Notice of Intent Application

4 Kennebec Avenue Bourne (Pocasset), MA Map 47.1 – Parcel 45

February 15, 2022



Main Office:

49 Herring Pond Road Buzzards Bay, MA 02532 508-833-0070 Ext 303

508-833-2282 (fax)

Nantucket Office:

19 Old South Road Nantucket, MA 02554

508-325-0044

Mansfield Office:

905 S. Main Street Mansfield, MA 02048

508-618-3029

List of Materials and Plans submitted with NOI Application

- 1. Narrative
- 2. Notice of Intent WPA Form 3
- 3. Bourne Conservation Commission Forms
 - a. NOI Filing Information Worksheet
 - b. NOI Authorization Form
 - c. Waiver Agreement
 - d. Commission Member Waiver Request
 - e. Site Inspection Authorization
 - f. Filing Fee Submittal Form
 - g. Nitrogen Loading Calculations Existing
 - h. Nitrogen Loading Calculations Proposed
- 4. Maps showing Project Site
 - a. USGS Topographic Map
 - b. Aerial Orthophoto
 - c. FEMA Flood Insurance Rate Map
 - d. Aerial NHESP Map
- 5. Directions to Site
- 6. Abutter Documents
 - a. Affidavit of Service
 - b. Certified Abutters List
 - c. Notification to Abutters
 - d. Proof of Mailing
- 7. Plan: "Subsurface Sewage Disposal Plan in Bourne, MA", prepared by Bracken Engineering, Inc., dated February 15, 2022

PROJECT NARRATIVE

Prepared for

Christina Winterfeldt

4 Kennebec Avenue (Pocasset), Bourne Map 47.1, Parcel 45

On behalf of the Applicant Christina Winterfeldt, Bracken Engineering, Inc. respectfully submits this Notice of Intent (NOI) for work within a Coastal Bank, the 50-foot and 100-foot buffer zone to a Coastal Bank and work within the FEMA Special Flood "AE" Zone (El.15'). The project consists of the raze and rebuild of a single-family dwelling, the razing of two (2) sheds, installation of a Title 5 septic system, utility upgrades, associated grading and landscaping. The property is a developed 3,235 SF parcel located on the north corner of Kennebec and Circuit Avenues. The parcel contains an existing single-family dwelling and two sheds. The property is abutted by single family dwellings to the west and north, Kennebec Avenue to the south, and Circuit Avenue to the east.

Wetland Resource Areas

Wetland resource areas on or adjacent to the property include Coastal Bank and Land Subject to Coastal Storm Flowage (LSCSF). The Coastal Bank was determined utilizing Massachusetts DEP Wetlands Program Policy 92-1 (fig. 4). The parcel falls entirely within FEMA Special Flood Hazard Zone "AE" (El 15). The work is proposed within the Coastal Bank as well as the associated 50-foot & 100-foot buffer zones.

Proposed Project

The applicant proposes the following work:

- Raze the existing single-family dwelling, including all porches, steps, foundation, and outbuildings;
- Construct a proposed single-family dwelling in approximately the same location;
- Remove the existing cesspool and construct a new septic system which conforms to Title 5 to the maximum extent feasible, using Innovative/Alternative (I/A) technology; and
- All associated utilities, grading, landscaping, and appurtenances.

Performance Standards

Protection of Public and Private Water Supply and Ground Water Supply

The site is not located within a DEP defined Zone I or II wellhead protection area. The project provides enhanced treatment of wastewater compared to existing conditions with the installation of an I/A equipped septic system. Roof runoff from the proposed single-family home is to be captured and recharged directly onsite. Therefore, the public and private water supply and groundwater supply protection interests of the Act and the Bylaw will be upheld.

Flood Control and Storm Damage Prevention

The property is located within a Flood Hazard Zone "AE" (El.15') shown on the insurance rate map 25001C-0492-J dated July 14, 2014. Flood conscious design of the proposed foundation system and dwelling will not impede the ability of the landform to receive and naturally disperse floodwaters. Any disturbance to the existing Coastal Bank

shall be temporary and the landform restored to existing conditions prior to the completion of work. Therefore, the flood control and storm damage prevention interests of the Act and Bylaw will be maintained.

Prevention of Pollution

Erosion control measures consisting of staked filter sock will be implemented as depicted on the enclosed plans, and the proposed septic system has been designed in accordance with Title V Regulations to the maximum extent feasible. Therefore, the pollution interests of the Act and Bylaw will be upheld.

Protection of Fisheries, Shellfisheries, Wildlife Habitat and Riverfront Areas

The Site does not contain mapped NHESP designated areas (Estimated or Priority Habitats) or any certified or potential vernal pools. All work is within developed areas on the lot and is not anticipated to adversely impact an adjacent wildlife habitat. Therefore, the fisheries, shellfisheries, wildlife habitat and riverfront interests of the Act and Bylaw shall be protected.

Summary

The Applicant seeks to raze and rebuild a single-family home, raze two (2) shed structures, upgrade onsite utilities, and install a new Title V (I/A) system along with all associated site grading and landscaping. Appropriate measures are proposed to be employed to minimize adverse effects and prevent erosion and migration of sediment that may otherwise impact resource areas. As proposed, the Project has met the burden of proof established under the Act and Bylaw. Therefore, the Applicant respectfully requests issuance of an Order of Conditions by the Conservation Commission.



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

Provided by MassDEP: SE7-	
MassDEP File Number	
Document Transaction Number	
BOURNE	
City/Town	

BOURNE BYLAW Fee

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

4 Kennebec Aven	ue	Bourne	02532		
a. Street Address		b. City/Town	c. Zip Code		
1 -4:4 1 1	:4	41.682640	-70.625470		
Latitude and Long	itude:	d. Latitude	e. Longitude		
47.1		45			
f. Assessors Map/Plat	Number	g. Parcel /Lot Number			
. Applicant:	Applicant:				
Christina		Winterfeldt			
a. First Name		b. Last Name			
c. Organization					
4 Old Orchard Roa	ad				
d. Street Address					
Sherborn		MA	01770		
e. City/Town		f. State	g. Zip Code		
508-479-7128		chriswin12@aol.com			
h. Phone Number	i. Fax Number	j. Email Address			
a. First Name Brennan Family To	rust	b. Last Name	R		
Brennan Family To c. Organization 161 Worcester Ro		b. Last Name			
Brennan Family To c. Organization 161 Worcester Ro d. Street Address					
Brennan Family To c. Organization 161 Worcester Ro d. Street Address Framingham		MA	01701		
Brennan Family To c. Organization 161 Worcester Ro d. Street Address					
Brennan Family To c. Organization 161 Worcester Ro d. Street Address Framingham		MA	01701		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number	i. Fax Number	MA f. State	01701		
Brennan Family Toc. Organization 161 Worcester Rood. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L.	i. Fax Number	MA f. State	01701 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if	i. Fax Number	MA f. State j. Email address	01701 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L.	i. Fax Number	MA f. State j. Email address Basinski, PE, C	01701 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name	i. Fax Number	MA f. State j. Email address Basinski, PE, C	01701 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer	i. Fax Number any):	MA f. State j. Email address Basinski, PE, C	01701 g. Zip Code		
Brennan Family Troc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company	i. Fax Number any):	MA f. State j. Email address Basinski, PE, C	01701 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond F	i. Fax Number any):	MA f. State j. Email address Basinski, PE, C	01701 g. Zip Code		
Brennan Family Troc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond Fod. Street Address	i. Fax Number any):	MA f. State j. Email address Basinski, PE, C b. Last Name	O1701 g. Zip Code		
Brennan Family Troc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond Fold. Street Address Buzzards Bay	i. Fax Number any): ing, Inc.	MA f. State j. Email address Basinski, PE, C b. Last Name MA f. State	01701 g. Zip Code CFM 02532 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond Fod. Street Address Buzzards Bay e. City/Town	i. Fax Number any):	MA f. State j. Email address Basinski, PE, C b. Last Name	01701 g. Zip Code CFM 02532 g. Zip Code		
Brennan Family Troc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond Fd. Street Address Buzzards Bay e. City/Town 508-833-0070 h. Phone Number	i. Fax Number any): ing, Inc. 80ad	MA f. State j. Email address Basinski, PE, C b. Last Name MA f. State Zac@brackeneng.com j. Email address	01701 g. Zip Code CFM 02532 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L. a. First Name Bracken Engineer c. Company 49 Herring Pond Foc. Street Address Buzzards Bay e. City/Town 508-833-0070 h. Phone Number Total WPA Fee Page	i. Fax Number any): ing, Inc. Road 508-833-2282 i. Fax Number aid (from NOI Wetland Fe	MA f. State j. Email address Basinski, PE, C b. Last Name MA f. State zac@brackeneng.com j. Email address ee Transmittal Form):	01701 g. Zip Code CFM 02532 g. Zip Code		
Brennan Family Toc. Organization 161 Worcester Rod. Street Address Framingham e. City/Town h. Phone Number Representative (if Zachary L.a. First Name Bracken Engineer c. Company 49 Herring Pond Fd. Street Address Buzzards Bay e. City/Town 508-833-0070 h. Phone Number	i. Fax Number any): ing, Inc. Soad 508-833-2282 i. Fax Number aid (from NOI Wetland Fe	MA f. State j. Email address Basinski, PE, C b. Last Name MA f. State zac@brackeneng.com j. Email address ee Transmittal Form): 7.50 \$	01701 g. Zip Code CFM 02532 g. Zip Code		

