for herbicide application methods. Although invasive, the root systems of plants greater than 1" in caliper usually have extensive fibrous root systems, providing soil stabilization. So we propose a cut & dab method of application of a Triclopyr based herbicide (Garlon) or Glyphosate based herbicide approved for wetland use (trade name Rodeo) on individual cut stumps. Licensed Pesticide Applicators will complete all aspects of the proposed restoration. For treatment of perennial species that cannot be controlled with cut and dab or by manual methods should be treated by a foam based herbicide that limits any treatment of non-target plants



Qualified applicators with necessary Personal Protective Equipment paint the stems of invasive species after cutting



Proposed cut stump treatment (below) using hand tools and applying marking dye to eliminate possibility of treatment of stump twice, or missing stump entirely. (Above) Foam treatment allows highly specific placement of herbicide to remove invasive perennials that limits disturbance and protects surrounding species





## 239 Concord Road

### Asiatic Bittersweet ID and Management

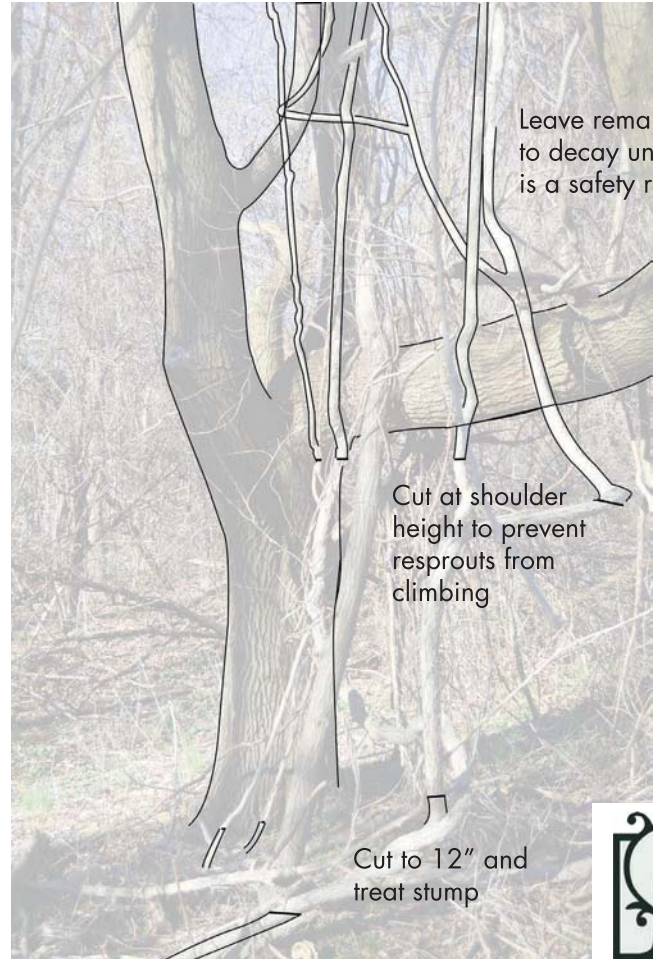
Invasive Bittersweet (*Celastrus orbiculatus*) have the capacity to girdle, weaken, and even kill mature canopy trees. Without some frequency of removal, they will eventually open large holes in the canopy while suppressing saplings from filling the holes. They readily resprout after being cut and can damage the aesthetic and ecological value of meadows.

Mature stems produce thousands of bright red berries that mature in late fall and are spread by birds.

Removing the entire vines from trees is often dangerous and unnecessary (unless it poses safety risk). Our team recommends making cuts at shoulder height followed by a cut at 12" and immediate herbicide treatment. Bittersweet aggressively suckers after cutting so it is important to cut and treat during or after its flowering period (late June to December).



Identification: Alternate, circular light green leaves 2-5 in. long. Distinctive, large light colored vine. Red berries with orange casing appearing in late fall. Seedlings have light green leaves. Deep orange roots.



