

No. _____

FEE _____ 150 -

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Bourne, MA.

RECEIVED

By Bourne Health Department at 4:02 pm, Oct 26, 2022

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct () Repair () Upgrade () Abandon () - Complete System Individual Components

Table with 2 columns: Location, Map/Parcel#, Lot#, Installer's Name, Address, Telephone# and Owner's Name, Address, Telephone#, Designer's Name, Address, Telephone#.

Type of Building Single-family dwelling Lot Size 3,235+/- sq. ft. Dwelling - No. of Bedrooms 3 Garbage grinder () Other - Type of Building No. of persons Showers (), Cafeteria () Other Fixtures Design Flow (min. required) 110 gpd Calculated design flow 330 GPD Design flow provided 3,000 Tight Tank gpd Plan: Date October 18, 2022 Number of sheets 1 Revision Date Title Subsurface Sewage Disposal Plan in Bourne, MA Description of Soil(s) See Plan for full description Soil Evaluator Form No. T5 forms 11 & 12 Name of Soil Evaluator Robert E. Dewar, SE Date of Evaluation June 11, 2021

DESCRIPTION OF REPAIRS OR ALTERATIONS Installation of a new 3,000 gallon tight tank.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed _____ Date _____

Inspections _____



No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, _____, MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed (), Repaired (), Upgraded (), Abandoned ()

by: _____

at _____

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. _____, dated _____. Approved Design Flow _____(gpd)

Installer _____

Designer: _____ Inspector: _____ Date: _____

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, _____, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at _____ as described in the application for

Disposal System Construction Permit No. _____, dated _____.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

MAIN OFFICE:

49 Herring Pond Road
Buzzards Bay, MA 02532
TEL: (508) 833-0070
FAX: (508) 833-2282



NANTUCKET OFFICE:

19 Old South Road
Nantucket, MA 02554
TEL: (508) 325-0044
www.brackeneng.com

October 26, 2022

RECEIVED

By Bourne Health Department at 4:02 pm, Oct 26, 2022

Bourne Board of Health
Terri Guarino, RS, CHO
24 Perry Avenue
Bourne, MA 02532

**RE: Septic Upgrade
4 Kennebec Avenue (Map 47.1, Parcel 45)**

Dear Members of the Board:

On behalf of the Applicant, Robin Mallove, please accept this letter as a request under local upgrade approval section 310 CMR 15.405.3(b) to install a tight tank at the above referenced property. As identified below, in more detail, it is the professional opinion of Bracken Engineering, Inc. (BEI) that no other feasible alternative to upgrade the system in accordance with 310 CMR 15.201 through 15.293 exists that will protect the health, safety and welfare of the environment and general public.

A variance request was made on behalf of the property owners, The Brennan Family Trust, as a part of a full site redesign. Proposed work included razing the existing dwelling, two sheds and the construction of a new single-family dwelling. As a part of that site redesign, a proposal was made for the installation of an innovative alternative septic system, consisting of a Micro-FAST septic tank, pump chamber and a Geo-Flow Drip Disposal System. The proposed use of that system was made possible by the site redesign, specifically, the removal of the garage and shed. That, along with the raze and rebuild of the single-family dwelling resulted in adequate space on the site for the Geo-Flow system and associated tank and pump chamber.

The current Applicant is not proposing any changes to existing site features or structures. The existing parcel is approximately 3,235 s.f. in size. The area of the parcel that is not occupied by existing structures is very limited. Multiple wetland resource areas lie within 150' of the parcel, including Coastal Bank & Salt Marsh. It is infeasible for the required soil absorption system, septic tank, required pre-treatment unit(s) and pump chamber to fit within the confines of the available space.

In summary, it would be detrimental to both environmental concerns and public health to propose a soil absorption at the above referenced locus. Any system proposed would provide only minimal separation between existing property lines, dwellings, foundations, groundwater and/or existing septic systems. As such, BEI is requesting that the Bourne Board of Health diverge from the goal of full compliance by granting the local upgrade approval requested above. The design allows for the best feasible upgrade within the borders of the lot, and has the least effect on public health, safety and the environment.



In addition to the above request, the following Local Upgrade Approvals are requested in association with the proposed tight tank:

1. 15.405.1 (a) Local Upgrade Approval is requested for a 4± ft reduction in setback to a property line from a septic component for a 6± ft setback to the proposed tight tank from the existing property line (Circuit Avenue).
2. 15.405.1 (a) Local Upgrade Approval is requested for a 4± ft reduction in setback to a property line from a septic component for a 6± ft setback to the proposed tight tank from the existing property line (Kennebec Avenue).
3. 15.405.1 (f) – Local Upgrade Approval is requested for a 16'± reduction in required setback to a Coastal Bank from a holding tank for a 9'± setback to the proposed tight tank.

Enclosed are six (6) copies of the Variance Application, Existing and Proposed Nitrogen Loading Calculations, Subsurface Sewage Disposal Plan dated 10/18/2022, and \$125.00 for the Public Hearing Fee.

Thank you for your time and consideration on this matter. We look forward to reviewing this project with the Board of Health at the next scheduled Public Hearing. Should you have any questions regarding this project or require any further information please contact the undersigned at either 508-833-0070 or zac@brackeneng.com or jason@brackeneng.com.

Sincerely,

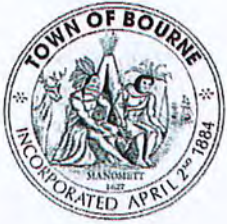
BRACKEN ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'Zachary L. Basinski', written over a horizontal line.

Zachary L. Basinski, P.E., C.F.M.
Project Manager

A handwritten signature in black ink, appearing to read 'Jason Heyer', written over a horizontal line.

Jason Heyer
Engineering Technician



Bourne Board of Health Application for Septic Variance Requests



In accordance with the established procedures of the Bourne Board of Health, this application for septic variances and waivers is relevant to requests for relief which have not been approved administratively and require approval at a public meeting. Please use the following application form for guidance on how to apply for variances and waivers which serve new construction, changes in use, or increases in flow to on-site sewage disposal systems with design flows of less than 10,000 gallons/ day.