wpaform3.doc • rev. 6/18/2020 Page 1 of 9



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

ΌV	ided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	City/Town

A. General Information (continued)

6.	General Project Description:		
	The project consists of the raze and rebuild of a single-family dwelling, the razing of two (2) sheds installation of a Title 5 septic system, utility upgrades, associated grading and landscaping.		
7a.	Project Type Checklist: (Limited Project Types see	Section A. 7b.)	
	1. Single Family Home	2. Residential Subdivision	
	3. Commercial/Industrial	4. Dock/Pier	
	5. Utilities	6. Coastal engineering Structure	
	7. Agriculture (e.g., cranberries, forestry)	8. Transportation	
	9. 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 No Secribe which limited project applies to this project. (See 310 Coastal) 10.24 and 10.53 for a complete list and description of limited project types.		.24 (coastal) or 310 CMR 10.53 (inland)? ed project applies to this project. (See 310 CMR	
8.	2. Limited Project Type If the proposed activity is eligible to be treated as ar CMR10.24(8), 310 CMR 10.53(4)), complete and at Project Checklist and Signed Certification. Property recorded at the Registry of Deeds for:		
0.	Barnstable		
	a. County	b. Certificate # (if registered land)	
	33346 c. Book	d. Page Number	
В.	Buffer Zone & Resource Area Impa		
1. 2.	 □ Buffer Zone Only – Check if the project is located Vegetated Wetland, Inland Bank, or Coastal Re □ Inland Resource Areas (see 310 CMR 10.54-10 Coastal Resource Areas). 	ed only in the Buffer Zone of a Bordering source Area. 0.58; if not applicable, go to Section B.3,	
	Check all that apply below. Attach narrative and any	• • •	

wpaform3.doc • rev. 6/18/2020 Page 2 of 9

standards requiring consideration of alternative project design or location.



narrative

area was

delineated.

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 and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

rov	rided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	Citv/Town

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

Resource Area Size of Proposed Alteration Proposed Replacement (if any) Bank 1. linear feet 2. linear feet For all projects b. 🗌 **Bordering Vegetated** affecting other Wetland 1. square feet 2. square feet Resource Areas. please attach a c. 🗌 Land Under 1. square feet 2. square feet explaining how Waterbodies and the resource Waterways 3. cubic yards dredged Resource Area Size of Proposed Alteration Proposed Replacement (if any) **Bordering Land** d. 🗌 1. square feet 2. square feet Subject to Flooding 3. cubic feet of flood storage lost 4. cubic feet replaced Isolated Land е. 1. square feet Subject to Flooding 2. cubic feet of flood storage lost 3. cubic feet replaced f. 🔲 Riverfront Area 1. Name of Waterway (if available) - specify coastal or inland 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

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

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



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

rov	rided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	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.

4.

5.

Resource Area		Size of Proposed Alte	ration Proposed Replacement (if any)	
а. 🗌	Designated Port Areas	Indicate size under Land Under the Ocean, below		
b. 🗌	Land Under the Ocean	1. square feet		
		2. cubic yards dredged		
с. 🗌	Barrier Beach	Indicate size under C	pastal Beaches and/or Coastal Dunes below	
d. 🗌	Coastal Beaches	1. square feet	2. cubic yards beach nourishment	
е. 🗌	Coastal Dunes	1. square feet	2. cubic yards dune nourishment	
		Size of Proposed Alte	ration Proposed Replacement (if any)	
f. 🔀 g. 🗌	Coastal Banks Rocky Intertidal Shores	5 1. linear feet 1. square feet		
h. 🗌 i. 🗍	Salt Marshes Land Under Salt	1. square feet	2. sq ft restoration, rehab., creation	
_	Ponds	1. square feet		
j. 🗌	Land Containing Shellfish	cubic yards dredged square feet		
k. 🗌	Fish Runs		pastal Banks, inland Bank, Land Under the Land Under Waterbodies and Waterways,	
ı. 🛛	Land Subject to Coastal Storm Flowage	cubic yards dredged 3,235 square feet		
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. squar	re feet of BVW	b. sc	uare feet of Salt Marsh	
☐ Pr	oject Involves Stream Cros	ssings		
a. numb	a. number of new stream crossings		mber of replacement stream crossings	

wpaform3.doc • rev. 6/18/2020 Page 4 of 9



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

rov	rided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	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).			
Str	reamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review			
1. Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as ind the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by 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:			
	August 1, 2021 b. Date of map Natural Heritage and Endangered Species Program Division of Fisheries and Wildlife 1 Rabbit Hill Road Westborough, MA 01581			

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			ed Species Review
	1.	Percentage/acreage of property to be a	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 **		ed conditions, existing and proposed	
	(a)	Project description (including description buffer zone)	on of impacts outside of wetland resource area &
	(b)	Photographs representative of the site	

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

wpaform3.doc • rev. 6/18/2020 Page 5 of 9

^{*} Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/maendangered-species-act-mesa-regulatory-review).

^{**} 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.



3.

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, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

rov	vided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	City/Town

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

(c) MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review). Make check payable to "Commonwealth of Massachusetts - NHESP" and <i>mail to NHESP</i> at above address				
Projects altering 10 or more acres of	land, also submit:			
(d) Vegetation cover type ma	p of site			
(e) Project plans showing Pri	ority & Estimated Habitat boundaries			
(f) OR Check One of the Followin	ng			
1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat ; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)				
2. Separate MESA review ongo	b. Date submitted to NHESP			
3. Separate MESA review co Include copy of NHESP "r Permit with approved plar	no Take" determination or valid Conservation & Management			
For coastal projects only, is any portio line or in a fish run?	n of the proposed project located below the mean high water			
a. Not applicable – project is in inla	and resource area only b. 🗌 Yes 🔲 No			
If yes, include proof of mailing, hand d	elivery, or electronic delivery of NOI to either:			
South Shore - Cohasset to Rhode Island by the Cape & Islands:	oorder, and North Shore - Hull to New Hampshire border:			
Division of Marine Fisheries - Southeast Marine Fisheries Station Attn: Environmental Reviewer 836 South Rodney French Blvd. New Bedford, MA 02744 Email: dmf.envreview-south@mass.gov Division of Marine Fisheries - North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930 Email: dmf.envreview-north@mass.gov				
Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.				
c. Is this an aquaculture project?	d. ☐ Yes ⊠ No			
If yes, include a copy of the Division o	f Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).			

wpaform3.doc • rev. 6/18/2020 Page 6 of 9



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

Prov	rided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	City/Town

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

	4.	Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
Online Users: Include your document		a. \square Yes \boxtimes 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.
transaction		b. ACEC
number (provided on your receipt page)	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?
with all supplementary		a. 🗌 Yes 🗵 No
information you submit to the Department.	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?
		 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: 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.

wpaform3.doc • rev. 6/18/2020 Page 7 of 9



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, $\S40$ and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

Prov	ided by MassDEP: SE7-
	MassDEP File Number
	Document Transaction Number
	BOURNE
	City/Town

D.	Additiona	I Information (cont'd)
	AMMILIOIIM		OUTIL G

D. Additional Information (66)	n a)				
	d other resource area boundary delineations (MassDEP BVW on of Applicability, Order of Resource Area Delineation, etc.), f the methodology.				
4. List the titles and dates for all pla	ans and other materials submitted with this NOI.				
Subsurface Sewage Disposal Plan i	n Bourne, MA				
a. Plan Title					
Bracken Engineering, Inc.	Zachary L. Basinski, PE, CFM & Alan M. Grady, PLS				
b. Prepared By	c. Signed and Stamped by				
2/15/2022	1" = 10'				
d. Final Revision Date	e. Scale				
f. Additional Plan or Document Title	g. Date				
 If there is more than one propert listed on this form. 	ty owner, please attach a list of these property owners not				
6. Attach proof of mailing for Natur	al Heritage and Endangered Species Program, if needed.				
7. Attach proof of mailing for Mass	achusetts Division of Marine Fisheries, if needed.				
8. Attach NOI Wetland Fee Transn	nittal Form				
9. Attach Stormwater Report, if nee	eded.				
E. Fees					
	be assessed for projects of any city, town, county, or district recognized Indian tribe housing authority, municipal housing Bay Transportation Authority.				
Applicants must submit the following info	ormation (in addition to pages 1 and 2 of the NOI Wetland yment:				
16864	2/15/2022				
2. Municipal Check Number	3. Check date				
16865	2/15/2022				
4. State Check Number	2/13/2022 5. Check date				
	J. Official vale				
Bracken Engineering, Inc. 6. Payor name on check: First Name	7. Payor name on check: Last Name				
o. Payor name on check: First Name	6. Payor name on check. First name				

wpaform3.doc • rev. 6/18/2020 Page 8 of 9



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 and Town of Bourne Wetland Protection Bylaw 3.7 and its Wetland Regulations

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

BOURNE

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

3. Signature of Property Owner (if different)

4. Date

2. Date

2. Date

2. Date

2. Date

2. Date

3. Signature of Representative (if any) BRACKEN ENGINEERING, INC.

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





. Location of Project:					
4 Kennebec Avenue	Bourne	Bourne			
a. Street Address	b. City/Town				
16865	\$237.50				
c. Check number	d. Fee amount				
. Applicant Mailing Address:					
Christina	Winterfeldt				
a. First Name	b. Last Name				
c. Organization					
4 Old Orchard Road					
d. Mailing Address					
Sherborn	MA	01770			
e. City/Town	f. State	g. Zip Code			
508-479-7128	chriswin12@aol.com	chriswin12@aol.com			
h. Phone Number i. Fax Number					
. Property Owner (if different):					
Faith V.	Easter, Esq., TR				
a. First Name	b. Last Name				
Brennan Family Trust					
c. Organization					
161 Worcester Road, Suite 501					
d. Mailing Address					
Framingham	MA	01701			
		g. Zip Code			

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

B. Fees

h. Phone Number

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

i. Email Address

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.

i. Fax Number

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.



