



Arlington Conservation Commission

Date: Thursday, February 27, 2020

Time: 7:30 PM

Location: Town Hall Annex, Second Floor Conference Room

Agenda

1. Administrative
 - a. Review draft 02/06/2020 minutes.
2. Updates
 - a. Project updates.
 - b. Committee and working group updates, including but not limited to: Water Bodies, Open Space, Reservoir, Spy Pond, Community Preservation, Zoning Bylaw, Public Lands Maintenance, Land Stewards

3. Hearings

Request for Certificate of Compliance

88-90 Varnum Street

MassDEP File #901-0307

This approved project renovated and constructed a dormer addition to a two-family home within the 100-year floodplain. The approved project also removed a garage and installed two porous patios.

Notice of Intent

93 Sunnyside Ave

MassDEP File# unassigned

This project proposes an addition in the backyard and enlarging a mudroom in the front yard. The back addition is within the 200-ft Riverfront Area and 100-year floodplain. The back addition is proposed to be built on footings, above the floodplain. The front addition is within the 200-ft Riverfront Area. The project also proposes installing a deck and porous paver driveway in the back yard. As mitigation, this project proposes a native vegetated buffer and three drywells that capture all roof runoff.

Request for Determination of Applicability

Bikeway Tree Maintenance

Arlington File #A20.2

This project proposes tree maintenance work to ensure that the bikeway is safe for users and is clear from hazardous debris. The tree canopy will be pruned and all hazardous dead wood will be removed. In addition to all canopy pruning, dead trees along the bikeway will be either removed or cut back.

Arlington Regulations for Wetlands Protection Update

Discuss and draft section for Administrative Review Permits.



Town of Arlington, Massachusetts

Review 02/06/2020 Minutes

Summary:

Review draft 02/06/2020 minutes.

ATTACHMENTS:

Type	File Name	Description
▢ Minutes	DRAFT_02062020_Minutes_Conservation_Commission.pdf	Draft 02062020 minutes



Arlington Conservation Commission

Date: February 06, 2020

Time: 7:30pm

Location: Second floor conference room, Town Hall Annex
730 Massachusetts Ave, Arlington, MA

Minutes

Attendance: *Commission Members Susan Chapnick (Chair), Pam Heidell, Dave Kaplan, Nathaniel Stevens, Chuck Tirone (Vice Chair), and David White; Associate Commissioners Cathy Garnett and Mike Gildesgame; and Conservation Agent Emily Sullivan. Members of the public included Jeanne Sousa, Ann Fitzgerald, Stephen Garvin, and Kevin Sanders.*

01/16/2020 Meeting Minutes

The Commission discussed edits to the draft 01/16/2019 minutes. N. Stevens motioned to approve the minutes as edited, D. Kaplan seconded, all were in favor, motion approved.

MACC Annual Conference

E. Sullivan informed the Commission that the Massachusetts Association of Conservation Commissions' Annual Conference is scheduled for Saturday, February 29, 2020 at the College of the Holy Cross in Worcester, MA.

Bikeway Tree Maintenance

E. Sullivan stated that the Arlington Tree Warden informed her that the Department of Public Works plans to conduct tree maintenance (pruning, removal of deadwood and debris) along the Minuteman Bikeway and perhaps also adjacent parts of Mill Brook to remove hazardous trees and branches, and improve user safety. Since parts of the Bikeway fall under Conservation Jurisdiction, the Commission requested that the Tree Warden submit a Request for Determination of Applicability for the work.

47 Spy Pond Lane Lots 1/A and 2/B Project Update

E. Sullivan informed the Commission that the Superseding Orders of Conditions issued by the Massachusetts Department of Environmental Protection on 12/29/2016 for both Lot 1/A and Lot 2/B expired on 12/29/2019 and that the Applicant had failed to timely request an extension from MassDEP. As such, the project sites are only permitted under the local Arlington Wetlands Protection Bylaw, and not the Massachusetts Wetlands Protection Act. The Project Manager for this project is putting together Notices of Intent (NOIs) for Lot 1/A and Lot 2/B to submit to the Commission. The NOIs will be

filed under the Wetlands Protection Act only, since the work has already been approved under the local bylaw. The Project Manager has halted all work on both lots, but has requested that framing of the house on Lot 2/B be allowed to continue while the NOIs are filed and reviewed since the house already has a foundation. The Commission agreed that framing the house on Lot 2/B would have no impact on the resource area, but noted that Lot 2/B was in non-compliance with some of the conditions issued in the Order of Conditions issued by the Commission [under the Bylaw](#). The Commission requested that the following actions be taken to come into compliance with the OOC for Lot 2/B.

1. Install the MassDEP [file number](#) sign for Lot 2/B
2. Lock construction entrance gate at all times when work is not occurring
3. Street sweep in front of the site at the end of each work day
4. Cover all stockpiled materials in the 100-ft wetlands buffer
5. Keep a paper copy of the Lot 2/B Order of Conditions onsite

Once these actions are implemented, Lot 2/B is inspected, and the lot is known to be in compliance, the Commission agreed that the Conservation Agent could administratively approve the continuation of framing the house on Lot 2/B.

Water Bodies Working Group

D. White updated the Commission on the Water Bodies Working Group (WBWG) meeting that occurred on 02/06/2020. During the meeting, the Working Group discussed the FY2021 funding allocation and the Reservoir Management Survey/Report request for quotes (RFQ). The WBWG will present its proposed FY2021 funding allocation [and its 2019 Annual Report](#) to the Finance Committee on 02/19/2020.

Request for Determination of Applicability: Arlington High School Phase 1 Drainage Relocation, 869 Mass Ave Arlington File Number RDA #A20.1

Documents Reviewed:

- 1) *Request for Determination of Applicability (RDA), dated 1/17/2020*
- 2) *RDA Plan Set, dated 1/23/2020, stamped by Stephen R. Garvin P.E. #42772*
- 3) *RDA Maps and Photos, dated 1/23/2020*
- 4) *RDA Climate Change Resilience Narrative, dated 1/27/2020*

Resource Areas:

- 1) *100-Foot Wetlands Buffer Zone*
- 2) *Adjacent Upland Resource Area (AURA)*
- 3) *Mill Brook*

S. Garvin of Samiotes presented the project summary. The project is limited to Phase 1 of the Arlington High School project which includes the relocation of the existing drainage system. The project proposes to relocate a drainage system, which takes runoff from a 4,626,373.5 square foot watershed that enters a catch basin on Mass Ave and conveys the runoff into Mill Brook. The current culvert is 48", and the relocated culvert will also be 48" [\[Is this correct? I thought a 48" pipe is leading to a smaller one – or smaller temporarily?\]](#). The relocated drainage infrastructure will maintain the same

Comment [e1]: The current capacity of the drainage line as it travels through the HS Site is being replicated as closely as possible in regards to the peak discharges for the design storm events. However we have found a way to add some additional capacity in the first run of piping as it leaves Mass Ave before we “throttle” it down to match existing conditions as it traverses the site. Additionally, whereas the existing drain culvert from Mass Ave picks flow from the existing HS building and site, we are now disconnecting that flow which will allow the culvert additional capacity in the future.

flow as it currently conveys. S. Garvin stated that Samiotes worked with the Arlington Engineering Division to design this relocation project.

E. Sullivan read comments regarding the RDA submitted to the Commission by Patricia Worden on 02/05/2020.

N. Stevens motioned to issue a negative determination and that the work is subject to the Wetlands Protection Act and Arlington Wetlands Protection Bylaw but that a Notice of Intent is not required (negative determination N3), D. White seconded, all were in favor, motion approved.

Arlington's Great Meadows Restoration Project

D. White, representing the Friends of Arlington's Great Meadows (FoAGM), presented a collaborative project opportunity to the Commission. The project is an upland meadow restoration project in the ~~Entry Meadow~~ entry meadow section of Arlington's Great Meadows (AGM), near the Emerson Gardens Road entrance ~~of the~~ to AGM. FoAGM is proposing that the Commission help review project plans once developed and submit a letter of support for the project. FoAGM is not requesting fiscal sponsorship.

Background documents including the ecological survey sponsored by the Arlington Conservation Commission in 2000 and a meadow restoration plan developed by Mass Audubon in 2009 are available at the FoAGM website: www.FoAGM.org

P. Heidell asked if the Lexington Conservation Commission (LCC) supports the project. D. White confirmed that LCC supports the project. M. Gildesgame asked why this specific area is targeted for restoration. D. White stated that the habitat is unique since it is meadow in a largely wooded area. This area has also historically been home to the American Woodcock, so FoAGM would like to restore the meadow so that it continues to be home to unique species. P. Heidell asked if the Natural Heritage and Endangered Species Program needs to be involved in the project. D. White stated that they do not need to be involved. The Commission agreed to review project information, including plans and permit applications, and write a letter of support for the project.

Arlington Wetlands Protection Regulations Revision Discussion

The Commission reviewed and discussed draft revisions to Section 25: Adjacent Upland Resource Area. The Commission also reviewed draft language for a new section, Administrative Review Permit. The Commission decided that the draft Administrative Review Permit section will also be discussed at the 02/27/2020 meeting.

Meeting adjourned at 9:40pm.



Town of Arlington, Massachusetts

Project Updates

Summary:

Project updates.



Town of Arlington, Massachusetts

Committee and Working Group Updates

Summary:

Committee and working group updates, including but not limited to: Water Bodies, Open Space, Reservoir, Spy Pond, Community Preservation, Zoning Bylaw, Public Lands Maintenance, Land Stewards



Town of Arlington, Massachusetts

Request for Certificate of Compliance

Summary:

88-90 Varnum Street

MassDEP File #901-0307

This approved project renovated and constructed a dormer addition to a two-family home within the 100-year floodplain. The approved project also removed a garage and installed two porous patios.

ATTACHMENTS:

Type	File Name	Description
Request for Certificate of Compliance	88-90_Varnum_Street_NOI.pdf	88-90 Varnum NOI
Request for Certificate of Compliance	88-90_Varnum_St_OOC.pdf	88-90 Varnum OOC
Request for Certificate of Compliance	88-90_Varnum_Request_for_COC_Letter.pdf	88-90 Varnum Request for COC Letter
Request for Certificate of Compliance	88-90_Varnum_Request_for_COC_As-Built.pdf	88-90 Varnum Request for COC As-Built
Request for Certificate of Compliance	88-90_Varnum_Request_for_COC.pdf	88-90 Varnum Request for COC Form
Request for Certificate of Compliance	88-90_Varnum_Request_for_COC_General_Notes.pdf	88-90 Varnum Request for COC As-Built Notes

Notice of Intent Application

April 11, 2019

Subject Property

88-90 Varnum Street

Parcel ID: 4-5-12

Arlington, Massachusetts

Applicant and Property Owner

Home Helpers Real Estate Services, LLC.

Attn: Christopher Manley

1 Great Meadow Road

Newbury, MA 01730

LEC Environmental Consultants, Inc.

380 Lowell Street

Suite 101

Wakefield, MA 01880

781-245-2500

781-245-6677 fax

www.lecenvironmental.com



April 11, 2019

Hand Delivery

Arlington Conservation Commission
Arlington Town Hall Annex
730 Massachusetts Avenue
Arlington, MA 02476

Re: Notice of Intent Application
88-90 Varnum Street
Parcel ID: 4-5-12
Arlington, Massachusetts

[LEC File #: HHRES\18-430.02]

Dear Members of the Conservation Commission:

On behalf of the Applicant and Property Owner, Home Helpers Real Estate, LLC, (contact: Christopher Manley), LEC Environmental Consultants, Inc., (LEC) is filing the enclosed Notice of Intent (NOI) Application with the Arlington Conservation Commission to refurbish an existing multi-family dwelling at the above-referenced property, by adding a dormer within the existing roofline, demolishing a garage and extending off-street parking, removal and re-grading of existing paved areas, installation of porous paver patios and walkways, and in-kind replacement of footings associated with a third story wooden deck. Portions of the property and proposed activities are located within Bordering Land Subject to Flooding (BLSF). The Applicant proposes to implement erosion controls to protect adjacent properties during construction, and provide compensatory flood storage to mitigate for any impacts to BLSF.

LEC was retained to identify Wetland Resource Areas protectable under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*), its implementing Regulations (310 CMR 10.00, the *Act Regulations*), and the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*) and its *Regulations Pursuant to the Town of Arlington Regulations for Wetlands Protection* (the *Bylaw Regulations*), and to prepare this NOI Application. Gala Simon Associates, Inc., has prepared the enclosed *Site Grading Plan* dated April 9, 2019 (Appendix B).

Enclosed please find two checks made payable to the Town of Arlington in the amounts of Two Hundred Sixty-Two Dollars and Fifty Cents (\$262.50) and Two Hundred Dollars (\$200.00) for the purpose of filing this Application under State and Local guidelines, respectively. A check payable to the Commonwealth of Massachusetts in the amount of Two Hundred Thirty-Seven Dollars and Fifty Cents (\$237.50) for the state portion of the *Act* filing fee was sent to the DEP Lockbox.

LEC Environmental Consultants, Inc.

www.lecenvironmental.com

12 Resnik Road
Suite 1
Plymouth, MA 02360
508-748-9491
508-748-9492 (Fax)

PLYMOUTH, MA

380 Lowell Street
Suite 101
Wakefield, MA 01880
781-245-2500
781-245-8677 (Fax)

WAKEFIELD, MA

100 Grove Street
Suite 302
Worcester, MA 01605
508-753-3077
508-753-3177 (Fax)

WORCESTER, MA

P. O. Box 580
Rindge, NH 03461
603-899-0720
603-899-8726 (Fax)

RINDGE, NH



Thank you for your consideration of this Application. We look forward to meeting with you at the April 25, 2019 Public Hearing. Should you have any questions, please do not hesitate to contact me in our Wakefield office at 781-245-2500 or at rkirby@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

A handwritten signature in black ink, appearing to read "Richard A. Kirby", with a long horizontal flourish extending to the right.

Richard A. Kirby

Senior Wetland Scientist

cc: DEP, Northeast Region
Home Helpers Real Estate Services, LLC
Gala Simon Associates, Inc.

rak: projects\18-430 HHRES\NOI Report.doc

i.	WPA Form 3 – Notice of Intent
ii.	WPA Appendix B – Wetland Fee Transmittal Form
iii.	Town of Arlington Appendix 3 – Bylaw Filing Fees and Transmittal Form
iv.	Legal Notice Charge Authorization Form
v.	Affidavit of Service
vi.	Letter to Abutters
vii.	Abutter Notification Form
viii.	Certified List of Abutters

Wetland Resource Area Analysis and Report

1.	Introduction	1
2.	General Site Description	1
2.2	Natural Heritage and Endangered Species Program Designation	2
3.	Wetland Boundary Determination Methodology	2
4.	Wetland Resource Area	2
4.1	Bordering Land Subject to Flooding	3
5.	Proposed Activities	3
6.	Mitigation Measures	4
6.1	Erosion and Sedimentation Control	4
6.2	Compensatory Flood Storage	5
7.	Regulatory Performance Compliance	5
7.1	Bordering Land Subject to Flooding Performance Standards	5
7.2	Bylaw Performance Standards for Work within the Floodplain	6
7.3	BLSF Climate Change Impacts	7
8.	Summary	8

Literature Referenced

Appendix A

Locus Maps

Figure 1: USGS Topographic Quadrangle

Figure 2: FEMA Flood Insurance Rate Map

Figure 3: MassGIS Orthophoto & NHESP Estimated Habitat Map

Appendix B

Site Grading Plan, dated April 9, 2019, prepared by Gala Simon Associates, Inc.



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

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):

88-90 Varnum Street

a. Street Address

Arlington

b. City/Town

02474

c. Zip Code

Latitude and Longitude:

42.401474 N

d. Latitude

-71.142696 W

e. Longitude

Parcel ID: 4-5-12

f. Assessors Map/Plat Number

g. Parcel /Lot Number

2. Applicant:

Christopher

a. First Name

Manley

b. Last Name

Home Helpers Real Estate, LLC

c. Organization

1 Great Meadow Road

d. Street Address

Newbury

e. City/Town

MA

f. State

01922

g. Zip Code

617-835-0555

h. Phone Number

n/a

i. Fax Number

chris@homehelpertoday.com

j. Email Address

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

Same as Applicant

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Richard

a. First Name

Kirby

b. Last Name

LEC Environmental Consultants, Inc.

c. Company

380 Lowell Street, Suite 101

d. Street Address

Wakefield

e. City/Town

MA

f. State

01880

g. Zip Code

781-245-2500

h. Phone Number

781-245-6677

i. Fax Number

rkirby@lecenvironmental.com

j. Email address

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

\$500.00

a. Total Fee Paid

\$237.50

b. State Fee Paid

\$262.50

c. City/Town Fee Paid



WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

A. General Information (continued)

6. General Project Description:

The Applicant proposes to refurbish an existing multi-family dwelling, by adding a dormer within the existing roofline, demolishing a garage, extending off-street parking, removal and re-grading of existing paved areas, installation of porous paver patios and walkways, and in-kind replacement of footings associated with a 3rd story wooden deck within a previously-developed lot. Portions of the property are located within Bordering Land Subject to Flooding (BLSF).

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

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

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 South

a. County

71983

c. Book

n/a

b. Certificate # (if registered land)

246

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.



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	989± 1. square feet Existing Flood Storage: 508± 3. cubic feet of flood storage lost	2,101± 2. square feet Proposed Flood Storage: 1,200± 4. cubic feet replaced

e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland
---	---

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	<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. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	a. square feet of BVW	b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

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

2017

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

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

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

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

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

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



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

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

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

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

- (d) ☐ Vegetation cover type map of site
- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following
1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
2. ☐ Separate MESA review ongoing. _____ a. NHESP Tracking # _____ b. Date submitted to NHESP
3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
- a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

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

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.



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
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

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

Online Users:

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

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

D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Site Grading Plan

a. Plan Title

Gala Simon Associates, Inc.

Al Gala, PE

b. Prepared By

c. Signed and Stamped by

April 9, 2019

1" = 10'

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:

1035

2. Municipal Check Number

3/7/19

3. Check date

1034

4. State Check Number

3/7/19

5. Check date

Home Helpers Real Estate Services LLC

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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

3/7/19

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date

4-10-19

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



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

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



A. Applicant Information

1. Location of Project:

88-90 Varnum Street

a. Street Address

1034

c. Check number

Arlington

b. City/Town

\$237.50

d. Fee amount

2. Applicant Mailing Address:

Christopher

a. First Name

Manley

b. Last Name

Home Helpers Real Estate Services, LLC

c. Organization

1 Great Meadow Road

d. Mailing Address

Newbury

e. City/Town

MA

f. State

01730

g. Zip Code

617-835-0555

h. Phone Number

n/a

i. Fax Number

chris@homehelperstoday.com

j. Email Address

3. Property Owner (if different):

Same as Applicant

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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

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



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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2j. any other activity	1	\$500.00	\$500.00
Step 5/Total Project Fee:			\$500.00

Step 6/Fee Payments:

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

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

APPENDIX 3
BYLAW FILING FEES and TRANSMITTAL FORM

Rules:

1. Fees are payable at the time of filing the application and are non-refundable.
2. Fees shall be calculated per schedule below.
3. Town, County, State, and Federal Projects are exempt from fees.
4. These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (ACT).

Fee Schedule (ACC approved 1/8/15):

<u>\$</u>	<u>NO./Area</u>	<u>Category</u>
_____	_____	(R1) <u>RDA</u> - \$150 local fee, no state fee
<u>\$200.00</u>	_____	(N1) <u>Minor project</u> - \$200 (house addition, tennis court, swimming pool, utility work, work in, on or affecting any body of water, wetland or floodplain).
_____	_____	(N2) <u>Single Family Dwelling</u> - \$600
_____	_____	(N3) <u>Multiple dwelling structures</u> - \$600 + \$100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.
_____	_____	(N4) <u>Commercial, industrial, and institutional projects</u> : \$800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding or buffer zone disturbed.)
_____	_____	(N5) <u>Subdivisions</u> . \$600 + \$4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding
_____	_____	(N6) Other Fees: <u>copies, printouts</u> - Per public records law
_____	_____	(N7) <u>Minor project change</u> - \$50
_____	_____	(N8) <u>Work on docks, piers, revetments, dikes, etc</u> – \$4 per linear foot
_____	_____	(N9) <u>Resource boundary delineation (ANRAD)</u> - \$1 per linear foot
_____	_____	(N10) <u>Certificate of Compliance (COC or PCOC)</u> – No charge if before expiration of Order, \$200 if after that date.
_____	_____	(N11) <u>Amendments</u> - \$300 or 50% of original local filing fee, whichever is less
_____	_____	(N12) <u>Extensions</u> a. Single family dwelling or minor project - \$100.
_____	_____	b. Other - \$150.
_____	_____	(N13) <u>Consultant Fee</u> Per estimate from consultant
<u>\$200.00</u>	TOTAL	

Note: Submit this form along with the forms submitted for the ACT - the "Wetlands Filing Fee Calculations Worksheet," and the "Notice of Intent Fee Transmittal Form."

APPENDIX 6

LEGAL NOTICE CHARGE AUTHORIZATION

DATE:

TO: legals@wickedlocal.com

I hereby authorize Community Newspapers to bill me directly for the legal notice to
be published in the Arlington Advocate newspaper on _____ for a public
hearing with the Arlington Conservation Commission to review a project at the following
location: 88-90 Varnum Street

Thank you.

Signed:



Send bill to:

Christopher Manley - Home Helpers Real Estate Services, LLC

1 Great Meadow Road - Newbury, MA 01922

Phone: 617-835-0555 *EMAIL : CHRIS@HOMEHELPERS TODAY.COM*

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

and

the Town of Arlington Wetlands Protection Bylaw

I, Sharon A. Sullivan, on behalf of Home Helpers Real Estate Services, LLC, hereby certify under the pains and penalties of perjury that on April 11, 2019 I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and 310 CMR 10.05 (4) (a) in connection with the following matter:

A Notice of Intent Application filed under the Massachusetts Wetlands Protection Act and the Town of Arlington Wetlands Protection Bylaw by LEC Environmental Consultants, Inc. on behalf of the Applicant, Home Helpers Real Estate Services, LLC, with the Town of Arlington Conservation Commission on April 11, 2019 for property located at 88-90 Varnum Street (Assessor's Parcel ID: 4-5-12) in Arlington, Massachusetts.

The form of notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Sharon A. Sullivan
Sharon A. Sullivan
Permitting Technician

4/11/2019
Date

April 11, 2019

CERTIFIED MAIL

«Name»

«Name2»

«Address»

«City», «State» «Zip»

**Re: Notice of Intent Application
88-90 Varnum Street
Assessor's Parcel ID: 4-5-12
Arlington, Massachusetts**

[LEC File #: HHRES\18-430.02]

Dear Abutter:

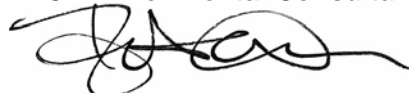
On behalf of the Applicant, Home Helpers Real Estate Services, LLC, LEC Environmental Consultants, Inc. (LEC) has filed a Notice of Intent Application with the Arlington Conservation Commission to refurbish an existing multi-family dwelling, by adding a dormer within the existing roofline, demolishing a garage and extending off-street parking, removal and re-grading of existing paved areas, installation of porous paver patios and walkways, and in-kind replacement of footings associated with a 3rd story wooden deck at the above-referenced property. Portions of the property are located within Bordering Land Subject to Flooding (BLSF). The Applicant proposes to implement erosion controls to protect adjacent properties during construction, and compensatory flood storage to mitigate for any impacts to BLSF, in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00), and the *Town of Arlington Wetlands Protection Bylaw* (Article 8) and its *Wetlands Protection Regulations*.

The Notice of Intent Application and accompanying plans are available for review by the public at the Arlington Conservation Commission. The Public Hearing will be held at the Arlington Town Hall Annex, 730 Massachusetts Avenue, on April 25, 2019 beginning at 7:30 p.m., in accordance with the provisions of the *Massachusetts Wetlands Protection Act* (M.G.L. Ch. 131, s. 40, as amended) and its implementing Regulations (310 CMR 10.00), and the *Town of Arlington Wetlands Protection Bylaw* (Article 8) and its *Wetlands Protection Regulations*. Further information regarding this application will be published at least five (5) days in advance in *The Arlington Advocate*. Notice of the Public Hearing will also be posted at the Arlington Town Hall at least 48 hours in advance.

Please do not hesitate to review the materials and/or attend the public hearing should you have questions or concerns about the proposed project.

Sincerely,

LEC Environmental Consultants, Inc.



Richard A. Kirby
Senior Wetland Scientist

Enclosure

Notification to Abutters Under the
Massachusetts Wetlands Protection Act
and
the Town of Arlington Wetlands Protection Bylaw

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

- A. The name of the Applicant is Home Helpers Real Estate Services, LLC, Attn: Christopher Manley, 1 Great Meadow Road, Newbury, MA 01922.
 - B. The Applicant has filed a Notice of Intent Application with the Conservation Commission for the municipality of Arlington, Massachusetts seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act (General Laws Chapter 131, Section 40) and the Town of Arlington Wetlands Protection Bylaw.
 - C. The activity is proposed on a lot located at 88-90 Varnum Street (Assessor's Parcel ID: 4-5-12), Arlington, Massachusetts.
 - D. Copies of the Notice of Intent Application may be examined by contacting the Arlington Conservation Commission at (781) 316-3012.
- For more information, call: LEC Environmental Consultants, Inc. (the applicant's representative) at (781) 245-2500.
- E. Copies of the Notice of Intent Application may be obtained from LEC Environmental Consultants, Inc. (the applicant's representative) by calling (781) 245-2500 between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday. A fee may be charged for each copy requested.
 - F. Information regarding the public hearing may be obtained from the Arlington Conservation Commission (the regulatory agency) by calling (781) 316-3012.

NOTE: Notice of the Public Hearing, including its date, time, and place, will be published at least five (5) days in advance in The Arlington Advocate.

NOTE: Notice of the public hearing will also be posted at the Arlington Town Hall not less than 48 hours in advance.

NOTE: You also may contact the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call:

Northeast Region: 978-694-3200



Office of the
Board of Assessors
Robbins Memorial Town Hall
Arlington, MA 02476
(781) 316-3050
Assessors@town.arlington.ma.us

Abutters List

Date: March 12, 2019

Subject Property Address: 88-90 VARNUM ST Arlington, MA
Subject Property ID: 4-5-12

Search Distance: 100 feet

The Board of Assessors certifies the names and addresses of requested parties in interest, all abutters to a single parcel within 100 feet.

Karen L. Feeley
Robert E. Greeley
[Signature]

Board of Assessors

Prop ID: 4-4-12
Prop Location: 89-91 VARNUM ST Arlington, MA
Owner: STEVENS SYLVIA-BROOK
Co-Owner: COBURN KEITH
Mailing Address:
89 VARNUM ST
ARLINGTON, MA 02474

Prop ID: 4-4-13
Prop Location: 95 VARNUM ST Arlington, MA
Owner: TAMANAKIS RHEA A &
Co-Owner: GAVRIEL MATTHEW G
Mailing Address:
93 VARNUM STREET
ARLINGTON, MA 02474

Prop ID: 4-4-14
Prop Location: 97-99 VARNUM ST Arlington, MA
Owner: VERENINI MATTHEW D &
Co-Owner: FERREIRA KELLY M
Mailing Address:
99 VARNUM ST
ARLINGTON, MA 02474

Prop ID: 4-5-10
Prop Location: 96-98 VARNUM ST Arlington, MA
Owner: BREIDING DAVID E
Co-Owner: BREIDING SYLVIA M
Mailing Address:
98 VARNUM STREET
ARLINGTON, MA 02474

Prop ID: 4-5-11
Prop Location: 92-94 VARNUM ST Arlington, MA
Owner: MCLAUGHLIN MAURA D
Co-Owner: FERRARA RYAN J
Mailing Address:
92 VARNUM ST
ARLINGTON, MA 02474

Prop ID: 4-5-12
Prop Location: 88-90 VARNUM ST Arlington, MA
Owner: HOME HELPERS REAL ESTATE
Co-Owner: Services LLC
Mailing Address:
1 GREAT MEADOW RD
NEWBURY, MA 01922

Prop ID: 4-5-13
Prop Location: 62 HERBERT RD Arlington, MA
Owner: SANTELLO MARK /TRUSTEE &
Co-Owner: MILLER SANDRA A/TRUSTEE
Mailing Address:
62 HERBERT ROAD
ARLINGTON, MA 02474

Prop ID: 4-5-15
Prop Location: 0-LOT MAGNOLIA ST Arlington, MA
Owner: TOWN OF ARLINGTON
Co-Owner:
Mailing Address:
730 MASS AVE
ARLINGTON, MA 02476

Prop ID: 4-7-6
Prop Location: 73-75 VARNUM ST Arlington, MA
Owner: MIROGIANNIS PETER & KATHY
Co-Owner: TRUSTEES/KALAGANIS RLTY TR
Mailing Address:
24 CLEVELAND STREET
ARLINGTON, MA 02474

Prop ID: 4-8-1
Prop Location: 78-80 VARNUM ST Arlington, MA
Owner: MOODY MARGARET T--ETAL
Co-Owner: LIN CHARLES P
Mailing Address:
78 VARNUM STREET
ARLINGTON, MA 02474

Prop ID: 4-8-10
Prop Location: 67-69 MAGNOLIA ST Arlington, MA
Owner: VOGT MARY W
Co-Owner:
Mailing Address:
67 MAGNOLIA STREET
ARLINGTON, MA 02474

Prop ID: 4-8-8
Prop Location: 65 MAGNOLIA ST Arlington, MA
Owner: IVERSON RALPH B
Co-Owner: WHITMORE JANE P
Mailing Address:
65 MAGNOLIA ST
ARLINGTON, MA 02474

Prop ID: 4.A-4-1
Prop Location: 85 VARNUM ST UNIT 1 Arlington, MA
Owner: COLUCCIO LYNNE
Co-Owner:
Mailing Address:
85-87 VARNUM ST UNIT 1
ARLINGTON, MA 02474

Prop ID: 4.A-4-2
Prop Location: 85 VARNUM ST UNIT 2 Arlington, MA
Owner: FERSENHEIM BENJAMIN J
Co-Owner: FERSENHEIM TANIA AH
Mailing Address:
85-87 VARNUM ST UNIT 2
ARLINGTON, MA 02474



- Places by Category
 - Police Station
 - Fire Station
 - School
 - Library
 - Public Works
- Parcel Map - Misc (traffic is)
- Recreation - Facilities
 - Recreation - Fields Courts
 - Recreation - Fields Courts
- Open Space: Conservation
- Open Space - Minuteman
- Open Space - Labels
- Open Space
 - Town, State, or Private
 - Other Town Owned
- Parcels
- Buildings
- MA Highways
 - Interstate
 - US Highway
 - Numbered Routes
- Town Boundary
- Abutting Towns
- Roads - OneWay (for Base)
- Roads - For Small Scale (f)
 - Major Road
 - Local Road
- Roads - For Large Scale (f)
- Cemetery - Roads
 - Road1
 - Road2
 - Road3
 - Road4
- Water Line
- Water Body

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



Notice of Intent Application

88-90 Varnum Street
Parcel ID: 4-5-12
Arlington, Massachusetts

April 11, 2019

1. Introduction

On behalf of the Applicant and Property Owner, Home Helpers Real Estate, LLC, (contact: Christopher Manley), LEC Environmental Consultants, Inc., (LEC) is filing the enclosed Notice of Intent (NOI) Application with the Arlington Conservation Commission (Commission) to refurbish an existing multi-family dwelling located at 88-90 Varnum Street in Arlington. Proposed activities include: adding a dormer within the existing roofline; demolishing a garage and extending off-street parking; removal and re-grading of existing paved areas; installation of porous paver patios and walkways; installation of porous paver patios and walkways; and in-kind replacement of footings associated with a third story wooden deck.

A portion of the property and proposed activities are located within Bordering Land Subject to Flooding (BLSF), as jurisdictional under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*), its implementing *Regulations* (310 CMR 10.00, the *Act Regulations*), and the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*) and its *Regulations Pursuant to the Town of Arlington Regulations for Wetlands Protection* (the *Bylaw Regulations*). As part of this filing, the Applicant proposes to implement mitigation measures, including the installation of erosion controls and compensatory flood storage. A reduction of impervious area also is proposed.

Gala Simon Associates, Inc. has prepared the *Site Grading Plan* dated April 9, 2019 (*Plan*, Appendix B) showing existing and proposed conditions and Flood Storage Calculations.

2. General Site Description

The 5,020± square foot property is located off the south side of Varnum Street, west of Herbert Road, and north of Magnolia Park within the southeastern portion of Arlington, Massachusetts. More specifically, the property is located south of the Varnum Street/Herbert Road Intersection. Single-family and multi-family dwellings and residential development associated with Varnum Street and Herbert Road generally surround the property. A community garden contained within Magnolia Park is located immediately south of the property.

The property contains a two-story, multi-family dwelling with a detached, two-car garage located within the southeastern portion of the property. Access to the front (north) entrance of the dwelling is provided via a concrete walkway and stairs extending from Varnum Street. A side (east) entrance to the dwelling is provided via a paved walkway extending from Herbert Road. Access to the garage is provided via a concrete driveway extending from Herbert Road. The land within the property to the west and south of the dwelling is paved with bituminous concrete, while the land to the north and the east of the dwelling contains lawn and landscape plants. An enclosed second story deck supported by wooden posts and concrete footings is located off the rear (south) façade of the dwelling. Wooden stairs provide access/egress from the second-story deck. Topography within the property is generally flat, with a gentle grade descending southerly, with an elevation gradient of roughly 3 feet.

2.1 **Natural Heritage and Endangered Species Program Designation**

According to the 14th edition of the Massachusetts Natural Heritage Atlas (2017) published by the Natural Heritage & Endangered Species Program (NHESP), no areas of Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species occurs within or near the site (Appendix A, Figure 3).

3. **Wetland Boundary Determination Methodology**

LEC conducted a site evaluation on December 12, 2018 to identify and characterize existing protectable Wetland Resource Areas located on or immediately adjacent to the site, and determined that the only resource area present on or within 100 feet of the site is BLSF. Alewife Brook is located greater than 800 feet south of the property, and no Bordering Vegetated Wetlands (BVW) or other Wetland Resource Areas were observed within at least 100 feet of the site.

4. **Wetland Resource Area**

The Wetland Resource Area associated with the site is limited to Bordering Land Subject to Flooding, or BLSF.

4.1

Bordering Land Subject to Flooding

According to 310 CMR 10.57 (2) (a) 1, *Bordering Land Subject to Flooding (BLSF)* is an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.

According to Section 4 B. (38), *LAND SUBJECT TO FLOODING OR INUNDATION* – shall mean the land within the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm; said boundary shall be that determined by reference to the most recently available flood profile data prepared for Arlington within which the work is proposed under the National Flood Insurance Program “(NFIP)”...

According to the June 4, 2010 *Federal Emergency Management Agency Flood Insurance Rate Map* for Middlesex County, Massachusetts (Map No: 25017C0419E), the property is located within Zone AE: – *Special Flood Hazard Areas (SFHAs) subject to Inundation by the 1% Annual chance Flood; Base Flood Elevations determined* (Appendix A, Figure 2). According to the FEMA FIRM, the Zone AE occurs at the Elevation 7 contour (Datum: NAVD 88). Roughly the southern half of the property is located at or below Elevation 7, which intercepts a portion of the existing foundation. All land occurring at or below Elevation 7 on the site is jurisdictional as BLSF.

5.

Proposed Construction Activities

The Applicant proposes to add a third story to the existing dwelling by constructing a dormer within the existing roofline. No change to the dwelling footprint is proposed. A third story deck will be constructed off the rear (south) façade, above the existing second story enclosed porch. The Applicant (and his Site Contractor) anticipates using the same concrete footings and wooden support posts (or in-kind replacement of one or both) for construction of the third story deck. The 369± square foot garage will be razed, and the 290± square foot concrete parking area will be replaced and expanded to 620± square feet to accommodate 4 off-street parking spaces, as required by the Arlington Zoning Board. A portion of the bituminous concrete to the west and south of the dwelling will be removed and replaced with lawn, and a 178± square foot porous paver patio and walkway. A retaining wall and planter will be located north of the proposed patio. An

additional 107± square foot porous paver patio will be located west of the dwelling, north of the new parking area. A 6-foot high, wood stockade fence with an 8-inch gap on the bottom will be installed along the southern and western property boundaries, as well as north and east of the patio proposed east of the dwelling. In total, a 761± square-foot reduction of impervious area is proposed, with existing impervious area measuring roughly 3,380 square feet, and proposed impervious area measuring roughly 2,619 square feet.

