

MAIN OFFICE:

49 Herring Pond Road
Buzzards Bay, MA 02532
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**NANTUCKET OFFICE:**

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Nantucket, MA 02554
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March 15, 2022

Town of Bourne
Board of Health
24 Perry Avenue
Bourne, MA 02532

**RE: 60 Arlington Drive | Board of Health Variance Application
BEI Responses to the WCG LAW Group, PLLC. March 3, 2022 Letter**

Dear Ms. Guarino and Members of the Board,

On behalf of our clients and the applicants, Mr. & Mrs. Edward G. Jacobs, Bracken Engineering, Inc. offers the following responses to the comments and/or questions posed in the above identified letter.

I.A.) All easements are shown on the current plan that has been submitted to the Board. Any direct abutter that may have rights to crossover the property will be coordinated with during the time of construction.

I.B.) The proposed site plan has been stamped by a Massachusetts professional land surveyor in accordance with the rules and regulations of the Commonwealth. The differences between the property bearings and distances, and the lot areas as they relate to the record plan and the assessor's records, were discussed during the October 13th meeting. Please refer to the meeting minutes.

I.C.) The pool information submitted by the abutter is erroneous and has no bearing on the project. This information does not reflect what the applicant proposes to construct. Even if this is what the applicant wants to construct, the installation of an impervious pad only improves to reduce onsite the nitrogen loading. It will result in reduced lawn area on the property, therefore reducing the nitrogen loading. See the enclosed updated calculations for your record.

I.D.) An adequate benchmark is shown on the site plan and is placed in a location that is not subject to dislocation or loss during construction. If the site contractor requires a benchmark closer to the work area, they have the ability to move it during the time of construction.

II.) The setback distances for the variance request are measured from the proposed septic system to the estimated mean high water elevation. The setback has been measured to an approximate elevation established by the Buzzards Bay National Estuary Program and as shown on the Interactive Tidal Datum Viewer. Based on these tidal gauge elevations the maximum high water elevation is estimated to be between elevation 1.5 and 1.8 on the property. This elevation falls along the existing seawall. Due to the irregular shape and condition of the existing seawall the setback varies across the frontage of the property therefore the variance is shown as a plus or minus from the system. Although this is shown as an approximate variance it has no bearing on the variances requested as the applicant is installing a nitrogen reduction septic system with a virus attenuating leach field on the property, therefore improving the situation and nitrogen loading on the property. As for the FEMA flood zone line, the site plan has been updated to reflect the 2021 current maps. There were no historical changes to the flood zone line in the area as depicted from the 2014 maps to the latest revision on the 2021 maps.

III.) The proposed project does not constitute new construction as defined by the 310 CMR 15.00 – The State Environmental Code. The definition provided by the abutter is a definition used under the building code and floodplain requirements and has no bearing on this project. Floor plans were reviewed at the October 13th meeting and the applicant has agreed to make revisions to the submitted floor plans, as requested by the Board, to ensure the building conforms to the definition of a 3-bedroom dwelling as defined under the local Board of Health regulations.

As for the percentage worksheets requested, as previously reviewed these are not required. The applicant is not asking for a waiver to maintain an existing system, they are not increasing the onsite capacity of the system, and they are proposing to install an innovative alternative septic system with a pressure distribution equivalent leach field, in accordance with the Board of Health regulations.

Lastly, expanding the septic tank from 1000 gallons to 1500 gallons also does not constitute an increase in the design flow. The increase in the septic tank size is a requirement of the State Environmental Code in order to provide better treatment of the wastewater flow. This increase in tank size is required per the state requirements and is the minimum tank size for any proposed design flow less than or equal to 750 gallons a day.

IV.) Refer to the response above under Section III as it relates to the number of existing and proposed bedrooms in the dwelling. Nitrogen loading calculations have been provided based on the existing and proposed conditions of a three bedrooms house and have been calculated in accordance with the Board of Health regulations and past accepted practices.

V.) The lot size represented within the nitrogen loading calculations is the area of the property exclusive of any area that is located under water or is a water dependent resource area. The calculations have been conducted in accordance with past practices accepted by the Board of Health.

As for the comment regarding to the five parts per million nitrogen loading, please refer to the response provided during the October 13th meeting. As reviewed at the meeting and as stated above, this project does not constitute new construction or an increase in design flow, therefore the five parts per million provision does not apply to this project. The burden of proof for this application is to show that the project is not anymore substantially detrimental and is an improvement over what currently exists today. The applicant has shown this on the accompanying plans and supporting calculations. The abutter has not provided any technical data from a registered professional, competent in this subject matter, contradicting what has been submitted.

VI.A) The relocation of the identified drywell was at the request of the Board of Health. The placement of this drywell closer to the coastal bank has no bearing on the Board of Health application.

VI.B) The low-lying area is depicted on the plan is to ensure no storm water is collected and recharged directly over the system. The low-lying area is not a stormwater management system. It is designed to receive minimal flows from a small area of the driveway and some of the surrounding lawn. Based on the high infiltration rate of the existing on-site soils, it is not anticipated that the area will retain any water greater than a couple hours after any significant storm event, therefore not creating any breeding grounds or a nuisance from mosquitoes.

VI.C) The proposed outdoor shower/ rinse station is being installed over a proposed deck. A stone area under the proposed deck will be provided to prevent any erosion and contain any runoff associated with the rinse station under the deck.

VI.D) The existing house was designed as a year-round residence and is currently being used as such. The proposed addition does not increase any use in or intensity of the structure. As reviewed above the proposed project does not constitute new construction or an increase in design flow, therefore does not increase the intended use of the property.

VI.E) The abutters erroneous assumption as to the final pool design has no bearing on the septic application. The applicants final pool design will be in accordance with the building code provisions and has no bearing on the requested septic variances.

In closing, and on behalf of the applicant, Bracken Engineering, Inc. would like to thank you for your time and consideration on this matter. We look forward to reviewing this with you at your next in-person meeting. Should you have any questions or require any further information prior to then, please contact the undersigned at 508-833-0070 or by email at zac@brackeneng.com

Regards,

BRACKEN ENGINEERING, INC.

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

Zachary L. Basinski, PE, CFM
Project Manager

REVISED 3.15.22

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:

60 Arlington Drive (Proposed Conditions) - Revised

Number of Bedrooms (Title 5 Definition)	=	3	Bedrooms
Lot Size (in square feet of upland areas)	=	24,054	sq.ft.
Impervious Surfaces; **roof area = 4,268 sq.ft.	**Paved Area =	378	sq.ft. (pool & patio)
Natural Area = lot area minus all impervious surfaces	=	19,408	sq.ft.
Lawn Area in sq. ft.	=	10,609	sq.ft.
I/A System?	=	Yes	

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

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

1a) Number of bedrooms = 3 x 14572 = 21858.00 mg. NO₃-N / day

1b) Number of bedrooms = 3 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 = 3 x 6071.5 = 9107.25 mg. NO₃-N / day

2b) Number of bedrooms = 3 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 = 4268 sq. ft. X 0.19395 = 827.78 mg NO₃-N

3b) Roof surface = 4268 sq. ft. X 0.2586 = 1103.70 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 = 378 sq. ft. paved surface X 0.388 mg / sq. ft. = 146.66 mg NO₃-N

4b) H₂O = 378 sq. ft. paved surface X 0.2586 L / sq. ft. = 97.75 L H₂O

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

$$5) \text{ sq. ft. of lawn} = 10609 \times 0.933 = 9898.20 \text{ mg}$$

NATURAL AREA WATER LOADING

$$\text{Natural area} = \text{lot size} - \text{impervious surfaces} = 19408 \text{ sq. ft.}$$

$$6) \text{ Natural area} = 19408 \times \text{water recharge factor} = 2635.61 \text{ L}$$

(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		827.78		146.66		9898.20	32730.64 mg NO ₃ -N / day

7b)

1b	(+)	3b	(+)	4b	(+)	6	
1248		1103.70		97.75		2635.61	5085.06 L H ₂ O / day

$$7c) \text{ DIVIDE 7a by 7b} = \underline{6.4} \text{ ppm NO}_3\text{-N}^{*****}$$

Actual Nitrogen & Water Loading

8a) ADD the above NO₃N load:

2a	(+)	3a	(+)	4a	(+)	5	
9107.25		827.78		146.66		9898.20	<u>19979.89</u> mg NO ₃ -N / day

8b) ADD the above water (H₂O) load:

2b	(+)	3b	(+)	4b	(+)	6	
520.5		1103.70		97.75		2635.61	<u>4357.56</u> L H ₂ O / day

$$8c) \text{ DIVIDE 8a by 8b} = \underline{4.6} \text{ ppm NO}_3\text{-N}^{*****}$$

$$\text{FINAL CALCULATION ADD 7c \& 8c (ppm)} = \underline{11.0} \text{ divide by 2} = \underline{5.5} \text{ ppm NO}_3\text{-N}$$

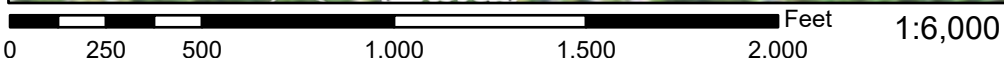
This is the actual nitrate nitrogen load for the project as designed. The target for coastal areas is 5 ppm nitrate nitrogen. Certain critical embayments may require a LOWER figure to prevent degradation.

*****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*****

National Flood Hazard Layer FIRMMette



70°37'16"W 41°45'33"N



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

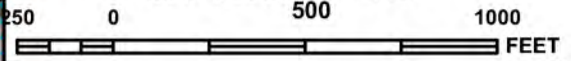
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/16/2022 at 9:54 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



MAP SCALE 1" = 500'



PANEL 0313J

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

PANEL 313 OF 875
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BOURNE, TOWN OF	255210	0313	J

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



MAP NUMBER
25001C0313J
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

Bourne Board of Health
Bourne town Hall
24 Perry Ave
Bourne, Ma 02532

March 15, 2022

RE: 60 Arlington Drive/Septic System

Mr. and Mrs. Edward G. Jacobs Response to the WCG Law Group, PLLC. March 3, 2022 Letter

Dear Ms. Guarino and Members of the Board,

We are writing to you with regards to the most recent letter dated March 3, 2022, sent to you and the Board of Health Members from Attorney Kevin P. Geaney on behalf of Barbara Princiotta (abutter).

I A) Attorney Geaney states that the Applicants (my husband and I) have failed to depict the exact location of the easement and to identify how any direct abutter will be able to crossover the property during the construction phase. The easements have been shown on the plan submitted by Bracken Engineering. In addition, please note that in February 2015, Barbara Princiotta blocked the easement from all direct abutters and informed the Town that no snow plowing, garbage removal, traffic of any kind would be allowed or she would sue as her septic system is located under the easement. Clearly, given this action, Ms. Princiotta has indicated she has no need for the easement in order to gain access to her home. Further, we have since made available to our neighbors living in both 64 & 66 Arlington Drive, a paved driveway to allow them access to their properties.

I B) Explanation of the legal boundaries of the property have been submitted by Bracken Engineering and the property boundaries were discussed during the October 13, 2022 BOH meeting. Interestingly, this line of questioning pertaining to lot size, has not been a common practice of the Board of Health (until most recently, and during the BOH meeting held on October 13, 2022). Further, the first time this line of questioning was raised was during months of meetings held with the Office of Appeals and Dispute Resolution. Barbara Princiotta and her attorney filed this appeal as a result of the Town of Bourne's Conservation Department and the Mass DEP approval of proposed addition. Both Barbara Princiotta and her attorney questioned the lot size submitted on the plan, amongst many of the same issues presented in the March 3, 2022 letter to the BOH, as it related to the nitrogen loading requirements. The Presiding Officer, Jane Rothchild, issued to both Barbara Princiotta and her attorney, an Order for a More Definite Statement requiring "A competent source/witness that has sufficient expertise through education, training, or experience to render testimony on the factual issues on appeal." This order was ignored by both Barbara Princiotta and her attorney. The case was dismissed. See both the Order for a More Definite Statement, the Final Recommendation from Presiding Officer Jane Rothchild and the Final Decision for approval of project from Mr. Martin Suuberg, Commissioner Mass Department of Environmental Protection.

Additionally, it is perplexing to my husband and I as to this line of questioning by both Barbara Princiotta and her attorney as the building permit issued to Barbara Princiotta on September 29, 2010 lists her lot size as 41,900 Sq ft yet, both the deed and the subdivision property lines indicate a lot size of 38,142 Sq ft. Where did this additional square footage come from?

I C) This information submitted to the Board is without merit. The description of proposed pool and fencing submitted to the Board members is not under consideration by us at this time. In addition, once again, this is information (pool would create an unusual weight load to the Costal Bank) was presented during the Appeals process. Please see response from the Mass DEP's attorney, Rebekah Lacey, concerning weight load and effect to Costal Bank.

I D) Submitted by Bracken Engineering

II) Response submitted by Bracken Engineering. Further, same issue raised during the Appeal Process. See earlier response from Presiding Officer Jane Rothchild and her request for a more Definite Statement.

III) Response submitted by Bracken Engineering and discussed during October 13, 2022 BOH meeting. It is interesting to note when discussing bedrooms within a home that the original building permit issued to Barbara Princiotta is for a 5 bedroom/3 bath home. It is described as such in the foreclosure sale of the home 2009. The home is now described on Zillow as a six bedroom/six bath home. The Board of Health issued a direct statement in 2010 that no additions/renovations take place without BOH approval (documented in permits) and denies the addition of a sixth bedroom to 54 Arlington Drive as the Septic System does not meet the setback requirements. Surprisingly, a hand drawn picture of the gutted space (was an attic) and a simple conversation by the owner to the Board resulted in an additional bedroom without consultation from an engineer and/or architect or notification to abutters describing the addition, to ensure such an addition actually met code and did not impact the current status of the Red Stamped septic system located on the property.

IV) Response submitted by Bracken Engineering. Further, home inspection conducted by BOH agent, Stephanie Fitch, as per the request of the Board during the October 13, 2022 meeting. Upon inspection of our home, it was determined and reported to the Board, that the home is currently a 3 bedroom home. Pocket door removed, again at the request of Board chairman, to ensure lack of privacy to the home office area from the living room area.

V) See order from Presiding Officer Jane Rothchild for an More Definite Statement. No expert witness provided to date with regards to these claims. Further, any/all concerns regarding the costal bank, were upheld in the Superseding Order of Conditions and the Mass DEP Final Decision by Martin Suuberg (July 9, 2021).

VI. A, B, C, D, E) Response submitted by Bracken engineering. Further, see comments from Mass DEP Attorney Rebekah Lacey (Factual Disputes) on the dry well locations on the property (Departments Pre Hearing Statement attached).

Additional Issues (footnote 4 & 5) raised by Barbara Princiotta and her attorney indicate to the Board that my husband and I have presented information and made statements that are false, misleading, inaccurate, and incomplete as it pertains to our request for an addition to our home. Such statements by Barbara Princiotta and supported by her attorney are nothing more than a hostile and unethical attempt to persuade the Board into believing this plan should not be considered for approval by the Board members. An attempt that has been purely motivated from the beginning (July 2019) in an effort to obtain beach rights and ownership of property she is not entitled.

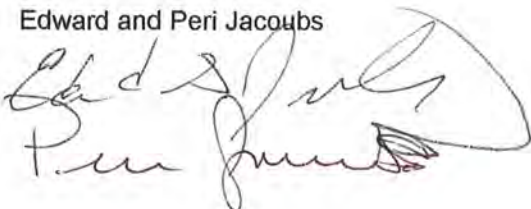
Conclusion

My husband and I have hired architectural, engineering and environmental experts in their respective fields, to review and prepare site plans in accordance with not only the Town's requirements but with the State requirements as well. We have cooperated completely and whole heartedly, with all of the requests presented to us by the town and the state in order to ensure that this project would have no adverse effect on our environment and/or our neighbors. We hope after a review of these documents and the expert opinions presented to date, as it pertains to our request, will result in approval and allow us to continue to live in peace, as evidenced since we became residents of the town of Bourne in 1965, as responsible Bourne residents.

Thank you for your time and consideration with this matter.

Respectfully submitted,

Edward and Peri Jacobs

Handwritten signatures of Edward and Peri Jacobs. The signature of Edward is written in dark ink and is a cursive, somewhat stylized name. The signature of Peri is written in a lighter ink and is also cursive, appearing to be 'Peri Jacobs'.

