

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 4, 2023

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

RECEIVED

By Bourne Health Department at 8:53 am, Dec 05, 2023

**RE: Request for Variance Extension
31 Tahanto Road (Map 38.3 Parcel 276)**

Dear Ms. Guarino:

On behalf of our client, Ann and William Murray, Bracken Engineering, Inc. (BEI) is cordially requesting an extension to the approved Variance Decision dated October 18, 2021 and revised October 19, 2022. Per the request of the Board from the November public hearing enclosed you will find 6 copies of the architectural floor plan, recorded Board of Health Approval Bk 35549, Pg 201, Recorded Title 5 Bedroom Deed Restriction Bk 35281, Pg 205, IA DEED Notice Bk 35281, Pg 202, updated Nitrogen Loading Calculations based on the Town's new form and a copy of our proposed Site Plan dated 9/16/2022, *revised* 12/1/2023, prepared by Bracken Engineering, Inc.

Approved Variances:

- 100 foot variance from the Local BOH 150 foot setback regulation for a setback of 50 feet from the proposed S.A.S. to the coastal bank.
- A 5 foot variance from full compliance for a setback of 5 feet from the proposed SAS to the property line, 310 CMR 15.405
- A 2 foot variance to the required 5 foot separation between maximum seasonal high ground water and the bottom of the S.A.S.

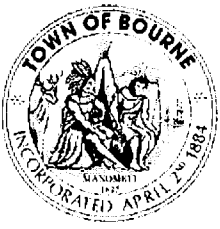
The applicants have been issued a Building Permit (B23-238) on August 25, 2023 and construction has begun. The Disposal Works permit had not yet been picked up before the expiration date. Should you require any further information prior to the December 13th hearing, please contact our office at 508-833-0070 or email the undersigned at zac@brackeneng.com.

Sincerely,

BRACKEN ENGINEERING, INC.

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

Zachary L. Basinski, PE, CFM.
Senior Project Manager



Terri A. Guarino
Health Agent

TOWN OF BOURNE BOARD OF HEALTH

24 Perry Avenue
Buzzards Bay, MA 02532
www.townofbourne.com/health
Phone (508) 759-0600 ext. 1513
Fax (508) 759-0679



Bk 35549 Pg201 #62090
12-19-2022 @ 10:45a

October 19, 2022

Zachary L. Basinski, PE, CFM
Bracken Engineering, Inc.
49 Herring Pond Rd
Buzzards Bay, MA 02532

Dear Mr. Basinski,

Ann Murray & William G. Murray, DEED Bk 34152, Page 52

On October 13, 2021, at the duly posted public meeting, the Bourne Board of Health discussed and approved the request for relief from the Bourne Board of Health 150 Foot Setback Regulation and Title 5 of the State Environmental Code: 310 CMR 15.000, for the upgrade of a sewage disposal system at 31 Tahanto Road, Pocasset, MA. The Board of Health approved the following variances and waivers, based on the plans of record dated September 17, 2021 by Engineering Works, Inc.:

- A 100 foot variance from the local Bourne Board of Health 150 Foot Setback Regulation for a setback of 50 feet from the proposed S.A.S to the coastal bank.
- A 5 foot variance from full compliance for a setback of 5 feet from the proposed S.A.S to the property line, 310 CMR 15.405.
- A 2 foot variance to the required 5 foot separation between maximum seasonal high groundwater and the bottom of the S.A.S.
- A reduction to the requirement of 12 inch separation between the inlet and outlet tees of the MicroFAST tank and pump chamber and high groundwater.

These variances are valid for two years from the date of original approval and were contingent upon an alternative septic disclosure notice, a two bedroom deed restriction, and a copy of this letter being recorded with the Registry of Deeds, and acknowledgement of the additional notes on the plan as modified at the meeting and signed off by Peter McEntee of Engineering Works, Inc..

A field change consisting of shifting the proposed dwelling requiring a slight modification to the house and septic layout was submitted to the Health Department on October 7, 2022 Bracken Engineering, Inc.. The proposed field revision provided no change to the approved variances. Revised architectural received October 18, 2022 of the dwelling opened up a 4 foot cased opening to a 6 foot cased opening in the proposed office, maintaining the two bedroom deed restriction required by the Board.

With these changes, the proposal meets all Bourne Board of Health conditions and requirements from the original approval on October 13, 2021. The revised site plan dated September 16, 2022 by Bracken Engineering, Inc. for the above mentioned property is administratively approved. Should you have any questions, please do not hesitate to contact me at 508-759-0600 ext. 1513. Thank you.

Sincerely,

Kaitlyn Shea
Assistant Health Agent

GRANT OF TITLE 5 BEDROOM COUNT DEED RESTRICTION

This Grant of Title 5 Bedroom Count Deed Restriction is made as of June 30, 2022 by Ann Murray and William G. Murray ("Grantors"), of Norwood, Norfolk County, Massachusetts, pursuant to M.G.L. c. 21A, §13 and 310 CMR 15.000 (collectively, "Title 5").

Bk 35281 Pg 205 #38724
08-01-2022 @ 10:33a

WITNESSETH

WHEREAS, Ann Murray and William G. Murray, being the owner(s) in fee simple of 31 Tahanto Rd, that certain parcel of land located in Bourne, Barnstable County, Massachusetts, pursuant to a deed from John F. Stackpole, Trustee, R.H. Whiting, C.E. to Grantor, dated June 14, 1922, and recorded with Barnstable County Registry of Deeds in Book 34152, Page 52, said parcel(s) of land being more particularly bounded and described in Exhibit A, attached hereto and made a part hereof, and being shown on a plan entitled, "Plan of Tahanto, Bennett's Neck, Pocasset, John F. Stackpole, Trustee, R.H. Whiting, C.E.", dated June 14, 2022, recorded with Barnstable County Registry of Deeds as LOT No. 8, in Plan Book 9 page 127 ("Property"); and

WHEREAS, Grantor desires to restrict the number of bedrooms, as the term bedroom is defined at 310 CMR 15.002 ("Bedroom") and the Board of Health regulation dated effective April 24, 1992 regarding bedroom definition, through the granting of this Title 5 Bedroom Count Deed Restriction;

NOW, THEREFORE, Grantor does hereby GRANT to the Town of Bourne of Barnstable County, Massachusetts, a municipal corporation located in Barnstable County, having a mailing address of 24 Perry Avenue, Buzzards Bay, Massachusetts, and acting by and through its Board of Health ("Local Approving Authority"), for nominal and nonmonetary consideration, the sufficiency and receipt of which are hereby acknowledged, with QUITCLAIM COVENANTS, a TITLE 5 BEDROOM COUNT DEED RESTRICTION ("Restriction") in, on, upon, through, over and under the Property.

Said Restriction operates to restrict the Property as follows:

1. Restriction. Grantor hereby restricts the total number of Bedrooms in, on, upon, through, over and under the Property to **2 Bedrooms**, such that at no time shall there exist more than **2 Bedrooms** in, on, upon, through, over and under said Property.

2. Severability. Grantor hereby agrees that, in the event that a court or other tribunal determines that any provision of this instrument is invalid or unenforceable:

- (i) That such provision shall be deemed automatically modified to conform to the requirements for validity and enforceability as determined by such court or tribunal; or
- (ii) That any such provision, by its nature, cannot be so modified, shall be deemed deleted from this instrument as though it had never been included herein.

In either case, the remaining provisions of this instrument shall remain in full force and effect.

