



TOWN OF TRURO Conservation Commission

PUBLIC MEETING AGENDA Monday, August 7, 2023 Meeting start time 5:00 pm



Remote Meeting Access Instructions

This will be a remote meeting. Citizens can view the meeting on Channel 18 in Truro and on the Town's web site on the "Truro TV Channel 18" button under "Helpful Links" on the homepage. Once the meeting has started, click on the green "Watch" button in the upper right of the page. **To provide comment during the meeting, please call-in toll free at 1 877 309 2073 and enter the following access code when prompted: 464-567-165#** To join this meeting from your computer, tablet or smartphone: <https://global.gotomeeting.com/join/464567165> Please note that there may be a slight delay (15-30 seconds) between the meeting and the live-stream (and television broadcast). If you are watching the meeting and calling in, please lower the volume on your computer or television during public comment so that you may be heard clearly. We ask that you identify yourself when calling in; citizens may also provide public comment for this meeting by emailing the Conservation Agent at ebecbe@truro-ma.gov with your comments.

I. Discussion on proposed storm water general bylaw.

- II. **PUBLIC HEARINGS:** The Truro Conservation Commission holds the following public hearings in accordance with the provisions of MGL Ch. 131, s. 40, the Wetlands Protection Act and the Truro Conservation Bylaw, Chapter 8:
- 1. Notice of Intent: 0 Pamet Harbor, Town of Truro (SE#75-1178):** erosion control; Barrier Beach, Coastal Dunes, Coastal Beaches, Land Subject to Coastal Storm Flowage (Map 49, Parcel 16) *continues from 7/3/2023*
 - 2. Notice of Intent: 544 Shore Road, Beach Townhomes Condominium Trust (SE#75-1171):** install bulkhead; Barrier Beach, Coastal Beach, Coastal Dune, Land Subject to Coastal Storm Flowage (Map 7, Parcel 5) *continued from 7/3/2023*
 - 3. Notice of Intent: 49 Fisher Rd, Douglas Ambrose (SE#75-1183):** reconfiguration of stairs and landings; Coastal Dunes, Land Subject to Coastal Storm Flowage (Map 53, Parcel 24)
 - 4. Notice of Intent: 379 Shore Rd (Cottage B), Charles Silva (SE#75-):** demo existing 3-bedroom cottage, construct 2-bedroom dwelling on existing foundation & add leaching pit in driveway; Barrier Beach, Coastal Dune, Land Subject to Coastal Storm Flowage (Map 10, Parcel 10)
 - 5. Notice of Intent: 522 Shore Rd Unit 9, Eric & Julie Ann Shapiro (SE#75-):** lift house, install pile foundation; Barrier Beach, Coastal Dunes, Land Subject to Coastal Storm Flowage (Map 7, Parcel 8.9)
 - 6. Notice of Intent: 8 Great Hills Rd, Bruce & Joanne Sullivan (SE# 75-1182):** addition of decks, rinse station & landscaping; Coastal Dune (Map 53, Parcel 11)
 - 7. Request for Determination of Applicability: 19 Knowles Heights Rd, The E. Hope Macewen Trust c/o William & Beverly Larkin:** abandon existing cesspool and upgrade septic system to I/A; Coastal Bank (Map 24, Parcel 14)
 - 8. Request for Determination of Applicability: 13 & 15 Toms Hill Rd, Joann Hollander:** abandon cesspool and upgrade septic system; Coastal Bank (Map 49, Parcel 2 & 5)

9. **Request For Determination of Applicability: 12 Pilgrims Path, Laura Anello:**

Small addition above existing deck (Map 35, Parcel 111)

10. **Request For Determination of Applicability: 38 Toms Hill Rd, Tina Ryman:** septic system upgrade; Coastal Bank (Map 49, Parcel 14)

11. **Request For Determination of Applicability: 5 Valentina's Way, Estate of Marguerite Yannetty:** Septic system upgrade: Buffer Zone to Ryder Pond (Map 60, Parcel 23)

12. **Request For Determination of Applicability: 11 Truro Center Rd #1, Sarah Hamlett:** 1:1 replacement of driveway: Riverfront Area (Map 51, Parcel 10)

13. **Request For Determination of Applicability: 7 Amity Lane, Irene Selver:**

Septic system upgrade with I/A: Riverfront Area, Bordering Vegetated Wetland, Coastal Bank & Land Subject to Coastal Storm Flowage (Map 46, Parcel 18)

