



Stow Conservation Commission
380 Great Road
Stow, MA 01775

September 12, 2023

Re: Notice of Intent
The Cottages at Wandering Pond,
Athens Street, Stow

Dear Stow Conservation Commission,

On behalf of Cottages at Wandering Pond Realty Trust (Bruce Wheeler, Trustee), Goddard Consulting, LLC (representative) is hereby submitting this Notice of Intent (NOI) application for a 141-unit Active Adult Community Residential project. Work within jurisdictional areas (Wetlands, Buffer Zone, Riverfront, Land Under Water Bodies, Bordering Land Subject to Flooding) includes grading, retaining walls, access roads, stream and wetland crossings, flood storage, wetland replication, stormwater management and the preservation of open meadow land.

This NOI application is a filing under the MA Wetlands Protection Act (WPA) and the Town of Stow's Wetland Bylaw and describes existing conditions, proposed conditions, resource areas present on site, and project compliance with the Massachusetts Wetlands Protection Act and Stow's Wetland Bylaw and Regulations. One original and four copies of the NOI submittal along with 5 copies of the plans and have been submitted for your review, along with a digital/online submittal via drop box link. A list of enclosed documents is as follows:

- NOI Application (WPA Form 3)
- Copy of checks
- NOI checklist
- Project Narrative explaining impacts, mitigation and compliance with state and local laws
- Certified Abutters List
- Affidavit of Service
- Notification to Abutters (copy to be supplied by Conservation prior to mailing)
- Certificate of Mailing will be provided to Commission once completed
- Stormwater Management Report, dated June 29, 2023, prepared by Stamski and McNary, Inc.
- Site Plans: The Cottages at Wandering Pond and Active Adult Neighborhood Stow, MA, by Stamski and McNary, Inc. last revised July 6, 2023. 76 page NOI plan set.
- ORAD
- FEMA Flood Map

Sincerely,
Goddard Consulting, LLC.

Nicole Hayes, PWS
Senior Wetland Scientist

Cc: Bruce Wheeler, 148 Park St, N. Reading, MA 01864
Stamski and McNary, Inc. 1000 Main St, Acton, MA 01720
MassDEP Central Region, 8 New Bond Road, Worcester, MA 01606



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

Stow

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):

Athens Street

a. Street Address

Stow

b. City/Town

01775

c. Zip Code

Latitude and Longitude:

42.42168

d. Latitude

-71.54053

e. Longitude

Map R02

f. Assessors Map/Plat Number

Lots: 1A,3,4,5,6,18,19, 20-7

g. Parcel /Lot Number

2. Applicant:

Bruce

a. First Name

Wheeler, Trustee

b. Last Name

Cottages of Wandering Pond Reality Trust

c. Organization

148 Park Street

d. Street Address

North Reading

e. City/Town

MA

f. State

01864

g. Zip Code

978-664-3266

h. Phone Number

i. Fax Number

bwheeler@habitechinc.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):

Scott

a. First Name

Goddard

b. Last Name

Goddard Consulting

c. Company

291 Main St, Suite 8

d. Street Address

Northboro

e. City/Town

MA

f. State

01532

g. Zip Code

1-508-393-3784

h. Phone Number

i. Fax Number

scott@goddardconsultingllc.com

j. Email address

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

\$30,975.00

a. Total Fee Paid

\$15,475.00

b. State Fee Paid

\$15,500.00 and \$787.25

c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

141 unit Active Adult Community Residence (127 houses and 7 duplexes)

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

- | | |
|---|--|
| 1. <input type="checkbox"/> Single Family Home | 2. <input checked="" 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:

Middlesex

a. County

32202/73006/73077/64918

c. Book

b. Certificate # (if registered land)

295/546/274/352

d. Page Number

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

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

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



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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input checked="" type="checkbox"/> Bank	314 lf 1. linear feet	394 lf 2. linear feet
b. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	Temp: 1854 sf Perm: 2118 sf 1. square feet	Temp: 1854. Perm: 3,430sf 2. square feet
c. <input checked="" type="checkbox"/> Land Under Waterbodies and Waterways	1254 sf 1. square feet 0 3. cubic yards dredged	2,266 sf 2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	1100 1. square feet 2336 3. cubic feet of flood storage lost	2143 2. square feet 2587 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 checked="" type="checkbox"/> Riverfront Area	inland 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: 803,043
square feet

4. Proposed alteration of the Riverfront Area:

<u>217,659</u>	<u>49,024</u>	<u>168,635</u>
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.

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

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

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

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



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

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

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

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	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

0

a. number of new stream crossings

3

b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. ☐ Yes ☒ No

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

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

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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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

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

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

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

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



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Bureau of Resource Protection - Wetlands

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

Online Users:

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

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

D. Additional Information

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

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

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

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



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Bureau of Resource Protection - Wetlands

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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.

The Cottages at Wandering Pond an Active Adult Neighborhood

a. Plan Title

Stamski and McNary, Inc

George Dimakarakos

b. Prepared By

c. Signed and Stamped by

July 6, 2023

varies

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☒ Attach Stormwater Report, if needed.

E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

1137

8/28/23

2. Municipal Check Number

3. Check date

1138

8/28/23

4. State Check Number

5. Check date

Cottages at Wandering Pond LLC

Bruce Wheeler

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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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.



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

A. Applicant Information

1. Location of Project:

Athens Street

a. Street Address

1138

c. Check number

Stow

b. City/Town

\$15,475.00

d. Fee amount

2. Applicant Mailing Address:

Bruce

a. First Name

Wheeler, Trustee

b. Last Name

Cottages at Wandering Pond Realty Trust

c. Organization

148 Park St

d. Mailing Address

North Reading

e. City/Town

MA

f. State

01864

g. Zip Code

978-664-3266

h. Phone Number

i. Fax Number

bwheeler@habitechinc.com

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

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

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

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

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

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

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

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



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NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
4A 3 wetland crossings in riverfront	3	1450 x1.5	6,525.00
3C roadways (2 in Riverfront)	4 (3 x 1.5)	1050.00	5,775.00
3B building	1	1050.00	1050.00
2A single family house in riverfront	6 x1.5	500.00	4,500.00
3A Duplex (2) in riverfront	2 X1.5	1050.00	3,150.00
2G discharges	8 (5 in riverfront)	500.00	5,250.00
3B pool house, pickleball, playground	3 in riverfront	1050.00	4725.00
Step 5/Total Project Fee:			30,975.00
Step 6/Fee Payments:			
Total Project Fee:			30,975.00
			a. Total Fee from Step 5
State share of filing Fee:			15,475.00
			b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:			15,500.00
			c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

1139

READING CO-OPERATIVE BANK
READING/WILMINGTON, MA

COTTAGES AT WANDERING POND, LLC

148 PARK STREET
NORTH READING, MA 01864

53-7240/2113

DATE

AMOUNT

08/28/2023

\$

*787.25

PAY SEVEN HUNDRED EIGHTY-SEVEN AND 25/100 DOLLARS

TO THE
ORDER
OFTOWN OF STOW
PO BOX 1072
MEDFORD MA 02155

AUTHORIZED SIGNATURE

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

⑈001139⑈ ⑆211372404⑆ 2600367682⑈

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER

1137

READING CO-OPERATIVE BANK
READING/WILMINGTON, MA

COTTAGES AT WANDERING POND, LLC

148 PARK STREET
NORTH READING, MA 01864

53-7240/2113

DATE

AMOUNT

08/28/2023

\$

*15,500.00

PAY EXACTLY FIFTEEN THOUSAND FIVE HUNDRED DOLLARS

TO THE
ORDER
OFTOWN OF STOW
PO BOX 1072
MEDFORD MA 02155

AUTHORIZED SIGNATURE

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

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ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER

1138

READING CO-OPERATIVE BANK
READING/WILMINGTON, MA

COTTAGES AT WANDERING POND, LLC

148 PARK STREET
NORTH READING, MA 01864

53-7240/2113

DATE

AMOUNT

08/28/2023

\$

*15,475.00

PAY EXACTLY FIFTEEN THOUSAND FOUR HUNDRED SEVENTY-FIVE DOLLARS

TO THE
ORDER
OF

COMMONWEALTH OF MASSACHUSETTS



AUTHORIZED SIGNATURE

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

⑈001138⑈ ⑆211372404⑆ 2600367682⑈

Goddard Consulting, LLC
291 Main Street, Suite 8
Northborough, MA 01532
508-393-3784

5500
53-7052/2113

Sept 11 2023

CHECKSAFE

Pay to the
Order of

Stow Independent

\$ 65.00

Sixty Five dollars

Dollars

Security features
are included.
Circle on back.

AVIDIA BANK
Hudson, MA

For

Athens St NoI Stow

Reba A. Leach

⑆2⑆1⑆370529⑆

3⑆623507⑆ 5500



Town of Stow Conservation Commission

380 Great Road
Stow, Massachusetts 01775
(978) 897-8615
FAX (978) 897-4534
conservation@stow-ma.gov

Notice of Intent & Abbreviated Notice of Intent Application Checklist

Please note that the Commission generally meets on the 1st and 3rd Tuesday of each month and agendas are filled in the order applications are received. Applications must be received approximately three weeks before the scheduled hearing to allow time for legal notices. Contact the Commission at 978-897-8615 or conservation@stow-ma.gov to confirm available hearing dates and deadlines or if you would like to go over the application requirements and forms. Also please note that there is a 10 business day appeal period from the issuance of the decision before you are permitted to start work on your project. Links to forms are on our website at www.stow-ma.gov/conservation-commission. You will generally need 6 copies of application materials – see below for where they go.

Application Submittals - To the Stow Conservation Commission by hand delivery or Certified Mail:

- ✓ 1 unbound original and 4 copies of completed DEP Notice of Intent and narrative, and the following as appropriate: stormwater report, drainage calculations, waiver requests ([link to NOI form](#) on website)
- ✓ 5 copies of Site Plan(s)
- ✓ 1 copy of NOI Fee Transmittal Form (available on DEP's website)
- ✓ 1 copy of USGS Locus Map showing Property Location within Stow - Locus maps can be made at
- ✓ MassGIS's OLIVER mapping site at http://maps.massgis.state.ma.us/map_ol/oliver.php
- ___ 1 copy of Certified List of Abutters

(NOTE: The Assessors may take up to 10 days to process requests for abutter lists and charge a fee for lists. You can request a list from the Assessing Office at Town Building)

You are required to mail abutters either using a Certificate of Mailing from the Post Office or via certified mail. When your application is ready contact the Commission and we can provide the one page notification of date/time/place of public hearing. Proof of mailing must be provided at or before the public hearing.

- ✓ 1 copy of Affidavit of Mailing to Abutters Form (on Conservation Commission website)
- ✓ Check to Stow Independent for \$65 (we will take care of placing the legal notice in the paper)
- ✓ Check to Town of Stow for Local Portion of State Wetlands Protection Act Fee
- ✓ Check to Town of Stow for Local Wetlands Bylaw Fee
- ✓ 1 copy of DEP check (State Portion of State Wetlands Protection Act Fee) with account information redacted

Application Submittals - To DEP Central Regional Office at 8 New Bond Street, Worcester MA 01606 01606 and via email to [CERO NOI@mass.gov](mailto:CERO_NOI@mass.gov):

- ✓ 1 copy of completed DEP Notice of Intent, narrative, stormwater report, drainage calculations, and other information as appropriate
- ✓ 1 copy of Site Plan(s)
- ✓ 1 copy of USGS Locus Map showing Property Location within Stow
- ✓ 1 copy of Certified Abutters List
- ✓ 1 copy of Affidavit of Mailing to Abutters Form
- ✓ 1 copy of NOI Fee Transmittal Form
- ✓ 1 copy of DEP check (State Portion of State Wetlands Protection Act Fee)
- ✓ Email 1 scanned copy of the above to DEP at [CERO NOI@mass.gov](mailto:CERO_NOI@mass.gov) with the subject line STOW – NOI – Street Address – Applicant Name

Application Submittals - To DEP lock box DEP, Box 4062, Boston MA 02211:

- ✓ NOI Fee Transmittal Form

ABUTTERS LIST
0 GOSHEN LN
MAP R-2 PARCEL 18

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-2 000003	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000005	0 GOSHEN LN	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LANE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	26499	172
000R-2 000018	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000019	0 GOSHEN LN OFF	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 00001A	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000020	0 MAPLE ST OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	44599	206
000R-2 00016D	0 KETTLELL PLAIN RD	WHISPERING WOODS HOMEOWNERS ASSC		2 SCHOOL ST	ACTON	MA	01720	30437	16
000R-2 00019A	0 GOSHEN LN #OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	51808	87
000R-2 0016-3	OFF KETTLELL PLAIN RD	ASHLEY DEVELOPMENT LLC		2 SCHOOL ST	ACTON	MA	01720	30437	16
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)		148 PARK ST	NORTH READING	MA	01864	64918	352
000R-2 0020-9	190 MAPLE ST	KILMARTIN JEREMIAH	KILMARTIN CELESTE	190 MAPLE ST	STOW	MA	01775	68045	299

Certified by the Stow Board of Assessors:

LAUREN FLECK

Date Certified or Re-Certified:

8/8/23

F#:

300

ABUTTERS LIST
217 HUDSON RD
MAP R-2 PARCEL 6

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-2 000002	225 HUDSON RD	HAGERTY RYAN	HAGERTY DAWN	225 HUDSON RD	STOW	MA	01775	69465	26
000R-2 000003	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	29
000R-2 000004	0 ATHENS ST	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LAKE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	20082	39
000R-2 000006	217 HUDSON RD	ATHENS STREET REALTY TRUST	D BRUCE WHEELER TRUSTEE	148 PARK ST	NORTH READING	MA	01864	68689	27
000R-2 000007	209 HUDSON RD	DUCHI KENNETH	JOAN M DUCHI	209 HUDSON ROAD	STOW	MA	01775	26225	46
000R-2 000009	203 HUDSON RD	MURPHY BRIAN		203 HUDSON ROAD	STOW	MA	01775	71983	54
000R-2 0001-2	0 HUDSON RD	CPI RADANT TECHNOLOGIES DIVISION INC	C/O COMMUNICATION & POWER INDS LLC	255 HUDSON RD	STOW	MA	01775	63908	52
00R-11 000015	206 HUDSON RD	CORNELL CHARLES A	ELIZABETH A CORNELL	206 HUDSON RD	STOW	MA	01775	12893	47
00R-11 000016	210 HUDSON RD	BRYANT DAVID	SOUZA CRISTINA	210 HUDSON RD	STOW	MA	01775	71498	26
00R-11 000018	218 HUDSON RD	SAUTA JAMES V	BETTY M SAUTA	218 HUDSON RD	STOW	MA	01775	19698	35
00R-11 000020	230 HUDSON RD	MARCO COPPOLA		230 HUDSON RD	STOW	MA	01775	55202	35
00R-11 000021	6 EDSON ST	JOHNSON TREVOR C	JOHNSON KATHLEEN E	6 EDSON ST	STOW	MA	01775	58467	31

Certified by the Stow Board of Assessors:

LAWRENCE FIERZ

Date Certified or Re-Certified:

8/8/23

Ft:

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ABUTTERS LIST
0 GOSHEN LN
MAP R-2 PARCEL 5

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-2 000003	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	29
000R-2 000004	0 ATHENS ST	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LAKE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	20082	39
000R-2 000005	0 GOSHEN LN	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LAKE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	26499	17
000R-2 000018	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	20
000R-2 00016D	0 KETTLELL PLAIN RD	WHISPERING WOODS HOMEOWNERS ASSC		2 SCHOOL ST	ACTON	MA	01720	30437	11
000R-2 0016-3	OFF KETTLELL PLAIN RD	ASHLEY DEVELOPMENT LLC		2 SCHOOL ST	ACTON	MA	01720	30437	11
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)	COTTAGES AT WANDERING POND REALTY TR	148 PARK ST	NORTH READING	MA	01864	64918	35
000R-2 010A-6	68 KETTLELL PLAIN RD	RICKEYS ROBERT J	RICKEYS BENITA C	68 KETTLELL PLAIN RD	STOW	MA	01775	51877	39
000R-2 16A-12	88 KETTLELL PLAIN RD	STEVENSON CHARLES N	STEVENSON JONI B	88 KETTLELL PLAIN RD	STOW	MA	01775	38530	35
000R-2 16A-13	84 KETTLELL PLAIN RD	AQUIN CHARLES M	AQUIN ELIZABETH P	84 KETTLELL PLAIN RD	STOW	MA	01775	69201	40
000R-2 16A-14	78 KETTLELL PLAIN RD	ALGONKAR KAMLA KAR D	ALGONKAR VIRA	78 KETTLELL PLAIN RD	STOW	MA	01775	32036	9
000R-3 000016	688 GREAT RD	BOSE CORPORATION		THE MOUNTAIN MS#681	FRAMMINGHAM	MA	01701	41641	541
000R-3 000018	60 OLD BOLTON RD	TOWN OF STOW		380 GREAT RD	STOW	MA	01775	51241	48
000R-3 00027A	114 MAPLE ST	FLATFORD, ADAM	FLATFORD, LESLEY A.	114 MAPLE ST	STOW	MA	01775	17931	13
000R-3 023B-3	OFF MAPLE ST	MOSELEY PHILIP B & ELIZABETH A TR	KETTLELL FARM REALTY TRUST	32 MAPLE ST	STOW	MA	01775	31197	46