3. Enforcement. Grantor expressly acknowledges that a violation of the terms of this Restriction could result in the following:

- (i) upon determination by a court of competent jurisdiction, in the issuance of criminal and civil penalties, and/or equitable remedies, including, but not limited to, injunctive relief, such injunctive relief could include the issuance of an order to modify or remove any improvements constructed upon the Property in violation of the terms of this Restriction; and

(ii) in the initiation of an enforcement action and/or assessment of penalties by the Bourne Board of Health and/or the Massachusetts Department of Environmental Protection, a duly constituted agency with a principal office located at One Winter Street, Boston, MA 02108 (DEP), to enforce the terms of this Restriction pursuant to Title 5; M.G.L. c.111, §§ 2C, 17, 31, 122, 123, 125, 127A-O, inclusive, and 129; and M.G.L. c. 83, §11.

4. Provisions to Run with the Land. The rights, liabilities, agreements and obligations created under this Restriction shall run with the Property and any portion thereof for the term of this Restriction. Grantor hereby covenants for [himself/herself/itself] and [his/her/its] executors, administrators, heirs, successors and assigns, to stand seized and to hold title to the Property and any portion thereof subject to this Restriction.

The rights granted to the Bourne Board of Health, its successors and assigns, do not provide, however, that a violation of this Restriction shall result in a forfeiture or reversion of Grantor's title to the Property.

5. Concurrence Presumed. It is agreed that:

(i) Grantor and all parties claiming by, through, or under Grantor agree to and shall be subject to the Provisions of this Restriction; and

(ii) Grantor and all parties claiming by, through, or under Grantor, and their respective agents, contractors, sub-contractors and employees, agree that the Restriction herein established shall be adhered to and shall not be violated, and that their respective interests in the Property shall be subject to the provisions herein set forth.

6. Incorporation into Deeds, Mortgages, Leases, and Instruments of Transfer. Grantor hereby agrees to incorporate this Restriction, in full or by reference, into all deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer by which an interest and/or a right to use the Property, or any portion thereof, is conveyed.

7. Recordation. Grantor shall record and/or register this Restriction with the appropriate Registry of Deeds and/or Land Registration Office within 30 days of receiving the approved Restriction from the Local Approving Authority. Grantor shall file with the Bourne Board of Health and the DEP a certified Registry copy of this Restriction as recorded and/or registered within 30 days of its date of recordation and/or registration.

8. Amendment and Release. This Restriction may be amended only upon the approval and acceptance of such amendment by the Local Approving Authority. Release of this Restriction shall be granted by the Local Approving Authority upon (i) Grantor's request of such release; and (ii) the Property being connected to a municipal sewer system and the septic system serving the Property being abandoned in accordance with 310 CMR 15.354. Any such amendment or release shall be recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office and a certified Registry copy of said amendment or release shall be filed with the Bourne Board of Health and the DEP within 30 days of its date of recordation and/or registration.

9. Term. This Restriction shall run in perpetuity and is intended to conform to M.G.L. c.184, §26, as amended.

10. Rights Reserved. This Restriction is granted to the Bourne Board of Health. It is expressly agreed that acceptance of this Restriction by the Bourne Board of Health shall not operate to bar, diminish, or in any way affect any legal or equitable right of the Bourne Board of Health or of DEP to issue any future order with respect to the Property or in any way affect any other claim, action, suit, cause of action, or demand which

the Bourne Board of Health or DEP may have with respect thereto. Nor shall acceptance of the Restriction serve to impose any obligations, liabilities, or any other duties upon the Bourne Board of Health.

11. **Effective Date.** This Restriction shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

12. No construction permits shall be issued for the Property until a certified Registry copy is submitted to the office of the Bourne Board of Health unless written approval is otherwise granted by the Board of Health.

WITNESS the execution hereof under seal this 25 day of July, 2022.

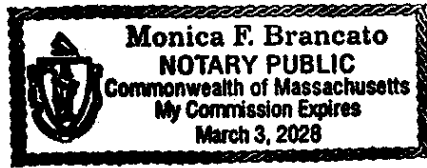
Ann M. Murray
Grantor

COMMONWEALTH OF MASSACHUSETTS

Norfolk, ss July 25, 2022

Then personally appeared the above-named _____ [Grantor's Name] Ann M. Murray and acknowledged the foregoing instrument to be _____ [his/her] free act and deed before me.

Monica Brancato
Notary Public:
My commission expires: March 3, 2028



Approved and Accepted By:
T. Guarino
Terri Guarino, RS, CHO
Health Director
Town of Bourne

Date: 6/30/2022

Notice of Alternative Sewage Disposal System

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

[This Notice to be recorded and/or filed for registration in the chain of title of the Property served by an Alternative Sewage Disposal System ("Alternative System").]

NAME(S) OF OWNER OF PROPERTY SERVED BY ALTERNATIVE SYSTEM: ANN MURRAY & WILLIAM G. MURRAY

ADDRESS OF PROPERTY SERVED BY ALTERNATIVE SYSTEM: 31 TAHANTO ROAD, POCASSET, MA

TITLE REFERENCE FOR PROPERTY SERVED BY ALTERNATIVE SYSTEM [check and complete each that applies]:

Deed recorded with the Barnstable County Registry of Deeds in Book 34152, Page 52

Certificate of Title No. _____ issued by the Land Registration Office of the Barnstable County Registry District

Source of title other than by deed _____

[If Alternative System Owner(s) is other than Property Owner(s), complete the following:]

Alternative System Owner Name: _____

Alternative System Owner Address: _____

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, 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 local Approving Authority [;]" 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. 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: MicroFAST
Manufacturer Name: Bio-Microbics, Inc.
Model number(s): 0.5

In conjunction with

Trade name of technology: Geoflow Dispersal System
Manufacturer Name: Geoflow, Inc.
Model number(s): WASTEFLOW CLASSIC WF16-4-24

2. Approval/Certification-MicroFAST. On June 16, 2006 (modified January 3, 2008), Revised November 5, 2012, the Department, pursuant to its authority under the section of Title 5 as specified below, approved or certified, with modification, the technology used in the above-referenced alternative system, under MassDEP Transmittal Number W 072367.

[Check one of the following, as applicable:]
 Approved for remedial use under 310 CMR 15.284
 Approved for piloting under 310 CMR 15.285
 Provisionally approved under 310 CMR 15.286
 Certified for general use under 310 CMR 15.288

Approval/Certification-Geoflow. On June 22, 2011 (Revised March 20, 2015), modified November 8, 2018 (changed ownership), 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 W032585.

[Check one of the following, as applicable:]
 Approved for remedial use under 310 CMR 15.284
 Approved for piloting under 310 CMR 15.285
 Provisionally approved under 310 CMR 15.286
 Certified for general use under 310 CMR 15.288

A copy of the Department's Approval/Certification is available from the Department in person or on-line at the Department's website: <http://www.mass.gov/dep>.

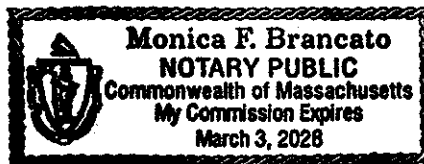
WITNESS the execution hereof under seal this 25 day of July, 2022 made by the above-named Alternative System Owner(s).

Ann M Murray, William G Murray
[Alternative System Owner(s)]
Print Name(s): Ann M Murray, William G MURRAY

Norfolk, ss COMMONWEALTH OF MASSACHUSETTS

On this 25 day of July, 2022, before me, the undersigned notary public, personally appeared Ann Murray and William G. Murray proved to me through satisfactory evidence of identification, which were MAOL, to be the persons whose name is signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily, for its stated purpose.