Site grading is proposed to accommodate the proposed site appurtenances and to provide compensatory flood storage, with roughly 1± foot of cut and fill proposed between elevations 5.5 and 7 (see attached *Plan*, with Flood Storage Calculations). All site grading has been designed to meet the performance standards for work within BLSF required under the *Act Regulations* and the *Bylaw Regulations* as discussed in greater detail below in Section 7.

6. Mitigation Measures

In addition to the 761± square-foot decrease in impervious surface, the Applicant intends to implement erosion controls to protect adjacent property during construction, and provide compensatory flood storage to mitigate for any potential impacts to BLSF, and to improve the flood storage capacity on the site. A description of each of these mitigating measures is provided below.

6.1 Erosion and Sedimentation Control

The Applicant proposes to implement an erosion control program to protect the adjacent sites from sedimentation during construction activities. The plan for the control of potential impacts to the adjacent Wetland Resource Areas is based on DEP guidelines, and will consist of compost filter tubes. The erosion controls will be installed along the Limit-of-Work line encapsulating the development along the southern and portions of the eastern and western property boundaries. All barriers will remain in place until work is complete and any exposed soil is stabilized by vegetation. The location of the proposed erosion controls is shown on the *Plan* (Appendix B).

6.2

Compensatory Flood Storage

Project Engineer Al Gala of Gala Simon Associates, Inc., has designed the project to provide a >2:1 ratio of proposed flood storage compared to existing flood storage, as provided on the Flood Storage Calculations section of the *Plan*. Work is proposed within BLSF between elevations 5.5 and 7. Under existing conditions, 508 cubic feet of flood storage are available between these elevations (15 cubic feet between elevations 5.5 and 6.0; and 493 cubic feet between elevations 6.0 and 7.0). Under proposed conditions, 1,200 cubic feet of flood storage will be available (152 cubic feet between elevations 5.5 and 6.0; and 1,048 cubic feet between elevations 6.0 and 7.0). The proposed design results in an overall 2.3:1 ratio of proposed flood storage to existing flood storage.

7.

Regulatory Performance Standards

The *Act Regulations* and *Bylaw Regulations* provide specific performance standards for work within BLSF. Citations of the pertinent performance standards are provided below, along with a description of how the project meets these standards.

7.1

Bordering Land Subject to Flooding Performance Standards

The *Act Regulations* at 310 CMR 10.57 (4) state that *work within BLSF shall conform to the following criteria:*

(a) *Bordering Land Subject to Flooding*

- (1) *Compensatory storage shall be provided for all flood storage volume that will be lost as a result of the proposed work.*

The project will result in a 2.3:1 increase of flood storage volume compared to existing conditions, as depicted in the Flood Storage Calculations section of the *Plan*.

- (2) *Work within BLSF...shall not restrict flows so as to cause an increase in flood stage or velocity.*

No flow restrictions or increase in flood stage or velocity will result as part of the proposed project.

- (3) *within BLSF shall not impair its capacity to provide important wildlife habitat functions.*

According to the BLSF Preamble at 310 CMR 10.57 (1) (a) 3:

Certain portions of Bordering Land Subject to Flooding are also likely to be significant to the protection of wildlife habitat. These include all areas on the ten year floodplain or within 100 feet of the bank or bordering vegetated wetland (whichever is further from the water body or waterway, so long as such area is contained within the 100 year floodplain), and all vernal pool habitat on the 100 year floodplain, except for those portions of which have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated (such "altered" areas include paved and graveled areas, golf courses, cemeteries, playgrounds, landfills, fairgrounds, quarries, gravel pits, buildings, lawns, gardens, roadways (including median strips, areas enclosed within highway interchanges, shoulders, and embankments), railroad tracks (including ballast and embankments), and similar areas lawfully existing on November 1, 1987 and maintained as such since that time).

The portion of land located within BLSF is "altered" and is therefore not significant to the protection of wildlife habitat.

(b) Protection of Rare Wildlife Species

(1) Notwithstanding the provisions of 310 CMR 10.57(4)(a) or (b), no project may be permitted which will have any adverse effect on specified wildlife habitat sites of rare vertebrate or invertebrate species.

The site is not located within Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species (see section 2.1, above).

7.2

Bylaw Performance Standards for Work within the Floodplain

Section 23 D. of the *Bylaw Regulations* states: *The Commission may permit activity on land subject to flooding provided it shall not result in the following:*

(1) Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area.

The project has been designed to provide more compensatory flood storage than currently exists, and will not result in any increased lateral displacement of water.

(2) Adverse effect on public and private water supply or groundwater supply, where said area is underlain by pervious material.

- (2) *Adverse effect on public and private water supply or groundwater supply, where said area is underlain by pervious material.*

The project will not result in any increase in pollutants that could otherwise potentially result in an adverse effect on public or private water supply or groundwater supply.

- (3) *An adverse effect on the capacity of said area to prevent pollution of the groundwater, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck.*

LEC did not observe any such conditions within or near the subject property.

7.3

BLSF Climate Change Impacts

The Bylaw Regulations (Section 23 D.) also state that the applicant shall take into consideration the impacts of climate change on the activities proposed on land subject to flooding, especially in terms of the compensatory flood storage as a climate change resilience strategy. Any such activity shall provide compensatory flood storage for all flood storage volume that will be lost at each elevation. Compensatory flood storage shall be at a 2:1 ratio, minimum, for each unit volume of flood storage lost at each elevation.

As described above in Section 6.2 of this NOI Report, Project Engineer Al Gala of Gala Simon Associates, Inc., has designed the project to provide a >2:1 ratio of proposed flood storage compared to existing flood storage, as provided on the Flood Storage Calculations section of the *Plan*. Work is proposed within BLSF between elevations 5.5 and 7. Under existing conditions, 508 cubic feet of flood storage are available between these elevations (15 cubic feet between elevations 5.5 and 6.0; and 493 cubic feet between elevations 6.0 and 7.0). Under proposed conditions, 1,200 cubic feet of flood storage will be available (152 cubic feet between elevations 5.5 and 6.0; and 1,048 cubic feet between elevations 6.0 and 7.0). The proposed design results in a >2:1 ratio of proposed flood storage and existing flood storage for each incremental elevation, and an overall 2.3:1 ratio of proposed flood storage to existing flood storage.

8. Summary

On behalf of the Applicant, Home Helpers Real Estate, LLC, (contact: Christopher Manley), LEC is filing this NOI Application with the Arlington Conservation Commission to refurbish an existing multi-family dwelling at 88-90 Varnum Street. Proposed activities include: adding a dormer within the existing roofline; demolishing a garage, and extending off-street parking; removal and re-grading of existing paved areas; installation of porous paver patios and walkways; and in-kind replacement of footings associated with a third story wooden deck. Portions of the proposed activities will occur within BLSF, as jurisdictional under the *Act*, the *Act Regulations*, the *Bylaw*, and the *Bylaw Regulations*.

In an effort to mitigate for the proposed activities, the Applicant proposes to implement mitigation measures, including erosion controls to protect the adjacent properties during construction, compensatory flood storage at a 2.3:1 ratio which exceeds the requirements enumerated in the *Act Regulations* and the *Bylaw Regulations*, and an overall reduction of impervious area by 761± square feet. The project, including the proposed mitigating measures, meets the performance standards enumerated in the *Act*, the *Act Regulations*, the *Bylaw*, and all but one of the *Bylaw Regulations*, and the Applicant requests that the Commission issue an Order of Conditions approving the project as proposed herein.

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

Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00)

Massachusetts Endangered Species Act (M.G.L. c. 131A)

Massachusetts Endangered Species Act Regulations (321 CMR 10.00)

Massachusetts Natural Heritage and Endangered Species Program Atlas of Estimated Habitat of State-listed Rare Wetlands Wildlife. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Route 135, Westborough, MA 01581, www.state.ma.us/dfwele/dfw

Massachusetts Department of Environmental Protection, Division of Wetlands and Waterways 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act, A Handbook*. 89 pp.

National Flood Insurance Program, Federal Emergency Management Agency Flood Insurance Rate Map, Middlesex County, Massachusetts, Middlesex County, June 4, 2010.

New England Hydric Soils Technical Committee. June 2018, 4th ed., *Field Indicators for Identifying Hydric Soils in New England*

Reed, P.B. 1988. *National List of Plant Species that Occur in Wetlands: 1988 Massachusetts*. U.S. Department of the Interior, Fish and Wildlife Service. NERC-88/18.21

Town of Arlington, Massachusetts. Arlington Conservation Commission. *Town of Arlington Wetlands Protection Bylaw* (Article 8).

Town of Arlington, Massachusetts. Arlington Conservation Commission. *Regulations Pursuant to the Town of Arlington Regulations for Wetlands Protection*, March 1, 2018.

Appendix A

Locus Maps

Figure 1: USGS Topographic Quadrangle

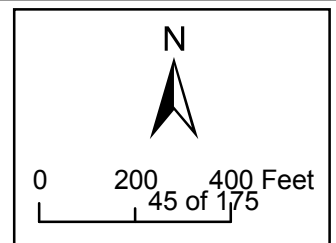
Figure 2: FEMA Flood Insurance Rate Map

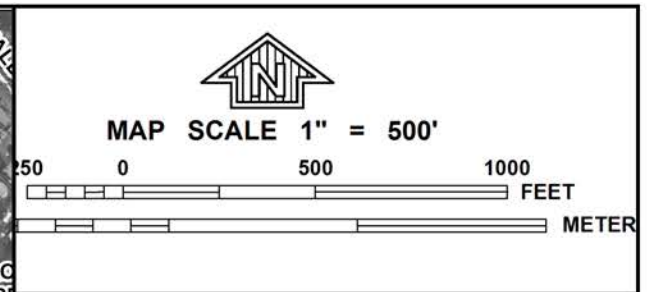
Figure 3: MassGIS Orthophoto & NHESP Estimated Habitat Map



Figure 1: USGS Topographic Map
88-90 Varnum Street
Arlington, MA

March 13, 2019





NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0419E

FIRM

FLOOD INSURANCE RATE MAP

MIDDLESEX COUNTY,
MASSACHUSETTS
(ALL JURISDICTIONS)

PANEL 419 OF 656

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARLINGTON, TOWN OF	250177	0419	E
BELMONT, TOWN OF	250182	0419	E
CAMBRIDGE, CITY OF	250186	0419	E
SOMERVILLE, CITY OF	250214	0419	E
WATERTOWN, TOWN OF	250223	0419	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
25017C0419E

EFFECTIVE DATE
JUNE 4, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Figure 2: FEMA Flood Insurance Rate Map

LEGEND



SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



ZONE X

OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



ZONE X

OTHER AREAS

Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D

Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS



OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.



1% annual chance floodplain boundary



0.2% annual chance floodplain boundary



Floodway boundary



Zone D boundary



CBRS and OPA boundary



Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.



Base Flood Elevation line and value; elevation in feet*

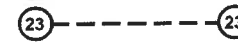
(EL 987)

Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988



Cross section line



Transect line

87°07'45", 32°22'30"

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

2476000mN

1000-meter Universal Transverse Mercator grid values, zone 19

600000 FT

5000-foot grid values: Massachusetts State Plane coordinate system, Mainland zone (FIPZONE 2001), Lambert Conformal Conic projection

DX5510 x

Bench mark (see explanation in Notes to Users section of this FIRM panel)

● M1.5

River Mile

MAP REPOSITORY

Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP

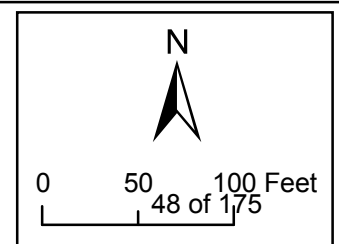
June 4, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



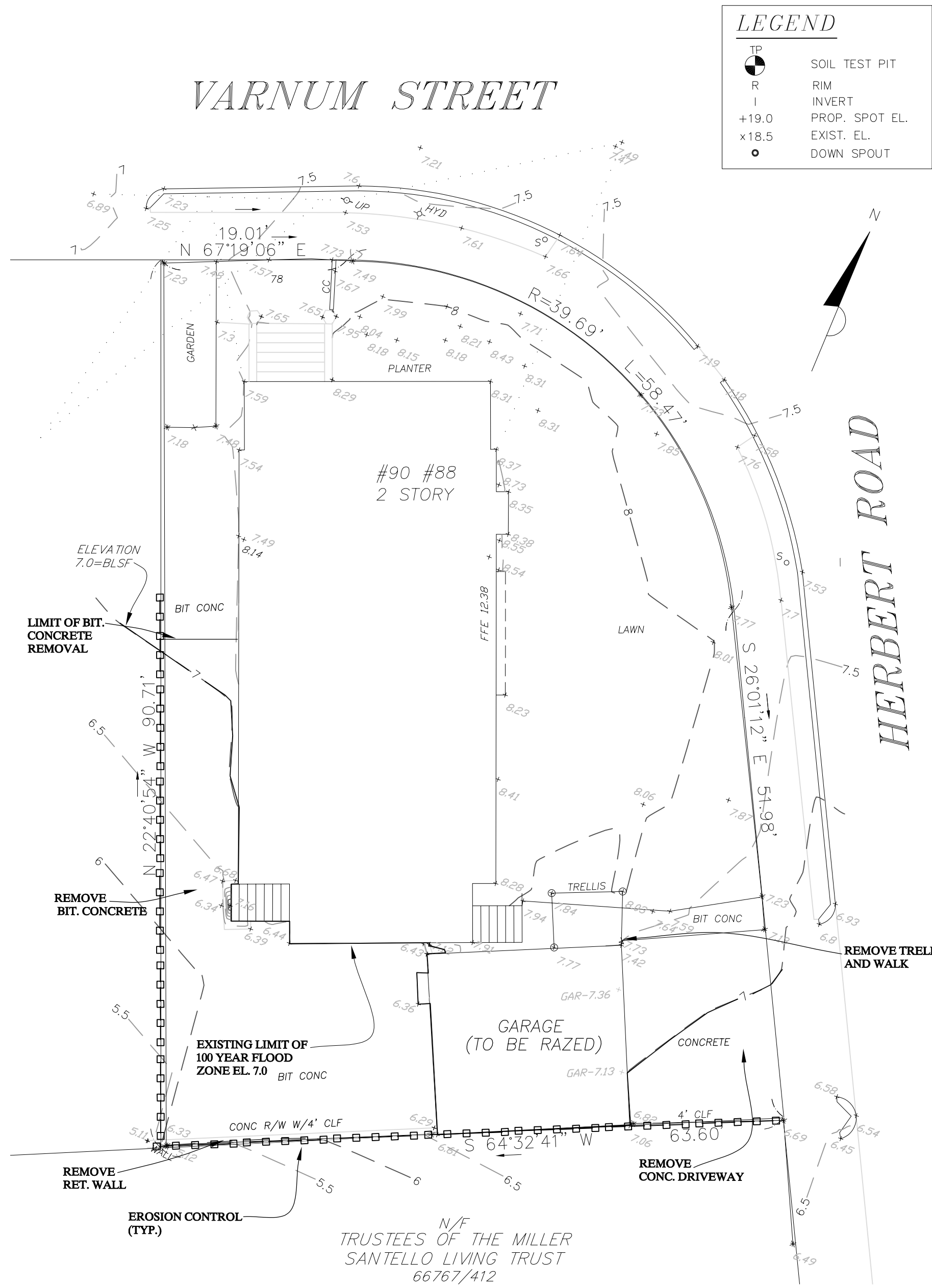
Figure 3: MassGIS Orthophoto
88-90 Varnum Street
Arlington, MA

March 13, 2019

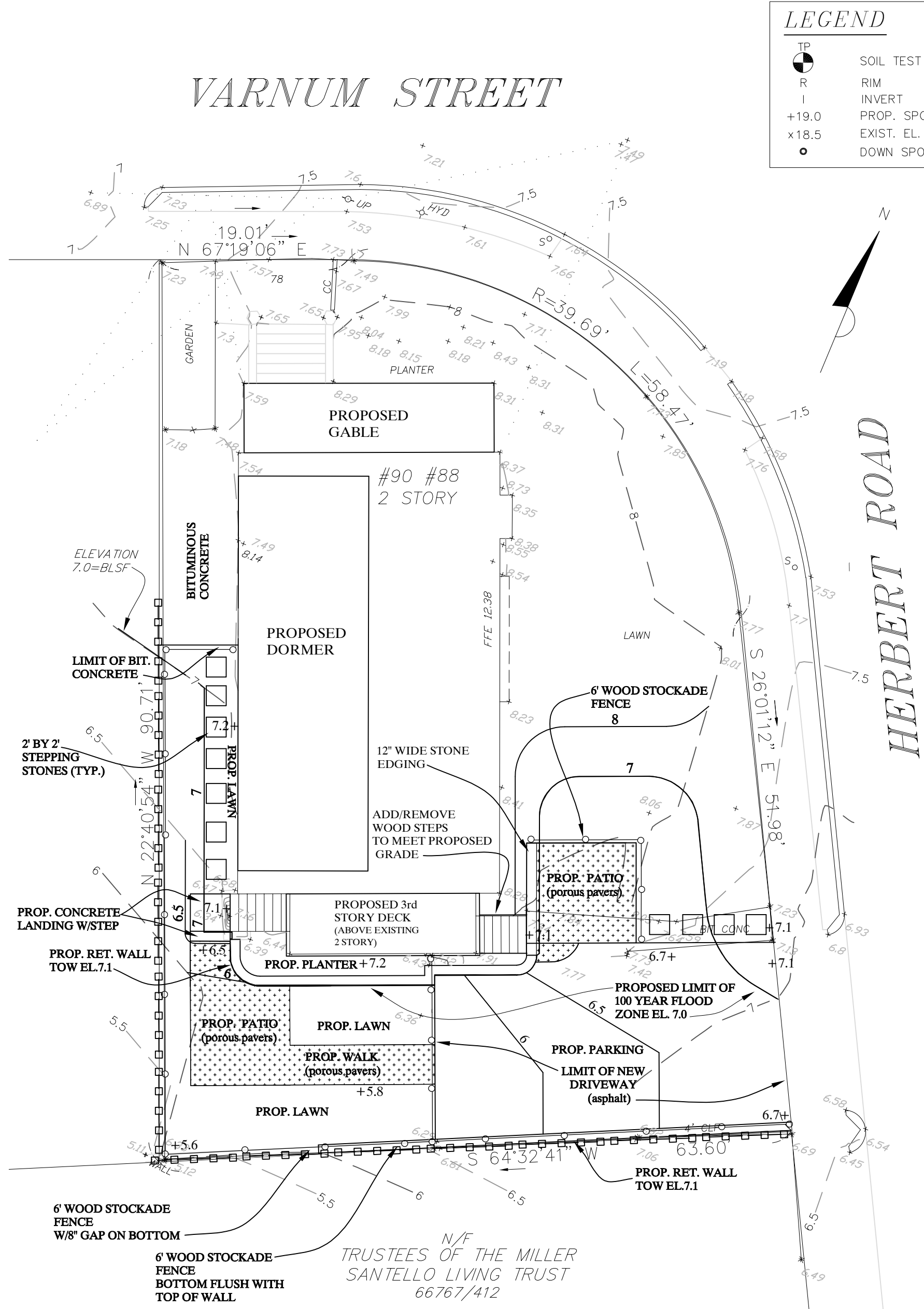


Appendix B

Site Grading Plan, dated April 9, 2019, prepared by Gala Simon Associates, Inc.



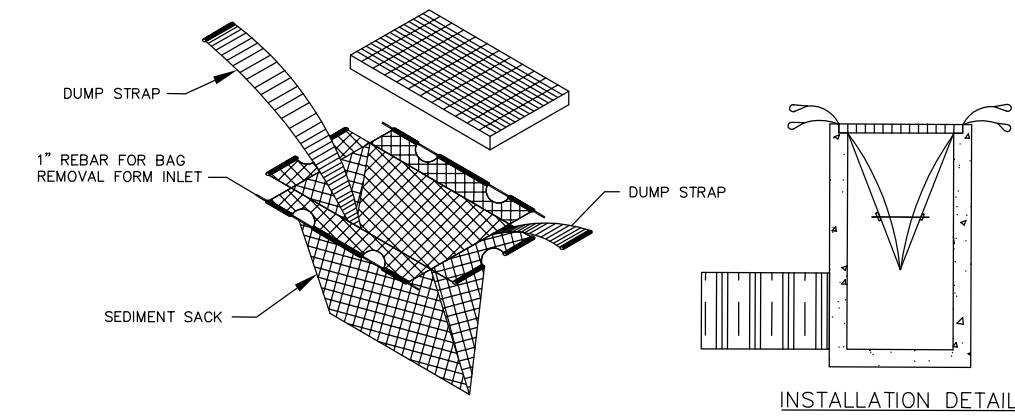
EXISTING CONDITIONS
SCALE: 1" = 10'



PROPOSED CONDITIONS
SCALE: 1" = 10'

LAYOUT & GRADING NOTES

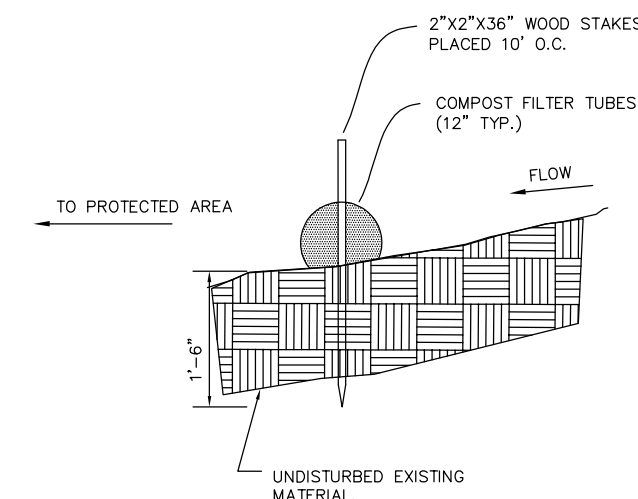
- CONSULT ALL DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BETWEEN ALL TRADES PRIOR TO COMMENCING NEW CONSTRUCTION.
- LOCATION OF EXISTING UTILITIES SHOWN ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL CONTACT THE PROPER AUTHORITIES IN WRITING TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE INCURRED DURING CONSTRUCTION TO ANY UTILITY SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR TO REFER TO A PROFESSIONAL LAND SURVEYOR FOR ACCURATE OFFSETS TO TO PROPERTY LINE.



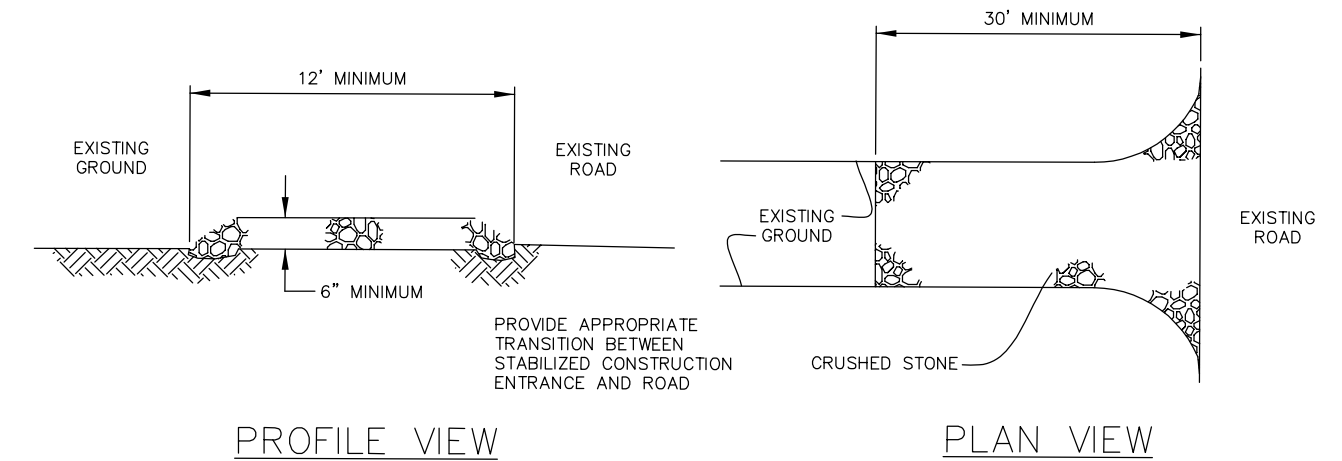
- NOTES:
- SOME MUNICIPALITIES DO NOT ALLOW GUTTER PROTECTION ON PUBLIC ROADS. SILT BAGS SHOULD BE USED WITH THESE CASES.
 - BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

2 SILT SACK C-0 SCALE: NTS

Note: To be installed at nearest downstream catch basin grate.



3 EROSION CONTROL C-0 SCALE: NTS



PROFILE VIEW

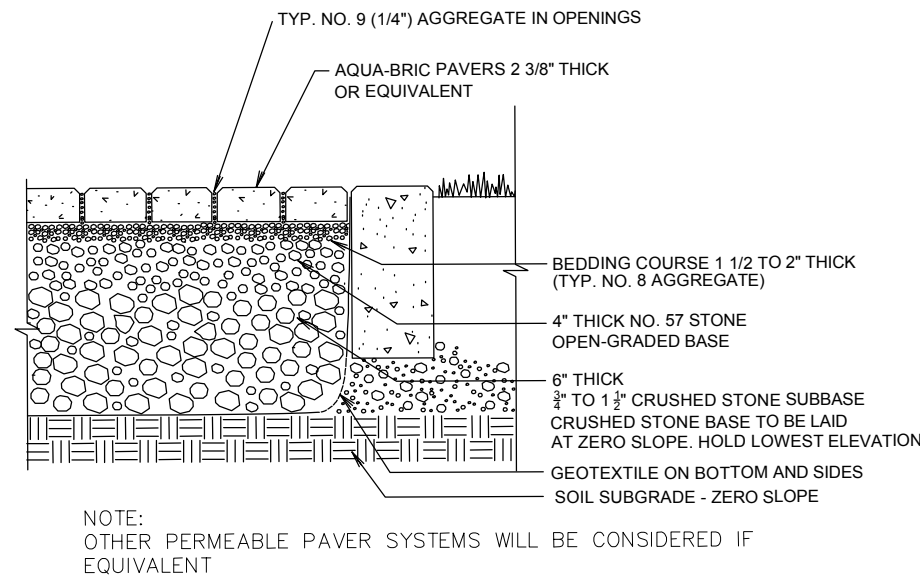
PLAN VIEW

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.

4 STABILIZED CONSTRUCTION ENTRANCE C-0 SCALE: NTS

UTILITY NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BEFORE PROCEEDING WITH THE WORK. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATERGATES, ETC. AND COMPILED FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, ALL UTILITY COMPANIES OR AGENCIES PRIOR TO ANY EXCAVATION WORK. CALL DIGSAFE AT 1-888-344-7233.



NOTE: OTHER PERMEABLE PAVER SYSTEMS WILL BE CONSIDERED IF EQUIVALENT

1 POROUS PAVER SECTION C-0 SCALE: NTS

Existing Flood Storage			Proposed Flood Storage		
El.	Area (s.f.)	Volume (c.f.)	El.	Area (s.f.)	Volume (c.f.)
5.5	4	15	5.5	4	152
6.0	56	493	6.0	607	1048
7.0	929		7.0	1490	
Total Storage Volume: 508			Total Storage Volume: 1200		

FLOOD STORAGE CALCULATIONS

Note: for calculations purposes, the area below the deck was calculated as solid.

RUNOFF SURFACE	EXISTING (SF)	PROPOSED (SF)	Δ
ROOFS/DRIVEWAY/WALKS/GARAGE	3380	2619	-761

PRE VS. POST IMPERVIOUS AREAS

DRAINAGE NOTES:

- CONTRACTOR IS RESPONSIBLE FOR THE VERTICAL AND HORIZONTAL CONTROLS OF THE PROJECT.
- INSTALLATION OF OF ALL DRAINAGE COMPONENTS IS TO BE PERFORMED ACCORDING TO RECOMMENDATIONS FROM THE MANUFACTURER.

GENERAL NOTES

- EXISTING CONDITIONS SURVEY INFORMATION OBTAINED FROM ROBER SURVEY, INC. ARLINGTON, MA. OWNER/CLIENT ASSUMES ALL RESPONSIBILITY FOR SOURCES AND AUTHORIZATION TO USE ELECTRONIC AND RECORD FILES.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING INFORMATION ON THE GROUND AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER IMMEDIATELY FOR A DECISION PRIOR TO CONSTRUCTION.
- ALL AREAS OUTSIDE OF THE LIMIT OF WORK LINES SHALL NOT BE DISTURBED IN ANY MANNER BY THE CONTRACT OPERATIONS. THE CONTRACTOR SHALL KEEP OUT OF THESE AREAS AND PRESERVE THEIR EXISTING CHARACTER.
- INSTALL TEMPORARY EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION FOR APPROVAL BY THE DESIGN ENGINEER.
- PROVIDE SMOOTH TRANSITION AT CHANGES IN GRADE EXCEPT AS INDICATED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITY LINES; ACTIVE OR NOT, AND SHALL MAINTAIN A CLOSE AND CONSTANT CONTACT WITH ALL UTILITY COMPANIES INVOLVED. CALL DIG-SAFE 888-344-7233
- ALL ELEVATIONS ARE REFERENCED TO AN NAVD88 DATUM.
- CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS, PERMITTING, AND LICENSES ISSUED AT THE FEDERAL, STATE AND LOCAL AGENCIES.
- CONTRACTOR SHALL COORDINATE ALL SITE UTILITY IMPROVEMENTS WITH THE TOWN OF ARLINGTON AND MWRA OFFICIALS.
- ENGINEER IS TO BE CONTACTED BY CONTRACTOR TO PERFORM AS BUILT MEASUREMENTS.
- OWNER/DEVELOPER IS TO COMPLY WITH ALL OF MASSACHUSETTS DEP SITE DEVELOPMENT REGULATIONS.
- ROADWAY IS TO BE SWEEP, OR OTHERWISE CLEANED OF DEBRIS AND SEDIMENT, AT THE END OF EACH WORKDAY.
- CONTRACTOR IS TO COORDINATE INSPECTIONS OF THE POROUS PAVEMENT SYSTEMS WITH THE TOWN OF ARLINGTON ENGINEERING DIVISION. ONE INSPECTION WILL BE REQUIRED FOR THE BOTTOM OF THE BED AND ANOTHER AFTER INSTALLATION. ENGINEERING DIVISION REQUIRES 24 HOURS ADVANCE NOTICE.
- SITE GRADING SHALL NOT DIRECT CONCENTRATED STORMWATER RUNOFF ONTO ADJUTING PROPERTIES.
- ANY PROPOSED AND/OR FUTURE SUMP PUMP INSTALLATION SHOULD NOT BE DISCHARGED TOWARDS THE PUBLIC WAY.
- THE TOWN OF ARLINGTON IS NOT A MEMBER OF DIGSAFE. THE CONTRACTOR, IN ADDITION TO CALLING DIGSAFE, MUST ALSO CONTACT THE TOWN OF ARLINGTON WATER AND SEWER DIVISION (781-316-3301 OR 781-316-3310) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATIONS.
- CONTRACTOR IS TO VERIFY ARCHITECTURAL PLANS.

Gala Simon Associates Inc.
394 LOWELL STREET, SUITE 18
LEXINGTON, MA 02420
Tel: (781) 676-2962
www.gsadesign.com

GSA
Civil Engineers

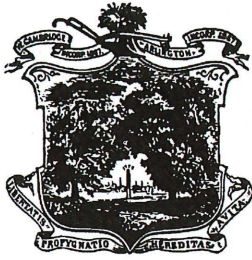
SITE GRADING PLAN

88 - 90 VARNUM STREET ARLINGTON, MASSACHUSETTS

Job No. 1904	Date: 04/09/19
Drawn By: AG	Scale: AS SHOWN
Rev#	Date: Description:



C-0



TOWN OF ARLINGTON

730 Massachusetts Ave.
Arlington, MA 02476
781-316-3012

ARLINGTON CONSERVATION COMMISSION

CERTIFIED MAIL DELIVERY

April 30, 2019

Christopher Manley
Home Helpers Real Estate, LLC
1 Great Meadow Road
Newbury, MA 01922

RE: Order of Conditions for 88-90 Varnum Street - DEP File Number 091-0307

Enclosed is the original Order of Conditions permit for the above-referenced project, issued pursuant to the Wetlands Protection Act, GL c. 131, § 40, and the Arlington Bylaw for Wetland Protection, Title V, Article 8.

No work on the project may begin until ALL of the following requirements have been satisfied:

- ☐ You have signed and returned to this office the attached Certificate of Understanding.
- ☐ The 10-business day appeal period has elapsed. The appeal period begins on the date of issuance of the Order.
- ☐ You have had the original Order recorded at the Middlesex South Registry of Deeds and the receipt forwarded to the Conservation Commission. The Order is not valid until properly recorded.
- ☐ The DEP file number sign has been erected at the project entrance (as specified in the General Conditions).
- ☐ You have read and understand the enclosed Order of Conditions. Compliance with all conditions and the approved plans is the responsibility of the applicant. Deviation from the approved plans may result in a stop work order or further enforcement, as well as the inability to obtain a Certificate of Compliance.
- ☐ You have conducted a "pre-construction site visit" with the Conservation Administrator, installed erosion controls, submitted in writing the names and telephone numbers of the parties responsible for the work (such as the general contractor, erosion control monitor, field engineer, and wetland scientist), and submitted a schedule of construction, as applicable.
- ☐ Please note that there may be other specific requirements in your Order of Conditions, which may be required for your site. Please be sure to read the whole Order. It is your responsibility to comply with all aspects of the Order.

Upon completion of the project, you must submit:

- ☐ A "Request for a Certificate of Compliance" (state WPA form 8a) and
- ☐ An engineer-stamped and signed "as-built plan" to the Conservation Commission stating that all conditions have been satisfactorily completed in compliance with the plans and the Order.

Once received, your Certificate of Compliance must be recorded at the Middlesex South Registry of Deeds, and the receipt sent to the Conservation Office (as per the Wetlands Protection Regulations).

Please contact our office with any questions at 781-316-3012 or email esullivan@town.arlington.ma.us.

Thank you,



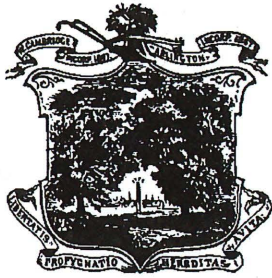
Emily Sullivan
Environmental Planner & Conservation Agent

Enclosures: Order of Conditions
Certificate of Understanding

cc: file, DEP-NERO, Richard Kirby

Received by

Date



TOWN OF ARLINGTON

730 Massachusetts Ave.
Arlington, MA 02476
781-316-3012

ARLINGTON CONSERVATION COMMISSION

CERTIFICATE OF UNDERSTANDING

RE: 88-90 Varnum Street Order of Conditions

Street Address: 88-90 Varnum Street

DEP File No: 091-0307

Owner: Christopher Manley

Issue Date: April 30, 2019

I, _____, owner of _____, Arlington, Massachusetts, do hereby acknowledge and understand that:

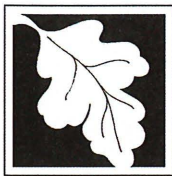
<ul style="list-style-type: none">• All or some of my property lies within wetland resource areas such that any new work within this area is subject to review and approval by the Conservation Commission;	_____ Initials
<ul style="list-style-type: none">• I, as property owner, am responsible for all work on my property even if it is conducted by contractors;	_____ Initials
<ul style="list-style-type: none">• I have received, read and understand all the general and special conditions contained in the referenced Order of Conditions;	_____ Initials
<ul style="list-style-type: none">• There are specific requirements PRIOR to the start of work which I agree to follow;	_____ Initials
<ul style="list-style-type: none">• There are specific requirements DURING construction and work which I agree to follow;	_____ Initials
<ul style="list-style-type: none">• There are specific requirements for getting a Certificate of Compliance once all permitted work is completed; and	_____ Initials
<ul style="list-style-type: none">• There are a number of ongoing/perpetual conditions that restrict maintenance activities allowed within wetland resource areas and/or buffer zones.	_____ Initials

I have carefully reviewed and understand all of these requirements and agree to adhere to them.