EDMUND W. NUTTER

ATTORNEY AT LAW

202-203 HOME NATIONAL BANK BUILDING

BRIDGEWATER, MASSACHUSETTS

TELEPHONE: 697-4751

October 20, 1965

Dr. Edward L. G. Jacobs
91 Belcher Avenue
Brockton, Massachusetts

Re: "Bourne Estate"
Bourne, Mass.

Dear Dr. Jacobs:

I have examined the title to the above captioned property from January 9, 1902 to date, as contained in the records of the Barnstable County Registry of Deeds. At the time of your purchase of the premises, in my opinion, title was good and marketable as held by Ralph F. Bass and Bessie F. Bass, husband and wife, of Bourne, in the following portions of the Bourne estate:

1. Lot 6 as shown on "Plan of the Bourne Estate in Bourne, Buzzards Bay, Oct. 7, 1955, Newell B. Snow, Eng'r. Buzzards Bay, Mass".
2. An undivided one-sixth interest in those parcels of land shown on said plan numbered as Lots, 1, 8 and 9 through 13.

As is recited in the deed from Mr. and Mrs. Bass to you and Mrs. Jacobs, title to the above premises carries with it the right to use Arlington Drive, Gainsboro Drive and Kerna Drive, as shown on said plan, for the usual street purposes, and to install and maintain water and gas pipes and meters in and across a parcel of about 13.47 acres lying between Lot 11 and Puritan Road, as shown on said plan as owned by one Eugene Sweeney.

There are several encumbrances on the premises, which, while they should be borne in mind, do not in my judgment affect the marketability of your title:

1. Easements for the erection and maintenance of electric and telephone poles and wires granted to the Plymouth County Electric Company and New England Telephone and Telegraph Company, recorded with Barnstable Deeds, Book 704, Page 169, and Book 936, Pages 107 and 108.
2. As the aforesaid streets apparently are not yet laid out on the ground in strict accordance with the plan above mentioned, all owners in this subdivision have the right to use the existing ways until the plan is conformed to in this respect. Thus, to the extent that the present location of the way known as Arlington Drive encroaches on Lot 6, your ownership is subject to the rights of your neighbors to use the existing way pending its proper layout.

EDMUND W. NUTTER

ATTORNEY AT LAW

202-203 HOME NATIONAL BANK BUILDING

BRIDGEWATER, MASSACHUSETTS

TELEPHONE: 697-4751

3. Your one-sixth interest in the other lots and your interest in the streets is subject also to specific water easements owned by the owners of Lots 2, 3 and 5. Lots 2 and 3 have the right to maintain the water pipes running to the pump house standing on the edge of Kerna Drive across the street from Lot 2. The ownership of Lot 5 carries with it a similar right to maintain the water pipes running across Arlington Drive to the pump house which is situated across the street from Lot 5 and partially within the area reserved for Arlington Drive.

Further, by way of explanation and caution, you will note that your one-sixth interest in the bulk of the subdivision area includes the right to draw water from Puritan Road, across the land now or formerly of Sweeney and across the remaining land owned in common, to Lot 6. In executing any deed of the interest you hold in common with your neighbors, be certain to reserve and maintain this right to water until at least town water is furnished to your home and the streets now held as private ways are accepted as public ways by the Town of Bourne.

Should you have any questions with respect to this matter, please feel free to call on me.

Sincerely yours,

Edmund W. Nutter



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

OCT 26 2020

Barbara Princiotta
c/o Kevin P. Geaney, Esq.
WCG Law Group, PLLC
21 High Street, Suite 208B
North Andover, Massachusetts 01845

RE: Bourne - Wetlands
File No. SE 07-2096
Superseding Order of
Conditions
Affirmation

Dear Attorney Geaney:

Following an in-depth review of the above-referenced file, and in accordance with Massachusetts General Laws, Chapter 131, § 40, the Department of Environmental Protection has issued the enclosed Superseding Order of Conditions (SOC). Pursuant to 310 CMR 10.05(7)(i) of the Wetlands Protection Act Regulations, the enclosed Order affirms the Bourne Conservation Commission's approval of the proposed project at 60 Arlington Drive.

The project seeks to approve construction of a proposed addition to an existing single-family dwelling, installation of an alternative septic system, and associated site landscaping, grading, and utility work in the buffer zone to coastal bank. The site is landward of a large vegetated coastal bank. Bank vegetation tends to stabilize the bank and reduce erosion that may result from storm and rain runoff. At the on-site inspection, Department staff noted that the toe of the coastal bank is eroding due to wave action. The staff also observed that the coastal bank is partially protected by a seawall that is in a state of disrepair.

In the opinion of the Department, the biggest risk to the stability of the eroding coastal bank at this site is runoff. The Department believes that rainstorms during construction may lead to further erosion of the coastal bank. The enclosed SOC includes additional special conditions to address the need for erosion control during and after construction. During construction, a continuous erosion control barrier shall be placed along the top of the coastal bank and along the property line. All construction supplies and material shall be stored away from the coastal bank. All exposed soil surfaces shall be stabilized with a protective covering until they are re-vegetated. Once the project is completed, all roof runoff shall be directed into drywells that are located as far from the top of the coastal bank as possible. With the implementation of these measures, it is the opinion of the Department, that the project will not reduce the coastal bank's natural resistance to storms and rain erosion. In the Department's opinion, the project as conditioned herein adequately protects the interests of the Act.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.


TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

Should there be additional proceedings in this matter, the Department reserves the right to raise additional issues and present further evidence as may be appropriate.

If you have any questions concerning this Order, please do not hesitate to contact Nate Corcoran at (508) 946-2723.

Very truly yours,


Daniel F. Gilmore, Chief
Wetlands & Waterways Program
Bureau of Water Resources

DFG/nc

Enclosure

cc: Bourne Conservation Commission

Edward & Peri Jacoubs
78 Thorny Lea Terrace
Brockton, MA 02301
CERTIFIED MAIL # 7019 2280 0002 2136 6959

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

THE OFFICE OF APPEALS AND DISPUTE RESOLUTION

May 11, 2021

In the Matter of
Edward and Peri Jacoubs

OADR Docket No. WET-2020-013
DEP File No. SE 7-2096
Bourne, MA

ORDER FOR A MORE DEFINITE STATEMENT

This appeal involves a superseding order of conditions (“SOC”) issued to Edward and Peri Jacoubs (“Applicants”) by the Massachusetts Department of Environmental Protection pursuant to the Massachusetts Wetland Protection Act, M.G. L. c. 131, § 40, and the Wetlands Regulations, 310 CMR 10.00. The SOC affirmed an Order of Conditions (“OOC”) issued to the Applicants by the Bourne Conservation Commission approving the Applicants’ proposed residential project. The appeal is brought by Barbara Princiotta, an abutter to the project site (“Petitioner”). In her appeal, the Petitioner alleges that the Applicants’ project will have an adverse effect on the stability of the Coastal Bank at the site and will increase erosion. However, the Petitioner’s Notice of Claim (“Appeal Notice”) fails to state facts sufficient to establish that she has standing to bring the appeal as a person aggrieved, a prerequisite to maintaining the appeal. As a result, the Petitioner’s Appeal Notice does not meet the requirements of the applicable regulations governing adjudicatory appeals. Pursuant to 310 CMR 1.01(6)(b) and 310

CMR 1.01(11)(b) I am issuing this order to the Petitioner for a more definite statement of her claim.

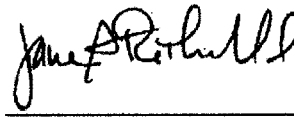
“Where a notice of claim for adjudicatory appeal is so vague or ambiguous that it does not provide adequate notice of the issues to be addressed and the relief sought...the Presiding Officer may order a more definite statement.” 310 CMR 1.01(11)(b). The order requiring a more definite statement may require the Petitioners “to file sufficient evidence to meet [their] burden of going forward by producing at least some credible evidence from a competent source in support of the position taken.” Id. A competent source is a witness who has sufficient expertise through education, training, or experience to render testimony on the factual issues on appeal. See Matter of City of Pittsfield Airport Commission, OADR Docket No. 2010-041, Recommended Final Decision (August 11, 2010), adopted by Final Decision (August 19, 2010). Petitioner may not rely on unsupported assertions. See Matter of Lawrence Borins, Trustee Noon Hill Realty Trust, Docket No.:98-140, Final Decision (July 22, 1999).

The Department’s Rules for Adjudicatory Proceedings at 310 CMR 1.01(6)(b) state that a Appeal Notice “shall state specifically, clearly and concisely the facts which are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation.” Where an Appeal Notice does not meet the requirements of 310 CMR 1.01 and other applicable regulations, 310 CMR 1.01(6)(b) provides that the Presiding Officer “shall dismiss the appeal or require a more definite statement.” In the event the Petitioner fails to file a more definite statement within the required time, the appeal “shall be dismissed.” Id. See also 310 CMR 10.05(7)(j)2.c. The provisions of the wetlands regulations governing the appeal of a Superseding Order of Conditions, 310 CMR 10.05(7)(j)2.b., clearly specify the pleading requirements in such an appeal. For a petitioner claiming to be aggrieved by the Reviewable Decision, the Appeal Notice must include a “demonstration of participation in previous

proceedings, in accordance with 310 CMR 10.05(7)(j)3.a. and sufficient written facts to demonstrate status as a person aggrieved.” 310 CMR 10.05(7)(j)2.b.iii. If the Appeal Notice does not contain this required information the appeal may be dismissed. 310 CMR 10.05(7)(j)2.c.

By no later than Wednesday, May 19, 2021 the Petitioner shall file a More Definite Statement which contains sufficient written facts to demonstrate her status as a person aggrieved as defined in 310 CMR 10.04.

Date: May 11, 2021



Jane Rothchild
Presiding Officer

SERVICE LIST

In The Matter Of:

Edward and Peri Jacoubs

Docket No. WET-2020-013

File No. SE 07-2096
Bourne

Representative

Party

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Barbara L. Princiotta

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DEPARTMENT

Town of Bourne Conservation Commission

CONSERVATION COMMISSION

Shane Haines, Conservation Agent
City Hall
24 Perry Avenue
Bourne, MA 02532
shaines@townofbourne.com

Date: May 11, 2021

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
THE OFFICE OF APPEALS AND DISPUTE RESOLUTION

In the Matter of Edward
and Peri Jacoubs

OADR Docket No. WET-2020-013
DEP File No. SE 7-2096
Bourne, MA

DEPARTMENT'S PRE HEARING STATEMENT

1. Brief Summary Of Reviewable Decision Being Appealed

This matter concerns the Department's issuance of a Superseding Order of Conditions ("SOC") to Edward and Peri Jacoubs ("Applicants") for proposed construction of an addition onto an existing single family dwelling, installation of an alternative septic system, and associated site landscaping, grading, and utility work (the "Project") in the buffer zone to coastal bank on property located at 60 Arlington Drive, Bourne. The Department approved the Project. The Project was appealed by Barbara Princotta. The Petitioner stated the Project will adversely affect an already eroding Coastal Bank on the Applicant's property and the Project does not meet certain Title 5 requirements. Petitioner has not stated how the Project would adversely affect her.

2. Brief summary of relief sought

The Department seeks to have the SOC upheld.

3. Factual Disputes

a. Are the proposed drywells located at the appropriate positions in compliance with the Regulations?

The Department's position is the drywells are not subject to regulatory requirements and the current placement is appropriate and will not have an adverse impact on the Coastal Bank.

4. Legal issues.

a. Does the Petitioner have standing to bring this appeal?

Department position: The Petitioner has not articulated aggrievement in her Notice of Claim to give her standing to bring this appeal. She states there is an existing eroding bank on the Applicant's property and that the Title 5 system as proposed may not be in compliance with certain requirements, but fails to state how she is aggrieved. The Regulation on aggrievement states:

Person Aggrieved means any person who, because of an act or failure to act by the issuing authority, may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in M.G.L. c. 131, § 40. Such person must specify in writing sufficient facts to allow the Department to determine whether or not the person is in fact aggrieved. 310 CMR 10.04.

Petitioner's claim fails to meet this requirement.

b. Will the Project have an adverse impact on the Coastal Bank on the Site?

Department's position: The Project is located in buffer zone to Coastal Bank. The Regulations at 310 CMR 10.30(6) that governs projects in buffer zone to Coastal Bank states:

(6) Any project on such a coastal bank or within 100 feet landward of the top of such coastal bank shall have no adverse effects on the stability of the coastal bank.

The Project will not adversely impact the protected interest of the Coastal Bank.

Petitioner's statements concerning weight load are speculative and not supported by any expert opinion.

- c. Are Title 5 issues referenced in the Petitioner's PHC memoranda appropriate to adjudicate in this proceeding?

Department position: This is a proceeding concerning the issuance of a SOC pursuant to the Regulations. Issues outside that scope can not be adjudicated in this proceeding.

- d. Are Con Com by-law provisions appropriate to adjudicate in the proceeding?

Department position: The local by-law issues are outside the jurisdiction of the Department and may not be adjudicated in this proceeding.

6. Witness

The Department plans to call Nate Corcoran as a witness. Mr Corcoran is an environmental analyst with the MassDEP Wetlands & Waterways Program in the Southeast Regional Office 20 Riverside Dr., Lakeville. It is anticipated he will testify that the Project is in compliance with the Regulations.

Massachusetts Department of Environmental Protection

By its attorney:

/s/ Rebekah Lacey

Rebekah Lacey
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SERVICE LIST

Representative

Party

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Applicant

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Town of Bourne Conservation
Commission
Shane Haines, Conservation Agent
City Hall
24 Perry Avenue Bourne, MA 02532
shaines@townofbourne.com

CERTIFICATE OF SERVICE

I, Rebekah Lacey, do hereby certify that I sent the foregoing Department Pre-Hearing Statement to all the parties indicated on the above service list by electronic mail this 6th day of May, 2021.

/s/ Rebekah Lacey

Rebekah Lacey

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

THE OFFICE OF APPEALS AND DISPUTE RESOLUTION

June 25, 2021

In the Matter of
Edward and Peri Jacoubs

OADR Docket No. WET-2020-013
DEP File No. SE 7-2096
Bourne, MA

RECOMMENDED FINAL DECISION

INTRODUCTION

This appeal involves a superseding order of conditions (“SOC”) issued to Edward and Peri Jacoubs (“Applicants”) by the Massachusetts Department of Environmental Protection pursuant to the Massachusetts Wetland Protection Act (“MWPA”), M.G. L. c. 131, § 40, and the Wetlands Regulations, 310 CMR 10.00. The SOC affirmed an Order of Conditions (“OOC”) issued to the Applicants by the Bourne Conservation Commission (“BCC”) approving the Applicants’ proposed residential project. The Petitioner is Barbara Princiotta, an abutter to the project site (“Petitioner”). The Applicants and MassDEP have moved to dismiss the appeal. For the reasons discussed below, I recommend that MassDEP’s Commissioner issue a Final Decision dismissing the appeal and affirming the SOC.

BACKGROUND

On December 31, 2019, the Applicants filed a Notice of Intent (“NOI”) with the BCC seeking approval to construct a proposed garage and deck addition to an existing single-family house, install an upgraded innovative alternative septic system and complete associated site

grading, landscape, and utility work at their residential property at 60 Arlington Drive in Bourne. Notice of Intent, MassDEP Basic Documents. The project site is abutted by single-family houses to the north and south, Buttermilk Bay to the west and Arlington Road to the east. Id. Wetland Resources at or near the project site include Buttermilk Bay, Land Subject to Coastal Storm Flowage (“LSCSF”) and Coastal Bank. The proposed project would be constructed in the 50-foot Buffer Zone to the Coastal Bank, with the proposed work being 19 feet from the Coastal Bank at its closest point. Id.

After a hearing, the BCC approved the project with conditions and issued its OOC on February 25, 2020 under both the MWPA and the Bourne Wetlands Bylaw. OOC, MassDEP Basic Documents. The Petitioner timely requested an SOC from MassDEP. She did not appeal the BCC’s approval under the bylaw to Superior Court. In her request for an SOC she asserted that the additional weight load to the Coastal Bank from the proposed project was of significant concern, and the Applicants had failed to meet their burden of demonstrating that the proposed project would not adversely affect the stability of the Coastal Bank as required by 310 CMR 10.30(6). She also raised concerns about the nitrogen loading calculations submitted with the NOI relative to the proposed septic system upgrade. Request for SOC, MassDEP Basic Documents. After reviewing the project file and conducting an on-site meeting, MassDEP affirmed the OOC in an SOC issued on or about October 26, 2020. The SOC added special conditions to the approval based on MassDEP’s opinion that the biggest risk to the stability of the Coastal Bank was runoff. The additional special conditions require placement of a continuous erosion control barrier along the top of the Coastal Bank and along the property line; storage of construction supplies and material away from the resource area; stabilization of exposed soil areas with a protective covering until they are revegetated; and roof runoff directed into drywells

*Far away
yet adjacent
to coastal
bank.*

located as far from the top of the Coastal Bank as possible. SOC, Special Conditions, MassDEP Basic Documents.