Certified by the Stow Board of Assessors:

Lauren Fierus

Date Certified or Re-Certified: 8/8/23

Fi: 300

ABUTTERS LIST
0 ATHENS
MAP R-2 PARCEL 04

00R-10 0002HG	55 HEATHER LN	FRBERG, WILLIAM G. (TRUSTEE)	THE 2021 FRBERG FAMILY TRUST	55 HEATHER LN	STOW	MA	01775	54
00R-10 0002HG	53 HEATHER LN	SCHNABE ANN M		53 HEATHER LANE UNIT 29	STOW	MA	01775	55
00R-10 0003HG	51 HEATHER LN	VASSILOVSKI AMIEL	VASSILOVSKI JUDITH	51 HEATHER LANE	STOW	MA	01775	56
00R-10 0003HG	49 HEATHER LN	MYERS FAMILY LIVING TRUST	MYERS FREDERICK J & THECLA F MYERS TRS	PO BOX 845	STOW	MA	01775	57
00R-10 0003HG	47 HEATHER LN	CANNON TRUST	CANNON MARCIA S TRUSTEE	47 HEATHER LANE UNIT 32	STOW	MA	01775	58
00R-10 0003HG	45 HEATHER LN	BERNARD NAUCY M REV TRUST	BERNARD NAUCY M, TTEE	45 HEATHER LANE	STOW	MA	01775	59
00R-10 0003HG	39 HEATHER LN	LEONARD THE ROBERT & SHEILA LIVING TR	LEONARD ROBERT E & SHEILA-RETH TRS	39 HEATHER LN UNIT 34	STOW	MA	01775	60
00R-10 0003HG	37 HEATHER LN	HOLBROOK CAROLYN L & JOHN A L E	HEATHER LANE REALTY TRUST	PO BOX 253	STOW	MA	01775	61
00R-10 0003HG	35 HEATHER LN	SHAOSONG ZHANG		35 HEATHER LN	STOW	MA	01775	62
00R-10 0003HG	33 HEATHER LN	HEBERT LORNA		33 HEATHER LANE	STOW	MA	01775	63
00R-10 0003HG	31 HEATHER LN	ISAAC, DEBRA SPAINOWER	MARTIN CLIFFORD D TRUSTEE	29 HEATHER LANE UNIT 30	STOW	MA	01775	64
00R-10 0003HG	29 HEATHER LN	MARTIN THE CLIFFORD D REVOCABLE E TRUST	SCHALBHUT KARENA	27 HEATHER LANE UNIT 40	STOW	MA	01775	65
00R-10 0004HG	27 HEATHER LN	SCHALBHUT RALPH GORDON	BELTZ SHIRLEY J	25 HEATHER LN UNIT 41	STOW	MA	01775	66
00R-10 0004HG	25 HEATHER LN	BELTZ PHILIP R	OWENS MARTIN & BARBARA WOLFENDEN TRS	23 HEATHER LN UNIT 42	STOW	MA	01775	67
00R-10 0004HG	23 HEATHER LN	OWENS MARTIN F TRUST	BOULEY REALTY TR NATHAN A GRETA TRS	18 HEATHER LN	STOW	MA	01775	68
00R-10 0004HG	19 HEATHER LN	BOULEY WILLIAM & LOUISE L E	OSGOOD EDWARD F JR	17 HEATHER LN UNIT 44	STOW	MA	01775	69
00R-10 0004HG	17 HEATHER LN	MARTUCCI ANA MARIE	KUSTOM DOLORES C TRUSTEE	15 HEATHER LANE UNIT 45	STOW	MA	01775	70
00R-10 0004HG	15 HEATHER LN	KUSTOM DOLORES LIVING TRUST	TRASK JEANNE M	12 HEATHER LN UNIT 47	STOW	MA	01775	71
00R-10 0004HG	14 HEATHER LN	TRASK PETER M	BOMBARDIERI NICOLE A	14 HEATHER LN	STOW	MA	01775	72
00R-10 0004HG	12 HEATHER LN	BOMBARDIERI ROCCO A	DILANNI KIMBERLY	18 HEATHER LN UNIT 49	STOW	MA	01775	73
00R-10 0004HG	14 HEATHER LN	DILANNI JOHN D	MASON CHRISTINE & NICOLA FRANK M TRS	20 HEATHER LN	STOW	MA	01775	74
00R-10 0004HG	18 HEATHER LN	NICOLA FAMILY TRUST		7 ROBINSON RD	WESTF	MA	01886	75
00R-10 0005HG	20 HEATHER LN	CAROL ANN BAER		9 BRIDOK HILL RD	STOW	MA	01775	76
00R-10 0005HG	22 HEATHER LN	IMORTENSON ALICE L (ESTATE OF)		28 HEATHER LANE	STOW	MA	01775	77
00R-10 0005HG	26 HEATHER LN	COUGHLIN JR THOMAS J	ROYAN ELIZABETH M	30 HEATHER LN UNIT 54	STOW	MA	01775	78
00R-10 0005HG	28 HEATHER LN	ROYAN JOSEPH P		34 HEATHER LN	STOW	MA	01775	79
00R-10 0005HG	30 HEATHER LN	GIBNEY MARY G	SCHWARTZ ANA LUISA	36 HEATHER LN	STOW	MA	01775	80
00R-10 0005HG	34 HEATHER LN	SCHWARTZ RICHARD HEAL		38 HEATHER LN	STOW	MA	01775	81
00R-10 0005HG	36 HEATHER LN	BUNIPUS, KATHRYN E.		35 ARBOR GLEN DRIVE	STOW	MA	01775	82
00R-10 0005HG	38 HEATHER LN	CONNER CHRISTINE A TTEE	THE CHRISTINE A CONNER TRUST	33 ARBOR GLEN DR UNIT 59	STOW	MA	01775	83
00R-10 0005HG	35 ARBOR GLEN DR	HATCH LAURENE, TTE	HATCH LAURENE S HOMNEE TRUST NO 1	29 ARBOR GLEN DR	STOW	MA	01775	84
00R-10 0005HG	33 ARBOR GLEN DR	BARRETT DAVID M	BARRETT MARY T	27 ARBOR GLEN DR	STOW	MA	01775	85
00R-10 0006HG	31 ARBOR GLEN DR	PARCELLO RONALD R	PARCELLO KATHLEEN J	26 ARBOR GLEN DR	STOW	MA	01775	86
00R-10 0006HG	29 ARBOR GLEN DR	ROBERTS LARA		23 ARBOR GLEN DR UNIT 64	STOW	MA	01775	87
00R-10 0006HG	27 ARBOR GLEN DR	LUZ ROBERT	LUZ ANN	21 ARBOR GLEN DR UNIT 65	STOW	MA	01775	88
00R-10 0006HG	25 ARBOR GLEN DR	GAULT, GERALD G, SR & CAROL A (TTES)	GERALD AND CAROL GAULT LIVING TRUST	19 ARBOR GLEN DR	STOW	MA	01775	89
00R-10 0006HG	21 ARBOR GLEN DR	HAFFA JAMES N	RAFFA BARBARA J		STOW	MA	01775	90
00R-10 0006HG	19 ARBOR GLEN DR	SHEEHAN ELAINE P	CHEN CHAOTUNG		STOW	MA	01775	91
00R-10 0006HG	OFF HUDSON RD	CHEN HOCHIN			STOW	MA	01775	92
00R-10 0006HG		ARBOR GLEN CONDOMINIUM			STOW	MA	01775	93

Certified by the Stow Board of Assessors:

John F. Field

Date Certified or Re-Certified:

8/6/23

File:

300

ABUTTERS LIST
0 ATHENS
MAP R-2 PARCEL 0-1

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP	DEED	DEED
							CODE	BOOK	PAGE
000R-2 000003	0 GOSHEN LN	ERIC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD		HUDSON	MA 01740		1
000R-2 000004	0 ATHENS ST	GALLAGHER III, GEORGE E (TRUSTEE)	GOSHEN LANE REALTY TRUST	148 PARK ST		NORTH	MA 01864		1
						READIN			
000R-2 000005	0 GOSHEN LN	GALLAGHER III, GEORGE E (TRUSTEE)	GOSHEN LANE REALTY TRUST	148 PARK ST		NORTH	MA 01864		1
						READIN			
000R-2 000006	217 HUDSON RD	ATHENS STREET REALTY TRUST	D BRUCE WHEELER TRUSTEE	148 PARK ST		NORTH	MA 01864		1
						READIN			
000R-2 000007	209 HUDSON RD	DUCH KENNETH	JOAN M DUCH	209 HUDSON ROAD		STOW	MA 01775		1
000R-2 000014	147 HUDSON RD	THE JAMES AND KATHERINE WOOD LT L/A	WOOD MAURICE J S TTE. WOOD KATHERINE J TTE	147 HUDSON ROAD		STOW	MA 01775		1
000R-2 000015	143 HUDSON RD	HAL PERE JOHN H		143 HUDSON RD		STOW	MA 01775		1
000R-2 010A-1	199 HUDSON RD	PHOENIX DANIEL J		199 HUDSON RD		STOW	MA 01775		1
000R-2 010A-2	197 HUDSON RD	MANESHVARA, SRUTHI	VADLA, SHIVA PRASAD	197 HUDSON RD		STOW	MA 01775		1
000R-2 010A-3	155 HUDSON RD	TANG CALIN	SHI HONGYUE	155 HUDSON ROAD		STOW	MA 01775		1
000R-3 000016	688 GREAT RD	BOSE CORPORATION		THE MOUNTAIN VIEW		FRAMM	MA 01701		1
						GHAM			
00R-10 00001G	14 ARBOR GLEN DR	TERRY, RUTH A. P.		14 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00002G	16 ARBOR GLEN DR	MCDONNELL EILEEN T		16 ARBOR GLEN DR UNIT 2		STOW	MA 01775		1
00R-10 00003G	18 ARBOR GLEN DR	WIECHMANN TERRY		18 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00004G	20 ARBOR GLEN DR	LEVY SANFORD	LEVY JANICE	20 ARBOR GLEN DR UNIT 4		STOW	MA 01775		1
00R-10 00005G	22 ARBOR GLEN DR	MCAHON NANCY R		22 ARBOR GLEN DRIVE		STOW	MA 01775		1
00R-10 00006G	24 ARBOR GLEN DR	DELUITY ANN LIVING TRUST	DELUITY ANN L TTE	24 ARBOR GLEN DRIVE		STOW	MA 01775		1
00R-10 00007G	26 ARBOR GLEN DR	CHABOT RICHARD L	CHABOT ANNE J	26 ARBOR GLEN		STOW	MA 01775		1
00R-10 00008G	28 ARBOR GLEN DR	JOHNSON FAMILY REVOCABLE TRUST	JOHNSON FREDERICK C & JOAN A TRS	28 ARBOR GLEN DRIVE		STOW	MA 01775		1
00R-10 00009G	30 ARBOR GLEN DR	SACK, DANIEL J.	SACK, SALLY A	30 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00010G	32 ARBOR GLEN DR	STREFF, CHARLES EDWARD (LIFE EST.)	SPRING, MEGHAN	32 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00011G	34 ARBOR GLEN DR	HEYDT MITCHELL A	HEYDT KATHLEEN L	34 ARBOR GLEN DR UNIT 11		STOW	MA 01775		1
00R-10 00012G	36 ARBOR GLEN DR	MURPHY CHARLES H REVOCABLE LIVING TR	MURPHY CHARLES H TRUSTEE	2680 MANDEVILLA DR		BOYLSTON	MA 01775		1
						SPRING			
00R-10 00013G	38 ARBOR GLEN DR	AARONSON CHARLES D	AARONSON ANGELA JOY	38 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00014G	40 ARBOR GLEN DR	MASCOIT CHARLES G	DENATALE CLAIRE	40 ARBOR GLEN DRIVE UNIT 14		STOW	MA 01775		1
00R-10 00015G	42 ARBOR GLEN DR	VANO DENNIS ANTHONY & PATRICIA JEANNE	DPE VANO TRUST	42 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00016G	44 ARBOR GLEN DR	GRAVES ELAINE M		44 ARBOR GLEN DR UNIT 16		STOW	MA 01775		1
00R-10 00017G	46 ARBOR GLEN DR	PEDRUZZI, ANNIE C. (TRUSTEE)	ANNIE C. PEDRUZZI FAMILY TRUST	46 ARBOR GLEN DR		STOW	MA 01775		1
00R-10 00018G	48 HEATHER LN	SAMSON FAMILY TRUST	SAMSON SHELLIN P & JUDITH S	48 HEATHER LN UNIT 18		STOW	MA 01775		1
00R-10 00019G	50 HEATHER LN	MUZERAL, KATHY		50 HEATHER LN		STOW	MA 01775		1
00R-10 00020G	52 HEATHER LN	VERHO, THOMAS D		52 HEATHER LN		STOW	MA 01775		1
00R-10 00021G	54 HEATHER LN	LORA R MOURADIAN, TTE		54 HEATHER LN		STOW	MA 01775		1
00R-10 00022G	56 HEATHER LN	HOFFMAN LEE		56 HEATHER LANE REALTY TRUST		STOW	MA 01775		1
00R-10 00023G	58 HEATHER LN	DELAHEY BARBARA M		58 HEATHER LANE		STOW	MA 01775		1
00R-10 00024G	60 HEATHER LN	WILMOT, PATRICK L & LUCIA B	PATRICK L WILMOT LIVING TRUST	60 HEATHER LN		STOW	MA 01775		1
00R-10 00025G	62 HEATHER LN	CREWMEN, SANDRA F & CREWMEN, RICHARD M (TRUSTEES)	SANDRA F CREWMEN REVOCABLE TRUST	62 HEATHER LN		STOW	MA 01775		1
00R-10 00026G	64 HEATHER LN			64 HEATHER LN		STOW	MA 01775		1
00R-10 00027G	66 HEATHER LN			66 HEATHER LN		STOW	MA 01775		1
00R-10 00028G	68 HEATHER LN			68 HEATHER LN		STOW	MA 01775		1
00R-10 00029G	70 HEATHER LN			70 HEATHER LN		STOW	MA 01775		1
00R-10 00030G	72 HEATHER LN			72 HEATHER LN		STOW	MA 01775		1
00R-10 00031G	74 HEATHER LN			74 HEATHER LN		STOW	MA 01775		1
00R-10 00032G	76 HEATHER LN			76 HEATHER LN		STOW	MA 01775		1
00R-10 00033G	78 HEATHER LN			78 HEATHER LN		STOW	MA 01775		1
00R-10 00034G	80 HEATHER LN			80 HEATHER LN		STOW	MA 01775		1
00R-10 00035G	82 HEATHER LN			82 HEATHER LN		STOW	MA 01775		1
00R-10 00036G	84 HEATHER LN			84 HEATHER LN		STOW	MA 01775		1
00R-10 00037G	86 HEATHER LN			86 HEATHER LN		STOW	MA 01775		1
00R-10 00038G	88 HEATHER LN			88 HEATHER LN		STOW	MA 01775		1
00R-10 00039G	90 HEATHER LN			90 HEATHER LN		STOW	MA 01775		1
00R-10 00040G	92 HEATHER LN			92 HEATHER LN		STOW	MA 01775		1
00R-10 00041G	94 HEATHER LN			94 HEATHER LN		STOW	MA 01775		1
00R-10 00042G	96 HEATHER LN			96 HEATHER LN		STOW	MA 01775		1
00R-10 00043G	98 HEATHER LN			98 HEATHER LN		STOW	MA 01775		1
00R-10 00044G	100 HEATHER LN			100 HEATHER LN		STOW	MA 01775		1
00R-10 00045G	102 HEATHER LN			102 HEATHER LN		STOW	MA 01775		1
00R-10 00046G	104 HEATHER LN			104 HEATHER LN		STOW	MA 01775		1
00R-10 00047G	106 HEATHER LN			106 HEATHER LN		STOW	MA 01775		1
00R-10 00048G	108 HEATHER LN			108 HEATHER LN		STOW	MA 01775		1
00R-10 00049G	110 HEATHER LN			110 HEATHER LN		STOW	MA 01775		1
00R-10 00050G	112 HEATHER LN			112 HEATHER LN		STOW	MA 01775		1
00R-10 00051G	114 HEATHER LN			114 HEATHER LN		STOW	MA 01775		1
00R-10 00052G	116 HEATHER LN			116 HEATHER LN		STOW	MA 01775		1
00R-10 00053G	118 HEATHER LN			118 HEATHER LN		STOW	MA 01775		1
00R-10 00054G	120 HEATHER LN			120 HEATHER LN		STOW	MA 01775		1
00R-10 00055G	122 HEATHER LN			122 HEATHER LN		STOW	MA 01775		1
00R-10 00056G	124 HEATHER LN			124 HEATHER LN		STOW	MA 01775		1
00R-10 00057G	126 HEATHER LN			126 HEATHER LN		STOW	MA 01775		1
00R-10 00058G	128 HEATHER LN			128 HEATHER LN		STOW	MA 01775		1
00R-10 00059G	130 HEATHER LN			130 HEATHER LN		STOW	MA 01775		1
00R-10 00060G	132 HEATHER LN			132 HEATHER LN		STOW	MA 01775		1
00R-10 00061G	134 HEATHER LN			134 HEATHER LN		STOW	MA 01775		1
00R-10 00062G	136 HEATHER LN			136 HEATHER LN		STOW	MA 01775		1
00R-10 00063G	138 HEATHER LN			138 HEATHER LN		STOW	MA 01775		1
00R-10 00064G	140 HEATHER LN			140 HEATHER LN		STOW	MA 01775		1
00R-10 00065G	142 HEATHER LN			142 HEATHER LN		STOW	MA 01775		1
00R-10 00066G	144 HEATHER LN			144 HEATHER LN		STOW	MA 01775		1
00R-10 00067G	146 HEATHER LN			146 HEATHER LN		STOW	MA 01775		1
00R-10 00068G	148 HEATHER LN			148 HEATHER LN		STOW	MA 01775		1
00R-10 00069G	150 HEATHER LN			150 HEATHER LN		STOW	MA 01775		1
00R-10 00070G	152 HEATHER LN			152 HEATHER LN		STOW	MA 01775		1
00R-10 00071G	154 HEATHER LN			154 HEATHER LN		STOW	MA 01775		1
00R-10 00072G	156 HEATHER LN			156 HEATHER LN		STOW	MA 01775		1
00R-10 00073G	158 HEATHER LN			158 HEATHER LN		STOW	MA 01775		1
00R-10 00074G	160 HEATHER LN			160 HEATHER LN		STOW	MA 01775		1
00R-10 00075G	162 HEATHER LN			162 HEATHER LN		STOW	MA 01775		1
00R-10 00076G	164 HEATHER LN			164 HEATHER LN		STOW	MA 01775		1
00R-10 00077G	166 HEATHER LN			166 HEATHER LN		STOW	MA 01775		1
00R-10 00078G	168 HEATHER LN			168 HEATHER LN		STOW	MA 01775		1
00R-10 00079G	170 HEATHER LN			170 HEATHER LN		STOW	MA 01775		1
00R-10 00080G	172 HEATHER LN			172 HEATHER LN		STOW	MA 01775		1
00R-10 00081G	174 HEATHER LN			174 HEATHER LN		STOW	MA 01775		1
00R-10 00082G	176 HEATHER LN			176 HEATHER LN		STOW	MA 01775		1
00R-10 00083G	178 HEATHER LN			178 HEATHER LN		STOW	MA 01775		1
00R-10 00084G	180 HEATHER LN			180 HEATHER LN		STOW	MA 01775		1
00R-10 00085G	182 HEATHER LN			182 HEATHER LN		STOW	MA 01775		1
00R-10 00086G	184 HEATHER LN			184 HEATHER LN		STOW	MA 01775		1
00R-10 00087G	186 HEATHER LN			186 HEATHER LN		STOW	MA 01775		1
00R-10 00088G	188 HEATHER LN			188 HEATHER LN		STOW	MA 01775		1
00R-10 00089G	190 HEATHER LN			190 HEATHER LN		STOW	MA 01775		1
00R-10 00090G	192 HEATHER LN			192 HEATHER LN		STOW	MA 01775		1
00R-10 00091G	194 HEATHER LN			194 HEATHER LN		STOW	MA 01775		1
00R-10 00092G	196 HEATHER LN			196 HEATHER LN		STOW	MA 01775		1
00R-10 00093G	198 HEATHER LN			198 HEATHER LN		STOW	MA 01775		1
00R-10 00094G	200 HEATHER LN			200 HEATHER LN		STOW	MA 01775		1
00R-10 00095G	202 HEATHER LN			202 HEATHER LN		STOW	MA 01775		1
00R-10 00096G	204 HEATHER LN			204 HEATHER LN		STOW	MA 01775		1
00R-10 00097G	206 HEATHER LN			206 HEATHER LN		STOW	MA 01775		1
00R-10 00098G	208 HEATHER LN			208 HEATHER LN		STOW	MA 01775		1
00R-10 00099G	210 HEATHER LN			210 HEATHER LN		STOW	MA 01775		1
00R-10 00100G	212 HEATHER LN			212 HEATHER LN		STOW	MA 01775		1
00R-10 00101G	214 HEATHER LN			214 HEATHER LN		STOW	MA 01775		1
00R-10 00102G	216 HEATHER LN			216 HEATHER LN		STOW	MA 01775		1
00R-10 00103G	218 HEATHER LN			218 HEATHER LN		STOW	MA 01775		1
00R-10 00104G	220 HEATHER LN			220 HEATHER LN		STOW	MA 01775		1
00R-10 00105G	222 HEATHER LN			222 HEATHER LN		STOW	MA 01775		1
00R-10 00106G	224 HEATHER LN			224 HEATHER LN		STOW	MA 01775		1
00R-10 00107G	226 HEATHER LN			226 HEATHER LN		STOW	MA 01775		1
00R-10 00108G	228 HEATHER LN			228 HEATHER LN		STOW	MA 01775		1
00R-10 00109G	230 HEATHER LN			230 HEATHER LN		STOW	MA 01775		1
00R-10 00110G	232 HEATHER LN			232 HEATHER LN		STOW	MA 01775		1
00R-10 00111G	234 HEATHER LN			234 HEATHER LN		STOW	MA 01775		1
00R-10 00112G	236 HEATHER LN			236 HEATHER LN		STOW	MA 01775		1
00R-10 00113G	238 HEATHER LN			238 HEATHER LN		STOW	MA 01775		1
00R-10 00114G	240 HEATHER LN			240 HEATHER LN		STOW	MA 01775		1
00R-10 00115G	242 HEATHER LN			242 HEATHER LN		STOW	MA 01775		1
00R-10 00116G	244 HEATHER LN			244 HEATHER LN		STOW	MA 01775		1
00R-10 00117G	246 HEATHER LN			246 HEATHER LN		STOW	MA 01775		1
00R-10 00118G	248 HEATHER LN			248 HEATHER LN		STOW	MA 01775		1
00R-10 00119G	250 HEATHER LN			250 HEATHER LN		STOW			