Monica Brancato
(Official signature and seal of notary)



Approved and Accepted By:

J. Guarino
Agent of the Board of Health
Health Department
Town of Bourne

Date: 6/30/22



Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf

Facility Address: 31 Tahanto Road
 Preparer's Name: Bracken Engineering, Inc.
 Date: 12/1/2023
 Watershed: Pocasset River

Project Nitrogen Load

Proposed Wastewater

1. Project Title-5 wastewater flows: gpd (a)
 Actual wastewater flows: * (b)
 Average wastewater flows: gpd (a)+(b) ÷ 2= (A)
 * Title-5 flows prescribed by TB91-001 for commercial uses

Place in applicable box:

Yes No
 Will the project be connected to sewer?
 Is project Title-5 wastewater flow 10,000 gpd or greater?

Place in applicable box and multiply unsewered wastewater flow by applicable conversion factor:

<input type="checkbox"/>	Standard Title-5 System (35-ppm-N)	x	0.048359	} Type of system: <input type="text" value=""/> MictoFAST
<input type="checkbox"/>	DEP-approved I/A System (25-ppm-N)	x	0.034542	
<input checked="" type="checkbox"/>	DEP-approved I/A System (19-ppm-N)	x	0.026252	
<input type="checkbox"/>	DEP-approved Enhanced I/A (12-ppm-N)	x	0.016580	

Wastewater nitrogen load (Title-5 flows) = kg-N/yr (B)
 Wastewater nitrogen load (Actual flows) = kg-N/yr (C)

Existing Conditions

Calculate (A') through (P') as w/ (A) through (P):

Title-5 wastewater flows: gpd
 Actual wastewater flows: *
 Avg. wastewater flows: gpd (A')

Place in applicable box:

Yes No
 Is existing development on sewer?
 (If 'Yes', then go to line 2.)

Standard Title-5 System
 DEP-approved I/A System (commercial)
 DEP-approved I/A System (residential)
 DEP-approved enhanced I/A

kg-N/yr (B')
 kg-N/yr (C')
 wastewater offsets

Stormwater Runoff

Town of Bourne Recharge rate for Bourne (inches; for natural areas from Technical Bulletin 91-001): (RECH)

Project site area: acres (D)
 Project site wetland area: acres (E)
 Project site upland area: acres (F)
 Pervious unpaved upland: acres (G)

% using LID Paved area: s.f. (H)
 Factor may be adjusted for employment of LID → x 1.4158E-04 = kg-N/yr (I)
 LID = low impact development

Roof area: s.f. (J)
 x 7.0792E-05 = kg-N/yr (K)

Project site area: acres (D)
 Project site wetland area: acres (E)
 Project site upland area: acres (F)
 Pervious unpaved upland: acres (G')

Paved area: s.f. (H')
 Paving runoff offset: kg-N/yr (I')
 Roof area: s.f. (J')
 Roof runoff offset: kg-N/yr (K')

Fertilizer

Previous unpaved upland - roof area =
 Managed turf/ lawn area s.f.
 x 3.4019E-04 = kg-N/yr (L)

Managed Turf/ lawn area: s.f.
 Fertilizer offset: kg-N/yr (L')



Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf

Facility Address: 31 Tahanto Road
Preparer's Name: Bracken Engineering, Inc.
Date: 12/1/2023
Watershed: Pocasset River

Total Nitrogen Load			
Total project nitrogen load (Title-5 flows):	<input type="text" value="7.43"/>	kg-N/yr	(M) = (B)+(I)+(K)+(L)
Total project nitrogen load (Actual flows):	<input type="text" value="6.25"/>	kg-N/yr	(N) = (C)+(I)+(K)+(L)
Nitrogen load per acre (Average):	<input type="text" value="50.59"/>	kg-N/yr/acre	(O) = (M)+(N) ÷ 2 ÷ (F)
Existing nitrogen load (Title-5 flows):	<input type="text" value="12.11"/>	kg-N/yr	(M')
Existing nitrogen load (Actual flows):	<input type="text" value="9.93"/>	kg-N/yr	(N')
Nitrogen offset per acre:	<input type="text" value="81.51"/>	kg-N/yr/acre	(O')

Proposed Nitrogen Loading Concentration				Existing nitrogen loading concentrations:			
Project nitrogen loading concentration (Title-5 flows):	<input type="text" value="11.32"/>	ppm-N	(P) = $(a) \div 723.76 + (G) \times (\text{RECH}) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75$	Title-5 flows	<input type="text" value="18.03"/>	ppm-N	(P')
Project nitrogen loading concentration (Actual flows):	<input type="text" value="10.52"/>	ppm-N	(Q) = $(b) \div 723.76 + (G) \times (\text{RECH}) \div 9.7286 + (H) \div 10,594 + (K) \div 0.75$	Actual flows	<input type="text" value="16.30"/>	ppm-N	(Q')
Project nitrogen loading concentration (Average):	<input type="text" value="10.92"/>	ppm-N	(R) = (P)+(Q) ÷ 2	Average	<input type="text" value="17.17"/>	ppm-N	(R')

Resource/ Impact Based Criteria

Marine Water Recharge Areas / Coastal Embayments

2. Yes No Is the project located in any of the following watersheds: **Buttermilk Bay Basins, Phinneys Harbor / Back River / Eel Pond, Pocasset River Basin, Pocasset Harbor / Hen Cove / Red Brook Harbor, Megansett / Squeteague Harbors**** ?
(If 'No', then go to line 3.)

Name of Watershed
(from Regional Policy Plan Data Viewer): Pocasset River Watershed

Critical Nitrogen-loading limit** : kg-N/year/acre (S)

Yes No Does project's nitrogen load (O) exceed the existing load (O') AND the critical nitrogen load (S) ?
(If 'No', then go to line 3.)

Excess project nitrogen load to be mitigated: kg-N/yr (T) = LESSER OF (O)-(S) x(F) AND (O)-(O') x(F)

** When a nitrogen-loading limit has been determined through either a Total Maximum Daily Load (TMDL), a Massachusetts Estuaries Project-accepted technical report, or specified by a Commission-approved comprehensive wastewater management plan pursuant to Objective WR3, or if impaired water quality has been documented for the receiving coastal waters, the nitrogen loading limit shall be 0 kg-N/yr per acre pursuant to Objective WR3.

Groundwater Quality

3. Yes No Does the project's nitrogen loading concentration in groundwater (R) exceed the greater of **5 ppm** or the existing concentration (R') ?
(If 'Yes', the project will need to provide an alternative strategy for meeting these thresholds by using another worksheet)

Potential Public Water Supply Areas

4. Yes No Is project in a Potential Public Water Supply Area (PPWSA) ?
(If 'No', then go to line 5.)

Yes No Does the project's nitrogen loading concentration (R) exceed the greater of **1 ppm** or the existing concentration (R') ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)



Town of Bourne - Water Resources Nitrogen Loading and Mitigation Worksheet

See Cape Cod Commission Technical Bulletin 91-001 for further details: https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/regulatory/NitrogenLoadTechbulletin.pdf

Facility Address: 31 Tahanto Road
Preparer's Name: Bracken Engineering, Inc.
Date: 12/1/2023
Watershed: Pocasset River

Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Wellhead Protection Areas

5. **Yes** **No**
 Is project in a Wellhead Protection Area (WHPA) ?

Does the project's nitrogen loading concentration (**R**) exceed the greater of **5 ppm** or the existing concentration (**R'**) ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Does the project use, treat, generate, store or dispose of hazardous materials in excess of the greater of a) household quantities or b) existing quantities ?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR1)

Fresh Water Recharge Areas

6. **Yes** **No**
 Is project wastewater disposed of within 300 feet of a stream or fresh surface water body?
(If 'No', then go to line 7.)