As in her request for the SOC, the Petitioner's appeal to the Office of Appeals and Dispute Resolution ("OADR") asserted that the additional weight load to the Coastal Bank from the proposed project was of significant concern and would adversely affect the stability of the Coastal Bank. Notice of Claim at p. 2. She also asserted that the planned impervious surfaces and runoff would increase erosion of the coastal bank and decrease its stability. Notice of Claim at p. 3. She reiterated her claims about the drywells and the septic system. The Petitioner also asserted that MassDEP's review of the project was flawed because: (1) the timing of the on-site meeting at high tide prevented MassDEP from accessing the seaward side of the property to observe the Coastal Bank, the existing erosion or a failed seawall; (2) the Petitioner was prevented from entering the project site during the meeting; and (3) the Plan reviewed by MassDEP was not the final plan submitted by the Applicants. Notice of Claim at p. 4. However, the Petitioner did not allege facts in her appeal notice that would establish her standing to bring this appeal as a person aggrieved. Therefore, I issued an Order for a More Definite Statement ("the Order") directing her to file a statement which contained sufficient written facts to demonstrate her status as a person aggrieved as defined in 310 CMR 10.04 no later than May 19, 2021. See Order for a More Definite Statement, May 11, 2021.

Instead of filing a response to the Order, a consultant retained by the Petitioner to review project site plans, the Notice of Intent, photographs, and MassDEP correspondence sent a "site review letter" addressed to the attorney representing MassDEP in this appeal, and the Petitioner's attorney filed a copy of the letter with OADR. The site review letter identified potential concerns about the stability of the coastal bank during construction, but there was no mention in the letter

of how the Petitioner “may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of interests identified in [the Wetlands Protection Act]. 310 CMR 10.04 (definition of person aggrieved). In fact, there was no mention of the Petitioner or her property at all. See BSC Group correspondence dated May 19, 2021. On May 27, 2021, the Applicants and MassDEP jointly moved to dismiss the appeal on the ground that the Petitioner failed to comply with the order to file a More Definite Statement. The Petitioner did not respond to the motion to dismiss.

DISCUSSION

Procedural and substantive grounds warrant dismissal of this appeal. An appeal may be dismissed when "a party fails to file documents as required, . . . comply with orders issued and schedules established in orders or otherwise fails to prosecute the adjudicatory appeal; . . . demonstrates an intention to delay the proceeding or a resolution of the proceedings; or fails to comply with any of the requirements set forth in 310 CMR 1.01 . . ." 310 CMR 1.01(10) and (11)(d)1; see Matter of Mangano, Docket No. 94-109, Final Decision (March 1, 1996); Matter of Town of Brookline Department of Public Works, Docket No. 99-165, Final Decision (June 26, 2000); Matter of Bergeron, Docket No. 2001-071, Recommended Final Decision (February 5, 2002), adopted by Final Decision (February 25, 2002).

Additionally, 310 CMR 1.01(3)(e) provides that "[p]arties who do not conform to time limits or schedules established by the Presiding Officer shall, absent good cause shown, summarily be dismissed for failure to prosecute the case." See also Matter of Tucard, LLC, OADR Docket No. 2009-076, 2010 MA ENV LEXIS 211, Recommended Final Decision

(September 2, 2010), adopted by Final Decision (September 28, 2010).

A. THE PETITIONER'S APPEAL SHOULD BE DISMISSED PURSUANT TO 310 CMR 1.01(10) FOR FAILURE TO FILE DOCUMENTS AS REQUIRED

310 CMR 1.01(11)(d)1. provides that “[a] party may move to dismiss where another party fails to file documents as required, respond to notices, correspondence or motions, comply with orders issued and schedules established in orders, otherwise fails to prosecute the case or demonstrates an intention not to proceed...” 310 CMR 1.01(10) authorizes the Presiding Officer to impose sanctions, including the sanction of dismissal, on a party “when a party fails to file documents as required, respond to notices, correspondence or motions, comply with orders issued and schedules established in orders or otherwise fails to prosecute the adjudicatory appeal; demonstrates an intention not to proceed; demonstrates an intention to delay the proceeding or resolution of the proceedings; or fails to comply with any of the requirements set forth in 310 CMR 1.01.” Sanctions include:

- (a) taking designated facts or issues as established against the party being sanctioned;
- (b) prohibiting the party being sanctioned from supporting or opposing designated claims or defenses, or introducing designated matters into evidence;
- (c) denying summarily late-filed motions or motions failing to comply with requirements of 310 CMR 1.01(4);
- (d) striking the party’s pleadings in whole or in part;
- (e) dismissing the appeal as to some or all of the disputed issues;
- (f) dismissing the party being sanctioned from the appeal; and
- (g) issuing a final decision against the party being sanctioned.

In addition to the dismissal authority conferred by 310 CMR 1.01(10)(e), under 310 CMR 1.01(11)(a)2.f, a “Presiding Officer may [also] summarily dismiss [an appeal] sua sponte,” when the appellant fails to prosecute the appeal or fails to comply with an order issued by the Presiding

Officer. For the same reasons, the Presiding Officer may also dismiss an appeal pursuant to the Presiding Officer's appellate pre-screening authority under 310 CMR 1.01(5)(a)15 which authorizes the Presiding Officer to "issu[e] orders to parties, including without limitation, ordering parties to show cause, ordering parties to prosecute their appeal by attending prescreening conferences and ordering parties to provide more definite statements in support of their positions." As discussed below, the sanction of dismissal is warranted.

1. The Petitioner Failed to Comply with the Order For a More Definite Statement.

The Order required the Petitioner to file with OADR a statement which contained sufficient written facts to demonstrate her status as a person aggrieved as defined in 310 CMR 10.04. The site review letter prepared by a consultant for the Petitioner and addressed to MassDEP counsel was (1) wholly unresponsive to the Order and (2) not directed to OADR as a response to the Order. The letter never mentioned the Petitioner or her property and cannot reasonably be read as a more definite statement of the Petitioner's claim that she is a person aggrieved. By not properly responding to the Order for a More Definite Statement the Petitioner "failed to file documents as required . . . comply with orders issued..."

2. The Petitioner's Failure to Respond to the Motion to Dismiss Demonstrates an Intention Not to Prosecute the Appeal.

310 CMR 1.01(11)(a)1. affords a party faced with a motion to dismiss seven business days after the motion is filed to file a written objection. "A failure to file a timely response may result in a grant of the relief requested by the moving party." As noted above, the Petitioner did not file a response to the motion to dismiss. By failing to respond she "otherwise failed to prosecute the adjudicatory appeal [and] has demonstrate[d] an intention not to proceed."

The Petitioner's failure to respond "shows an indifference to the outcome of this proceeding that . . . manifests [an] intention not to proceed" with the further prosecution of her

appeal. Matter of Evergreen Construction Co., Inc., Docket Nos. 98-166, 98-172, Recommended Final Decision, 8 DEPR 45 (February 14, 2001), adopted by Final Decision, 8 DEPR 45 (February 26, 2001); see also Matter of Samoset Auto Service, Inc., Docket No. 94-003, Final Decision-Order of Dismissal (May 24, 1994) (petitioner's failure to respond to motion to dismiss demonstrated that it had abandoned prosecution of its appeal, and for this reason alone, it was appropriate to dismiss the appeal for lack of prosecution without reaching the merits of the motion to dismiss) .

B. THE PETITIONER'S APPEAL SHOULD BE DISMISSED FOR LACK OF STANDING.

This appeal should also be dismissed on substantive grounds: the Petitioner is not a person aggrieved by the SOC. The wetland appeal regulations require a person claiming to be aggrieved by the SOC to plead sufficient written facts to demonstrate status as a person aggrieved, that is, they must specify in writing how, as a result of the SOC, they "may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the statutory wetland interest." 310 CMR 10.05(7)(j); 310 CMR 10.04 (definitions). The Petitioner has not demonstrated that she is a person aggrieved.

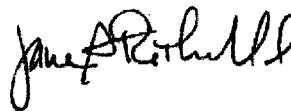
In her Appeal Notice, the Petitioner described herself as an abutter whose property "includes a portion of the Coastal Bank that is the subject of this action." Appeal Notice at p. 2. The Appeal Notice alleges that multiple aspects of the proposed project will add a significant weight load to the Coastal Bank and that erosion of an already eroding Coastal Bank will increase. Missing from the Appeal Notice are any facts demonstrating how the Petitioner "may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the statutory wetland interest." Her Pre-hearing Statement failed to augment the Appeal Notice. The Petitioner's non-response to the Order for a

More Definite Statement also failed to identify any potential harms she might suffer as a result of the proposed project. Therefore, the Petitioner has failed to establish her right to bring this appeal as a person aggrieved and the appeal should be dismissed.

CONCLUSION

The petitioner has failed to comply with 310 CMR 1.01(6)(b), 310 CMR 10.05(7)(j), and failed to respond to the motion to dismiss. As a result, I recommend that MassDEP's Commissioner issue a Final Decision dismissing the Petitioner's appeal for her failure to comply with the Order and for her failure to state sufficient facts to establish her status as a person aggrieved. The SOC should be made final.

Date: 6/25/2021



Jane Rothchild
Presiding Officer

NOTICE- RECOMMENDED FINAL DECISION

This decision is a Recommended Final Decision of the Presiding Officer. It has been transmitted to the Commissioner for his consideration. This decision is therefore not a Final Decision subject to reconsideration under 310 CMR 1.01(14)(d), and may not be appealed to Superior Court pursuant to M.G.L. c. 30A.

Because this matter has now been transmitted to the Commissioner, no party shall file a motion to renew or reargue this Recommended Final Decision or any part of it, and no party shall communicate with the Commissioner's office regarding this decision unless the Commissioner, in his sole discretion, directs otherwise.



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

July 9, 2021

In the Matter of
Edward and Peri Jacobs

Docket No. WET-2020-013
File No. SE 7-2096
Bourne, MA

FINAL DECISION

I adopt the Recommended Final Decision of the Presiding Officer. The parties to this proceeding are notified of their right to file a motion for reconsideration of this decision, pursuant to 310 CMR 1.01(14)(d). The motion must be filed with the Case Administrator and served on all parties within seven business days of the postmark date of this decision. A person who has the right to seek judicial review may appeal this decision to the Superior Court pursuant to M.G.L. c. 30A, §14(1). The complaint must be filed in the Court within thirty days of receipt of this decision.

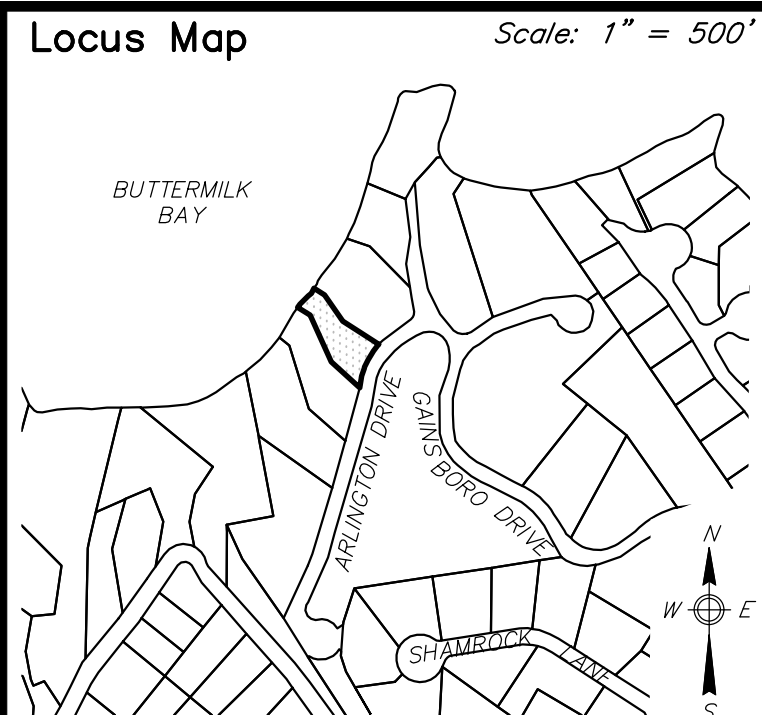
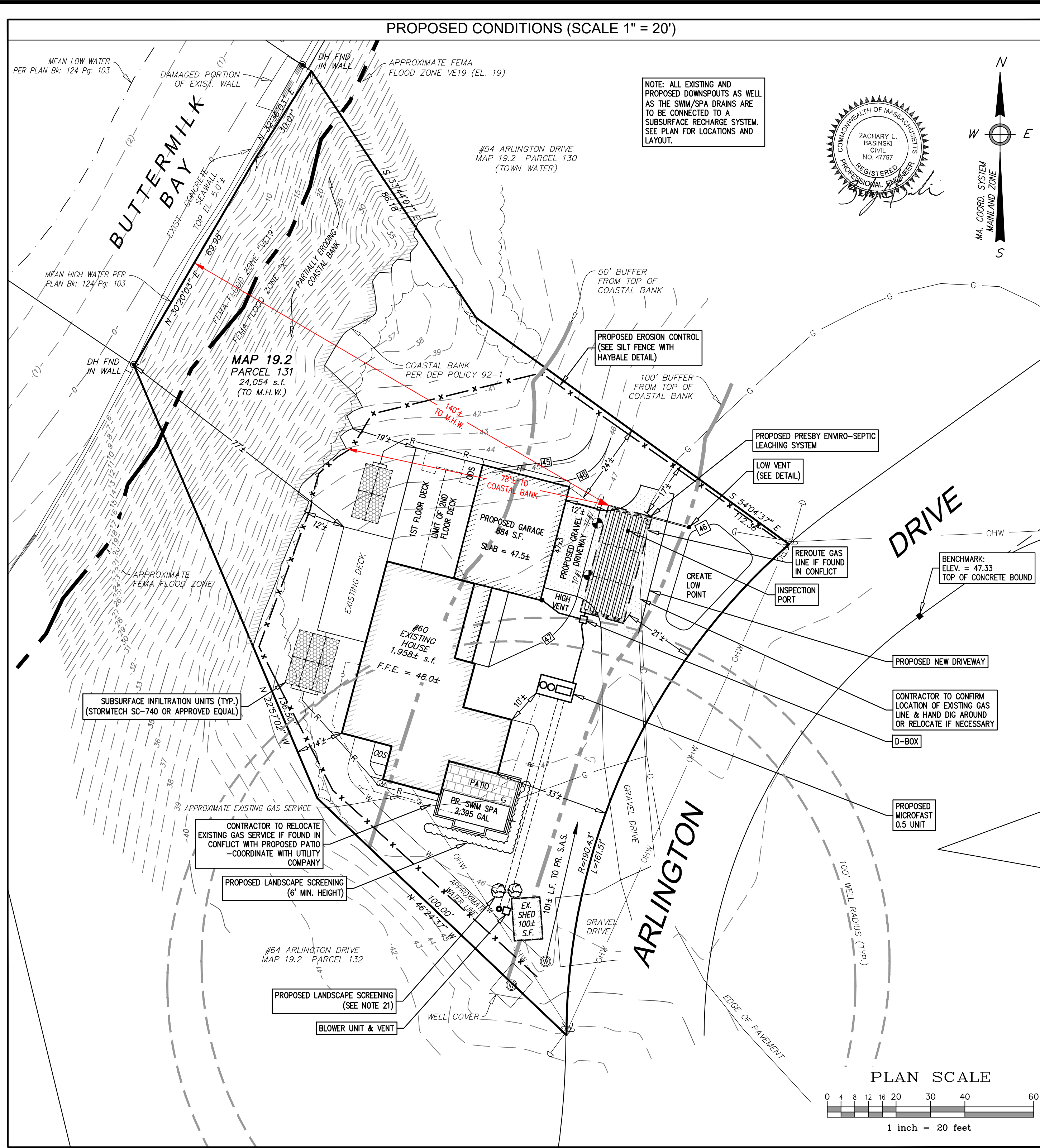
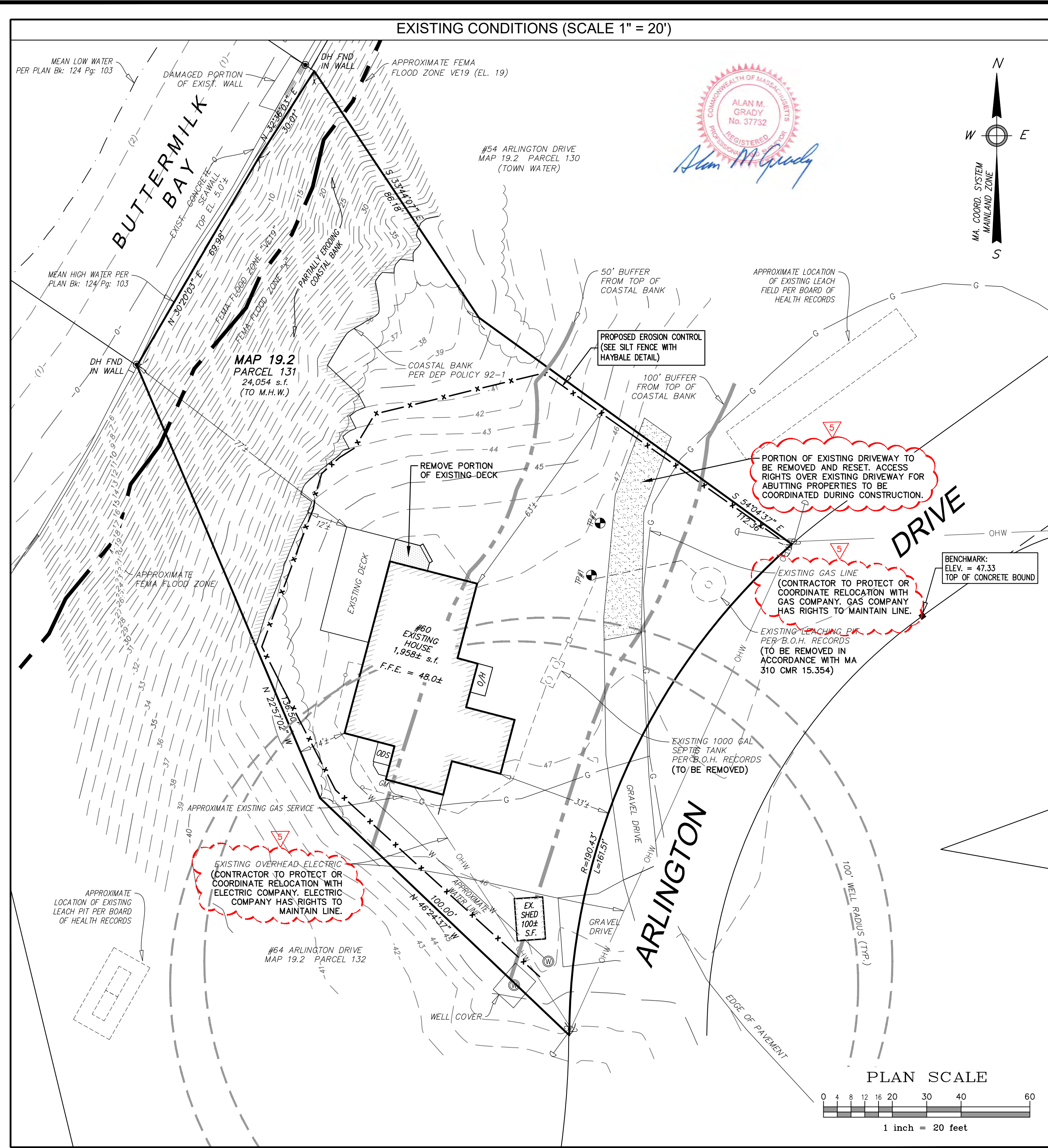
Martin Suuberg
Commissioner