ABUTTERS LIST
0 GOSHEN LN
MAP R-2 PARCEL 03

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-2 000002	225 HUDSON RD	HAGERTY RYAN	HAGERTY DAWN	225 HUDSON RD	STOW	MA	01775	69465	202
000R-2 000003	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000004	0 ATHENS ST	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LAKE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	20082	395
000R-2 000005	0 GOSHEN LN	GALLAGHER III, GEORGE E. (TRUSTEE)	GOSHEN LAKE REALTY TRUST	148 PARK ST	NORTH READING	MA	01864	26499	172
000R-2 000006	217 HUDSON RD	ATHENS STREET REALTY TRUST	D BRUCE WHEELER TRUSTEE	148 PARK ST	NORTH READING	MA	01864	69869	279
000R-2 000007	209 HUDSON RD	DUCHI KENNETH	JOAN M DUCHI	209 HUDSON ROAD	STOW	MA	01775	26225	466
000R-2 000018	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 00001A	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 0001-1	255 HUDSON RD	ALBANY ROAD-STOW LLC		112 TURNPIKE RD SUITE 108	WESTBOROUGH	MA	01581	27702	553
000R-2 0001-2	0 HUDSON RD	CPI RADANT TECHNOLOGIES DIVISION INC	C/O COMMUNICATION & POWER INDS LLC	255 HUDSON RD	STOW	MA	01775	63008	529
000R-2 00018D	0 KETTLELL PLAIN RD	WHISPERING WOODS HOMEOWNERS ASSC		2 SCHOOL ST	ACTON	MA	01720	30437	16
000R-2 0016-3	OFF KETTLELL PLAIN RD	ASHLEY DEVELOPMENT LLC		2 SCHOOL ST	ACTON	MA	01720	30437	16
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)	COTTAGES AT WANDERING POND REALTY TR	148 PARK ST	NORTH READING	MA	01864	64918	352
000R-2 16A-11	89 KETTLELL PLAIN RD	MASSUCCI MARTIN M	MASSUCCI TABATHA A	89 KETTLELL PLAIN ROAD	STOW	MA	01775	31843	49
000R-2 16A-12	88 KETTLELL PLAIN RD	STEVENSON CHARLES N	STEVENSON JONI B	88 KETTLELL PLAIN RD	STOW	MA	01775	38530	354

Certified by the Stow Board of Assessors:

LAUREL FIGERO

Date Certified or Re-Certified:

8/8/23

Ft:

300

ABUTTERS LIST
0 MAPLE ST
MAP R-2 PARCEL 20-7

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-2 0000-1	0 GOSHEM LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		46 PARKENTER ROAD	HUDSON	MA	01740	32202	292
000R-2 0000-5	0 GOSHEM LN	GALLAGHER III, GEORGE E (TRUSTEE)		148 PARK ST	NORTH READING	MA	01864	26459	171
000R-2 0000-11	0 GOSHEM LN	EFMC ASSOCIATES LIMITED PARTNERSHIP	GOSHEM LAINE REALTY TRUST	36 PARKENTER ROAD	HUDSON	MA	01740	32202	291
000R-2 0000-15	0 GOSHEM LN OFF	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARKENTER ROAD	HUDSON	MA	01740	32202	291
000R-2 0000-17A	0 GOSHEM LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARKENTER ROAD	HUDSON	MA	01740	32202	291
000R-2 0000-20	0 MAPLE ST OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	44599	206
000R-2 0000-20	0 KETTLELL PLAIN RD	WHISPERING WOODS HOMEOWNERS ASSC		2 SCHOOL ST	ACTON	MA	01720	30417	11
000R-2 0010-19A	0 GOSHEM LN OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	51800	87
000R-2 0010-1	168 MAPLE ST	LOBONO CHRISTOPHER B	LOBONO EMILY C	168 MAPLE ST	STOW	MA	01775	54062	64
000R-2 0010-3	OFF KETTLELL PLAIN RD	ASHLEY DEVELOPMENT LLC		2 SCHOOL ST	ACTON	MA	01720	30417	16
000R-2 0020-6	169 MAPLE ST	KAREN L DORHAMER-FADDEN INVEST TRUST	PATRICK L FADDEN INVEST TRUST; DORHAMER-FADDEN KAREN L A	169 MAPLE ST	STOW	MA	01775	25639	463
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)		148 PARK ST	NORTH READING	MA	01864	64318	352
000R-2 0020-8	168 MAPLE ST	BLIDA RONALD P	COTTAGES AT WANDERING POND REALTY TR	168 MAPLE STREET	STOW	MA	01775	27805	346
000R-2 0020-9	190 MAPLE ST	KILMARTIN JEREMIAH	MINOLAJCZYK THOMAS E	190 MAPLE ST	STOW	MA	01775	68045	299
000R-2 0023-1	165 MAPLE ST	COLON OSORIO FERNANDO	KILMARTIN CELESTE	165 MAPLE ST	STOW	MA	01775	15564	578
000R-2 0023-4	175 MAPLE ST	BOYLE JOHN P	LUCAS SUSAN H	175 MAPLE STREET	STOW	MA	01775	31312	264
000R-2 0023-5	167 MAPLE ST	MCKEAG THOMAS H	ANNE M MCKEAG	167 MAPLE STREET	STOW	MA	01775	20178	546
000R-2 016A-7	65 KETTLELL PLAIN RD	DOBBINS KARA J	DOBBINS KENNETH R II	65 KETTLELL PLAIN RD	STOW	MA	01775	64937	322
000R-2 020-10	194 MAPLE ST	GIOVINAZZO PAUL S	GIOVINAZZO DEBRA J	194 MAPLE ST	STOW	MA	01775	29175	478
000R-2 16A-10	67 KETTLELL PLAIN RD	FORRESTALL, MATTHEW P.	FORRESTALL, CATHERINE B	67 KETTLELL PLAIN RD	STOW	MA	01775	68740	497
000R-2 16A-11	69 KETTLELL PLAIN RD	MASSUCCI MARTIN M	MASSUCCI TABATHA A	69 KETTLELL PLAIN RD	STOW	MA	01775	31643	49
	68 KETTLELL PLAIN RD	STEVENSON CHARLES M	STEVENSON JOHN B	68 KETTLELL PLAIN RD	STOW	MA	01775	38530	354

Certified by the Stow Board of Assessors:

Louise Fiano

Fiano

Date Certified or Re-Certified:

8/8/23

FI: 300

ABUTTERS LIST
0 GOSHEN LN #OFF
MAP R-2 PARCEL 19

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-1 00004A	33 WALCOTT ST	BENTLEY BUILDING CORP		12 MURPHY DRIVE, SUITE 100	NASHUA	NH	03062	61592	501
000R-2 000018	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32702	295
000R-2 000019	0 GOSHEN LN OFF	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 00001A	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 00001B	0 GOSHEN LN #OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	51808	87
000R-2 000020	0 MAPLE ST #OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	44599	206
000R-2 00001-2	0 HUDSON RD	CPI RADANT TECHNOLOGIES DIVISION INC		255 HUDSON RD	STOW	MA	01775	63908	529
000R-2 00019A	0 GOSHEN LN #OFF	STOW CONSERVATION TRUST, INC.		PO BOX 397	STOW	MA	01775	51808	87
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)		148 PARK ST	NORTH READING	MA	01864	64918	352
000R-2 0020-9	190 MAPLE ST	KILMARTIN JEREMIAH	KILMARTIN CELESTE	190 MAPLE ST	STOW	MA	01775	68045	299

Certified by the Stow Board of Assessors: PAULEY FIGUEROA

Date Certified or Re-Certified: 8/8/23

Ft: 300

ABUTTERS LIST
0 GOSHEN RD
MAP R-2 PARCEL 1A

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
000R-1 00064A	33 WALCOTT ST	BENTLEY BUILDING CORP		12 MURPHY DRIVE, SUITE 100	NASHUA	NH	03062	61592	591
000R-2 000003	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000018	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 000019	0 GOSHEN LN OFF	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 00001A	0 GOSHEN LN	EFMC ASSOCIATES LIMITED PARTNERSHIP		36 PARMENTER ROAD	HUDSON	MA	01749	32202	295
000R-2 0001-2	0 HUDSON RD	CPI RADANT TECHNOLOGIES DIVISION INC		255 HUDSON RD	STOW	MA	01775	63908	529
000R-2 0020-7	0 MAPLE ST	WHEELER, BRUCE D. (TRUSTEE)		148 PARK ST	NORTH READING	MA	01864	64918	352
				COTTAGES AT WANDERING POND REALTY TR					



**Town of Stow
Conservation Commission**

**380 Great Road
Stow, Massachusetts 01775**

(978) 897-8615
FAX (978) 897-4534
conservation@stow-ma.gov

**Affidavit of Service Under the Massachusetts Wetlands Protection Act
and the Town of Stow Wetlands Bylaw**

*(to be submitted to Stow Conservation Commission and MA Department of Environmental
Protection when filing a Notice of Intent or Request for Determination)*

I, Nicole Hayes (name), hereby certify under the pains and
penalties of perjury that on 9-18-23 (date of mailing), I gave notification
to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter
131, Section 40 and/or the Stow Wetlands Bylaw, in connection with the following matter:

- ☐ Request for Determination (via regular mail)
☐ Abbreviated Notice of Resource Area Delineation
☒ (via certified mail or certificate of mailing)
☐ Notice of Intent (via certified mail or certificate of mailing)

For property located at: Athens St / Hudson Road

Nicole Hayes
Signature

9-12-23
Date

NOTES TO USERS

for use in differentiating the business and pleasure portions of the business-related travel. This memorandum should be maintained by the Department.

and University Public Safety Officers of Southern Universities Indian National Student Association. The latter group is a national organization of Indian students in the United States. The latter group is a national organization of Indian students in the United States.

[illegible]

and for subsequent on-line model refinement for the population.

Right Out of Kindergarten

Consumer Surveys
90313
See 90312

[illegible]

ADDITIONAL INFORMATION is available on page 3242 of *Journal of Interpersonal Violence* 23(16).

studies have found and indicate where improvements should be made. For example, the authors do not mention the importance of the primary care physician's role in the management of the patient with a heart condition. In fact, the authors state that the primary care physician is not involved in the management of the patient with a heart condition. This is a significant finding, as the primary care physician is the most likely to be involved in the management of the patient with a heart condition. The authors also state that the primary care physician is not involved in the management of the patient with a heart condition. This is a significant finding, as the primary care physician is the most likely to be involved in the management of the patient with a heart condition.

It is important to note that the results of the study are based on self-reported data. While the researchers used a variety of methods to ensure the accuracy of the data, there is still a possibility of bias. For example, participants may have been more likely to report positive experiences if they were aware of the study's focus on positive experiences. Additionally, the study did not include a control group, which could have helped to control for other factors that may have influenced the results.

DEFINITION The frequency function $f(x)$ of a discrete random variable X is defined as follows:

the 1990s, the U.S. economy has been growing at a slower rate than in the 1980s. The U.S. economy has been growing at a slower rate than in the 1980s. The U.S. economy has been growing at a slower rate than in the 1980s.