14. **Notice of Intent: 525 Shore Rd Unit 7, Paul & Cheryl Silvernail (SE#75-1180):** After-the-fact filling; construction of retaining wall & creation of lawn: Barrier Beach, Coastal Dune, Land Subject to Coastal Storm Flowage (Map 6, Parcel 5.7) *continued from 7/3/2023*

15. **Field Change: 8 Castle Road, Louise Briggs; (SE#75-1105):** 1:1 replacement of south stairs and stringers: Riverfront Area (Map 50, Parcel 145)

III. **ADMINISTRATIVE MATTERS**

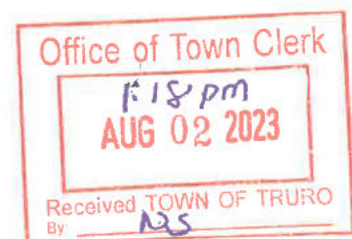
16. **Certificate of Compliance:** (1) 33 Cooper Rd, SE# 75-1137; (2) 14 & 20 Truro Center Rd, SE# 75-0889;

17. **Administrative Reviews:** (1) 4 Riverview Rd: cutting underbrush along pathway; (2) 655 Shore Rd, Unit 657: replace split rail fence

18. **Minutes:**

Site visits: Commissioners will meet at Town Hall on Monday, August 7, 2023, at 10:00 AM and proceed to:

- | | |
|---------------------------|----------------------------|
| 1.) 11 Truro Center Rd #1 | 10.) 19 Knowles Heights Rd |
| 2.) 0 Pamet Harbor | 11.) 379 Shore Rd |
| 3.) 49 Fisher Rd | 12.) 522 Shore Rd |
| 4.) 8 Great Hills Rd | 13.) 525 Shore Rd |
| 5.) 5 Valentina's Way | |
| 6.) 13 & 15 Toms Hill Rd | |
| 7.) 38 Toms Hill Rd | |
| 8.) 7 Amity Ln | |
| 9.) 12 Pilgrims Path | |





TOWN OF TRURO

PROPOSED GENERAL BYLAW:

STORMWATER MANAGEMENT by DRAINAGE, EROSION AND SEDIMENT CONTROL

[HISTORY: Proposed as Draft to TBoH 1-17-2023]

[*draft version:* **July 1, 2023**]

§ 1. Purpose

The purpose of this bylaw is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements to control the adverse effects of stormwater runoff and erosion. Through proper management of stormwater, sediment and erosion controls this bylaw safeguards the public health, safety, environment and general welfare of the public. This bylaw serves to protect surface water and groundwater resources, promote groundwater recharge and prevent flooding.

§ 2. Applicability

The requirements of this bylaw shall apply to existing development, new development, and redevelopment projects to minimize adverse impacts of erosion and stormwater runoff, off-site and downstream, which would be borne by abutters, townspeople, the general public and wetland resource areas. The Select Board may delegate from time-to-time certain duties described in this bylaw to designees who will act on its behalf for the purposes of enforcement.

§ 3. Definitions

New Development: development resulting from the conversion of previously undeveloped land or agricultural land uses.

Nutrient Pollution Sensitive: Nutrient pollution is the process where too many nutrients, mainly nitrogen and phosphorus, are added to bodies of water and can act like fertilizer, causing excessive growth of algae. This process is also known as eutrophication. Excessive amounts of nutrients can lead to more serious problems such as low levels of oxygen dissolved in the water. Severe algal growth blocks light that is needed for plants, such as seagrasses, to grow. When the algae and seagrass die, they decay. In the process of decay, the oxygen in the water is used up and this leads to low levels of dissolved oxygen in the water. This, in turn, can kill fish, crabs, oysters, and other aquatic animals.

Recharge: hydrologic process where water moves downward from surface water to groundwater.

Redevelopment: the action or process of developing something again or differently.

Runoff: the draining away of water (or substances carried in it) from the surface of an area of land, a building or structure.

Storm, 50-year: 6.60 inches of rain will fall in a certain area in a 24-hour period during any given year.

Stormwater: surface water in abnormal quantity resulting from heavy falls of rain or snow.

§ 4. Drainage requirements

- a. **Runoff.** All runoff from impervious surfaces of a lot shall be recharged on that lot. Runoff shall be diverted towards areas covered with vegetation for surface infiltration.
- b. **Stormwater.** All stormwater drainage shall be contained on the development site and away from wetland resources. All stormwater shall be treated on site unless there is a public benefit to connecting to another drainage system or allowing stormwater to flow off site. Commercial development shall be required to handle calculated flows from a 25-year storm (change this to 50-year storm?).
- c. **Drains.** In no instance shall roof drains, subsurface drains, or overflow drains of any kind be directed to the public road layout.