## Management Calendar for Treatment and Planting

Task	March/ April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
<i>Remove Garlic Mustard and Lesser Celandine seedlings by hand or smothering</i>									
<i>Cutting of Glossy Buckthorn, Norway Maple, and Honeysuckle</i>									
<i>Cut and dab of woody invasive species</i>									
<i>Invasive management in wetland areas</i>									
<i>Invasive vine management and cut and dab treatment</i>									
<i>Restoration planting</i>									



*Optimal timing and efficiency*



*Not optimal but mostly effective*



*Possible, but not ideal*





## 239 Concord Road Native Plant Inventory

Within the wetland buffer is a diverse native plant community dominated by Red and White Oaks, Red Maple, and Shagbark Hickory. Chokecherry, Black Cherry, Winterberry, Highbush Blueberry and Spicebush are in the understory shrub layer with areas of dense Ostrich and Sensitive Fern and Virginia Creeper as a ground cover. We propose utilizing these existing native plant species as indicators of what naturally inhabits this plant community and propose additional planting of these species and diversifying with other native trees, shrubs and perennials.

### Native Plant Species Identified:

*Acer rubrum*, Red Maple  
*Aster divarcatulus*, White Wood Aster  
*Athyrium filix-femina*, Lady Fern  
*Carya ovata*, Shagbark Hickory  
*Carya cordiformis*, Bitternut Hickory  
*Ilex verticillata*, Winterberry  
*Lindera benzoin*, Spicebush  
*Matteuccia struthiopteris*, Ostrich Fern  
*Onoclea sensibilis*, Sensitive Fern  
*Parthenocissus quinquefolia*, Virginia Creeper  
*Pinus strobus*, Eastern White Pine  
*Prunus serotina*, Black Cherry

*Prunus virginiana*, Chokecherry  
*Toxicodendron radicans*, Poison Ivy  
*Quercus rubra*, Red Oak  
*Quercus bicolor*, Swamp White Oak  
*Solidago caesia*, Blue-stem Goldenrod  
*Swida alternifolia*, Pagoda Dogwood  
*Swida sericea*, Red-twig Dogwood  
*Vaccinium angustifolium*, Low-bush Blueberry  
*Vaccinium corymbosum*, High-bush Blueberry



Spicebush (*Lindera benzoin*) buds swelling in preparation for an early Spring bloom



Winterberry amongst White Pine. Male specimen must be on site to produce berries on female plants





## 239 Concord Road Invasive Plant Images



Sensitive fern, Ostrich Fern and Lady Fern below a canopy of Black Cherry, Choke Cherry, and Swamp White Oak. While some invasive species occur in dense patches, the area leading to the wetland has a diverse set of native species common in a Red Maple wetland.