For more information on the program, call 1-800-368-3673 or visit www.360.org

LEGEND

[illegible]

FIRM

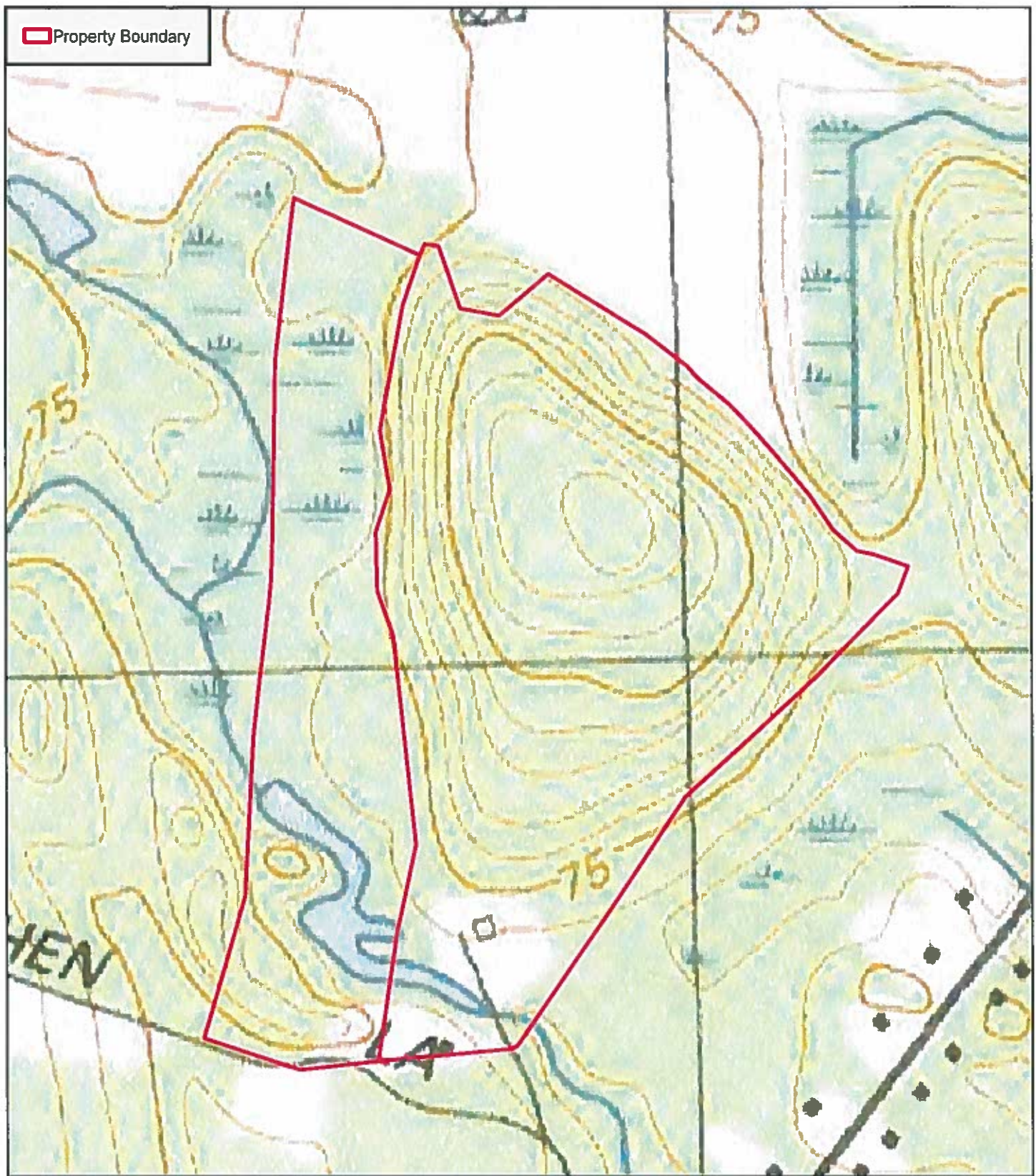
**FLOOD INSURANCE RATE M.
MIDDLESEX COUNTY
MASSACHUSETTS
(WILLIAMSBURG TOWNSHIP)**

PANEL 241 OF 248
ALL FIRM RATES ARE FIRM (Long Term Rates) 1/1

CLASSIFICATION	NUMBER	RATE	DATE
Commercial	1000000	1000000	1000000
Residential	1000000	1000000	1000000
Industrial	1000000	1000000	1000000

WILLIAMSBURG TOWNSHIP
MASSACHUSETTS
1000000
1000000
1000000
1000000

WILLIAMSBURG TOWNSHIP
MASSACHUSETTS
1000000
1000000
1000000
1000000



USGS Site Locus

Athens Road - Stow, MA

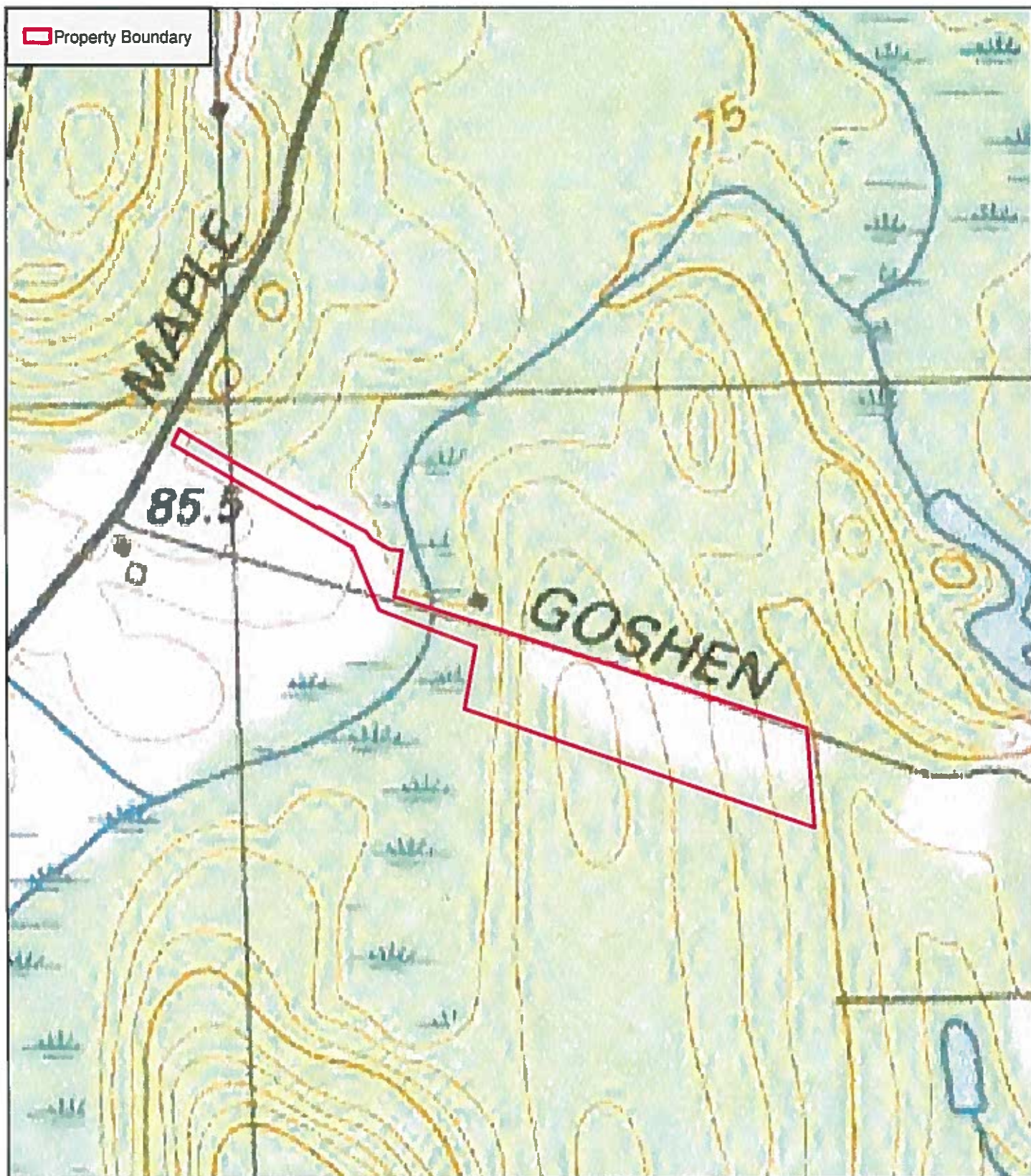


0 100 200 400 Feet

1 inch = 400 feet
Date: 8/11/14

GIS Data Source: "Office of Geographic Information
(MassGIS), Commonwealth of Massachusetts Information
Technology Division"

GODDARD CONSULTING



USGS Site Locus

Goshen Lane - Stow, MA



0 100 200 400 Feet

1 inch = 400 feet
Date: 5/21/2015

GIS Data Source: "Office of Geographic Information
(MassGIS), Commonwealth of Massachusetts Information
Technology Division"

GODDARD CONSULTING



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

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

Provided by MassDEP:

299-696

MassDEP File Number

eDEP Transaction Number

Stow

City/Town

A. General Information

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.

From: Stow
1. Conservation Commission

2. This Issuance is for (check one):
a. ☒ Order of Resource Area Delineation
b. ☐ Amended Order of Resource Area Delineation

3. Applicant:
Bruce Wheeler
a. First Name b. Last Name
Athens Street, LLC, Goshen Lane, LLC
c. Organization
148 Park Street
d. Mailing Address
North Reading MA 01864
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):
See attached
a. First Name b. Last Name
c. Organization
d. Mailing Address
e. City/Town f. State g. Zip Code

5. Project Location:
Athens Lane Stow 01775
a. Street Address b. City/Town c. Zip Code
R2 1A, 3, 4, 5, 6, 18, 19, & 20-7
d. Assessors Map/Plat Number e. Parcel/Lot Number
Latitude and Longitude d m s d m s
(in degrees, minutes, seconds): f. Latitude g. Longitude
4/20/2021 4/23/2021
6. Dates: a. Date ANRAD filed b. Date Public Hearing Closed c. Date of Issuance



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

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

Provided by MassDEP:

299-696

MassDEP File Number

eDEP Transaction Number

Stow

City/Town

A. General Information (cont.)

7. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Resource Area Delineation Plan in Stow Massachusetts for Athens Street,
LLC, Goshen Lane, LLC, prepared by Stamski and McNary, Inc. Sheets 1-6

12/15/20 final
revision 4/15/21

c. Title

d. Date

B. Order of Delineation

1. The Conservation Commission has determined the following (check whichever is applicable):

- a. ☒ **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

1. ☒ Bordering Vegetated Wetlands
2. ☒ Other resource area(s), specifically:

a. See notes in attached Appendix !

- b. ☐ **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:

a.

- c. ☐ **Inaccurate:** The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4B – Order of Resource Area Delineation

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

Provided by MassDEP:

299-696

MassDEP File Number

eDEP Transaction Number

Stow

City/Town

B. Order of Delineation (cont.)

3. ☐ The boundaries were determined to be inaccurate because:

C. Findings

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, § 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation.

This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).

D. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

APPENDIX 1

Location: Off Athens Lane

Owner: Athens Lane LLC, and Goshen Lane, LLC

Order of Resource Area Delineation

Massachusetts Wetlands Protection Act File #299-696

Map R2, Lots 1A, 3, 4, 5, 6, 18, 19 and 20-7

Issued April 23, 2021

The Stow Conservation Commission has reviewed and confirmed the accuracy of the resource areas shown on the **"Resource Area Delineation Plan in Stow Massachusetts for Athens Street, LLC, Goshen Lane, LLC,"** prepared by Stamski and McNary, Inc., Sheets 1-6 dated December 15, 2020 with a latest revision date of April 15, 2021, except as noted and described below. Wetland resource area boundaries were originally flagged by Goddard Consulting LLC (March and April 2020) and B&C Associates (April 2019) and revised as a result of multiple site visit by the Stow Conservation Commission. A total of four Bordering Vegetated Wetlands, two Isolated Vegetated Wetlands and a perennial stream were delineated. The Commission makes the following findings as part of this Order of Resource Area Delineation:

1. The Commission has verified the wetland delineation on **only those portions of the parcels shown on the above-referenced plan.**
2. **Bordering Vegetated Wetland (BVW)** (state and local) – All flags were confirmed, as adjusted in the field and shown on the above-referenced plan.
3. **Riverfront Area and Bank** (state and local) – All flags were confirmed, as adjusted in the field and shown on the above-referenced plan. The Riverfront Area and Bank are associated with Sandy Brook, a perennial stream.
4. **Isolated Vegetated Wetlands:** The Isolated Vegetated Wetlands flagged B1 through B10 and E1 through E5 were examined in the field. No calculations were submitted to determine whether these areas are Isolated Land Subject to Flooding under the Wetlands Protection Act. **The Commission reserves the right to require these calculations during development review.**
5. **Vernal Pools** – The field work for the delineation was done during vernal pool season in 2020 and Wetland C (part) and F were determined to qualify as vernal pools. The Commission presumes that these are vernal pools for regulatory purposes. Prior to the filing of a Notice of Intent for this property the applicant shall submit documentation to the Massachusetts Natural Heritage and Endangered Species Program for certification.
6. **Bordering Land Subject to Flooding** (state and local) – BLSF was not delineated on the plans but is present on the subject site. The Commission makes no findings with regard to the boundaries of BLSF on the subject site, or the 100' buffer zone to this area under the Bylaw.

7. **Buffer Area** (local only resource area): The plan depicts the 100' buffer to wetlands and other resources, as well as the 35' no disturb buffer. These areas are protected by the Stow Wetlands Protection Bylaw and Regulations.

8. **Area of Groundwater Breakout** – the Commission identified an area of groundwater breakout between WF B2-B3 and WF A26-A27. Surface flow was observed in this area leading down the hill in winter/spring of 2021. This area was examined on two site visits and soils have evidence of high groundwater, though wetland vegetation is not present. It appears that this is an area of breakout of groundwater from the adjacent slope. This area has been noted on the plans as the area between the "Location of Surface Flow of Hillside Seepage" and will require special attention during design and engineering to provide proper drainage and ensure that erosion and sedimentation do not occur to the A series wetland.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 4B – Order of Resource Area
Delineation

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

Provided by MassDEP:

299-696

MassDEP File Number

eDEP Transaction Number

Stow

City/Town

4-28-21

Date of Issuance

4

1. Number of Signers

E. Signatures

Please indicate the number of members who will sign this form.

Signatures

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

Jeff Saunders

Printed Name

Ingeborg Hegemann Clark

Printed Name

Serena Furman

Printed Name

Matt Styckiewicz

Printed Name

Printed Name

Printed Name

Printed Name

Printed Name

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on 4/23/2024 unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

2. ☒ By hand delivery on

a. Date

4/28/21

3. ☐ By certified mail, return receipt requested on

a. Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**Request for Departmental Action Fee
Transmittal Form**

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

DEP File Number:

299-696

Provided by DEP

A. Request Information

1. Location of Project

a. Street Address

b. City/Town, Zip

c. Check number

d. Fee amount

2. Person or party making request (if appropriate, name the citizen group's representative):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

4. DEP File Number:

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



B. Instructions

1. When the Departmental action request is for (check one):

- ☐ Superseding Order of Conditions – Fee: \$120.00 (single family house projects) or \$245 (all other projects)
- ☐ Superseding Determination of Applicability – Fee: \$120
- ☐ Superseding Order of Resource Area Delineation – Fee: \$120

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4B – Order of Resource Area Delineation

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

Provided by MassDEP:

299-696

MassDEP File Number

eDEP Transaction Number

Stow

City/Town

Recording Information

Prior to commencement of work, this Order of Resource Area Delineation must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Resource Area Delineation. The recording information on this page shall be submitted to the Conservation Commission listed below.

Stow

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Stow

Conservation Commission

Please be advised that the Order of Resource Area Delineation for the Project at:

Athens Lane

Project Location

299-696

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

For:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Resource Area Delineation issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**Request for Departmental Action Fee
Transmittal Form**

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

DEP File Number:

299-696

Provided by DEP

B. Instructions (cont.)

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.