Is the project located in a freshwater recharge area (FWRA) hydraulically upgradient of a stream or fresh surface water body?
(If 'Yes', the project must provide an alternative strategy for meeting Objective WR2)

Other Potential Impacts

7. **Yes** **No**
 Will the project withdraw more than 20,000 gallons of water per day ?
(If 'Yes', then the project must provide documentation demonstrating that there will not be significant impacts to water levels, surface waters and wetlands)

8. **The project must demonstrate compliance with Objective WR4, including use of Low Impact Development to mitigate impacts of stormwater runoff and O & M plans for maintaining stormwater infrastructure and landscaping.**

REFER TO 2015 IRC
& 9TH EDITION MASSACHUSETTS CODE

GENERAL NOTES:

WORK

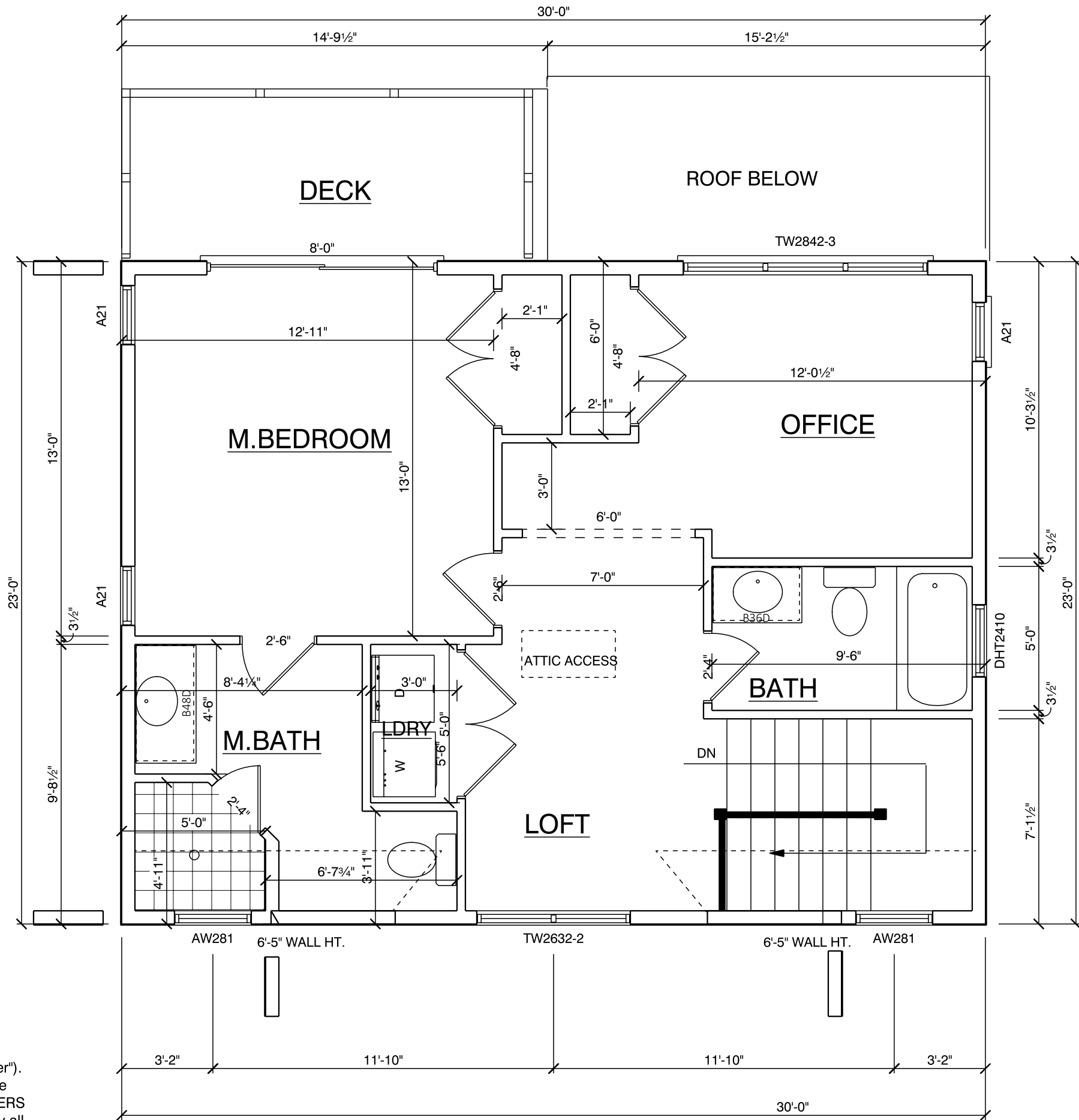
A. 1.1 OWNERS agree that said plans are conceptual and provisional only and may be subject to approval of execution by a General Contractor, Engineer, other professionals and/or subject to approval and permits by OWNER'S local city/town agencies. OWNER understands that Plans are subject to change as work progresses and Designs by SPB is not liable for pre-existing, unknown or unanticipated issues related to construction and/or execution of the Plans. Designs by SPB is not liable for any cost related to such matters and/or changes to execution of Plans or construction.

1.2 OWNERS further understand that Designs by SPB is a design specialist and is not a registered architect. OWNERS agree to have all Plans reviewed and approved by OWNER or its agent or general contractor or construction contractor prior to performance of construction. Designs by SPB shall not be liable for costs should the scope of work, construction or Plans require changes, revisions, or amendments. Designs by SPB strongly recommends that Plans used by OWNERS in conjunction with professionals, including but not limited to, licensed construction professionals, general contractor, and engineer. Should OWNER fail to use Plans in conjunction with the recommended professionals, OWNER understands and assumes all risk regarding the execution of such Plans.