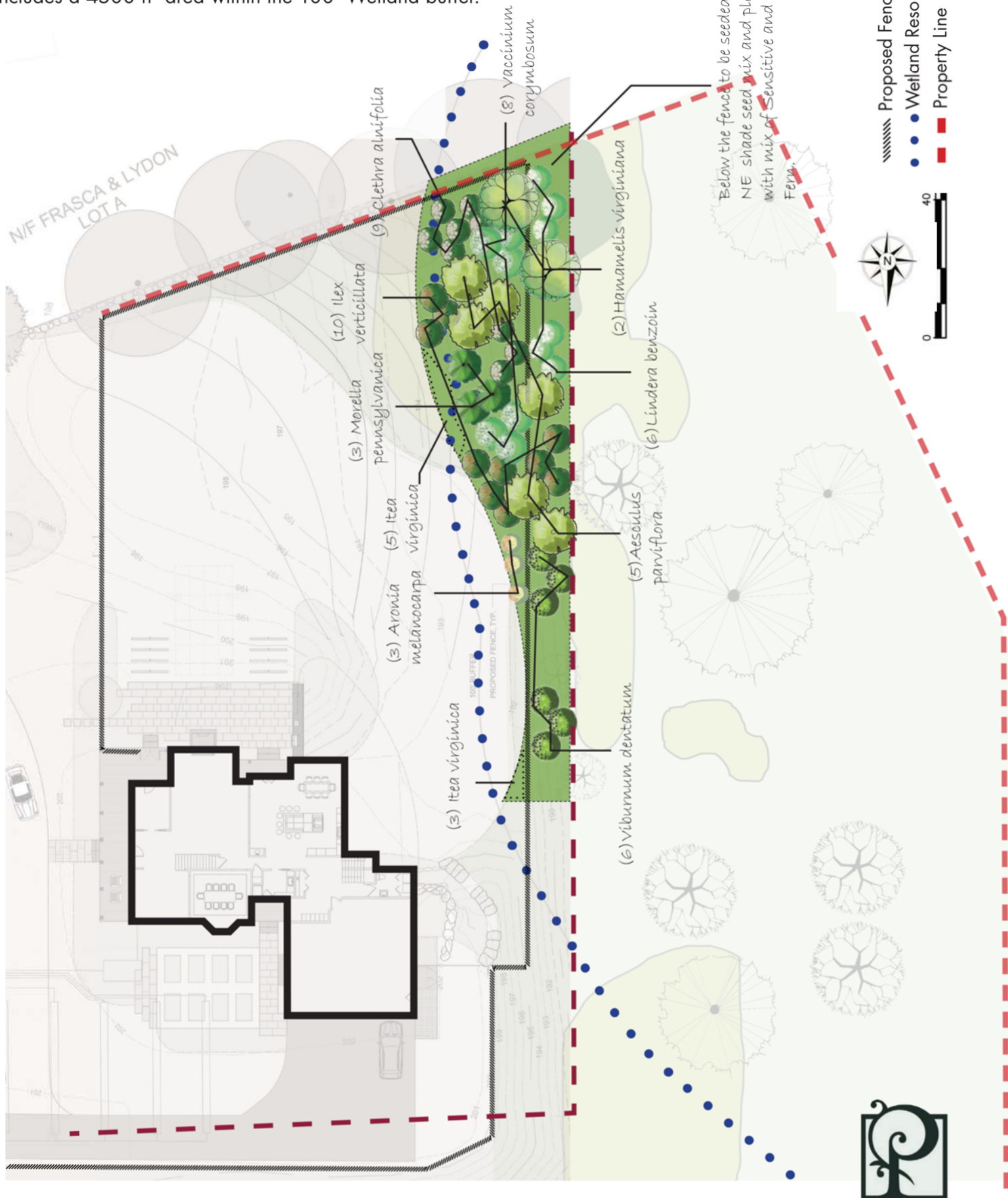


Shagbark Hickory sapling amongst the fern understory. Selected native species reflect the diverse existing habitat





Too offset regrading, fence installation, and invasive species management within the 100' wetland buffer we propose installation of the following trees and shrubs along with a fern and perennial groundcover. The restoration planting includes a 4500 ft<sup>2</sup> area within the 100' Wetland buffer.



## 239 Concord Road

### Native Restoration Strategies

After invasive plant species have been removed from the wetland buffer, the area will be planted with one to five gallon native conservation grade New England native trees, shrubs and perennials from local seed and cutting sources. It is proposed that native plants will have greater than 90% coverage by the conclusion of the 3 year Order of Conditions. Native plants proposed for installation will add diversity of existing native plants, provide habitat and forage for wildlife, and reduce storm water and sediment flow wetland areas. Plants proposed for installation include:

	Quantity	Size	Scientific name	Common name
Within 100' Wetland Buffer	5	3-4'	<i>Aesculus parviflora</i>	Bottlebrush Buckeye
	3	3 gallon	<i>Aronia melanocarpa</i>	Black Chokecherry
	24	1 gallon	<i>Athyrium filix-femina</i>	Lady Fern
	9	18-24" HT	<i>Clethra alnifolia</i>	Summersweet
	86	1 Gal	<i>Dennstaedtia punctilobula</i>	Hayscented Fern
	2	6-7' HT.	<i>Hamamelis virginiana</i>	American Witchazel
	8	1 gallon	<i>Itea virginica</i>	Virginia Sweetspire
	10	3 gallon	<i>Ilex verticillata</i>	Winterberry
	6	3 gallon	<i>Lindera benzoin</i>	Northern Spicebush
	3	5 gallon	<i>Morella pensylvanica</i>	Northern Bayberry
	48	1 gallon	<i>Onoclea sensibilis</i>	Sensitive Fern
	6	2-3' HT.	<i>Viburnum dentatum</i>	Arrowwood Viburnum
	8	3 gallon	<i>Vaccinium corymbosum</i>	High Bush Blueberry

After planting the conservation grade native shrubs and trees and slope stabilizing perennials, we propose the area be seeded with a Conservation Wildlife mix at recommended seeding rates. This dense seed mix will supply a matrix of vegetative growth to cover disturbed soils, and reduce recolonization of invasive plant species.

Species to be seeded include:

*Virginia Wild Rye (Elymus virginicus)*, *Little Bluestem (Schizachyrium scoparium)*, *Big Bluestem (Andropogon gerardii)*, *Red Fescue (Festuca rubra)*, *Switch Grass (Panicum virgatum)*, *Partridge Pea (Chamaecrista fasciculata)*, *Panicledleaf Tick Trefoil (Desmodium paniculatum)*, *Indian Grass (Sorghastrum nutans)*, *Blue Vervain (Verbena hastata)*, *Butterfly Milkweed (Asclepias tuberosa)*, *Black Eyed Susan (Rudbeckia hirta)*, *Common Sneezeweed (Helenium autumnale)*, *Heath Aster (Aster pilosus/Symphotrichum pilosum)*, *Early Goldenrod (Solidago juncea)*, *Upland Bentgrass (Agrostis perennans)*.





## **239 Concord Road Maintenance Schedule**

The recommendations for restoration take into consideration the long term health of the wetland. Once the invasive plant species have been managed in a locus area and any native plants installed, a long-term maintenance plan will be set in motion with the goal of continued control of invasive plant species on site, serve, and sustain native plant populations, and improve the native plant diversity and aesthetic beauty of the wetland.

### **Spring 2021**

- Complete invasive species management of Garlic Mustard and perennial invasive plant species by manual methods
- Identify and manually hand-pull identified invasive shrubs and vines under 1' in caliper
- Cover all disturbed soil along with native seed mix

### **Summer-Fall 2021**

- Cut and dab/Foam application to invasive shrub and tree species
- Continue utilizing control methods of invasive plant management to exhaust seed bank
- Begin planting native plant species according to approved quantities and varieties

### **Winter 2021-Spring 2022**

- Monitor plant response and continue hand pulling and herbicide application methods on re sprouting invasive plant species
- Cover exposed soils Conservation seed mix

### **Ongoing Maintenance and Monitoring:**

- After the treatments of fall 2021, the management plan should be re-evaluated. If management treatments have been successful, only monitoring and minimal hand removal should be required to keep invasive plant species from being reintroduced. Native trees, shrubs, and herbaceous forbs should dominate the wetland buffer.
- Implementation of the LMP should be completed by qualified professionals including:
  - Licensed pesticide applicator
  - MA Certified Massachusetts Invasive Species Management
  - MCH Massachusetts Certified Horticulturist
- Monitoring reports shall be submitted to conservation at the end of each growing season indicating invasive species management efforts and establishment of the restoration plantings.