Notice of Intent
for
Cottages at Wandering Pond
(Map R2, Parcel: 1A, 3, 4, 5, 6, 18,19, 20-7)

DATE:
September 12, 2023

ADDRESSED TO:
Stow Conservation Commission
380 Great Road
Stow, MA 01775

PREPARED BY:
Goddard Consulting LLC
291 Main Street, Suite 8
Northborough, MA 01532

PREPARED FOR:
Cottages at Wandering Pond Realty Trust
148 Park St
North Reading, MA 01864

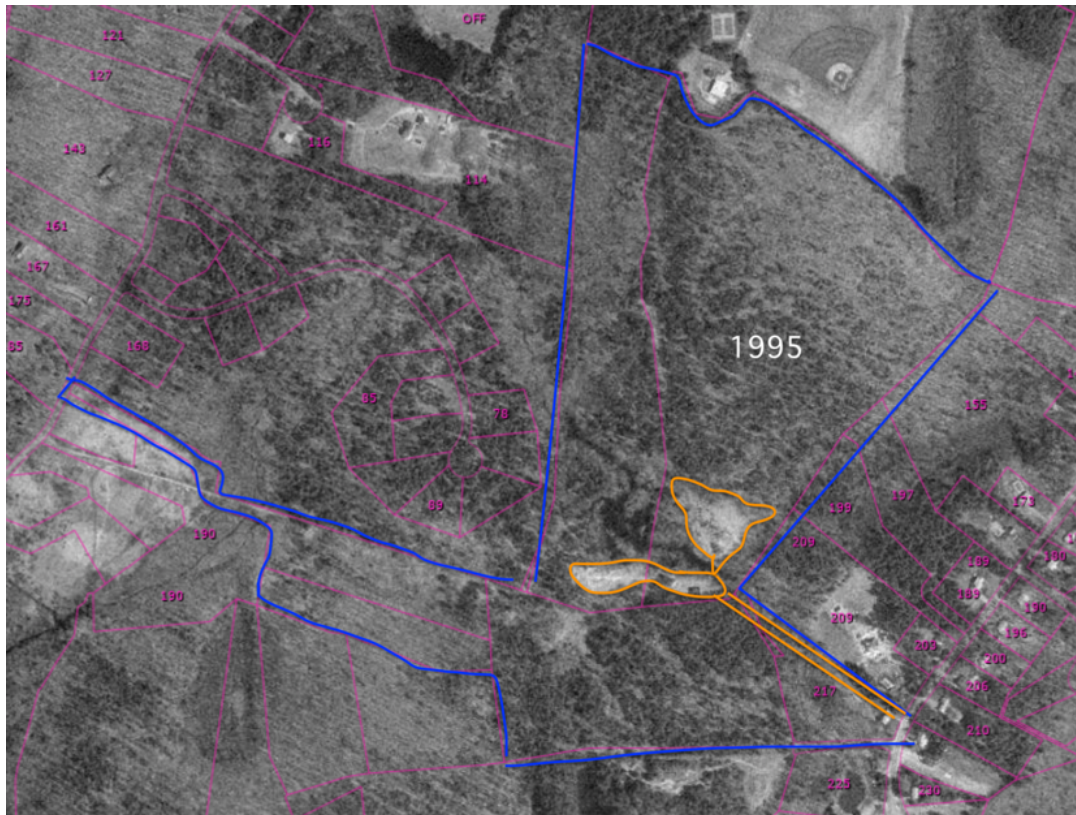
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1.0 EXISTING CONDITIONS

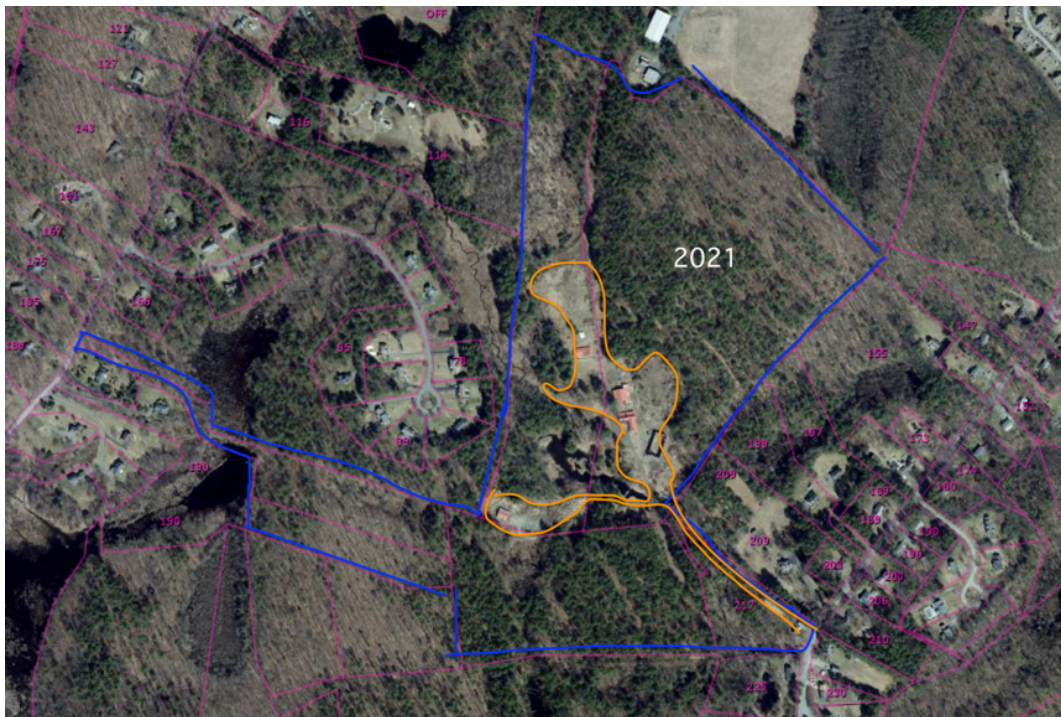
The project site consists of 119 acres north of Athens Street in Stow, MA and is made up of eight parcels (Map R2, Parcels: 1A, 3, 4, 5, 6, 18, 19, 20-7). The site consists of wooded and field uplands and forested and herbaceous wetlands along with a perennial stream that flows west to east across the eastern portion of the site and a perennial river that flows north to south in the western portion of the site. Please refer to Figure 1. attached which shows the parcels in red, wetland line in yellow, the river in blue and the inner and outer riparian zones in light and dark green. Also see enclosed photographs showing existing disturbed and degraded site conditions and an enclosed USGS and FEMA map.

Prior to 1996 the site was disturbed with degraded areas such as: a building, gravel roadways and the removal of trees within the 200-ft Riverfront area. The building and gravel roads are highlighted in orange and the removal of vegetation is located within the white areas of the 1995 photograph, shown below. Since 1995 several more buildings, pavement and gravel areas have been added to the site; see photo year 2021 on the next page.



Aerial photo taken in 1995 as shown on MassGIS. Highlighted areas in orange shows gravel road, building at end of gravel road, river crossings, and cleared tree areas in white.





Aerial photo taken in 2021 as shown on MassGIS. Highlighted areas in orange show gravel roads, multiple buildings, gravel/pavement areas and cleared vegetation areas.



Photo 1. 2023. Showing old vacant buildings on site with gravel access road



Photo 2. 2023. Showing vacant stone building on site



Photo 3. 2023. Showing vacant landscaping building with gravel yard in southwest section of the site



Photo 4. 2023. Gravel landscape yard



Photo 5. 2023. Gravel roadway located throughout site



Photo 6. 2023. Showing most of the site was removed of trees (disturbed) when buildings were constructed on site replacing forested with field cover types.



Photo 7. 2023. Showing existing cart path in the western portion of the site

1.1 WETLAND RESOURCES ON SITE

The jurisdictional resource areas on site include Bordering Vegetated Wetlands (BVW), Local Isolated Wetlands, Bordering Land Subject to Flooding (BLSF), Riverfront Area associated with the Mean Annual High Water (MAHW) of a perennial stream, Land Under Waterbodies, and 100-foot BVW and local IVW Buffer Zones.

According to the MassGIS data layers for NHESP, this site is not within Estimated and/or Priority Habitat of Rare Wildlife. There are no potential or certified vernal pools located onsite. A section of the site falls within the jurisdictional FEMA Flood Zone. This results in the state regulated resource area of Bordering Land Subject to Flooding (BLSF) located from the edge of the wetland line up to the 100-year FEMA floodplain elevation. The development site is not located within a mapped Area of Critical Environmental Concern.

2.0 PROPOSED PROJECT

2.1 GENERAL OVERVIEW

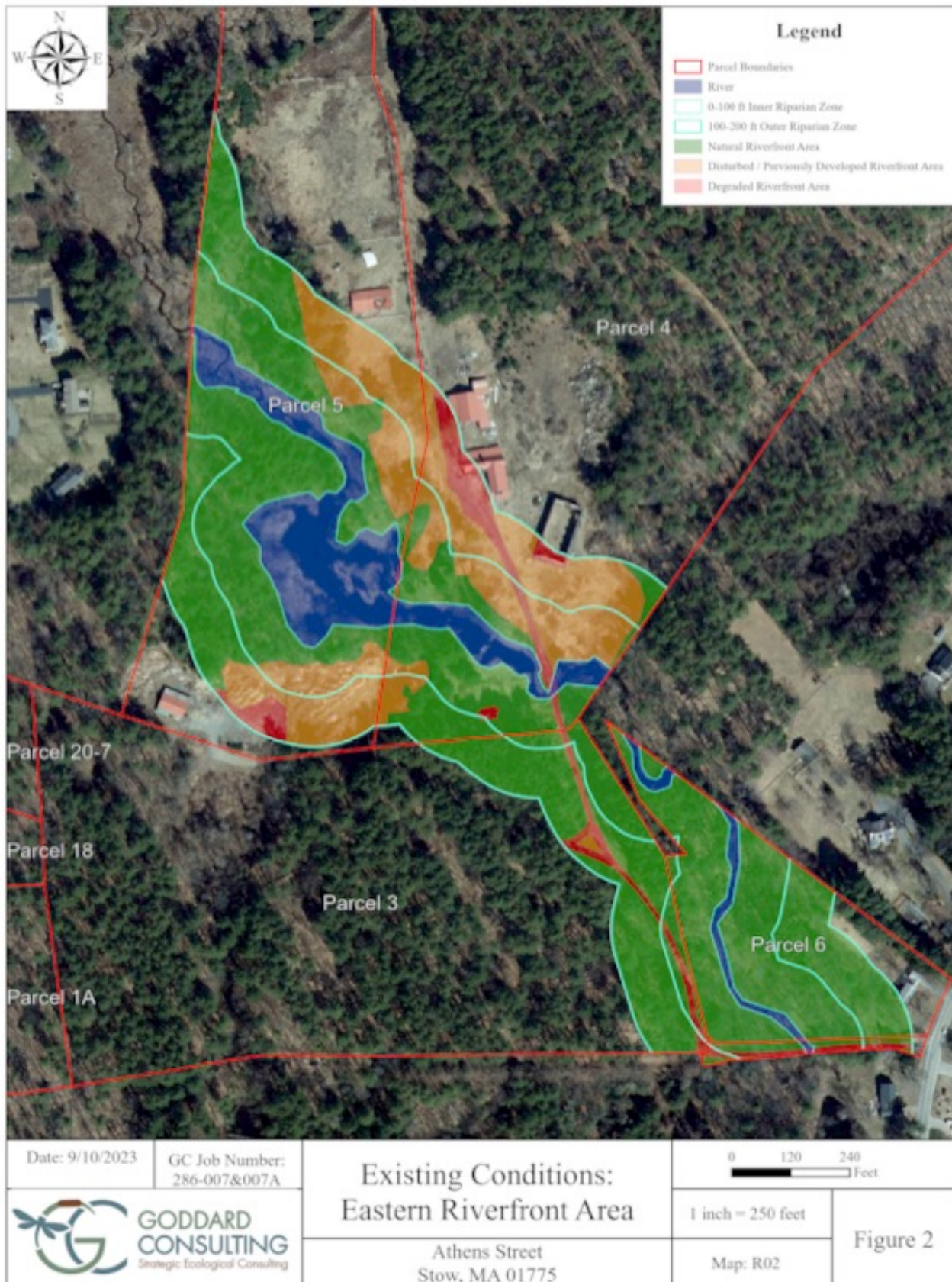
The applicant is proposing to build a 141-active adult neighborhood consisting of 127 single-family houses and 7 duplexes with associated roadways, parking, grading, stormwater, pool, pool building and pickleball courts. Existing degraded and disturbed areas located on site will be utilized for most of the new construction area. For instance, the existing gravel roads will be used for the new subdivision roadway, existing gravel and paved areas repurposed for the location of new residential buildings, several existing, run-down buildings will be removed and the disturbed/tree cleared areas will be utilized and/or preserved by the project. Please refer to Figure 2 which shows the previously disturbed upland fields shown in orange, degraded areas highlighted in red (which include buildings, gravel areas, gravel roadways, pavement, and debris piles and green highlighted which indicate natural undisturbed riverfront areas.

Consideration of the site's constraints (wetland resource areas, zoning requirements, and stormwater management) have resulted in a proposed project which avoids and minimizes impacts to on-site resource areas to the maximum extent practicable. This was done by designing most work outside the 35-ft no touch zone (except for unavoidable crossings and wetland replication) and designing the proposed buildings and associated paved surfaces outside the 100-ft riverfront area.

Erosion and Sedimentation (E&S) control methods for the site include structural and stabilization practices to cover exposed soil so that discharge of sediment is minimized. Implementing these practices limit the amount of storm water entering a disturbed area or trap sediment prior to storm water leaving the site. E&S controls will be maintained and repaired as necessary throughout the duration of the construction. All E&S controls will remain in place until the site is stabilized (refer to NOI plan details for more information on erosion controls).

2.2 STORMWATER MANAGEMENT

Please see the attached Stormwater Report by Stamski and McNary dated July 6, 2023, for more detailed information on the stormwater management system and its compliance.



3.0 RESOURCE AREA IMPACTS, MITIGATION AND REGULATORY COMPLIANCE WITH THE WETLANDS PROTECTION ACT AND LOCAL BYLAWS/REGULATIONS

An Order of Resource Area Delineation (ORAD) was issued for this site on 4/23/21 with DEP # 299-696, which confirmed the on-site wetland resource areas for three years (ORAD expires in 4/23/24) (see attached). Work within the approved resource areas boundaries is being proposed. The project has been designed to meet the Wetlands Protection Act's general performance standards for work within resource areas and to minimize impacts to the greatest extent practicable. Explanation on how the project meets the performance standards for each resource area is presented in this document.

3.1 RESOURCE AREAS TO BE IMPACTED

The following sections of this report describe impacts to each resource area and state and local compliance in the following order:

- Buffer Zone to Bordering Vegetated Wetland and Buffer Zone to local Isolated Vegetated Wetland (IVW)
- Bordering Vegetated Wetland (BVW)
- Bank
- Land Under Water Waterways (LUWW)
- Riverfront Area (RA)
- Bordering Land Subject to Flooding (BLSF)

3.2 BUFFER ZONE IMPACTS AND COMPLIANCE WITH LOCAL PERFORMANCE STANDARDS

The 100-ft Buffer Zone is proposed to be impacted by roadways, buildings, wetland replication areas, grading, retaining walls, single family homes and stormwater management. The buffer zone on site is associated with BVWs and one locally jurisdictional Isolated Vegetated Wetland.

The WPA Regulations do not contain performance standards for Buffer Zone Alteration (310 CMR 10.02(2)(b)), however the Stow Wetlands Bylaw/Regulations do have some general performance standards for all areas subject to regulation, which are as follows:

- A. Undisturbed vegetated buffer of naturally occurring plants shall be left adjacent to all wetlands to a minimum width of 35-feet.
- B. All disturbed areas shall be seeded in accordance to soil conservation service conditions to stabilize soil as soon as possible. If work is completed or stopped after November of any year disturbed areas shall be covered in mulch to aid in absorption and reduce erosion
- C. Haybales and siltation screen shall be placed between any disturbed areas and wetlands/waterbodies to prevent siltation.

All reasonable efforts to avoid, minimize and mitigate adverse impacts on the Buffer Zone have been considered, including the non-disturbance of the 0-35-ft buffer zone area when possible. Work within the 0-35-ft buffer zone will only occur within un-avoidable work associated with road crossings and wetland replication areas. All disturbed areas will be seeded in accordance with soil conservation service conditions to stabilize soil as soon as possible. If work is completed or stopped after the month of November of any year; disturbed areas shall be covered in mulch or seeded to aid in absorption and reduce erosion. Erosion and sedimentation controls will be implemented during construction, along the limit of work to protect downgradient resource areas.

3.3 BORDERING VEGETATED WETLAND IMPACTS, MITIGATION AND STATE AND LOCAL PERFORMANCE STANDARDS COMPLIANCE

3.3.1 Wetland Impacts

The project requires the alteration of BVW. The altered BVW will be replicated at a ratio of 133% of that which is lost (which is greater than 1:1, exceeding the WPA and local BVW replication standards). The project proposes two temporary and three permanent wetland area impacts. All BVW impacts (except at the third crossing, which is a result of the proposed box culvert) are a result of the widening and paving of the existing gravel road known as Athens Street which will become the main roadway of the development.

The impacts are mostly confined to areas located on either side of the main roadway within the center of the site and consist of Athens St and Wandering Pond Way and the three proposed river crossings. River Crossing one is located off Athens Street near Hudson Road in the eastern section of the site (see page 74 of 76). Crossing two is located off Wandering Pond Road in the center of the site (see page 75 of 76). Crossing three is located in the western portion of the site near Goshen Lane.

Crossing One

The first temporary BVW impact along Athens St near Hudson Road will result in an impact of 1,718 sf which will be restored in kind and in the same location (see plan 74 and associated details). The design plans reflect compensation for all flood plain altered beyond BLSF impacts. It is up to the discretion of the Commission if this additional flood storage compensation is appropriate in regards to the alteration of 1,718 square feet of wetland impact since the amount of flood storage capacity in the adjacent wetland replication area is sufficient, since the amount of flood water displacement in this impact area is approximately 1100 sf and approximately 6 inches in elevation. The first permanent BVW impact at crossing one is 2088 sf (2,662 sf of BVW impact is identified on plan 74; however, this includes a small portion of Land Under Water Way associated with the river). This wetland impact area will be replicated less than 200 ft away with 2,957 sf of wetland restoration area (see photo 8).



Photo 8. 2023. Showing the upland area for the proposed wetland replication near Athens St (see page 53 of plan set). This area currently is comprised of white pine trees and princess-pine herbs. Many of the white pines have weakened and have fallen in this area.