Signature

Printed Name

Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

A. General Information

Please note:
this form has
been modified
with added
space to
accommodate
the Registry
of Deeds
Requirements

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

1. From: Arlington
Conservation Commission

2. This issuance is for
(check one): a. ☒ Order of Conditions b. ☐ Amended Order of Conditions

3. To: Applicant:

Christopher

a. First Name

Manley

b. Last Name

Home Helpers Real Estate, LLC

c. Organization

1 Great Meadow Road

d. Mailing Address

Newbury

e. City/Town

MA

f. State

01922

g. Zip Code

4. Property Owner (if different from applicant):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

5. Project Location:

88-90 Varum Street

a. Street Address

Arlington

b. City/Town

Parcel ID: 4-5-12

c. Assessors Map/Plat Number

d. Parcel/Lot Number

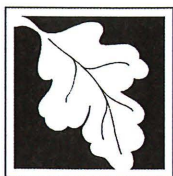
Latitude and Longitude, if known:

42.401474 N

d m s

-71.142696 W

d m s



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Middlesex South

n/a

a. County

b. Certificate Number (if registered land)

71983

246

c. Book

d. Page

7. Dates:

4/11/2019

4/25/2019

4/30/2019

a. Date Notice of Intent Filed

b. Date Public Hearing Closed

c. Date of Issuance

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Site Grading Plan: 88-90 Varnum Street

a. Plan Title

Gala Simon Associates Inc

Alberto M. Gala

b. Prepared By

c. Signed and Stamped by

4/9/2019

1"=10'

d. Final Revision Date

e. Scale

See attached

f. Additional Plan or Document Title

g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

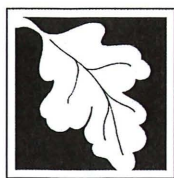
Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

- a. ☐ Public Water Supply b. ☐ Land Containing Shellfish c. ☐ Prevention of Pollution
d. ☐ Private Water Supply e. ☐ Fisheries f. ☐ Protection of Wildlife Habitat
g. ☐ Groundwater Supply h. ☒ Storm Damage Prevention i. ☒ Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

- a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

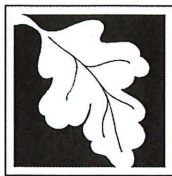
B. Findings (cont.)

Denied because:

- b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**
3. ☐ Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) a. linear feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	<u> </u> a. linear feet	<u> </u> b. linear feet	<u> </u> c. linear feet	<u> </u> d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
	<u> </u> e. c/y dredged	<u> </u> f. c/y dredged		
7. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	<u>989</u> a. square feet	<u>989</u> b. square feet	<u>2,101</u> c. square feet	<u>2,101</u> d. square feet
Cubic Feet Flood Storage	<u>508</u> e. cubic feet	<u>508</u> f. cubic feet	<u>1,200</u> g. cubic feet	<u>1,200</u> h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	<u> </u> a. square feet	<u> </u> b. square feet		
Cubic Feet Flood Storage	<u> </u> c. cubic feet	<u> </u> d. cubic feet	<u> </u> e. cubic feet	<u> </u> f. cubic feet
9. <input type="checkbox"/> Riverfront Area	<u> </u> a. total sq. feet	<u> </u> b. total sq. feet		
Sq ft within 100 ft	<u> </u> c. square feet	<u> </u> d. square feet	<u> </u> e. square feet	<u> </u> f. square feet
Sq ft between 100-200 ft	<u> </u> g. square feet	<u> </u> h. square feet	<u> </u> i. square feet	<u> </u> j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

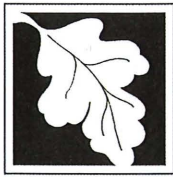
Arlington

City/Town

B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. nourishment cu yd	d. nourishment cu yd
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. nourishment cu yd	d. nourishment cu yd
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20. <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			
	a. c/y dredged	b. c/y dredged		
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		
22. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

B. Findings (cont.)

* #23. 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.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

23. ☐ Restoration/Enhancement *:

a. square feet of BVW

b. square feet of salt marsh

24. ☐ Stream Crossing(s):

a. number of new stream crossings

b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. The work is a maintenance dredging project as provided for in the Act; or
 - b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 4/30/2022 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been 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 upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]
"File Number 091-0307 "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
19. The work associated with this Order (the "Project")
- (1) ☐ is subject to the Massachusetts Stormwater Standards
- (2) ☒ is NOT subject to the Massachusetts Stormwater Standards

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
- i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
- ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
- iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



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

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

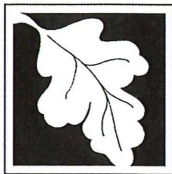
i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

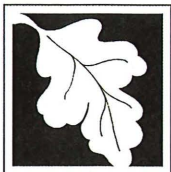
C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See attached Findings and Conditions

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? ☒ Yes ☐ No
2. The Arlington hereby finds (check one that applies):
Conservation Commission

- a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw

2. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b. ☒ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

Arlington Bylaw for Wetlands Protection

Title V, Art 8

1. Municipal Ordinance or Bylaw

2. Citation

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

See attached Findings and Conditions



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

~~091-0307~~

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

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

This Order must be signed by a majority of the Conservation Commission.

The Order must be mailed 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 Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

☐ by hand delivery on

☒ by certified mail, return receipt requested, on

Date

Date

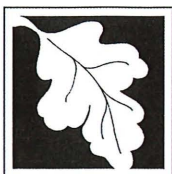
4/30/2019

F. 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 MassDEP Regional Office to issue a Superseding Order of Conditions. 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 associated with this appeal 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 providing written information to the Department prior to issuance of a Superseding Order.

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 ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File #

091-0307

eDEP Transaction #

Arlington

City/Town

G. Recording Information

Prior to commencement of work, this Order of Conditions 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 Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Arlington

Conservation Commission

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

To:

Arlington

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

88-90 Varnum Street

Project Location

091-0307

MassDEP File Number

Has been recorded at the Registry of Deeds of:

Middlesex South

County

71983

Book

246

Page

for:

Christopher Manley

Property Owner

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

Book

Page

In accordance with the Order of Conditions 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

ARLINGTON CONSERVATION COMMISSION
APPROVAL ORDER OF CONDITIONS 88-90 VARNUM STREET
DEP FILE NO. 091-0307

DOCUMENTS REVIEWED

1. Notice of Intent for 88-90 Varnum Street, prepared by Richard Kirby of LEC Environmental Consultants, Inc., for the Applicant: Christopher Manley, dated April 11, 2019.
2. USGS Topographic Map, 88-90 Varnum Street, prepared by LEC Environmental Consultants, Inc., dated March 13, 2019.
3. FEMA Flood Insurance Rate Map, 88-90 Varnum Street, dated June 4, 2010.
4. MassGIS Orthophoto and NHESP Estimated Habitat Map, 88-90 Varnum Street, prepared by LEC Environmental Consultants, Inc., dated March 13, 2019.
5. Site Grading Plan: 88-90 Varnum Street, prepares by Gala Simon Associates, Inc., stamped by Alberto M. Gala, P.E., dated April 9, 2019.

PROCEDURAL SUMMARY

The Conservation Commission held a public hearing on the Notice of Intent on April 25, 2019. The Commission closed the hearing on April 25, 2019, deliberated and voted 7-0 to approve the Project with conditions under the Wetlands Protection Act (the "Act") and voted 7-0 to approve the Project with conditions under the Arlington Wetlands Protection Bylaw (the "Bylaw").

FINDINGS OF FACT AND LAW
UNDER ARLINGTON WETLANDS PROTECTION BYLAW
AND WETLANDS PROTECTION ACT

- A. The 5,020± square foot property is located off the south side of Varnum Street, west of Herbert Road, and north of Magnolia Park within the southeastern portion of Arlington, MA. The property contains a two-story, multi-family dwelling unit with a detached, two-car garage. A concrete driveway extending from Herbert Road creates access to the garage. Topography within the property is generally flat, with a gentle grade descending southerly, with an elevation gradient of roughly 3-feet.
- B. The Project as approved involves refurbishing an existing multi-family dwelling unity, including: adding a dormer within the existing roofline, demolishing a large garage and extending off-street parking, removing and regrading existing paved areas, installing a porous paver patio and walkways, and replacement of footings associated with a third-story wooden deck. Mitigation measures for this project include installing erosion control measures, creating compensatory flood storage, and reducing the total amount of impervious surface on the site.

ARLINGTON CONSERVATION COMMISSION
APPROVAL ORDER OF CONDITIONS 88-90 VARNUM STREET
DEP FILE NO. 091-0307

- C. The approved project reduces impervious surface by approximately 761 square feet. The site currently has approximately 508 cubic feet of flood storage. The approved project will provide approximately 1,200 cubic feet of flood storage, resulting in an over 2.3:1 ratio of proposed to existing flood storage.
- D. LEC conducted a site evaluation of the property on December 12, 2018. The Wetland Resource Area associated with the site is limited to Bordering Land Subject to Flooding (BLSF). According to the June 4, 2010 FEMA Flood Insurance Rate Map for Middlesex County, MA (Map: 25017C0419E), the property is located within Flood Zone AE. According to FEMA, Zone AE occurs at Elevation 7 contour. The southern half of the property is located at or below Elevation 7, which intercepts a portion of the existing foundation. All land occurring at or below Elevation 7 is jurisdictional as BLSF.
- E. The Commission finds the project meets the performance standards for the aforementioned Resource Areas due to the mitigation measures including compensatory flood storage and reduction of impervious surface.
- F. Based on the testimony at the public hearing, and review of the application materials and the documents listed above submitted during the public hearing, the Commission concludes that the proposed Project will not alter Resource Areas under the Act and Bylaw, the work as conditioned will not have significant or cumulative effects upon the interests of the Wetlands Protection Act or the Resource Area values of the Arlington Wetlands Bylaw when the conditions imposed are implemented to protect the Resource Area values. With the conditions contained herein, the Project meets the performance standards in the Bylaw Regulations and state Wetlands Regulations, 310 CMR 10.00.

Additional Special Conditions

In addition to the General Conditions (numbered 1 – 20 above), the Project is subject to the following Additional Special Conditions (under both the Act and Bylaw):

Pre-Construction

- 21. Work permitted by this Order and Permit shall conform to the Notice of Intent, the approved plans and documents (listed above), and oral representations (as recorded in hearing minutes) submitted or made by the Applicant and the Applicant's agents or representatives, as well as any plans and other data, information or representations submitted per these Conditions and approved by the Commission.
- 22. The provisions of this Order and Permit shall apply to and be binding upon the Applicant and Applicant's assignees, tenants, property management company, employees, contractors, and agents.
- 23. No work shall begin under this Order until: (a) all other required permits or approvals have been obtained and (b) the appeal period of ten (10) business days from the date of issue of this Order has expired without any appeal being filed, and (c) this Order has been recorded in the Registry of Deeds. No work shall be started under this Permit until all other necessary permits or approvals have been obtained.

ARLINGTON CONSERVATION COMMISSION
APPROVAL ORDER OF CONDITIONS 88-90 VARNUM STREET
DEP FILE NO. 091-0307

24. The Applicant shall ensure that a copy of this Order of Conditions and Permit for work, with any referenced plans, is available on site at all times, and that contractors, site managers, foremen, and sub-contractors understand its provisions.
25. Prior to starting work, the Applicant shall submit to the Commission the names and 24-hour phone numbers of project managers or the persons responsible for site work or mitigation.
26. Before work begins, erosion and sediment controls shall be installed at the limits of the work area, as shown on the project plans. These will include a silt fence and 12 inch straw or silt wattle around the entire work area (hay bales are not allowed and silt socks are preferred).
27. The contractor shall contact the Conservation Agent (concomm@town.arlington.ma.us ; 781-316-3012) to arrange for a pre-construction meeting with the on-site project manager to walk through the Order of Conditions and to confirm the installation and placement of erosion controls prior to the start of any grading or construction work.
28. The contractor shall provide written Notice of the work start date to the Conservation Agent 48 hours prior to start of work.
29. The Commission, its employees, and its agents shall have the right of entry onto the site to inspect for compliance with the terms of this Order of Conditions and Permit until a Certificate of Compliance has been issued.

Post-Construction

30. When requesting a Certificate of Compliance for this Order of Conditions, the Applicant must submit a written statement from a Massachusetts professional engineer, registered land surveyor, or registered landscape architect certifying that the completed work complies with the plans referenced in this Order, or provide an as-built plan and statement describing any differences.

Dumpsters

31. All dumpsters must be covered at the end of each work day.

Stockpiling

32. Stockpiling shall occur only where noted on approved plans.

Erosion

33. Areas that are disturbed by construction and access activities shall as soon as possible be brought to final grade and reseeded and restabilized, and shall be done so prior to the removal of the erosion control barrier. Erosion control measures shall be installed per the approved plans. Construction entrances shall be used and maintained only where noted on approved plans.

Sweeping

34. Any dirt or debris spilled or tracked onto any paved streets shall be swept up and removed daily.

Dewatering

35. Any dewatering operations shall conform to the following:
 - (a) Notify the Conservation Commission that dewatering is required.

ARLINGTON CONSERVATION COMMISSION
APPROVAL ORDER OF CONDITIONS 88-90 VARNUM STREET
DEP FILE NO. 091-0307

- (b) Any catch basins, drains, and outfalls to be used in dewatering operations shall be cleaned out before operations begin.
- (c) Any water discharged as part of any dewatering operation shall be passed through filters, on-site settling basins, settling tank trucks, or other devices to ensure that no observable sediments or pollutants are carried into any Resource Area, street, drain, or adjacent property.
- (d) Measures shall be taken to ensure that no erosion or scouring shall occur on public or private property, or on the banks or bottoms of water bodies, as a result of dewatering operations.
- (e) Dewatering shall occur only where noted on approved plans.

Plantings

- 36. The Applicant shall protect all area trees per the Town Wetlands Protection Regulations, Section 24 Vegetation Removal and Replacement, protecting trees through securing (not nailing) 2x4 boards, between 6-8 feet in length, around tree base. The boards shall be installed vertically such that one end is installed directly into the ground.

Chemicals

- 37. To avoid adding excess nitrogen runoff, the Applicant shall only treat the lawn area with slow release nitrogen fertilizer. Application of this fertilizer cannot occur in the summer, or after storm events. Lawn fertilizer shall only be applied twice a year, in spring and fall. New plantings shall only be fertilized once, during the initial planting year. No herbicides, pesticides, or rodenticides shall be used to treat invasive species or pest management issues. **This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.**

Pervious Surfaces

- 38. Pervious surfaces shown on the approved project plans shall be maintained and not be replaced by impervious surfaces. **This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.**

Stormwater

- 39. In no case may water resulting from project work be discharged in storm drains. The Applicant shall protect all adjacent catch basins using silt socks. In no case may water be discharged into or onto Resource Areas on or adjacent to the site.



Gala Simon Associates, Inc.
Civil Engineers
394 Lowell Street, Suite 18
Lexington, MA 02420
www.gsadesign.com
Tel: 781-676-2962

January 23, 2020

Arlington Conservation Commission
730 Massachusetts Avenue Annex
Arlington, MA 02476

RE: ***88-90 Varnum Street, MA***
DEP File #091-0307

Dear Members of the Conservation Commission:

Request for a Certificate of Compliance is hereby made, on behalf of Christopher Manley of 1 Great Meadow Road, Newbury, for the above referenced project. Reference is made to As-Built Plans prepared by this office and dated January 23, 2020.

A review of the proposed plan and final as-built, notes the following deviations:

1. Wood stairs and platform were added to the rear exit of the 3 story enclosed deck. It is our understanding that this modification was required to meet the Massachusetts Building Code and does not impact the Flood Plain.

Representation is hereby made, to the best of my knowledge and belief, that all conditions except as noted above, both general and special, as delineated in the Order of Conditions issued April 30, 2019 have been substantially met.

Sincerely,

Alberto M. Gala, P.E.
Civil Engineer



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 8A – Request for Certificate of Compliance

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

DEP File Number:

091-0307

Provided by DEP

A. Project Information

Important:

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



Upon completion of the work authorized in an Order of Conditions, the property owner must request a Certificate of Compliance from the issuing authority stating that the work or portion of the work has been satisfactorily completed.

1. This request is being made by:

Christopher Manley

Name

1 Great Meadow Road

Mailing Address

Newbury

City/Town

MA

State

01922

Zip Code

617-835-0555

Phone Number

2. This request is in reference to work regulated by a final Order of Conditions issued to:

Christopher Manley

Applicant

4/30/2019

Dated

091-0307

DEP File Number

3. The project site is located at:

88-90 Varnum Street

Street Address

Arlington

City/Town

4-5-12

Assessors Map/Plat Number

Parcel/Lot Number

4. The final Order of Conditions was recorded at the Registry of Deeds for:

Property Owner (if different)

Middlesex South

County

72559

Book

217

Page

Certificate (if registered land)

5. This request is for certification that (check one):

☒ the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

☐ the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed (use additional paper if necessary).

☐ the above-referenced Order of Conditions has lapsed and is therefore no longer valid, and the work regulated by it was never started.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 8A – Request for Certificate of Compliance

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

DEP File Number:

091-0307

Provided by DEP

A. Project Information (cont.)

6. Did the Order of Conditions for this project, or the portion of the project subject to this request, contain an approval of any plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor?

☒ Yes

If yes, attach a written statement by such a professional certifying substantial compliance with the plans and describing what deviation, if any, exists from the plans approved in the Order.

☐ No

B. Submittal Requirements

Requests for Certificates of Compliance should be directed to the issuing authority that issued the final Order of Conditions (OOC). If the project received an OOC from the Conservation Commission, submit this request to that Commission. If the project was issued a Superseding Order of Conditions or was the subject of an Adjudicatory Hearing Final Decision, submit this request to the appropriate DEP Regional Office (see <http://www.mass.gov/dep/about/region/findyour.htm>).

GENERAL NOTES

1. EXISTING CONDITIONS SURVEY INFORMATION OBTAINED FROM ROBER SURVEY, INC. ARLINGTON, MA. (CERTIFIED PLOT PLAN DATED DECEMBER 30, 2019)

Flood Storage Prior to Construction			Flood Storage Post Construction		
El.	Area (s.f.)	Volume (c.f.)	El.	Area (s.f.)	Volume (c.f.)
5.5	4	15	5.5	65	103
6.0	56	493	6.0	348	953
7.0	929		7.0	1558	
Total Storage Volume:		508	Total Storage Volume:		1056

FLOOD STORAGE CALCULATIONS

Flood Plain As-Built Plan
88-90 Varnum Street - Arlington, MA

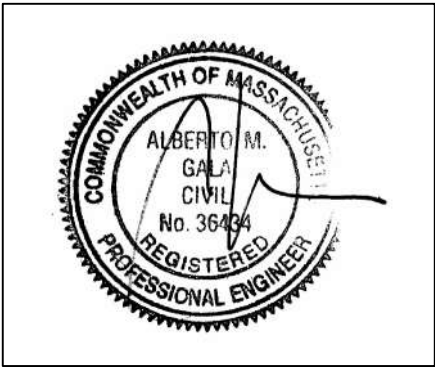
Gala Simon Associates





394 Lowell Street
Suite 18
Lexington, MA 02420

Civil Engineers 781-676-2962



AB-2
January 23, 2020

Project #1904



Town of Arlington, Massachusetts

Notice of Intent

Summary:

93 Sunnyside Ave

MassDEP File# unassigned

This project proposes an addition in the backyard and enlarging a mudroom in the front yard. The back addition is within the 200-ft Riverfront Area and 100-year floodplain. The back addition is proposed to be built on footings, above the floodplain. The front addition is within the 200-ft Riverfront Area. The project also proposes installing a deck and porous paver driveway in the back yard. As mitigation, this project proposes a native vegetated buffer and three drywells that capture all roof runoff.

ATTACHMENTS:

Type	File Name	Description
▢ Notice of Intent	93_Sunnyside_Ave_NOI_redacted.pdf	93 Sunnyside NOI Packet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

Important:

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



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (Note: electronic filers will click on button to locate project site):

93 Sunnyside Avenue

Arlington

02474

a. Street Address

b. City/Town

c. Zip Code

Latitude and Longitude:

42.410930

-71.133160

34-3

d. Latitude

e. Longitude

18

f. Assessors Map/Plat Number

g. Parcel /Lot Number

2. Applicant:

Lynne

Cooney

a. First Name

b. Last Name

c. Organization

93 Sunnyside Avenue

d. Street Address

Arlington

MA

02474

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

3. Property owner (required if different from applicant):

☐ Check if more than one owner

Same as above.

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):

None

a. First Name

b. Last Name

c. Company

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

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

\$310.00

\$42.50

267.50

a. Total Fee Paid

b. State Fee Paid

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

A. General Information (continued)

6. General Project Description:

see attached project narrative

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

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

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

South Middlesex

a. County

73753

b. Certificate # (if registered land)

38

c. Book

d. Page Number

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 4.28 Cubic Ft. 3. cubic feet of flood storage lost	2. square feet 8.56 Cubic Ft. 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	Alewife Brook 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: 2983 sq. ft.
square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	increase in impervious surface 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.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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. <input type="checkbox"/> Restoration/Enhancement		
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.		
a. square feet of BVW	b. square feet of Salt Marsh	

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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

b. Date of map _____

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

- c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area

percentage/acreage _____

(b) outside Resource Area

percentage/acreage _____

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

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

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

(b) ☐ Photographs representative of the site

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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

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

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

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

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

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____

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

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

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

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

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

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.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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

Online Users:

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

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

D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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.

Topographic Plan of Land

a. Plan Title

Medford Survey Inc.

Richard J. Mead Jr.

b. Prepared By

1.17.2020

c. Signed and Stamped by

1" = 20'

d. Final Revision Date

See application packet.

e. Scale

f. Additional Plan or Document Title

g. Date

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

E. Fees

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

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

2. Municipal Check Number

February 10, 2020

3. Check date

February 10, 2020

4. State Check Number

Lynne

5. Check date

Cooney

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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.

Lynne Cooney

1. Signature of Applicant

2/13/2020

2. Date

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



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

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



A. Applicant Information

1. Location of Project:

93 Sunnyside Avenue

Arlington, MA 02474

b. City/Town

\$42.50

d. Fee amount

c. Check number

2. Applicant Mailing Address:

Lynne

Cooney

a. First Name

b. Last Name

c. Organization

93 Sunnyside Avenue

d. Mailing Address

Arlington

MA

f. State

02474

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

3. Property Owner (if different):

Same as Above

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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

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



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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Work on Single Family House + Additon	1	\$110.00	\$110.00
Step 5/Total Project Fee:			\$110.00

Step 6/Fee Payments:

	\$110.00
Total Project Fee:	a. Total Fee from Step 5
	\$42.50
State share of filing Fee:	b. 1/2 Total Fee less \$12.50
	\$67.50
City/Town share of filing Fee:	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.)

NOI Application Project Narrative
Lynne Cooney
93 Sunnyside Avenue, Arlington, MA 02474

General Project Description

Proposed interior renovations and two-story rear addition to existing 2 Bedroom, 1 Bathroom single family unit, which is part of an attached 2-family structure. Project includes kitchen and bedroom addition off rear (180 sq. ft.) and expansion of existing entry mudroom (from 17 sq. ft. to 46 sq. ft.). New elevated deck also proposed constructed off of the new rear addition (145 sq. ft.). Existing rear concrete slab and knee walls to be reused at deck structure.

Back elevated addition will increase impervious surface area by 180 sq. ft. and front addition would increase impervious surface area by 29 sq. ft. for a total increase in impervious area of 209 sq. ft. This increase in impervious area is within the 200-foot riverfront area and the 180 sq. ft. expansion is within the floodplain. Back elevated addition will be built above the floodplain with footings not foundation. The new footings will take up 4.28 cubic feet of floodplain. 8.56 cubic ft. of soil will be removed from the floodplain as compensatory flood storage.

Proposed driveway (284 sq. ft.) of permeable pavers (Unilock Eco-Priora materials packet included with proposal packet) will be installed on 1" bedding sand over 8" minimum of aggregate gravel base to reduce the amount of stormwater runoff.

400 sq. ft. of vegetation buffer at rear of property will replace existing grass yard and act as mitigation for this project in the 200-foot riverfront area. Three new drywells will also be installed as stormwater mitigation. Drywells will capture all roof square footage including current roof and new back & front addition.

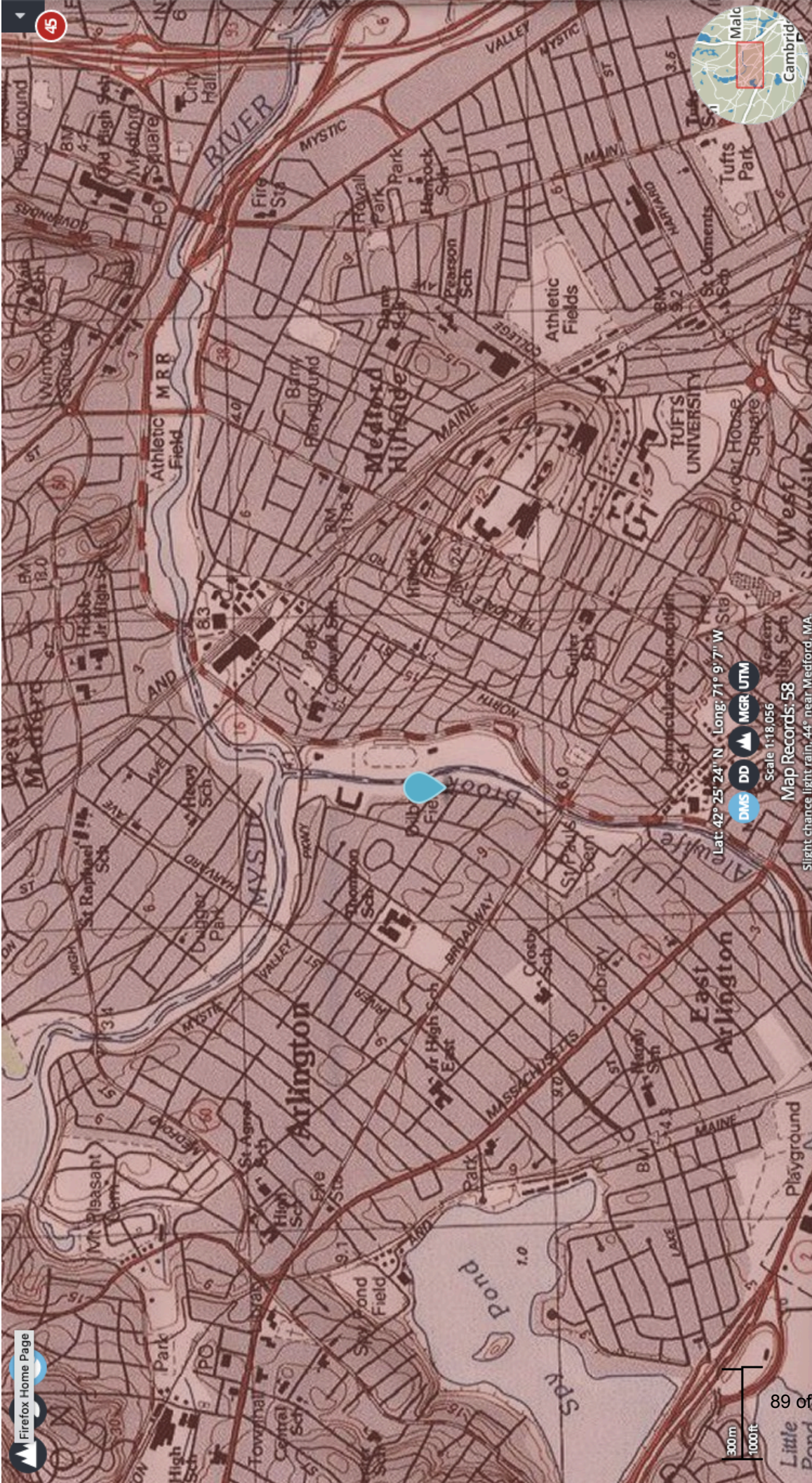
Climate Change Resilience (in accordance with Section 31 of the Arlington Regulations for Wetlands Protection).

1. This project limits storm and flood damage by building above the floodplain, with minimal floodplain encroachment. The back addition will be built on footings, not on a foundation. The total floodplain encroachment is 4.28 cubic feet, and will be mitigated by creating 8.56 cubic feet of compensatory flood storage. Additionally, this project proposes adding three new drywells to the site, reducing stormwater runoff. Finally, this project proposes to create a 400 square foot vegetated buffer zone with native plantings close to the 100-foot wetlands buffer. The native plantings will mitigate stormwater runoff better than the existing grass yard and create better quality wildlife habitat.

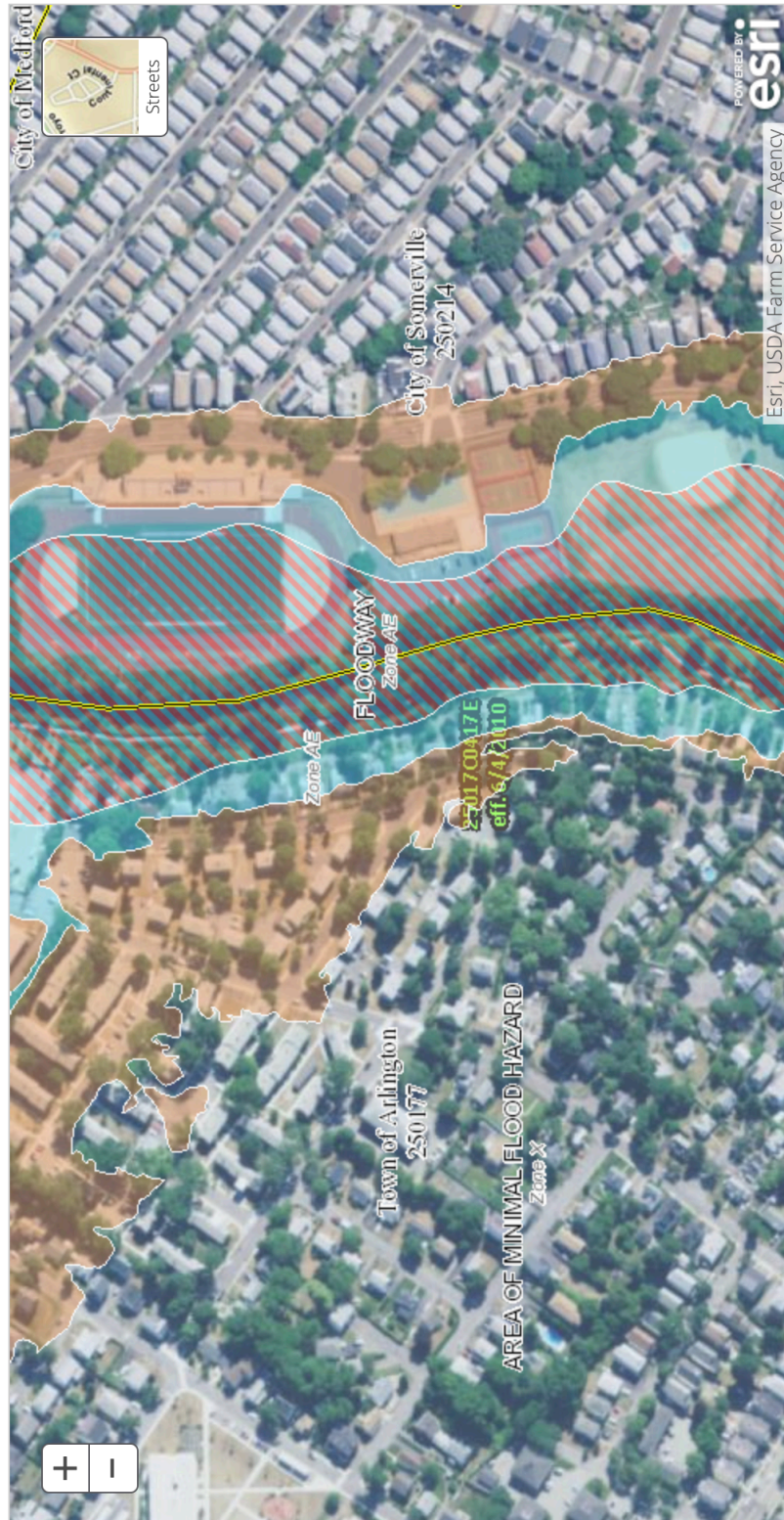
2. This project proposes to mitigate stormwater runoff and enhance stormwater quality through three interventions: The addition of three new drywells, a new 400 square foot vegetated buffer area, and a new permeable paver driveway (described above). These interventions will control stormwater runoff and infiltrate runoff such that nutrients and pollutants will be removed prior to entering Alewife Brook.

3. The 400 square foot vegetated buffer will include native plants. The water table on this site is high, so plants will be selected such that they can tolerate both dry and wet conditions. Pollinator plants will also be planted to encourage enhanced wildlife habitat. This project will include the removal of non-native plants from overgrown areas (without the use of chemicals or toxic sprays) and planting native vegetation buffer along the border of riverfront area on back of property. Supplemental landscaping to front of house to include pruning existing shrubs (not more than 20% per the Commission's regulations) and adding native shrubbery and vegetation.

3. This project minimizes the impacts of climate change on the structure by building the addition and deck above the floodplain, improving stormwater management, and increasing vegetative cover onsite.



0 Lat: 42° 25' 24" N • Long: 71° 9' 7" W
Scale 1:18,056
Map Records: 58
Slight chance light rain, 44° near Medford, MA.



PROJECT ADDRESS / APN:
93 SUNNYSIDE AVENUE
ARLINGTON MA 02474

APN: 34-3-18

OWNER:

MICHAEL GREENBLATT + LYNNE COONEY
93 SUNNYSIDE AVENUE
ARLINGTON MA 02474

ARCHITECT:

blanchard+A+D, LLC
MA LIC#: 30597
661 MASSACHUSETTS AVE.
SUITE 20
ARLINGTON MA 02476
(617) 519-5434

PROJECT DESCRIPTION:

EXISTING 2 BEDROOM, 1 BATHROOM SINGLE-FAMILY UNIT PART OF A 2-FAMILY STRUCTURE ON A 5,959 SQ. FT. LOT (+/-2,983 SQ. FT. PER UNIT). PROPOSED INTERIOR RENOVATIONS w/ NEW ENTRY MUDROOM (46 SQ. FT.) AND KITCHEN/W. BEDROOM ADDITION OFF REAR (180 SQ. FT.). PROPOSED NEW ATTIC DORMER WITHING EXISTING FOOTPRINT AT ROOF LEVEL. PROPOSED NEW DECK AT NEW REAR ADDITION - 145 SQ. FT. EXISTING REAR CONCRETE SLAB AND KNEEWALLS TO BE REUSED AT DECK STRUCTURE.

PROJECT STATISTICS:

LOT AREA:

2,983 SQ. FT.