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 2 (a)	1	\$500.00	\$500.00
	Step 5/To	otal 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	e of filling 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.)



Town of Bourne CONSERVATION COMMISSION

24 Perry Avenue Buzzards Bay, Massachusetts 02532

NOTICE OF INTENT FILING INFORMATION WORKSHEET

In order to expedite the processing of your Notice of Intent filing with the Bourne Conservation Commission, please complete this information sheet and submit it with your application.

Applicant Name: Christina Winterfeldt			
2. Applicant Address: 4 Old Orchard Road, Sherborn, MA 01770			
3. Property Owner Name: <u>Brennan Family Trust c/o Faith V. Easte</u>	er, Esq.,	TR	
4. Property Owner Address: 161 Worcester Road, Suite 501, Fram	ingham,	MA 01701	
5. Representative Name: Zachary L. Basinski, PE, CFM of Brack	en Engin	eering, Inc.	
6. Representative Address: 49 Herring Pond Road, Buzzards Bay,	MA 0253	32	
7. Project Address: 4 Kennebec Avenue			
8. Project Map and Parcel Number: Map_47.1_Parcel_45_			
9. Book and Page # County Barnstable Book 33346 Page 3	18		
10. Project Description:			
The project consists of the raze and rebuild of a single-family dwell	ing, the r	azing of two (2)	
sheds, installation of a Title 5 septic system, utility upgrades, associated	ciated gra	ading and landscaping.	
11 I. d.' AT Cl 1 9	X 7		
11. Is this project in an AE flood zone?	Yes	No	
12. Is this project in a V flood zone?	Yes	No	
13. Is this project within 100 feet of a wetland resource area?	Yes	No	
14. Is this project within 200 feet of a riverfront? Yes No			
15. Plan Title and Date: Subsurface Sewage Disposal Plan prepared by B	racken En	gineering, Inc., dated 2/15/2022	
16. Plan signed and stamped by: Zachary L. Basinski, PE, CFM and	d Alan M	. Grady, PLS	
17. Total Fee: (From Appendix B: Wetlands Fee Transmittal For	m) \$ <u>50</u>	0.00	
	\$ 2	62 50 NOI Portion	

\$500.00Town By-Law

Notice of Intent Authorization Form

Please print in black or blue ink

I, <u>Faith V. Easter</u>, <u>Esq. TR of the Brennan Family Trust</u> the property owner of a parcel of land located at <u>4 Kennebec Avenue</u>, Bourne Assessor's Map <u>47.1</u> Parcel <u>45.</u> I am aware that the Applicant, <u>Christina Winterfeldt</u> is filing a Notice of Intent with the Conservation Commission.

I have authorized the following person(s) or firm(s) to act on her behalf and to represent her before the Commission during the public hearing review.

BRACKEN ENGINEERING, INC.

I also certify to the Commission that I am in full compliance with Town of Bourne Bylaw section 3.11.2 "Right to Revoke or Suspend Licenses or Permits for Non-Payment of Taxes or Assessments", in that any "taxes, fees, assessments, betterments or any other municipal charges, including amounts assessed under the provisions of section twenty-one D" have been paid.

Through my signature I attest that this instrument and its statements have been prepared honestly.

Signature - Owner Date

Print Name: Faith V. Easter, Trustee of the Brennan Family Trust

Signature - Applicant

Signature - Applicant

Print Name: Christina Winterse ldt

Notice of Intent Authorization Form

Please print in black or blue ink

I, <u>Faith V. Easter, TR of the Brennan Family Trust</u> the property owner of a parcel of land located at <u>4 Kennebec Avenue</u>, Bourne Assessor's Map <u>47.1</u> Parcel <u>45</u>, am filing a Notice of Intent with the Conservation Commission.

I have authorized the following person(s) or firm(s) to act on my behalf and to represent me before the Commission during the public hearing review.

BRACKEN ENGINEERING, INC.

I also certify to the Commission that I am in full compliance with Town of Bourne Bylaw section 3.11.2 "Right to Revoke or Suspend Licenses or Permits for Non-Payment of Taxes or Assessments", in that any "taxes, fees, assessments, betterments or any other municipal charges, including amounts assessed under the provisions of section twenty-one D" have been paid.

Through my signature I attest that this instrument and its statements have been prepared honestly.

Signature

Print Name: Christina Winterfeldt

Waiver Agreement

Bourne Conservation Commission Town Hall 24 Perry Avenue Buzzards Bay, MA 02532

Commissioners:

I hereby waive the time requirement set forth in Chapter 131 s. 40 (Wetlands Protection Act), its regulations at 310 CMR 10.00, and the Town of Bourne Wetlands Protection Bylaw Article 3.7. I understand the Commission will make every effort to hold a public hearing within the mandated 21 day time frame and render a decision within the subsequent 21 day time frame upon closure of the hearing.

In agreeing with this waiver the public hearing will take place within 35 days of receiving the Notice of Intent.

Applicant's Name: (print) Christina Winter Celdt

Applicant's Name: (print) Christina Winterfeldt

Address: 4 0 ld Orchard Rd, Sherborn, MA 01770

Telephone: (508) 479-7128

Project Location: 4 Kennebec Ave., Pocasset, MA

02559

Commission Member Waiver Request

Bourne Conservation Commission Town of Bourne 24 Perry Ave. Buzzards Bay, MA 02532

Dear Commissioners:

The applicants and/or owners of the below referenced property hereby waive the right to require the same Commission members to be present at any and all continued hearings on this matter.

This is necessary for the Commission to allow a continuance to be granted to the project and is in conformance with the opinion of Town Counsel. Should a continuance be necessary the only alternatives are for the applicant to request a continuance to a future meeting when the same Commission members are present or to withdraw and re-file at a future time.

Christina Winterfeldt Applicant's or owner's signature 1/28/2022 Date
Applicant's name: Christina Winterfeldt (print Address: 4 Old Orchard Rd, Sherborn, MA 01770 Telephone: (508) 479-7128
Project Location: 4 Kennebee Ave, Pocaset, MA 02559 Flown Map 47. Parcel 45 Lot
Project description:
The project consists of the raze and rebuild of a single-family dwelling, the razing of two
(2) sheds, installation of a Title 5 septic system, utility upgrades, associated grading and
landscaping.

Town of Bourne CONSERVATION COMMISSION

24 PerryAvenue Buzzards Bay, Massachusetts 02532

Site Inspection Authorization

This form must be signed and dated by the property owner:

As the owner of the property which is the subject of this permit application, I grant to members and agents of the Bourne Conservation Commission the right to enter, inspect and sample the premises for the following:

- 1. To evaluate site conditions and verify information contained in the application prior to and during the hearing process.
- 2. To monitor the site during construction.
- 3. To verify compliance with the permit after the project's completion.

Chrostuchlintesheldt	1/28/2022
Signature	Date
4 Kennelsec Que, Pocasset, ma	02559
Address of Proposed Work (include map and parcel)	
Town map: 47.1	
Porcel: 45	

Town of Bourne CONSERVATION COMMISSION

Filing Fee Submittal Form

On January 6, 1993 the Conservation Commission adopted the following fee schedule for projects reviewed under the Town of Bourne Wetland and Natural Resource Protection Bylaw Article 3.7. The fee schedule was reviewed again on November 6, 2003 and revisions were implemented on July 1, 2004 and again on January 1, 2007 with the approval of the Bourne Conservation Commission and the Board of Selectmen.