Crossing Two

Does not have any BVW impacts associated with this area. Impacts to this area include BLSF, Bank, and Riverfront, and LUWW.

Crossing Three

Has a second temporary wetland impact of 136 sf and a permanent wetland impact of 30 sf associated with the installation of an open box culvert in the western portion of the site (see photo 9). This culvert will improve water flow through the western portion of the site (See Figure 3 and page 76 of the plan set). The 136 sf temporary impact will be restored in kind and in place and the permeant wetland impact of 30 sf will be mitigated in the second wetland restoration area shown in photo 10. This replication area will be 473 sq ft.



Photo 9. Location of the chart path and proposed box culvert



Photo 10. 2023. Area of proposed wetland replication along bend of River. (see page 75 of plan set).



Figure 3

3.3.2 Wetland Mitigation

The temporary wetland impacts of 1,718 sf and 136 sf totaling 1,854 sf will be replaced in kind and in place once work in these areas is completed. The permanent wetland impacts of 2,088 sf and 30 sf totaling 2,118 sf will be mitigated at 133% (greater than 1:1) and replicated in two wetland restoration areas totaling 3,430 sf. Wetland replacement plantings will include red maple and yellow birch trees, highbush blueberry and winterberry shrubs and cinnamon and royal fern herbs along with a New England Wetland Seed Mix. Please refer to pages 28 and 53 for wetland impact and replication locations and pages 74 and 75 for wetland replication planting schedules, cross sections and a detailed construction sequence.

3.3.3 Wetland Construction Sequence

1. The wetlands will be constructed during dry conditions (if possible).
2. Filtermitt will be installed at the edge of existing wetlands to protect down-gradient resources
3. The wetland replication area will be excavated to one foot below final grades
4. Clean composed 50/50 peat and loam mix will be brought in to reach final grades (which will be similar to adjacent wetland grades and determined by an on-site Wetland Scientist)
5. The replication areas will be planted with selective native wetland trees, shrubs, herbs and seed as described in the plan set details and as stated above
6. Side slopes will not exceed 2:1 slope and will be immediately loam and seeded
7. After the replication area has been constructed filtermitt shall be placed between the replication area and any disturbed areas

3.3.4 Wetland Replication Area Monitoring

Monitoring will be performed by a wetland scientist two times a year for two years during the spring and fall months. The Commission will receive bi-annual reports with photographs and a narrative describing plant health and over all percent coverage (with a goal to reach 75% or more wetland species coverage within 2 growing seasons). During each report if the wetland restoration areas are not growing successfully in regards to reaching the 75% coverage goal, the scientist will make additional plantings or other needed recommendations.

Please refer to pages 28 and 53 for wetland impact and replication locations and pages of 74 and 75 for wetland replication planting schedules, cross sections, and a detailed construction sequence.

3.3.5 Bordering Vegetated Wetland Performance Standards - Wetlands Protection Act

As stated in 310 CMR 10.55, the proposed project will adhere to the following performance standards for work in Bordering Vegetated Wetlands:

§ 10.55		
Bordering Vegetated Wetlands		
Freshwater wetlands which border on creeks, rivers, streams, ponds, or lakes		
Performance Standard		Proposed Project
310 CMR 10.55(4)(a)	<i>Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a</i>	See the below description for compliance with 310 CMR 10.55(4)(b).

	<i>Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.</i>	
310 CMR 10.55(4)(b)	<i>Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:</i>	The project proposes the temporary loss of 1,845 sf of BVW and the permanent loss of 2,118 sf of wetlands. BVW temporary impacts will be mitigated in kind and in place. The total restoration of temporary and permanent wetland impacts will be mitigated with 5,284 sf of wetland replication at 133% (a ratio greater than 1:1. See pages 74 and 75 of the plan set for details.
310 CMR 10.55(4)(b)(1)	<i>The surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");</i>	The replacement area totals (3,430 SF) is greater in SF to the wetland area lost (2,118 SF).
310 CMR 10.55(4)(b)(2)	<i>The ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;</i>	The surface elevation of the replacement area is equal that of the impact areas (see plan details).
310 CMR 10.55(4)(b)(3)	<i>The overall horizontal configuration and location of the replacement area with respect to the bank shall be similar to that of the lost area;</i>	The overall horizontal configuration and location of the replacement areas with respect to the bank will be similar to that of the lost area and within 200-ft of the lost area.
310 CMR 10.55(4)(b)(4)	<i>The replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;</i>	The replacement areas will have an unrestricted hydraulic connection to the same water body associated with the lost area.
310 CMR 10.55(4)(b)(5)	<i>The replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area;</i>	The replacement areas will be connected to same BVW system as the lost area.
310 CMR 10.55(4)(b)(6)	<i>At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and</i>	The replacement areas have been designed with native tree, shrub, and herbaceous species with the intention of complying with this condition. The replacement area will be inspected annually for two growing seasons to ensure that the replacement area meets the 75% coverage within two growing seasons. Any bare soils following construction will be seeded with New England Wetland Plants Wetmix or equivalent, so soil stabilization should occur rapidly.
310 CMR 10.55(4)(b)(7)	<i>The replacement area shall be provided in a manner which is consistent with all other General</i>	The replacement area will be provided in a manner consistent with all other performance

	<i>Performance Standards for each resource area in Part III of 310 CMR 10.00.</i>	standards for each resource area as demonstrated in this report.
310 CMR 10.55(4)(b) (continued) 310 CMR 10.55(4)(b) (continued)	<i>In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L. c. 131, § 40, the extent to which adverse impacts can be avoided, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration, are provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40.</i>	<p>Extent to which adverse impacts are minimized:</p> <ul style="list-style-type: none"> ○ Erosion controls are proposed at the limit of work to demarcate a clear limit of work to minimize encroachment of the resource areas during construction. ○ Erosion controls are proposed at the limit of work to prevent migration of sediment from the work area to the resource areas to minimize the risk of adverse impacts to the resource areas. ○ The proposed location of the wetland/stream crossing was chosen to minimize impacts to BVW to the greatest extent practicable. <p>Extent to which mitigation measures, including replication and restoration, are provided to contribute to the protection of the WPA:</p> <ul style="list-style-type: none"> ○ Replication is provided in accordance with BVW replication performance standard 310 CMR 10.55(4)(b). The proposed square footage of replication is greater than the amount lost and therefore exceeds the requirements of 310 CMR 10.55(4)(b)(1).
310 CMR 10.55(4)(c)	<i>Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when;</i>	See the below description for 310 CMR 10.55(4)(c)(1-3).
310 CMR 10.55(4)(c)(1)	<i>Said portion has a surface area less than 500 square feet;</i>	Not applicable to the Project.
310 CMR 10.55(4)(c)(2)	<i>Said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and</i>	Not applicable to the Project.
310 CMR 10.55(4)(c)(3)	<i>In the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.</i>	Not applicable to the Project.
310 CMR 10.55(4)(d)	<i>Notwithstanding the provisions of 310 CMR 10.55(4)(a), (b) and (c), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or</i>	This site is not mapped within Estimated and/or Priority Habitat of Rare Wildlife.

	<i>invertebrate species, as identified by procedures established under 310 CMR 10.59.</i>	
310 CMR 10.55(4)(e)	<p><i>Any proposed work shall not destroy or otherwise impair any portion of a Bordering Vegetated Wetland that is within an Area of Critical Environmental Concern designated by the Secretary of Energy and Environmental Affairs under M.G.L. c. 21A, § 2(7) and 301 CMR 12.00: Areas of Critical Environmental Concern. 310 CMR 10.55(4)(e):</i></p> <ol style="list-style-type: none"> <i>1. supersedes the provisions of 310 CMR 10.55(4)(b) and (c);</i> <i>2. shall not apply if the presumption set forth at 310 CMR 10.55(3) is overcome;</i> <i>3. shall not apply to work proposed under 310 CMR 10.53(3)(l); and</i> <i>4. shall not apply to maintenance of stormwater detention, retention, or sedimentation ponds, or to maintenance of stormwater energy dissipating structures, that have been constructed in accordance with a valid order of conditions.</i> 	This site is not mapped within an Area of Critical Environmental Concern (ACEC) .

3.3.6 Bordering Vegetated Wetland Performance Standards – Town of Stow

The Town of Stow's Local BVW Performance Standards are as follows:

(A) Any activity within a wetland for which the presumption of significance has not been overcome shall not destroy or otherwise impair any function of the wetland identified with the interests of the Bylaw except as provided for in section 5.2.B et seq. of these regulations.

(B) Any activity, which alters a wetland for which the presumption of significance has not been overcome, may be permitted provided that an area, which shall replace all the functions of the altered area, shall be provided. This area shall be subject to the following conditions:

1. The replacement area shall have a direct free flowing hydrologic connection with the altered area.
2. The replacement area shall lie within the land owned by the applicant.
3. The replacement area shall be not more than two hundred (200) feet from the altered area.
4. The replacement area shall not be less than 110% of the altered area. The additional area will compensate for the time required for the replacement area to assume all the functions of the altered area.
5. The replacement area shall provide not less than 110% of the flood storage area lost by alteration.
6. The altered area shall not be greater than five thousand (5,000) square feet except in the case of special projects as defined in section 5.2 C of these regulations.
7. At least 10% of the original wetland shall remain and shall be contiguous with the replacement area along a line which has a length of at least 10% of the circumference of the replacement area to ensure the complete.
8. Repopulating of the replacement area with the vegetation existing in the original wetland.

Compliance with local bylaw

1. The replacement area will have a direct free flowing hydrologic connection with the altered area.
2. The replacement area will lie within the land owned by the applicant.
3. The replacement area will be less than two hundred (200) feet from the altered area.
4. The project proposes 3,972 sf of BVW impact with the replacement of 5,284 sf of BVW wetlands.
5. The proposed replacement area will provide 133% (more than the 110% required).
6. The altered area shall not be greater than five thousand (5,000) square feet except in the case of special projects as defined in section 5.2 C of these regulations. The project proposes 3,972 sf of impact which is less than the 5,000 sf threshold.
7. At least 10% of the original wetland shall remain and shall be contiguous with the replacement area along a line which has a length of at least 10% of the circumference of the replacement area to ensure the complete. The areas of BVW impact are relatively small and part of a large wetland system in which more than 10% of the wetland shall remain.
8. Repopulating of the replacement area with the vegetation existing in the original wetland. Plant species which are proposed to be planted within the restoration areas are the same species existing within the proposed impact areas.

3.4 BANK IMPACTS, MITIGATION, AND STATE AND LOCAL PERFORMANCE STANDARD COMPLIANCE

Since the river needs to be crossed three times for access to upland areas, several open bottom box culverts are proposed. 314 linear feet of Bank is proposed to be impacted and restored within the box culverts; 70 linear feet for Crossing One, 200 linear feet for the double crossing at Crossing Two and 44 linear feet in Crossing Three. Each linear feet of Bank plus and additional 80 linear feet will be restored and created within the open box culverts. The Banks will be re-created with the same material, be the same height and width and proved the same statutory interests pre and post conditions.

The reasoning behind the proposal to utilized two open box culverts at Crossing Two is a result of the Commission's request that the two existing piped stream channels presently crossing under the gravel roadway line up with proposed conditions so that the stream channels are not re-routed, and the inlet and outlets of both existing culverts are located in the same areas as the proposed culverts.



Photo 11. 2023 Showing first river crossing location off Athens Street looking south



Photo 12. 2023. Showing first river crossing location off Athens Street looking north



Photo 13. 2023. Showing second river crossing location off Wandering Pond Way looking west



Photo 14. Showing second river crossing location of Wandering Pond Way looking east



Photo 15. 2023. Showing third river crossing location in western portion of the site

The culvert replacement construction sequence as is follows:

1. Work shall not be conducted during wet periods and when the crossing is as dry as possible
2. Sand bags shall be placed to restrict the flow of water during construction
3. A pump will be installed upstream to divert the flow from the brook past the area of construction
4. The area will be dewatered as necessary
5. Existing culverts and stone shall be remove and replaced within the proposed headwalls, weir box and culvert walls as specified.
6. 5" Rip rap will be placed between culvert walls
7. Interior of the culvert shall be backfilled and compacted
8. Culvert top segment shall be installed
9. Culverts backfilled and compacted again if necessary
10. Sandbags removed
11. Disturbed areas shall be loamed and seeded or paved
12. Siltation barriers shall remain until all surfaces are stabilized and removed only after approval by Conservation

Please refer to pages 72, 73 and 75 of the plan set for more details and locations.

3.4.1 Bank Performance Standards – Wetlands Protection Act

§ 10.54	<p style="text-align: center;">Bank</p> <p>Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:</p>	
	Performance Standards	Compliance
10.54 (4)(a)	<ol style="list-style-type: none"> 1. <i>the physical stability of the Bank</i> 2. <i>the water carrying capacity of the existing channel within the Bank</i> 3. <i>ground water and surface water quality</i> 4. <i>the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries</i> 5. <i>the capacity of the Bank to provide important wildlife habitat functions.</i> 	<p><u>Crossing One and Three:</u></p> <ol style="list-style-type: none"> 1. The physical stability of the Bank will not be permanently impacted by installing the 3-sided box culvert at least 1.2 feet beyond the existing Bank full width. Any temporary impacts during the box culvert installation will be restored to existing natural conditions. 2. The proposed box culvert will allow water to flow without impairing the carrying capacity of the existing channel within the Bank. Bank and bed characteristics similar to that of the upgradient stream will be replicated within the open box culverts. 3. The proposed work will not impair the ground water and surface water quality since erosion and sediment controls will be installed along the limit of work during construction. 4. The installation of the box culvert will not impair breeding habitat or escape from cover for

		<p>fisheries because the Banks are proposed to remain undisturbed during construction.</p> <p>5. The installation of the box culvert will not impair important wildlife habitat because the Banks are proposed to remain undisturbed during construction.</p> <p><u>Crossing Two</u></p> <p>1. The physical stability of the Bank will not be permanently impacted by installing the 3-sided box culvert. However due to the use of two box culverts in this area and the width of the stream within this area 1.2 Bank full width is not met.</p> <p>2. The proposed box culvert will allow water to flow without impairing the carrying capacity of the existing channel within the Bank. Bank and bed characteristics similar to that of the upgradient stream will be replicated within the open box culverts.</p> <p>3. The proposed work will not impair the ground water and surface water quality since erosion and sediment controls will be installed along the limit of work during construction.</p> <p>4. The installation of the box culvert will not impair breeding habitat or escape from cover for fisheries because the Banks are proposed to remain undisturbed during construction.</p> <p>5. The installation of the box culvert will not impair important wildlife habitat because the Banks are proposed to remain undisturbed during construction.</p>
10.54 (4)(a)	<p><i>6. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused</i></p>	<p>Stream crossing One and Three are in compliance with Massachusetts Stream Crossing Standards see section 4.0 of this report.</p> <p>Crossing Two's design is in response to consulting with the agent, which provides an improvement over existing conditions however does not meet the 1.2 bankfull width qualification</p>

	<i>by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.</i>	
10.54 (4)(b)	<i>Notwithstanding the provisions of 310 CMR 10.54(4)(a), structures may be permitted in or on a Bank when required to prevent flood damage to facilities, buildings and roads constructed prior to the effective date of 310 CMR 10.51 through 10.60 or constructed pursuant to a Notice of Intent filed prior to the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983), including the renovation or reconstruction (but not substantial enlargement) of such facilities, buildings and roads, provided that the following requirements are met:</i>	Not applicable.
10.54 (4)(c)	<i>Notwithstanding the provisions of 310 CMR 10.54(4)(a) or (b), no project may be permitted which will have any adverse effect on specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</i>	There are no mapped rare species on site.

3.4.2 Bank Performance Standards – Town of Stow

The Town of Stow's Local Bank Performance Standards are as follows:

Any activity subject to regulation by the Bylaw shall not impair:

- (A) The physical stability of the bank; or
- (B) The water carrying capacity of the existing channel within the bank; or
- (C) The groundwater and surface water quality; or
- (D) The capacity of the bank to provide breeding habitat, escape cover and nutrient sources for fisheries.

Compliance with local bylaws

- A. As stated above the physical stability of the Bank and carrying capacity of the Bank/channel will not be impacted since the Bank/channel resource will be maintained within the open box culvert.
- B/C. Ground and surface water quality will not be impacted since erosion controls will be installed prior to any work within the area of the resource and the natural ability of the Bank will not be compromised.
- D. Since the Bank will remain no impacts to fisheries are expected.

3.5 LAND UNDER WATER BODIES AND WATERWAYS IMPACTS, MITIGATION AND STATE AND LOCAL PERFORMANCE STANDARD COMPLIANCE

Land under Water Waterways is located within the channel bottom of the river and will be preserved by the use of open bottom culverts for each of the three crossings. Crossing One contain 574 square feet of this resource, Crossing Two 600 sf and Crossing Three has 80 sf for a total of 1254 sf; all of which will be preserved and enlarged in the open bottom culvert crossings. The total restored LUWW will be 2,266 sf.