RECEIVED
By Bourne Health Department at 4:03 pm, Oct 26, 2022

1. Facility Name and Address:

Owner's Name	Brennan Family Trust c/o Christina Winterfeldt
Facility's Street Address	4 Kennebec Avenue (Map 47.1, Parcel 45)
Owner's Telephone Number	508-479-7128
Owner's E-mail Address	chriswin12@aol.com
Owner's Mailing Address	4 Old Orchard Road, Sherborn, MA 01770

2. Applicant or Preparer's Name and Address (if different from above):

Preparer's Name	Zachary L. Basinski, PE, CFM
Company	Bracken Engineering, Inc.
Telephone Number	508-833-0070
E-mail Address	zac@brackeneng.com
Mailing Address	49 Herring Pond Road, Buzzards Bay
State/ Zip Code	MA / 02532

3. Type of Facility (check all that apply):

- Residential Commercial Institutional School Industrial

4. Describe Facility (i.e. single-family dwelling, 45 seat restaurant): _____

Single-family dwelling

5. Type of System Proposed (check all that apply):

- Conventional Title 5 I/A System
 Pumped System Gravity System Pressure Dosed Other Tight Tank

6. Describe the proposed septic system components: 3,000 gallon tight tank

7. Design Flow per 310 CMR 15.203 (in gallons/ day):

Design flow of proposed system: 110 GPD @ 3 BDR = 330 GPD

Total design flow of facility: 330

8. Enclose a letter of request for variances which makes reference to the specific provisions of Title 5 and the Board Bourne of Health Regulations for which a variance is sought. Please use this opportunity to demonstrate compliance with 310 CMR 15.410, and to justify the relevant facts and circumstances of the individual case. Note that with regard to variances for new construction, enforcement of the provision from which a variance is sought must be shown to deprive the applicant of substantially all beneficial use of the subject property in order to be manifestly unjust. Be sure to explain why full compliance with the applicable regulations is not feasible, and how a level of environmental protection that is at least equivalent to that provided under Title 5 and the Board of Health Regulations can be achieved without strict application of the regulations.

9. In order for this Application to be deemed complete, it must be accompanied by all of the following:

- Application Fees paid to the Town of Bourne.
- Letter of request (see samples)
- Six sets of complete plans and specifications. One with original stamp of design engineer.
- Nitrogen Loading Calculation Sheet(s)
- If abutter notification is required, one of each of the following must be submitted:
 - A copy of the certified list of abutters from the Assessor's Department
 - Sample letter for abutter notification postmarked 10 days prior to meeting date
 - Proof of certified mailing (receipts) meeting requirements of 310 CMR 15.405(2)
- Proposals for installation of Innovative/ Alternative systems must be accompanied by:
 - A copy of the Certification for Use including technology specific conditions
 - Draft disclosure notice for the I/A technology to be recorded in the deed
- Hydrogeologic data for all leaching facilities proposed within 100ft of a wetland/ watercourse
- Percentage of Increase Worksheet is required for waivers or increases in flow

10. Certification:

"I certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for deliberate violations."

Facility Owner's Signature  - AGENT Date 10/24/2022

Print Name BRACKEN ENGINEERING, INC

Signature of Preparer  BRACKEN ENGINEERING, INC Date 10/24/2022

Print Name Zachary L. Basinski, PE, CFM
Bracken Engineering, Inc. (AGENT)

For Office Use Only

Completed Application Received: _____

Reviewed By: _____

Hearing Date: _____

Permit #: _____

Circle all that apply:

Approved

Continued

Disapproved

Other

Notes: _____

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 Commission and deals with nitrate nitrogen (NO₃-N) Use the information from your PLAN OF RECORD to provide the following:

4 Kennebec Avenue (Existing Conditions)

Number of Bedrooms (Title 5 Definition)	=	<input type="text" value="3"/>	Bedrooms
Lot Size (in square feet of upland areas)	=	<input type="text" value="3,235"/>	sq.ft. Upland
Impervious Surfaces; **roof area = <input type="text" value="1,148"/> sq.ft.	**Paved Area =	<input type="text" value="-"/>	sq.ft.
Natural Area = lot area minus all impervious surfaces	=	<input type="text" value="2,087"/>	sq.ft.
Lawn Area in sq. ft.	=	<input type="text" value="2,087"/>	sq.ft.

TITLE 5 FLOW = 110 GAL./ DAY PER BEDROOM

WASTEWATER FLOWS (NITROGEN LOAD & WATER LOAD)

Nitrogen from Title 5 design = 14,572 mg NO₃-N / day / bedroom: or 7911 mg NO₃-N / day/ bedroom with IA Treatment

Water from Title 5 design = 416.3 H₂O / day / bedroom

1a) Number of bedrooms = x 14572 = 43716.00 mg. NO₃-N / day

1b) Number of bedrooms = x 416 = 1248.00 L H₂O / day

Actual Nitrogen load = 6071.5 mg NO₃-N / day/ bedroom: 3296 mg NO₃-N / day/ bedroom with IA Treatment

Actual Water load = 173.5 L H₂O / day / bedroom

*Note: This assumes 2.5 people / unit average occupancy within the Town

2a) Number of bedrooms = x 6071.5 = 18214.50 mg. NO₃-N / day

2b) Number of bedrooms = x 173.5 = 520.50 L H₂O / day

IMPERVIOUS SURFACES (NITROGEN LOAD & WATER LOAD)

NO₃-N load number sq. ft. of roof surface X 0.19395 mg NO₃-N / sq. ft.

H₂O load number sq. ft. of roof surface X 0.2586 L / sq. ft.

3a) Roof surface = sq. ft. X 0.19395 = 222.65 mg NO₃-N

3b) Roof surface = sq. ft. X 0.2586 = 296.87 L H₂O / day

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.