## Norway Maple

### **Description:**

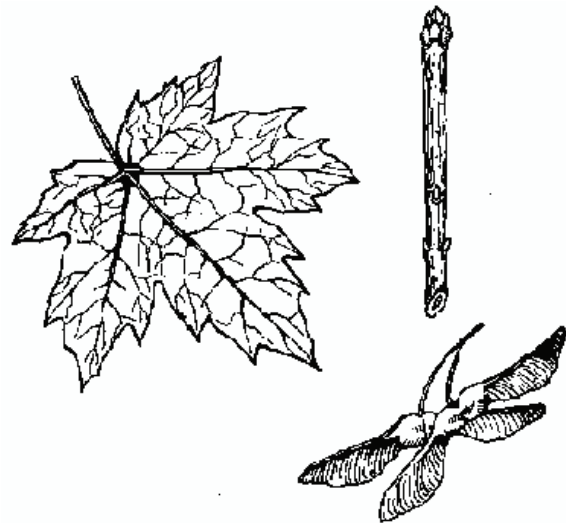
*Acer platanoides*, Norway Maple is a tree occurring in all regions of the state in upland and wetland habitats. It is especially common in urban areas. It grows in full sun to shade. It out-competes native vegetation, including sugar maple, *Acer saccharum* which it is frequently confused with. Norway autumn color is yellow, while Sugar is orange/red. Norway has white sap, while Sugar has clear sap in the petiole (stems). Norway maple leaf points reduce to a fine "hair", while the tips of the points on Sugar leaves are rounded.

### **Habitat:**

Norway maple is well adapted to various soils, grows in dry conditions, and can tolerate areas of soil pollution. Norway maples were widely planted in the United States as street trees and have escaped to natural habitats. Trees produce large numbers of seeds that are wind dispersed and invade natural areas, displacing native trees. Quickly establishing, they create a canopy of dense shade that prevents regeneration of native seedlings. Although thought to have allelopathic properties (meaning that the plant releases toxins that inhibit or prevent the growth of other plants), research has not been able to confirm this.

### **Management:**

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Mature trees can be cut and the stump ground, or apply a Triclopyr based herbicide to the stump. Girdling the tree by cutting through the bark (cambium) layer all around the trunk is also an option. Girdling is most effective in spring and should include reducing the canopy for safety, but consider leaving trunks for habitat value.



*Acer platanoides*,  
Norway Maple







## Bittersweet

### **Description:**

*Celastrus orbiculatus*, Asiatic Bittersweet is a deciduous climbing vine common in areas of disturbance in our New England forests. It has glossy, rounded leaves that are alternate with finely toothed margins. The leaves turn yellow in the fall. The fruiting plants produce small greenish flower clusters from leaf axils that mature in fall to produce high numbers of fruiting seed. The seed are noticeably yellow, globular capsules that split open at maturity to reveal red-orange fruiting seeds. Roots are also distinctly orange.



### **Habitat:**

Bittersweet spreads easily into forest edges, woodlands, unmanaged meadows and old fields. Most disturbed sites that are not being actively managed that receive full sun are susceptible. The vine can tolerate shade but is often found in more open, sunny areas.



### **Management:**

Asiatic Bittersweet management is a combination of manual hand pulling with cut & dab herbicide treatments. For established plants, vines should be cut to ground to reduce mass. Persistent root infestations will require repeat cutting and treatments over several seasons. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly.

*Celastrus orbiculatus*,  
Asiatic Bittersweet





## Honeysuckle

### **Description:**

*Lonicera morrowii*, Morrow's honeysuckles are upright, deciduous shrubs that typically have a multi-stem mounding appearance. Oval leaves are opposite along the stem with smooth edges (no teeth or lobes) and hairy on the underside. Mature stems are often hollow on the interior and peeling on the outer bark. In the spring pairs of fragrant, tubular flowers less than an inch long are borne along the stem in the leaf axils. The fruits are red to orange, and fleshy.



### **Habitat:**

Honeysuckles are relatively shade-intolerant and most often occur in forest edges, abandoned fields, and other open, upland habitats. Woodlands and open meadows, especially those that have been grazed or otherwise disturbed and are left unmanaged are also highly susceptible. Morrow's Honeysuckle have the greatest habitat diversity and are capable of invading wetland edges and other uncommon habitat types.