EXISTING LOT COVERAGE:

396 SQ. FT. + 17 SQ. FT. = 413 SQ. FT. (13.8%)

MAX. LOT COVERAGE ALLOWED:

1,044 SQ. FT. (35% PER R2)
+447 SQ. FT. (+15% PER A5.7.5,B.2)

PROPOSED BUILDING AREA:

EXISTING INTERIOR:
EXISTING ENTRY REMOVED:
NEW MUDROOM ENTRY:
NEW REAR ADDITION:

398 + 409 = 807 GROSS SQ. FT.
-17 GROSS SQ. FT.
46 GROSS SQ. FT.
360 GROSS SQ. FT. (+9.0%)

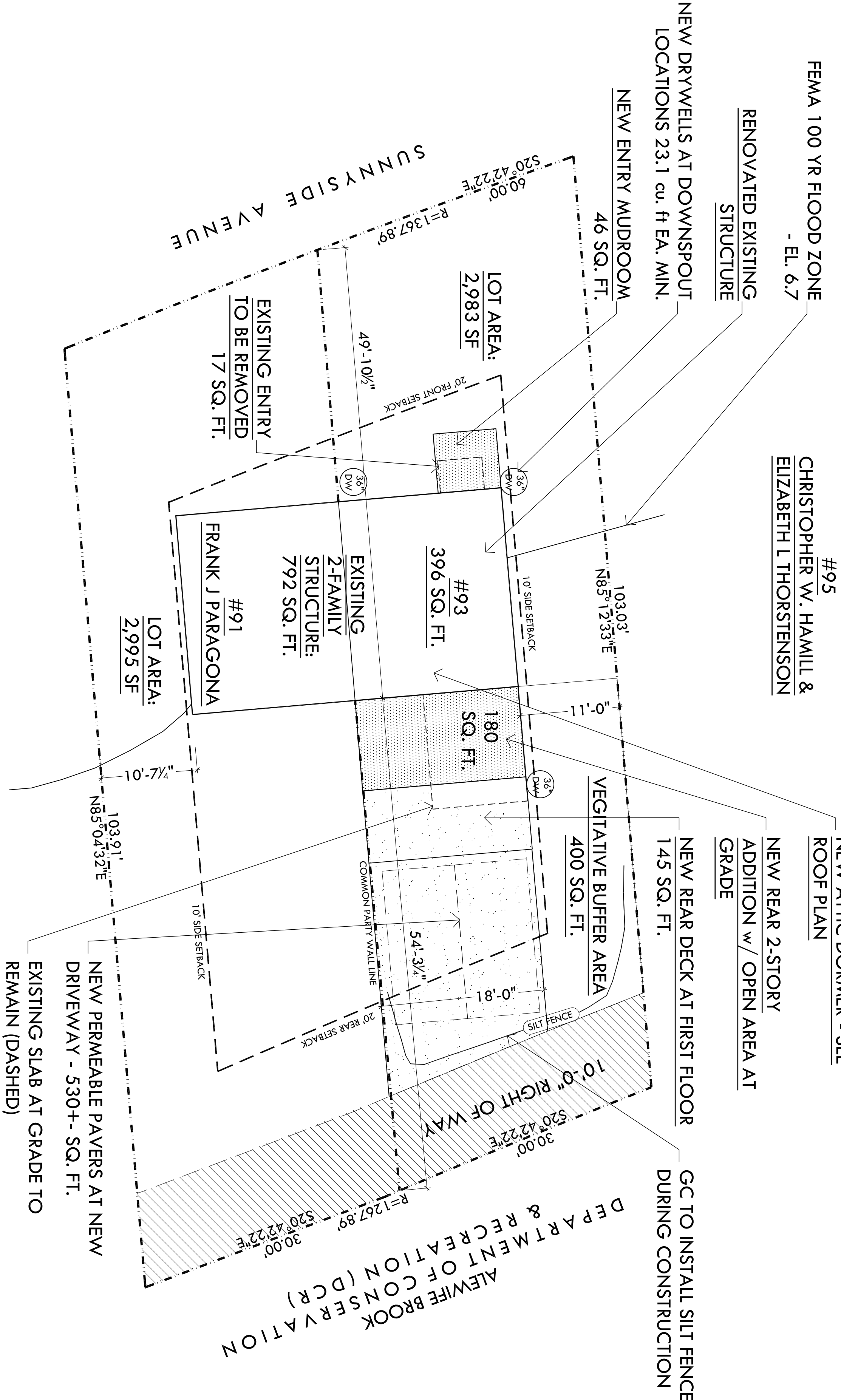
1,196 SQ. FT. (+389 GROSS SQ. FT AREA)

NEW PROPOSED LOT COVERAGE:

EXISTING//RENOVATED INTERIOR:
REMOVAL OF EXISTING ENTRY:
NEW ENTRY MUDROOM:
NEW REAR ADDITION::

396 SQ. FT.
-17 SQ. FT.
46 SQ. FT.
180 SQ. FT.

534 SQ. FT. (+209 SQ. FT, +7.5% LOT COVERAGE)



SITE PLAN GENERAL NOTES:

THE PROPERTY LINE AND BOUNDARY INFORMATION IS BASED ON INFORMATION PROVIDED BY THE PLOT PLAN BY JOSEPH SELWYN, REGISTERED LAND SURVEYOR, REPORT DATED UNKNOWN - COPY IS ON FILE AT ISD.

TEMPORARY INFILTRATION TRENCHES TO BE USED ON SITE DURING ANY/ALL DE-WATERING DURING FOUNDATION WORK. INFILTRATION TRENCHES TO USE ¾" GRAVEL AT A DEPTH OF 3' FROM GRADE OR TO TOP OF WATER TABLE, V/F. ALL TRENCHES SHALL BE RESTORED POST CONSTRUCTION.

PERMEABLE PAYER SYSTEM: (5" x 10" UNILOCK ECO-PRORA) SHALL BE INSTALLED ON 1" OF BEDDING SAND, 90% COMPACTED OVER 8" MINIMUM OF AGGREGATE GRAVEL BASE, COMPACTED 90%. PLASTIC EDGE RESTRAINTS SHALL BE INSTALLED ALONG EACH SITE USING 10" GALVANIZED SPIKES. IF SOIL CONDITIONS ARE POOR, INCREASE BASE DEPTH TO 12". APPLY POLYMETRIC JOINTING SAND TO REDUCE WEED GROWTH - DO NOT USE CHEMICAL WEED KILLERS AS PART OF THE MAINTENANCE PLAN. SEE PRODUCT SPECIFICATIONS FOR SPECIFIC INSTALLATION REQUIREMENTS.

NEW DRYWELLS (LEACHING PITS): INSTALL 36" DIAM. x 66" DEEP DRYWELLS LINED w/ 5 OZ. WOVEN, NEEDLE-PUNCHED POLYPROPYLENE LANDSCAPE FABRIC AND INFILLED w/ ¾" GRAVEL AGGREGATE. PROVIDE PERFORATED 4" PVC PIPE TO BE DROPPED INTO THE DRYWELL AND CONNECT BOTTOM OF DOWNSPOUT TO PIPE. MAINTAIN PIPE AND DRAINAGE BY CLEARING OUT ORGANIC MATERIAL, LEAVES AND DIRT EVERY 45-60 DAYS, MIN.

LEGEND

- NEW HOUSE/ADDITION
- NEW DRIVEWAY
- DRIPWAY
- EXIST. CONTOUR
- NEW CONTOUR

ASSESSOR'S MAP 034.0 BLOCK 003, LOT 0018.0
93 SUNNYSIDE AVENUE,
ARLINGTON MA 02474

ZONING: R-2, TWO FAMILY RESIDENTIAL

SETBACK REQUIRED:

FRONT: 20'
SIDE: 10'
REAR: 20'
PARTY WALL: 0'
HEIGHT: 35', 2.5 STORIES MAXIMUM

**GREENBLATT
- COONEY
RESIDENCE**

93 SUNNYSIDE AVENUE
ARLINGTON, MA 02474



blanchard+A+D
661 MASSACHUSETTS AVENUE
SUITE 20
ARLINGTON, MA 02476
TELEPHONE: 617-519-5434
EMAIL: bblanchard@blanchardad.com

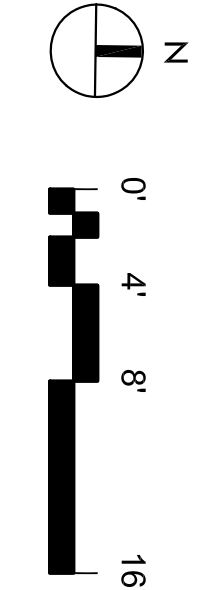
**NOT FOR
CONSTRUCTION**

Date		Revised/Issue
02/13/20		CONSERVATION COMMISSION
Project Number		Scale
100		1" = 50'
Drawn By		Checked By
B.		B.

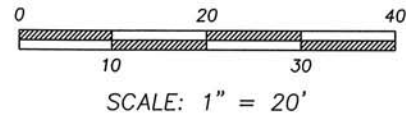
blanchard+A+D, LLC (Architect/Engineer) reserves the Common Law Copyrights and other property rights in these drawings. These drawings are the property of blanchard+A+D, LLC and shall not be reproduced in any manner without the written permission from blanchard+A+D, LLC (Architect/Engineer).

© 2020 blanchard+A+D, LLC / Timothy J. Blanchard, AIA

**PROPOSED
SITE PLAN**



A1.0



CURRENT OWNER: JEFFREY STERN
TITLE REFERENCE: BK 26089 PG 364
PLAN REFERENCE: 1049 OF 1948

THIS PLAN WAS PREPARED WITHOUT A FULL TITLE EXAMINATION AND IS NOT A CERTIFICATION TO THE TITLE OF THE LANDS SHOWN. THE OWNERSHIP OF ABUTTING PROPERTIES IS ACCORDING TO ASSESSORS RECORDS. THIS PLAN MAY OR MAY NOT SHOW ALL ENCUMBRANCES WHETHER EXPRESSED, IMPLIED OR PRESCRIPTIVE.

SURVEYOR'S CERTIFICATION:

TO: TIMOTHY BLANCHARD

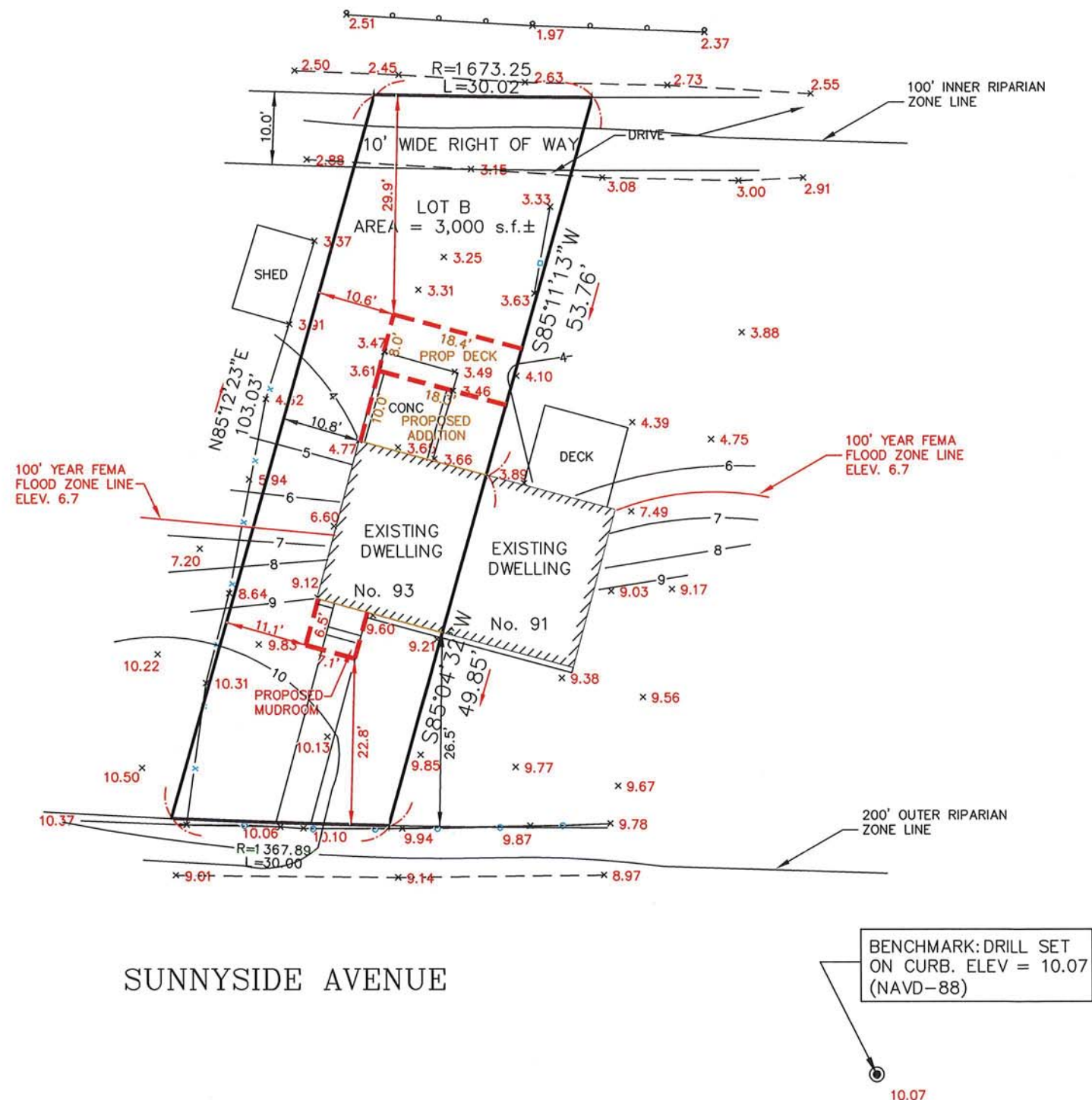
I CERTIFY THAT THIS PLAN AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE GENERALLY ACCEPTABLE PRACTICES OF LAND SURVEYORS IN THE COMMONWEALTH OF MASSACHUSETTS FOR A PLAN AND SURVEY OF THIS TYPE. THIS CERTIFICATION IS MADE ONLY TO THE ABOVE NAMED INDIVIDUAL(S) AND IS NULL AND VOID UPON ANY FURTHER CONVEYANCE OF THIS PLAN.

THE FIELD WORK WAS COMPLETED ON: JANUARY 15, 2020
DATE OF PLAN: JANUARY 17, 2020


RICHARD J. MEDE, JR. P.L.S.

01/17/2020

DATE:



TOPOGRAPHIC PLAN OF LAND
93 SUNNYSIDE AVE
ARLINGTON, MA.
(MIDDLESEX COUNTY)

PREPARED BY:

**MEDFORD
ENGINEERING
& SURVEY**

ANGELO B. VENEZIANO ASSOCIATES
15 HALL STREET, MEDFORD, MA 02155
781-396-4466 fax: 781-396-8052

PREPARED FOR:

TIMOTHY BLANCHARD

DRAWN	CHECKED	FILE No.
CAV	RJM	20706



VIEW FROM FRONT (WEST) A
N.T.S.



VIEW FROM REAR (EAST) B
N.T.S.



REAR EXISTING KNEEWALL & SLAB OFF LOWER LEVEL C
N.T.S.



VIEW FROM REAR ALONG EASEMENT/ROAD (EAST) D
N.T.S.



VIEW OF REAR AT EXISTING CONCRETE PAD E
N.T.S.

**GREENBLATT
- COONEY
RESIDENCE**

93 SUNNYSIDE AVENUE
ARLINGTON, MA 02474



blanchardA+D
661 MASSACHUSETTS AVENUE
SUITE 20
ARLINGTON, MA 02476
tblanchard@gmail.com
TELEPHONE 617-519-5434

NOT FOR
CONSTRUCTION

02/13/20 CONSERVATION COMMISSION		
No	Date	Revision / Issue
Project Number		
1908	AS NOTED	
Drawn By		
tb	Checked By	
tb		
blanchardA+D, LLC (Architect) expressly reserves the Common Law Copyrights and other Property Rights in these Drawings. These Drawings are the property of blanchardA+D, LLC and shall not be reproduced in any manner nor shall they be assigned for the use to any third party without obtaining the expressed written permission from blanchardA+D, LLC (Architect).		
© 2020 blanchardA+D, LLC / Timothy L Blanchard, AIA		

SITE PHOTOGRAPHS

GREENBLATT
- COONEY
RESIDENCE

93 SUNNYSIDE AVENUE
ARLINGTON, MA 02474



blanchardA+D
661 MASSACHUSETTS AVENUE
SUITE 20
ARLINGTON, MA 02476
blanchard@gmail.com
TELEPHONE 817-519-5434

NOT FOR
CONSTRUCTION

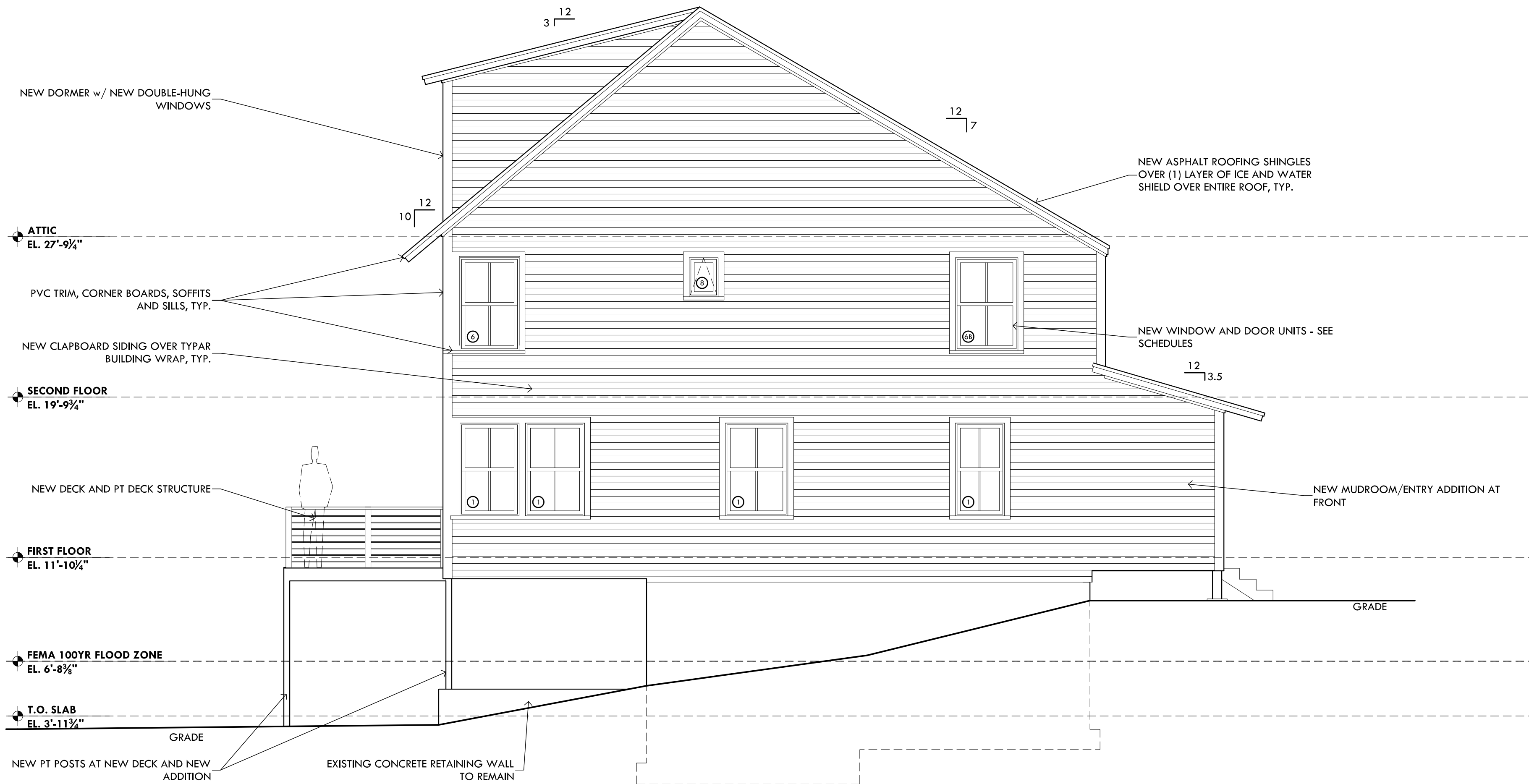
02/10/20 CONSERVATION COMMISSION		
No	Date	Revision / Issue
Project Number	Scale	
1908	AS NOTED	
Drawn By	Checked By	
tb	tb	

blanchardA+D, LLC (Architect) expressly reserves the Common Law Copyrights and other Property Rights in these Drawings. These Drawings are the property of blanchardA+D, LLC and shall not be reproduced in any manner nor shall they be assigned for the use to any third party without obtaining the expressed written permission from blanchardA+D, LLC (Architect).

© 2020 blanchardA+D, LLC / Timothy L Blanchard, AIA

PROPOSED
EXTERIOR
ELEVATIONS

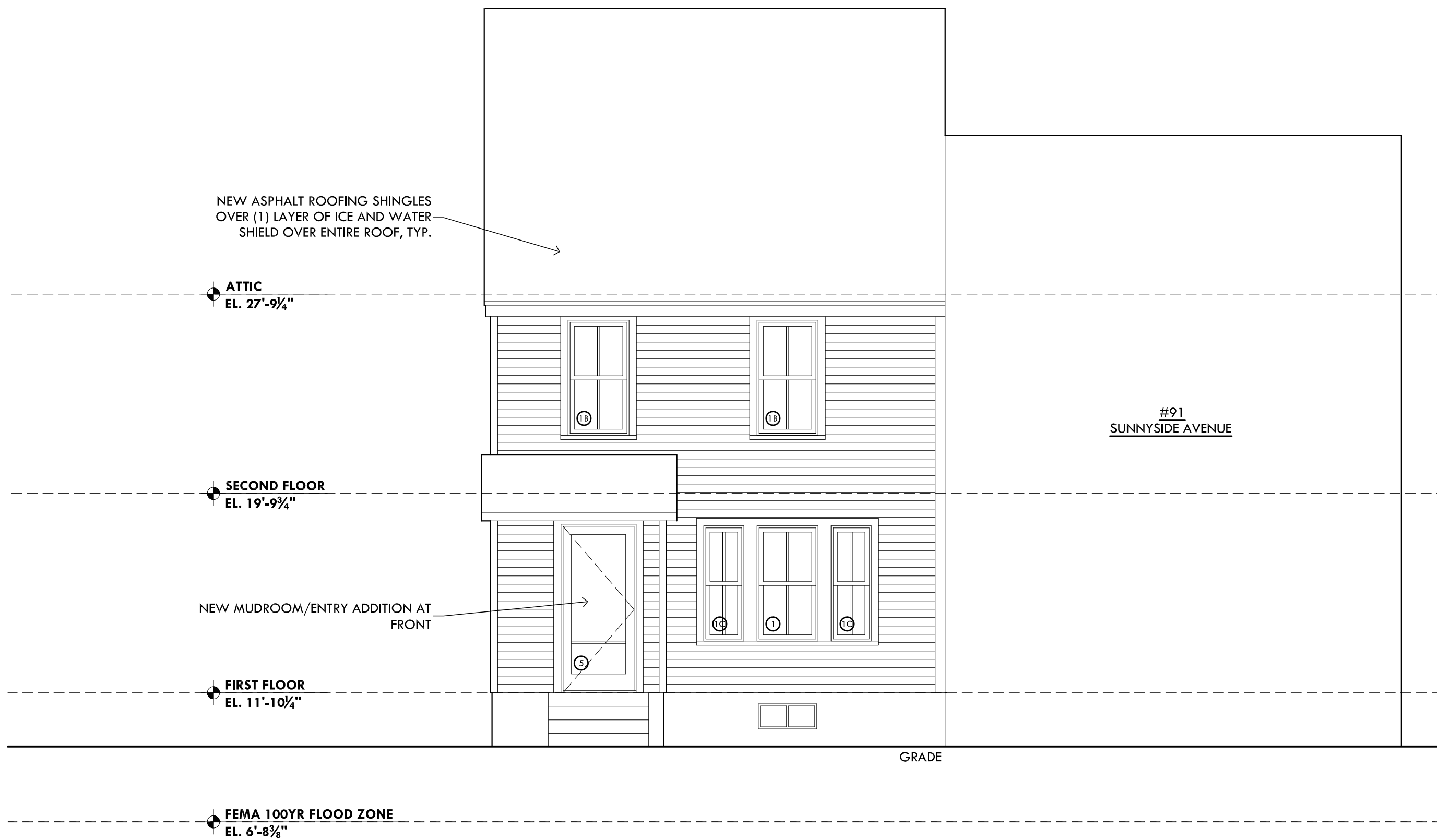
A3.0



PROPOSED NORTH ELEVATION

1/4" = 1'-0"

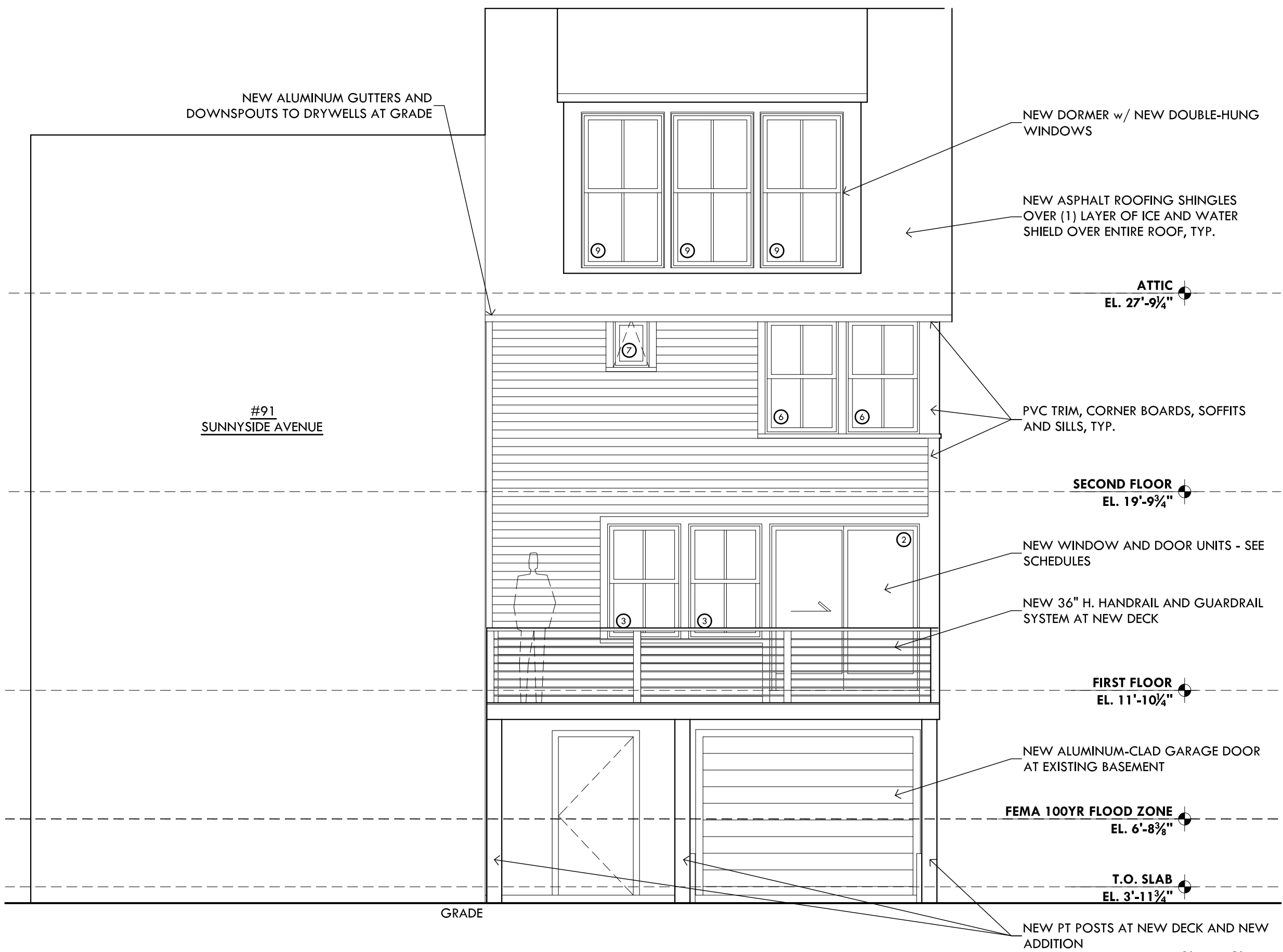
A



PROPOSED EAST ELEVATION

1/4" = 1'-0"

B



PROPOSED WEST ELEVATION

1/4" = 1'-0"

C



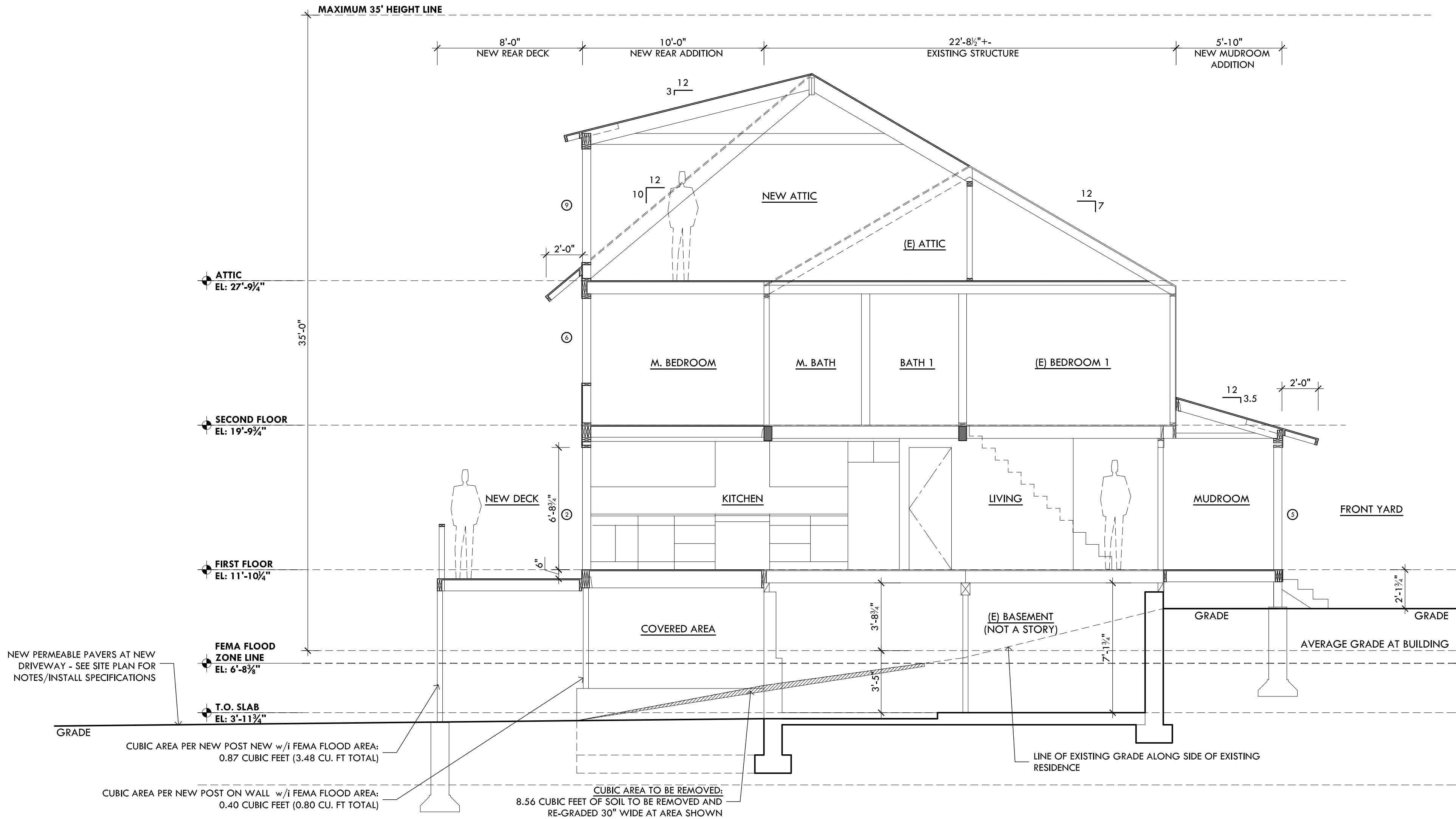
GREENBLATT
- COONEY
RESIDENCE

93 SUNNYSIDE AVENUE
ARLINGTON, MA 02474



blanchardA+D
661 MASSACHUSETTS AVENUE
SUITE 20
ARLINGTON, MA 02476
t@blanchardad@gmail.com
TELEPHONE 617-519-5434

NOT FOR
CONSTRUCTION



EAST-WEST SECTION AT KITCHEN/LIVING

1/4" = 1'-0"

A

02/13/20 CONSERVATION COMMISSION		
No	Date	Revision / Issue
Project Number		
1908		AS NOTED
Drawn By		
tb		tb
blanchardA+D, LLC (Architect) expressly reserves the Common Law Copyrights and other Property Rights in these Drawings. These Drawings are the property of blanchardA+D, LLC and shall not be reproduced in any manner nor shall they be assigned for the use to any third party without obtaining the expressed written permission from blanchardA+D, LLC (Architect).		
© 2020 blanchardA+D, LLC / Timothy L Blanchard, AIA		

BUILDING
SECTIONS



A4.0

ECO-PRIORA™

Architectural design with engineered performance.

Designed with special spacer bars, the resulting 7mm gap is filled with a clear, fine stone chip that allows rapid penetration of rainwater into the sub-base and subsoil.



**COFFEE CREEK
STANDARD FINISH**
SPECIAL ORDER



**GRANITE BLEND
STANDARD FINISH**



**SIERRA
STANDARD FINISH**



**COFFEE CREEK
TUMBLED FINISH**
SPECIAL ORDER



**GRANITE BLEND
TUMBLED FINISH**
SPECIAL ORDER



**SIERRA
TUMBLED**
SPECIAL ORDER



**AUTUMN SUNSET
UMBRIANO FINISH**
SPECIAL ORDER



**MIDNIGHT SKY
UMBRIANO FINISH**
SPECIAL ORDER



**SUMMER WHEAT
UMBRIANO FINISH**
SPECIAL ORDER



**WINTER MARVEL
UMBRIANO FINISH**
SPECIAL ORDER



10"X10"
24 CM X 24 CM X 8 CM
9.5" X 9.5" X 3.125"



5"X10"
24 CM X 12 CM X 8 CM
9.5" X 4.75" X 3.125"



5"X5"
12 CM X 12 CM X 8 CM
4.75" X 4.75" X 3.125"

	Unit	SqFt Per			Per Bundle	Soldier LnFt Per		Sailor LnFt Per		Units Per		Lbs Per	
Stones & Bundling	Thickness	Bundle	Layer	Stone	Layers	SqFt	Bundle	SqFt	Bundle	SqFt	Bundle	Layers	Bundle
10"x10"	3-1/8" (8cm)	86.6	12.37	0.619	7	0.786	110.2	0.79	110.24	1.62	140	443	3099
5"x10"	3-1/8" (8cm)	74.59	10.66	0.304	7	0.773	96.4	0.39	192.89	3.28	245	381	2669
5"x5"	3-1/8" (8cm)	74.59	10.66	0.152	7	0.387	192.9	0.39	192.89	6.57	490	381	2669

Sold in full bundles only and shipped on refundable skids. Eco-Priora is available in Series 3000 and Umbriano finishes. Minimum quantities apply on custom orders. Textured surfaces require a buffer between the plate compactor and the paver surface to prevent scuffing. Specially graded aggregates must be used for the joints. Contact Unilock for more information.



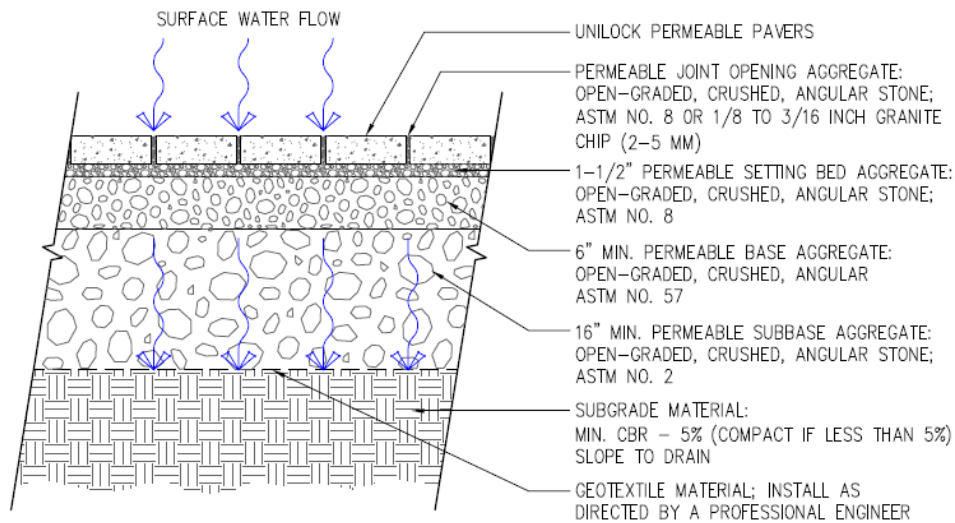
Eco-Priora H
5"x10" (50%)
10"x10" (50%)

Eco-Priora E
5"x10"(100%)

32-14-13.19

Unilock Permeable

For any additional information or assistance with this spec please contact your Unilock Representative.