4a) NO₃-N = sq. ft. paved surface X 0.388 mg / sq. ft. 0.00 mg NO₃-N

4b) H₂O = sq. ft. paved surface X 0.2586 L / sq. ft. 0.00 L H₂O

LAWN NITROGEN LOADING = 0.933 mg / sq. ft. lawn surface

$$5) \text{ sq. ft. of lawn} = 2087 \times 0.933 = 1947.17 \text{ mg}$$

NATURAL AREA WATER LOADING

$$\text{Natural area} = \text{lot size} - \text{impervious surfaces} = 2087 \text{ sq. ft.}$$

$$6) \text{ Natural area} = 2087 \times \text{water recharge factor} = 283.41 \text{ L} \\ (\text{0.1358 L / sq. ft. for Bourne})$$

SUMMARY OF NITROGEN LOADING

Estimated Title 5 Nitrogen & Water Loading

7a) ADD the above NO₃N load

1a	(+)	3a	(+)	4a	(+)	5	
43716		222.65		0.00		1947.17	45885.83 mg NO ₃ -N / day

7b)

1b	(+)	3b	(+)	4b	(+)	6	
1248		296.87		0.00		283.41	1828.29 L H ₂ O / day

$$7c) \text{ DIVIDE 7a by 7b} = \underline{25.1} \text{ ppm NO}_3\text{-N}^{*****}$$

Actual Nitrogen & Water Loading

8a) ADD the above NO₃N load:

2a	(+)	3a	(+)	4a	(+)	5	
18214.5		222.65		0.00		1947.17	<u>20384.33</u> mg NO ₃ -N / day

8b) ADD the above water (H₂O) load:

2b	(+)	3b	(+)	4b	(+)	6	
520.5		296.87		0.00		283.415	<u>1100.79</u> L H ₂ O / day

$$8c) \text{ DIVIDE 8a by 8b} = \underline{18.5} \text{ ppm NO}_3\text{-N}^{*****}$$

$$\text{FINAL CALCULATION ADD 7c \& 8c (ppm)} = \underline{43.6} \text{ divide by 2} = \underline{21.8} \text{ ppm NO}_3\text{-N}$$

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 ACHIEVE 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 Commission and deals with nitrate nitrogen (NO₃-N) Use the information from your PLAN OF RECORD to provide the following:

4 Kennebec Avenue (Proposed Conditions)

Number of Bedrooms (Title 5 Definition)	(Tight Tank=No Bedrooms)	0	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 & WATER LOAD)

(No nitrogen load from wastewater due to installation of Tight Tank)

Nitrogen from Title 5 design = 14,572 mg NO₃-N / day / bedroom: or 7911 mg NO₃-N / day/ bedroom with IA Treatment

Water from Title 5 design = 416.3 H₂O / day / bedroom

1a) Number of bedrooms = 0 x 14572 = 0.00 mg. NO₃-N / day

1b) Number of bedrooms = 0 x 416 = 0.00 L H₂O / day

Actual Nitrogen load = 6071.5 mg NO₃-N / day/ bedroom: 3296 mg NO₃-N / day/ bedroom with IA Treatment

Actual Water load = 173.5 L H₂O / day / bedroom

*Note: This assumes 2.5 people / unit average occupancy within the Town

2a) Number of bedrooms = 0 x 6071.5 = 0.00 mg. NO₃-N / day

2b) Number of bedrooms = 0 x 173.5 = 0.00 L H₂O / day

IMPERVIOUS SURFACES (NITROGEN LOAD & WATER LOAD)

NO₃-N load number sq. ft. of roof surface X 0.19395 mg NO₃-N / sq. ft.

H₂O load number sq. ft. of roof surface X 0.2586 L / sq. ft.

3a) Roof surface = 1148 sq. ft. X 0.19395 = 222.65 mg NO₃-N

3b) Roof surface = 1148 sq. ft. X 0.2586 = 296.87 L H₂O / day

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.

4a) NO₃-N = 0 sq. ft. paved surface X 0.388 mg / sq. ft. = 0.00 mg NO₃-N

4b) H₂O = 0 sq. ft. paved surface X 0.2586 L / sq. ft. = 0.00 L H₂O

LAWN NITROGEN LOADING = 0.933 mg / sq. ft. lawn surface

$$5) \text{ sq. ft. of lawn} = 2087 \times 0.933 = 1947.17 \text{ mg}$$

NATURAL AREA WATER LOADING

$$\text{Natural area} = \text{lot size - impervious surfaces} = 2087 \text{ sq. ft.}$$

$$6) \text{ Natural area} = 2087 \times \text{water recharge factor} = 283.41 \text{ L} \\ (\text{0.1358 L / sq. ft. for Bourne})$$

SUMMARY OF NITROGEN LOADING

Estimated Title 5 Nitrogen & Water Loading

7a) ADD the above NO₃N load

1a	(+)	3a	(+)	4a	(+)	5	
0		222.65		0.00		1947.17	2169.83 mg NO ₃ -N / day

7b)

1b	(+)	3b	(+)	4b	(+)	6	
0		296.87		0.00		283.41	580.29 L H ₂ O / day

$$7c) \text{ DIVIDE 7a by 7b} = \underline{3.7} \text{ ppm NO}_3\text{-N}^{*****}$$

Actual Nitrogen & Water Loading

8a) ADD the above NO₃N load:

2a	(+)	3a	(+)	4a	(+)	5	
0		222.65		0.00		1947.17	<u>2169.83</u> mg NO ₃ -N / day

8b) ADD the above water (H₂O) load:

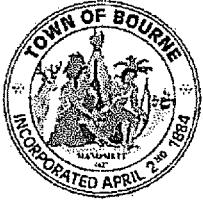
2b	(+)	3b	(+)	4b	(+)	6	
0		296.87		0.00		283.415	<u>580.29</u> L H ₂ O / day

$$8c) \text{ DIVIDE 8a by 8b} = \underline{3.7} \text{ ppm NO}_3\text{-N}^{*****}$$

$$\text{FINAL CALCULATION ADD 7c \& 8c (ppm)} = \underline{7.5} \text{ divide by 2} = \underline{3.7} \text{ ppm NO}_3\text{-N}$$

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 ACHIEVE THE 5 PPM NITRATE NITROGEN LEVEL*****



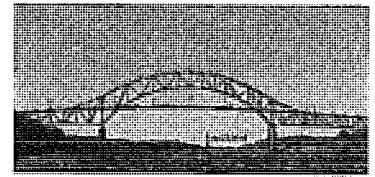
Michael Leitzel, Chairperson
Ellen Doyle Sullivan, Clerk
Donna Barakauskas, Member

TOWN OF BOURNE

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

RECEIVED

By Bourne Health Department at 4:03 pm, Oct 26, 2022



Rui Pereira, MAA
Director of Assessing

October 19, 2022

Brennan Family Trust
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Re: Abutters List for Map 47.1 Parcel 45
Property address: 4 Kennebec Avenue

As required by the Bourne Board of Health, pursuant with section 310 CMR 15.411(1), this is to certify that the attached list of names and addresses constitutes all of the parties in interest as shown on the most recent tax list of the Town of Bourne.

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

Your payment of \$10.00 has been received by the Bourne Assessor's Office.

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 for abutters mailing addresses.