All categories refer t	o G.L. Ch. 131 s. 40 filing fee sche	dule.	4/12/06	
CATEGORY 1.		X	\$110.00	
	No. Category 1 Activities		φ110.00	Total Category 1 Fee
CATEGORY 2.	1	x	\$500.00	=500.00
	No. Category 2 Activities	Λ	φ ₀ 00.00	Total Category 2 Fee
CATEGORY 3.		v	\$1.050.00	
	No. Category 3 Activities	Δ	\$1,050.00	Total Category 3 Fee
CATEGORY 4.		**	¥	
CATEGORI 4.	No. Category 4 Activities	Х	\$1,450.00	Total Category 4 Fee
CATEGORY 5. \$4.		minii	num fee and	a \$2000.00 maximum fee. (DOCKS)
			\$4.00 =	and the second s
Total Linear Feet		Λ	\$4.00 =	Total Category 5 Fee
	OR NOTICES OF INTENT THER			A TOTAL STATE STATE OF THE STAT
	A FIGURE GREATER THAN \$12	25.00	MUST PAY	ANY CALCULATION PRODUCING THE CALCULATED RATE. RE THAN \$2000 (ALL OTHER ACTIVITIES)
				account of the state of the sta
TOTAL LINEAR F	EET	Λ	\$2.00	
				TOTAL CATEGORY 6 FEE
CATEGORY 7. \$50.0 Request for Emerger	00 per activity listed below. ncy Certification - \$50.00			
		X	\$50.00 =	
No. Category 7 Activ	ities			Total Category 7 Fee
Request for Determi Request for Certifica Request for Extensio	te of Compliance - \$75.00			
	X \$79	5.00 =		
No. Category 8 Activ	ities	,,,,,		Total Category 8 Fee
тот	AL FILING FEE SUBMITT	ED -	\$50	0.00
Name (Wris	stinablinterse	1 1	-	
Address 4 01	& Orchard R	8.	Sher	nory, MA 01770
rel. (508) 4	79-7128 Signature	his	Stina	Whitehold
Date 1/28/	9095	100		- War is an illustration
Fees may be waived a	at the discretion of the Conservation	on Co	mmission for	r non-profit or educational organizations or for

those projects considered by the Commission to be an environmental improvement project. Extenuating circumstances

or hardship the applicant may be experiencing may also be considered for reason to waive the filing fee.

Town of Bourne

Conservation Commission

Nitrogen Loading Calculation Sheet for Residential Housing

The following calculation sheet is based upon Technical Bulletin 91-001 issued by the Cape Cod Commision and deals with nitrate nitrogen (NO3-N) <u>Use the information from your PLAN OF RECORD to provide the following:</u>

with nitrate nitrogen (NO3-N) Use the information from	om your PLAN OF RECORD to pro	ovide the following:
4 Kennebec Avenue	(Existing Conditions)	
Number of Bedrooms (Title 5 Definition)	=	3 Bedrooms
Lot Size (in square feet of upland areas)	=	3,235 sq.ft. Upland
Impervious Surfaces;**roof area=1,148_sq.ft.	**Paved Area =	- sq.ft.
Natural Area = lot area minus all impervious surfaces	=	2,087 sq.ft.
Lawn Area in sq. ft.	=	2,087 sq.ft.
TITLE 5 FLOW = 110 GAL./ DAY PER BEDROOM		
WASTEWATER FLOWS (NITROGEN LOAD & WAT	ER LOAD)	
Nitrogen from Title 5 design = 14,572 mg NO ₃ -N / day with IA Treatment Water from Title 5 design = 416.3 H ₂ O / day / bedroom	-	3-N / day/ bedroom
1a) Number of bedrooms = 3 x 14572 =	43716.00 mg. NO3-N / d	lay
1b) Number of bedrooms = 3 × 416 =	1248.00 L H ₂ O / day	
Actual Nitrogen load = 6071.5 mg NO3-N / day/ bedroo	m: 3296 mg NO3-N / day/ b	pedroom
with IA Treatment		
Actual Water load = 173.5 L H ₂ O / day / bedroom		
*Note: This assumes 2.5 people / unit average occupar	ncy within the Town	
2a) Number of bedrooms = 3 x 6071.5= 2b) Number of bedrooms = 3 x 173.5 = IMPERVIOUS SURFACES (NITROGEN LOAD & WAT	520.50 L H2O / day	lay
NO3-N load number sq. ft. of roof surface X	0.19395 mg NO ₃ -N / sq. f	t.
H2O load number sq. ft. of roof surface X	0.2586 L / sq. ft.	
3a) Roof surface = 1148 sq. ft. X 3b) Roof surface = 1148 sq. ft. X	0.19395 = 222.65 mg 0.2586 = 296.87 L H	
NO3-N load number sq. ft. of paved surface X	0.388 mg / sq. ft.	
H2O load number sq. ft. of paved surface X	0.2586 L / sq. ft.	
Tizo load number sq. it. or paved surface A	0.2000 L / 3q. II.	
4a) NO3-N = 0 sq. ft. paved surface	X 0.388 mg / sa. ft.	0.00 mg NO3-N
4b) H2O = 0 sq. ft. paved surface	• .	0.00 L H ₂ O
	•	

LAWN NITROGEN LOADING = 0.933 mg / sq. ft. lawn surface 2087 X 0.933 5) sq. ft. of lawn = | 1947.17 mg NATURAL AREA WATER LOADING Natural area = lot size - impervious surfaces 2087 sq. ft. 6) Natural area 2087 X water recharge factor 283.41 L (0.1358 L / sq. ft. for Bourne) SUMMARY OF NITROGEN LOADING **Estimated Title 5 Nitrogen & Water Loading** 7a) ADD the above NO3N load 5 1a (+)3a (+) 4a (+) 43716 222.65 0.00 1947.17 45885.83 mg NO₃-N / day 7b) 1b 6 (+) 3b (+) 4b (+) 0.00 1248 296.87 283.41 1828.29 L H₂O / day 7c) DIVIDE 7a by 7b 25.1 ppm NO₃-N***** Actual Nitrogen & Water Loading 8a) ADD the above NO3N load: За 5 2a (+) (+) 4a (+) 18214.5 222.65 0.00 1947.17 20384.33 mg NO₃-N / day 8b) ADD the above water (H2O) load: 6 2b (+) (+) 4b (+) 520.5 296.87 0.00 283.415 1100.79 L H₂O / day 8c) DIVIDE 8a by 8b 18.5 ppm NO₃-N***** FINAL CALCULATION ADD 7c & 8c (ppm) 43.6 divide by 2 = 21.8 ppm NO₃-N

This is the actual nitrate nitrogen load for the project as designed. The target for coastal areas is 5 ppm nitrate nitrogen. Certain critical embayments may require a LOWER figure to prevent degradation.

******If your nitrate nitrogen load exceeds the target limit USE A SECOND CALCULATION SHEET TO SHOW ALTERNATIVES IN TRYING TO AHIEVE THE 5 PPM NITRATE NITROGEN LEVEL***

Town of Bourne

Conservation Commission

Nitrogen Loading Calculation Sheet for Residential Housing

The following calculation sheet is based upon Technical Bulletin 91-001 issued by the Cape Cod Commision and deals with nitrate nitrogen (NO3-N) <u>Use the information from your PLAN OF RECORD to provide the following:</u>

4 Kennebec Aver	enue (Proposed Conditions)			
Number of Bedrooms (Title 5 Definition) =	3 Bedrooms			
Lot Size (in square feet of upland areas)	= 3,235 sq.ft.			
Impervious Surfaces;**roof area= 983 sq.ft.	t. **Paved Area = - sq.ft.			
Natural Area = lot area minus all impervious surfac	aces = <u>2,252</u> sq.ft.			
Lawn Area in sq. ft.	= 1,977 sq.ft.			
I/A System?	= Yes			
TITLE 5 FLOW = 110 GAL./ DAY PER BEDRO	OOM			
WASTEWATER FLOWS (NITROGEN LOAD &	WATER LOAD)			
Nitrogen from Title 5 design = 14,572 mg NO ₃ -N /	/ day / bedroom			
Water from Title 5 design = 416.3 H2O / day / bedi	droom			
1a) Number of bedrooms = 3 x 145	· ·			
1b) Number of bedrooms = 3 x 416	6 = 1248.00 L H ₂ O / day			
Actual Nitrogen load = 6071.5 mg NO3-N / day/ be	edroom: 3296 mg NO3-N / day/ bedroom			
with IA Treatment				
Actual Water load = 173.5 L H ₂ O / day / bedroom	1			
*Note: This assumes 2.5 people / unit average occ	ccupancy within the Town			
2a) Number of bedrooms = 3 x 607	071.5 9107.25 mg. NO3-N / day			
2b) Number of bedrooms = 3 x 173.5 = 520.50 L H ₂ O / day				
IMPERVIOUS SURFACES (NITROGEN LOAD &	·			
	· · · · · · · · · · · · · · · · · · ·			
NO3-N load number sq. ft. of roof surface	X 0.19395 mg NO3-N / sq. ft.			
·	X 0.2586 L / sq. ft.			
,	7. 0.2000 2 / oq. 10.			
3a) Roof surface = 983 sq. ft.	X 0.19395 = 190.65 mg NO3-N			
, ,	X 0.2586 = 254.20 L H ₂ O / day			
300 34. it. 7	7. 0.2300 - 204.20 E 1120 / day			
NO3-N load number sq. ft. of paved surface	X 0.388 mg / sq. ft.			
· ·	X 0.2586 L / sq. ft.			
The read manifest eq. it. or paved curred	7. 0.2000 E / 0q. 10.			
4a) NO ₃ -N = 0 sq. ft. paved surf	rface X 0.388 mg / sq. ft. 0.00 mg NO3-N			
	rface X 0.2586 L / sq. ft. 0.00 L H2O			

LAWN NITROGEN LOADING = 0.933 mg / sq. ft. lawn surface 5) sq. ft. of lawn X 0.933 = 1844.54 mg NATURAL AREA WATER LOADING Natural area = lot size - impervious surfaces 2252 sq. ft. 2252 X water recharge factor 305.82 L 6) Natural area (0.1358 L / sq. ft. for Bourne) **SUMMARY OF NITROGEN LOADING Estimated Title 5 Nitrogen & Water Loading** 7a) ADD the above NO3N load 1a (+)3a (+) 4a (+) 5 21858 190.65 0.00 1844.54 23893.19 mg NO₃-N / day 7b) 1b 3b (+) 6 (+) 4b (+) 1248 254.20 0.00 305.82 1808.03 L H₂O / day 7c) DIVIDE 7a by 7b 13.2 ppm NO₃-N***** Actual Nitrogen & Water Loading 8a) ADD the above NO3N load: 5 2a (+) 3a (+) 4a (+) 9107.25 190.65 0.00 1844.54 11142.44 mg NO₃-N / day 8b) ADD the above water (H2O) load: 2b (+) (+) 4b (+) 6 520.5 254.20 0.00 305.822 1080.53 L H₂O / day 8c) DIVIDE 8a by 8b 10.3 ppm NO₃-N***** FINAL CALCULATION ADD 7c & 8c (ppm) 23.5 divide by 2 = 11.8 ppm NO₃-N

This is the actual nitrate nitrogen load for the project as designed. The target for coastal areas is 5 ppm nitrate nitrogen. Certain critical embayments may require a LOWER figure to prevent degradation.