### **Management:**

Morrow's Honeysuckle management is a combination of mechanical mowing and manual hand pulling with cut and dab herbicide treatments. When feasible, the root system is generally shallow and plants can be uprooted easily. Persistent root re-sprouting may require repeat cutting with herbicide application over several seasons to fully control.

*Lonicera morrowii*,  
Morrow's Honeysuckle







## Buckthorn

### **Description:**

*Frangula alnus*, Glossy Buckthorn is a deciduous shrub that grows up to 20 ft. tall. The oblong leaves are up to 2" long, arranged alternately along the stem and are dark green on the surface, glossy above and slightly pubescent beneath. The leaves turn yellow in the fall, and remain on the plant when most other species have already lost their leaves. The yellow-green flowers are arranged in 1-8 flowered sessile, glabrous umbels. This plant flowers after the leaves expand, from May to September. The fruit ripen from red to black July to August.

### **Habitat:**

Buckthorn thrives in early successional habitat. Abandoned agricultural or pasture lands, an opening in canopy within woodland, or unmanaged meadows are common areas. Buckthorn will also tolerate wetland soils where it can form dense stands that suppress the growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter allows the plant to be dispersed through the entire season.



### **Management:**

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Mature Buckthorn can also be cut and the stump application of Triclopyr based herbicide. Rake any seeds present, bagging and disposing of correctly.



*Frangula alnus*,  
Glossy buckthorn





## Multiflora Rose

### **Description:**

*Rosa multiflora*, Multiflora Rose is a shrub with arching canes with a mounding shape in the landscape. The leaves are divided into five to eleven sharply toothed leaflets. The base of each leaf stalk has a pair of fringed bracts which is a key identifier of the plant from other wild rose. Beginning in early summer, clusters of showy white flowers appear. The flowers are followed by developing red fruit, or hips, during the summer that remain on the plant through the winter.



### **Habitat:**

Multiflora Rose thrives in early successional habitat. The rose has a wide tolerance for various soil, moisture, and light conditions. It occurs in dense woods, along river banks and roadsides and in open unmanaged fields. It can form a dense understory that suppresses growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter months allows wide spread distribution of the plant.



### **Management:**

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a Triclopyr based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.

*Rosa multiflora*,  
Multiflora rose







### **Description:**

Japanese Barberry makes a dense, deciduous shrub understory that grows to 8 feet. Branches are brown, deeply grooved, zig-zag in form and bear a single sharp spine at each node. The leaves are small ( $\frac{1}{2}$  to  $1\frac{1}{2}$  inches long), oval shaped, green, bluish-green, or dark reddish purple. Flowering occurs from mid-April to May in the northeast. Pale yellow flowers about  $\frac{1}{4}$  in. Across hang in umbrella-shaped clusters of 2-4 flowers along the length of the stem. The fruits are bright red berries about  $\frac{1}{3}$ " long that are borne on narrow stalks. They mature during late summer and fall and



### **Habitat:**

Japanese Barberry is shade tolerant, drought resistant, and adaptable to a variety of open and forested habitats, and disturbed areas. It prefers to grow in full sun, but will flower and fruit even in heavy shade. There is also strong research to support the surprise benefit of controlling Japanese Barberry in the reduction of black legged (or deer) tick populations.



### **Management:**

Japanese Barberry is a prolific seed-producer with a high germination rate, so prevention of seed production should be a management priority. Barberry also spreads by rhizome, so underground root fragments should be removed. Manual methods of hand pulling sprouts works well in small populations, but large populations may require chemical applications by applying a 2% solution of glyphosate

*Berberis thunbergii*,  
Japanese Barberry



## IDENTIFICATION AND QUALIFICATION OF APPLICANT

This plan has been developed by Miles H. Connors, Director of Ecological Services at Parterre Ecological, a division of Parterre Garden Services. Parterre Ecological Services provides Land Management Planning, expert Invasive Plant Management services, Native Plant Restoration strategies, and ongoing Maintenance and Monitoring in natural area restorations.