Board of Assessors

*Ellen Doyle Sullivan -
Donna Barakauskas
Michael Leitzel*

Extract: ABUTTERS LIST
 Database: LIVE
 Filter: Key IN 9541,10167,10181,10188,10190
 Sort:

Report #24: Owner Listing Report
 Fiscal Year 2023

Bourne MA

Key	Parcel ID	Owner	Location	LC/CI	Bk-Pg(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
9541	43.3-273-0	TOWN OF BOURNE	0 CIRCUIT AVE	N	N/A/N/A	24 PERRY AVENUE	BUZZARDS BAY	MA	02532-3496
				9300					
10167	47.1-19-0	TOWN OF BOURNE CONSERVATION COMMISSION	0 CIRCUIT AVE	N	N/A/N/A	24 PERRY AVENUE	BUZZARDS BAY	MA	02532-3496
				9320					
10181	47.1-31-0	MCCARTY SHAUNA L TR CIRCUIT AVE NOMINEE TRUST	515 CIRCUIT AVE	N	2804B/287 3/25/2014	C/O JIM MCCARTY 3950 LOBLOLLY BAY DR #308	NAPLES	FL	34114
10188	47.1-44-0	LUETH DWIGHT & SALLY LUETH & CHARLES LUETH	8 KENNEBEC AVE	N	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	30965/79 12/15/2017	12207 LAWLER STREET	LOS ANGELES	CA	90066

Total Records 5

RECEIVED
 By Bourne Health Department at 4:03 pm, Oct 26, 2022

MAIN OFFICE:
49 Herring Pond Road
Buzzards Bay, MA 02532
TEL: (508) 833-0070
FAX: (508) 833-2282



NANTUCKET OFFICE:
19 Old South Road
Nantucket, MA 02554
TEL: (508) 325-0044
www.brackeneng.com

October 26, 2022

RECEIVED
By Bourne Health Department at 4:04 pm, Oct 26, 2022

CERTIFIED MAIL

RE : Notice of Public Hearing

Dear Abutter:

In accordance with the State Environmental Code, Title 5: 310 CMR 15.00, you are hereby notified that the potential buyer **Robin Mallove** has requested a hearing before the Bourne Board of Health for relief from the Bourne Board of Health Regulations for the installation of an upgraded Septic System. The location of the property for which approval is sought is **4 Kennebec Avenue (Map 47.1, Parcel 45), Pocasset** where you are listed as an abutter. At said hearing the Board will discuss and possibly vote on:

- **15.405.3 (b) - Local Upgrade Approval is requested for the use of a tight tank in accordance with the provisions of 310CMR 15.260 (Title 5)**
- **15.405.1 (a) - Local Upgrade Approval is requested for a 4'± reduction in required setback to a property line from a septic component for a 6'± setback to a property line from a proposed tight tank (Circuit Avenue).**
- **15.405.1 (a) - Local Upgrade Approval is requested for a 4'± reduction in required setback to a property line from a septic component for a 6'± setback to a property line from a proposed tight tank (Kennebec Avenue).**
- **15.405.1 (f) – Local Upgrade Approval is requested for a 16'± reduction in required setback to a Coastal Bank from a holding tank for a 9'± setback to the proposed tight tank.**

This hearing is tentatively scheduled for Wednesday, November 16th at **5:30 p.m.** in Conference Room #2 at the Bourne Veteran's Memorial Community Building, 239 Main Street, Buzzards Bay. Information regarding the hearing may be available for your review one week prior to the meeting by contacting the Bourne Health Department at 508-790-0600, Ext. 1513, Monday through Friday from 8:30 a.m. until 4:30 p.m.

Meeting agendas are posted on the Town of Bourne website, www.townofbourne.com/health no less than 48 hours in advance of the hearing. *Please confirm the date, time, and location of the meeting with the Town, in case of any changes.* Should you have any questions or concerns, please do not hesitate to contact the undersigned at zac@brackeneng.com or the Bourne Health Department at 508-790-0600, Ext. 1513.

Sincerely,

BRACKEN ENGINEERING INC.

A handwritten signature in black ink, appearing to read 'Zachary L. Basinski', written over a horizontal line.

Zachary L. Basinski, PE, C.F.M
Project Manager
Agent for the Applicant

7021 2720 0001 9849 8774

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Postage:	\$.57
Certified Fee:	\$ 4.00
Return Receipt Fee:	\$ 3.25
Total Postage & Fees:	\$ 7.82



Town of Bourne
Conservation Commission
24 Perry Avenue
Buzzards Bay, MA 02532-3496

4 Kennebec Ave., Bourne - BOH - TT

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

7021 2720 0001 9849 8767

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

OFFICIAL USE

Postage:	\$.57
Certified Fee:	\$ 4.00
Return Receipt Fee:	\$ 3.25
Total Postage & Fees:	\$ 7.82



Town of Bourne
24 Perry Avenue
Buzzards Bay, MA 02532-3496

4 Kennebec Ave., Bourne - BOH - TT

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

7021 2720 0001 9849 8804

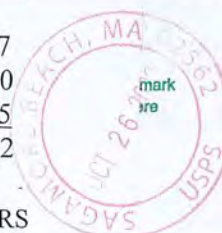
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Caroline & Gregg McPherson, TRS
McPherson Family Trust
12207 Lawler Street
Los Angeles, CA 90066

4 Kennebec Ave., Bourne - BOH - TT

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Dwight Lueth, Sally Lueth &
Charles Lueth
39 Emerson Road
Wellesley, MA 02481

4 Kennebec Ave., Bourne - BOH - TT

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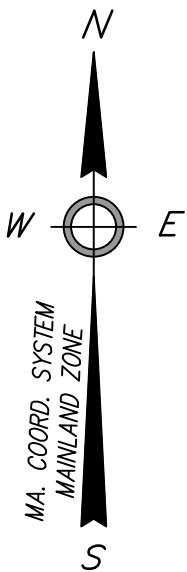


Shauna L. McCarty TR
Circuit Ave Nominee Trust
c/o Jim McCarthy
3960 Loblolly Bay Drive #308
Naples, FL 34114