CHANGE ORDERS

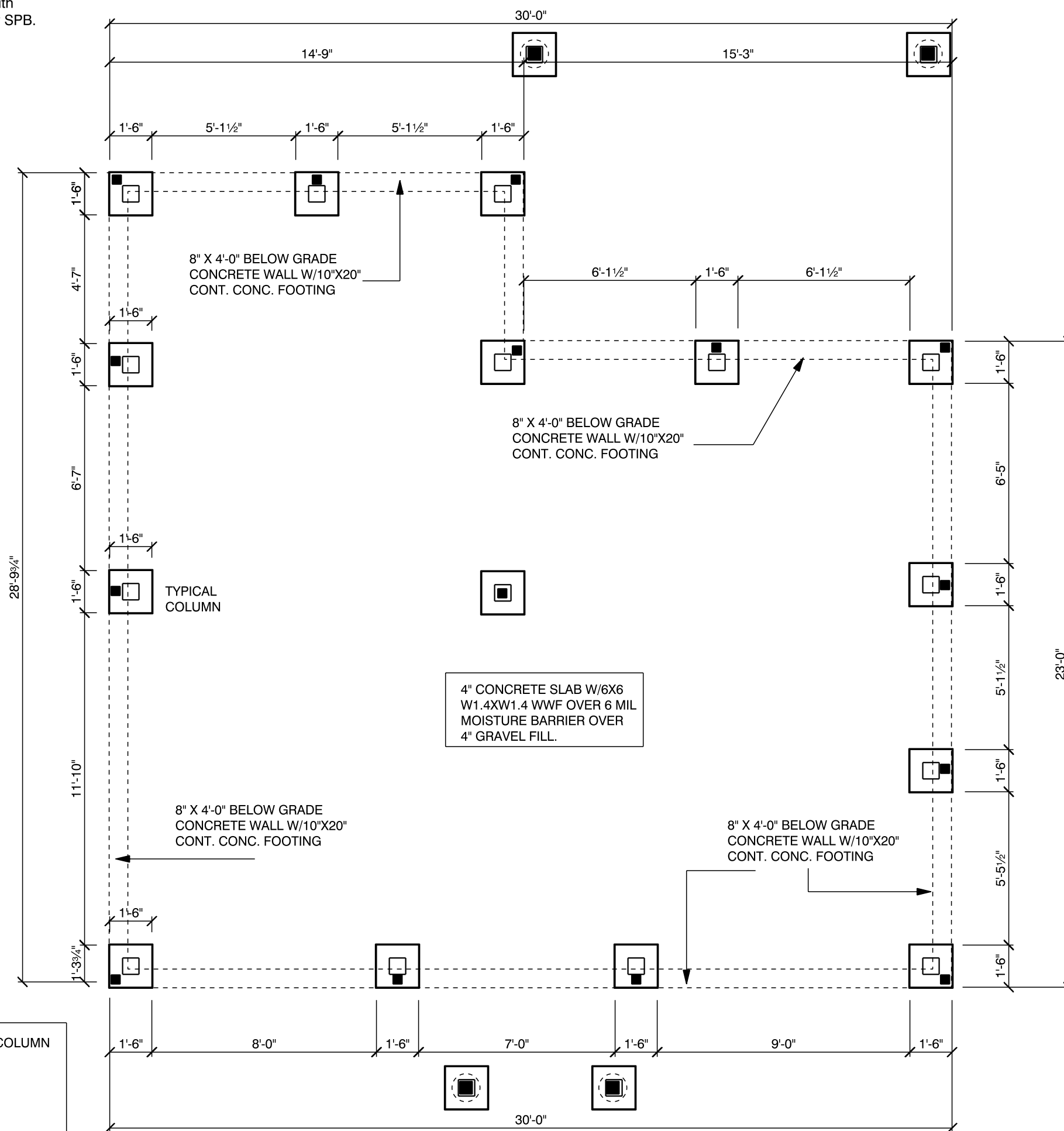
2.1 All changes and deviations in the Plans, including cost, credit or debt, must be set forth in a Change Order agreed upon and signed by the OWNERS and Designs by SPB (hereinafter called "Change Order"). A Change Order concerning any portion of the Plan must be in advance of the performance of that specific portion of the work and at the OWNERS expense, if any, shall be paid at the time the Change Order is signed by all parties.

2.2 OWNERS understand that additional expenses may be incurred in excess of the amount of the estimated original cost due to hidden or unknown contingencies, changes, permits, or the like that may occur during the process, preparation and/or performance of construction. In the event that such hidden, unknown contingencies or changes shall arise requiring revised Plans or design changes, Designs by SPB and OWNERS shall execute a Change Order with respect to the same in advance of the performance of work by Designs by SPB.