***** Delete all text in RED after modifying the text in BLUE. All BLUE text requires modification. *****

FOREWORD

These specifications have been prepared for the general guidance of architects, landscape architects, engineers, contractor and superintendents associated with the construction of interlocking concrete pavements. Consult with a licensed architect, landscape architect or engineer to determine the suitability of the design, confirm site conditions and monitor the installation in critical applications. Unilock is not responsible for the information in this specification meeting local or national building codes. The Architect, Landscape Architect or Engineer of Record is responsible selecting products that meet any and all building code requirements to gain occupancy permit and updating this specification as necessary.

INTRODUCTION

Unilock® permeable pavers are manufactured in a variety of shapes and colors for residential, commercial, municipal and industrial applications. They offer design professionals several engineered pavement systems that are efficient, durable, economical and aesthetically attractive.

Unilock® permeable pavers are manufactured to tight dimensional tolerances. This, in combination with their permeable and interlocking capabilities, allows the surface to be completely porous with a high resistance to compressive loads and lateral forces.

SECTION 32 14 13.19

PERMEABLE CONCRETE PAVER MATERIALS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes the following:
 1. Permeable Concrete Pavers
 2. Permeable Joint Opening Aggregate
 3. Permeable Joint Aggregate Type 1
 4. Permeable Joint Aggregate Type 2
 5. Permeable Setting Bed Aggregate (Open-graded)
 6. Permeable Base Aggregate (Open-graded)
 7. Permeable Subbase Aggregate (Open-graded)

1.02 REFERENCES

Note: Design street, industrial, port and airport pavement thicknesses in consultation with a qualified civil engineer, in accordance with established flexible pavement design procedures, LOCKPAVE® software, and in accordance with Interlocking Concrete Pavement Institute Technical Bulletins. Sample construction detail drawings are available from Unilock®. This specification may require modifications.

- A. ASTM International, latest edition:
 1. C 29 Bulk Density and Voids in Aggregate Materials.
 2. C 33, Standard Specification for Concrete Aggregates.
 3. C 136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 4. C 140, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
 5. D 448, Standard Classification for Sizes of Aggregate for Road and Bridge Construction.
 6. C 936, Standard Specification for Solid Concrete Interlocking Paving Units.
 7. C 979, Standard Specification for Pigments for Integrally Colored Concrete.

8. D 698 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5 lb (24.4 N) Rammer and 12 in. (305 mm) drop.
9. D 1557 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (44.5 N) Rammer and 18 in. (457 mm) drop.
10. C1645 Standard Test Method for Freeze-thaw and De-icing Salt Durability of Solid Concrete Interlocking Paving Units
11. D 4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
12. D 4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
13. D 4533, Standard Test Method for Index Trapezoidal Tearing Strength of Geotextiles
14. D 4833, Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes and Related Products
15. D 4491, Standard Test Method for Water Permeability of Geotextiles by Permittivity
16. D 4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile

Delete the BLUE text above if no geotextile is being utilized.

Note: In order to determine the latest version of the listed specifications and standards, please consult the ASTM web page (www.astm.com)

- B. U.S. Green Building Council Leadership in Energy and Environmental Design (LEED)
1. Building Design + Construction, latest edition

1.03 SUBMITTALS

- A. Permeable Concrete Pavers:
1. Samples for verification: Three representative full-size samples of each paver type, thickness, color and finish that indicate the range of color variation and texture expected upon project completion.
 2. Accepted samples become the standard of acceptance for the product produced.
 3. Test results from an independent testing laboratory for compliance of concrete pavers with ASTM C 936.
 4. Manufacturer's catalog product data, installation instructions, and material safety data sheets for the safe handling of the specified materials and products.
- B. Permeable Joint Opening Aggregate:
1. Provide three representative one pound samples in containers of aggregate materials that indicate the range of color variation and texture expected upon project completion.
 2. Accepted samples become the standard of acceptance for the product produced.
 3. Test results from an independent testing laboratory for sieve analysis, including washed gradations per ASTM C 136.
 4. Test results for void space percentage per ASTM C 29.
- C. Permeable Setting Bed, Base and Subbase Aggregate:
1. Test results from an independent testing laboratory for compliance with ASTM D 448 No. 8, No. 57 and No. 2.
 2. Test results from an independent testing laboratory for sieve analysis, including washed gradations per ASTM C 136.
 3. Test results for void space percentage per ASTM C 29.
- D. Paving Installation Contractor:
1. Job references from a minimum of three projects similar in size and complexity. Provide Owner/Client/General Contractor names, postal address, phone, fax, and email address.
- E. LEED (required only for LEED projects, delete otherwise)
1. LEED Materials and Resources Credit 4, Recycled Materials: Submit letter from manufacturer certifying the products having recycled content, documentation indicating percentages by weight of post-consumer and pre-consumer recycled content.

- a. Include statement indicating costs for each product having recycled content.
- 2. LEED Materials and Resources Credit 5, Regional Materials: Submit letter from manufacturer certifying products having been extracted, harvested, or recovered, as well as manufactured within 500 miles of the project site.
 - a. Include a statement indicating the percentage by weight which is extracted, harvested, or recovered within 500 miles of the project site.
- 3. LEED Sustainable Sites Credit 7.1, Non-roof: Submit letter from manufacturer certifying the solar reflectance index (SRI) of the paver is 29 or greater.

1.04 QUALITY ASSURANCE

- A. Utilize a Manufacturer having at least ten years of experience manufacturing interlocking concrete pavers on projects of similar nature or project size.
- B. Source Limitations:
 - 1. Obtain Permeable Concrete Pavers from one source location with the resources to provide products of consistent quality in appearance and physical properties.
 - 2. Obtain Permeable Joint Opening Aggregate from one source with the resources to provide materials and products of consistent quality in appearance and physical properties.
- C. Paving Contractor Qualifications:
 - 1. Utilize an installer having successfully completed concrete paver installation similar in design, material, and extent indicated on this project.
- D. Mockups:
 - 1. Install a 5 ft x 5 ft paver area.
 - 2. Use this area to determine joint sizes, lines, laying pattern(s) and levelness. This area will serve as the standard by which the workmanship will be judged.
 - 3. Subject to acceptance by owner, mock-up may be retained as part of finished work.
 - 4. If mock-up is not retained, haul offsite and dispose legally.

1.05 DELIVERY, STORAGE & HANDLING

- A. In accordance with Conditions of the Contract and Division 1 Product Requirement Section. (Modify this to match the general conditions of the specific project)
- B. Deliver Permeable Concrete Pavers in manufacturer's original, unopened and undamaged container packaging with identification labels intact.
 - 1. Coordinate delivery and paving schedule to minimize interference with normal use of streets and sidewalks adjacent to paver installation.
 - 2. Deliver concrete pavers to the site in steel banded, plastic banded or plastic wrapped packaging capable of transfer by forklift or clamp lift.
 - 3. Unload pavers at job site in such a manner that no damage occurs to the product or adjacent surfaces.
- C. Store and protect materials free from mud, dirt and other foreign materials.

1.06 PROJECT/SITE CONDITIONS

- A. Environmental Requirements:
 - 1. Install permeable pavers only on unfrozen permeable setting bed aggregate materials.
 - 2. Install permeable setting bed only on unfrozen permeable base and subbase aggregates.
 - 3. Install permeable base or subbase aggregates only over unfrozen subgrade.

1.07 PERMEABLE CONCRETE PAVER OVERAGE AND ATTIC STOCK

- A. Provide a minimum of 5% additional material for overage to be used during construction.
- B. Furnish 100 square feet of each product and size used to owner for maintenance and repair. Furnish Permeable Concrete Pavers from the same production run as installed materials.
- C. Manufacture to supply maintenance and reinstatement manuals for Permeable Concrete Paver units.

- 1.08 LEED REQUIREMENTS (required only for LEED projects, delete otherwise)
 A. Add any specific requirements necessary for achieving desired credits.

PART 2 PRODUCTS

2.01 PERMEABLE CONCRETE PAVERS

- A. Basis-of-Design Product: The permeable concrete paver shapes are based on:
1. Unilock: (Select product or products being used)
 - a. Eco-Optiloc
 - b. Eco-Priora
 - c. Eco-Promenade
 - d. Eco-Line
 - e. DuraFlow
 - f. Town Hall
 - g. (other Unilock products)
 2. As manufactured by:
 Unilock (Add location)
 Address
 City, State and Zip
 Contact: (insert Unilock representative name and phone number) or your local Territory Manager
 3. The specified products establish minimum requirements that substitutions must meet to be considered acceptable.
 - a. To obtain acceptance of unspecified products, submit written requests at least 7 days before the Bid Date.

Note: Unless required by the owner, an "or equal" line is not necessary when using a basis-of-design specification with the above information is listed and outline in Division 1, Product Substitution Procedures.

Or choose number 3 below and delete above number 3.

3. Substitutions: No substitutions permitted.

- B. Product requirements:
1. Permeable Paver Type 1: Unilock Eco-Optiloc (or other Unilock product name)
 - a. Finish: (Select finish type from below and insert here. Finish type will affect product pricing).
 1. Standard – this is not a face mix finish.
 2. Smooth (Premier) – this is a face mix finish.
 3. Brushed (IL Campo) – this is a face mix finish.
 4. Exposed Granite (Series 3000) – this is a face mix finish.
 5. Granite appearance (Umbriano) – this is a face mix finish.
 6. Tile appearance (Senzo) – this is a face mix finish.
 7. Add other Unilock options.
 - b. Color: Insert product color
 - c. Edge: Chamfer - 3 mm bevel
 - d. Size: Manufacture the sizes indicated with a maximum tolerance of plus or minus 1/16 inch for length and width. Maximum height tolerance of plus or minus 1/8 inch.
 1. L-shape

Note: Imperial dimensions are nominal equivalents to the metric dimensions.
 2. Permeable Paver Type 2: Unilock Eco-Priora (or other Unilock product name)
 - a. Finish: (Select finish type from below and insert here. Finish type will affect product pricing).
 1. Standard – this is not a face mix finish.
 2. Smooth (Premier) – this is a face mix finish.
 3. Brushed (IL Campo) – this is a face mix finish.

4. Exposed Granite (Series 3000) – this is a face mix finish.
5. Granite appearance (Umbriano) – this is a face mix finish.
6. Tile appearance (Senzo) – this is a face mix finish.
7. Add other Unilock options.
- b. Color: Insert product color
- c. Edge: Chamfer - 3 mm rolled
- d. Size: Manufacture the sizes indicated with a maximum tolerance of plus or minus 1/16 inch for length and width. Maximum height tolerance of plus or minus 1/8 inch.
 1. 120 mm (5 in) x 120 mm (5 in) x 80 mm (3-1/8 in) thick
 2. 120 mm (5 in) x 240 mm (10 in) x 80 mm (3-1/8 in) thick
 3. 240 mm (10 in) x 240 mm (10 in) x 80 mm (3-1/8 in) thick

Note: Imperial dimensions are nominal equivalents to the metric dimensions.
3. Permeable Paver Type 3: Town Hall (or other Unilock product name)
 - a. Finish: molded Streetpaver
 - b. Color: Insert product color(s): Burgundy Red, Burnt Clay, Old Oak
 - c. Edge: molded
 - d. Size: Manufacture the sizes indicated with a maximum tolerance of plus or minus 1/16 inch for length and width. Maximum height tolerance of plus or minus 1/8 inch..
 1. 10 cm (4 in) x 25 cm (9-3/4 in) x 7 cm (2-3/4 in) thick
4. (Insert additional Permeable Paver Types here as necessary or delete this line)
- C. Provide pavers meeting the minimum material and physical properties set forth in ASTM C 936, Standard Specification for Interlocking Concrete Paving Units. Efflorescence is not a cause for rejection.
 1. Average compressive strength 8000 psi (55MPa) with no individual unit under 7,200 psi (50 MPa).
 2. Average absorption of 5% with no unit greater than 7% when tested according to ASTM C 140.
 3. Conforming to ASTM C 1645 when tested for freeze-thaw requirements.
 4. Height tolerances +/- 3.2 mm (1/8 in).

Note: Efflorescence is a whitish powder-like deposit that sometimes appears on concrete products. Calcium hydroxide and other water-soluble materials form or are present during the hydration of Portland cement. Pore water becomes saturated with these materials, and diffuses to the surface of the concrete. When this water evaporates, the soluble materials remain as a whitish deposit on the concrete surface. The calcium hydroxide is converted to calcium carbonate during a reaction with carbon dioxide from the atmosphere. The calcium carbonate is difficult to remove with water. However, the efflorescence will wear off with time, and it is advisable to wait a few months before attempting to remove any efflorescence. Commercially available cleaners can be used, provided directions are carefully followed. Some cleaners contain acids that may alter the color of the pavers.
- D. Accept only pigments in concrete pavers conforming to ASTM C 979.
Note: ACI Report No. 212.3R provides guidance on the use of pigments.
- E. Maximum allowable breakage of product is 5%.

2.02 PERMEABLE JOINT OPENING AGGREGATE

- A. Provide Permeable Joint Opening Aggregate materials conforming to ASTM C 33 and gradation requirements of ASTM D 448 No. 8 as shown in Table 1. Unilock recommends using granite chips listed in table 2 below for vehicular areas with heavy traffic loads such as roadways or drive-through areas.

**TABLE 1 - ECO-OPTILOC
PERMEABLE JOINT OPENING AGGREGATE
GRADATION REQUIREMENTS
(CRUSHED LIMESTONE)**

ASTM No. 8	
Sieve Size	Percent Passing
1/2 in (12.5 mm)	100
3/8 in (9.5 mm)	85 to 100
No. 4 (4.75 mm)	10 to 30
No. 8 (2.36 mm)	0 to 10
No. 16 (1.18 mm)	0 to 5

- B. Provide Permeable Joint Opening Aggregate materials conforming to ASTM C 33 and gradation requirements as presented in Table 2.

1. Supplier:
 - a. [Kafka Granite LLC, 101 S. Weber Ave, Stratford, WI 54484 – Toll Free: 800-852-7415](#)
 - b. [Alliance Aqua-Roc](#)
 - c. [SEK Perm Chip](#)
2. Color: [\(Specify granite chip color if other than crushed limestone\)](#)

**TABLE 2 - ECO-PRIORA & TOWN HALL
PERMEABLE JOINT OPENING AGGREGATE
GRADATION REQUIREMENTS
(GRANITE CHIPS)**

1/8 to 3/16 inch granite chips	
Sieve Size	Percent Passing
1/4 in (6 mm)	97 to 100
No. 4 (4.75 mm)	70 to 83
No. 8 (2.36 mm)	37 to 50
No. 16 (1.18 mm)	0 to 12
pan	

2.03 PERMEABLE SETTING BED AGGREGATE

- A. Provide Permeable Setting Bed Aggregate materials conforming to ASTM C 33 and gradation requirements of ASTM D 448 No. 8 as presented in Table 3.

**TABLE 3
PERMEABLE SETTING BED AGGREGATE
GRADATION REQUIREMENTS**

ASTM No. 8	
Sieve Size	Percent Passing
½ in (12.5 mm)	100
3/8 in (9.5 mm)	85 to 100
No. 4 (4.75 mm)	10 to 30
No. 8 (2.36 mm)	0 to 10
No. 16 (1.18 mm)	0 to 5

2.04 PERMEABLE BASE AGGREGATE

- A. Provide Permeable Base Aggregate materials conforming to ASTM C 33 and gradation requirements of ASTM D 448 No. 57 as presented in Table 4.

**TABLE 4
PERMEABLE BASE AGGREGATE
GRADATION REQUIREMENTS**

ASTM No. 57	
Sieve Size	Percent Passing
1-1/2 in (37.5 mm)	100
1 in (25 mm)	95 to 100
1/2 in (12.5 mm)	25 to 60
No. 4 (4.75 mm)	0 to 10
No. 8 (2.36 mm)	0 to 5

2.05 PERMEABLE SUBBASE AGGREGATE

- A. Provide Permeable Subbase Aggregate materials conforming to ASTM C 33 and gradation requirements of ASTM D 448 No. 2 as presented in Table 5.

**TABLE 5
PERMEABLE SUBBASE AGGREGATE
GRADATION REQUIREMENTS**

ASTM No. 2	
Sieve Size	Percent Passing
3 in (75 mm)	100
2-1/2 in (63 mm)	90 to 100
2 in (50 mm)	35 to 70
1-1/2 in (37.5 mm)	0 to 15
3/4 (19 mm)	0 to 5

Note: For all aggregates, provide washed, clean, have zero plasticity, free from deleterious or foreign matter, crushed, angular rock and contain no No. 200 sieve size aggregate materials used in the construction of permeable pavement. Aggregate materials serve as the structural load bearing platform of the pavement as well as a temporary receptor for the infiltrated water that is collected through the openings in the pavement's surface.

2.06 GEOTEXTILE (Optional depending on soil conditions)

- A. Provide Geotextile material conforming to the following performance characteristics, measured per the test methods referenced:
- 4 oz., nonwoven needle punched geotextile composed of 100% polypropylene staple fibers that are inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.
 - Grab Tensile Strength: ASTM D 4632: 115 lbs.
 - Grab Tensile Elongation: ASTM D 4632: 50%
 - Trapezoidal Tear: ASTM D 4533: 50 lbs.
 - Puncture: ASTM D 4833: 65 lbs.
 - Apparent Opening Size: ASTM D 4751: 0.212 mm, 70 U.S. Sieve
 - Permittivity: ASTM D 4491: 2.0 sec ⁻¹
 - Flow Rate: ASTM D 4491: 140 gal/min/s.f.
- B. As supplied by Unilock (add location, address, City, State and Zip)
Contact: (Insert Unilock representative name and phone number) or your local Territory Manager
- Carthage Mills – FX-40HS

2. U.S. Fabrics – US 115NW
3. Mirafi – 140N

2.07 EDGE RESTRAINTS

- A. Concrete Edge Restraint as indicated.
- B. Plastic and Metal Edge Restraints:
 1. Permaloc, www.permaloc.com
 - a. Material Type: Aluminum
 - b. Model No.: 3 inch GeoEdge capture plate and geogrid
 2. SEK Surebond
 - a. Model No.: 8 feet PermEdge with attached geogrid

Note: The provision of suitable edge restraints is critical to the satisfactory performance of interlocking concrete block pavement. Abut pavers tightly against the restraints to prevent rotation under load and any consequent spreading of joints. Install sufficiently stable edge restraints that are, in addition to providing suitable edge support for the paver units, able to withstand the impact of temperature changes, vehicular traffic and/or snow removal equipment.

Curbs, gutters or curbed gutter, constructed to the dimensions of municipal standards (noting that these standards generally refer to cast-in-place concrete sections), are considered to be acceptable edge restraints for heavy duty installations. Where extremely heavy industrial equipment is involved such as container handling equipment, review the flexural strength of the edge restraint carefully particularly if a section that is flush with the surface is used and may be subjected to high point loading.

2.08 ACCESSORIES (Optional depending on project needs)

- A. [Cleaners] [Sealers]
 1. Supplier: Unilock (add location, address, City, State and Zip)
Contact: (Insert Unilock representative name and phone number) or your local Territory Manager
 2. Material Type and Description: (Specify material type and description)
 3. Material Standard: (Specify material standard)

Note: Generally sealing permeable pavers for utilitarian uses such as parking lots is not necessary. Consult with your product representative prior to specifying or remove section 2.08 Accessories.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas indicated to receive paving for compliance with requirements for installation tolerances and other conditions affecting performance for the following items before placing the Permeable Concrete Pavers.
 1. Verify that subgrade preparation, compacted density and elevations conform to specified requirements.
 2. Verify that Geotextiles, if applicable, have been placed according to drawings and specifications.
 3. Verify that Permeable Base and Subbase Aggregate materials, thickness, compacted density, surface tolerances and elevations conform to specified requirements.
 4. Provide written density test results for soil subgrade, Permeable Base and Subbase Aggregate materials to the Owner, General Contractor and paver installation subcontractor.
 5. Verify location, type, and elevations of edge restraints, concrete collars around utility structures, and drainage inlets.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Beginning of bedding sand and paver installation signifies acceptance of base and edge restraints.

3.02 PREPARATION

- A. Verify that the subgrade soil is free from standing water.
- B. Stockpile Permeable Setting Bed, Joint, Base and Subbase Aggregate materials such that they are free from standing water, uniformly graded, free of any organic material or sediment, debris, and ready for placement.
- C. Remove any excess thickness of soil applied over the excavated soil subgrade to trap sediment from adjacent construction activities before placing the Geotextile and Permeable Subbase Aggregate materials.
- D. Keep area where pavement is to be constructed free from sediment during entire job. Remove and replace all Geotextile, Permeable Joint, Setting Bed, Base and Subbase Aggregate materials contaminated with sediment with clean materials.
- E. Complete all subdrainage of underground services within the pavement area in conjunction with subgrade preparation and before the commencement of Permeable Subbase Aggregate construction.
- F. Prevent damage to underdrain pipes, overflow pipes, observation wells, or inlets and other drainage appurtenances during installation. Report all damage immediately.
- G. Compact soil subgrade uniformly to at least 90 percent of Standard Proctor Density per ASTM D 698 for pedestrian areas. Compact soil subgrade uniformly to at least 95 percent Modified Proctor per ASTM D 1557 for vehicular areas.
- H. Proof-roll prepared subgrade according to requirements in Division 31 Section "Earth Moving" to identify soft pockets and areas of excess yielding. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting and replace with compacted backfill or fill as directed.

Note: Base compaction and proof-rolling of the subgrade soil on the recommendations of the Design Engineer. Request the Architect/Engineer to inspect subgrade preparations, elevations and conduct density tests for conformance to specifications.

Note: Mechanical tampers (jumping jacks) are recommended for compaction of soil subgrade and aggregate base around lamp standards, utility structures, building edges, curbs, tree wells and other protrusions. Compact areas, not accessible to roller compaction equipment, to the specified density with mechanical tampers. **CAUTION** – Proceed with care around the perimeters of excavations, buildings, curbs, etc. These areas are especially prone to consolidation and settlement. Do not place wedges of backfill in these areas. If possible particularly in these areas, proceed with backfilling and compacting in shallow lifts, parallel to the finished surface.

3.03 INSTALLATION

A. EDGE RESTRAINTS

- 1. Provide edge restraints as indicated.
 - a. Install job-built concrete edge restraints to comply with requirements in Division 3 Section "Cast-in-Place Concrete." (Add section number and match specification name)
 - b. Provide concrete edge restraint along the perimeter of all paving as specified. Install the face of the concrete edge restraint, where it abuts pavers vertical down to the subbase.
 - c. Construct concrete edge restraint to dimensions and level specified and support on a compacted subbase not less than 6 in (150 mm) thick.
- 2. Provide plastic or metal edge restraints as indicated. (Delete if not being used).
 - a. Provide plastic or metal edge restraints along the perimeter of all paving as indicated and supported on a minimum of 6 inches (150 mm) of Base Aggregate.

- b. Provide 10" spiral galvanized or stainless steel spike to fasten plastic edge restraint at 24 inches on center for straight sections and 12 inches on center for curved sections.
- B. GEOTEXTILES (Delete if not being used).
 - 1. Provide separation geotextile on bottom and sides of prepared soil subgrade. Secure in place to prevent wrinkling or folding from equipment tires and tracks.
 - 2. Overlap ends and edges a minimum of 18 in. (450 mm) in the direction of drainage.
- C. PERMEABLE BASE AND SUBBASE AGGREGATE
 - 1. Provide the Permeable Subbase Aggregate in uniform lifts not exceeding 6 in., (150 mm) loose thickness and compact to at least 95 percent as per ASTM D 4254 to depths as indicated.
 - 2. Compact the Permeable Subbase Aggregate material with at least two passes in the vibratory mode then at least two in the static mode with a minimum 10 ton vibratory roller until there is no visible movement. Do not crush aggregate with the roller.
 - 3. Tolerance: Do not exceed the specified surface grade of the compacted Permeable Subbase Aggregate material more than $\pm 3/4$ in. (20 mm) over a 10 ft. (3 m) long straightedge laid in any direction.
 - 4. Provide the Permeable Base Aggregate material in uniform lifts not exceeding 6 in. (150 mm) over the compacted Permeable Subbase Aggregate material and compact to at least 95 percent as per ASTM D 4254 to depths as indicated.
 - 5. Compact the Permeable Base Aggregate material with at least two passes in the vibratory mode then at least two in the static mode with a minimum 10 ton vibratory roller until there is no visible movement. Do not crush aggregate with the compaction device.
 - 6. Tolerance: Do not exceed the specified surface grade of the compacted Permeable Base Aggregate material more than $\pm 1/2$ in. (13 mm) over a 10 ft. (3 m) long straightedge laid in any direction.
 - 7. Grade and compact the upper surface of the Permeable Base Aggregate material sufficiently to prevent infiltration of the Permeable Setting Bed Aggregate material both during construction and throughout its service life.

Note: In-place density of the Permeable Base and Subbase Aggregate materials may be checked per ASTM D 4254. Establish a Compacted density of 95% of the laboratory index density for the subbase and base stone.
- D. PERMEABLE SETTING BED AGGREGATE
 - 1. Provide, spread and screed Permeable Setting Bed aggregate evenly over the Permeable Base Aggregate course.
 - a. Protect screeded Permeable Setting Bed Aggregate from being disturbed.
 - b. Screed only the area which can be covered by pavers in one day.
 - c. Do not use Permeable Setting Bed Aggregate material to fill depressions in the base surface.
 - 2. Keep moisture content constant and density loose and constant until Concrete Pavers are set and compacted.
 - 3. Inspect the Permeable Setting Bed Aggregate course prior to commencing the placement of the permeable concrete pavers.
 - 4. Inspect the Setting Bed Aggregate course prior to commencing the placement of the Permeable Concrete Pavers. Acceptance of the Setting Bed Aggregate occurs with the initiation of Permeable Concrete Paver placement.
- E. PERMEABLE CONCRETE PAVERS
 - 1. Replace unit pavers with chips, cracks, voids, discolorations, and other defects that might be visible in finished work.
 - 2. Mix Concrete Pavers from a minimum of three (3) bundles simultaneously drawing the paver vertically rather than horizontally, as they are placed, to produce uniform blend of colors and textures. (Color variation occurs with all concrete products. This phenomenon is influenced by a variety of factors, e.g. moisture content, curing conditions, different aggregates and, most commonly, from different production

runs. By installing from a minimum of three (3) bundles simultaneously, variation in color is dispersed and blended throughout the project).

3. Exercise care in handling face mix pavers to prevent surfaces from contacting backs or edges of other units.
4. Provide Permeable Concrete Pavers using joint pattern as indicated. Adjust joint pattern at pavement edges such that cutting of edge pavers is minimized. Cut all pavers exposed to vehicular tires no smaller than one-third of a whole paver.
5. Use string lines or chalk lines on Permeable Setting Bed aggregate to hold all pattern lines true.
6. Set surface elevation of pavers 1/8 in. (3 mm) above adjacent drainage inlets, concrete collars or channels.
7. Place units hand tight against spacer bars. Adjust horizontal placement of laid pavers to align straight.
 - a. When installation is performed with mechanical equipment, use only unit pavers with spacer bars on sides of each unit.
8. Provide space between paver units of 1/32 in. (1 mm) wide to achieve straight bond lines.
9. Prevent joint (bond) lines from shifting more than $\pm 1/2$ in. (± 15 mm) over 50 ft. (15 m) from string lines.
10. Fill gaps between units or at edges of the paved area that exceed 3/8 inch (10 mm) with pieces cut to fit from full-size unit pavers.
11. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
12. Prevent all traffic on installed pavers until Permeable Joint Aggregate has been vibrated into joints. Keep skid steer and forklift equipment off newly laid pavers that have not received initial compaction and Permeable Joint Aggregate material.
13. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a to 5000-lbf (22-kN) compaction force at 80 to 90 Hz. Perform at least three passes across paving with vibrator. Vibrate under the following conditions:
 - a. After edge pavers are installed and there is a completed surface.
 - b. Compact installed concrete pavers to within 6 feet (1,800 mm) of the laying face before ending each day's work. Cover pavers that have not been compacted and leveling course on which pavers have not been placed, with nonstaining plastic sheets to prevent Permeable Setting Bed Aggregate from becoming disturbed.
14. Protect face mix Concrete Paver surface from scuffing during compaction by utilizing a urethane pad.
15. Remove any cracked or structurally damaged pavers and replace with new units prior to installing Permeable Joint Opening Aggregate material.
16. Provide, spread and sweep Permeable Joint Opening Aggregate into joints immediately after vibrating pavers into Permeable Setting Bed course until full. Vibrate pavers and add Permeable Joint Aggregate material until joints are completely filled, then remove excess material. This will require at least 4 passes with a plate compactor.
17. Remove excess Permeable Joint Aggregate broom clean from surface when installation is complete.

3.04 FIELD QUALITY CONTROL

- A. Verify final elevations for conformance to the drawings after sweeping the surface clean.
 1. Prevent final Concrete Paver finished grade elevations from deviating more than $\pm 3/8$ in. (± 10 mm) under a 10 ft (3 m) straightedge or indicated slope, for finished surface of paving.
- B. [Lippage: Paver-to-Paver Lippage:](#)
 1. [No greater than 3 mm \(1/8 inch\) difference in height between adjacent pavers.](#)

Note: The industry standard acceptable lippage between adjacent pavers is 3 mm (1/8 inch). Achieving a completely flush paver surface is most desirable but may be unattainable depending on factors such as paver type, setting bed materials or depth, ASTM manufacturing standards or other specific project needs. Consult with your Unilock representative to determine the best approach for a reasonable lippage tolerance on each project.

3.05 REPAIRING, CLEANING AND SEALING

- A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.
- B. Cleaning: Remove excess dirt, debris, stains, grit, etc. from exposed paver surfaces; wash and scrub clean.
 - 1. Clean Permeable Concrete Pavers in accordance with the manufacturer's written recommendations.
- C. Seal as indicated. (If not indicated elsewhere in the contract documents, sealing is not required and remove this section 3.05, C.)
 - 1. Apply Sealer for Permeable Concrete Pavers in accordance with the sealer and paver manufacturer's written recommendations.

3.06 PROTECTION

- A. Protect completed work from damage due to subsequent construction activity on the site.

3.07 PERMEABLE JOINT AGGREGATE MATERIAL REFILLING

- A. Remove all debris from joint and provide additional Permeable Joint Aggregate material after 120 days and before 150 days after date of Substantial Completion/Provisional Acceptance.
 - 1. Fill Permeable Joint Aggregate material full to the lip of the paver.

NOTE: This preventative maintenance requirement is very important to include in your specification to help increase the long term function of the system. This is a good item to mention during the prebid meeting.

4.08 LIFE CYCLE ACTIVITIES

- A. Paver cleaning: Clean Permeable Concrete Pavers as needed to remove staining, dirt, debris, etc.
 - 1. Clean per manufacturers recommendations.
- B. Maintenance: Permeable Joint Aggregate Material.
 - 1. Annually inspect Permeable Joint Aggregate material for areas clogged with debris.
 - 2. Vacuum or sweep as necessary to restore surface infiltration.
 - 3. Remove debris by vacuuming or sweeping Permeable Joint Aggregate
 - a. Replenish removed Permeable Joint Aggregate material with clean aggregate material flush to paver lip.
 - b. Sweep excess material from paver surface.

END OF SECTION



Town of Arlington, Massachusetts

Request for Determination of Applicability

Summary:

Bikeway Tree Maintenance

Arlington File #A20.2

This project proposes tree maintenance work to ensure that the bikeway is safe for users and is clear from hazardous debris. The tree canopy will be pruned and all hazardous dead wood will be removed. In addition to all canopy pruning, dead trees along the bikeway will be either removed or cut back.

ATTACHMENTS:

Type	File Name	Description
Request for Determination of Applicability	Bikeway_Tree_Maintenance_RDA.pdf	Bikeway Tree Maintenance RDA Form
Request for Determination of Applicability	Bikeway_Tree_Maintenance_signed_RDA.pdf	Bikeway Tree Maintenance RDA Form signed
Request for Determination of Applicability	Bikeway_Tree_Maintenance_RDA_Map.pdf	Bikeway Tree Maintenance RDA Map
Request for Determination of Applicability	Bikeway_Tree_Maintenance_RDA_Photos.pdf	Bikeway Tree Maintenance RDA Photos



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Arlington

City/Town

WPA Form 1- Request for Determination of Applicability

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

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.



1. Applicant:

Tim Lecuivre

Name

tlecuivre@town.arlington.ma.us

E-Mail Address

51 Grove Street

Mailing Address

Arlington

City/Town

MA

State

02476

Zip Code

781-316-3301

Phone Number

Fax Number (if applicable)

2. Representative (if any):

Firm

Emily Sullivan

Contact Name

esullivan@town.arlington.ma.us

E-Mail Address

730 Massachusetts Ave

Mailing Address

Arlington

City/Town

MA

State

02476

Zip Code

781-316-3012

Phone Number

Fax Number (if applicable)

B. Determinations

1. I request the Arlington make the following determination(s). Check any that apply:
Conservation Commission

- ☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- ☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- ☒ c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- ☒ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Arlington

Name of Municipality

- ☐ e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Arlington

City/Town

WPA Form 1- Request for Determination of Applicability

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

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Minuteman Bikeway

Street Address

Arlington

City/Town

Assessors Map/Plat Number

Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

The Minuteman Bikeway is a 10.5 mile bicycle and pedestrian trail that passes through Cambridge, Arlington, Lexington, and Bedford. Approximately 3.5 miles of the bikeway passes through Arlington. The bikeway receives approximately 950,000 trips annually, with almost 2,700 trips daily. There are four sections of the bikeway that fall under conservation jurisdiction. The first is near wetland areas along Thorndike Field in East Arlington. The second is along Spy Pond Park. The third is along the Mill Street section of Mill Brook. The fourth is along Mill Brook and No Name Brook between the Arlington Reservoir and Forest Street. The four sections are variably within the 100-ft Wetlands Buffer, the AURA, and the 200-ft Riverfront Area. The first (Thorndike) and fourth (Reservoir) sections of the bikeway are also within the floodplain/floodway. Please see these jurisdictional areas in the attached maps document.