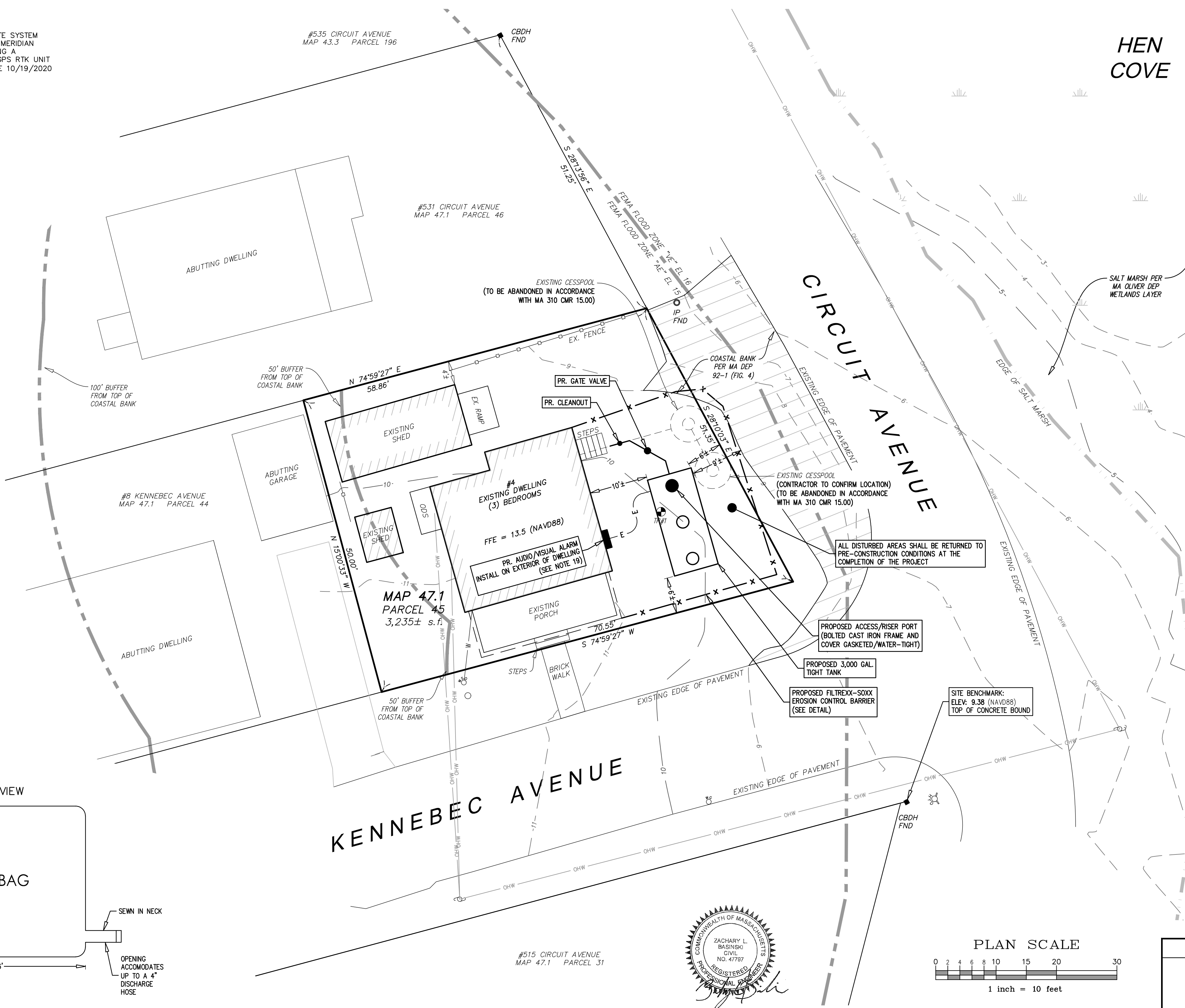
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RECEIVED
By Bourne Health Department at 4:04 pm, Oct 26, 2022



MASS COORDINATE SYSTEM
MAINLAND ZONE MERIDIAN
DETERMINED USING A
CARLSON BR7 GPS RTK UNIT
COLLECTION DATE 10/19/2020



RECEIVED
By Bourne Health Department at 4:04 pm, Oct 26, 2022

LOCAL UPGRADE APPROVAL REQUESTED:

15.405.3(b) - LOCAL UPGRADE APPROVAL IS REQUESTED FOR THE USE OF A TIGHT TANK IN ACCORDANCE WITH THE PROVISIONS OF 310 CMR 15.280.