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website www.mass.gov/dep

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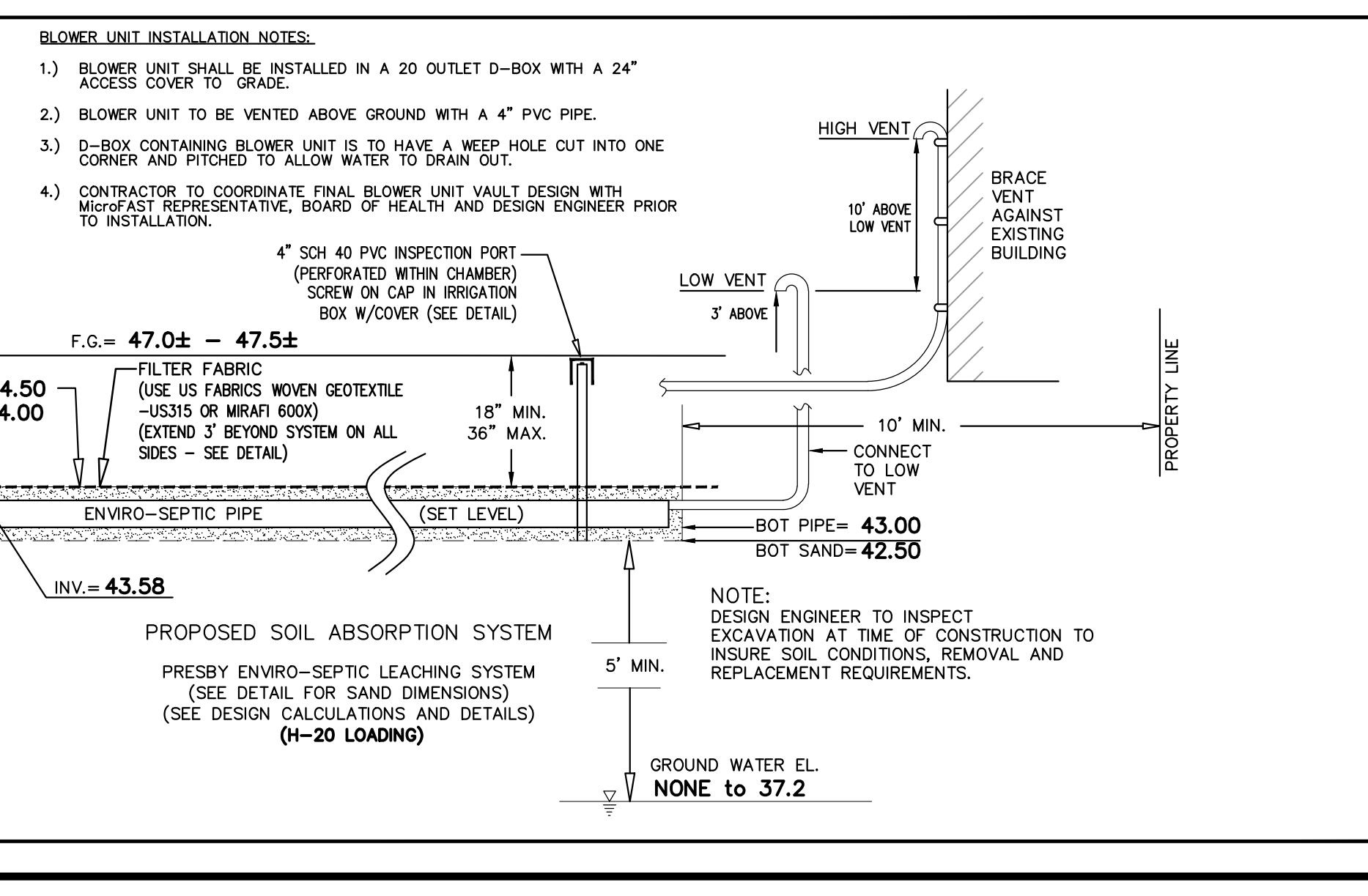
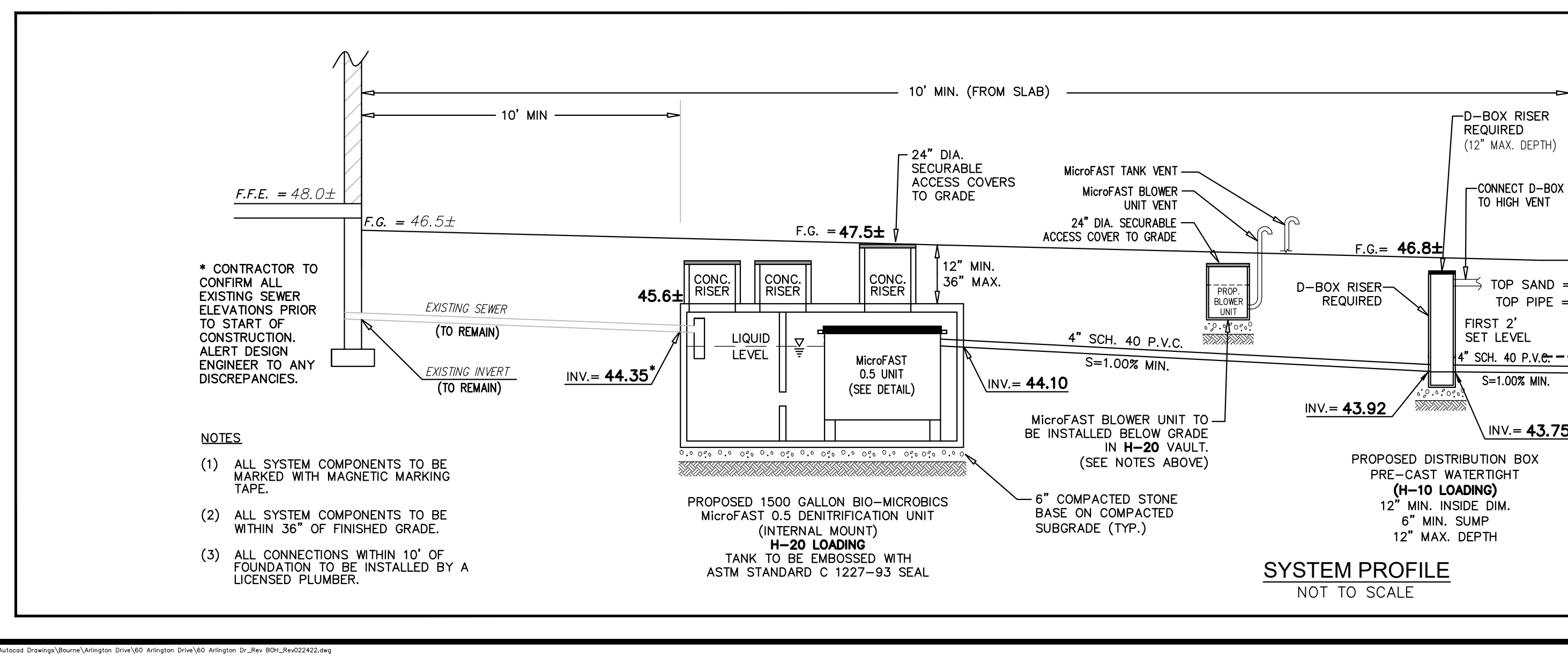


- Notes**
- BENCHMARK: ELEVATION = 47.33 (NAVD88) TOP OF CONCRETE BOUND.
 - ALL CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO TITLE 5 AND THE TOWN OF BOURNE BOARD OF HEALTH REGULATIONS.
 - ALL SYSTEM COMPONENTS MUST BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
 - 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 FROM THE BOARD OF HEALTH PRIOR TO BACKFILLING SYSTEM. AN AS-BUILT PLAN MUST BE PREPARED BY THE DESIGN ENGINEER.
 - OWNER/APPLICANT:
EDWARD G. JACOUBS
PERI A. JACOUBS
60 ARLINGTON DRIVE
BUZZARDS BAY, MA 02532
 - DEED REFERENCE: Deed Bk: 26359 Pg: 201
 - PLAN REFERENCE: Plan Bk: 124 Pg: 103 (LOT 6)
 - 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.
 - THE SYSTEM OWNER SHALL BE RESPONSIBLE TO PUMP THE SEPTIC TANK AT LEAST ONCE EVERY THREE YEARS.
 - LOCUS DOES NOT FALL WITHIN A ZONE II WELLHEAD PROTECTION AREA BUT DOES FALL WITHIN THE BUZZARDS BAY WATER RESOURCE DISTRICT.
 - LOCUS DOES NOT FALL WITHIN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE AND PRIORITY HABITAT OF RARE SPECIES.
 - LOCUS PARTIALLY FALLS WITHIN A SPECIAL FLOOD HAZARD ZONE "VE" (EL. 19) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C-0313-K, dated 7/6/2021.
 - CONTRACTOR TO REFER TO ALL MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS FOR INSTALLATION OF THE MICROFAST UNIT AND PRESBY ENVIRO-SEPTIC SYSTEM.
- ** SEE ADDITIONAL NOTES ****

NON-CONFORMING PRE-EXISTING

ZONE	R-40	REQUIRED	EXISTING	PROPOSED
LOT AREA:	40,000 s.f.	24,054± s.f.	24,054± s.f.	24,054± s.f.
FRONT YARD:	20'	33'±	33'±	33'±
SIDE/REAR YARD:	12'	14'±/77'±	14'±	14'±/77'±
MAX. GROSS FLOOR AREA TO LOT AREA:	20%	8.6% (2,098 s.f.)	8.6% (2,098 s.f.)	15.0% (3,607 s.f.)
MAX. LOT COVERAGE:	20%	11.0% (2,697 s.f.)	11.0% (2,697 s.f.)	18.0% (4,340 s.f.)
BUILDING HEIGHT:	35'	<35'	<35'	<35'

Notes:
(a) SEE TABLE 2456 FOR NON-CONFORMING LOTS IN BOURNE ZONING BY LAWS.
(b) AVERAGE EXISTING GRADE LINE CALCULATE AS: EL. 46.5



BRACKEN ENGINEERING, INC.

49 HERRING POND ROAD
BUZZARDS BAY, MA 02532
(tel) 508.833.0070
(fax) 508.833.2282

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

SUBSURFACE SEWAGE DISPOSAL PLAN IN BOURNE, MASSACHUSETTS

Prepared For:
EDWARD G. JACOUBS & PERI A. JACOUBS
#60 ARLINGTON DRIVE
MAP 19.2 PARCEL 131

PROPOSED S.A.S. VARIANCE REQUEST

PROPOSED S.A.S. TO TOP OF COASTAL BANK = 78± OR (72± VARIANCE)
PROPOSED S.A.S. TO BUTTERMILK BAY (M.H.W.) = 140± OR (10' VARIANCE)

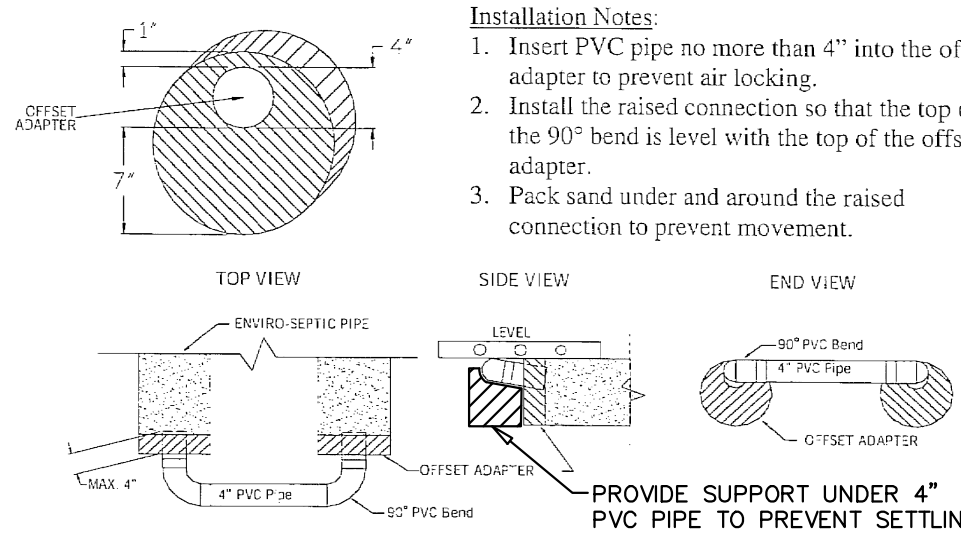
No.	Date	Revision Description	By
6	3/14/2022	REVISE FLOOD ZONE REFERENCE	JPH
5	2/24/2022	REVISED BASED ON B.O.H. COMMENTS	ZLB
4	10/19/2021	REVISED FOR B.O.H. COMMENTS	JPH
3	10/5/2021	REVISED FOR B.O.H. SUBMISSION	RED
2	2/17/21	REVISED PER D.E.P. (S.O.C.) COMMENTS	JPH
1	2/10/20	REVISED PER CON. COMM. COMMENTS	RED

Date: DECEMBER 23, 2019 Drawn: RED/BEI Checked: ZLB/AMG Sheet: 1 of 2

OFFSET ADAPTER WITH ENVIRO-SEPTIC PIPE RAISED CONNECTION DETAIL

N.T.S.