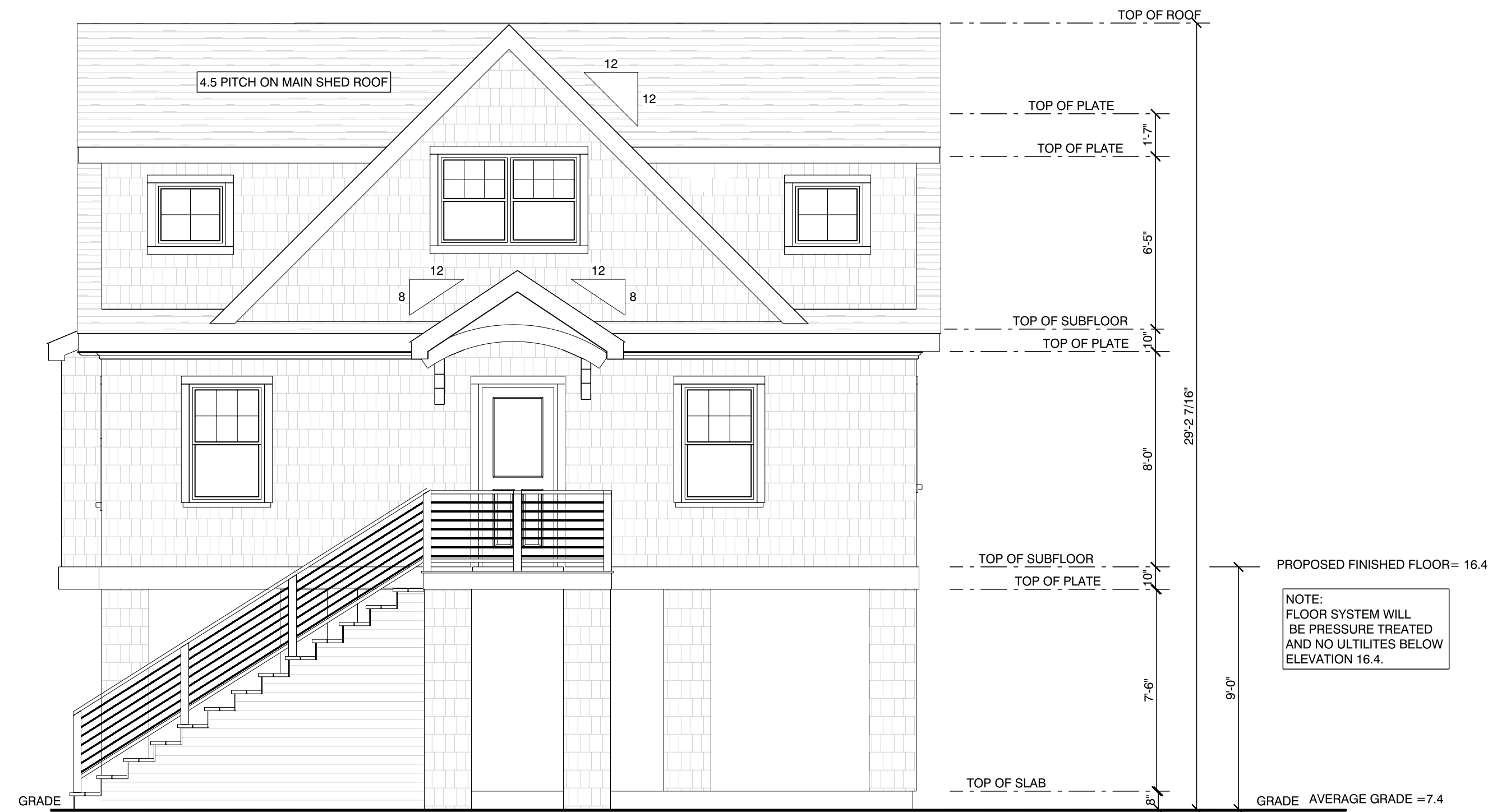
SECOND FLOOR LAYOUT

690 SQUARE FEET

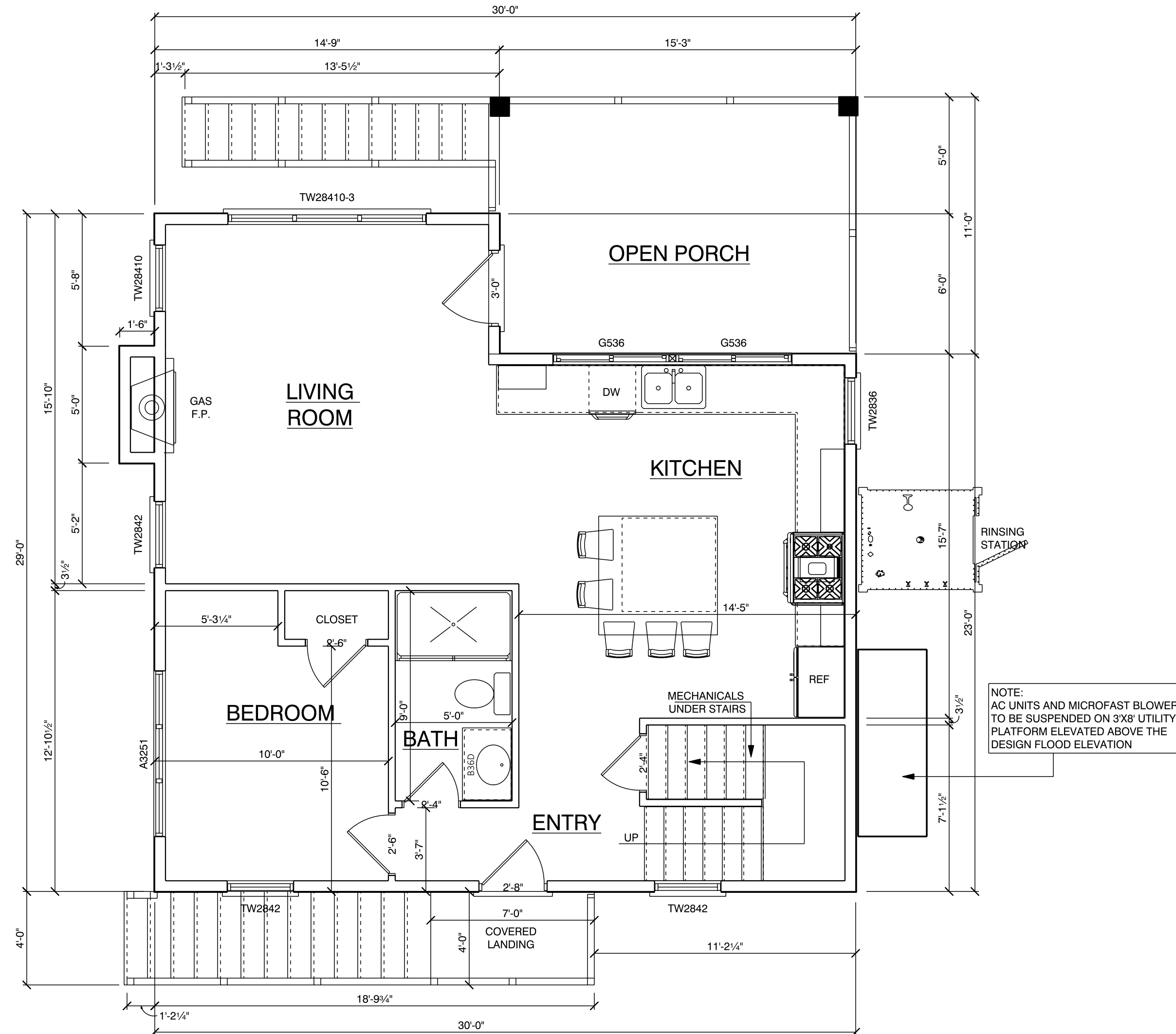


LOWER LEVEL LAYOUT

- = 4X4 STRUCTURAL STEEL TUBE COLUMN
- = 6X6 P.T. POSTS W/B/C6 CAPS
12\"/>



PROPOSED FRONT ELEVATION



PROPOSED FIRST FLOOR LAYOUT

779 SQUARE FEET

DESIGNS BY SPB
shawspb@gmail.com
capecodhomedesignplans.com

DESIGNS BY SPB
RESIDENTIAL/COMMERCIAL
DESIGN & CONSULTING
POCASSETT, MA.
(508) 495-2881

CUSTOM HOME DESIGN
MURRAY RESIDENCE
31 TAHANTO RD.
BOURNE, MA.

PLAN DATE: 9-12-22
DRAWN BY: SPB
REVISIONS:

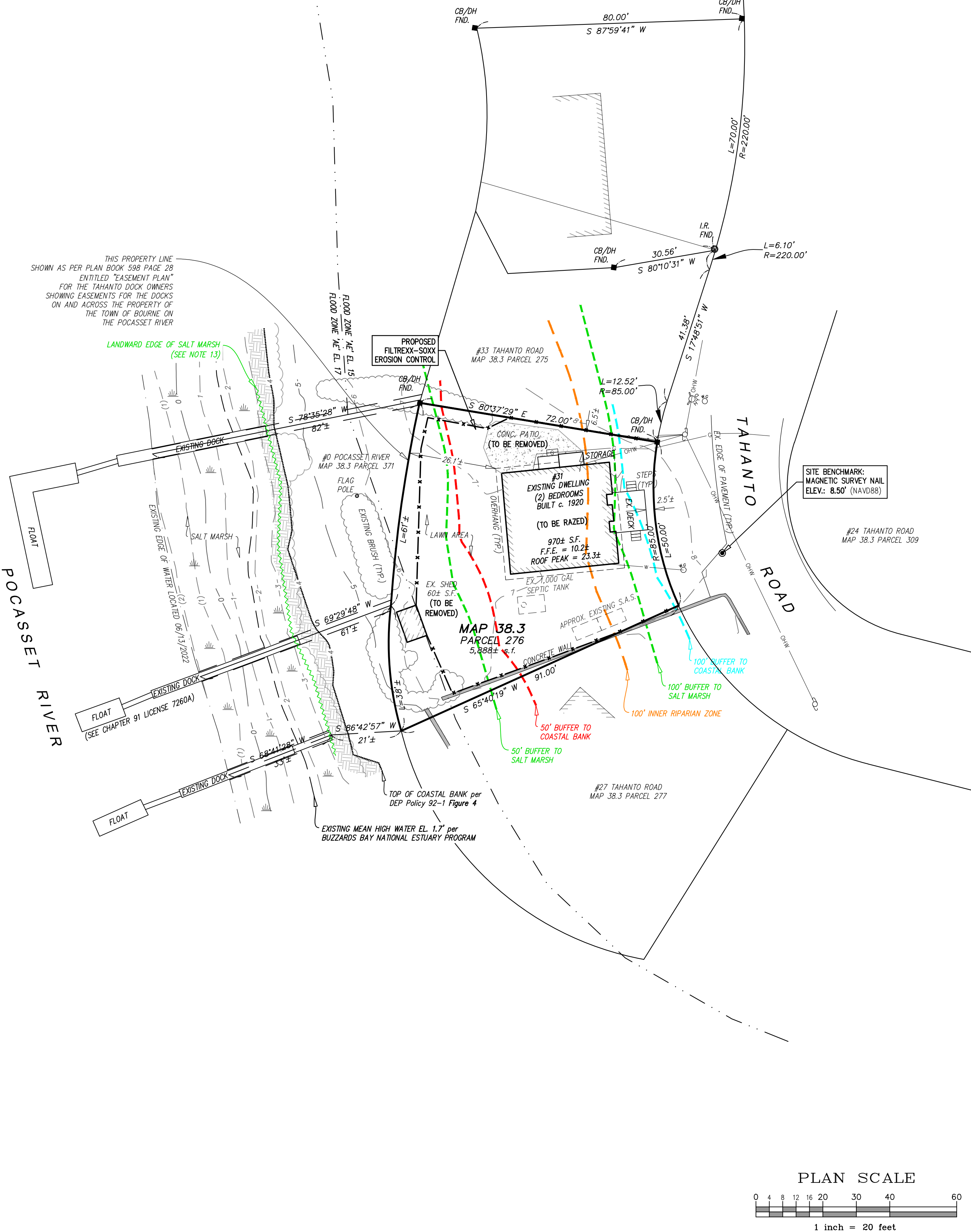
SCALE: 1/4" = 1'-0"
UNLESS NOTED

A1

EXISTING CONDITIONS & DEMOLITION

(SCALE 1" = 20')