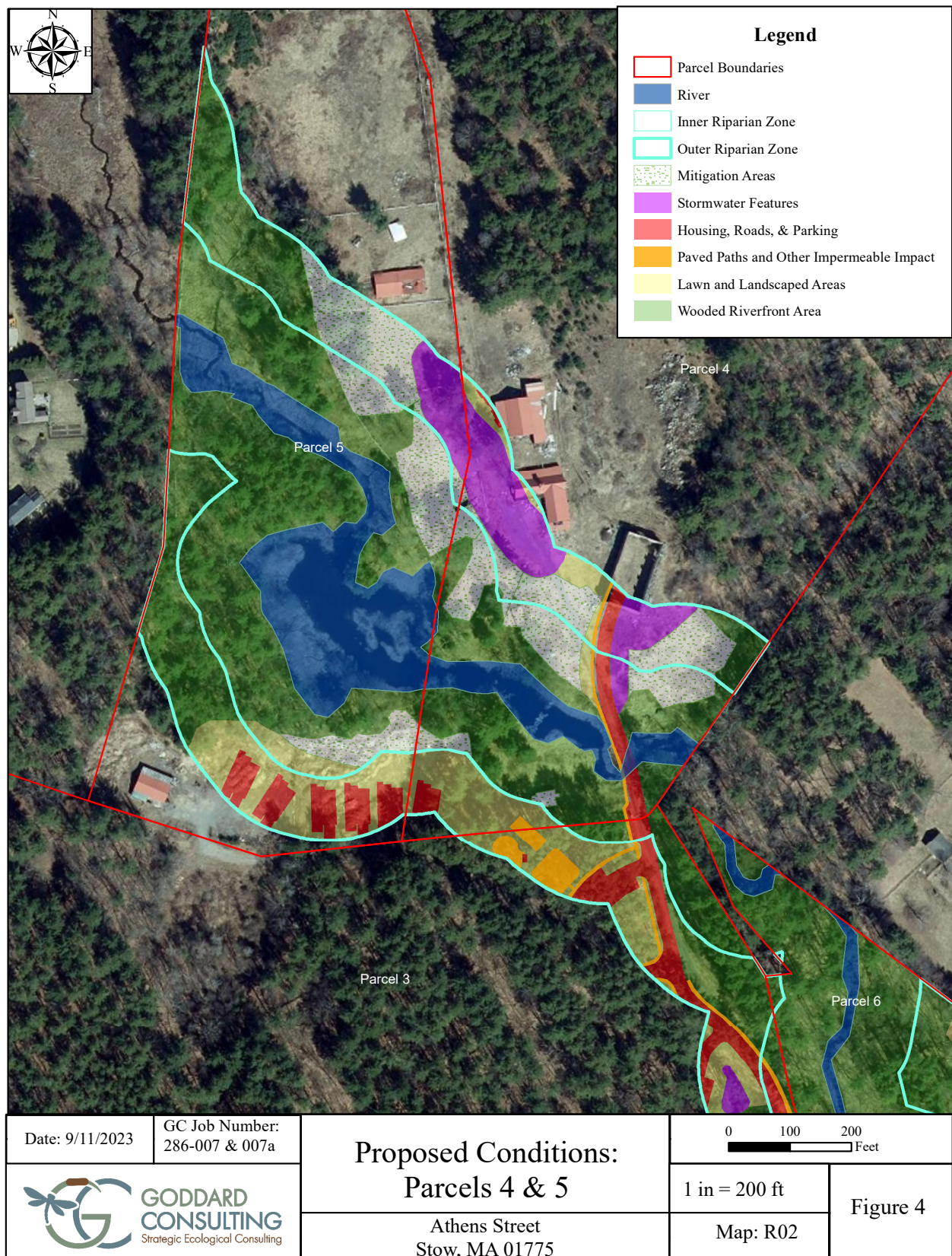
Land under Water Bodies and Waterways		
§ 10.56	Land under Water Bodies and Waterways is the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock	
Performance Standard		Compliance
10.56 (4)(a)(1)	<i>Where the presumption set forth in 310 CMR 10.56(3) is not overcome, any proposed work within Land under Water Bodies and Waterways shall not impair the following: 1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks</i>	<u>Crossings One, Two and Three:</u> The proposed work within Land under Water Bodies and Waterways will not impair the carrying capacity within the defined channel. The proposed box culvert will increase the square footage of LUW resource area and increase the water carrying capacity of the stream.
10.56 (4)(a)(2)	<i>Ground and surface water quality</i>	<u>Crossings One, Two, and Three</u> The proposed box culvert will not impair the ground and surface quality.
10.56 (4)(a)(3)	<i>The capacity of said land to provide breeding habitat, escape cover and food for fisheries</i>	<u>Crossings One, Two, and Three</u> The proposed box culvert will not impair breeding habitat, escape cover and food for fisheries.
10.56 (4)(a)(4)	<i>The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.</i>	<u>Crossings One, Two, and Three</u> The proposed project contains 1,254 sf which is below the 5,000 sf threshold. There are no mapped estimated or priority habitats on site.
10.56 (4)(a)(5)	<i>Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.56(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the</i>	<u>Crossings One and Three</u> The proposed stream crossing is in compliance with the MA Stream Crossing Standards. Please see Section 4.0 for stream crossing standard compliance.

	<i>elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirements of 310 CMR 10.56(4)(a)4., the impact on Land under Water Bodies and Waterways caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures established under 310 CMR 10.60.</i>	<u>Crossing Two</u> Crossing Two is not in compliance with 1.2 bankfull width of the stream crossing standards however does meet all the other standards. Overall Crossing Two provides a betterment over existing condition of that area.
10.56 (4)(b)	<i>Notwithstanding the provisions of 310 CMR 10.56(4)(a), the issuing authority may issue an Order in accordance with M.G.L. c. 131, § 40 to maintain or improve boat channels within Land under Water Bodies and Waterways when said work is designed and carried out using the best practical measures so as to minimize adverse effects such as the suspension or transport of pollutants, increases in turbidity, the smothering of bottom organisms, the accumulation of pollutants by organisms or the destruction of fisheries habitat or nutrient source areas</i>	Not applicable.
10.56 (4)(c)	<i>Notwithstanding the provisions of 310 CMR 10.56(4)(a) or (b), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.</i>	There are no mapped estimated or priority habitats on site.

3.6 RIVERFRONT AREA IMPACTS, MITIGATION AND STATE AND LOCAL PERFORMANCE STANDARD COMPLIANCE

The project is proposing work within riverfront area. Work within this resource area is required to complete the project since access to the on-site uplands is not possible without river crossings.

As stated earlier the project will utilize existing and disturbed areas currently on site such as pavement, gravel, buildings and disturbed field areas which were once forested. Figure 4 shows the proposed work within the 100-200, outer riparian zone will be located within previously disturbed, degraded, and natural riverfront areas (also refer to Figure 2). Work includes 6 houses, roadways, pavement, and stormwater management systems which will utilize degraded and disturbed areas and pickle ball courts, pool and a playground area which will utilize natural areas.



Work also involves the replacement of three existing stream crossing located within the existing gravel roadways/chart paths. Crossing One (refer to photos 11 and 12) occurs along Athens Street and is a wooden bridge with stone abutments (19.20-feet long), with a cross-sectional width of 5.25 feet (see sheet 72 of 76) and a cross sectional height of 3.5 feet. The bridge is proposed to be replaced with a 39.6-foot concrete open bottom box culvert with a cross-sectional width of 14.5 feet and a cross sectional height of 6.58 feet. The applicant also proposes a weir upgradient of the crossing with a rectangular orifice measuring 9.62 feet in width and 1.9 feet in height. See plan pages 53 and 74.

The second existing crossing (refer to photos 11 and 12 (Crossing Two) is located along Wandering Pond Way and consists of two reinforced concrete pipes (41.1-feet and 48.7-feet long), measuring 3.5 feet and 2 feet in diameter. The pipes are proposed to be replaced with 35-foot concrete open bottom box culverts with cross-sectional widths of 10.67 feet and cross-sectional heights of 6 feet. The applicant also proposes a weir upgradient of the crossing with two circular orifices measuring 3.05 feet and 1.99 feet in diameter. See plan page 73.

The existing location of the proposed third crossing (Crossing Three) consists of a beaver dam and cart path in the western section of the site in parcel 20-7. The dam is proposed to be replaced with a 12-foot concrete open bottom box culvert with a cross-sectional width of 12.0 feet and a cross sectional height of 4.5 feet. The applicant also proposes a weir upgradient of the crossing with an orifice measuring 7.3 feet in width. See existing conditions parcel 20-7 and corresponding plan page 76. This culvert installation was suggested by the Conservation Commission to improve water flow in this area of the site.

The table below shows the existing square footage of Riverfront Area and amount Currently Disturbed and Degraded:

Riverfront Area	Existing Square Footage
SF of total RFA on site	803,043
10% of total RFA on site	80,304
SF of total 0-100' RFA on site	427,852
SF of total 100'-200' RFA on site	375,596

Riverfront Area Impacts to Disturbed Areas	Proposed Square Footage
SF of total Disturbed RFA impacts 0-100	21,308
SF of total Disturbed RFA impacts 100-200	114,528

Riverfront Area Impacts to Degraded Areas	Proposed Square Footage
SF of total Degraded RFA impacts 0-100	26,632
SF of total Disturbed RFA impacts 100-200	54,107

Calculations of square footage of conditions within the Riverfront Area

Please fill in the blue cells with actual data -- orange and white cells will automatically recalculate

Redevelopment in Riverfront Project

	Existing TOTAL	Existing 0-100'	Existing 100-200'	Proposed TOTAL	Proposed 0-100'	Proposed 100'-200'	Total Change	Proposed Nature of change
Total Riverfront Area on the site	803,043	427,852	375,596					
Degraded RFA TOTAL	52,399	10,906	41,493	80,739	26,632	54,107	28,340	
Building, Parking lot	47,046	10,906	36,140	64,522	22,011	42,511	17,476	
Other Degraded (absence of topsoil)	5,353	0	5,353	16,217	4,621	11,596	10,864	
Disturbed RFA TOTAL	189,439	73,907	115,532	135,836	21,308	114,528	-53,603	
Lawn/landscaped islands	0	0	0	90,672	21,308	69,364	90,672	
Stormwater management system	0	0	0	45,164	0	45,164	45,164	
Disturbed Riverfront Area (invasive species, altered to some capacity)	189,439	73,907	115,532	0	0	0	-189,439	
Natural areas in RFA TOTAL	561,205	342,634	218,571	586,468	368,180	218,288	25,263	
Wooded Riverfront Area	561,205	342,634	218,571	480,319	314,433	165,886	-80,886	3150 sq ft wetland restoration
Restored (degraded -> natural)	0	0	0	1,084	1,084		1,084	Removal of building out of 100-ft RA & installation of an open box culvert in
Restored (disturbed -> natural)	0	0	0	105,065	52,663	52,402	105,065	Disturbed fields allowed to re-vegetate and preserved as open land

TOTAL Riverfront Area on site	803,043	427,447	375,596	803,043	416,120	386,923		
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Conversion of undeveloped riverfront area to impervious:

Total reduction of degraded/impervious area within Riverfront Area:

Total amount of Riverfront Area to be restored to natural condition:

*** s.f. of degraded Riverfront Area to be restored

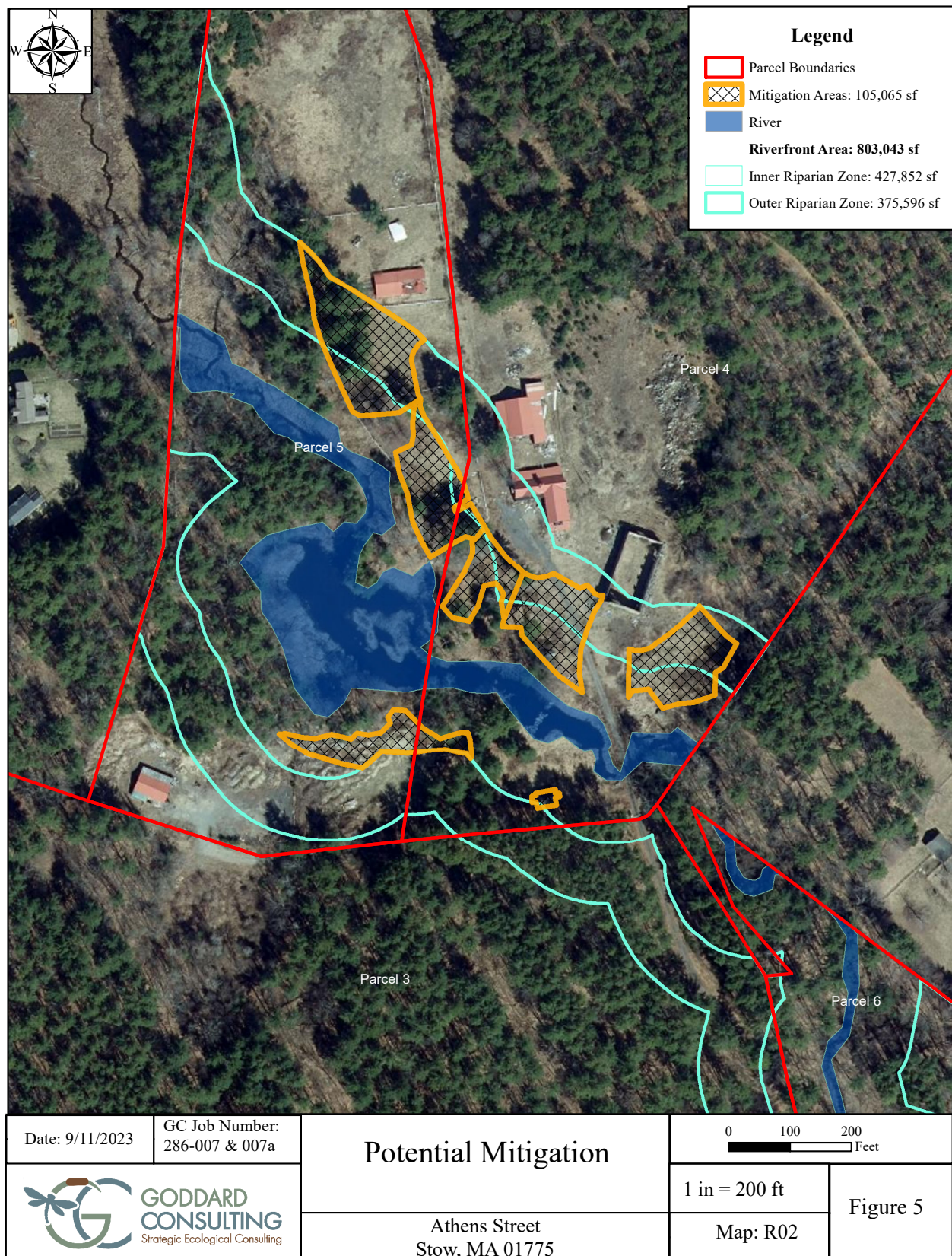
*** s.f. of disturbed Riverfront Area to be enhanced/restored

Trees to be cut:

3.6.1 Mitigation

As can be seen in the analysis above, work as proposed will create 28,340 more degraded surfaces consisting of buildings, pavement, and roadways in the outer riparian zone; however it will decrease the amount of disturbed areas by 53,603 sf and create additional 25,263 sf of natural areas by the removal of a building within the 100-ft riverfront area (see Figure 2 (the red building located within the green natural area), the creation of wetland replication areas and by allowing the field areas to remain un-developed in perpetuity (see Mitigation Figure 5).

Mitigation for impacts to the riverfront area will be mitigated by the preservation of 105,065 sf of upland field presently on site with the 0-100 and 100-200 ft Riverfront Area. This land as outlined in Figure 5 will remain undeveloped and un-maintained in perpetuity. This will create a natural inner and outer riparian zone for animals to utilize and will also provide protection to the river by the preservation of the Act's statutory interests (public and private water supply, ground water supply, flood control, storm water damage, prevention of pollution, prevention of erosion, protection of fisheries and protection of wildlife). The preserved meadow will be protected from encroachment of lawns, vegetation maintenance/mowing and people since the stormwater management systems will be located directly up-gradient and act as a natural buffer to the preserved area.



3.6.2 Riverfront Performance Standards – Wetlands Protection Act

§ 10.58	Riverfront Area: The area of land between a river's mean annual high-water line and a parallel line measured horizontally	
	Performance Standard	Compliance
10.58 (5)	<p><i>Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions. Redevelopment means replacement, rehabilitation or expansion of existing structures, improvement of existing roads, or reuse of degraded or previously developed areas. A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds. Work to redevelop previously developed riverfront areas shall conform to the following criteria:</i></p>	<p>Degraded areas within the 200-ft Riverfront area existed prior to 1996 (see ortho-photos in section one of this report).</p> <p>Degraded and disturbed areas include a landscaping company building in the southwestern section of the site with associated gravel yard that have piles of debris and trash, areas of asphalt, and gravel access roads. The center of the site has several on-site buildings, roadways and pavement/stone areas and areas of tree and shrub vegetation removal.</p> <p>The project will reuse existing degraded and developed areas; such as buildings, gravel roadways, stone areas and disturbed vegetational areas within the 200-ft Riverfront area. The work to redevelop these areas will conform with 310 CMR 10.58(5) redevelopment criteria as follows.</p>
10.58 (5)(a)	<p><i>(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.</i></p>	<p>The site is presently degraded with existing buildings, pavement and gravel areas. Proposed work will result in an improvement over existing conditions of the riverfront area for the following reasons:</p> <ol style="list-style-type: none"> 1. Improvement to stormwater management by the creation of new stormwater management basins 2. Improvement to wildlife habitat by the creation of a more densely vegetated inner and outer riparian zone by the planting of native trees and shrubs in the wetland mitigation areas. 3. The removal of a building (1084 sf) out of the inner riparian zone.