Raised connections consist of offset adapters, 4" PVC sewer and drain pipe, and 90° elbows. Use raised connections to connect lines of Enviro-Septic® pipe. They enable greater liquid storage capacity and increase the bacterial surfaces being developed. Here are some diagrams along with installation notes.



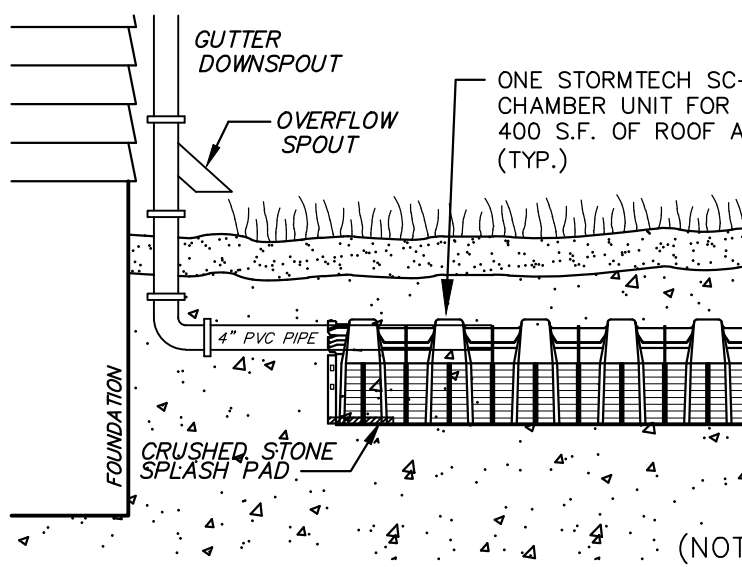
Installation Notes

1. Insert PVC pipe no more than 4" into the offset adapter to prevent air locking.
2. Install the raised connection so that the top of the 90° bend is level with the top of the offset adapter.
3. Pack sand under and around the raised connection to prevent movement.

PROVIDE SUPPORT UNDER 4" PVC PIPE TO PREVENT SETTLING

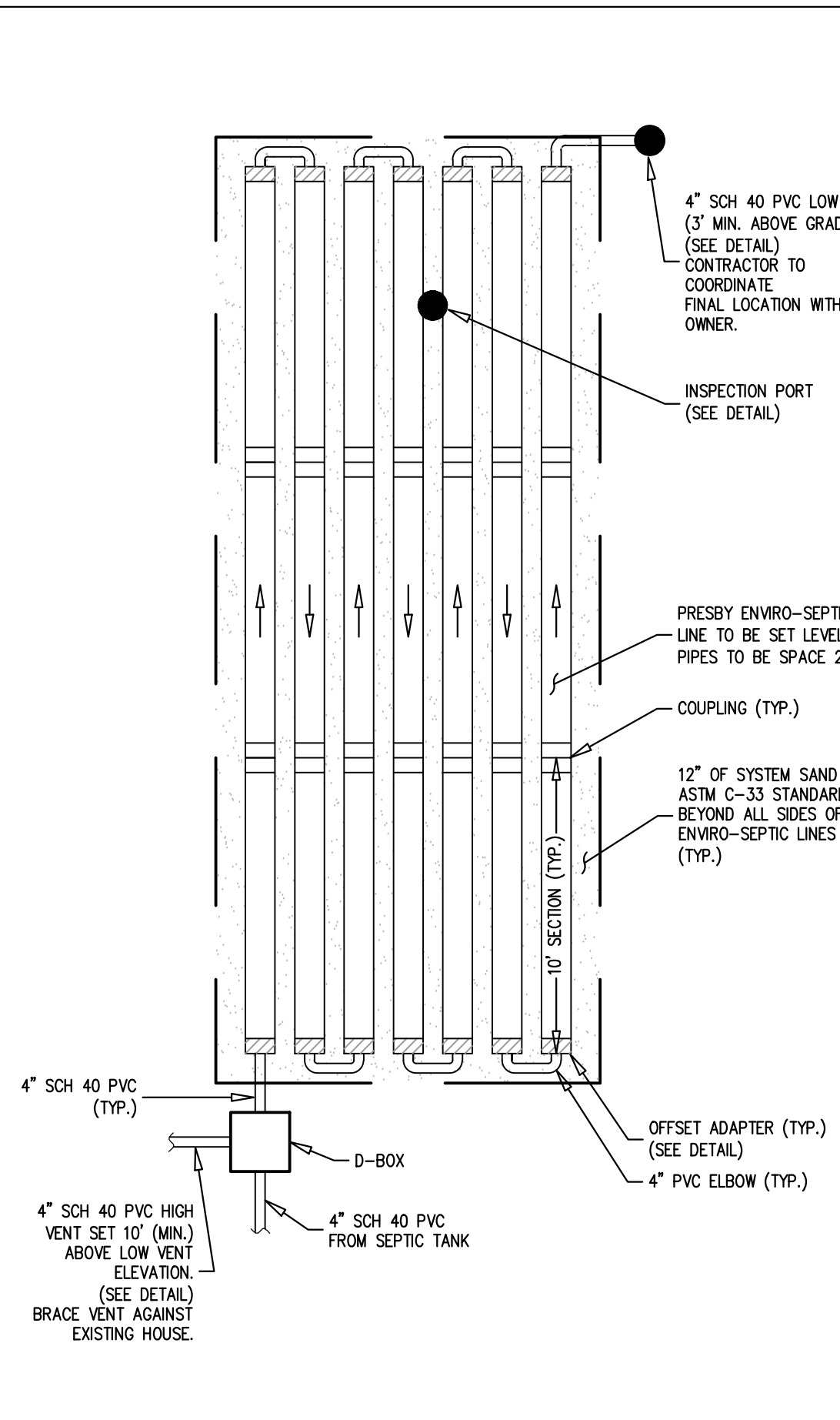
ROOF RUNOFF STORMWATER SYSTEM

NOTE: CONTRACTOR IS TO FIELD COORDINATE THE REQUIRED NUMBER OF AND FINAL LOCATION OF ROOF STORMWATER SYSTEMS WITH FINAL DOWNSPOUT LOCATIONS AND CONTRIBUTING ROOF AREAS.



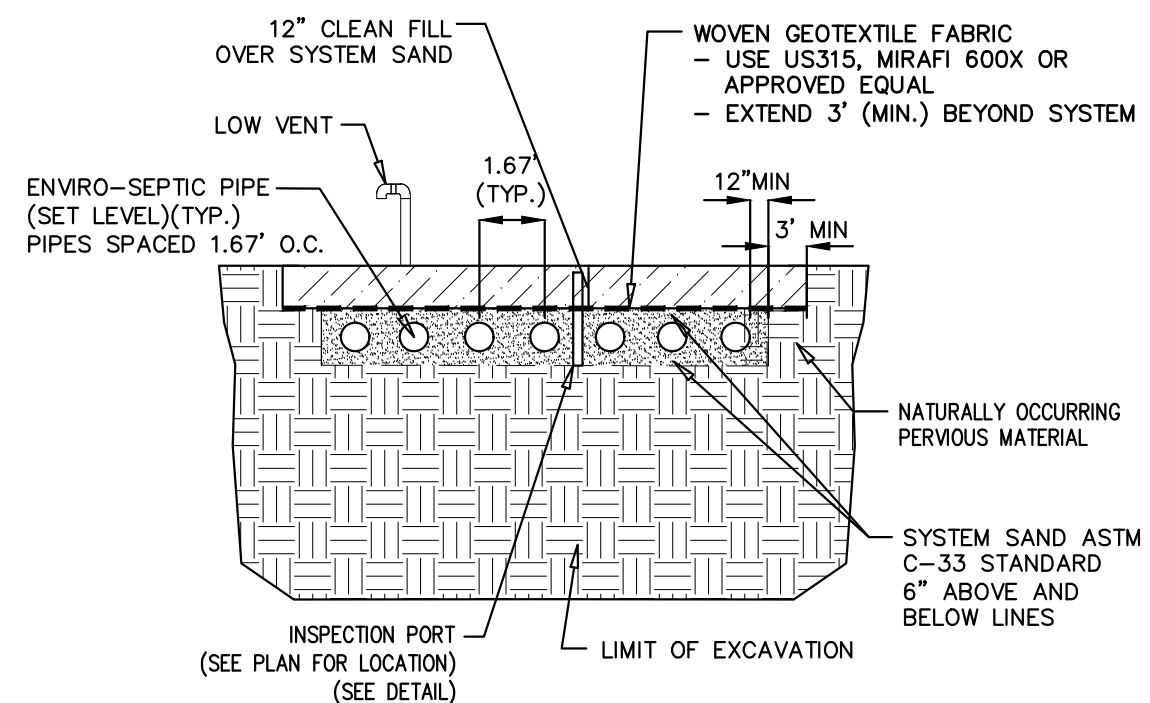
(NOT TO SCALE)

PRESBY ENVIRO-SEPTIC LEACHING SYSTEM LAYOUT



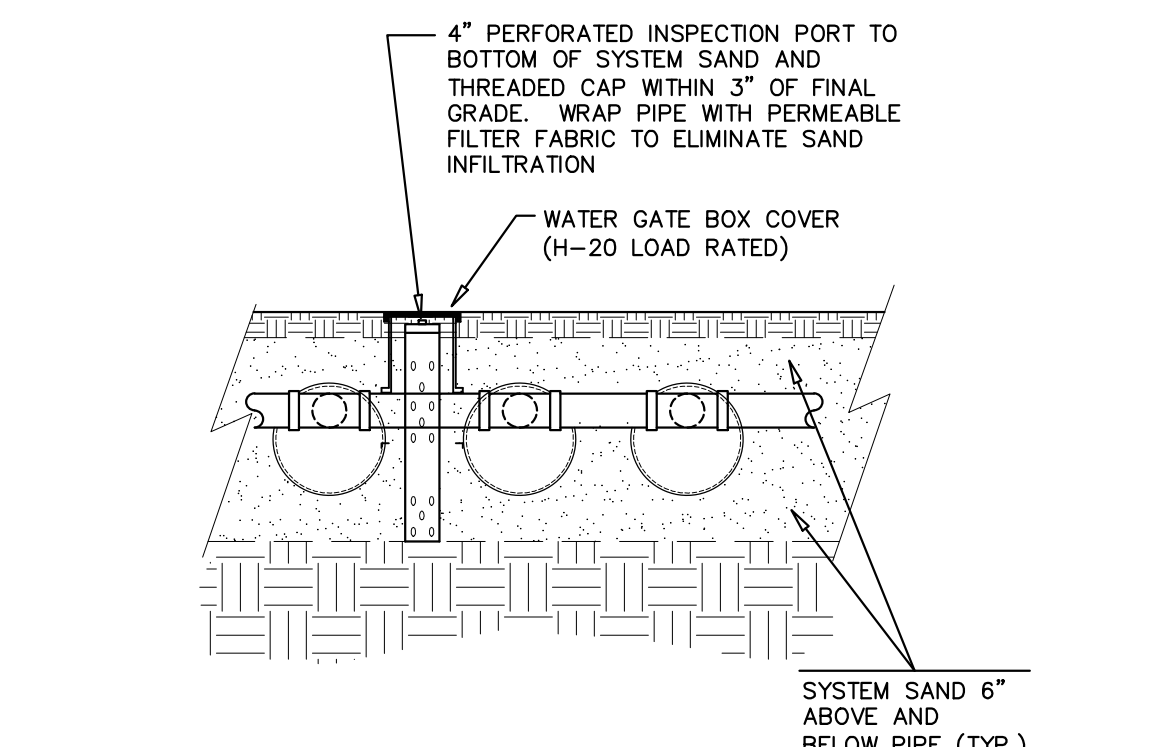
TYPICAL ENVIRO-SEPTIC IN-GROUND LEVEL SECTION

N.T.S.



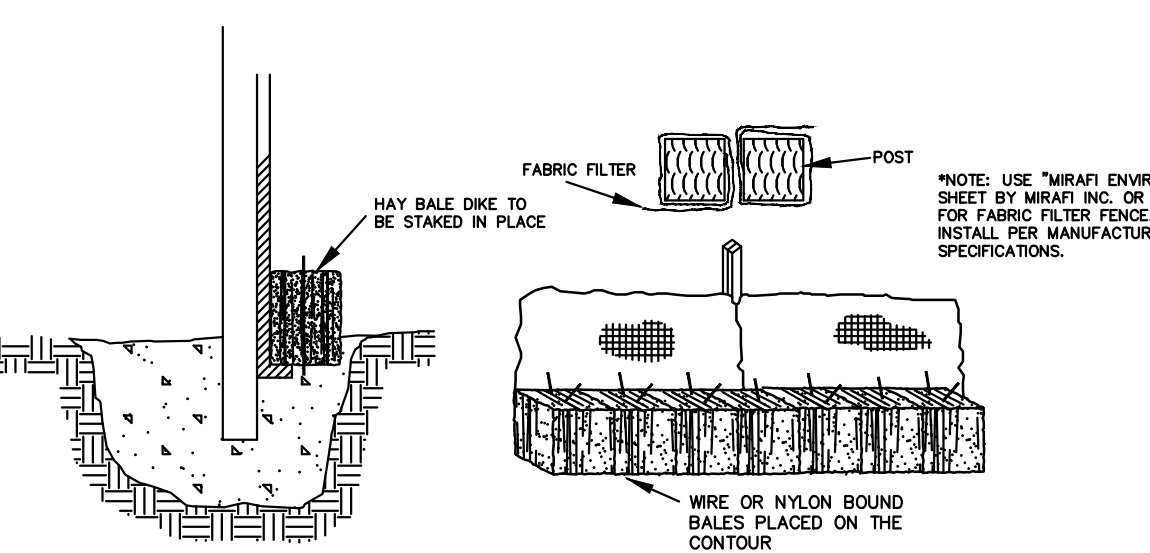
INSPECTION PORT DETAIL

N.T.S.



SILT FENCE W/ HAYBALE DETAIL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED (I.E.) NO MORE THAN 24 HOURS.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

ADDITIONAL EROSION CONTROL NOTES

1. ANY BUILDING SUPPLIES, DEBRIS, FILL OR OTHER MATERIALS SHALL BE STOCKPILED AS FAR AWAY FROM DESIGNATED WETLAND RESOURCE AREAS AS PRACTICABLE, AND AT A LOCATION TO PREVENT SUCH MATERIALS FROM ENTERING THE RESOURCE AREA.
2. ALL DISTURBED OR EXPOSED SOIL SURFACES SHALL BE TEMPORARILY STABILIZED WITH HAY, STRAW, MULCH OR ANY OTHER PROTECTIVE COVERING AND/OR METHOD APPROVED BY THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE WITHIN 24 HOURS OF DISTURBANCE IN ORDER TO PREVENT EROSION FROM TAKING PLACE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE IMMEDIATELY STABILIZED AGAINST EXPOSURE AND REVEGETATED WITH APPROPRIATE FAST GROWING EROSION CONTROL SPECIES OR LOCAL INDIGENOUS PLANTS WITH 30 DAYS OF FINAL SITE GRADING.