- c. Plan and/or Map Reference(s):

Bikeway Tree Maintenance RDA Map

Title

2/11/2020

Date

Title

Date

Title

Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

Tree maintenance work will be conducted to ensure that the bikeway is safe for users and is clear from hazardous debris. The tree canopy will be pruned to lighten the canopy and remove all hazardous dead wood. In addition to all canopy pruning, dead trees along the bikeway will be either removed or cut back. Any dead trees within conservation jurisdiction that require maintenance will be left with at least 8-10ft of stump. No trees in conservation jurisdiction will be flush cut. Trees and debris that have fallen directly into the brook along the bikeway will also be removed. No trees or debris laying along the brook banks or across the brook will be removed.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Arlington

City/Town

WPA Form 1- Request for Determination of Applicability

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

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)(b)2.n.i. Vegetation cutting for road safety maintenance, limited to the following: removal of diseased or damaged trees or branches that pose an immediate and substantial threat to safety from falling into the roadway

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☒ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

The Town of Arlington is responsible for the maintenance of the MBTA-owned Minuteman Bikeway.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Arlington

City/Town

WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Town of Arlington, Town Manager's Office

Name

730 Massachusetts

Mailing Address

Arlington

City/Town

MA

State

02476

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

Signature of Representative (if any)

Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Arlington
City/Town

WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Town of Arlington, Town Manager's Office

Name

730 Massachusetts

Mailing Address

Arlington

City/Town

MA

State

02476

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

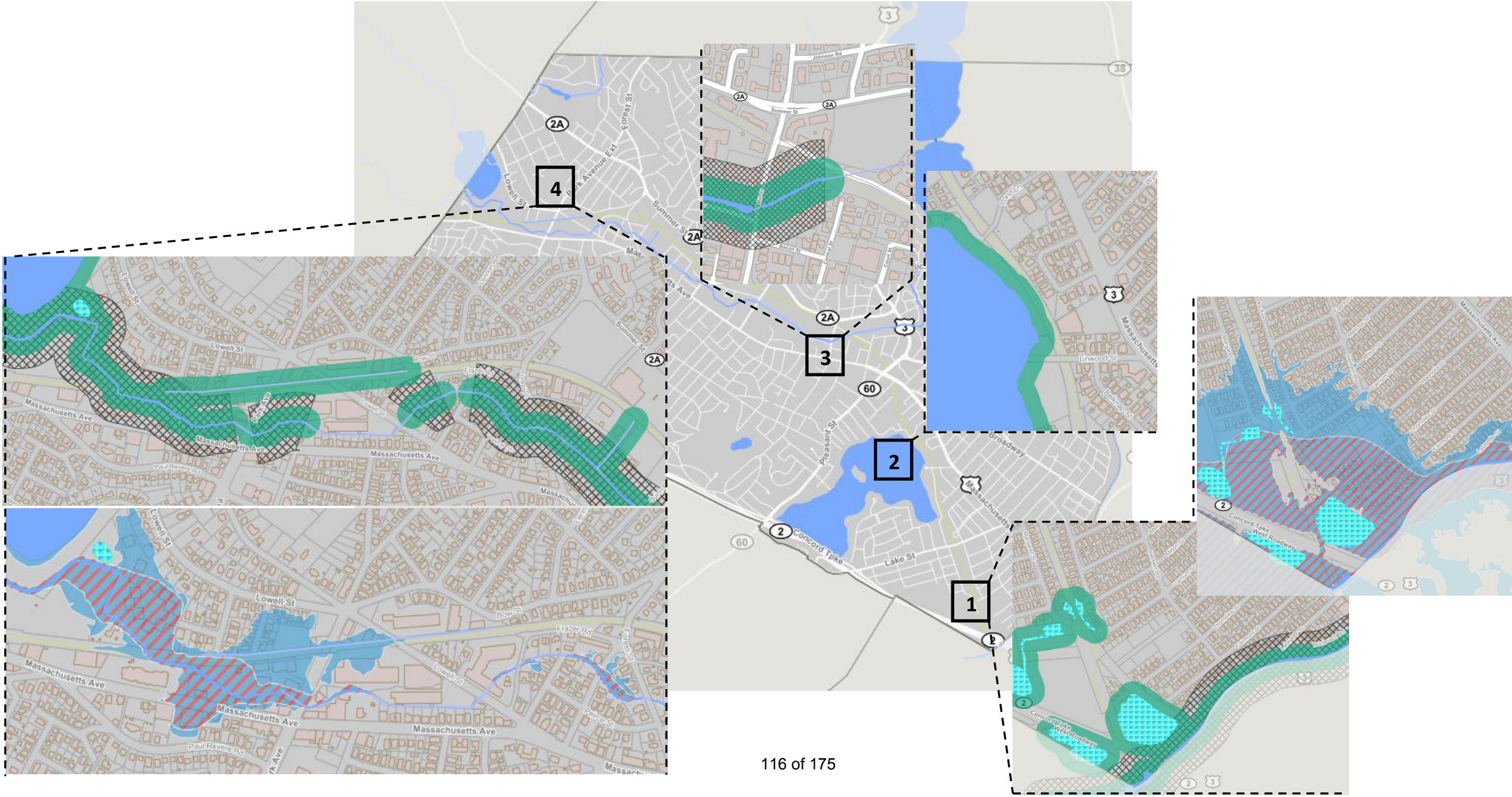
2/14/20

Signature of Representative (if any)

Date

Feb 14 2020

Bikeway Tree Maintenance RDA
Map of Conservation Jurisdictions along Bikeway
02/11/2020



Bikeway Tree Maintenance RDA
Photos of Proposed Work
02/11/2020



Picture 1: Example of typical work to be conducted during bikeway tree maintenance. This tree is outside conservation jurisdiction and will be flush cut for removal.



Picture 2: Example of fallen trees and debris along bikeway within conservation jurisdiction. Proposed maintenance would remove this debris.



Picture 3: Example of overgrown tree along bikeway within conservation jurisdiction. Proposed maintenance would cut back canopy as indicated in red.



Picture 4: Example of overgrown tree along bikeway within conservation jurisdiction. Proposed maintenance would cut back canopy as indicated in red.



Picture 5: Example of overgrown tree along bikeway within conservation jurisdiction. Proposed maintenance would cut back canopy as indicated in red.



Picture 6: Example of overgrown tree along bikeway within conservation jurisdiction. Proposed maintenance would cut back canopy as indicated in red.



Picture 7: Example of dead trees within conservation jurisdiction along bikeway. Proposed work would cut back dead wood and leave between 8-10ft of tree stump to ensure root system is secure along bank, but that hazardous deadwood is removed. Please note not all trees will be cut back, as the red delineation suggestions. Only dead trees will be cut back.



Picture 8: Example of dead branch overhanging No Name Brook. Proposed work would cut back dead branch only.



Picture 9: Example of fallen tree within Mill Brook. Proposed work would remove dead tree from the brook. Method of removal would include machinery stationed on bikeway pavement and would not impact bank integrity.



Picture 10: Example of fallen tree within Mill Brook. Proposed work would remove dead tree from the brook. Method of removal would include machinery stationed on bikeway pavement and would not impact bank integrity.



Town of Arlington, Massachusetts

Arlington Regulations for Wetlands Protection Update

Summary:

Discuss and draft section for Administrative Review Permits.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Section_on_Admin_Review_-_Draft_2020-02-27-for_CC_review.pdf	Draft Administrative Review Permits Section
▢	Reference Material	Arlington_Wetland_Regs_2018-03-01_FINAL.pdf	Arlington Regulations for Wetlands Protection

Section ?? – Administrative Review of Minor Projects or Work

[I suggest inserting these as a new Section 8 and moving the other sections accordingly-NS]

A. Findings

Some projects are simple, small in scale, minor, or routine, and such projects involve very little activity or alteration in Resource Areas protected by the Bylaw and are not likely to have a significant or cumulative effect on the Resource Area Values protected by the Bylaw. Such projects ~~would not even require a Request for Determination of Applicability and~~ usually may be reviewed and approved by the Conservation Agent rather than the full Commission.

B. Applicability

If a project meets the criteria in Section 8?? B.(1) or (2) below, the work may be reviewed and approved by the Conservation Agent. If the Conservation Agent has any doubt that a project meets these criteria ~~or if the public has substantial comments based on review of the Administrative Review Decision~~, the Applicant will be required to file a Request for Determination of Applicability or a full application for a permit (Notice of Intent).

Comment [e1]: PH- can't we add a provision for the Administrative Review Decisions to be filed in draft form, be included on Agenda so that it is noticed and so that public has opportunity to comment.

(1) A project may be approved by the Conservation Agent if it meets all of the following conditions:

a. No work is proposed in the Resource Areas listed in Section 2.A.(1), (2), (3), (4), ~~or (7)~~ of these regulations [Note: these are all RA's except AURA, Riverfront Area and Land Subject to Flooding];

Comment [e2]: PH thinks we need to include Land Subject to Flooding as another instance where the Administrative Review would not apply, but instead an RDA or NOI should be required. The State Wetland Protection Act excuses Applicants from filing for minor work in the buffer zone and Riverfront Area, but the provisions in 10.02(2)(b) do not apply to land subject to flooding.

b. Work is not proposed within ~~25~~ 50 feet from the edge of the Resource Areas listed in Section 2.A.(1), (2), (3), or (4) of these regulations;

c. No uprooting of non-invasive vegetation and not mowing to the ground or clear-cutting is proposed;

d. Other conditions? Work is not proposed in floodplain area that would impact flood storage or other floodplain functions that impact resource area values as listed in Section (23?)

d-e. Work will not adversely impact the climate change resilience functions of the project area

Comment [SC3]: I propose we make it 50 feet, since that is our no-build for the AURA

(2) A project may be approved by the Conservation Agent if it falls within one of the following activities:

a. Fencing, provided that ~~it will not constitute a barrier to wildlife movement and~~ there are openings along the bottom at least 4 inches high ~~in~~ to allow wildlife

movement; a sketch or survey of the property showing the proposed fence location must accompany the application.

- b. Installation of dried laid (not mortared) stone walls and compacted gravel footing, provided they do not constitute a barrier to wildlife movement; a sketch or survey of the property showing the proposed fence location must accompany the application.
- c. Vista pruning of shrubs and trees according to the following guidelines . . . [See Falmouth's for detailed parameters]?
- d. Removal of invasive species by hand on the ____ list within the Buffer Zone and Adjacent Upland Resource Area provided native plants from the ____ list are planted in the same area ?or nearby?
- e. Planting of native species of trees, shrubs, or groundcover that are on the ____ list, but excluding planting or expansion of lawn area.
- f. Not within 50 feet of the Resource Areas listed in Section 2.A.(1), (2), (3), or (4) of these regulations, the conversion of impervious surface to lawn, provided erosion and sedimentation controls are implemented during construction;
- g. Activities that are temporary in nature, having negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling, and surveying); a sketch or survey of the property showing the proposed locations and resource areas must accompany the application.
- h. Pervious walkways of no more than four (4) feet in width as long as no trees or shrubs will be removed;
- i. Filling of less than 1 cubic foot of floodplain . . . ?
- j. Conversion of existing lawn area to uses accessory to a single-family house, provided that the work is located more than 50 feet from the Resource Areas listed in Section 2.A.(1), (2), (3), or (4) of these regulations and is built on sono tubes, such as: open-slotted decks with crushed stone underneath, above-ground pools, patios under 100 square feet provided there is spacing between patio stones; freestanding (no foundation) sheds with a foot print of less than 15 x 15 feet; steps under 100 square feet; porches under 100 square feet on concrete sono tube footings. The conversion of such accessory uses to lawn is also allowed.

k. [any other specific types of projects?] Work within existing footprints of the existing structures on the site (e.g., roof replacement), provided that sufficient sedimentation and erosion controls are implemented during construction.

k-l. other?

Comment [e4]: PH wonders why we can't just use the language of Wetland Protection Act in 10.02 (2)(b)2c here.

Comment [SC5]: Or impervious to pervious? What about pervious patios? Or will these require an RDA? Or just reference "I" below?

Comment [e6]: PH suggests using language of WPA in 10.02(2)(b)2a here, "unpaved pedestrian walkways less than 30 inches wide for private use and less than three feet wide of public access on conservation property." 4 feet in width is less stringent than the WPA, which I don't think we should be.

Comment [e7]: PH believes this should be deleted because a) we should regulate work on land subject to flooding by either filing of an NOI or an RDA because that is what WPA requires, and b) we haven't seen a lot of evidence that folks now how to calculate this.

Comment [e8]: PH suggests adding additional projects that the WPA classifies as minor in section 10.02(2)(b) 2 and that are otherwise not part of WPA exemption for certain public facilities. The suggested additions would be: 10.02(2)(b) 2n, o, and p which are vegetating cutting for road safety maintenance, removal of signs, and pavement repair, resurfacing and reclamation of existing roadway/driveways under conditions noted in WPA

C. Procedure:

- a. The Applicant shall complete and submit a Form ____ [*create form and name it*] that shall contain sufficient information to determine where the project or work is proposed and whether it meets the requirements set forth in this section.
- b. The Applicant must provide a complete written description of all the work proposed and protective or mitigation measures proposed
- c. The Conservation Agent shall visit the site and the boundaries of Resource Areas must be clearly evident to the Conservation Agent;
- d. The Conservation Agent shall determine whether the project or work meets the criteria listed in Section __ (B) above.
- e. The Conservation Agent shall issue an Administrative Review Decision (Form ____) within 7?? days of receipt of Form ____ that fulfills the information requirements of this section.
- f. The Conservation Agent may approve the work as proposed, approve it with conditions, or deny the work.
- g. The decision will be filed with the Commission and a copy provided to the Applicant.

[*Discussion point: do we want the Commission to be able to appeal to itself/reverse decision?*]

D. Appeal

The decision rendered by the Conservation Agent may be appealed by the person seeking Administrative Review by filing a Request for Determination of Applicability. [*Do we want the following?*] Any person aggrieved by a decision rendered by the Conservation Commission under this Section may file an RDA with the Commission within ??? days.

E. x

REGULATIONS – WETLANDS PROTECTION

Section 1 - Introduction and Purpose.....	1
Section 2 - Jurisdiction.....	2
Section 3 - Burden of Going Forward and Burden of Proof.....	3
Section 4 - Definitions	3
Section 5 - Time Periods.....	9
Section 6 - Actions by Conservation Commission	10
Section 7 - Working Sessions	10
Section 8 - Determination of Applicability.....	11
Section 9 - Emergency Certification.....	12
Section 10 - Notice of Intent/Application for Permit.....	13
Section 11 - Filing Fees & Consultant Fees.....	14
Section 12 - Plan Requirements.....	16
Section 13 - Area to be Staked Prior to Site Inspection.....	18
Section 14 - Public Hearings.....	19
Section 15 - Issuance of Permit	20
Section 16 - Extension of Permit	21
Section 17 - Minor Amendment of Permit	21
Section 18 - Certificate of Compliance.....	23
Section 19 - Prohibited Materials	23
Section 20 - Banks	24
Section 21 - Vegetated Wetlands (Wet Meadows, Marshes, Swamps, and Bogs).....	25
Section 22 - Land Under Water Bodies (Under Any Stream, Pond or Lake).....	29
Section 23 - Land Subject to Flooding (Bordering and Isolated)	30
Section 24 - Vegetation Removal and Replacement.....	33
Section 25 - Adjacent Upland Resource Area	37
Section 26 - Vernal Pool and Its Associated 100-Foot No-Disturbance Zone	40
Section 27 - Riverfront Area.....	41
Section 28 - Variances	42
Section 29 - Areas of Critical Environmental Concern	43
Section 30 - Wildlife Habitat	43
Section 31 - Climate Change Resilience.....	43
Section 32 - Ecological Restoration Projects.....	44
Section 33 - Stormwater Management.....	44
Section 34 - Severability; Compliance With Court Decisions.....	44
Section 35 - Effective Date	45

Section 1 - Introduction and Purpose

A. Introduction. These regulations are promulgated by the Town of Arlington Conservation Commission pursuant to the authority granted to it under the Town of Arlington Wetlands Protection Bylaw (hereinafter referred to as the "Bylaw"). These regulations complement and implement the Bylaw and shall have the force of law upon their effective date. These regulations set forth additional definitions, regulations and performance standards necessary to protect the

values and/or intent of the Bylaw, protect additional resource areas and wetland values, and specify standards and procedures stricter than those of the Massachusetts Department of Environmental Protection's Wetlands Protection Act, G.L. c. 131, § 40 and implementing regulations at 310 CMR 10.00. Only those exemptions explicitly stated in the Act and state wetland regulations at 310 CMR 10.00 apply.

The portion of these regulations concerning consultants and consultant fees are also promulgated pursuant to the authority granted the Commission under G.L. c. 44, § 53G.

B. Purpose. The Bylaw sets forth a public review and decision making process by which activities affecting areas subject to protection under the Bylaw are to be regulated in order to ensure the protection of the following interests: public or private water supply, ground water supply, flood control, erosion control and sedimentation control, storm damage prevention, other water damage prevention, prevention of pollution, protection of surrounding land and other homes or buildings, wildlife protection, plant or wildlife habitat, aquatic species and their habitats, and the natural character or recreational values of the wetland resources (collectively, "Resource Area Values" or "Interests of the Bylaw"). The purposes of these regulations are to define and clarify that process by establishing standard definitions and uniform procedures by which the Arlington Conservation Commission shall carry out its responsibilities under the Bylaw.

Section 2 - Jurisdiction

- A. Areas subject to protection under the Bylaw and these regulations:
- (1) Any marsh, freshwater wetland, vernal pool, wet meadow, bog, swamp.
 - (2) Any river, stream, creek, pond, reservoir, or lake.
 - (3) Any bank of the areas set forth in A(1) or A(2) above.
 - (4) Any land under the areas set forth in A(2) above said waters.
 - (5) Any land bordering the areas set forth in A(1) or A(2) or A(3) above.
 - (6) Any riverfront area as hereinafter defined.
 - (7) Any land subject to flooding or inundation.
- B. Activities subject to regulation under the Bylaw and the provisions of these regulations:
- (1) Any activity proposed or undertaken which constitutes removing, filling, dredging, discharging into, building upon, degrading or otherwise altering any area specified in Subsection A of this Section is subject to regulation under the Bylaw and requires the filing of an application for permit.
 - (2) Any activity proposed or undertaken outside the areas specified in Subsection A above shall not be subject to regulation under the Bylaw unless, in the judgment of the Conservation Commission, said activity may result or has resulted in the removing, filling, dredging, discharging into, building upon, degrading or otherwise altering an area specified in Subsection A above. If anyone wishes to have the Conservation Commission determine whether an activity may be subject to regulation under the Bylaw, he or she shall submit a request for determination of applicability pursuant to Section 8(A) of these regulations.

- (3) For stormwater management systems constructed per Massachusetts Department of Environmental Protection's stormwater management policy (November 18, 1996) or standards (January 2, 2008), any activity proposed or undertaken within said stormwater management systems that includes the removal of less than 12 inches of sediment from a basin, water quality swale or constructed stormwater wetland (including forebays or other forms of pretreatment) is not subject to these regulations.

Section 3 - Burden of Going Forward and Burden of Proof

- A. The applicant shall have the burden of going forward with credible evidence from a competent source in support of all matters asserted pursuant to Subsection B below by the applicant in accordance with his or her burden of proof.
- B. The applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the work in the application will not have a significant or cumulative effect upon the wetland values protected by the Bylaw. Failure to meet the burden of proof shall be cause for the Conservation Commission to deny the application for permit along with any work or activity proposed therein.

Section 4 - Definitions

- A. Except as otherwise provided in the Bylaw or these regulations, the definitions of terms in the Bylaw shall be as set forth in the Wetlands Protection Act, M.G.L. c. 131, Section 40, and its regulations, 310 C.M.R. 10.00.
- B. As used in these regulations, the following terms shall have the meanings indicated:
 - (1) ABUTTER - shall mean the owner of any land within 100 feet of the property line of the land where the activity is proposed, as determined by the most recent assessors' records including any land located directly across a street, river, stream or pond that is within 100 feet of the project's limits of work.
 - (2) ACTIVITY – On or in any area subject to protection by the Bylaw and its regulations: any form of draining, dumping, dredging, damming, discharging, excavating, filling or grading; the erection, reconstruction or expansion of any buildings or structures; the driving of pilings; the construction or improvement of roads and other ways; the changing of runoff characteristics; the intercepting or diverging of groundwater or surface water; the installation of drainage, sewage and water systems; the discharging of pollutants; the destruction of plant life; the cutting or removal of 20% or more of the growth or limbs of trees or vegetation; and any other changing of the physical characteristics of land or the physical or chemical characteristics of water.
 - (3) ADAPTATION or resilience to the impacts of climate means measures designed or intended to protect resource areas from the impacts of climate change and to protect the ability of resource areas to mitigate the impacts of climate change through providing the interests protected by the Bylaw (the resource area values and functions).
 - (4) ADJACENT UPLAND RESOURCE AREA - the area 100 feet horizontally lateral from the boundary of any of the following Resource Areas: marsh, freshwater wetland, vernal

pool, wet meadow, bog, swamp, bank, stream, creek, pond, reservoir, or lake, or resource area defined in Section 2.A(1) through (4).

- (5) ALTER - shall mean to change the condition(s) of any area subject to protection by the Bylaw and shall include but not be limited to one or more of the following actions upon the resource areas protected by this Bylaw;;
- (a) fill, removal, excavation or dredging of soil, sand, gravel or aggregate material of any kind;
 - (b) changing of pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns or flood storage retention areas;
 - (c) draining, disturbing or lowering of the water level or water table;
 - (d) the dumping, discharging or filling with any material which could degrade the water quality;
 - (e) driving of pilings, erection of buildings or structures of any kind;
 - (f) placing of any object or obstruction whether or not it interferes with the flow of water;
 - (g) destruction, extensive trimming (defined as 20% or more of limbs or growth), or removal of plant life, vegetation, or trees;
 - (h) changing of water temperature, biochemical oxygen demand, nutrient concentration or chemical concentration or other natural characteristics of the receiving water;
 - (i) any activities, changes or work which pollutes any stream or body of water, whether located in or out of the Town of Arlington;
 - (j) application of pesticides and herbicides;
 - (k) any activity, change or work which adversely effects groundwater or drinking water supply; or
 - (l) any incremental activity that has or may have a cumulative adverse effect on the Resource Area Values protected by the Bylaw
- (6) APPLICANT - shall mean a person filing a Request for Determination of Applicability or Notice of Intent or other application with the Commission.
- (7) AREA OF CRITICAL ENVIRONMENTAL CONCERN - An area so designated by the Secretary of Environmental Affairs of the Commonwealth of Massachusetts pursuant to regulations (301 C.M.R. 12.00), said designation being due to the particular environmental factors which impact upon the areas in question and which highlight the importance of each area so designated.
- (8) AREA SUBJECT TO PROTECTION UNDER THE BYLAW - Any area specified in Section 2(A). It is used synonymously with "resource area," each of which is defined in greater detail in these regulations.
- (9) BANK - shall be defined as the portion of the land surface which normally abuts and confines a water body, often between the mean annual low flow level and the first observable break in the slope or the mean annual flood level, whichever is lower;
- (10) BEST AVAILABLE MEASURES - The most up-to-date technology or the best designs, measures or engineering practices that have been developed and that are commercially or readily available.
- (11) BEST MANAGEMENT PRACTICES - Technologies, designs, measures or engineering practices that are in general use to protect the resource area values of the Bylaw.

- (12) **BORDERING** shall be defined to include any land within either of the following or the greater thereof:
- (a) 100 feet horizontally lateral from the edge of any marsh, freshwater wetland, vernal pool, wet meadow, bog, swamp, river, stream, creek, pond, reservoir, or lake; or
 - (b) within the maximum lateral extent of the water elevation of the statistical 100 year frequency storm.
- (13) **BOUNDARY** - The boundary of an area subject to protection under the Bylaw. A description of the boundary of each area is found in the appropriate section of these regulations or in the Bylaw.
- (14) **BUFFER ZONE** – see definition for **ADJACENT UPLAND RESOURCE AREA**;
- (15) **BYLAW** – Article 8 of Title V of the Bylaws of the Town of Arlington, Massachusetts, entitled “Wetlands Protection”.
- (16) **BYLAW INTERESTS** – are defined in Section 1, above; also known as Resource Area Values
- (17) **CALIPER** – Diameter of a tree trunk (in inches) measured six inches above the ground for trees up to and including four-inch diameter, and 12 inches above the ground for larger trees.
- (18) **CERTIFICATE OF COMPLIANCE** - A written determination by the Conservation Commission as to whether work or a portion thereof has been completed in accordance with the permit issued under the Bylaw governing said work.
- (19) **CONDITIONS** - Those requirements set forth in a written permit issued by the Conservation Commission for the purpose of permitting, regulating or prohibiting any activity that removes, fills, dredges or alters an area subject to protection under the Bylaw.
- (20) **CONSERVATION COMMISSION** or **COMMISSION** - That body in Arlington comprised of members lawfully appointed pursuant to M.G.L. c. 40, Section 8C.
- (21) **CREEK** - The same as "stream."
- (22) **CUMULATIVE EFFECT** - shall mean an effect that is significant when considered in combination with other activities that have occurred, are going on simultaneously, or that are likely to occur, whether such other activities have occurred or are contemplated as a separate phase of the same project, such as the build-out of a subdivision or an industrial park, or unrelated but reasonably foreseeable actions, including other development projects that are currently under construction, under review or that may be expected to come forward.
- (23) **DATE OF ISSUANCE** - The date a permit, order, or determination is mailed, as evidenced by a postmark, or the date it is hand-delivered.
- (24) **DATE OF RECEIPT** - The date of delivery to an office, home or usual place of business by mail or hand delivery.
- (25) **DETERMINATION**:
- (a) **DETERMINATION OF APPLICABILITY** - A written finding by the Conservation Commission after a public hearing as to whether a site or the work proposed thereon is subject to the jurisdiction of the Bylaw.
 - (b) **DETERMINATION OF SIGNIFICANCE** - A written finding by the Conservation Commission, after a public hearing, that the area on which the proposed work is to be done or which the proposed work will alter is significant

to one or more of the interests identified in and protected by the Bylaw and these regulations.

- (c) NOTIFICATION OF NONSIGNIFICANCE - A written finding by the Conservation Commission, after a public hearing, that the area on which proposed work is to be done, or which the proposed work will alter, is not significant to any of the interests of the Bylaw.
- (26) DBH (“Diameter at Breast Height”) – The diameter (in inches) of the trunk of a tree (or, for multiple trunk trees, the aggregate diameters of the multiple trunks) measured 4 ½ feet from the existing grade at the base of the tree.
- (27) DREDGE - To deepen, widen or excavate, either temporarily or permanently.
- (28) EXTENSION PERMIT - A written extension of time within which the authorized work shall be completed.
- (29) EXTREME WEATHER EVENT means weather at the extremes of the historical distribution lying in the outermost 10 percent of a place’s history, including but not necessarily limited to droughts, high winds and microbursts, blizzards and ice storms, excessive precipitation, wildfires, tornadoes, and severe thunderstorms or hurricanes.
- (30) FILL - To deposit any material so as to raise the elevation of land surface or ground, either temporarily or permanently.
- (31) FLOOD CONTROL - The prevention or reduction of flooding and flood damage, both as currently expected to occur and as projected to occur based on the best available data regarding the impacts of climate change.
- (32) GROUNDWATER - shall mean all subsurface water contained in natural geologic formations or artificial fill including soil water in the zone of aeration. Activities within 100 feet of resource areas shall not significantly alter the existing quality or elevation of naturally occurring groundwater.
- (33) IMMINENT RISK TO PUBLIC HEALTH AND SAFETY - means the vegetation is an imminent risk to public health or safety or property as confirmed in writing and submitted to the Commission by the Arlington Tree Warden, Fire Department Representative, Public Safety Officer, or a certified arborist.
- (34) IMPACTS OF CLIMATE CHANGE - mean, but are not necessarily limited to, (i) extreme heat (ii) the timing, frequency, intensity, and amount of precipitation, (iii) storm surges and rising water levels, (iv) increased intensity and/or frequency of storm events or extreme weather events, and (v) frequency, intensity and duration of droughts.
- (35) IN – or WITHIN an area subject to protection under the Bylaw means in, through, under, over, cantilevered over, shading; does not require physical touching of said area subject to protection. With respect to structures, “In” is measured from the drip-line of the roof or foundation or footing, whichever is closer to the resource area.
- (36) INTERESTS IDENTIFIED IN THE BYLAW - Those interests specified in Section 1 of the Bylaw and Section 1(B) of these regulations. Also called Bylaw Interests or Resource Area Values.
- (37) ISSUING AUTHORITY - The Arlington Conservation Commission.
- (38) LAND SUBJECT TO FLOODING OR INUNDATION - shall mean the land within the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm; said boundary shall be that determined by reference to the most recently available flood profile data prepared for Arlington within which the work is proposed under the National Flood Insurance Program (“NFIP”).

Where NFIP data are unavailable or deemed by the Commission to be outdated or inaccurate or not reflecting current conditions, the boundary of said land shall be based on the maximum lateral extent of flood water which has been observed or recorded, or other evidence presented and considered by the Commission. Said land shall also include isolated areas which frequently or seasonably hold standing water; such areas may or may not be characterized by wetland vegetation or soil characteristics.

- (39) LAKE - Any open body of fresh water with a surface area of 10 acres or more, and shall include great ponds.
- (40) LAND SUBJECT TO FLOODING - Defined in Section 23.
- (41) LAND UNDER WATER BODIES AND WATERWAYS - The bottom of or land under the surface of a creek, river, stream, pond or lake. Land under water bodies is further defined in Section 22.
- (42) LOT - An area of land in one ownership, with definite boundaries. When an area of land is comprised of more than one lot, the lots share a common boundary and are owned or controlled by the same entity or individual(s), and the lots combined are used for the same purpose or enterprise, the Commission may consider the lots as a single LOT.
- (43) MARSH, FRESHWATER WETLAND, SWAMP, WET MEADOW, BOG - Defined in Section 21.
- (44) MEADOW (or WET MEADOW) - Defined in Section 21.
- (45) NOTICE OF INTENT - The written notice filed by any person intending to remove, fill, dredge or alter an area subject to protection under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, Section 40, or the Bylaw, or both.
- (46) ORDER - An order of conditions, superseding order or final order, whichever is applicable, issued pursuant to M.G.L. c. 131, Section 40 or the Bylaw, or both.
- (47) OWNER OF LAND ABUTTING THE ACTIVITY - The owner of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land located directly across a street, way, creek, river, stream, brook or canal.
- (48) PERMIT - shall mean the document issued by the Conservation Commission pursuant to this Bylaw which allows work in accordance with conditions set by the Commission in the resource areas protected by this Bylaw; also see “Order” in this definition section.
- (49) PERMIT DENIAL – shall mean the document issued by the Conservation Commission pursuant to the Bylaw which disallows proposed work.
- (50) PERSON - shall include any individual, group of individuals, associations, partnerships, corporations, business organizations, trust, estate, Commonwealth of Massachusetts when subject to town Bylaws, any public or quasi-public corporation or body when subject to town Bylaws or any other legal entity, including the Town of Arlington or its legal representative, agents or assigns.
- (51) PERSON AGGRIEVED - Any person who, because of an act of failure to act by the Conservation Commission, may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in the Bylaw.
- (52) PLANS - Such data, maps, engineering drawings, calculations, specifications, schedules and other materials, if any, deemed necessary by the Conservation Commission to describe the site and/or work to determine the applicability of the Bylaw or to determine the impact of the proposed work upon the interests identified in the Bylaw.

- (53) POND - Any open body of fresh water, either naturally occurring or man-made by impoundment or excavation, which is never without standing water due to natural causes, except in periods of extended drought. For purposes of this definition, extended drought shall mean any period of four or more months during which the average rainfall for each month is 50% or less of the ten-year average for that same month. Basins or lagoons which are part of wastewater treatment plants, swimming pools or other impervious man-made retention basins shall not be considered ponds.
- (54) PREVENTION OF POLLUTION - The prevention or reduction of chemicals (e.g., nutrients, hydrocarbons, solvents, metals, vapors) known or suspected of causing harm to humans, plants, or animals via exposure to any media (air, water, soil, sediment)
- (55) PRIVATE WATER SUPPLY - Any source or volume of surface or groundwater demonstrated to be in any private use or shown to have potential for private use for domestic purposes.
- (56) PROJECT LOCUS - The Lot on which an applicant proposes to perform an activity subject to regulation under the Bylaw
- (57) PROJECT SITE - the area within the Project Locus that comprises the limit of work for activities, including but not limited to, the dredging, excavating, filling, grading, the erection, reconstruction or expansion of a building or structure, the driving of pilings, the construction or improvement of roads or other ways, and the installation of drainage, stormwater treatment, environmentally sensitive site design practices, sewage and water systems.
- (58) PROTECTION OF FISHERIES - Protection of the capacity of an area subject to protection under the Bylaw to prevent or reduce contamination or damage to fish and to serve as their habitat and nutrient source.
- (59) PROTECTION OF WILDLIFE - The protection of any plant or animal species, including but not limited to those listed as endangered, threatened or special concern, or on the Watch List by the Massachusetts Natural Heritage Program; listed as Federally Endangered or Federally Threatened by the U.S. Fish and Wildlife Service; deemed locally threatened, in writing, by the Conservation Commission; and means protection of the ability of any resource area to provide food, breeding habitat, shelter or escape cover and species falling within the definition of wildlife set forth in these regulations.
- (60) PUBLIC WATER SUPPLY - Any source or volume of surface water or groundwater demonstrated to be in public use or approved for water supply pursuant to M.G.L. c. 111, Section 160 by the Division of Water Supply of the Department of Environmental Protection or shown to have a potential for public use.
- (61) QUORUM – refers the number of Commissioners who must be present before business may be transacted; here, it shall mean a majority of the number of Commissioners then in office.
- (62) REMOVE - To take away any type of material, thereby changing the elevation of land surface or ground, either temporarily or permanently.
- (63) REQUEST FOR DETERMINATION OF APPLICABILITY - A written request made by any person to the Conservation Commission for a determination as to whether a site or work thereon is subject to the Bylaw.
- (64) RESILIENCE – ability to minimize the negative impacts of climate change; to build capability and ability of a resource area to minimize negative impacts of climate change.

- (65) RESOURCE AREA - Is used synonymously with "area subject to protection under the Bylaw," each one of which is listed in the Bylaw and in Section 2 of these regulations.
- (66) RESOURCE AREA ENHANCEMENT – with the Commission's prior approval: removal or management of invasive species; removal of man-made debris, garbage, or trash; stabilization of bank or other resource area; or planting of non-invasive species of vegetation.
- (67) RIVER - shall mean any natural flowing body of water that empties to any ocean, lake, pond, reservoir, stream, or other river.
- (68) RIVERFRONT AREA - shall mean the area of land between a river's mean annual high water line and a parallel line measured 200 feet horizontally landward of the mean annual high water line.
- (69) SIGNIFICANT – shall mean plays a discernable role; e.g., a resource area is significant to an interest identified in the Act when it plays a role in the provisions or protection, as appropriate, of that interest.
- (70) STORM DAMAGE PREVENTION - The prevention of damage caused by water from storms, as currently occurs and is predicted by best available data to occur from the impacts of climate change, including but not limited to erosion and sedimentation, damage to vegetation, property or buildings or damage caused by flooding, waterborne debris or waterborne ice.
- (71) STREAM - A body of running water, including brooks and creeks, which moves in a definite channel in the ground due to hydraulic gradient, and includes streamlets and rivulets. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream.
- (72) STRUCTURE – means a combination of materials or things arranged or constructed for permanent or temporary occupancy, shelter, or use, such as a building, bridge, trestle, wireless communications facility, tower, rip rap associated with stormwater outfalls, framework, retaining wall, tank, tunnel, tent, shed, stadium, reviewing stand, platform, swimming pool, sports court, shelters, piers, wharves, bin, fence, sign, or the like.
- (73) TREE REMOVAL – Any act that will cause a tree to die within a three-year period.
- (74) VEGETATED WETLANDS - Defined in Section 21.
- (75) WITHIN – See IN above.
- (76) WILDLIFE - Any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod or other invertebrate other than a species of the Class insects which has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest whose protection under the provisions of the Bylaw would be a risk to man.
- (77) WILDLIFE HABITAT - shall mean the area being used by or necessary to provide breeding or nesting habitat, shelter, food and water for any animal species.
- (78) WORK – shall mean the same as "activity."

Section 5 - Time Periods

All time periods of 10 days or less specified in the Bylaw and these regulations shall be computed using business days only. In the case of a Determination or Order, such period shall commence on the first day after the date of issuance and shall end at the close of business on the 10th business day thereafter. All other time periods specified in the Bylaw and regulations shall

be computed on the basis of calendar days, unless the last day falls on a Saturday, Sunday or legal holiday, in which case the last day shall be the next business day following.

Section 6 - Actions by Conservation Commission

A. Where the Bylaw states that a particular action (except receipt of a request or notice) is to be taken by the Conservation Commission, that action is to be taken by more than half the members present at a meeting of at least a quorum. A quorum is defined as a majority of the members then in office.

B. Where the Bylaw states that a determination, permit, or notification or certificate of compliance shall be signed and issued by the Conservation Commission, that action is to be taken by the majority of the quorum present at a public meeting or hearing, or by a majority of the members then in office who need not convene as a body in order to sign said permit or notification, provided that the Commission met pursuant to the Open Meeting Law, M.G.L. c. 30A, Sections 18 through 25, when voting on the matter.

C. Where the Bylaw states that the Conservation Commission is to receive a request or notice, Conservation Commission means a member of the Conservation Commission or an individual designated by the Conservation Commission to receive such request or notice.

Section 7 - Working Sessions

When the Commission has time available, as a matter of courtesy, it may, but is not required, to conduct a working session with any person seeking guidance or direction on what type of application to file with the Commission, and what information the Commission might like to see in such an application in addition to that specified elsewhere in these regulations or the state Wetlands Protection Regulations. No one has a right to a working session.

Any working session shall be held in accordance with the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25.

For any working session, notwithstanding the Plan requirements in Section 12, the following information at a minimum must be provided (at the working session):

- (1) a map or plan showing the location of the proposed work;
- (2) photographs (minimum 5" x 7" size) of the area of the proposed work; and
- (3) a sketch of the area of the proposed work, showing existing conditions (structures, approximate locations of actual or potential resource areas).

Statements by the Commission or any Commission member in a working session shall not be construed as prejudging a project or guaranteeing a particular action by the Commission on a subsequent filing. The Commission shall not be bound any comments or opinions offered at a working session. A person who relies on any statements or information provided at the working session does so at his or her own risk.