******If your nitrate nitrogen load exceeds the target limit USE A SECOND CALCULATION SHEET TO SHOW ALTERNATIVES IN TRYING TO AHIEVE THE 5 PPM NITRATE NITROGEN LEVEL***

USGS TOPO Map

4 Kennebec Ave. MassMapper

USGS Topographic Maps

Aerial Orthophoto



MassDOT Roads Street Names

Property Tax Parcels





MAP SCALE 1" = 500'

1000

3 FEET

nnr

TIME

PANEL 0492J

FIRM

FLOOD INSURANCE RATE MAP BARNSTABLE COUNTY, **MASSACHUSETTS** (ALL JURISDICTIONS)

PANEL 492 OF 875

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFF
BOURNE, TOWN OF	255210	0492	1
FALMOUTH, TOWN OF	255211	0492	J

-NOTETHIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT

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



MAP NUMBER 25001C0492J **EFFECTIVE DATE** JULY 16, 2014

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

NHESP Map



Potential Vernal Pools

•

NHESP Priority Habitats of Rare Species



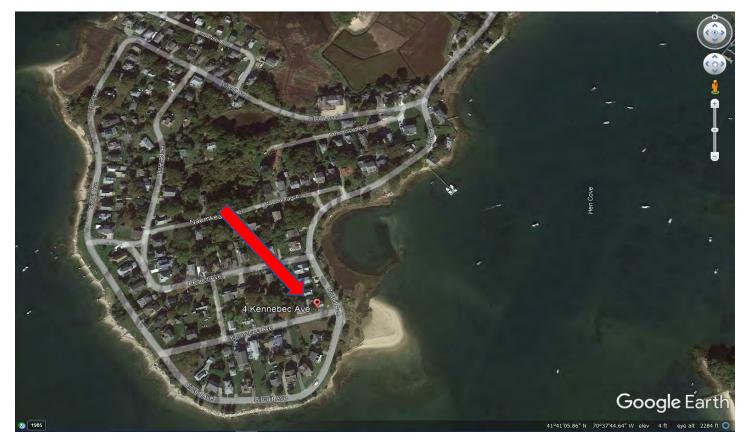
NHESP Estimated Habitats of Rare Wildlife



NHESP Certified Vernal Pools



MassDOT Roads Street Names



Directions to 4 Kennebec Avenue from the Bourne Town Hall:

Take Perry Avenue to Main Street;

Turn right onto Main Street;

At the traffic circle, take the 3rd exit onto the MA-28 S/MA-25 W ramp to Falmouth;

Keep right at the fork, follow signs for MA-28S/Falmouth/The Islands;

Continue onto MA-28S (MacArthur Boulevard) to Barlows Landing Road;

Turn left onto Shore Road;

Turn right onto Island Drive;

Turn right on to Circuit Avenue;

Slight left to stay on Circuit Avenue;

Turn right onto Kennebec Avenue; and

#4 is on the right.

From Google Maps: 8.0 miles, approximately 15 minutes travel time.

AFFIDAVIT OF SERVICE

Under the

Massachusetts Wetland Protection Act (Chapter 131, Section 40)

and the

Town of Bourne Wetland Protection Bylaw (Article 3.7) and its Regulations (BWR 1.05 (e))

I, Penni L. Pomeroy, on behalf of Christina Winterfeldt, hereby certify under the pains and penalties of perjury that on February 15, 2022, I gave notification to abutters in compliance with the Town of Bourne Bylaw (Article 3.7) and *Wetlands Protection Act*, in connection with the following matter:

A Notice of Intent was filed under the Town of Bourne's *Wetland Protection Bylaw* (Article 3.7) and the *Massachusetts Wetlands Protection Act* by Bracken Engineering, Inc., on behalf of Christina Winterfeldt, with the Town of Bourne's Conservation Commission on February 15, 2022 for the property located at 4 Kennebec Avenue, Map 47.1, Parcel 45 in Bourne, 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.

Penni L. Pomeroy

Bracken Engineering, Inc.

Jenn L Poug

February 15, 2022

Date



Donna Barakauskas, Member

TOWN OF BOURNE

Board of Assessors 24 Perry Avenue Buzzards Bay, MA 02532 (508) 759-0600 Ext. 1510 • Fax (508) 759-8026



Rui Pereira, MAA Director of Assessing

February 15, 2022

Faith V. Easter trs c/o Bracken Engineering, Inc. 49 Herring Pond Rd. Buzzards Bay, MA 02532

Reference: Abutters List for Map 47.1 Parcel 45

Subject Property: 4 Kennebec Avenue

Pursuant to the provisions of Massachusetts General Laws Chapter 141, Section 40, as amended, and the Town of Bourne Wetlands Protection Bylaw Article 3.7, enclosed is a list of names and addresses which constitutes abutters within 100 feet of the subject property on the most recent tax list of the Town of Bourne. The purpose of the abutters list is for a Notice of Intent application for the Conservation Commission.

Abutting properties are: Map 43.3 Parcels 194, 196 & 273; Map 47.1 Parcels 19, 31, 44, 46 & 123.

The Assessor's Office has received your payment of \$10.00.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

See enclosed Data Base Inquiry Forms for abutters mailing addresses.

Board of Assessors

Sun Sun Sin Denna Brukausha Michal Boile Extract: Database: Filter: Sort:

1 Abutters List LIVE Key IN 9474,9541,10167,10181,10188,10190,10265,9472

Report #24: Owner Listing Report Fiscal Year 2023

Bourne MA

S	ort:								
Keγ	Parcel ID	Owner	Location	LCVCI	Bk-Pa(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
9472	43.3-194-0	WALSH RICHARD L & MARILYN V WALSH	7 PEQUOT AVE	N 1090	33996/105 4/9/2021	34 HILLCROFT RD	BOSTON	MA	02130-3047
9474	43.3-196-0	MURPHY CONSTANCE T TRS CONSTANCE T MURPHY REV INT TR	535 CIRCUIT AVE	N -1090	33550/14 12/7/2020	PO BOX 1271	POCASSET	MA	02559-1271
9541	43.3-273-0	TOWN OF BOURNE	0 CIRCUIT AVE	N 9300	N/A/N/A	24 PERRÝ AVENUE	BUZZARDS BAY	MA	02532-3496
10167	47,1-19-0	TOWN OF BOURNE CONSERVATION COMMISSION	0 CIRCUIT AVE	N 9320	N/A/N/A	24 PERRY AVENUE	BUZZARDS BAY	MA	02532-3496
10131	47.1-31-0	MCCARTY SHAUNA L TR CIRCUIT AVE NOMINEE TRUST	515 CIRCUIT AVE	N 1010		C/O JIM MCCARTY 3960 LOBLOLLY BAY DR #308	NAPLES	FL	34114
10188	47,1-44-0	LUETH DWIGHT & SALLY LUETH & CHARLES LUETH	8 KENNEBEC AVE	N 1010	28522/304 11/21/2014	39 EMERSON ROAD	WELLESLEY	MA	02481
10190	47.1-46-0.	MCPHERSON CAROLINE & GREGG TRS OF MCPHERSON FAMILY TRUST	531 CIRCUIT AVE	N 1010	30965/79 12/15/2017	12207 LAWLER STREET	LOS ANGELES	CA	90066
10265	47.1-123-0	TUCCI KAREN M	14 KENNEBEC AVE	N 1010	34447/41 9/8/2021	1 SE KNOLL CT	BOURNE	MA	02532

Total Records

NOTIFICATION TO ABUTTERS UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT

Chapter 131, Section 40

In accordance with the 2nd paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

- A. The name of the Applicant is: Christina Winterfeldt
- B. The Applicant has filed a Notice of Intent (NOI) with the Bourne Conservation Commission seeking permission to perform work which might: remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act (General Laws, Chapter 131, Section 40).
- C. Description of the Project:

The project consists of the raze and rebuild of a single-family dwelling, the razing of two (2) sheds, installation of a Title 5 septic system, utility upgrades, associated grading and landscaping.