### PLAN AUTHOR AND QUALIFICATIONS

Miles Hilton Connors  
Director of Ecological Services  
mconnors@parterreecological.com

Parterre Garden Services  
67 Smith Place, unit 12A  
Cambridge MA 12138

Miles holds an Bachelor of Science degree in Environmental Planning and Policy and Biology, with a Masters of Science in Sustainable Landscape Planning and Design. Miles is also a Massachusetts Certified Horticulturist, holds an Invasive Plant Certification from UMASS Amherst and is a Licensed Pesticide Applicator.

Members of the Parterre Ecological team are licensed Massachusetts Pesticide Applicators, are Massachusetts Certified Horticulturists and hold an Invasive Plant Certification from UMASS Amherst.





## Precedent Images of a Restoration Project completed in 2020



1. Existing Conditions - Client under an enforcement order to restore buffer after tree & shrub removal and hydroseeding turf



2. After installation of sediment control, we mechanically mowed area and seeded with New England Conservation and Wildlife Seed Mix



3. Covered exposed loam with straw erosion control blanket: BioNet S75BN and staple into existing slope



4. Layout native plant species suitable for an Oak Hickory Forest plant community



5. Native plant species installed: *Quercus rubra*, *Kalmia latifolia*, *Ostrya virginiana*, *Corylus americana*, *Betula lenta*, *Fagus grandiflora* and *Viburnum acerfolium*



3/30/2021

Abutters Report

**Abutters List**

Date: March 30, 2021

Subject Property Address: 239 CONCORD RD Sudbury, MA  
Subject Property ID: H09-0206

Search Distance: 100 Feet

-----  
Prop ID: H08-0012  
Prop Location: 60 PENNYMEADOW RD Sudbury, MA  
Owner: WOLLENSAK RICHARD J & CLAIRE A  
Co-Owner:  
Mailing Address:  
  
60 PENNYMEADOW RD  
P O BOX 112  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0015  
Prop Location: 253 CONCORD RD Sudbury, MA  
Owner: TREXLER CHAD & TARYN  
Co-Owner:  
Mailing Address:  
253 CONCORD RD  
SUDBURY, MN 01776  
-----

-----  
Prop ID: H09-0016  
Prop Location: 233 CONCORD RD Sudbury, MA  
Owner: FRASCA GABRIEL P & LYDON  
Co-Owner: AMANDA C &  
Mailing Address:  
233 CONCORD RD  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0019  
Prop Location: 236 CONCORD RD Sudbury, MA  
Owner: QUIRK BRUCE T & EUGENIA L  
Co-Owner:  
Mailing Address:  
236 CONCORD RD  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0020  
Prop Location: 248 CONCORD RD Sudbury, MA  
Owner: HARNEY JEANNE TRS  
Co-Owner: BITTERSWEET TRUST  
Mailing Address:  
248 CONCORD ROAD  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0020  
Prop Location: 246 CONCORD RD Sudbury, MA  
Owner: HARNEY JEANNE TRS  
Co-Owner: BITTERSWEET TRUST  
Mailing Address:  
248 CONCORD ROAD  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0020  
Prop Location: 248-2 CONCORD RD Sudbury, MA  
Owner: HARNEY JEANNE TRS  
Co-Owner: BITTERSWEET TRUST  
Mailing Address:  
248 CONCORD ROAD  
SUDBURY, MA 01776  
-----

-----  
Prop ID: H09-0022  
Prop Location: 252 CONCORD RD Sudbury, MA  
Owner: PARENTE SANTINO & KATHLEEN  
Co-Owner:  
Mailing Address:  
252 CONCORD ROAD  
SUDBURY, MA 01776  
-----



**Notification to Abutters**  
**Under the Massachusetts Wetlands Protection Act**  
**and the Sudbury Wetlands Administrative Bylaw**