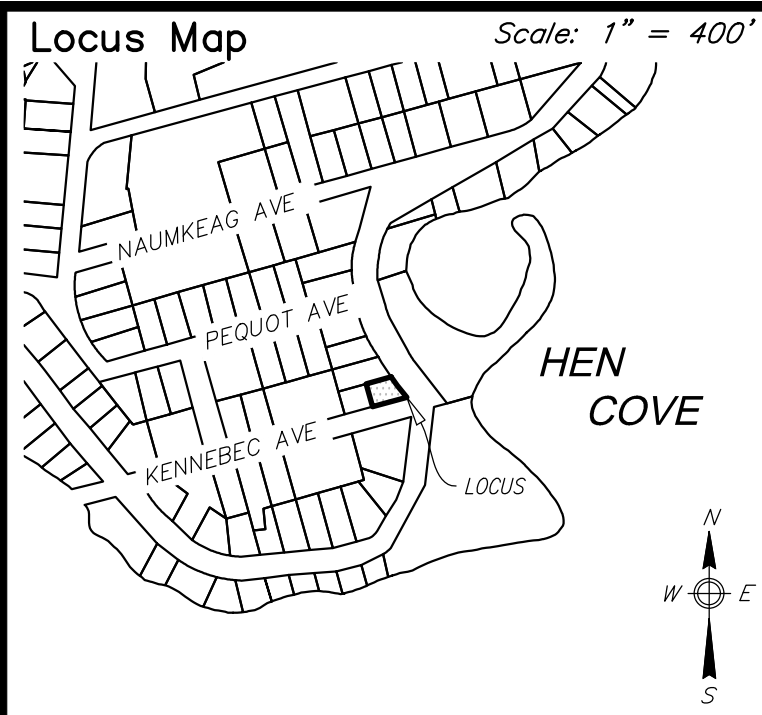
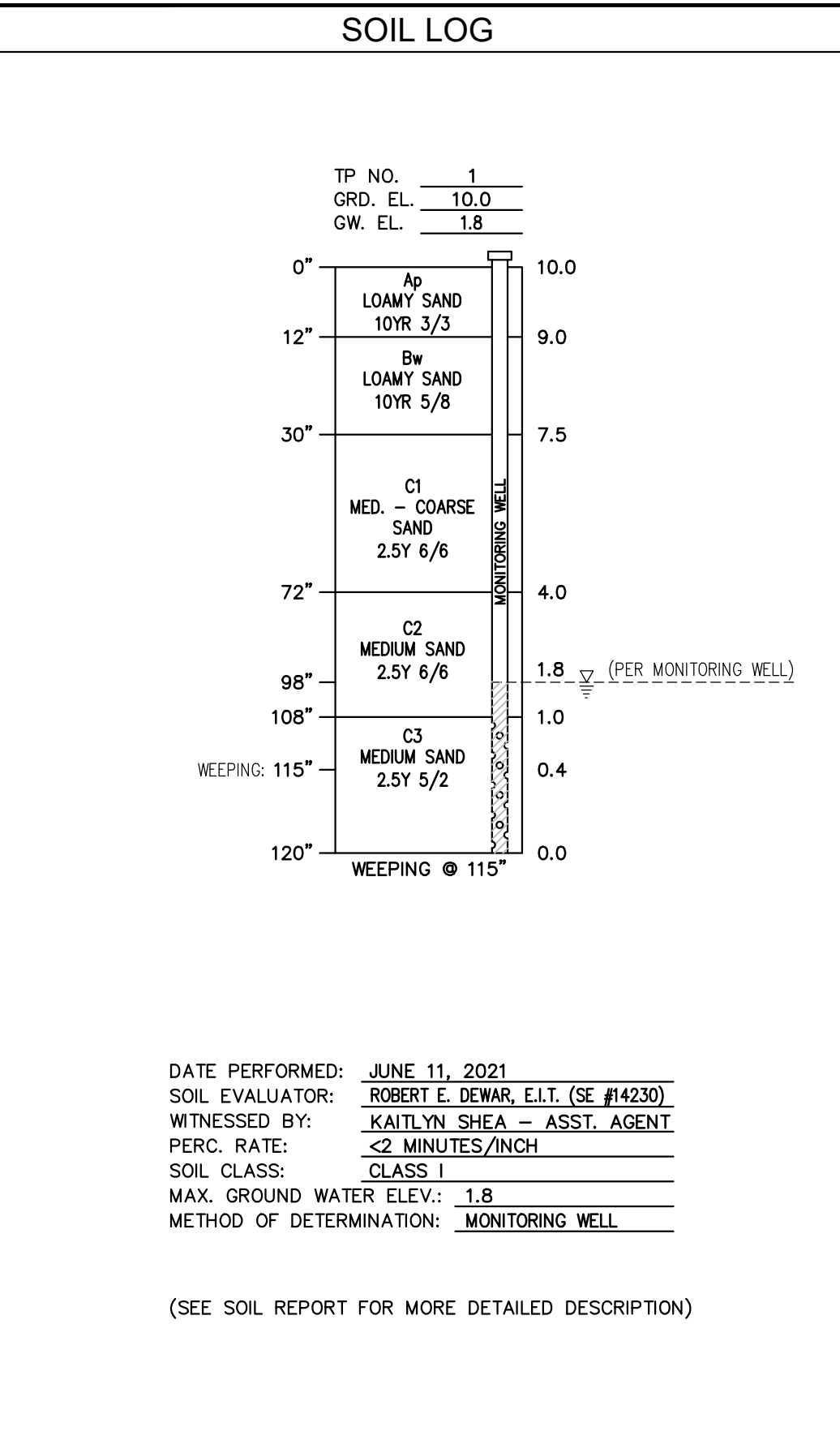
15.405.1(g) - LOCAL UPGRADE APPROVAL IS REQUESTED FOR A 4'± REDUCTION IN SETBACK TO A PROPERTY LINE FROM A SEPTIC COMPONENT FOR A 6'± SETBACK TO A PROPERTY LINE FROM THE PROPOSED TIGHT TANK (CIRCUIT AVENUE).

15.405.1(g) - LOCAL UPGRADE APPROVAL IS REQUESTED FOR A 4'± REDUCTION IN SETBACK TO A PROPERTY LINE FROM A SEPTIC COMPONENT FOR A 6'± SETBACK TO A PROPERTY LINE FROM THE PROPOSED TIGHT TANK (KENNEBEC AVENUE).

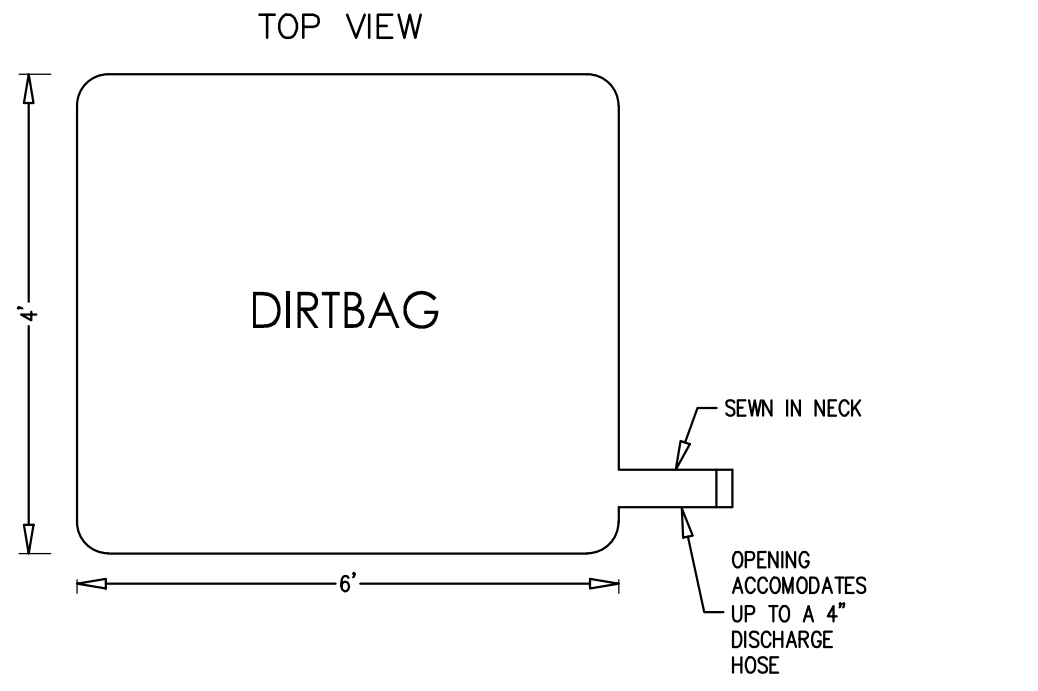
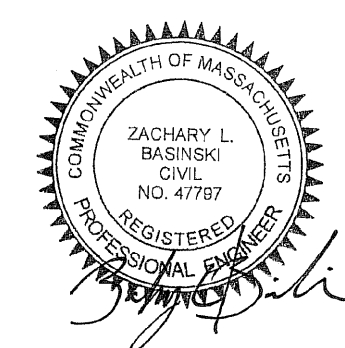
15.405.1(f) - LOCAL UPGRADE APPROVAL IS REQUESTED FOR A 16'± REDUCTION IN SETBACK TO A COASTAL BANK FROM A HOLDING TANK FOR A 9'± SETBACK TO THE PROPOSED TIGHT TANK.