		For these reasons, Goddard believes the proposed project is an improvement over existing conditions and complies with 10.58 (5)(a).
10.58 (5)(b)	<i>(b) Stormwater management is provided according to standards established by the Department.</i>	<p>Stormwater management will be provided according to DEP standards. For details on stormwater management, please refer to the Stormwater Report and site plan details.</p> <p>The proposed project therefore complies with 10.58 (5)(b).</p>
10.58 (5)(c)	<i>(c) Within 200 foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25 foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).</i>	<p>Currently there is 11,308 sf of degraded area (buildings and impervious surfaces) within the 0-100-ft Riverfront area and a 1,084 sf building 70-ft from the Mean Annual High Water line which is proposed to be removed and allowed to re-vegetate.</p> <p>Work as proposed will not be located closer than existing conditions. New buildings will be located outside the 100-ft Riverfront area, more than 30-ft away from existing structures.</p> <p>The proposed project therefore complies with 10.58 (5)(c).</p>
10.58 (5)(d)	<i>(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).</i>	<p>Several structures are proposed to be located further away from the river than existing conditions. New buildings will be located mostly outside the 100-ft Riverfront area, more than 30-ft away from existing structures.</p> <p>The proposed project therefore complies with 10.58 (5)(d).</p>
10.58 (5)(e)	<i>(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).</i>	<p>The total Riverfront Area is 803,043 sf. 10% of the Degraded Riverfront Area is 80,304 sf. Currently there is 6.5% of the Riverfront Area disturbed leaving 3.5% to be impacted within the 10% threshold. Work as proposed is 435 sf over the 10% threshold; however once the 1,084 sf building is removed (see Figure 2) the remaining sf is mitigated 2:1 The proposed project therefore complies with 10.58 (5)(e).</p>
10.58 (5)(f)	<i>(f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria.</i>	<p>The proposed project therefore complies with 10.58 (5)(e).</p>

	<p><i>Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:</i></p> <ol style="list-style-type: none"> <i>1. removal of all debris, but retaining any trees or other mature vegetation;</i> <i>2. grading to a topography which reduces runoff and increases infiltration;</i> <i>3. coverage by topsoil at a depth consistent with natural conditions at the site; and</i> <i>4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site;</i> 	
10.58 (5)(g)	<p><i>(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184, §§ 31 through 33 to preserve undisturbed riverfront areas that could be otherwise altered under 310 CMR 10.00, the purchase of development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131, § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Energy and Environmental Affairs.</i></p>	<p>The proposed project therefore complies with 10.58 (5)(e)</p>

10.58 (5)(h)	<i>(h) The issuing authority shall include a continuing condition in the Certificate of Compliance for projects under 310 CMR 10.58(5)(f) or (g) prohibiting further alteration within the restoration or mitigation area, except as may be required to maintain the area in its restored or mitigated condition. Prior to requesting the issuance of the Certificate of Compliance, the applicant shall demonstrate the restoration or mitigation has been successfully completed for at least two growing seasons.</i>	The proposed project therefore complies with 10.58 (5)(e).
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3.7 BORDERING LAND SUBJECT TO FLOODING IMPACTS, MITIGATION AND PERFORMANCE STANDARDS

The roadway construction will impact 2,336 cf of flood storage. Replication is proposed within 200 feet of each impact area and will be replicated at each impacted elevation for a total of 2,587 cf (more than 110%). Please refer to pages 53 and 75 of the plan set for impact locations, replication locations, and storage volumes impacted and to be restored at each elevation.

3.7.1 BLSF Performance Standards – Wetlands Protection Act

§ 10.57	<p align="center">Bordering Land Subject to Flooding: An area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds, or lakes.</p>	
	<p align="center">Performance Standard</p>	<p align="center">Compliance</p>
10.57 (4)(a)(1)	<p><i>Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows.</i> <i>(1) Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.</i></p>	<p>The project proposes 2336 cf of floodplain fill. More than 110% of this impact (or 2587 cf) will be restored via flood storage compensation areas, which exceeds the standard and meet the local bylaw standard.</p> <p>These flood compensation areas are located adjacent to the impact areas along the same hydrologic connection.</p>
10.57 (4)(a)(2)	<p><i>(2) Work within Bordering Land Subject to Flooding, including that work required to provide the above-specified compensatory storage, shall not restrict flows so as to cause an increase in flood stage or velocity.</i></p>	<p>Work will not restrict flow or cause an increase in flood storage or velocity since more than 110% of the flood storage impacted will be restored.</p>
10.57 (4)(a)(3)	<p><i>(3) Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife</i></p>	<p>2,336 square feet of flood storage is proposed, which is below the 5000 sf threshold for a wildlife habitat assessment for this resource.</p> <p>Additionally, there are no rare or endangered species or certified or potential vernal pools mapped on or nearby the site.</p>

	<i>habitat, as determined by procedures contained in 310 CMR 10.60.</i>	
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3.7.2 BLSF Performance Standards – Town of Stow

The Town of Stow’s Local Bordering Land Subject to Flooding Performance Standards are as follows:

- (A) Provide at least 110% compensatory storage volume for any flood storage capability lost by reason of the activity, either temporarily or permanently; and
- (B) Maintain or increase the capacity of the area to recharge groundwater supplies; and
- (C) Maintain or increase the capacity of the area to prevent pollution of groundwater supplies by filtration; and
- (D) At least 10% of the original flood storage area shall overlap the replacement area.
- (E) Surface contours shall not be changed in such a way to divert water away from the flood area.

Compliance with Local Bylaw

- A. The project proposes 2,336 cf of impact to flood storage and 2,587 cf of compensatory flood storage. This is more than the required state threshold and more than the local 110% amount.
- B. The flood storage capacity and capacity of the area to prevent pollution of groundwater supplies by infiltration will occur since the restored capacity will be greater than 110% of that which was lost.
- C. The BLSF compensatory flood storage will overlap the replacement areas.
- D. And surface contours shall not be changed in such a way to divert water away from the flood area.

4.0 STREAM CROSSING STANDARDS

The project involves the replacement of three existing stream crossings. The first existing crossing (Crossing One) is a wooden bridge with stone abutments (19.20-feet long), with a cross-sectional width of 5.25 feet and a cross sectional height of 3.5 feet. The bridge is proposed to be replaced with a 39.6-foot concrete open bottom box culvert with a cross-sectional width of 14.5 feet and a cross sectional height of 6.58 feet. The applicant also proposes a weir upgradient of the crossing with a rectangular orifice measuring 9.62 feet in width and 1.9 feet in height.

The second existing crossing (Crossing Two) consists of two reinforced concrete pipes (41.1-feet and 48.7-feet long), measuring 3.5 feet and 2 feet in diameter. The pipes are proposed to be replaced with 35-foot concrete open bottom box culverts with cross-sectional widths of 10.67 feet and cross sectional heights of 6 feet. The applicant also proposes a weir upgradient of the crossing with two circular orifices measuring 3.05 feet and 1.99 feet in diameter.

The existing location of the proposed third crossing (Crossing Three) consists of a beaver dam and cart path. The dam is proposed to be replaced with a 12-foot concrete open bottom box culvert with a cross-sectional width of 12.0 feet and a cross sectional height of 4.5 feet. The applicant also proposes a weir upgradient of the crossing with an orifice measuring 7.3 feet in width.

Regulatory Citation:

310 CMR 10.04 Definitions

Massachusetts River and Stream Crossing Standards or the Stream Crossing Standards means the standards developed by the River and Stream Continuity Partnership as corrected on March 8, 2012.

310 CMR 10.54(4)6.

6. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the Bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.

This section documents the three proposed stream crossings (referred to as Crossing #1, Crossing #2, and Crossing #3) and associated specifications and regulatory compliance under the The Massachusetts River and Stream Crossing Standards. The Stow Wetlands Protection Bylaw and Regulations do not state performance standards for stream crossings.

Proposed Design:

Crossing One:

The project design proposes a 14.5' x 6.58' culvert that is 39.64-feet long and an associated weir with a 9.62' x 1.9' orifice.

The average width of the culvert is required to be 1.2 times the Bankfull width ($1.2 \times 8 = 9.6$ feet); the proposed culvert is 14.5 feet wide and therefore is considerably wider than required. This allows for a 4.9-foot flat bank within the culvert.

The openness ratio is required to be greater than 0.82. The culvert height is 3.5-feet, width is 14.5-feet, and length is 38.9-feet. This amounts to an openness ratio of 1.30 feet ($(3.5 \times 14.5)/38.9 = 1.30$ feet), which exceeds the required 0.82.

Crossing Two:

The project design proposes a crossing structure that consists of two 10.67' x 6.0' culverts that are 35.0-feet long and an associated weir with two orifices measuring 1.99' and 3.05' in diameter.

Crossing Two does not meet the 1.2 bankfull width requirement; however will create a betterment on site. The reasoning behind the proposal to utilize two open box culverts at Crossing Two is a result of the Commission's request that the two existing piped stream channels presently crossing under the gravel roadway line up with proposed conditions so that the stream channels are not re-routed, and the inlet and outlets of both existing culverts are located in the same areas as the proposed culverts

Crossing Three:

The project design proposes a 12' x 4.5' culvert that is 12-feet long and an associated weir with an orifice measuring 7.3-feet in width.

The average width of the culvert is required to be 1.2 times the Bankfull width ($1.2 \times 8.52 = 10.22$ feet); the proposed culvert is 12 feet wide and therefore is considerably wider than required. This allows for a 1.78-foot flat bank within the culvert.

The openness ratio is required to be greater than 0.82. The culvert height is 4.5-feet, width is 12-feet, and length is 12-feet. This amounts to an openness ratio of 4.5 feet ($((4.5 \times 12)/12 = 4.5$ feet), which exceeds the required 0.82.

Proposed Stream Crossing Regulation Compliance

The Massachusetts River and Stream Crossing Standards, or the Stream Crossing Standards developed by the River and Stream Continuity Partnership as corrected on March 8, 2012, has a “General Standards” section as well as a distinct section addressing replacing existing culverts. This section can be found on pages 17-18 under “Applying the Standards To Culvert Replacement Projects.”

The project complies with all the “General Standards,” and reduces the length of the culverts in Crossing #2 from 41.1-feet and 48.7-feet to 35-feet, which is a significant improvement. Therefore, the additional allowances under culvert replacements are not needed to comply with the standards.

General Standards:

1. *Spans (bridges, 3-sided box culverts, open-bottom culverts or arches) that preserve the natural stream channel are strongly preferred.*

Crossing One: The proposed culvert is a 3-sided box culvert designed to maintain the existing stream channel.

Crossing Two: The proposed culverts are 3-sided box culverts designed to restore the natural stream channel.

Crossing Three: The proposed culvert is a 3-sided box culvert designed to match the natural stream channel up and downstream from the existing beaver dam.

2. *If a culvert, then it should be embedded:*

- *a minimum of 2 feet for all culverts,*
- *a minimum of 2 feet and at least 25 percent for round pipe culverts*
- *when embedment material includes elements > 15 inches in diameter, embedment depths should be at least twice the D₈₄ (particle width larger than 84 % of particles) of the embedment material*

Crossing One: The proposed culvert footings are embedded 4 feet into the firm bearing soil for stability.

Crossing Two: The proposed culvert footings are embedded 4 feet into the firm bearing soil for stability.

Crossing Three: The proposed culvert footings are embedded 4 feet into the firm bearing soil for stability.

3. *Spans channel width (a minimum of 1.2 times the Bankfull width)*

Crossing One: At 14.5-feet wide, the proposed culvert is wider than 1.2 times the Bankfull width ($1.2 \times 8 = 9.6$ feet).

Crossing Two: Due to the existing width of the stream in this area and the design suggested by the Agent C1.2 Bankfull width is met.

Crossing Three: At 12-feet wide, the proposed culvert is wider than 1.2 times the Bankfull width ($1.2 \times 8.52 = 10.22$ feet).

4. Natural bottom substrate within the structure.

Crossing One: The proposed culvert provides for maintained existing substrate and bank material within the culvert. Riprap with a median diameter of 0.26 feet will be used to stabilize the channel, bank, and sloped embankment.

Crossing Two: The proposed culvert provides for a restored natural substrate and bank material within the culvert. Riprap with a median diameter of 0.26 feet will be used to restore the channel and bank.

Crossing Three: The proposed culvert provides for substrate and bank material within the culvert that will match the natural stream channel up and downstream from the existing beaver dam.

5. Designed with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows.

Crossing One: The proposed culvert has been designed with a preceding weir with a 9.62' x 1.9' rectangular orifice. The purpose of this weir is to preserve the natural water level in the upgradient pond and mitigate existing overtopping of the road during periods of high flow. The weir has been designed to allow water to overtop the weir and flow under the road without exceeding the FEMA 100-year flood elevation. The proposed weir will be constructed in accordance with the calculations in the attached Culvert and Weir Analysis (Stamski And McNary, Inc. 2023).

Crossing Two: The proposed culvert has been designed with a preceding weir with two round orifices measuring 3.05' and 1.99' in diameter. The purpose of this weir is to mitigate existing overtopping of the road during periods of high flow. The weir has been designed to allow water to overtop the weir and flow under the road without exceeding the FEMA 100-year flood elevation. The proposed weir will be constructed in accordance with the calculations in the attached Culvert and Weir Analysis (Stamski And McNary, Inc. 2023).

Crossing Three: The proposed culvert has been designed with a preceding weir with a 7.3-foot wide orifice. The purpose of this weir is to preserve the natural water level in the upgradient pond and mitigate existing overtopping of the road during periods of high flow. The weir has been designed to allow water to overtop the weir and flow under the road without exceeding the FEMA 100-year flood elevation. The proposed weir will be constructed in accordance with the calculations in the attached Culvert and Weir Analysis (Stamski And McNary, Inc. 2023).

6. Openness > 0.82 feet (0.25 meters)

Crossing #One: The proposed culvert height is 3.5-feet, width is 14.5-feet, and length is 38.9-feet. This amounts to an openness ratio of 1.30 feet ($(3.5 \times 14.5)/38.9 = 1.30$ feet), which exceeds the required 0.82.

Crossing Two: Due to the proposed design this crossing does not meet the openness ratio; however, will create an improvement over existing conditions.

Crossing Three: The proposed culvert height is 4.5-feet, width is 12-feet, and length is 12-feet. This amounts to an openness ratio of 4.5 feet $((4.5 \times 12)/12=4.5 \text{ feet})$, which exceeds the required 0.82.

7. Banks should be present on each side of the stream matching the horizontal profile of the existing stream, and banks

Crossing One: The proposed culvert has been designed with a grade that will match the horizontal profile of the existing stream and banks. Banks will connect to the embankment slope to allow for safe wildlife passage past the proposed weir.

Crossing Two: The proposed culvert has been designed with a grade that will restore the horizontal profile of the natural stream and banks. Banks will connect to the embankment to allow for safe wildlife passage past the proposed weir.

Crossing Three: The proposed culvert has been designed with a grade that will the horizontal profile of the natural stream and banks up and downstream of the existing beaver dam. Banks will connect to the embankment to allow for safe wildlife passage past the proposed weir.

5.0 WILDLIFE HABITAT ANALYSIS

The thresholds that are triggered by this project include Riverfront and Bank impacts. The complete Wildlife Habitat Analysis conducted by Goddard's Wildlife Biologist will be submitted under a separate cover.

6.0 ALTERNATIVES ANALYSIS

Since some work is proposed within the Riverfront Area, the applicant has provided the following analysis of alternatives in accordance with §10.58(4)(c) of the Wetlands Protection Act. Alternatives were analyzed for potential viability and practicality given the site's environmental stormwater design constraints.

Alternative 1.

In an effort to reduce all Riverfront impacts and Bordering Vegetated Wetland (BVW) impacts access was investigated to see if uplands on site can be accessed without impacting these resources.

The site consists of 8 parcels (see Existing On-Site Conditions Figure). There is no access to the site from the north or south and the only access to the site is from the east and west which requires the crossing of a river. Access to the northern uplands also requires a river crossing. BVW was avoided in the crossings themselves however the width of the roadway impacts some BVW (all of which is under the 5,000-sf threshold). As a result, river and BVW impacts are un-avoidable.

Alternative 2.

In an effort to reduce proposed inner riparian impacts an effort was made to move the proposed stormwater basin located near Wandering Pond Way out of the 200-ft riverfront area. This is not possible since there is not enough room on site with associated leaching areas.

7.0 CONCLUSION

In summary, Goddard Consulting believes that the proposed project will not have any adverse impacts on the interests identified in the Wetlands Protection Act or the Town of Stow's Wetland Bylaw and Regulations. The project has been designed with sensitivity to the resource areas on site. The proposed project meets all regulatory compliance standards under the Wetlands Protection Act and the Town of Stow's Wetland Bylaw. As a result, Goddard Consulting respectfully requests that the Stow Conservation Commission issue an Order of Conditions approving the proposed project.