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

- A. The name of the **Applicant** is Hillary and Karl Zimmermann
- B. The Applicant has filed a Notice of Intent with the Sudbury Conservation Commission seeking permission to work in an Area Subject to Protection (Wetland Resource Area and/or Buffer Zone) under the Massachusetts Wetlands Protection Act (General Laws Chapter 131, Sec.40) and the Town of Sudbury Wetlands Administrative Bylaw.
- C. The **address** of the lot where the activity is proposed: 239 Concord Rd
- D. The **proposed activity** is: Minor regrading, installation of a fence, restoration planting and invasive species management within the 100' wetland buffer zone at a single family residence.
- 
- E. A **Public Hearing** regarding this Notice of Intent will be held on:  
**Monday, June 7th at 6:30 PM.**
- F. **Public Participation will be via Virtual Means Only** - In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Town of Sudbury Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 10 people, together with the present closure of Sudbury Town Hall and other public buildings to the public, the Town has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions.
- G The public may participate in this meeting via Remote Participation:**
- From your computer, smart phone or tablet:
- <https://us02web.zoom.us/j/83278091591>
  - Meeting ID: 832 7809 1591
  - From your phone: **978-639-3366 or 470 250 9358**
- H Copies of the Notice of Intent may be examined by visiting this Website:  
<https://sudbury.ma.us/conservationcommission/meetings/>
- I. Copies of the Notice of Intent may be obtained from either The Applicant, or the Applicant's representative Jen Stephens, by calling this telephone number: 978.424.1624 between the hours of 9am and 6pm

Note: Public Hearing Notice, including its date, time, and place, will be published at least 5 days in advance in either the Sudbury Crier or MetroWest newspapers (at the applicant's expense).



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Sent To Taryn + Chad Trexler

Street and Apt. No., or PO Box No. 253 Concord Rd

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Sent To Jeanne Harney

Street and Apt. No., or PO Box No. 248 Concord Rd

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☐ Adult Signature Restricted Delivery \$0.00

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Sent To Gabriel + Lydon Prasca

Street and Apt. No., or PO Box No. 233 Concord Rd

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☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$7.00

Sent To Kathleen + Santino Parente

Street and Apt. No., or PO Box No. 252 Concord Rd

City, State, ZIP+4® Sudbury, MA 01776

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



Begin forwarded message:

**From:** "Kristin O'Brien" <[kobrien@svtweb.org](mailto:kobrien@svtweb.org)>

**Subject:** Invasive Plant Management

**Date:** May 6, 2021 at 11:32:16 AM EDT

**To:** Hillary Zimmermann <[hillaryjz@yahoo.com](mailto:hillaryjz@yahoo.com)>, "Zimmermann, Karl" <[karl.zimmermann@bain.com](mailto:karl.zimmermann@bain.com)>

Hi Hillary and Karl,

It was great meeting you Hillary. I reviewed the plan that your landscaper gave me and based on that plan ("Land Management Plan: A narrative for invasive plant management and native restoration Winter 2020") and the discussion we had I give my approval for this project as described, including the fence on the house side of the boundary line. Please let me know if anything changes. If you would like I can send the Conservation Commission my approval or you can include this email in your application.

I have a clarification about the boundary line which in the plan is referenced as SVT Managed Lands, technically your entire lot including your home and the woods area under the CR. The CR (clause B.9.) gives you essentially every right for residential uses/structures in the lot the house is on. I would need notice in writing of any major changes outside the house like if you were to put in a pool. The boundary line we have been discussing is where the allowed uses of your property changes from residential to natural areas. This is why the fence would need to stay on the house side of the boundary line (which it is according to the plan). Let me know if you have any questions about this.

--

Kristin O'Brien

Land Steward



*Sudbury Valley Trustees*

[18 Wolbach Road](#)

[Sudbury, MA 01776](#)

[978-443-5588 ext. 135](#)

[www.svtweb.org](http://www.svtweb.org)