§ 5. Erosion and sediment control requirements

- a. **Erosion.** Erosion control provisions shall be designed and executed to prevent erosion or excessive uncontrolled surface water runoff from draining onto any public way, both during and after construction. No grading or clearing of land shall begin until all required erosion control measures are in place and fully constructed. Permanent erosion control measures including but not limited to re-vegetation, retention basins and siltation barriers may be required to ensure stormwater will not discharge onto the public way.
- b. **Sediment control.** The Town may require measures to reduce tracking of sediment from construction vehicles onto the public way. The contractor is required to clean up any sediment inadvertently discharged, through tracking or other means, into the public way or drainage systems. In no case shall sediment be allowed to discharge onto a public way or into public drainage infrastructure.

§ 6. Nutrient Pollution Sensitive Areas

For nutrient pollution sensitive areas, please refer to the Best Management Practices within the Massachusetts Stormwater Handbook, Wetlands regulations, 310 CMR 10.00, and the Water Quality Regulations, 314 CMR 9.00, relating to stormwater.

§ 7. Fines and penalties

Any person violating this chapter shall be punished by a fine of not more than two hundred dollars (\$200.) for each offense and may have their permit revoked. Each day that such offense continues shall constitute a separate offense.

JULY 13, 2023

www.bscgroup.com

Massachusetts Division of Fisheries and Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
Attn: Regulatory Review

**RE: Additional Project Information Memo for Jetty Extension with Coir Envelope System,
Combined MESA Checklist and Notice of Intent Application
Pamet Harbor Entrance Channel, Truro, MA**

Dear Reviewer:

BSC Group, Inc. (BSC) is pleased to submit this memo to provide supplemental information for the combined MESA Checklist and Notice of Intent (NOI) application on behalf of The Town of Truro (the Applicant), for the property located along Harbor Bar and adjacent to the northern Pamet Harbor jetty in Truro (the Site).

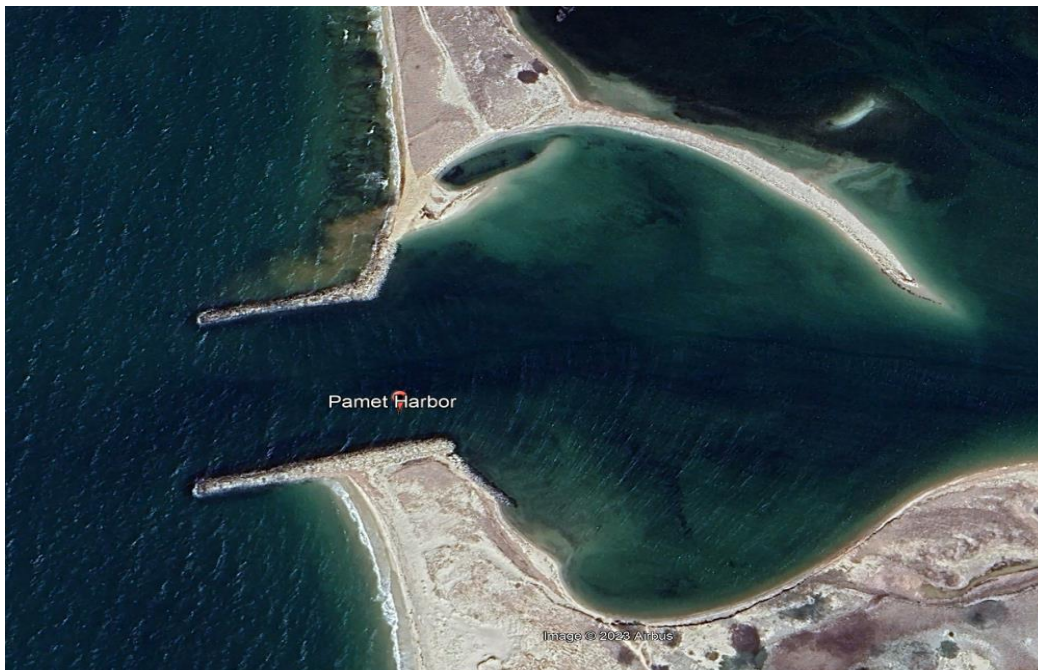
Site History: The Site is subject to highly dynamic coastal events on a regular basis. According to aerial imagery from 1995 it is evident that the entire Site had been washed away and there was no dune remaining in the area of the proposed coir envelope installation. From this brief history, it is evident that the proposed project activities will act to protect both the wildlife habitat and the continuation of the barrier beach and dune system.