D. The location where the activity is proposed is:

4 Kennebec Avenue (Map 47.1, Parcel 45).

- E. Copies of the Notice of Intent may be examined at the Bourne Conservation office, Town Hall 24 Perry Avenue, between the hours of 8:30 a.m. and 4:30 p.m. (Monday Friday) Tel. 508-759-0600 Ex 1344 or can be obtained from the Applicant's Representative: Bracken Engineering, Inc., 49 Herring Pond Road, Buzzards Bay, MA 02532, between the hours of 8:00 a.m. and 5:00 p.m. (Monday Friday) Tel: 508-833-0070.
- F. T The Public Hearing is scheduled for **Thursday, March 3rd at 7:00 p.m.** via ZOOM until further notice.

NOTE: Notice of the scheduled Public Hearing:

- 1. Will be published at least five (5) days in advance in the Bourne Enterprise newspaper; and,
- 2. Meeting agendas are posted on the Town of Bourne's website no less than 48 hours in advance of the hearing. www.townofbourne.com/conservation

NOTE: You may also contact the Department of Environmental Protection Southeast Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP's Southeast Regional Office: 508-946-2800

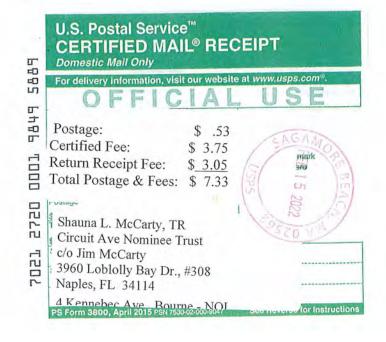


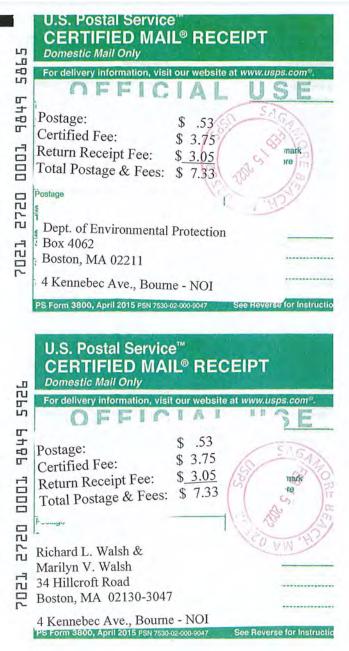


무나권

L]

70







U.S. Postal Service **CERTIFIED MAIL® RECEIPT** Domestic Mail Only

For delivery information, visit our website at www.usps.com®

Postage: \$.53 Certified Fee: \$ 3.75 Return Receipt Fee: \$ 3.05

15 202 mark Total Postage & Fees: \$ 7.33

Caroline & Gregg McPherson, TRS

McPherson Family Trust 12207 Lawler Street Los Angeles, CA 90066

4 Kennebec Ave., Bourne - NOI

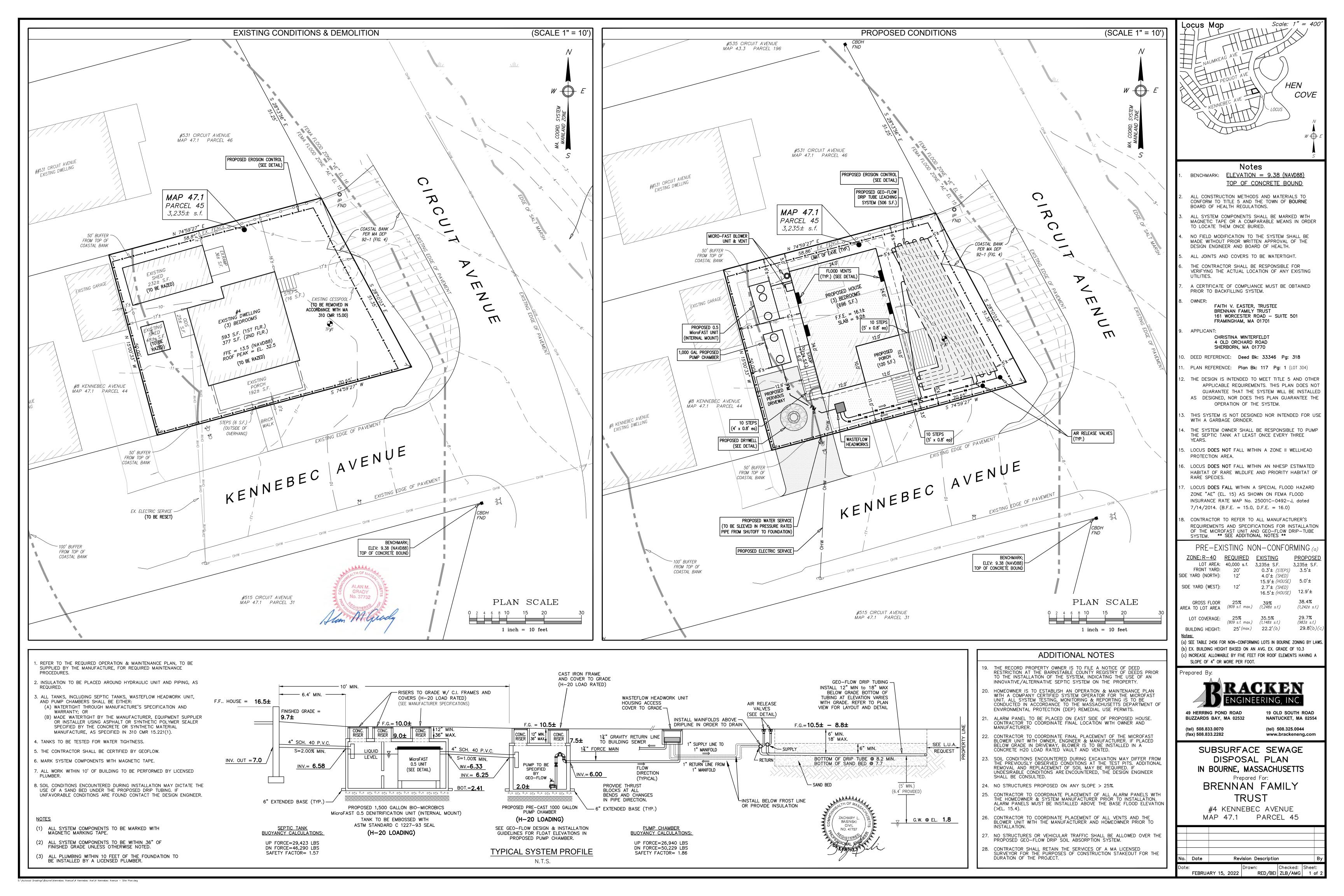
PS Form 3800, April 2015 PSN 7530-02-000-9047

U.S. Postal Service **CERTIFIED MAIL® RECEIPT** Domestic Mail Only 587 For delivery information, visit our website at www.usps.com® 무유나의 Postage: \$.53 Certified Fee: \$ 3.75 nark Return Receipt Fee: \$ 3.05 Total Postage & Fees: \$ 7.33 EB 1 2 5055 밉 Dwight Lueth, Sally Lueth & Charles Lueth 7057 39 Emerson Road Wellesley, MA 02481 4 Kennebec Ave., Bourne - NOI

U.S. Postal Service™ **CERTIFIED MAIL® RECEIPT** Domestic Mail Only For delivery information, visit our website at www.usps.com®. Certified Mail Fee Extra Services & Fees (check box, add fee as appropriate) Return Receipt (hardcopy) Return Receipt (electronic) Certified Mall Restricted Delivery Adult Signature Required Adult Signature Restricted Delivery Karen M. Tucci 7021 1 SE Knoll Court Bourne, MA 02532 4 Kennebec Ave., Bourne - NOI

59 유사권 TO 2720

PS Form 3800, April 2015 Fax



LOCAL UPGRADE APPROVALS REQUESTED 1) 15.405(1)(a) - A REDUCTION IN THE REQUIRED SETBACK TO EXISTING ABUTTING PROPERTY LINES: VARIANCE PROPOSED <u>REQUESTED</u> <u>SETBACK</u> <u>ADDRESS</u> **6'±** (MicroFAST TANK) #531 CIRCUIT AVENUE 4'± 6'± (SOIL ABSORPTION SYSTEM) #531 CIRCUIT AVENUE CIRCUIT AVENUE LAYOUT 5'± **5'±** (SOIL ABSORPTION SYSTEM) KENNEBEC AVENUE LAYOUT 5'± **5'±** (MicroFAST TANK) #8 KENNEBEC AVENUE **6'±** (MicroFAST TANK) 4'± **6'±** (PUMP CHAMBER) #8 KENNEBEC AVENUE 2) 15.405(1)(b) - A REDUCTION IN THE REQUIRED SETBACK TO EXISTING CELLAR WALL, CRAWLSPACE, OR SLAB FOUNDATION: PROPERTY VARIANCE PROPOSED <u>REQUESTED</u> <u>SETBACK</u> <u>ADDRESS</u> #4 KENNEBEC AVENUE 4'± **6'±** (MicroFAST TANK) #4 KENNEBEC AVENUE 4'± **6'±** (PUMP CHAMBER) 3) A VARIANCE TO LOCAL SETBACK REQUIREMENTS IS