SOIL LOGS

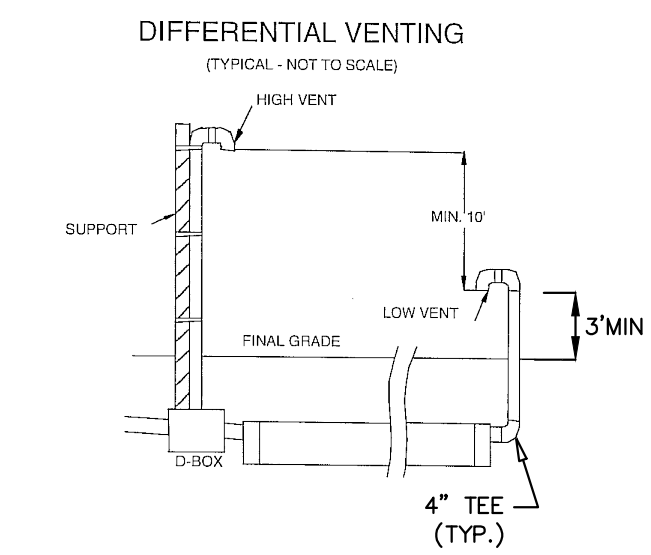
TP NO.	1	TP NO.	2
GRD. EL.	47.5	GRD. EL.	47.2
GW. EL.	NONE TO 37.5	GW. EL.	NONE TO 37.2
0"	47.5	0"	47.2
11"	46.6	11"	46.3
37"	44.4	37"	44.1
120"	37.5	120"	37.2

DATE PERFORMED: NOVEMBER 20, 2019
 SOIL EVALUATOR: ROBERT E. DENAR, E.I.T. (SE #14230)
 WITNESSED BY: KAYLA DAVIS - BOH INSPECTOR
 PERC. RATE: < 2 MINUTES/INCH
 SOIL CLASS: CLASS I
 MAX. GROUND WATER ELEV.: NONE TO 37.2
 METHOD OF DETERMINATION: NO MOTTLES/WATER
 (SEE SOIL REPORT FOR MORE DETAILED DESCRIPTION)

DIFFERENTIAL VENTING DETAIL

N.T.S.

THIS DIAGRAM SHOWS A HIGH VENT INSTALLED IN A D-BOX. THIS CONFIGURATION IS REQUIRED IN PUMPED SYSTEMS OR WHEN OTHER RESTRICTIONS OR VENTS ARE INSTALLED BETWEEN THE LOW VENT AND THE ROOF VENT.



DESIGN CALCULATIONS

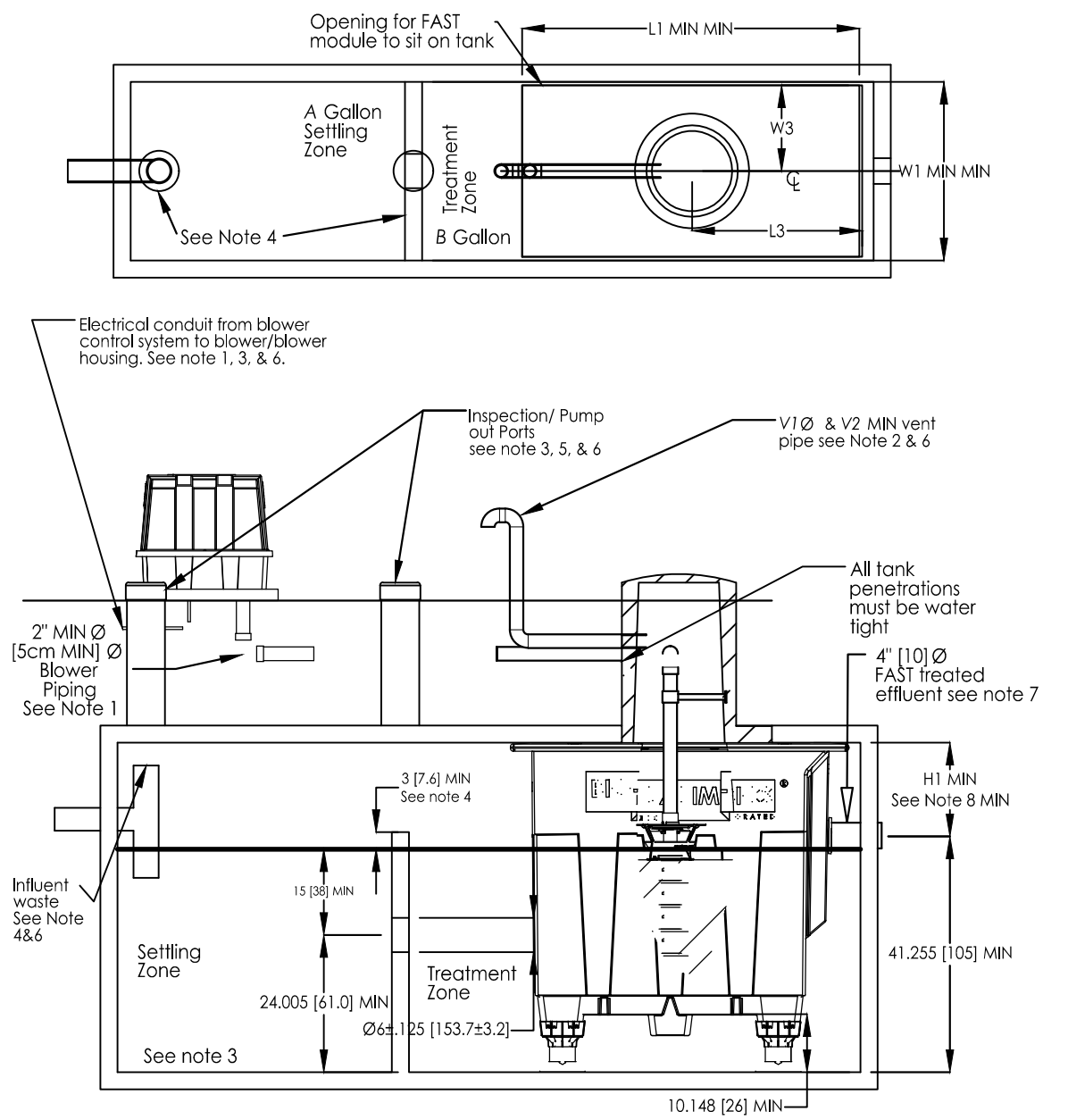
SOIL TEXTURAL CLASS: CLASS I
 PERC. RATE: < 2 MINUTES/INCH
 NO. OF BEDROOMS: 3
 DESIGN FLOW REQUIRED: 330 GPD
 SEPTIC TANK REQUIRED: 1,500 GALLONS
 SEPTIC TANK PROVIDED: MicroFAST 0.5 Unit
LEACHING SYSTEM:
 PRESBY ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEM
 416 S.F. AREA x 2' DEEP SYSTEM (SEE DETAIL FOR FIELD DIMENSIONS)
EFFECTIVE LEACHING: (BASED ON REMEDIAL USE APPROVAL)
 ENVIRO-SEPTIC PIPE REQUIRED: 70 L.F. PER 110 GAL/DAY
 ENVIRO-SEPTIC PIPE PROVIDED
 1 SECTION WITH 7 LINES OF 30' LENGTH EACH
 TOTAL LENGTH = 1 x (7 x 30') = 210 L.F.
 210 L.F. = 330 GAL/DAY
 LINES SPACED 1.67' ON CENTER
 EACH SECTION = 210 L.F. = 330 GPD < 500 GPD MAX/SECTION

MicroFAST 0.5 FAST UNIT (INTERNAL MOUNT)



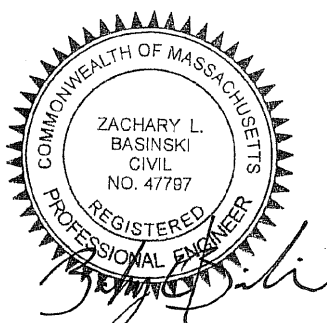
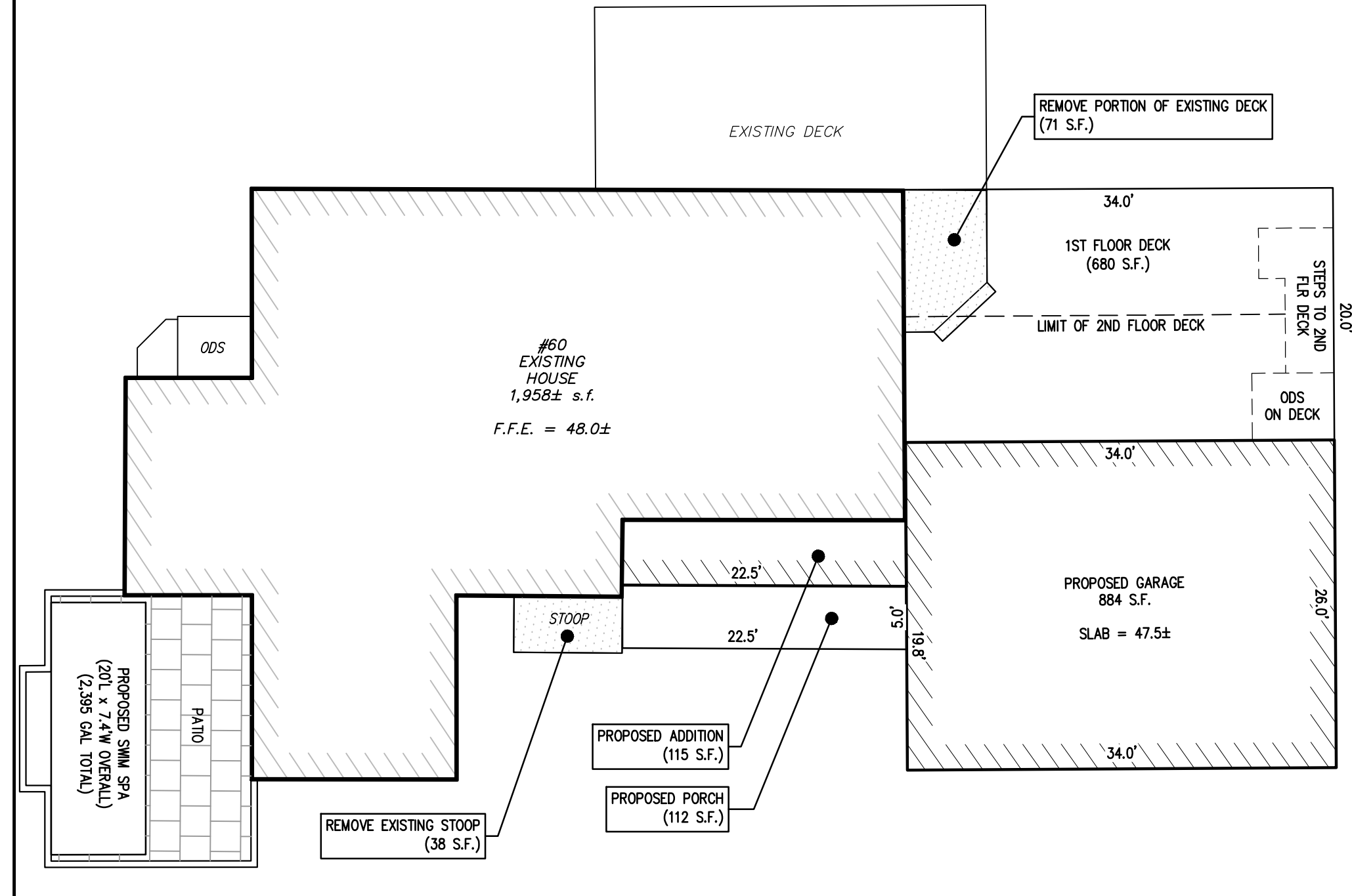
MicroFAST Notes:

1. Blower piping to FAST® may not exceed 100FT [30.5m] total length and use a maximum of 4 elbows. For distances greater than 100FT [30.5m] - consult factory. Blower must be located above flood/standing water levels on a concrete base 24" x 18" x (16x45.75cm) minimum.
2. Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate w/at least 7.1 sq. in. [45.8 sq. cm] open surface area. Secure with stainless steel screws or Run vent to desired location and cover opening with vent grate w/at least 7.1sq. in. [45.8 sq. cm] of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
3. All apertures to FAST® (e.g. tank pump outs, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
4. Either the influent pipe line shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank. If choosing to use the pipe cap, then the baffle shall be at least 3"[8cm] higher than the water level as shown on the drawing.
5. All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
6. Tank anchors, piping, conduit, blower housing pad and vents are provided by others.
7. All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
8. No more than 4 FT [1.2 m] of fill may be placed over unit lid. Unit may stand inside tank MicroFAST® 0.5 with feet. Refer to installation manual for more details.



PROPOSED ADDITION DETAIL

SCALE: 1" = 10'



Prepared By:
BRACKEN ENGINEERING, INC.
 48 HERRING POND ROAD BUZZARDS BAY, MA 02532 (tel) 508.833.0070 (fax) 508.833.2282
 19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 508.325.0044 (fax) 508.325.0044 www.brackeneng.com

SUBSURFACE SEWAGE DISPOSAL PLAN IN BOURNE, MASSACHUSETTS
 Prepared For:
EDWARD G. JACOUBS & PERI A. JACOUBS
 #60 ARLINGTON DRIVE
 MAP 19.2 PARCEL 131

No.	Date	Revision Description	By
6	3/14/2022	REVISE FLOOD ZONE REFERENCE	JPH
5	2/24/2022	REVISED BASED ON B.O.H. COMMENTS	ZLB
4	10/19/2021	REVISED FOR B.O.H. COMMENTS	JPH
3	10/5/2021	REVISED FOR B.O.H. SUBMISSION	RED
2	2/17/21	REVISED PER D.E.P. (S.O.C.) COMMENTS	JPH
1	2/10/20	REVISED PER CON. COMM. COMMENTS	RED

Date: DECEMBER 23, 2019 Drawn: RED/BEI Checked: ZLB/AMG Sheet: 2 of 2

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Bourne, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

Table with 2 columns: Applicant/Property Information and Designer/Agent Information. Includes fields for Location, Map/Parcel#, Lot#, Installer's Name, Address, Telephone#, Owner's Name, Address, Telephone#, and Designer's Name.

Type of Building Single-family dwelling Lot Size 24,054+/- 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 330 gpd Plan: Date December 23, 2019 Number of sheets 1 Revision Date March 14, 2022 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 11/20/2019

DESCRIPTION OF REPAIRS OR ALTERATIONS Installation of a new MicoFast 0.5 unit, 1,500 gallon septic tank. Installation of a Presby EnviroSeptic Leaching System.

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 _____

COMMONWALTH OF MASSAC14USETTS

Board of Healtli, AM.

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 5, 2021

Town of Bourne
Board of Health
24 Perry Avenue
Bourne, MA 02532

Re: 60 Arlington Drive, Map 19.2 – Parcel 131

Dear Members of the Board:

On behalf of the homeowners/applicants, Edward and Peri Jacoubs, please accept this letter as a request for the following variance and Local Upgrade Approval to the Town of Bourne Health Regulations for a proposed septic upgrade at 60 Arlington Drive, Buzzards Bay.

- **A variance to local setback requirements is requested for a 10'± reduction in setback for a 140'± setback to Buttermilk Bay (Mean High Water).**
- **A variance to local setback requirements is requested for a 72'± reduction in setback for a 78'± setback to a Coastal Bank per D.E.P. Policy 92-1.**

The above variance requests are being made as a result of the size and existing topography of the parcel located at 60 Arlington Drive and would upgrade the existing septic to comply with Title 5. The subject locus is a 24,054 s.f. (to Mean High Water) developed parcel containing an existing single-family home. It is surrounded by single-family dwellings to the north and south, Arlington Drive to the southeast and Buttermilk Bay to the northwest. Resource areas on or adjacent to the parcel include Buttermilk Bay, Land Subject to Coastal Storm Flowage (LSCSF), and Coastal Bank. The parcel partially lies within the FEMA Special Flood Hazard Zone "VE" (El. 19).

The location of the proposed Soil Absorption System was chosen to maximize setback distances from resource areas and groundwater separation, minimizing any effect on public health, safety and the environment. A Presby Enviro-Septic leaching system was chosen to promote even effluent dispersal throughout the field area. Additional nitrogen removal shall occur via the proposed MicroFAST 0.5 unit. Bracken Engineering, Inc. is requesting that the Bourne Board of Health diverge from the goal of full compliance of the local regulations by allowing the variances requested above. The design allows for the best feasible upgrade within the borders of the lot and confines of the existing resource areas.

Enclosed are six (6) copies of the Variance Request Application, Existing and Proposed Nitrogen Loading Calculations, DEP I/A Remedial Use Approval Letters, Proof of Abutter Notification, Architectural Floor Plans, Proposed Site Plan dated 12/23/19 (revised 10/5/21) and \$125.00 for the Public Hearing Fee.

In closing and on behalf of the Applicants, Edward and Peri Jacoubs, BEI would like to thank you for your time and consideration of this matter. If you have any questions regarding this or require any further information before the October 13th Public Hearing, please contact our office at 508-833-0070 or email the undersigned at zac@brackeneng.com.

Sincerely,

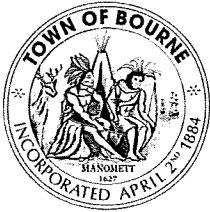
Bracken Engineering, Inc.