Pamet Harbor 1995 (note the water between the groin and the dune)



Pamet Harbor 2010 (after work on the groin and the dune/beach)



Pamet Harbor April 2023

(Current condition indicates a changing shoreline and ineffectiveness of beach nourishment only)

The proposed project at the Site involves the installation of three (3) anchored coir envelopes between the northeastern end of the existing stone jetty (that along with the jetty south of the channel) acts to preserve the channel into Pamet Harbor) and the eroding southern face of coastal dune. The purpose of this project is to protect the channel to the extent possible and establish a portion of the dune within an area which now experiences regular flooding and inundation during

storm events, resulting in the erosion of coastal beach/coastal dune, and threatening the channel to the harbor and the structural integrity of the end of the jetty. The proposed coir envelope system will be topped with at least 12" of sand, matching the grain size of the existing beach, and graded at the base of the coir envelope system to integrate within the grade of the beach in that area. The sand nourishment atop the coir envelope system will be planted with American Beachgrass (*Ammophila breviligulata*) follow the nourishment and grading.

The following sections are in response to the memo dated June 28th, 2023, signed by Everose Schluter, Ph.D., Assistant Director, submitted to the Truro Conservation Commission and Town of Truro, for the purpose of requesting additional project information on project alternatives, design and maintenance.

1. Alternative Analysis:

The following alternatives are considered.

- Take No Action and Allow Pamet Harbor Channel and Harbor Bar Barrier Beach to Deteriorate: This alternative is not considered viable due to the significance of the channel to the harbor for commercial and recreational purposes. Maintaining the channel is also seen as critical for the longevity of the Pamet Marsh salt marsh complex and Pamet River which extend roughly 3 miles inland. In addition, placement of sand nourishment does not appear to be sufficient to maintain the coastal beach and the coastal dune system, which is in danger of continued erosion.
- Extend the Northern Portion of the Pamet Harbor Stone Jetty: In this scenario, the northeastern end of the Pamet Harbor jetty would be extended to the existing end of the dune. This would involve installing approximately 72 linear feet (lf) of stone jetty across the coastal beach. This alternative would be considered a "Hard Solution" that in BSC's experience would:
 - Be unlikely to obtain necessary approvals;
 - Require far greater funds than the proposed scenario for both the permitting process and the construction;
 - Significantly delay the construction and implementation of any solution;
 - May result in structural damage of the existing jetty and increased erosion of the coastal beach and dune at the end of Harbor Bar during the extended permitting period and after the jetty is installed;
 - Would have a more significant impact on wildlife habitat, as the jetty would occupy space that is currently coastal beach and formerly coastal dune.
- Beach Nourishment Only: This alternative has been attempted recently and is not considered viable as over-wash events and erosion between the existing jetty and the coastal dune have continued with regular tide cycles and without any significant storm events since the nourishment was placed.

1,600 cubic yards of emergency nourishment sand was added in March of 2023 in association with Ch 91 Permit #14815, WQC Authorization 22-WW27-0007-AMD (Transmittal X277007), and DEP File# SE75-1015 within the eroded area on the seaward (western) side of the beach in response to significant erosion during the winter of 2022/23. The sand was placed at a similar grade to the existing beach/dune profile for this area. It is estimated that about 400 yards of coastal beach has eroded over a 4-month period since the nourishment was placed.

The CZM GIS map below shows the closest shoreline change transects in the area to be about 2 feet per year.



Screen shot of CZM shoreline change map

Due to the clear, documented regional shoreline migration and the inability to effectively nourish the entire shoreline of Harbor Bar/Pamet Beach to keep pace with the current rates of erosion, this alternative is not proposed.

- **Coir Envelope System (Proposed Solution):** In this scenario, the coir envelope system would act as the base of a rebuilt dune to help anchor the end of the Harbor Bar dune system, while the proposed beachgrass to be planted atop the system will provide additional stabilization. The beachgrass planted atop the system should allow the dune to withstand non-catastrophic storm events without completely losing its sand cover. The proposed coir alternative was the chosen alternative because it is the lowest impact system that meets the project goal of rebuilding the barrier beach/dune system and providing enough stabilization to get vegetative growth on the dune. It also helps to anchor the end of the jetty which has repeatedly washed-out during storm events.