Section 8 - Determination of Applicability**A. Requests for determination of applicability.**

- (1) Any person who desires a determination as to whether the Bylaw applies to land, or to work that may affect an area subject to protection under the Bylaw, may submit to the Conservation Commission electronically and by certified mail, regular mail, or hand delivery a written request for a determination of applicability and other application materials in accordance with the submittal requirements set forth in the filing guidelines for requests for determination of applicability provided in these regulations. Said person shall also provide the number of paper copies as set forth in the filing guidelines of the Commission.
- (2) Simultaneously with filing the Request for Determination of Applicability, the applicant shall provide notification to each abutter by hand delivery or certified mail, return receipt requested, first class mail, postage prepaid. An affidavit specifying how and when abutter notice was made shall accompany the RDA. The contents of the abutter notification shall be specified by the Commission and shall, at a minimum, provide a brief description of the proposed work (if any), identify resource areas involved, list the location (street address, assessors lot and map identifiers), specify where a copy of the request may be obtained, and the date, time, and place of the hearing.
- (3) Said request shall include sufficient information to enable the Conservation Commission to find and view the area and determine whether the proposed work will alter an area subject to protection under the Bylaw.
- (4) A request for determination of applicability shall include certification that the owner of the area subject to the request, if the person making the request is not the owner, has been notified in writing via certified mail, return-receipt requested that a determination is being requested under the Bylaw.
- (5) A request for determination of applicability shall be filed with the Commission no less than 10 days prior to the Commission's next meeting and simultaneously copies of the request for determination of applicability shall be hand delivered or mailed to each Commission member (including associate members). Failure to meet such filing and distribution deadline shall be cause for the Commission to continue or defer discussion of the request for determination to the following meeting.

B. Determination of applicability.

- (1) Within 21 days after the date of receipt of the request for a determination of applicability, the Conservation Commission shall hold a public hearing on the request for a determination of applicability. Notice of the time and place of the public meeting at which the determination will be made shall be given by the Conservation Commission at the expense of the person making the request not less than five business days prior to such meeting, by publication in a newspaper of general circulation in the Town of Arlington, and by mailing a notice to the person making the request, the property owner if not the applicant. The Commission will forward the notice of this hearing to the Town Manager, Board of Selectmen, Town Clerk, Planning Department, Town Counsel, Department of Public Works, Town Engineer, Zoning Board of Appeals, Board of

Health, Building Inspector, and the Redevelopment Board. Notice shall also be given in accordance with the Open Meeting Law, M.G.L. c. 30A, Sections 18 - 25.

Said determination shall be signed and issued by the Conservation Commission, and copies thereof shall be sent by the Conservation Commission to the person making the request and to the owner within 21 days of the close of the public hearing or any continuances thereof. Said determination shall be valid for three years from date of issuance and may not be extended or renewed.

- (2) The Conservation Commission shall find that the Bylaw applies to the land, or a portion thereof, if it is an area subject to protection under the Bylaw as defined in Section 2(A) above. The Conservation Commission shall find that the Bylaw applies to the work on the portion thereof, if it is an activity subject to the regulations under the Bylaw as defined in Section 2(B) above.
- (3) An application for permit shall be filed in the event of a positive determination, and all of the procedures set forth in Section 10 shall apply.
- (4) Request for Determination of Applicability vs. Notice of Abbreviated Resource Area Delineation. No Request for Determination of Applicability or Determination of Applicability shall be used to evaluate or confirm the delineation of any Resource Area.

Section 9 – Emergency Certification

A. Any person requesting permission to perform an emergency project, or within 24 hours of commencing an emergency project, shall specify in writing why the project is necessary for the protection of the health or safety of the citizens of the Town and what agency of the Commonwealth (or subdivision thereof) or Town entity is to perform the project or has ordered the project to be performed. Work may not proceed unless the Commission or its Administrator has certified the work to be necessitated by an emergency. In no case shall work or alteration by such certification extend beyond the minimum amount of work and time necessary to abate the emergency. If the project is certified to be an emergency by the Conservation Commission, its Administrator, its Chair or Vice Chair, or the Department of Environmental Protection, the certification shall include a description of the work which is to be performed and shall not include work beyond that necessary to abate the emergency. If practicable, a site inspection shall be made prior to certification. If issued by the Conservation Administrator, the emergency certification must be ratified at the next meeting of the Conservation Commission.

B. An emergency certification may be issued by the Conservation Commission Chair, Vice Chair, or Administrator and shall be issued only for the protection of public health or safety.

C. The time limitation for performance of emergency work shall not exceed 30 days, or 60 days for Immediate Response Actions approved by the Bureau of Waste Site Cleanup (BWSC) of the Department of Environmental Protection in accordance with the provisions of 310 CMR 40.0410. The emergency certification may be extended for an additional 15 days only for good cause.

D. In appropriate circumstances, the Commission may require that within 14 days of issuance of an emergency certification, a Notice of Intent/permit application shall be filed by the recipient of

the emergency certification with the Conservation Commission for review as provided by the Bylaw and these Regulations.

E. Upon failure to meet the requirements of this section and other requirements of the Conservation Commission, the Conservation Commission may, after notice and a public hearing, revoke or modify an emergency certification and order restoration and mitigation measures.

Section 10 – Notice of Intent/Application for Permit

A. Any person who proposes to do work or activity that will remove, fill, dredge or otherwise alter any area subject to protection under the Bylaw shall submit an application, called a Notice of Intent, for a permit on forms specified by the Conservation Commission and in conformance with the plan requirements in Section 12. Simultaneously with filing the Notice of Intent with the Commission or its Agent, an applicant shall provide an electronic copy of the application to the Commission and provide the number of paper copies specified by the Conservation Administrator, and said paper copies shall be provided with envelopes with sufficient first-class postage, prepaid, for mailing (by the Administrator) of such copies to Commission members. Failure to provide the specified number of paper copies or electronic copies shall be grounds for the Commission to continue the public hearing without the applicant's consent. Simultaneously with filing the Notice of Intent, the applicant shall provide notification to each abutter by hand delivery or certified mail, return receipt requested. The contents of the abutter notification shall be specified by the Commission and shall, at a minimum, provide a description of the proposed work, location (street address and assessor's map and lot identifier), where a copy of the request may be obtained, and the date, time, and location of the hearing.

B. Upon receipt of the application materials referred to in Subsection A above, the Conservation Commission shall assign a file number, which file number shall be that issued by the Department of Environmental Protection ("DEP") for a Notice of Intent also submitted under the Wetlands Protection Act. The DEP will notify the applicant of the file number. The designation of file number shall not imply that the plans and supporting documents have been accepted or judged adequate for the issuance of a permit and does not prevent the Commission from requesting additional information at a later time. For a Notice of Intent not also filed under the Wetlands Protection Act, the Commission shall issue a file number.

C. If only a portion of a proposed project or activity lies within an area subject to protection under the Bylaw and the remainder of the project or activity lies outside those areas, all aspects of the project must be described in the detail, provided also that in such circumstances the Notice of Intent shall also contain a description and calculation of peak flow and estimated water quality characteristics of discharge from a point source (both closed and open channel), when the point of discharge falls within an area subject to protection under the Bylaw.

D. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent.

E. An Abbreviated Notice of Resource Area Delineation may be filed to confirm the delineated boundary of Vegetated Wetland or other Area Subject To Protection Under the Bylaw on the

site. If utilized, an applicant must file an Abbreviated Notice of Resource Area Delineation prior to filing a Notice of Intent. Alternatively, the boundary of a Resource Area may be determined through the filing of a Notice of Intent. The procedures for a Notice of Intent shall be used for an Abbreviated Notice of Resource Area Delineation. Consistent with Section 6 of the Bylaw, “Applicant’s Obligation”, the applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the delineation of Vegetated Wetland or other Area Subject To Protection Under the Bylaw is accurate.

F. If the Commission determines that the applicant incorrectly or incompletely delineates a Resource Area(s), the Commission shall request that the applicant provide the correct delineation or missing information. If the correct delineation or missing information is not provided, the Commission shall close the hearing and issue a denial Order of Resource Area Delineation or denial Order of Conditions within 21 calendar days, specifying each Resource Area that is incorrectly or incompletely delineated. The Commission shall have the authority to deny any proposed Resource Area delineation when: 1) the application is incomplete; 2) the delineation is incorrect; or 3) the Commission requires additional information that is not provided by the applicant.

G. Review period. Resource area boundary delineations shall be reviewed only between April 1 and December 1 of each year. Delineations may be reviewed at the sole discretion of the Commission between December 1 and April 1, and shall be reviewed only when site conditions are such that the Commission believes it can adequately review the relevant resource area indicators (e.g., soils, vegetation, topography, hydrology).

Section 11 - Filing Fees & Consultant Fees

A. Filing Fees

(1) Rules:

- (a) Permit fees are payable at the time of application and are nonrefundable.
- (b) Permit fees shall be calculated by the Conservation Commission per the Bylaw.
- (c) Town, county, state, and federal projects are exempt from fees.
- (d) Upon request and demonstration of a compelling reason to do so, which circumstances the Commission anticipates shall be rare, the Commission in its sole discretion may grant a waiver or variance from, or reduction of, Permit fees.

(2) These filing fees are in addition to the filing fees charged under M.G.L. c. 131, Section 40, the Wetlands Protection Act.

(3) The requirements of this section shall be commensurate with the nature, scope, type, and cost of the proposed project or activity.

(4) Fees:

- (a) Fees are payable at the time of filing the application and are non-refundable.
- (b) Fees shall be calculated per schedule below.
- (c) Town, County, State, and Federal Projects are exempt from fees.
- (d) These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (the

Wetlands Protection Act).

(Category)

(R1) Request for Determination of Applicability: \$150

(N1) Minor project: \$200

(house addition, tennis court, swimming pool, utility work, work in, on or affecting any body of water, wetland or floodplain).

(N2) Single Family Dwelling: \$600

(N3) Multiple dwelling structures: \$600 + \$100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.

(N4) Commercial, industrial, and institutional projects:

\$800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding; 100 s.f. buffer disturbed.)

(N5) Subdivisions: \$600 + \$4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding

(N6) Other Fees: copies, printouts: per public records law

(N7) Minor project change: \$50

(N8) Work on docks, piers, revetments, dikes, and similar: \$4 per linear foot

(N9) Resource boundary delineation (ANRAD): \$1 per linear foot

(N10) Certificate of Compliance (COC or PCOC): No charge if before expiration of Order, \$200 if after expiration date of Order.

(N11) Amendments: \$300 or 50% of original local filing fee, whichever is less

(N12) Extensions:

a. Single family dwelling or minor project: \$100.

b. Other: \$150.

B. Consultant Fees

Upon receipt of a Notice of Intent, Abbreviated Notice of Resource Area Delineation, or Request for Determination of Applicability, or at any point during the hearing process, the Commission is authorized to require an applicant to pay a fee for the reasonable costs and expenses borne by the Commission for specific expert engineering and other consultant services deemed necessary by

the Commission to come to a final decision on the application. The fee is called the “Consultant Fee.”

This Consultant Fee is pursuant to Bylaw § 16(B)(11) and independent from the Commission’s “Rules for Hiring Outside Consultants” pursuant to G.L. Ch. 44, § 53G adopted June 21, 2007. The specific consultant services may include, but are not limited to, performing or verifying the accuracy of a resource area survey and delineation, analysis of resource area functions, including but not limited to wildlife habitat evaluations, hydrogeologic and drainage analysis, and advice on environmental or land use law and legal issues.

The Commission may require the payment of the Consultant Fee at any point in its deliberations prior to a final decision. Failure by the applicant to pay the Consultant Fee specified by the Commission within five (5) business days of the request for payment shall be cause for the Commission to deny issuance of a permit or other requested action.

The applicant shall pay the fee to be put into a revolving fund, which may be drawn upon by the Commission for specific consultant services approved by the Commission at one or more of its public meetings. The consultant shall be chosen by, and report only to, the Commission or its designee.

The exercise of discretion by the Commission in making its determination to require payment of a Consultant Fee shall be based upon its reasonable finding that additional information acquirable only through outside consultants would be necessary for the making of an objective decision.

The Commission shall return any unused portion of the Consultant Fee to the applicant unless the Commission decides at a public meeting that other further or additional or different services of the consultant are necessary to make an objective decision. Any applicant aggrieved by the imposition of or size of the Consultant Fee, or any act related thereto, may appeal according to the provision of the Massachusetts General Laws.

Section 12 - Plan Requirements

A. Plans shall describe the proposed activity and its effect on the environment. Due regard shall be shown for all natural features such as large trees, watercourses and water bodies, wildlife habitat and similar community assets.

- (1) The following items are set out as a minimum standard. The applicant may submit, or be required to submit, any further information that will assist in the Commission’s review and that is deemed necessary to determine the proposed effect on the interests protected by the Bylaw. The Conservation Commission may waive any of these plan requirements it deems insignificant or irrelevant for a particular project.
- (2) An eight-and-one-half-inch-by-eleven-inch reproduction of the USGS quadrangle sheet showing the project locus, and in the case where the project requires two or more plans to show the locus, an eight-and-one-half-inch-by-eleven-inch sheet clearly identifying the proposed site and work in addition to the labeled boundaries of the resource areas.

B. Plan content.

- (1) The following information shall be provided:
 - (a) The names and addresses of the record owner(s), the applicant(s) and of all abutters, as determined by the most recent local tax list, unless the applicant shall have a more recent knowledge of such abutters.
 - (b) Description of any alteration to flood storage capacity on the site. Include calculations and watershed maps if necessary.
 - (c) Soil characteristics in representative portions of the site.
 - (d) The Commission may in its sole discretion require the applicant to provide a runoff plan and calculations using the Rational Method or “the Cornell” method, and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes.
 - (e) Methods to be used to stabilize and maintain any embankments facing any wetlands, or show slope on plans of less than or equal to 3 to 1.
 - (f) Methods to control erosion during and after construction.

C. Plan specifications.

- (1) Drawings for a Request for Determination of Applicability must be to scale. All other application plans (e.g., for Notices of Intent) shall be drawn to scale (one inch equals 40 feet maximum) with the title designating the name of the project, location, the name(s) of the person(s) preparing the drawings and the date prepared, including all revision dates.
- (2) The Commission may require that plans and calculations be prepared and stamped by a registered professional engineer or a registered land surveyor of the Commonwealth of Massachusetts when, in the Commission’s judgment, the proposed work warrants such professional certification. The Commission may also require preparation and submission of supporting materials by other professionals including, but not limited to, registered landscape architect, environmental scientist, geologist or hydrologist when in its judgment the complexity of the proposed work and/or the wetland values of the Resource Areas warrants the relevant specialized expertise. Submitted materials may be used by the Commission to evaluate the effects of the proposed project/work on wetland values and compliance with these regulations. Submission of requested materials does not imply approval of the project.
- (2) Drawings must include the boundary and location of all Resource Areas protected by the Bylaw on the project site and within 100 feet, regardless of whether or not the applicant believes the work is subject to M.G.L. c. 131, Section 40, the Wetlands Protection Act or the Arlington Wetlands Bylaw
- (3) Alterations.
 - (a) Drawing must include a delineation of all alterations proposed in or adjacent to all Resource Areas as indicated below:
 - i. Areas to be dredged;
 - ii. Areas to be filled;
 - iii. Areas to be altered in any other way;
 - (b) All alterations should be clearly explained in text or footnotes.

- (4) All drawings shall show the distance twenty-five (25), fifty (50) and one-hundred feet from the resource areas listed in Section 2.A(1) through (3) as well as the Riverfront Area.
- (5) Calendar dates of measurements, samplings, contours and so forth should appear with such data. Datum shall be stated in NAVD 88 base. The contour interval shall be no greater than two feet.
- (6) Indicate existing and final contours and contour interval used, including pond bottom and stream invert contours.
- (7) Indicate locations and elevations of sills and bottom of foundation(s) and septic system(s) (if any).
- (8) Indicate soil characteristics in representative parts of property, including depth of peat and muck in wetlands.
- (9) Indicate locations, sizes and slopes of existing and proposed culverts and pipes.
- (10) Include cross-section of all wetlands, showing slopes, bank and bottom treatments for wetland creation or replication.
- (11) For projects in land subject to flooding, include existing and proposed water storage capacity of the property, including calculations and data on which the capacity is based. If filling is proposed, determine the effect of loss of storage on downstream channels and culverts.
- (12) Indicate location and elevation of bench mark used for survey.
- (13) Indicate existing trees, stone walls, fences, buildings, historic sites, rock ridges and outcroppings.
- (14) Indicate invert elevations on catch basins.
- (15) Indicate proposed on-site pollution control devices, such as hooded catch basins, oil absorption pillows, detention/retention basins, flow dissipaters or vegetative buffers.
- (16) Show locations/details of erosion control devices.
- (17) Assessors Map and Lot number(s) shall be shown.
- (18) If location is within an Area of Critical Environmental Concern, it shall be so indicated on the plan.

D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 13 - Area to be Staked Prior to Site Inspection

A. Before site inspections can be made by the Conservation Commission or the Commission's agent, the following conditions must be met:

- (1) Stakes shall be provided as follows:
 - (a) Stakes indicating the corners of houses or other structures nearest the wetland resource area.
 - (b) Stakes indicating the septic tank and the leaching field location.
 - (c) Stakes indicating the limit of work.
- (2) Lot number or house number should be posted at location.
- (3) Edges of all resource areas shall be delineated. (Please refer to rules and regulations for definitions.)
- (4) Directions shall be made available to the Commission to locate property.

- B. Failure to have the lot staked may result in no review and thus delay of a project.
- C. Upon completion of staking, the Conservation Commission shall be notified and a site inspection shall be arranged.
- D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 14 - Public Hearings

A. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent, and shall be advertised by the Commission at the applicant's expense in accordance with the Bylaw (Section 5) and the requirements of the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25. Abutter notification as detailed above shall be done by and at the expense of the applicant at the time of filing the Request for Determination of Applicability, Abbreviated Notice of Resource Area Delineation, Abbreviated Notice of Intent or Notice of Intent.

B. Continued hearings.

(1) Public hearings may be continued as follows:

- (a) Without the consent of the applicant to a date certain announced at the hearing should the applicant or the applicant's representative fail to provide at least ten (10) calendar days prior to that scheduled meeting/hearing sufficient abutter notification, newspaper notification, an electronic copy or a sufficient number of paper copies specified by the Conservation Administrator of any written information or documents intended for discussion at a meeting/hearing, or fail to provide to the Commission office or Administrator envelopes with sufficient first-class postage, prepaid, for mailing of such copies to Commission members.
- (b) Without the consent of the applicant to a certain date announced at the hearing either for receipt of additional information offered by the applicant or others or for information required of the applicant deemed necessary by the Conservation Commission at its discretion; or
- (c) With the consent of the applicant, to an agreed-upon date, which shall be announced at the hearing.
- (d) Without the consent of the applicant, for lack of receipt of the DEP file number, to certain date announced at the hearing; or
- (e) Without the consent of the applicant, for failure to pay the Consultant Fee pursuant to Section 11 of the Bylaw, to a date certain announced at the hearing.
- (f) Without the consent of the applicant, for failure to pay the filing fee pursuant to Section 11 of the Bylaw, to a date certain announced at the hearing.

- (2) The date, time and place of any such continued hearing shall be publicized in accordance with the Open Meeting Law, and notice shall be sent by the applicant to any person at the hearing who so requests.

Section 15 - Issuance of Permit

A. Within 21 days of the close of the public hearing or any continuance thereof on an application/Notice of Intent for a permit, the Conservation Commission shall:

- (1) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge, discharge into, build upon, degrade or otherwise alter, is not significant to any of the interests identified in the Bylaw, and shall so notify the applicant;
- (2) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge or alter, is significant to one or more of the interests identified in the Bylaw and issue a permit for the protection of said interests;
- (3) Make a determination that the proposed work fails to meet the design specifications, performance standards, or other requirements of the Bylaw, its regulations, or policies of the Commission, or that the project fails to avoid or prevent unacceptable significant or cumulative effects upon the resource area values of the Bylaw, or that there are no conditions adequate to protect said values; or
- (4) If the Conservation Commission finds that the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Bylaw, it may issue a permit denial. The permit shall specify the information which is lacking and why such information is necessary. If the Commission issues a permit denial, no work may occur until an applicant reapplies and the Commission grants a permit allowing work.

B. A permit allowing the proposed work shall impose such conditions, in the judgment of the Conservation Commission, that are necessary for the protection of those areas found to be significant to one or more of the interests identified in the Bylaw. Such a condition may include, but are not limited to the placement of permanent bounds (granite or metal) to demarcate all or part of a resource area or mitigation area. Said permit shall prohibit any work or any portion thereof that cannot be conditioned to meet said standards. The permit shall impose conditions setting limits on the quantity and quality of discharge from a point source (both open and closed channel) when said limits are necessary to protect the interests identified in the Bylaw.

C. The permit shall be valid for three years from the date of its issuance.

D. The permit shall be signed and issued by the Conservation Commission and shall be mailed or hand-delivered to the applicant, his or her agent or attorney.

E. A copy of the plans describing the work and the permit shall be kept on file by the Conservation Commission and shall be available to the public at reasonable hours.

F. Prior to the commencement of any work permitted or required by the permit, the permit shall be recorded in the Registry of Deeds or the Land Court. In the case of recorded land, the permit shall also be noted in the Registry's Grantor Index under the name of the owner of land upon

which the proposed work is to be done. In the case of registered land, the permit shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is to be done. Certification of recording shall be sent to the Conservation Commission within two weeks of recording. If work is undertaken without the applicant first recording the permit, the Conservation Commission may issue an enforcement order.

Section 16 - Extension of Permit

A. The Conservation Commission may extend a permit for a period of up to an additional three-year period from date of issuance. No permit may be extended for more than six years after date first issued. The request for an extension shall be made to the Conservation Commission at least 30 days prior to the expiration of the permit. The Commission shall hold a public hearing in accordance with the Bylaw and these regulations within 30 days of receipt of said request. Should said public hearing be continued past the date of the expiration of the permit, the expiration date shall be stayed to the date on which the Commission votes on whether to extend the permit, should the Commission vote not to grant the request for permit extension.

B. The Conservation Commission may deny the request for an extension and require the filing of a new application for permit for the remaining work in the following circumstances:

- (1) Where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals and in the obtaining of other necessary permits;
- (2) Where new information, not available at the time the permit was issued, has become available and indicates that the permit is not adequate to protect the resource area values identified in the Bylaw;
- (3) Where incomplete work is causing damage to the resource area values identified in the Bylaw;
- (4) Where work has been done in violation of the permit or the Bylaw or these regulations; or
- (5) Where resource areas have changed.

C. If issued by the Conservation Commission, the extension permit shall be signed by a majority of the quorum of the members of the Conservation Commission present.

D. The extension permit shall be recorded in the Land Court or the Registry of Deeds, whichever is appropriate. If work is undertaken without the applicant recording the extension permit, the Conservation Commission may issue an enforcement order or may itself record the extension permit.

Section 17 – Minor Amendment of Permit

A. In the event a permittee seeks to make a minor modification to an existing permit or other Commission determination, any such requested modification shall have the same or less impact on the resource area values protected by the Bylaw as the approved work. Requests for minor amendment shall follow the procedure described below. No amended permit shall be issued for a permit that has expired.

B. Procedure:

- (1) An applicant shall make a request for an amendment to the Conservation Commission. The request shall be either orally at a regularly scheduled meeting of the Commission or by submitting the request to the Commission in writing, which such request shall be discussed at a regularly scheduled meeting. The request shall describe what changes have been proposed and present any pertinent plans showing such changes.
- (2) The Conservation Commission first shall determine whether the requested change warrants the filing of a new Notice of Intent or whether it is of a sufficiently minor nature and can be considered as an amendment to the original Final Order of Conditions. The Conservation Commission may in its sole and unreviewable discretion determine the project change is relatively minor only if:
 - (a) the purpose of the project has not changed,
 - (b) the scope of the project has not increased,
 - (c) the project still meets relevant standards in these regulations,
 - (d) resource areas are still protected, and
 - (e) the potential for adverse impacts to resource area values will not be increased.

If the Conservation Commission determines the proposed change(s) is not minor, then it shall not issue an amendment, but instead require the filing of a new Notice of Intent/application for permit if the permittee intends to continue to pursue the modification.

Ministerial correction of obvious mistakes, such as citing a wrong file number or typographical errors, may be accomplished by correction of the permit by the Commission or the Conservation Administrator.

- (3) If the Conservation Commission determines that a new Notice of Intent is not necessary, the applicant shall at its expense publish newspaper notice of the proposed amendment in accordance with the Bylaw (Section 5). A butter notification of the proposed amendment shall also be done by and at the expense of the applicant at the time. The notice must describe that an amendment to an Order/permit is being requested, that the request is pending before the Commission for review, the date of the public hearing at which the Commission will consider the request for amendment, and where a copy of the application for the requested change may be obtained. The Conservation Commission shall provide notice of the public hearing in accordance with the requirements of the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25.
- (4) Under no circumstances will the issuance of an Amended Order of Conditions extend the effective date of the original Final Order of Conditions. The Amended Order shall run with the term of the original Order of Conditions or the effective date of an extended Order of Conditions.
- (5) The Amended Order should be issued on the form provided for an Order of Conditions/Permit, with the insertion of the word "Amended" and the amendment date. Amended Orders/Permit must be recorded with the registry of Deeds in the same manner as Orders.

Section 18 - Certificate of Compliance

- A. Upon written request by the applicant, a certificate of compliance shall be issued by the Conservation Commission within 21 days of receipt thereof, and shall certify if it so determines, that the activity or portions thereof described in the application for permit and plans has been completed in compliance with the permit and any amendment(s) thereto. If approved by the Conservation Commission, the certificate of compliance shall be signed and issued by the Commission.
- B. Prior to the issuance of a certificate of compliance, a site inspection shall be made by the Conservation Commission or its agent, in the presence of the applicant or the applicant's agent if applicant so desires.
- C. If the Conservation Commission determines, after review and inspection, that the work has not been done in compliance with the permit, it shall refuse to issue a certificate of compliance. Such refusal shall be issued within 21 days of receipt of a request for a certificate of compliance, shall be in writing, and shall specify the reasons for denial.
- D. If a project has been completed in accordance with plans stamped by a registered professional engineer or a land surveyor or a registered landscape architect for landscaping projects, a written statement by such a professional person certifying substantial compliance with the plans and setting forth what deviation, if any, exists from the plans approved in the permit shall accompany the request for a certificate of compliance. The Commission reserves the right to administer the requirements of this paragraph in its sole discretion commensurate with the nature, scope, type, and cost of the proposed project or activity.
- E. If the permit contains conditions which continue past the completion of the work, such as maintenance or monitoring, the certificate of compliance shall specify which, if any, of such conditions shall continue. The certificate shall also specify to what portion of the work it applies, if it does not apply to all the work regulated by the permit.
- F. The certificate of compliance shall be recorded in the Land Court or Registry of Deeds, whichever is appropriate. Certification of recording shall be sent to the Conservation Commission on the form specified by the Commission.

Section 19 – Prohibited Materials

The Commission has determined that the following materials are harmful to the resource area values of the Bylaw and therefore are prohibited in resource areas:

- A. Copper pipes on the exterior of any structure.
- B. Coal-tar based sealant (asphalt-emulsion based sealant is allowed).

Section 20 - Banks**A. Findings.**

- (1) Banks are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to the prevention of pollution, to erosion control and sedimentation control, and to the protection of fisheries. Where banks are composed of concrete, asphalt or other artificial impervious material, said banks are likely to be significant to flood control and storm damage prevention.
- (2) Banks are areas where groundwater discharges to the surface and where, under some circumstances, surface water recharges the groundwater.
- (3) Where banks are partially or totally vegetated, the vegetation serves to maintain their stability, which in turn protects water quality by reducing erosion and siltation. Partially or totally vegetated banks provide habitat for wildlife.
- (4) Banks may also provide shade that moderates water temperatures, as well as providing breeding habitat and escape cover and food, all of which are significant to the protection of fisheries. Banks which drop off quickly or overhang the water's edge often contain numerous undercuts which are favorite hiding spots for important species.
- (5) Banks act to confine floodwater during the most frequent storms, preventing the spread of water to adjacent land. Because banks confine water during such storms to an established channel, they maintain water temperatures and depths necessary for the protection of fisheries. The maintenance of cool water temperatures during warm weather is critical to the survival of many species. An alteration of a bank that permits water to frequently and consistently spread over a larger and more shallow area increases the amount of property which is routinely flooded, as well as elevating water temperatures and reducing fish habitat within the main channel, particularly during warm weather.
- (6) Land bordering or within 100 feet of a bank is likely to be significant to the protection and maintenance of the bank, and therefore to the protection of the interests which these resources serve to protect.

B. Definition, critical characteristics and boundary.

- (1) A bank is the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent floodplain, or, in the absence of these, it occurs between a water body and an upland. A bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel or stone.
- (2) The physical characteristics of a bank, as well as its location, as described in the foregoing Subsection B(1), are critical to the protection of the interests specified in Subsection A.
- (3) The upper boundary of a bank is the first observable break in the slope or the mean annual flood level, whichever is higher in elevation. The lower boundary of a bank is the mean annual low flow level or mean low water level.

C. No activity, other than the maintenance of an already existing structure or Resource Area Enhancement, shall be allowed which will result in the building within or upon, removing, filling, or altering of a bank.

D. Any activity which is allowed under this section on a bank or on land bordering or within 100 feet of a bank shall comply with the following regulations. Any proposed work on a bank or bordering or within 100 feet of a bank shall not impair the following:

- (1) The physical stability of the bank.
- (2) The water-carrying capacity of the existing channel within the bank.
- (3) Groundwater and surface water quality.
- (4) The capacity of the bank to provide breeding habitat, escape cover and food for fisheries.

E. No work shall be performed within 50 feet of an inland bank that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program.

Section 21 - Vegetated Wetlands (Wet Meadows, Marshes, Swamps, and Bogs)

A. Findings.

- (1) Vegetated wetlands are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution, and to the protection of fisheries. In these ways, vegetated wetlands are important in mitigating the negative impacts of climate change.
- (2) The plant communities, soils and associated low, often flat topography of vegetated wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous) and toxic substances (such as heavy metal compounds) that occur in runoff and floodwaters.
- (3) Some nutrients and toxic substances are detained for years in plant root systems or in the soils. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality.
- (4) Vegetated wetlands are areas where groundwater discharges to the surface and where, under some circumstances, surface water discharges to the groundwater.
- (5) The profusion of vegetation and the low, flat topography of vegetated wetlands slow down and reduce the passage of floodwaters during periods of peak flow by providing temporary floodwater storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in vegetated wetlands is essential to the maintenance of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies.
- (6) Wetland vegetation provided shade that moderates water temperatures important to fish life. Wetlands flooded by adjacent water bodies and waterways provide food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by overbank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide quantities of the microscopic plant and animal life required.
- (7) Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important fish. Bluegills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), rock bass

(*Ambloplites rupestris*) and all trout species feed upon nonaquatic insects, Largemouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*) and northern pike (*Esox lucius*) that feed upon small mammals, snakes, nonaquatic insects, birds and amphibians. These wetlands are also important to the protection of rare and endangered wildlife species.

- (8) Vegetated wetlands, together with land bordering or within 100 feet of a vegetated wetland, serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces which may be detrimental to wildlife, and fisheries downstream of the vegetated wetlands.
- (9) Land bordering or within 100 feet of a vegetated wetland is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interests which these resource areas serve to protect.

B. Definition, critical characteristics and boundary.

- (1) Vegetated Wetlands are freshwater wetlands, including both bordering vegetated wetlands (i.e., bordering on freshwater bodies such as on creeks, rivers, streams, ponds and lakes), and isolated vegetated wetlands which do not border on any permanent water body. The types of freshwater wetlands are wet meadows, marshes, swamps, bogs and vernal pools. Vegetated Wetlands are areas where soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground water and surface water hydrological regime, soils and the vegetational community which occur in each type of freshwater wetlands, including both bordering and isolated vegetated wetlands, are defined under the Bylaw based on G.L. c. 131, § 40.
- (2) The boundary of Vegetated Wetland, whether Bordering or Isolated, is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the Act.
- (3) The boundary shall be defined or delineated by the following:
 - (a) Areas containing a predominance of wetland indicator plants are presumed to indicate the presence of saturated or inundated conditions. Therefore, the boundary as determined by 50% or more wetland indicator plants shall be presumed accurate when:
 - 1. all dominant species have an indicator status or of obligate, facultative wetland+, facultative wetland, or facultative wetland- and the slope is distinct or abrupt between the upland plant community and the wetland plant community; or
 - 2. the Conservation Commission determines that sole reliance on wetland indicator plants will yield an accurate delineation.
 - (b) When the boundary is not presumed accurate as described in (3)(a)(1.-2.) or to overcome the presumption, credible evidence shall be submitted by a competent source demonstrating that the boundary of Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. The Conservation Commission must evaluate vegetation and indicators of saturated or inundated conditions if submitted by a credible source, or may require credible evidence of saturated or inundated conditions sufficient to support wetland indicator plants, which shall include one or more of the following:

1. groundwater, including the capillary fringe, within a major portion of the root zone;
 2. observation of prolonged or frequent flowing or standing surface water;
 3. characteristics of hydric soils.
- (c) Where an area has been disturbed (e.g., by cutting, filling, or cultivation), the boundary is the line within which there are indicators of saturated or inundated conditions sufficient to support a predominance of wetland indicator plants, a predominance of wetland indicator plants, or credible evidence from a competent source that the area supported, or would support under undisturbed conditions, a predominance of wetland indicator plants prior to the disturbance or characteristic of hydric soils.

C. No activity, other than the maintenance of an already existing structure or Resource Area Enhancement, which will result in the building within or upon, removing, filling or altering of a vegetated wetland shall be permitted by the Conservation Commission.

D. No work shall be performed within 50 feet of a vegetated wetland that abuts on an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species.

E. Wetland Replication

(1) Introduction

Notwithstanding the foregoing subsections C. and D., the Commission in its sole discretion may allow work in Vegetated Wetland which results in the loss of up to 5,000 square feet of Vegetated Wetland when such area is replaced in a manner to ensure that the replacement area will provide a viable wetland that replaces the functions and values of the area lost. Detailed project design is required to guarantee that wetland impacts are avoided to the maximum extent possible, to minimize absolutely necessary impacts and lastly, to successfully replicate losses that cannot be avoided. The design of replication areas shall carefully consider and incorporate to the extent practicable the Massachusetts Inland Wetland Replication Guidelines (DEP, 2002). Restoration of a degraded wetland may be accepted by the Commission as satisfying the foregoing replication requirement.

(2) Required design criteria

Projects involving Wetlands Filling and/or permanent Alterations shall meet the requirements of 310 C.M.R. 10.60(3) and 310 C.M.R. 10.55(4) and the following requirements of the Commission:

- (a) The proposed replication area design must be submitted to the Commission for approval as part of the submittal of the project Notice of Intent.
- (b) The replication area must be shown to sufficiently duplicate the functions and values of the wetland proposed to be altered.
- (c) The area of the wetland replication shall be at a 2:1 ratio to that area of wetland loss.

- (d) The type of wetland created shall be similar to that lost in terms of physiology and function (e.g., similar plant species, hydrologic regime, and soils) except where an improvement in physiology and function is proposed. The applicant will take into consideration the impacts of climate change on the replication of the wetland, especially in terms of mitigation of extreme heat, resilience to increased/extreme storm events vents, and changes in precipitation.
- (e) The replication area must have similar groundwater and surface elevation as the lost area.
- (f) The replication area must have a similar location relative to the bank as the lost area when replicating bordering vegetated wetland.
- (g) The replication area must have an unrestricted surface hydraulic connection to the same waterbody or waterway as the lost area when replicating bordering vegetated wetland.
- (h) The location of the replication areas must be in the same general area as the lost wetland. The location of replacement wetland areas shall be in the following order of preference: 1. on site, 2. within the same watershed as the lost area, or 3. within the Town of Arlington.
- (i) The replication area shall be constructed prior to alteration of the existing wetland and during the same growing season. When replication involves transplanting plants and materials from existing wetland to the replicated wetland, the replication area shall be constructed, to the extent possible, immediately after alteration of the existing wetland. When transporting, all care shall be taken to prevent the transporting of invasive plants and invasive materials in soils.
- (j) The proposed replication area must be clearly flagged for Commission site inspection before the Notice of Intent filing.
- (k) The proposal for a replication area (submitted with the Notice of Intent) shall include a detailed plan of the wetland replication showing:
 - (i) cross-section with indication of groundwater level, soil profile and thickness of organic soil in the existing and proposed wetlands;
 - (ii) plant species detail, including number, type and location of species found in the replication area to be altered, and number, types and locations of species to be introduced into the replacement area;
 - (iii) detail of stabilization plans for replication area of Banks;
 - (iv) Wildlife Habitat diversity plan; and
 - (v) any trees over 2” dbh shall be replaced in accordance with Section 24 of these Regulations, “Vegetation Removal and Replacement”.
- (l) If, after three growing seasons, the Commission determines that the replication area has not satisfactorily developed into a wetland replacing the wetland area lost, the applicant or owner may be required to submit new plans to successfully replicate said

lost wetland. No Certificate of Compliance shall be issued until the Commission has determined that a satisfactory replication area has been completed at the end of three growing seasons.