DESIGN CALCULATIONS

NUMBER OF BEDROOMS: 3 BEDROOMS
DESIGN FLOW REQUIRED: 110 GPD PER BEDROOM = 330 GPD
TIGHT TANK REQUIRED: 500% DAILY FLOW = 1,650 GPD (2,000 GAL. MIN.)
TIGHT TANK PROVIDED: 3,000 GALLONS
PUMPING SCHEDULE: IN ACCORDANCE WITH APPROVAL

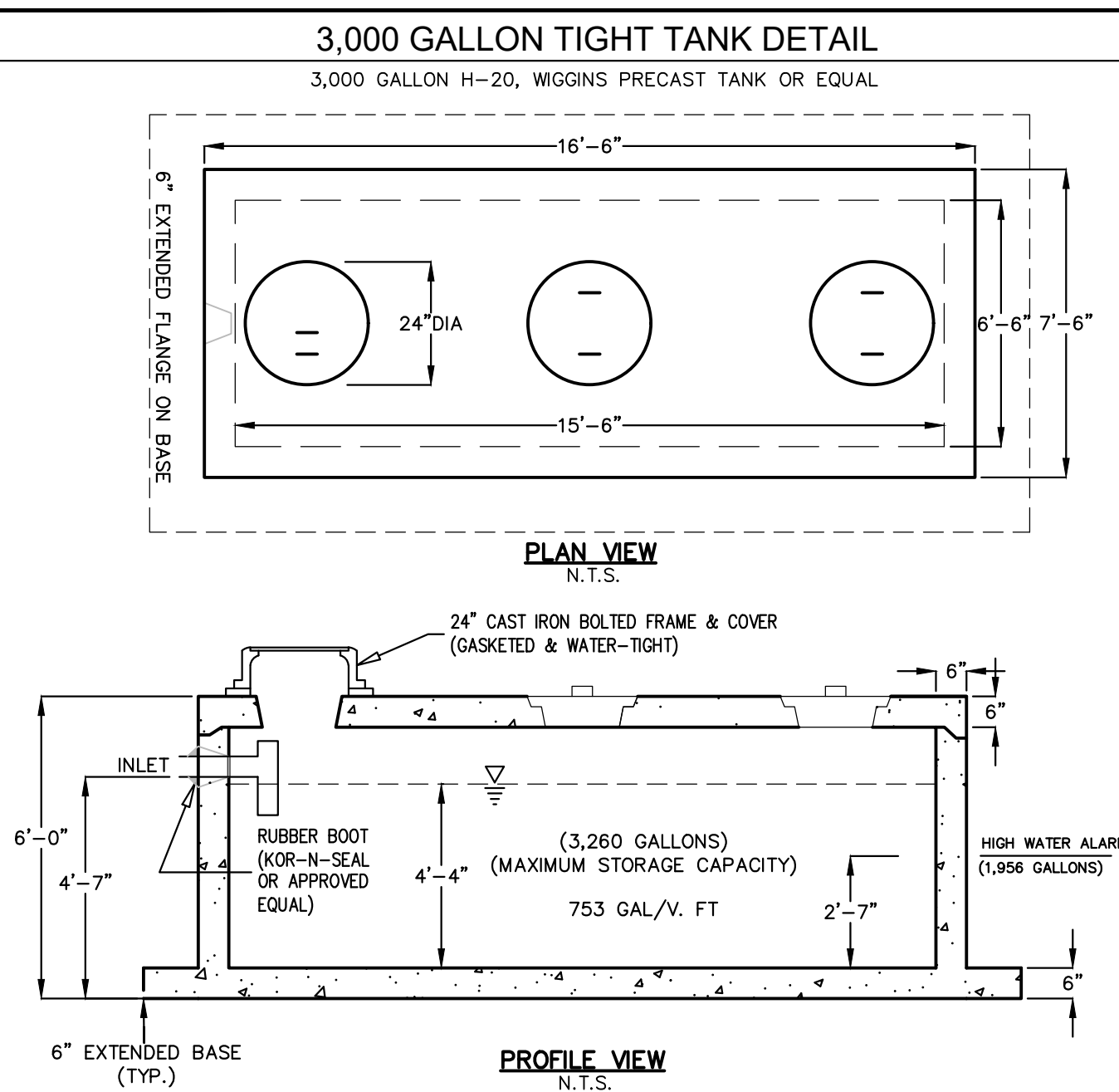
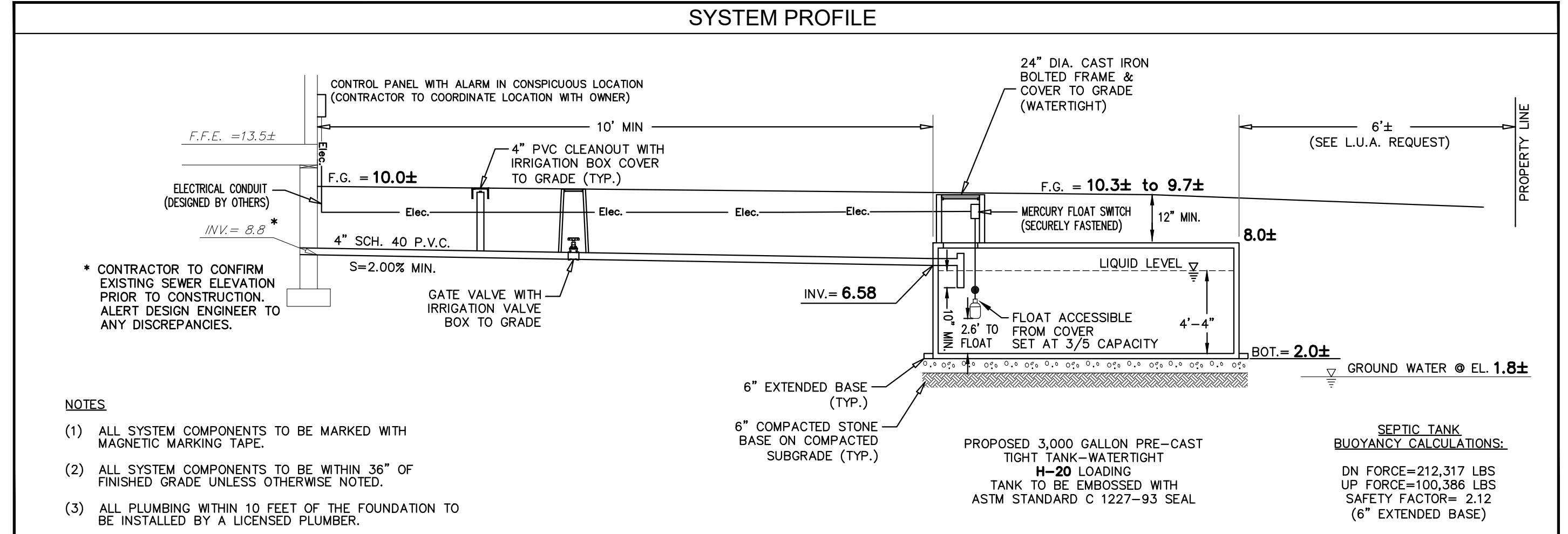