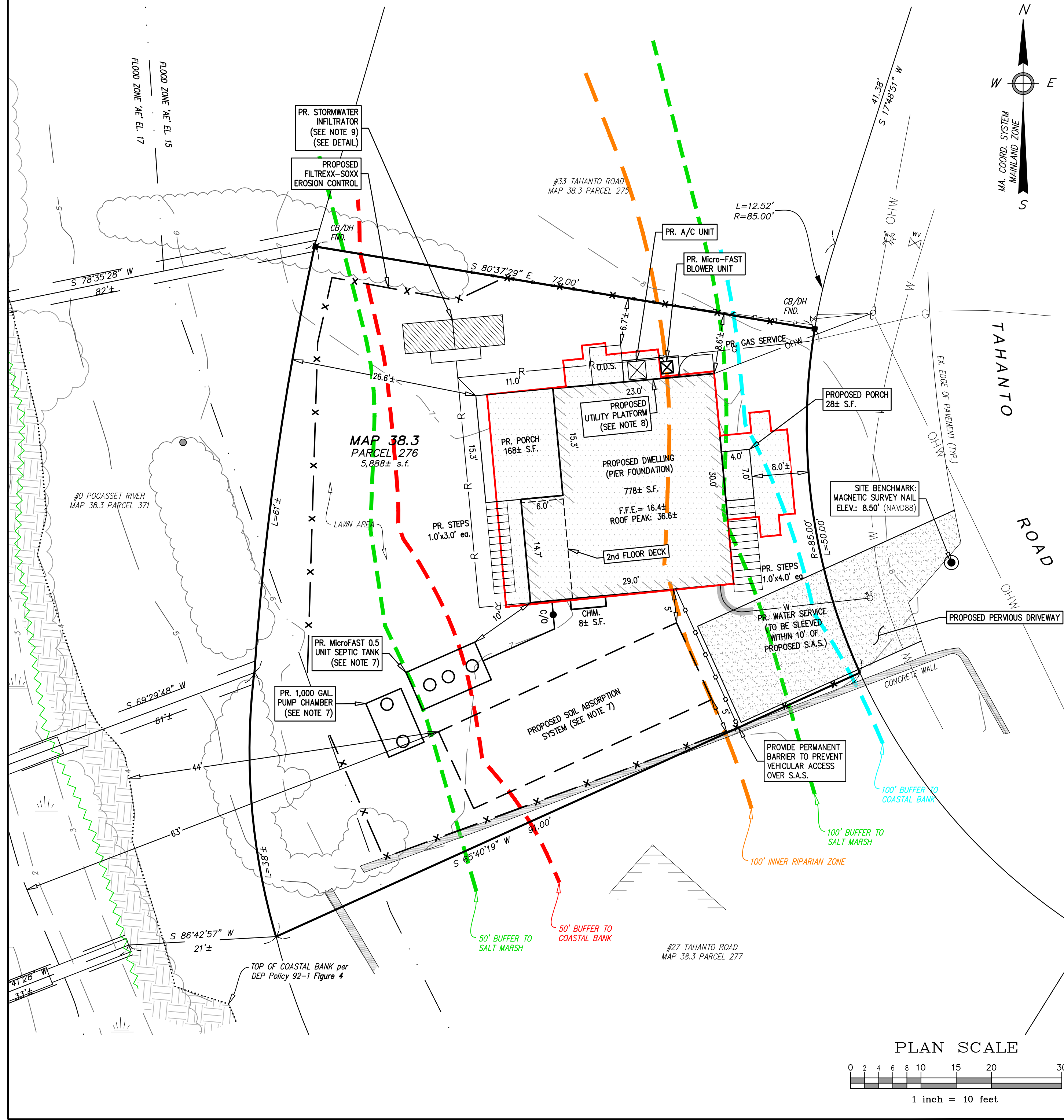
MA. COORD. SYSTEM
MAINLAND ZONE
DETERMINED USING A
CARLSON BRV-7 GPS RTK UNIT
COLLECTION DATE 06/13/2022



PLAN SCALE
1 inch = 20 feet

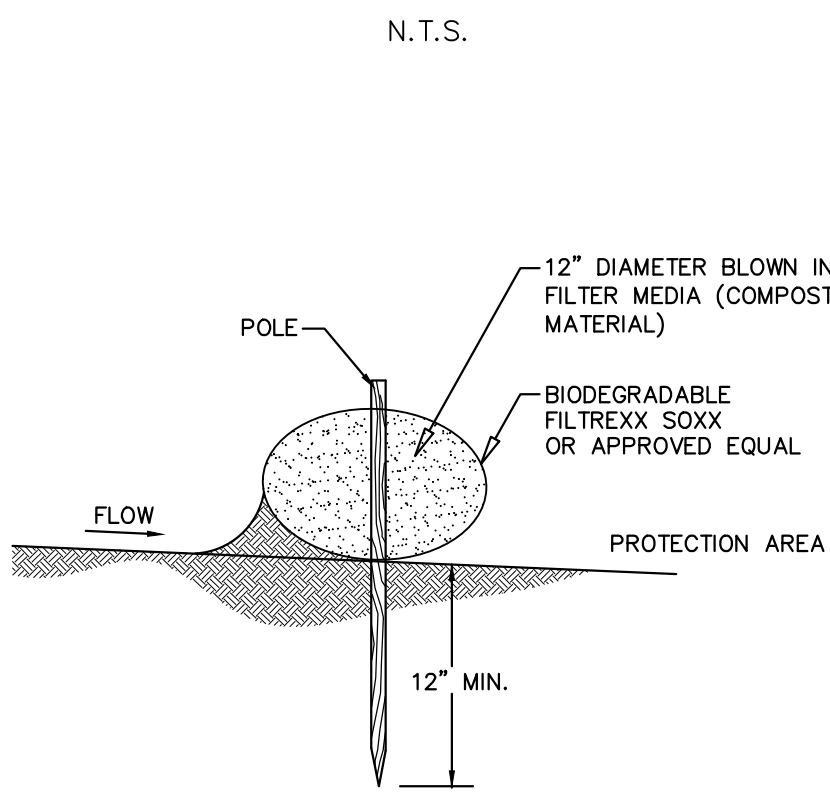
PROPOSED CONDITIONS

(SCALE 1" = 10')



PLAN SCALE
1 inch = 10 feet

FILTREX SOXX BARRIER DETAIL



ZONING REQUIREMENTS

ZONE: R-40
PRE-EXISTING NON-CONFORMING (a)
SEE TABLE 2456 FOR NON-CONFORMING LOTS IN BOURNE ZONING BY LAWS.

ZONE: R-40	REQUIRED	EXISTING	PROPOSED
LOT AREA:	40,000 s.f.	5,888± s.f.	5,888± s.f.
FRONT YARD:	20'	2.5'±	8.0'±
SIDE YARD:	12'	6.5'±	6.7'±
REAR YARD:	12'	26.1'±	26.6'±
MAX. GROSS FLOOR AREA TO LOT AREA:	25% (MAX) (1,472 s.f.)	21.5% (1,278 s.f.)	24.9% (1,488 s.f.)
LOT COVERAGE:	25% (MAX) (1,472 s.f.)	17.9% (1,039 s.f.)	19.1% (1,124 s.f.)
BUILDING HEIGHT:	25' (MAX)	15.9'± (b)(c)	29.2'± (b)(c)