Section 22 - Land Under Water Bodies (Under Any Stream, Pond or Lake)

A. Findings.

- (1) Land under water bodies and waterways is likely to be significant to wildlife, to public and private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution and to the protection of fisheries.
- (2) Where land under water bodies and waterways is composed of pervious material, such land represents a point of exchange between surface water and groundwater.
- (3) The physical nature of land under water bodies and waterways is highly variable, ranging from deep organic soils and fine sedimentary deposits to rocks and bedrock. The organic soils and sediments play an important role in the process of detaining and removing dissolved and particulate nutrients (such as nitrogen and phosphorous) from the surface water above. They also serve as traps for toxic substances (such as heavy metal compounds).
- (4) Land under water bodies and waterways, in conjunction with banks, serves to confine floodwater within definite channel during the most frequent storms. Filling within this channel blocks flows which in turn causes backwater and overbank flooding during such storms. An alteration of land under water bodies and waterways that causes water to frequently spread out over a larger area at a lower depth increases the amount of property which is routinely flooded. Additionally, such alteration results in an elevation of water temperature and a decrease in habitat in the main channel, both of which are detrimental to fisheries, particularly during periods of warm weather and low flows.
- (5) Land under rivers, streams and creeks that is composed of gravel allows the circulation of cold, well-oxygenated water necessary for the survival of fish species. River, stream and creek bottoms with a diverse structure composed of gravel, large and small boulders and rock outcrops provide escape cover and resting areas for fish species. Such bottom type also provides areas for the production of aquatic insects essential to fisheries.
- (6) Land under ponds and lakes is vital to a large assortment of warm-water fish during spawning periods. Species such as largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), blue gills (*Lepomis macrochirus*) pumpkinseeds (*Lepomis gibbosus*), black crappie (*Promoxis nigromaculatus*) and rock bass (*Ambloplites rupestris*) build nests on the lake and bottom substrates within which they shed and fertilize their eggs.
- (7) Land within 100 feet of any bank abutting land under a water body is likely to be significant to the protection and maintenance of land under a water body, and therefore to the protection of the interests which these water bodies serve to protect.

B. Definition, critical characteristics and boundaries.

- (1) Land under water bodies 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.

- (2) The physical characteristics and location of land under water bodies and waterways specified in the foregoing Subsection B(1) are critical to the protection of the interests specified in Subsection A above.
- (3) The boundary of land under water bodies is mean low water level.

C. No activity, other than the maintenance of an already existing structure or resource area enhancement, which will result in the building within or upon, or removing, filling, dredging or altering of land under a water body or within 25 feet of land under a water body shall be done without written permission of the Commission.

D. The Commission may allow activity on land under a water body or within 100 feet of land under a water body if it complies with the following regulations. Any proposed work upon land under a water body or with 100 feet of land under a water body 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.
- (2) Ground and surface water quality and quantity.
- (3) The capacity of said land to provide breeding habitat, escape cover or food for fisheries.

E. No work shall be performed within 50 feet of land under water bodies that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program.

Section 23 - Land Subject to Flooding (Bordering and Isolated)

A. Findings.

- (1) Bordering land subject to flooding.
 - (a) Bordering land subject to flooding is an area which floods from a rise in a bordering waterway or water body. Such areas are presumed to be significant to flood control and storm damage prevention and protection of surrounding land and other homes or buildings. In these ways, bordering land subject to flooding is important in mitigating the negative impacts of climate change.
 - (b) Bordering land subject to flooding provides a temporary storage area for floodwater which has overtopped the bank of the main channel of a creek, brook, river or stream or the basin of a pond or lake. During periods of peak runoff, floodwaters are both retained (i.e., slowly released through evaporation and percolation) and detained (slowly released through surface discharge) by bordering land subject to flooding. Over time, incremental filling of these areas causes increases in the extent and level of flooding by eliminating flood storage volume or by restricting flows, thereby causing increases in damage to public and private properties and downstream resource areas.
 - (c) The hydrologic regime, plant community and structure, topography, soil, and proximity to water bodies or vegetated wetlands provide important food, shelter, migratory, and overwintering areas, and breeding for wildlife.
 - (d) The hydrologic regime, surrounding plant community, topography, soil, and proximity to water bodies or vegetated wetlands make bordering land subject to flooding allow vegetation to successfully grow in these areas.

(2) Isolated land subject to flooding.

- (a) Isolated land subject to flooding is an isolated depression or a closed basin which serves as a ponding area for runoff or high groundwater which has risen above the ground surface. Such areas are likely to be locally significant to flood control and storm damage prevention. In this way, isolated land subject to flooding is important in mitigating the impacts of climate change. In addition, where such areas are underlain by pervious material they are likely to be significant to public or private water supply and to groundwater supply. Where such areas are underlain by pervious material covered by a mat or organic peat and muck, they are also likely to be significant to the prevention of pollution. Isolated land subject to flooding provides important breeding habitat for amphibians and some rare plants. Isolated land subject to flooding provides a temporary storage area where runoff and high groundwater pond and slowly evaporate or percolate into the substrate. Filling causes lateral displacement of the ponded water onto contiguous properties, which may result in damage to said properties.
- (b) Isolated land subject to flooding, where it is underlain by pervious material, provides a point of exchange between groundwater and surface waters. Contaminants introduced into said area, such as road salts, find easy access into the groundwater. Where these conditions occur and a mat of organic peat or muck covers the substrate of the area, said mat serves to detain and remove contaminants which might otherwise enter the groundwater.

B. Definitions, critical characteristics and boundaries.

(1) Bordering land subject to flooding.

- (a) Bordering land subject to flooding is an area with low, flat topography adjacent to and inundated by floodwaters rising from brooks, creeks, rivers, streams, pond or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.
- (b) The topography and location of bordering land subject to flooding specified in the foregoing Subsection B(1)(a) are critical to the protection of the interests specified in subsection A(1) above.
- (c) The boundary of bordering land subject to flooding is the estimated or observed maximum lateral extent of floodwater which will theoretically result or has resulted from the statistical 1%-annual-chance flood (also known as the one-hundred-year-frequency storm).
 - 1. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the Town of Arlington within which the work is proposed under the National Flood Insurance Program (NFIP, currently administered by the Federal Emergency Management agency, successor to the U.S. Department of Housing and Urban Development). Said boundary, so determined, shall be presumed accurate. This presumption may be overcome only by credible evidence from a registered professional engineer or other professional competent in such matters.
 - 2. Notwithstanding the foregoing, where NFIP profile data is unavailable or is determined by the Commission to be outdated, inaccurate or not reflecting current conditions, the boundary of bordering land subject to flooding shall be the

maximum lateral extent of floodwater which has been observed or recorded or the Commission may require the applicant to determine the boundary of Bordering Land Subject to Flooding by engineering calculations which shall be:

- i. based upon a design storm of 8.48 inches of precipitation in 24 hours (from “Cornell” atlas);
- ii. based upon the standard methodologies set forth in U.S. Soil Conservation Service Technical Release No. 55, Urban Hydrology for Small Watersheds and Section 4 of the U.S. Soil Conservation Service, National Engineering Hydrology Handbook; and
- iii. prepared by a registered professional engineer or other professional competent in such matters.

(2) Isolated land subject to flooding.

- (a) Isolated land subject to flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water. Isolated land subject to flooding may be underlain by pervious material, which in turn may be covered by a mat of peat or muck.
- (b) The characteristics specified in the foregoing Subsection B(2)(a) are critical to the protection of the interests specified in Subsection A(2) above.
- (c) The boundary of isolated land subject to flooding is the perimeter of the largest observed or recorded volume of water confined in said area.

C. No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, or removing, filling, dredging or altering of, land subject to flooding shall be conducted without written permission of the Conservation Commission.

D. The Commission may permit activity on land subject to flooding provided it shall not result in the following:

- (1) Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area;
- (2) Adverse effect on public and private water supply or groundwater supply, where said area is underlain by pervious material;
- (3) An adverse effect on the capacity of said area to prevent pollution of the groundwater, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck.

The applicant shall take into consideration the impacts of climate change on the activities proposed on land subject to flooding, especially in terms of the compensatory flood storage as a climate change resilience strategy. Any such activity shall provide compensatory flood storage for all flood storage volume that will be lost at each elevation. Compensatory flood storage shall be at a 2:1 ratio, minimum, for each unit volume of flood storage lost at each elevation. Compensatory flood storage shall mean a volume not previously used for flood storage, shall have an unrestricted hydraulic connection to the same waterway or water body, and, with respect to waterways, shall be provided within the same reach of the river, stream, or creek. No new parking areas or garages shall be used as compensatory flood storage. The Commission has found that use of such areas or garages results in a significant or cumulative effect upon the resource area values protected by the Bylaw, and has found that these facilities can result in the

uncontrolled acute or chronic release of these harmful materials into the resource areas protected by the Bylaw. The Commission has also found that using these structures for flood storage can result in the damage of vehicles and property under flooding conditions.

E. No work shall be performed within 50 feet of land subject to flooding that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

Section 24 - Vegetation Removal and Replacement

A. Findings: Vegetation in a resource area protected by the Bylaw is significant for wildlife, wildlife habitat and water quality. In addition, vegetation controls flood and storm damage, thereby mitigating potential impacts of climate change. Vegetation provides food, shelter, socialization, shade, water detention, sediment control, bank stabilization, biodiversity, pollutant uptake, evapotranspiration of water, aesthetics, and atmospheric purification. In addition, plant size ordinarily is proportional to habitat value; i.e., large wooded trees are of greatest habitat value, followed by bushes, and then ground cover. Thus, an adequate quantity of vegetation must be maintained so that resource areas protected by the Bylaw can provide the resource area values protected by the Bylaw, including, but not limited to: flood control, storm damage prevention, pollution abatement, wildlife protection, aesthetic value, and recreation.

B. No vegetation in a resource area protected by the Bylaw shall be damaged, extensively pruned, or removed without written approval by the Commission and in-kind replacement. Extensive pruning is defined as removal of 20% or more of limbs or growth. For extensive pruning or removal of vegetation because of an Imminent Risk to Public Health and Safety, in-kind replacement shall be to the extent practicable as determined by the Commission (See Section 9 of these Regulations for Emergency Certification).

C. "In-kind replacement" shall refer to a combination of species type and surface area as defined by the area delineated by the drip line of the affected plant(s). "In-kind" means the same type and quantity of plant species that was removed, extensively pruned, or damaged, unless compelling evidence is presented in writing that explains why the resource area values under the Bylaw are promoted through an alternative proposal, and planted within the same resource area or another resource area located in close proximity on the project site. Notwithstanding the foregoing, only non-invasive plant species shall be planted as replacements.

D. The criteria for removal of vegetation follow. In all instances, the reasons for removal must be expressed in writing before the removal. In administering this standard, the Commission shall consider species selection, location, and timing of the plantings.

(1) Health of Vegetation

Vegetation in a state of irreversible decay, or undesirable vegetation present as a result of unintentional lack of maintenance may be offered as a reason(s) for removal.

(2) Bank or Slope Stabilization

A bank or slope stabilization plan requires the restructuring of soils occupied by vegetation.

(3) Invasive Species

The vegetation being removed is an aggressive, invasive, or non-native species as confirmed by wetlands scientist or as listed on a wetlands plant list acceptable to the Commission, such as, but not limited to that published by the United States Fish and Wildlife Service.

(4) Ecological Restoration

The vegetation is being removed as part of a project whose primary purpose is to restore or otherwise improve the natural capacity of a resource area to protect and sustain the interests of the Bylaw; also called Resource Area Enhancement.

(5) Vegetation Replacement

The vegetation is being removed and replaced elsewhere on the project site or within the same resource area, only if the Commission determines that such removal and replacement does not decrease the resource area's contribution to the resource area values protected by the Bylaw.

(6) Imminent Risk to Public Health and Safety

The vegetation is an imminent risk to public health or safety or property as confirmed in writing and submitted to the Commission by the Arlington Tree Warden, Fire Department Representative, Public Safety Officer, or a certified arborist.

E. Application for Removal. For all projects, the application for vegetation removal shall be submitted as part of the application for permit or Notice of Intent as described by the Bylaw and these regulations. At a minimum, the application will include:

(1) Narrative

The narrative shall describe the existing conditions, the proposed planting plan, the list of existing and proposed species, the size of existing and proposed species, and number of plants before and after the revegetation event. The narrative shall also provide the rationale for the removal, by addressing the criteria D1 through D6 above, and discuss the proposed maintenance plan (see (7) below).

(2) Affirmation of the Revegetation Activities

All plans for revegetation must be accompanied by written testimony and scaled diagram from a certified arborist or wetland scientist or landscape architect. At a minimum, this document must include the following information:

- (a) Is the vegetation removal necessary? (See D. above)
- (b) How much surface area of the vegetation will be removed (ft²-based on drip line)?
- (c) How many individual plants will be removed by species; *i.e.*, is the species list submitted with the NOI correct?

(3) Planting Plan

The proposed planting plan must be drawn to scale and identify properly the resource area and buffer zone and the project site. It must include the locations of each replacement species and the number of each species proposed for planting (in table form).

The planting plan and procedures shall comply with the American Standards for Nurserymen, Inc. or equivalent. It must also include the location of the erosion control

devices used during the restoration event. A brief narrative must accompany this planting plan describing the storage location of all motorized equipment.

The planting plan shall show the estimated tree canopies after 15 years of growth, the specific names, sizes and locations of trees to be planted, and the total area of square feet of the area shaded by tree canopies. In determining the shaded area, measure the shaded area assuming that the shaded area is only that area directly under the drip line.

(4) Existing Species List

Each species existing before the restoration shall be listed in terms of area of coverage (ft²) and number of individual plants and either height or dbh as specified in the tables below.

(5) Replacement Species List

The replacement of vegetation shall be according to the following table (derived from the American Standards for Nurserymen, Inc.), unless the Applicant proves that the amount of replacement vegetation will not survive or contribute in the long-term to resource area values. A rationale for the species and size choice must be provided if the replacement is not "in-kind".

Native species are the preferred; invasive species are not allowed.

Replacement plant materials shall conform to the requirements described in the latest edition of American Standard for Nursery Stock, which is published by the American Association of Nurseryman ("AAN").

Replacement size shall be most common available substantial size, as approved by the Commission.

Vegetation replacement is not considered successful until the replacement plants have survived three full growing seasons.

For extensive pruning or removal of vegetation because of an Imminent Risk to Public Health and Safety, in-kind replacement shall be to the extent practicable as determined by the Commission (See Section 9 of these Regulations for Emergency Certification).

(a) Tree:

Existing Trunk (dbh)	Replacement Quantity
3 to 8 inches	1
8 to 20 inches	2
> 20 inches	3

(b) For all trees:

1. If a plant is well grown with a single stem, well-shaped and bushy, and has sufficient well-spaced side branches to give it weight and good bud qualities, it is an acceptable plant.
2. On multi-stem trees, height shall be defined as the measurement taken from the ground level to the average uppermost point of growth of the plant.
3. All replacement plants shall have ball sizes which are of a diameter and depth to encompass enough of the fibrous and feeding root system as necessary for the fully recovery of the plant once planted.
4. Sapling trees shall include deciduous trees with a dbh of 1 inch and less; evergreens of 2 feet or less and shall be replaced at the discretion of the Commission so as to reach an equivalent area of coverage and soil retention.

(c) For Shrubs:

The replacement of shrubs (bushes) shall be with bushes and shrubs of equivalent size. For bushes, the replacement must be well grown with a single stem, well-shaped and bushy, and have sufficient well-spaced side branches to give it weight and good bud quality as per the American Association of Nurserymen standards.

(6) Rationale for Removal - Describe why the interests of wetlands protection are advanced by the revegetation plan.

(7) Maintenance Plan - Vegetation replacement is not considered successful until the replacement plants have survived three full growing seasons. The maintenance plan shall describe how the restoration will be evaluated annually for three years and reported to the Commission. The Commission reserves the right to require a revised replanting plan, or additional plantings on an annual basis in the event that the revegetation plants decay or die.

F. The Commission may require one or more of the following measures to protect vegetation during work:

- (1) Tree protection fencing – Prior to commencing work, four (4) foot-high snow fencing shall be installed and secured with wooden stakes (2" x 4" or 2" x 3") or 6-foot steel channel posts so as to create an enclosure at the dripline of tree(s) or other distance as the site conditions allow to be protected. Such fencing shall be securely erected, be vertically plumb and be maintained for the duration of the project and shall protect individual trees or groups of trees.
- (2) Tree protection blanket – "BarkSavers" or similar armored blankets shall be installed and maintained according to product specifications.
- (3) No existing trees shall be used for crane stay, guys or other fastening.
- (4) Vehicles shall not be parked below the canopy of any existing tree or where damage may result to existing trees or tree roots.
- (5) Construction materials shall not be stored beneath existing trees.
- (6) Following completion of work, have a certified arborist monitor the health of trees on site for possible damage and take measures to repair damage.

- (7) Prior to work, preparation of a tree protection plan showing summary of all trees on site (including dbh, species, extent of canopy, roots and health) and specifying whether each tree shall be saved or lost.

G. The Commission may require the placement of permanent bounds (e.g., granite or metal) to demarcate all or part of a resource area or vegetation mitigation area.

H. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 25 – Adjacent Upland Resource Area

A. Findings.

- (1) The Adjacent Upland Resource Area usually is significant to wildlife, plant or wildlife habitat, to public and private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution, to erosion control and sedimentation control, to natural character and recreation, and to mitigation of potential climate change impacts.
- (2) Trees in the Adjacent Upland Resource Area provide important functions not provided by any other plant type. Trees provide shade to moderate water temperatures, levels of dissolved oxygen and water flow. They serve as windbreaks to moderate wind stress and shear during storms, and provide nesting, roosting and perching areas for birds, and other wildlife. The transitional assemblage of trees, shrubs and groundcover (containing both wetland and upland elements) frequently found in Adjacent Upland Resource Areas has been found significant to the support of a greater number of native and specialist wildlife species in the interior of resource areas, which they border. Trees and other vegetation, if undisturbed or minimally disturbed, slow the rate of surface runoff providing flood control and reducing down-gradient storm damage. In these ways, trees also mitigate potential climate change impacts due to extreme heat and heavy storm and rain events.
- (3) Lands within the Adjacent Upland Resource Area are best left in an undisturbed and natural state.
- (4) There is overwhelming scientific consensus that significant physical, chemical, or biological alterations to Adjacent Upland Resource Areas will have significant physical, chemical, or biological impacts on associated or adjacent wetland resource areas such as banks, creeks, streams, rivers, ponds, lakes, and wetlands. Adjacent Upland Resource Areas are presumed important to the protection of these resources because activities undertaken in close proximity to wetlands and other resource areas protected by the Bylaw have a high likelihood of adverse impact upon those areas, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction activities, impervious surfaces, and use can include, without limitation, erosion, siltation, loss of groundwater recharge, loss of flood control or storm damage prevention, poor water quality, harm to wildlife and wildlife habitat, and loss of resource resiliency for potential impacts of climate change. The ability of the Adjacent Upland Resource Area to protect a wetland resource, and to provide habitat, increases with buffer width and continuity.

- (5) Generally, vegetated buffers within the Adjacent Associated Upland Resource Area and next to the adjacent resource area of less than 25 feet wide are ineffective in protecting adjacent wetlands or providing wildlife habitat functions. Vegetated buffers often larger than 25 feet are necessary to provide wildlife habitat and to protect adjacent resource areas from continuing activities such as inputs of sediments and nutrients, to protect from direct human disturbance, to protect sensitive species from adverse impacts, and to protect adjacent resource areas from the adverse effects of climate change and changing water quality, including but not limited to nutrient concentrations, temperature, salinity, and dissolved oxygen concentrations.

B. Definition and Boundary. The Adjacent Upland Resource Area is the area adjacent to a resource area specified in Section 2, A(1) through (4) and is the land within 100 feet (measured horizontally) of any of the aforesaid resource areas.

C. Alternatives to Work in Adjacent Upland Resource Area. A growing body of research evidence suggests that even "no disturbance" areas reaching beyond 25 feet from wetlands, streams, rivers, and other water bodies may be insufficient to protect many important characteristics and values. Problems of nutrient runoff, water pollution, siltation, erosion, vegetation change, and habitat destruction are greatly exacerbated by activities within 100 feet of wetlands. Thus, work and activity in the Adjacent Upland Resource Area shall be avoided and discouraged and reasonable alternatives pursued.

Only when the Applicant proves through a written alternative analysis that reasonable alternatives are not available or practicable, the Commission may, in its discretion, allow temporary, limited, or permanent disturbance as appropriate and consistent with this Section depending on the characteristics of the Adjacent Upland Resource Area, including but not limited to the following:

- (1) slope
- (2) soil characteristics
- (3) drainage patterns
- (4) extent and type of existing native vegetation
- (5) extent and type of invasive vegetation
- (6) amount of impervious surface
- (7) wildlife and wildlife habitat
- (8) intensity and extent of use
- (9) intensity and extent of adjacent and nearby uses
- (10) capacity to provide resiliency to climate change

This approach is intended to allow flexibility for use of property while maintaining necessary levels of protection of the resource values protected by the Bylaw.

D. No activities or work, other than passive passage and resource area enhancement, are permitted within the first 25 feet of the Adjacent Upland Resource Area (measured horizontally from a resource area specified in Section 2, A(1) through (4)). Except as part of Resource Area Enhancement or an Ecological Restoration Project, no vegetation may be disturbed, and leaf litter and natural debris shall remain in place. This No-Disturbance area shall at a minimum

contain the same amount of area of undisturbed and natural vegetation from its pre-project state. A previously disturbed or previously developed 25-foot area shall be restored to a naturally vegetated state to the greatest extent practicable.

E. No new structure(s) shall be placed in the first 50 feet of the Adjacent Upland Resource Area (measured horizontally from a resource area specified in Section 2, A(1) through (4)), unless approved by the Commission in evaluation of existing total impervious surface (see Section F. below) within the 50-foot area compared to the proposed impervious surface, and other considerations for the improvement of the resource area and climate change resiliency.

F. Impervious surface.

- (1) The total area of impervious surface within the Adjacent Upland Resource Area shall not increase over existing total area unless mitigation is provided and there is no impact on Resource Area values.
- (2) Impervious surfaces shall not intrude farther into the Adjacent Upland Resource Area than pre-project conditions unless the Commission in its sole discretion determines that the total area of impervious surface is significantly decreased or other mitigation is provided that serves to protect the resource area values. Impervious surface shall be kept as close as possible to the outer (upland) boundary of the Adjacent Upland Resource Area.

G. The following activities may not be conducted in any portion of the Adjacent Upland Resource Area: changing of oil, refueling, or damage to other vegetation not scheduled for removal.

H. Certain Proposed Activities in Adjacent Upland Resource Area.

The Adjacent Upland Resource Area should be left intact in a naturally vegetated state to the maximum extent practicable and as provided in these regulations. However there are some activities that may be permitted by the Commission that are not likely to have a significant or cumulative effect on the resource area values of the Bylaw, nor are they expected to have a significant effect on the ability of the resource area resilience to climate change, provided the other provisions of these Regulations are met. These proposed activities must be reviewed by the Conservation Commission Administrator to determine the appropriate permitting procedures, and to determine what, if any, mitigation is required. These activities are:

- (1) Fencing, provided it will not constitute a barrier to wildlife movement;
- (2) Plantings of native species of trees, shrubs, or groundcover, but excluding lawns that would require mowing, regardless of species composition;
- (3) The conversion of impervious surfaces to vegetated surfaces, provided erosion and sedimentation controls are implemented during construction;
- (4) Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling and surveying);
- (5) Nonpermanent wildlife watching blinds; or
- (6) Short-term scientific or educational activities.

Section 26 – Vernal Pool and Its Associated 100-Foot Adjacent Upland Resource Area**A. Findings**

- (1) Vernal Pools and their associated 100-foot No-Disturbance Zones are likely to be significant to the protection of wildlife habitat and rare plant and animal habitat. Vernal Pools constitute a unique and increasingly rare type of wetland that is inhabited by many species of wildlife, some of which are completely dependent on Vernal Pools and their associated habitat for their survival. Areas in the immediate vicinity of the Vernal Pool (i.e., 100-foot Adjacent Upland Resource Area) provide these species with important non-breeding habitat functions, such as migratory pathways, feeding, shelter, and over-wintering sites. Many other species utilize Vernal Pools and their associated Adjacent Upland Resource Area for breeding and non-breeding functions, although such species are not limited to this type of wetland. The protection of Vernal Pools and their associated Adjacent Upland Resource Area are essential for the survival of wildlife species that depend on these unique and threatened resource areas. Vernal Pools need not be state-certified in order to be protected under the Bylaw or these Regulations.
- (2) The extreme edges of vernal pool habitat represent one of the most ecologically valuable portions of these habitats. Shallow water at the edges of a pool generally are the first to thaw in the spring. This provides early access to the pool for the earliest breeding species. The shallow water zones also tend to be significantly warmer than the deeper portions of a vernal pool throughout the spring. Egg masses of early breeding amphibians benefit from the warmer water temperatures at the pool edges that promote rapid egg development.

B. Definition, Critical Characteristics and Boundary:

- (1) Vernal Pools exhibit a tremendous variation in physical, geographic, hydrologic and vegetative conditions, and therefore, for the purposes of these Regulations, these conditions are not considered reliable criteria for their identification. A Vernal Pool is a temporary freshwater body, which, in most years holds water for a minimum of two (2) months and is free of established, reproducing fish populations, and is protected by these Regulations if it meets any of the following criteria:
 - (a) The Vernal Pool contains evidence of the presence of any one (1) of the following obligate indicator species: Spotted Salamander, Blue-Spotted Salamander, Jefferson Salamander, Marbled Salamander, Wood Frog or Fairy Shrimp, or;
 - (b) In the absence of any obligate indicator species, the Vernal Pool contains evidence of two (2) of any of the following facultative indicator species: Spring Peeper, American Toad, Green Frog, Pickerel Frog, Gray Tree Frog, Four-Toed Salamander, Spotted Turtle, Caddisfly larvae or cases of Caddisfly larvae, Dragonfly or Damselfly larvae or shed skins (exuvia) of Dragonfly or Damselfly larvae, adults, juveniles or shells of either Fingernail Clams or Amphibious, air-breathing Snails.
- (2) The boundary of vernal pool is the lower of:
 - (a) the maximum elevation of a topographic depression that holds water for a minimum of two (2) continuous months each year; or
 - (b) the maximum observed or recorded water level in a topographic depression.

The boundary of vernal pool may be defined differently for the purpose of state or federal protection. The boundary of vernal pool is not established when a vernal pool certification number is issued by the Commonwealth.

C. Timing of Evidence Collection: Many of the indicators of Vernal Pool habitat are seasonal. For example, certain salamander egg clusters are found only between late March and late May; Wood Frog chorusing occurs only between late March and late May, and then only at night. Consequently, failure to find evidence of breeding must be tied explicitly to those periods during which the evidence is most likely to be available.

Accordingly, in the case of challenges to the presumption of Vernal Pool habitat, the Commission may require that the determination be postponed until the appropriate time period consistent with the evidence being presented. The Commission may also require its own site visit(s) as necessary to confirm the evidence.

D. Presumptions of Significance for Adjacent Upland Resource Area to a Vernal Pool: Where a proposed activity involves the removing, filling, dredging, or altering of a Vernal Pool or its 100-foot Adjacent Upland Resource Area, the Commission shall presume that the Vernal Pool and its 100-foot Adjacent Upland Resource Area is significant to the protection of wildlife habitat and rare plant and animal habitat.

E. Performance Standards for 100-foot Adjacent Upland Resource Area: Unless the presumption set forth in Section 21.D of these Regulations is overcome, the following standards shall apply to Vernal Pools and their 100-foot Adjacent Upland Resource Area:

- (1) 100-foot Adjacent Upland Resource Area: No activity shall be permitted within 100 feet of the delineated edge of a Vernal Pool, or in the case of a wetland resource area that encompasses the pool, within 100 feet of the delineated edge of said wetland resource area. Prohibited activities include, but are not limited to, grading, landscaping, vegetation control, pruning, cutting, filling, excavation, roadway construction and/or driveway construction.
- (2) Adjacent Upland Resource Area to Vernal Pool Demarcation: To maintain the perpetual integrity of the 100-foot Adjacent Upland Resource Area and to ensure that there will be no encroachments into this Area by the applicant or future owners of the subject property, the Commission may require the Adjacent Upland Resource Area to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (e.g. granite, concrete, other), and the Commission shall determine their number, location and size. The Commission may require the maintenance of such markers in any certificate of compliance issued for the project.

Section 27 – Riverfront Area

The Commission accepts and adopts the definitions, requirements, and performance standards for Riverfront Area as specified in the Massachusetts Department of Environmental Protection's Wetlands Regulations in 310 C.M.R. 10.58.

Section 28 - Variances

A. The Conservation Commission may, in its discretion, grant variances from the operation of one or more of the provisions of the Bylaw, or the rules and regulations promulgated thereunder. Such variances are intended to be granted only in rare and unusual cases and upon a showing of clear hardship relating to the subject premises if the requested relief is not granted.

B. The standards as set forth herein shall be the sole basis upon which a variance shall be granted.

C. Applicants shall file a written request for variance at the same time as or as soon as possible an application (Notice of Intent) for a permit is filed with the Commission and, in any event, prior to the close of the hearing on said application. Such variance request shall be made in writing and shall be a separate writing from the application or request forms.

D. At any time subsequent to filing of the variance request, but in no event less than ten calendar days prior to the date of commencement of the public hearing at which the variance request is to be considered, the applicant or his or her or its representative shall submit to the Commission and copies to each Commission member (including associate member) a written statement in support of the variance request. Such written statement shall include but not be limited to the following items:

- (1) A brief statement of the relief sought;
- (2) A description of all reasonably identifiable alternatives to the applicant's proposal that were considered by the applicant and that would avoid or minimize the necessity of the requested relief, along with the reasons why such alternatives were deemed to be inadequate, unworkable or inadvisable;
- (3) A statement of all efforts that will be undertaken to minimize impact upon resource areas and buffer zones arising out of the work proposed;
- (4) Detailed plans for any mitigation measures proposed;
- (5) Adequate engineering and expert evidence to permit the Commission to evaluate the basis for the applicant's contentions in support of the variance requested; and
- (6) Any and all relevant information which the applicant wishes the Commission to consider in deliberating the variance request.

E. A variance may be granted only for the following reasons and upon the following conditions:

- (1) The Conservation Commission may grant a variance upon a clear and convincing showing by the applicant that any proposed work, or its natural and consequential impacts and effects, will not have any adverse effect upon any of the interests protected in the Bylaw, and that there are no reasonable conditions or alternatives that would allow the work to proceed in compliance with these regulations and the Bylaw. It shall be the responsibility of the applicant to provide the Conservation Commission with any and all information that the Commission may request orally or in writing, in order to enable the Commission to ascertain such adverse effects, and the failure of the applicant to furnish any information that has been so requested shall result in the denial of a request for variance.

(2) The Conservation Commission may grant a variance from these rules and regulations when necessary to avoid so restricting the use of the property as to constitute a taking of private property without compensation. The Commission may request an opinion from Town Counsel or other legal consultant at the expense of the applicant as to whether the application of the Bylaw to a particular case will result in a taking of property without compensation.

Section 29 - Areas of Critical Environmental Concern

A. Any areas within the Town of Arlington which have been designated as Areas of Critical Environmental Concern by the Secretary of Energy and Environmental Affairs, Commonwealth of Massachusetts, are so designated due to the particularly unique environmental factors that affect such areas and that highlight the unique importance of each area so designated.

B. As a result of such designation, it is incumbent upon the Commission to be even more diligent in its review of projects proposed within such areas. The highest standards of scrutiny as to the impact of any proposal are required shall be exercised by the Commission.

C. Further, close scrutiny shall be given by the Commission to any proposals involving an application of new pavement or newly installed other impervious materials within any area less than 100 feet from bordering vegetated wetland, bank, beach, and meadow.

Section 30 – Wildlife Habitat

The Town of Arlington accepts and adopts the definitions, requirements, and performance standards for wildlife habitat as specified in the Massachusetts Department of Environmental Protection's Wetlands Regulations in 310 CMR 10.00.

Section 31 – Climate Change Resilience

A. The impacts of climate change can adversely affect each Resource Area's ability to provide and promote the resource area values protected by the Bylaw. (See definitions of "adaptation" and "alter" and "impacts of climate change" in Section 4 above). Resource Areas are critical to building a community's resilience/adaptation to the impacts of climate change due to their ability to provide for flood control, storm damage prevention, and other Resource Area Values.

B. The Applicant shall, to the extent practicable and applicable as determined solely by the Commission, integrate considerations of adaptation planning into their project to promote climate change resilience so as to protect and promote resource area values into the future. These considerations are especially important in Land Subject to Flooding (floodplain) and Riverfront Area and other Resource Areas which protect the interest of Flood Control and Storm Damage Prevention, including Adjacent Upland Resource Areas. These Resource Areas may be directly impacted by extreme weather events expected to be more prevalent or more intense due to climate change, in surface runoff of pollutants, and in wildlife habitat due to changes in temperature.

The Applicant shall consider the project's adaptation to potential climate change impacts by addressing the following:

- (1) Describe project design considerations to limit storm and flood damage during extended periods of disruption and flooding as might be expected in extreme weather events. See Vegetative Wetlands Section 21, Land Subject to Flooding Section 23, and Adjacent Upland Resource Area Section 25, of these Regulations.
- (2) Describe project stormwater surface runoff, which may increase due to storm surges and extreme weather events, and how this will be managed / mitigated to prevent pollution (including nutrients from fertilizers, roadway runoff, etc.) from entering the resource area with consideration of eliminating impervious surfaces as feasible. See Stormwater Management Section 33 of these Regulations.
- (3) Describe project vegetation / planting plans and other measures to improve the resiliency of the wildlife habitat of the resource area to withstand potential temperature and rainfall changes (drought and excess) due to climate change. See Vegetation Removal and Replacement Section 24 of these Regulations.
- (4) Describe measures to protect proposed structures and minimize damage to structures due to the impacts of climate change.

Section 32 - Ecological Restoration Projects

The Commission may allow ecological restoration projects as defined and provided in 310 CMR 10.00.

Section 33 - Stormwater Management

A. Work or activity specified in a request for determination of applicability or an application for a permit and subject to the Bylaw shall meet, at a minimum and to the extent practicable, the best management practices for stormwater management as set forth in the Stormwater Standards of the Massachusetts Department of Environmental Protection. The Commission may in its sole discretion require the applicant to provide a runoff plan and calculations using the "Cornell" method, and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes and include a narrative on the proposed project's impact on climate change resilience of the resource area (see Section 31).

B. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 34 - Severability; Compliance With Court Decisions

A. The invalidity of any section or provision of the Bylaw or of these regulations shall not invalidate any other section or provisions thereof, nor shall it invalidate any permit which previously has been issued.

B. If any Court of the Commonwealth shall invalidate any provisions of the Bylaw or of these regulations, the Conservation Commission may promulgate additional rules and regulations or present to the next Town Meeting after such invalidations, amendments to the Bylaw or regulations which are designed to comply with any Court decision invalidating such provisions or regulations, as the case may be.

Section 35 - Effective Date

The effective date of these rules and regulations shall be March 1, 2018, and the provisions of these rules and regulations shall apply to all work performed, and all applications or requests for determination of applicability received on or after that date.

[Editor's notes: Regulations first approved January 4, 2001; revised: June 2001, September 20, 2001; February 2005; April 7, 2005; September 16, 2010; January 20, 2011; June 4, 2015; and March 1, 2018.]