- Notes**
- BENCHMARK: ELEVATION = 9.38 (NAVD88) TOP OF CONCRETE BOUND
 - ALL CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO TITLE 5 AND THE TOWN OF BOURNE BOARD OF HEALTH REGULATIONS.
 - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
 - NO FIELD MODIFICATION TO THE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND BOARD OF HEALTH.
 - ALL JOINTS AND COVERS TO BE WATERTIGHT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES.
 - A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED PRIOR TO BACKFILLING SYSTEM.
 - OWNER: FAITH V. EASTER, TRUSTEE
BRENNAN FAMILY TRUST
161 WORCESTER ROAD - SUITE 501
FRAMINGHAM, MA 01701
 - APPLICANT: ROBIN MALLOVE
175 GREAT NECK ROAD
WATERFORD, CT 06385
 - DEED REFERENCE: Deed Bk: 33346 Pg: 318
 - PLAN REFERENCE: Plan Bk: 117 Pg: 1 (LOT 304)
 - THE DESIGN IS INTENDED TO MEET TITLE 5 AND OTHER APPLICABLE REQUIREMENTS. THIS PLAN DOES NOT GUARANTEE THAT THE SYSTEM WILL BE INSTALLED AS DESIGNED, NOR DOES THIS PLAN GUARANTEE THE OPERATION OF THE SYSTEM.
 - THIS SYSTEM IS NOT DESIGNED NOR INTENDED FOR USE WITH A GARBAGE GRINDER.
 - LOCUS DOES NOT FALL WITHIN A ZONE II WELLHEAD PROTECTION AREA.
 - LOCUS DOES NOT FALL WITHIN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE AND PRIORITY HABITAT OF RARE SPECIES.
 - LOCUS DOES FALL WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" (EL. 15) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NO. 25001C-0492-J, dated 7/14/2014.
 - PRIOR TO ISSUANCE OF THE DISPOSAL WORKS CONSTRUCTION PERMIT, A COPY OF EITHER THE LOCAL APPROVING AUTHORITIES OR THE DEPARTMENT WRITTEN APPROVAL SHALL BE REGISTERED IN THE CHAIN OF TITLE AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS.
 - PRIOR TO THE CERTIFICATE OF COMPLIANCE BEING ISSUED, THE RECORD PROPERTY OWNER IS TO FILE A NOTICE OF DEED RESTRICTION AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS, INDICATING THE USE OF A TIGHT TANK SEPTIC SYSTEM ON THE PROPERTY.
 - AUDIO/VISUAL ALARM PANEL TO BE PLACED ON THE EXTERIOR, EAST SIDE OF THE EXISTING DWELLING. PANEL IS TO BE INSTALLED ABOVE THE BASE FLOOD ELEVATION (>15.4) AND VISIBLE FROM KENNEBEC OR CIRCUIT AVENUE. CONTRACTOR TO FIELD COORDINATE FINAL LOCATION WITH OWNER.
 - THE USE OF A "DIRTBAG" DE-WATERING SYSTEM MAY BE REQUIRED DURING THE INSTALLATION OF THE PROPOSED TIGHT TANK. GROUNDWATER ELEVATION AND SIZE OF EXCAVATION AT THE TIME OF INSTALLATION SHALL DICTATE USE OF DE-WATERING SYSTEM. (SEE DETAIL).
 - CONTRACTOR SHALL COORDINATE FINAL LOCATION OF DE-WATERING SYSTEM WITH CONSERVATION STAFF & DESIGN ENGINEER, IF NEEDED.



- NOTES:**
- DIRTBAG TO BE MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL.
 - DIRTBAG TO BE PLACED ON STRAW BASE
 - SEAMS MUST BE HIGH STRENGTH DOUBLE STITCHED "J" SEAMS.
 - SEAM MUST BE TESTED UNDER ASTM-4884.

DB55 FABRIC PROPERTIES		
PROPERTY	TEST METHOD	MARV
TENSILE STRENGTH	ASTM D-4632	205 LBS
ELONGATION	ASTM D-4632	50%
CBR PUNCTURE	ASTM D-6241	525 LBS
UV RESISTANCE	ASTM D-4355	70%
AOS	ASTM D-4751	80 US SIEVE
PERMITTIVITY	ASTM D-4491	1.4 SEC-1
FLOW RATE	ASTM D-4491	90 GPM/SF



Prepared By:

BRACKEN ENGINEERING, INC.

49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0979 (fax) 508.833.2282

19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.325.0044 (www.brackeneng.com)

PROPOSED SEWAGE DISPOSAL PLAN IN BOURNE, MA

Prepared For:
ROBIN MALLOVE
#4 KENNEBEC AVENUE
MAP 47.1 PARCEL 45

No.	Date	Revision Description	By
1	OCTOBER 18, 2022		JPH/BE

Drawn: JPH/BE Checked: ZLB/AMG Sheet: 1 of 1