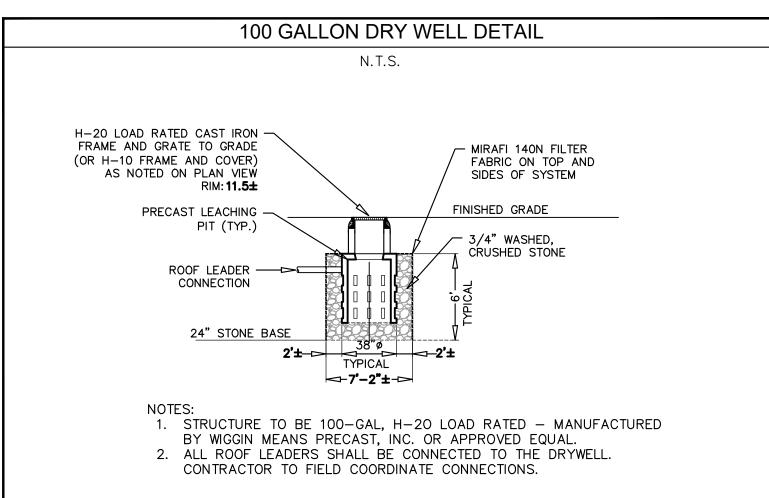
FROM A SOIL ABSORPTION SYSTEM.

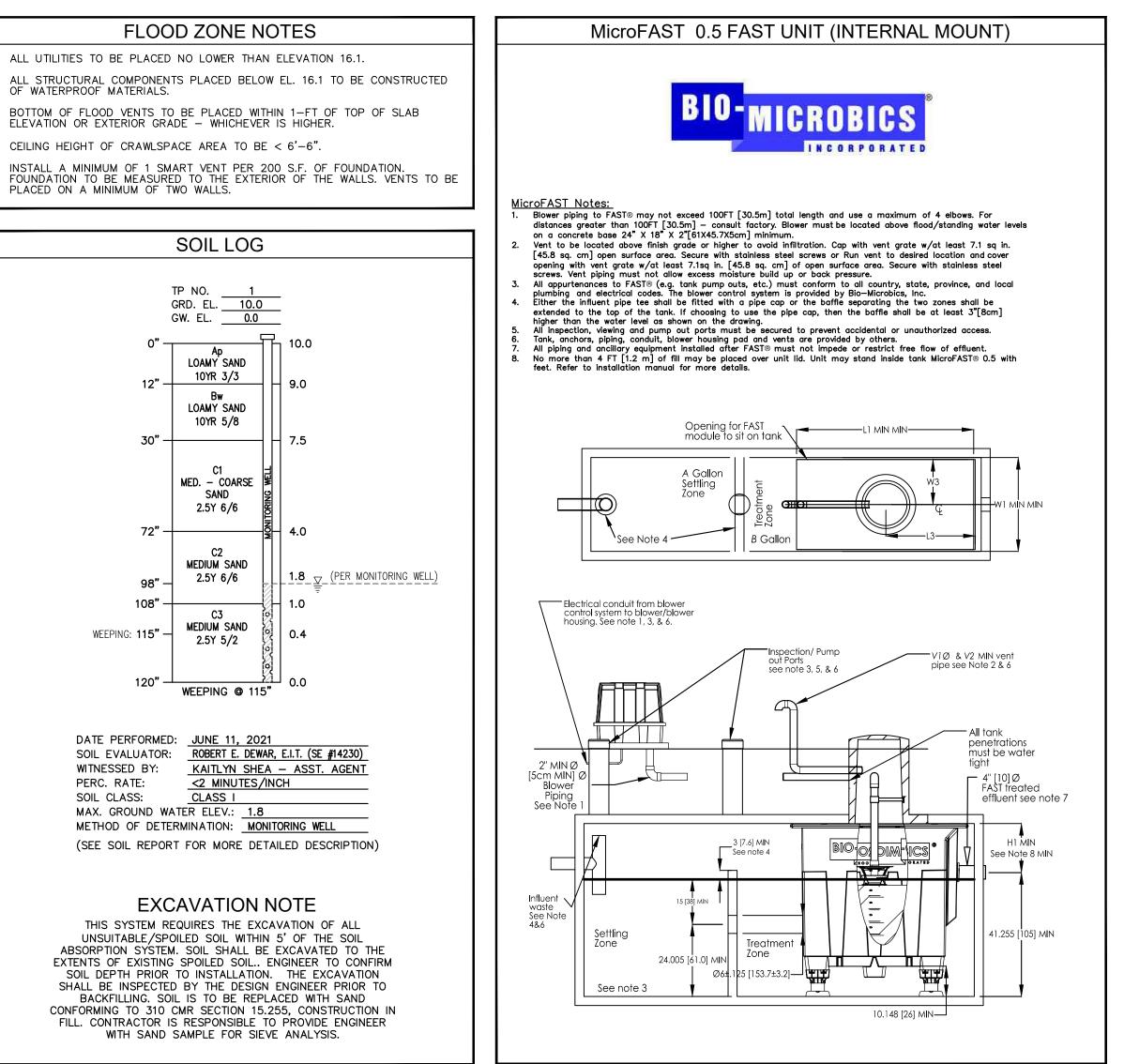
SETBACK OF O'± TO A COASTAL BANK.

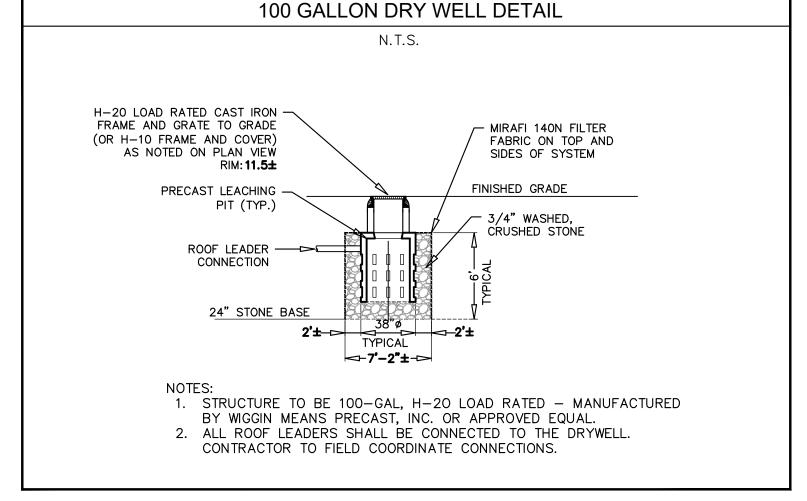
REQUESTED FOR A 150'± REDUCTION IN SETBACK FOR

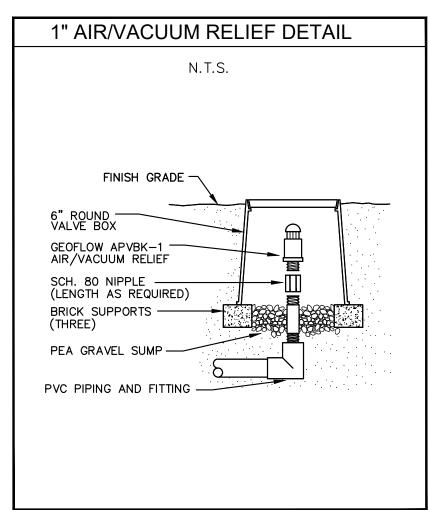
A O'± SETBACK TO A NON-ERODING COASTAL BANK

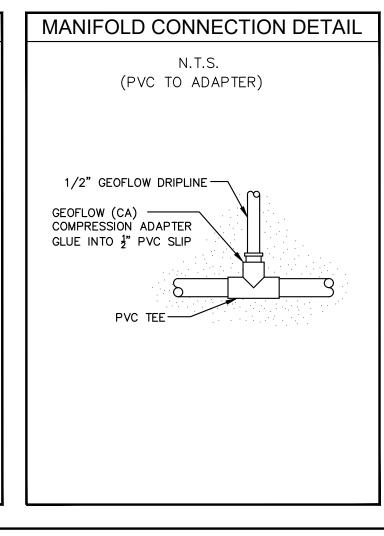
4) $15.405(1)(f) - A 50' \pm REDUCTION IN SETBACK FOR A$