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

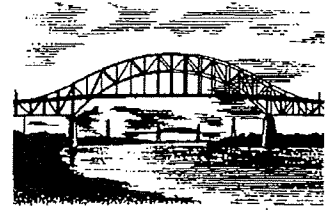
Zachary L. Basinski, P.E.
Project Manager

A handwritten signature in black ink, appearing to read 'Robert E. Dewar', written over a horizontal line.

Robert E. Dewar, EIT
Project Engineer



Bourne Board of Health Application for Septic Variance or Waiver Requests



In accordance with the established procedures of the Bourne Board of Health, this application is for septic variances and waivers 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.

1. Facility Name and Address:

Owner's Name Edward and Peri Jacobs

Facility's Street Address 60 Arlington Drive

Owner's Telephone Number 508-208-9105 (Peri Jacobs)

Owner's E-mail Address pjacoubs@yahoo.com

Owner's Mailing Address 60 Arlington Drive, Buzzards Bay, MA 02532

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, 3-bedroom dwelling

5. Type of System (check all that apply): Conventional Title 5 I/A System

Pumped System Gravity System Pressure Dosed Existing Proposed

6. Describe the existing/ proposed septic system components: Installation of a 1,500 gallon MicroFast 0.5 unit septic tank. Installation of a SAS consisting of a Presby Enviro Septic Leaching System.

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

Design flow of system: 110 GPD

Total design flow of facility: 330 GPD

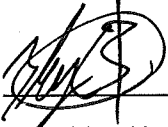
8. Enclose a **letter of request for variances/ waivers** which makes reference to the specific provisions of Title 5 and/ or the Board Bourne of Health Regulations for which a variance is sought. Please use this opportunity to demonstrate compliance with 310 CMR 15.410, and to justify the relevant facts 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 said regulations.

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

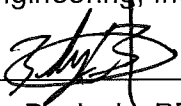
- Application Fees paid to the Town of Bourne.
- Letter of request describing nature of variances (see samples)
- Six sets of complete plans and specifications. One with original stamp of design engineer.
- Nitrogen Loading Calculation Sheet(s) if applicable
- If abutter notification is required, one 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 septic 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 may be 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  BRACKEN ENG. INC. Date 10/5/2021

Print Name Zachary L. Basinski, PE, CFM (Agent) for Edward & Peri Jacobs
Bracken Engineering, Inc.

Signature of Preparer  BRACKEN ENG. INC. Date 10/5/2021

Print Name Zachary L. Basinski, PE, CFM/ Bracken Engineering, Inc.

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:

60 Arlington Drive (Existing Conditions)

Number of Bedrooms (Title 5 Definition)	=	3	Bedrooms
Lot Size (in square feet of upland areas)	=	24,054	sq.ft.
Impervious Surfaces;**roof area	=	2,653	sq.ft.
**Paved Area	=	-	sq.ft.
Natural Area = lot area minus all impervious surfaces	=	21,401	sq.ft.
Lawn Area in sq. ft.	=	13,008	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

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

1a) Number of bedrooms = 3 x 14572 = 43716.00 mg. NO₃-N / day

1b) Number of bedrooms = 3 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 = 3 x 6071.5 = 18214.50 mg. NO₃-N / day

2b) Number of bedrooms = 3 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 = 2653 sq. ft. X 0.19395 = 514.55 mg NO₃-N

3b) Roof surface = 2653 sq. ft. X 0.2586 = 686.07 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

$$5) \text{ sq. ft. of lawn} = 13008 \times 0.933 = 12136.46 \text{ mg}$$

NATURAL AREA WATER LOADING

$$\text{Natural area} = \text{lot size} - \text{impervious surfaces} = 21401 \text{ sq. ft.}$$

$$6) \text{ Natural area} = 21401 \times \text{water recharge factor} = 2906.26 \text{ L} \\ \text{(0.1358 L / sq. ft. for Bourne)}$$

SUMMARY OF NITROGEN LOADING

Estimated Title 5 Nitrogen & Water Loading

7a) ADD the above NO₃N load

1a	(+)	3a	(+)	4a	(+)	5	
43716		514.55		0.00		12136.46	56367.01 mg NO ₃ -N / day

7b)

1b	(+)	3b	(+)	4b	(+)	6	
1248		686.07		0.00		2906.26	4840.32 L H ₂ O / day

7c) DIVIDE 7a by 7b = 11.6 ppm NO₃-N*****

Actual Nitrogen & Water Loading

8a) ADD the above NO₃N load:

2a	(+)	3a	(+)	4a	(+)	5	
18214.5		514.55		0.00		12136.46	<u>30865.51</u> mg NO ₃ -N / day

8b) ADD the above water (H₂O) load:

2b	(+)	3b	(+)	4b	(+)	6	
520.5		686.07		0.00		2906.26	<u>4112.82</u> L H ₂ O / day

8c) DIVIDE 8a by 8b = 7.5 ppm NO₃-N*****

FINAL CALCULATION ADD 7c & 8c (ppm) = 19.2 divide by 2 = 9.6 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 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:

60 Arlington Drive (Proposed Conditions)

Number of Bedrooms (Title 5 Definition)	=	3	Bedrooms
Lot Size (in square feet of upland areas)	=	24,054	sq.ft.
Impervious Surfaces;**roof area=	4,268	sq.ft.	**Paved Area = - sq.ft.
Natural Area = lot area minus all impervious surfaces	=	19,786	sq.ft.
Lawn Area in sq. ft.	=	10,987	sq.ft.
I/A System?	=	Yes	

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

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

1a) Number of bedrooms = 3 x 14572 = 21858.00 mg. NO₃-N / day

1b) Number of bedrooms = 3 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 = 3 x 6071.5 = 9107.25 mg. NO₃-N / day

2b) Number of bedrooms = 3 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 = 4268 sq. ft. X 0.19395 = 827.78 mg NO₃-N

3b) Roof surface = 4268 sq. ft. X 0.2586 = 1103.70 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

$$5) \text{ sq. ft. of lawn} = 10987 \times 0.933 = 10250.87 \text{ mg}$$

NATURAL AREA WATER LOADING

$$\text{Natural area} = \text{lot size} - \text{impervious surfaces} = 19786 \text{ sq. ft.}$$

$$6) \text{ Natural area} = 19786 \times \text{water recharge factor} = 2686.94 \text{ L}$$

(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		827.78		0.00		10250.87	32936.65 mg NO ₃ -N / day

7b)

1b	(+)	3b	(+)	4b	(+)	6	
1248		1103.70		0.00		2686.94	5038.64 L H ₂ O / day

7c) **DIVIDE 7a by 7b** = 6.5 ppm NO₃-N*****

Actual Nitrogen & Water Loading

8a) ADD the above NO₃N load:

2a	(+)	3a	(+)	4a	(+)	5	
9107.25		827.78		0.00		10250.87	<u>20185.90</u> mg NO ₃ -N / day

8b) ADD the above water (H₂O) load:

2b	(+)	3b	(+)	4b	(+)	6	
520.5		1103.70		0.00		2686.94	<u>4311.14</u> L H ₂ O / day

8c) **DIVIDE 8a by 8b** = 4.7 ppm NO₃-N*****

FINAL CALCULATION ADD 7c & 8c (ppm) = 11.2 divide by 2 = **5.6** 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 ACHIEVE THE 5 PPM NITRATE NITROGEN LEVEL*****

NOTICE OF ALTERNATIVE SEWAGE DISPOSAL SYSTEM

M.G.L. c. 21A, § 13 and 310 CMR 15.0287(10)

ADDRESS OF PROPERTY SERVED BY ALTERNATIVE SYSTEM:

60 Arlington Drive, Bourne, MA

DRAFT

TITLE REFERENCE FOR PROPERTY SERVED BY ALTERNATIVE SYSTEM

Deed recorded with the Barnstable Registry of Deeds in Book 26359, Page 201

NAME(S) OF OWNER OF PROPERTY SERVED BY ALTERNATIVE SYSTEM:

Edward G. Jacoubs & Peri A. Jacoubs

OWNER(S) MAILING ADDRESS: 60 Arlington Drive, Buzzards Bay, MA 02532

WHEREAS, Section 15.280 of Title 5 of the State Environmental Code (“Approval of Alternative Systems”), provides for the Massachusetts Department of Environmental Protection (the “Department”) to approve or certify, as appropriate, all proposals to construct, upgrade or replace on-site sewage disposal systems using alternative systems;

WHEREAS, owners and/or operators of approved or certified alternative systems are subject to general conditions, as specified in Section 15.287 of Title 5 of the State Environmental Code, 310 CMR 15.287, and may be subject to special conditions, as specified in the Department’s approvals or certifications; such general and special conditions potentially including, without limitation, requirements relating to the use of trained operators, periodic inspections, maintenance, sampling, reporting and/or recordkeeping;

WHEREAS, the owners and/or operators this alternative system acknowledges and agrees to comply with the provisions of all of the Bourne Board of Health Alternative Septic System Regulations and any other conditions for the existence of the system;

WHEREAS, Section 15.287(10) of Title 5 of the State Environmental Code, 310 CMR 15.287(10), requires that “prior to obtaining a Certificate of Compliance for installation of a new or upgraded system, the system owner shall record in the chain of title for the property served by the alternative system in the Registry of Deeds and/or Land Registration Office, as applicable, a Notice disclosing both the existence of the alternative on-site system and the Department’s approval of the system. The system owner shall also provide evidence of such recording to the Bourne Board of Health; and

WHEREAS, the Property is served by an alternative sewage disposal system.

NOW, THEREFORE, Notice of an alternative sewage disposal system is hereby given for the above- referenced Property, as follows:

1. Existence System #1. An alternative system has been installed as a new or upgraded alternative sewage disposal system, on or adjacent to the Property, and serves the Property. The trade name and model number(s) of the alternative system are as follows:

Trade name of technology:	<i>MicroFAST®</i>
Manufacturer Name:	Bio-Microbics, Inc.
Model number(s):	MicroFAST 0.5 Unit

2. Approval/Certification. On 6/16/2006, modified 1/23/2008, revised 11/5/2012, the Department, pursuant to its authority under the section of Title 5 as specified below, approved or certified the technology used in the above referenced alternative system, under MassDEP Transmittal Number W072367.

- Approved for remedial use under 310 CMR 15.284

3. Existence System #2. An alternative system has been installed as a new or upgraded alternative sewage disposal system, on or adjacent to the Property, and serves the Property. The trade name and model number(s) of the alternative system are as follows:

Trade name of technology: Presby Enviro-Septic® Leaching System

Manufacturer Name: Presby-Environmental, Inc.

4. Approval/Certification. On 9/26/2014 the Department, pursuant to its authority under the section of Title 5 as specified below, approved or certified the technology used in the above referenced alternative system, under MassDEP Transmittal Number X283867.

- Approved for remedial use under 310 CMR 15.284

A copy of the Department of Environmental Protection’s Approval/Certification is available online at the Department’s website:

<https://www.mass.gov/guides/approved-title-5-innovativealternative-technologies>

This Notice of Alternative Sewage Disposal System must be submitted to the Bourne Board of Health

WITNESS the execution hereof under seal this ____ day of _____, 20____, made by the above-named Alternative System Owner(s).

[Alternative System Owner(s) Signature(s)]

Print Name(s): _____

COMMONWEALTH OF MASSACHUSETTS

_____, ss

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(official signature and seal of notary)

WITNESS the execution hereof under seal this ____ day of _____, 20____, made by the above-named Alternative System Owner(s).

[Alternative System Owner(s) Signature(s)]

Print Name(s): _____

COMMONWEALTH OF MASSACHUSETTS

_____, ss

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(official signature and seal of notary)

Approved and Accepted By:

Agent of the Board of Health
Health Department
Town of Bourne

Attachment: Bourne Board of Health Variance Approval Notice



Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

REVISION OF APPROVAL FOR REMEDIAL USE

Pursuant to Title 5, 310 CMR 15.00

Name and Address of Applicant:

Bio-Microbics, Inc.
8450 Cole Parkway
Shawnee, KS 66227

Trade name of technology and models: MicroFAST® Treatment System Models *MicroFAST® 0.5, 0.75, 0.9, 1.5, 3.0, 4.5 and 9.0*; HighStrengthFAST® Treatment System Models *HighStrength FAST® 1.0, 1.5, 3.0, 4.5 and 9.0* and NitriFAST® Treatment System Models *NitriFAST® 0.5, 0.75, 1.0, 1.5, 3.0, 4.5 and 9.0* (hereinafter called the "System"). Schematic Drawings illustrating each System, a design and installation manual, an owner's manual, an operation and maintenance manual, and an inspection checklist are part of this Approval.

Transmittal Number: W 072367
Date of Issuance: June 16, 2006 (modified January 23, 2008)
Revision date: November 05, 2012

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental, Protection hereby issues this Approval for Remedial Use to: Bio-Microbics, Inc., 8450 Cole Parkway, Shawnee, KS 66227, (hereinafter "the Company"), approving the System described herein for Remedial Use in the Commonwealth of Massachusetts. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer, the Service Contractor, and the System Owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

David Ferris, Director
Wastewater Management Program,
Bureau of Resource Protection

November 05, 2012

Date

Technology Description

The System is a Secondary Treatment Unit (STU). The Systems, MicroFAST® 0.5, 0.75, 0.9, 1.5, 3.0, 4.5 and 9.0, and HighStrengthFAST® 1.0, 1.5, 3.0, 4.5 and 9.0, and, NitriFAST® 0.5, 0.75, 0.9, 1.5, 3.0, 4.5 and 9.0 units are installed in a tank or tanks having a primary settling zone and an aerobic biological zone. Solids settle in the primary settling zone that is quiescent. In the aerobic zone, the sewage is continually agitated and aerated. Bacteria in the sewage attach to the surface of a submerged plastic media; they reproduce by consuming the organic material in the sewage.

Conditions of Approval

The term “System” refers to the STU in combination with the other components of an on-site treatment and disposal system that may be required to serve a facility in accordance with 310 CMR 15.000.

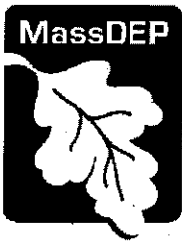
The term “Approval” refers to the technology-specific Special Conditions, the conditions applicable to all STU’s with Remedial Use Approval, the General Conditions of 310 CMR 15.287, and any Attachments.

For Secondary Treatment Units that have been issued Remedial Use Approval for the upgrade or replacement of an existing failed or nonconforming system., the Department authorizes reductions in the effective leaching area (310 CMR 15.242), the depth to groundwater (310 CMR 15.212), and/or the depth of naturally occurring pervious material (310 CMR 15.240(1)) subject to the conditions that apply to all Secondary Treatment Units Approved for Remedial Use and subject to the Special Conditions applicable to the Technology.

Special Conditions

1. The System is Secondary Treatment Unit Approved for Remedial Use. In addition to the Special Conditions contained in this Approval, the System shall comply with all the “Standard Conditions for Secondary Treatment Units Approved for Remedial Use”, except where stated otherwise in these Special Conditions.
2. The System is approved for facilities where the local approving authority finds that:
 - a) there is no increase in the actual or proposed design flow;
 - b) the System is for the upgrade of a failed, failing or nonconforming system; and
 - c) a conventional system with a reserve area, designed in accordance with the standards of 310 CMR 15.100 through 15.255, cannot feasibly be built on-site.

3. The MicroFAST® 0.5, 0.75 and 0.9, HighStrengthFAST® 1.0 and NitriFAST® 0.5, 0.75 and 0.9 are installed in the second compartment of a two-compartment tank with a total liquid capacity of at least 1,500 gallons constructed in accordance with 310 CMR 15.226.
4. The MicroFAST®, HighStrengthFAST® and NitriFAST® 1.5 are installed in the second compartment of a two compartment 3,000-gallon tank constructed in accordance with 310 CMR 15.226.
5. The MicroFAST®, HighStrengthFAST® and NitriFAST® 3.0, 4.5, and 9.0 units are installed in a separate tank constructed in accordance with 310 CMR 15.226. The units are located between a standard Title 5 septic tank, designed in accordance with 310 CMR 15.223 and 15.224, and the soil adsorption system (SAS).
6. Access shall be provided to all tanks in the primary settling and aerobic biological zones in accordance with 310 CMR 15.228 (2). The primary settling tank shall have at least three manholes with readily removable impermeable covers of durable material provided at grade. Two manholes, over the inlet and outlet of the primary settling tank, shall have a minimum opening of 20 inches. All access ports and manhole covers shall be installed and maintained at grade to allow for maintenance of the System.



Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

MODIFIED CERTIFICATION FOR REMEDIAL USE

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Presby Environmental, Inc.
143 Airport Road
Whitefield, NH 03598

Trade name of technology and model: **Presby Enviro-Septic® Leaching System**
(Hereinafter called the "System"). The "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide" including schematic drawings of typical Systems, a technology checklist, and a System Installation Form are part of this Certification.

Transmittal Number: X283867

Date of Issuance: Revised September 26, 2013 Modified October 30, 2019

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental, Protection hereby issues this Certification to: Presby Environmental, Inc., 143 Airport Road, Whitefield, NH 03598 (hereinafter "the Company"), approving the System described herein for General Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

Marybeth Chubb, Section Chief
Wastewater Management Program
Bureau of Resource Protection

October 30, 2019

Date

Technology Description

The System is an alternative subsurface Soil Absorption System (SAS) that replaces a conventional SAS designed in accordance with 310 CMR 15.000. The System consists of an 11 5/8-inch diameter corrugated, high-density plastic pipe with a 9.5-inch interior diameter and a standard length per unit of 10 feet. The pipe is perforated with eight holes equally distributed around its inner circumference at each corrugation. Each hole has a plastic skimmer extending inwards. The exterior of the pipe has ridges on the peak of each corrugation and is wrapped with two layers of fabric material. The inner layer is a thick layer of coarse, randomly oriented polypropylene fibers. The outer fabric layer is a non-woven geotextile polypropylene. The System includes required connectors designed to connect pipe units together. The System also includes sand surrounding the pipe units, specified as concrete sand meeting the ASTM C-33 specification, also called System Sand. The System Sand must be placed with a minimum of (6") six inches below, (3") three inches above and (6") six inches to the sides of the pipe units.

Conditions of Approval

The term "System" refers to the Alternative Soil Absorption System in combination with the other components of an on-site treatment and disposal system that may be required to serve a facility in accordance with 310 CMR 15.000.

The term "Approval" refers to the technology-specific Special Conditions, the Standard Conditions for General and Remedial Use Approval of Alternative Soil Absorption Systems (the 'Standard Conditions'), the General Conditions of 310 CMR 15.287, and any Attachments.

For Alternative Soil Absorption Systems that have been issued Remedial Use Approval for the installation of Systems to serve facilities where the site meets the requirements for new construction, the Department authorizes reduction in the effective leaching area (310 CMR 15.242), subject to the applicable portions of the Standard Conditions, and subject to the below Special Conditions applicable to this Alternative Technology.

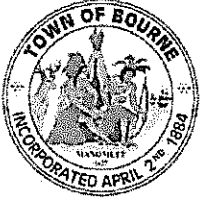
Special Conditions

1. The System is an approved Patented Sand Filter System for use as an Alternative Soil Absorption System. In addition to the Special Conditions contained in this Approval, the System shall comply all *Standard Conditions for Alternative Soil Absorption Systems* found here: <https://www.mass.gov/doc/standard-conditions-for-alternative-soil-absorption-systems-with-general-use-certification> except where stated otherwise in these Special Conditions.
2. This Approval applies to the installation of a System for the upgrade or replacement of an existing failed or nonconforming system, provided that the facility meets the siting requirements for upgrades, as provided in II(7) and II(9) of the Standard

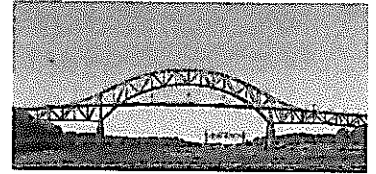
Conditions. For the upgrade or replacement of an existing failed or nonconforming system, all installed Systems shall also comply with the Notice requirement of paragraph II(23) and the transferee notification requirements of paragraph IV(1) of the Standard Conditions. The proposed use of the System shall also comply with any other Standard Conditions which pertain wholly or in part to upgrades of existing systems.

3. Alternative Design Standards – Provided that the Designer demonstrates that the impact of the proposed Alternative System has been considered and the design requirements of 310 CMR 15.000 have been varied to the least degree necessary so as allow for both the best feasible upgrade within the borders of the lot and the least degree effect on public health, safety, welfare and the environment, the local approving authority may allow any combination of the following alternative design standards without the need for granting a variance under 310 CMR 15.400 or obtaining Department approval:
 - a) If a reduction in the depth of groundwater required by 310 CMR 15.212 is necessary, the depth to groundwater may be reduced by up to 2 feet, resulting in a minimum separation distance of two feet in soils with a recorded percolation rate of more than two minutes per inch and three feet in soils with a recorded percolation rate of two minutes or less per inch, measured from the bottom of the soil absorption system to the high groundwater elevation, only if;
 - i. An approved Soil Evaluator who is a member or agent of the local Approving Authority determines the high groundwater elevation;
 - ii. No reduction is granted under LUA for setbacks from public or private wells, bordering vegetated wetlands, surface waters, salts marshes, coastal banks, certified vernal pools, water supply lines, surface waters supplies or tributaries to surface water supplies, or drains which discharge to surface water supplies or their tributaries, is allowed; and
 - iii. In accordance with 310 CMR 15.212(2), for systems with a design flow of 2,000 gpd or greater, the separation to high groundwater as required by 310 CMR 15.212(1) shall be calculated after adding the effect of groundwater mounding to the high groundwater elevation as determined pursuant to 310 CMR 15.103(3).
 - b) If a reduction in depth of naturally occurring pervious material layer is necessary, a proposed reduction of up to 2 feet may be allowed in the four feet of naturally pervious material layer required by 310 CMR 15.240(1) provided that it has been demonstrated that no greater depth in naturally occurring pervious material can be met anywhere on the site.

4. In no case, shall the reductions in the effective leaching area, depth to groundwater, and depth of naturally occurring pervious material allowed under this Approval be made less stringent. Any reductions in the effective leaching area, depth to groundwater, and depth of naturally occurring pervious material allowed under this Approval shall not be combined with any reduction that may be allowed the procedures of Local Upgrade Approval or the variance procedures of 310 CMR 15.401-413. The Local Approving Authority may vary other design requirements under the LÚA provisions of 310 CMR 15.405 or under the variance procedures of 310 CMR 15.411.
5. The System shall only be installed in bed or field configuration, as described in 310 CMR 15.252. The System shall not be installed in trench configuration and no sidewall area shall be considered in the total effective leaching area provided. The effective leaching area shall be the bottom area only (length times width) of the sand bed.
6. Systems shall be installed with differential venting for aeration and inspection access at end of each run of pipe, section or serial bed and whenever the System is installed under impervious surfaces.
7. Serial distribution laterals shall be limited to no more than 500 gpd with each lateral a maximum of 100 feet, and must be laid level. Multi-level systems shall not be allowed.
8. The Enviro-Septic proprietary product (ES) will be sized at a minimum of seventy (70) linear feet per bedroom (lf/br) and will not exceed 100 feet in length.
9. System component material specifications for the pipe, plastic components, fabric and sand shall comply with the specifications identified in the initial Enviro-Septic I/A technology approval.
10. Prior approval from the Department for any change from these specifications shall be requested in writing.
11. Any changes to the approved plans must receive prior Local Approving Authority (LAA) approval. Before a Certificate of Compliance can be issued by the LAA the System Designer must include any changes to the approved plan into the as-built plans.
12. Design, installation and operation shall be in strict conformance with the Company's DEP approved plans and specifications of Enviro-Septic Wastewater Treatment System Massachusetts Design and Installation Manual Copyright September 2019, Presby Environmental, Inc., 310 CMR 15.000 and this Approval.



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



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

Rui Pereira, MAA
Director of Assessing

September 10, 2021

Edward & Peri Jacobs
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Re: Abutters List for Map 19.2 Parcel 131
Subject Property: 60 Arlington Drive

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 19 Parcel 1; Map 19.2 Parcels 130 & 132.

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: 1 Abutters List
Database: LIVE
Filter: Key IN 3439,3441,3302
Sort:

Report #24: Owner Listing Report
Fiscal Year 2022

Bourne MA

Key	Parcel ID	Owner	Location	LC/CI	Bk-Pg(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
3302	19.0-1-0	JACOBS EDWARD G ETALS IAN DAVIES REV TRUST	0 ARLINGTON DR	N 1060	34300/93 7/16/2021	60 ARLINGTON DR	BUZZARDS BAY	MA	02532
3439	19.2-130-0	PRINCIOTTA BARBARA J - TR BUTTERMILK BAY REALTY TRUST	54 ARLINGTON DR	N 1010	30458/338 5/2/2017	54 ARLINGTON DR	BUZZARDS BAY	MA	02532
3441	19.2-132-0	NASHAWATY BRENDA J TR BRENDA NASHAWATY TRUST	64 ARLINGTON DR	N 1010	27885/348 12/16/2013	64 ARLINGTON DR	BUZZARDS BAY	MA	02532

Total Records 3

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

September 29, 2021

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 **Edward and Peri Jacoubs** have requested a hearing before the Bourne Board of Health for the installation of an upgraded Septic System. The location of the property for which approval is sought is **60 Arlington Drive (Map 19.2, Parcel 131), Buzzards Bay.**

This hearing is tentatively scheduled for Wednesday, October 13th at 5:00 p.m. 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.

Town hall is now open to the public, and the meetings will now be held in person. 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', is written over a horizontal line.

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

7020 3160 0000 4324 8884

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Return Receipt Fee: \$ 3.05
Total Postage & Fees: \$ 7.33



Postage

Barbara J. Princiotta, Trustee
Buttermilk Bay Realty Trust
54 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

PS Form 3800, April 2013 PSN 753002 00000000 See Reverse for Instructions

7020 3160 0000 4324 8891

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Return Receipt Fee: \$ 3.05
Total Postage & Fees: \$ 7.33



Brenda J. Nashawaty, Trustee
Brenda Nashawaty Trust
64 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

PS Form 3800, April 2013 PSN 753002 00000000 See Reverse for Instructions

7020 3160 0000 4324 8877

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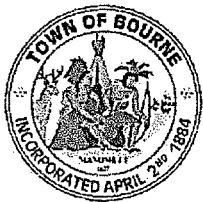
OFFICIAL USE

Postage: \$.53
Certified Fee: \$ 3.75
Return Receipt Fee: \$ 3.05
Total Postage & Fees: \$ 7.33

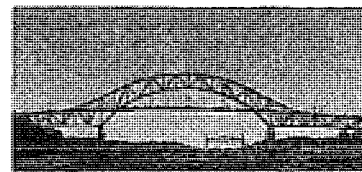


Edward G. Jacobs, et als
Ian Davies Rev Trust
60 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

PS Form 3800, April 2013 PSN 753002 00000000 See Reverse for Instructions



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

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

December 21, 2021

Edward & Peri Jacoubs
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Re: Abutters List for Map 19.2 Parcel 131
Subject Property: 60 Arlington Drive

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See enclosed for abutters mailing addresses.

Board of Assessors

Ellen Doyle Sullivan -
Donna Barakauskas
Michael Leitzel

Extract: 1 Abutters List
 Database: LIVE
 Filter: Key IN 19849,3439,3441
 Sort:

Report #24: Owner Listing Report
 Fiscal Year 2023

Bourne MA

Key	Parcel ID	Owner	Location	LCV/CI	Bk-Pa(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
19649	19.0-2-0	DAVIES IAN & EDWARD JACOUBS TRS JACOUBS FAMILY TRUST	9 ARLINGTON DR	N 1300	31467/306 8/16/2018	60 ARLINGTON DR	BUZZARDS BAY	MA	02532
3439	19.2-130-0	PRINCIOTTA BARBARA J - TR BUTTERMILK BAY REALTY TRUST	54 ARLINGTON DR	N 1010	30458/338 5/2/2017	54 ARLINGTON DR	BUZZARDS BAY	MA	02532
3441	19.2-132-0	NASHAWATY BRENDA J TR BRENDA NASHAWATY TRUST	64 ARLINGTON DR	N 1010	27885/348 12/16/2013	64 ARLINGTON DR	BUZZARDS BAY	MA	02532

Total Records 3

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

December 21, 2021

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 **Edward and Peri Jacobs** have requested a hearing before the Bourne Board of Health for the installation of an upgraded Septic System. The location of the property for which approval is sought is **60 Arlington Drive (Map 19.2, Parcel 131), Buzzards Bay.**

This hearing is tentatively scheduled for Wednesday, January 12, 2022 at 5:00 p.m. 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.

Town hall is now open to the public, and the meetings will now be held in person. 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

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Barbara J. Princiotta, Trustee
Buttermilk Bay Realty Trust
54 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

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

7020 3160 0000 4324 6309

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Brenda J. Nashawaty, Trustee
Brenda Nashawaty Trust
64 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

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

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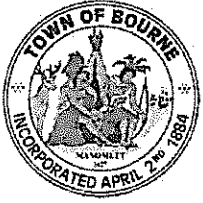
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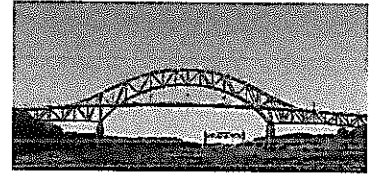
Ian Davies & Edward Jacobs, TR
Jacobs Family Trust
60 Arlington Drive
Buzzards Bay, MA 02532
60 Arlington Drive, Bourne - BOH

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

7020 3160 0000 4324 6293



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



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

Rui Pereira, MAA
Director of Assessing

January 20, 2022

Edward & Peri Jacoubs
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Re: Abutters List for Map 19.2 Parcel 131
Subject Property: 60 Arlington Drive

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 19 Parcel 1; Map 19.2 Parcels 130 & 132.

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: 1, Abutters List
Database: LIVE
Filter: Key IN 3302,3439,3441
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
3302	19.0-1-0	JACOBS EDWARD G ETALS IAN DAVIES REV TRUST	0 ARLINGTON DR	N 1060	34300/93 7/16/2021	60 ARLINGTON DR	BUZZARDS BAY	MA	02532
3439	19.2-130-0	PRINCIOTTA BARBARA J - TR BUTTERMILK BAY REALTY TRUST	54 ARLINGTON DR	N 1010	30458/338 5/2/2017	54 ARLINGTON DR	BUZZARDS BAY	MA	02532
3441	19.2-132-0	NASHAWATY BRENDA J TR BRENDA NASHAWATY TRUST	64 ARLINGTON DR	N 1010	27885/348 12/16/2013	64 ARLINGTON DR	BUZZARDS BAY	MA	02532

Total Records 3

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

January 20, 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 **Edward and Peri Jacoubs** have 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 **60 Arlington Drive (Map 19.2, Parcel 131), Buzzards Bay** where you are listed as an abutter. At said hearing the Board will discuss and possibly vote on:

- **A variance to local setback requirements is requested for a 10'± reduction in setback for a 140'± setback to Buttermilk Bay (Mean High Water).**
- **A variance to local setback requirements is requested for a 72'± reduction in setback for a 78'± setback to a Coastal Bank per D.E.P. Policy 92-1.**

This hearing is tentatively scheduled for Wednesday, February 9, 2022 at **5:30 p.m. via ZOOM** and public comment will be limited to remote access during the meeting. 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 5414

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Edward G. Jacobs, etals
 Ian Davies Rev Trust
 60 Arlington Drive
 Buzzards Bay, MA 02532
 60 Arlington Drive, Bourne - BOH

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



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Barbara J. Princiotta, Trustee
 Buttermilk Bay Realty Trust
 54 Arlington Drive
 Buzzards Bay, MA 02532
 60 Arlington Drive, Bourne - BOH

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



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Brenda J. Nashawaty, Trustee
 Brenda Nashawaty Trust
 64 Arlington Drive
 Buzzards Bay, MA 02532
 60 Arlington Drive, Bourne - BOH

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



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

February 8, 2022

Email: [health@townofbourne.com]

Town of Bourne
Board of Health
24 Perry Avenue
Bourne, MA 02532

**Re: Variance and Local Upgrade Approval
60 Arlington Drive
Map 19.2 – Parcel 131**

Dear Members of the Board:

On behalf of the homeowners/applicants, Edward and Peri Jacoubs, Bracken Engineering, Inc., respectfully request a continuance of the hearing for the above identified project until the first meeting in March 2022, due to a scheduling conflict

Thank you for your time and consideration of this matter. Should you have any questions or require any further information regarding this project please call our office at 508-833-0070 or email the undersigned at zac@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.
Project Manager