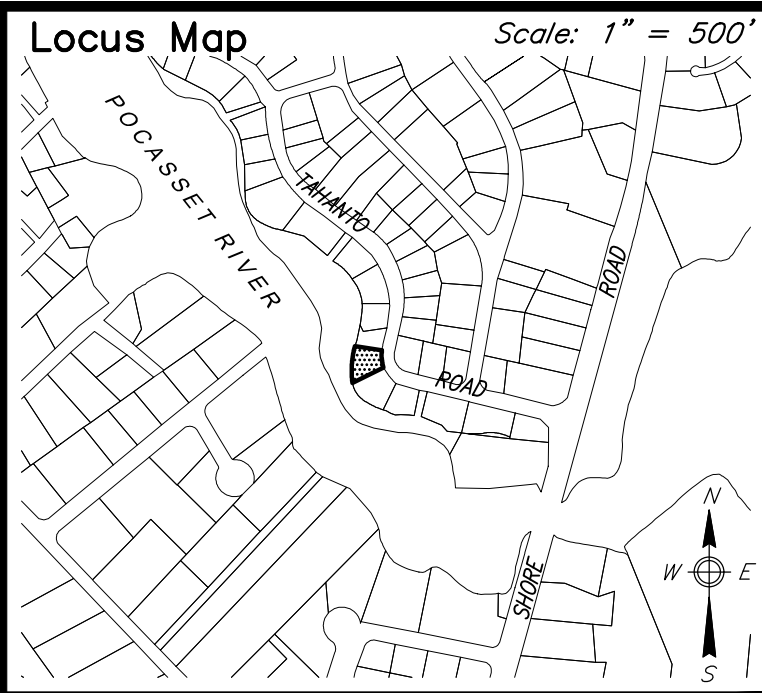
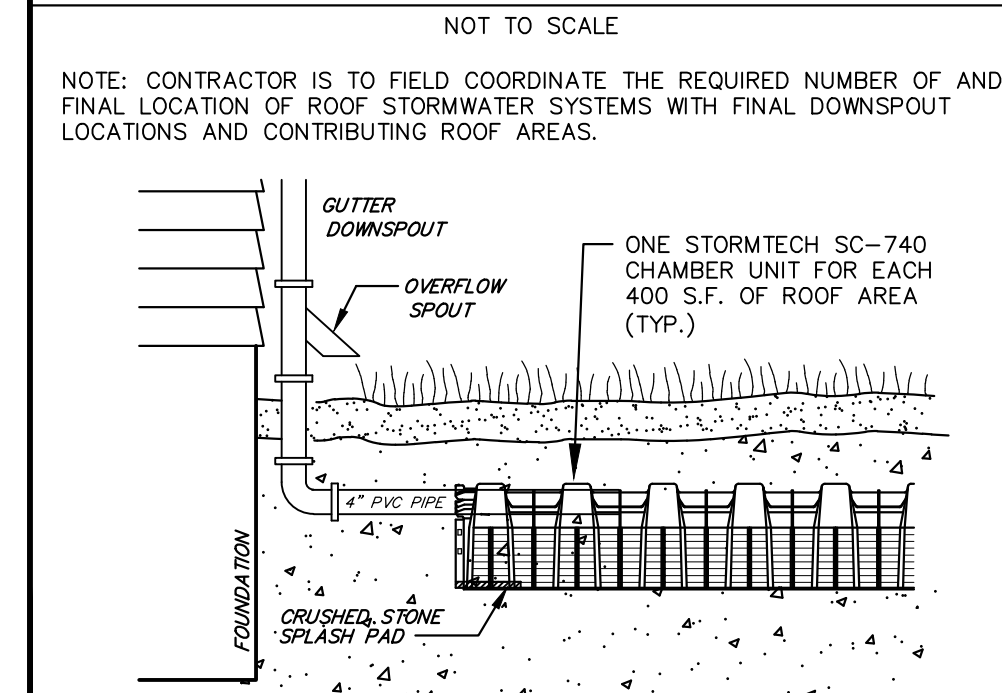
Notes:
(a) SEE TABLE 2456 FOR NON-CONFORMING LOTS IN BOURNE ZONING BY LAWS.
(b) EX. BUILDING HEIGHT BASED ON AN AVG. EX. GRADE OF 7.4
(c) INCREASE ALLOWABLE BY FIVE FEET FOR ROOF ELEMENTS HAVING A SLOPE OF 4° OR MORE PER FOOT.

RIVERFRONT AREAS SUMMARY

RIVERFRONT AREA	EXISTING DISTURBANCE	PROPOSED DISTURBANCE	EXISTING STRUCTURE	PROPOSED STRUCTURE	CHANGE
100'	4,387 S.F.	4,387 S.F.	859 S.F.	794 S.F.	-64 S.F.

NOTE- ALL PROPOSED STRUCTURES TO BE LOCATED WITHIN EXISTING DISTURBED AREAS

ROOF RUNOFF INFILTRATORS



Notes

- LOCUS: #31 TAHANTO ROAD MAP 38.3 PARCEL 276
- OWNER: ANN MURRAY WILLIAM G. MURRAY 24 CANTERBURY DRIVE NORWOOD, MA 02052
- DEED REF: Deed Bk: 34152 Pg: 52
- PLAN REF: Plan Bk: 9 Pg: 127 (LOT 8) Plan Bk: 350 Pg: 45-2170) Plan Bk: 598 Pg: 28
- LOCUS DOES FALL WITHIN A SPECIAL FLOOD HAZARD ZONE AE (EL. 15) & AE (EL. 17) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C-0503-J dated 07/16/2014.
- LOCUS DOES NOT FALL WITHIN THE NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP) AREAS OF ESTIMATED HABITATS OF RARE WILDLIFE AND PRIORITY HABITATS OF RARE SPECIES.
- SEE PLAN BY ENGINEERING WORKS, INC. "PROPOSED SEPTIC SYSTEM UPGRADE PLAN" dated 9/17/21 AND STAMPED BY PETER T. MCENTEE, P.E. FOR PROPOSED SEPTIC PLAN.
- ALL UTILITIES ARE TO BE INSTALLED ABOVE DESIGN FLOOD ELEVATION (DFE) EL. 16.0 (NAVD88).
- ALL DOWN SPOUTS ARE TO BE CONNECTED TO PROPOSED DRY-VELLS. CONTRACTOR TO FIELD COORDINATE FINAL LOCATIONS.
- SEE ORDER OF CONDITIONS RECORDED IN DEED Bk: 34854 Pg: 171 (DEP FILE #SE7-2170) FOR PROPOSED SOIL ABSORPTION SYSTEM.
- SEE NOTICE OF ALTERNATIVE SEWAGE DISPOSAL SYSTEM RECORDED IN DEED Bk: 35281 Pg: 202.
- SEE TITLE 5 BEDROOM COUNT DEED RESTRICTION RECORDED AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS IN Bk: 35549 Pg: 201.
- SEE TOWN OF BOURNE BOARD OF HEALTH DECISION RECORDED AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS IN Bk: 35549 Pg: 201.
- OFF LOCUS LIMIT OF SALT MARSH DIGITIZED FROM PLAN BY ENGINEERING WORKS, INC. "PROPOSED SEPTIC SYSTEM UPGRADE PLAN" dated 9/17/21.

ALAN M. GRADY
REGISTERED PROFESSIONAL ENGINEER
No. 57732

JACHARY L. BASINSKI
REGISTERED PROFESSIONAL ENGINEER
No. 47787

Prepared By:

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 (fax) 508.325.0044
www.brackeneng.com

PROPOSED SITE PLAN
IN BOURNE, MA
Prepared For:
**ANN MURRAY
WILLIAM G. MURRAY**
#31 TAHANTO ROAD
MAP 38.3 PARCEL 276

No.	Date	Revision Description	By
2	12/1/23	MISC. REVISIONS FOR B.O.H.	JPH
1	9/30/22	ADD SALT MARSH BUFFER ZONES	JPH

Date: SEPTEMBER 16, 2022 Drawn: JPH/BEI Checked: ZLB/AMG Sheet: 1 of 1