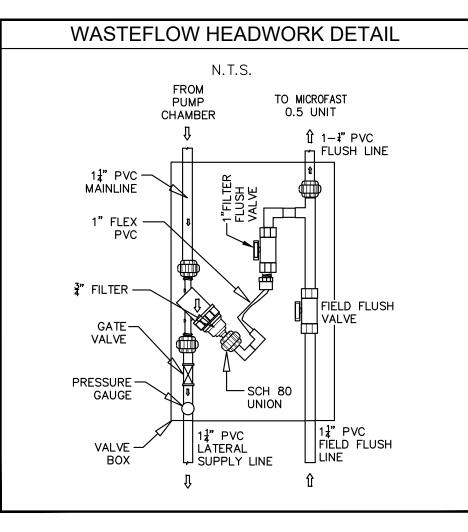


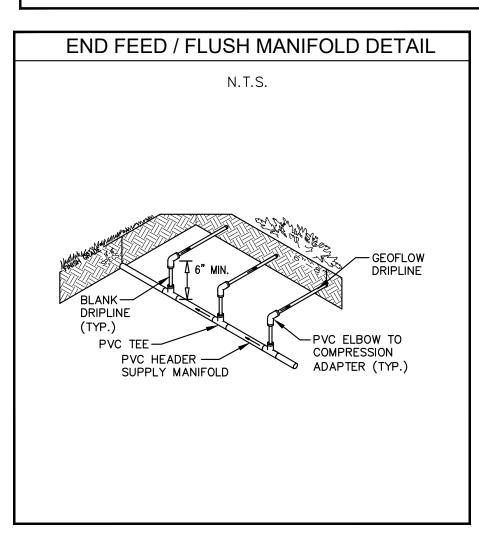


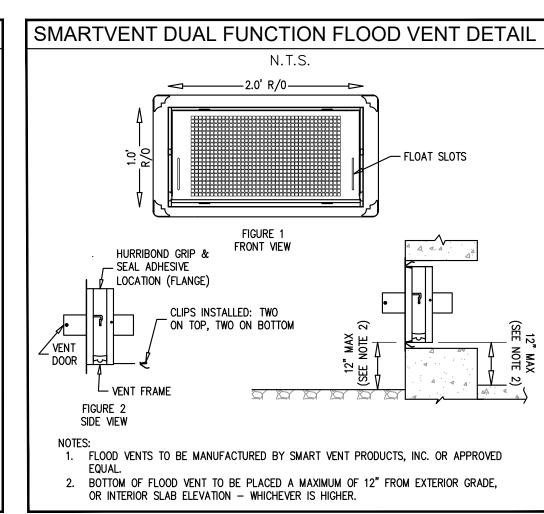


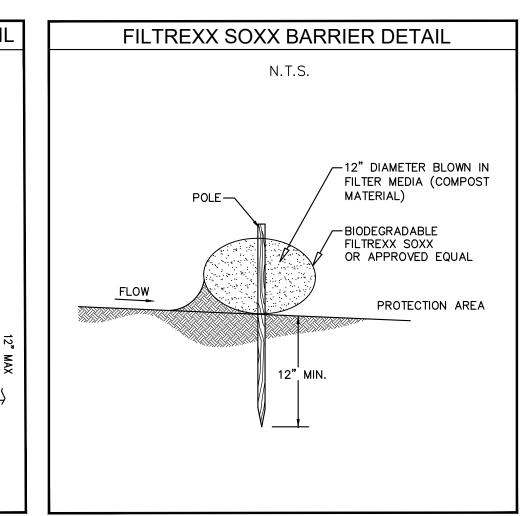












DESIGN CALCULATIONS SOIL TEXTURAL CLASS: DESIGN PERC. RATE: < 2 MINUTES/INCH NO. OF BEDROOMS: 3 BEDROOMS DESIGN FLOW REQUIRED: 330 GPD 1,500 GALLONS SEPTIC TANK REQUIRED: SEPTIC TANK PROVIDED: 1,500 GAL. W/ MICROFAST 0.5 PUMP CHAMBER PROVIDED: 1,000 GALLON PRECAST TANK LEACHING SYSTEM: GEO-FLOW IRRIGATION DISPOSAL FIELD SAND BED TO BE 506 S.F. WITH 463 LF OF GEO-FLOW DRIP TUBING EFFECTIVE LEACHING: (BASED ON GENERAL USE APPROVAL) LOADING RATE = 0.74 GPD/S.F. (330 GPD)(0.74 GPD/SF) = 446 S.F. REQUIRED BED(446 S.F.)(1 S.F./L.F. DRIP TUBING (1' SPACING)) = 446 L.F REQUIRED (506 S.F. PROVIDED)(0.74 GPD/SF) = 374 GPD > 330 GPDPUMP CHAMBER CALCULATIONS DOSING AND DRAIN BACK REQUIREMENTS PER GEO-FLOW SPECIFICATIONS.
CONTRACTOR TO COORDINATE WITH MANUFACTURER'S REPRESENTATIVE.

GENERAL CONSTRUCTION NOTES "GEOFLOW" DRIP DISPERSAL SYSTEMS

- 1. THE SYSTEM SHALL NOT BE INSTALLED IN WET OR FROZEN SOILS.
- 2. DO NOT PARK, DRIVE LARGE EQUIPMENT, OR STORE MATERIALS ON THE DISPERSAL AREA. NO ACTIVITY SHOULD OCCUR ON DISPERSAL AREA OTHER THAN THE MINIMUM REQUIRED TO INSTALL THE SYSTEM.
- 3. ALL INSTALLATION AND CONSTRUCTION TECHNIQUES SHALL CONFORM TO STATE AND LOCAL CODES PERTAINING TO ON-SITE SEWAGE SYSTEMS AND THE PERMIT FOR THE SITE.
- 4. THE INSTALLATION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND PROCEDURES AS SUPPLIED BY THE MANUFACTURER OF THE EQUIPMENT.
- 5. THE CONTRACTOR SHALL BE CERTIFIED TO INSTALL THIS TYPE OF SYSTEM AND SHOULD HOLD A PRE-CONSTRUCTION MEETING WITH THE INDIVIDUALS RESPONSIBLE FOR THE SITE DESIGN AND INSPECTIONS. THE MEETING SHOULD BE HELD PRIOR TO THE BEGINNING OF THE SITE WORK TO ENSURE PROTECTION OF THE SITE CONDITIONS AND TO ENSURE THAT THE SYSTEM IS INSTALLED ACCORDING TO DESIGN.
- 6. IF SITE CONDITIONS ARE DETERMINED TO REQUIRE THE INSTALLATION OF THE SYSTEM TO DEVIATE FROM THE DESIGN PLANS, ALL WORK SHALL STOP IMMEDIATELY AND THE DESIGNER AND HEALTH AGENT SHALL BE NOTIFIED. ANY ON GOING WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- DRIP TUBING MAY BE INSTALLED WITH A VIBRATORY PLOW, A STATIC PLOW, A NARROW TRENCHER (<6" WIDTH), BY HAND TRENCHING, OR BY SCARIFYING THE SURFACE AND BEDDING THE DRIP TUBING IN CLEAN SAND MEETING THE REQUIREMENTS FOR FILL MATERIAL IN TITLE V AT 310 CMR 15.255(3) WITH COVER CONSISTING OF SAND AND TOPSOIL MEETING THE 6" TO 12" DEPTH REQUIREMENT THE DESIGNER
- MAY INDICATE FOR THE TUBING TO BE INSTALLED UP TO 24" BELOW GRADE. ALL DRIP TUBING IS TO BE INSTALLED PARALLEL WITH THE CONTOUR. VEGETATIVE COVER MUST BE REPLACED FOR INSTALLATIONS WHERE IT IS REMOVED OR BURIED DURING INSTALLATION. ALL CUTTING OF RIGID PVC PIPE, FLEXIBLE PVC AND DRIP TUBING OF SIZE 12" OR SMALLER SHALL BE ACCOMPLISHED WITH PIPE CUTTERS APPROVED BY MANUFACTURER. NO SAWING OF PVC, FLEXIBLE PVC
- OR DRIP TUBING OF SIZE 13" OR SMALLER. ALL RIGID PVC PIPE, FLEXIBLE PVC AND DRIP TUBING IN THE WORK AREA SHALL HAVE THE ENDS COVERED WITH DUCT TAPE IS ALLOWED. TAPE AFTER CUTTING TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE PIPE. PRIOR TO GLUING, ALL JOINTS SHALL BE INSPECTED ALL PVC PIPE AND FITTINGS IN THE FIELD SHALL BE SCH 40. ALL GLUED JOINTS SHALL BE CLEANED AND CLEARED OF ANY DEBRIS. PRIMED WITH PVC PRIMER PRIOR TO BEING GLUED. ALL FORCE MAINS SHALL BE TESTED FOR LEAKS PRIOR TO BEING BACKFILLED BY PRESSURIZING THE SYSTEM AND
- AIR RELIEF VALVES SHALL BE PLACED AT A HIGHER ELEVATION THAN THE DRIP TUBING IN THAT ZONE BUT BELOW THE GROUND SURFACE. AIR VENTS SHALL BE ACCESSIBLE FROM FINISHED GRADE AND INSULATED TO PREVENT FREEZING.
- 10. THE SUPPLY LINES, DRIP TUBING MANIFOLDS, AND HEADERS SHALL BE SLOPED TO ALLOW EFFLUENT TO DRAIN BACK TO THE EFFLUENT PUMP (DOSING) CHAMBER BY GRAVITY TO PREVENT FREEZING OR INSTALLED AT A DEPTH OF LEAST FOUR FEET. THE DRIP TUBING SHALL BE DESIGNED TO DRAIN INTO THE SOIL UPON COMPLETION OF THE PUMP CYCLE.
- 11. THE INSTALLER SHALL MAINTAIN ON-SITE, AT ALL TIMES DURING CONSTRUCTION, A COPY OF THE APPROVED PLANS, THE OWNER'S MANUAL, THE O&M MANUAL, AND A COPY OF THE APPROVAL.