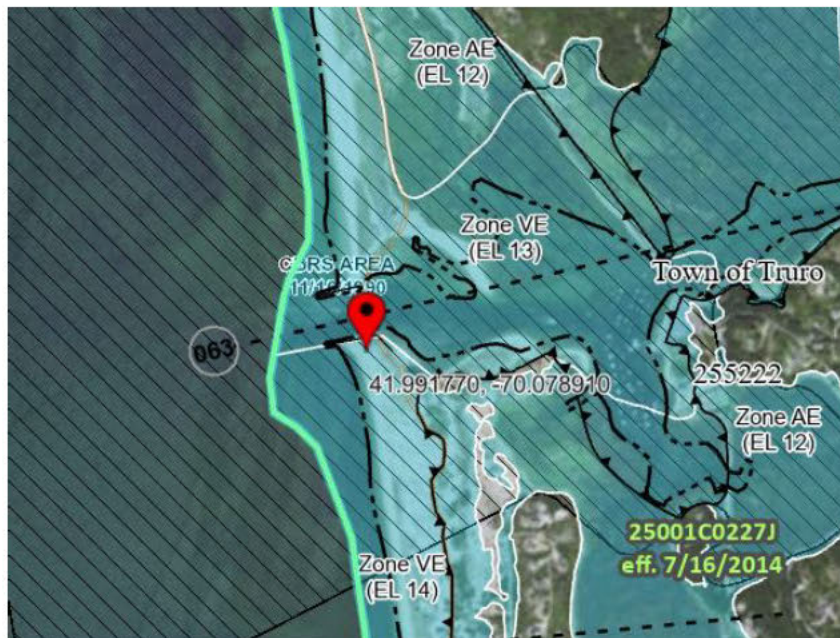
In addition, because the area washes over so easily, it does not provide beneficial piping plover (*Charadrius melodus*) habitat. The rebuilt dune system along with nourishment from dredge work will help to rebuild the beach and will reestablish the 1:10 slope needed to increase and improve piping plover habitat. A coir envelope system topped with sand nourishment and planted with beachgrass would provide superior wildlife habitat for

other shorebirds, while also restoring the natural functions and values of the coastal dune, barrier beach, and coastal beach.

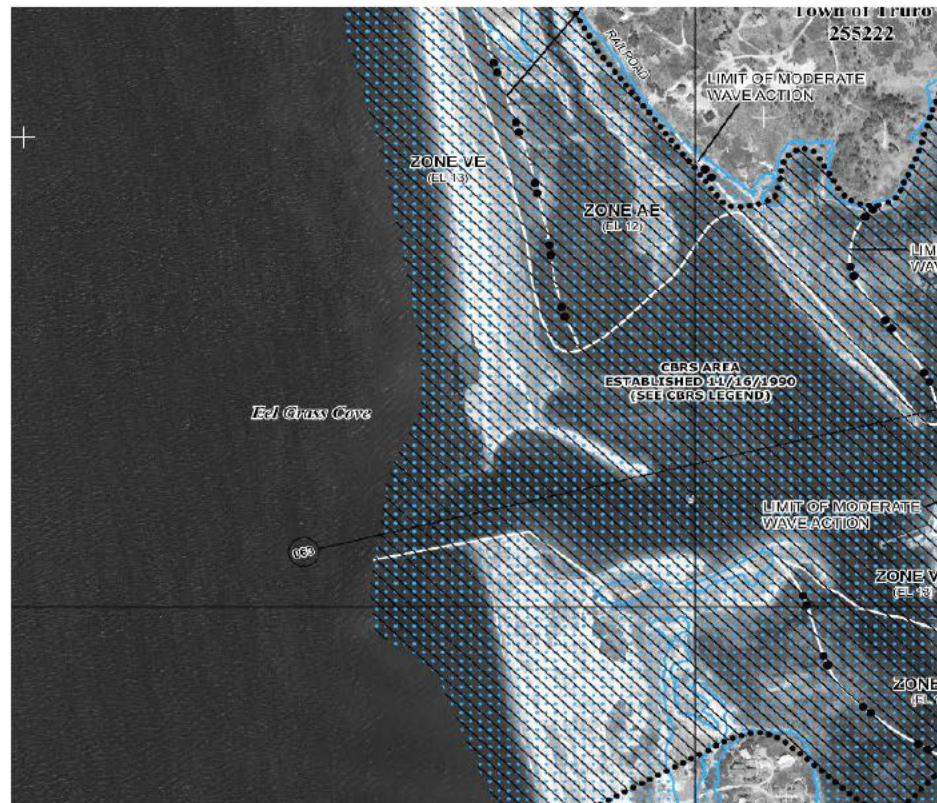
2. Coir System Design:

The life of a coir system is difficult to predict as it is intended to be only a temporary solution. The system is exposed to winds from the west and is within a FEMA predicted 100-year flood elevation zone. Based on the nearest report on [Interactive Tidal Datum Viewer – Buzzards Bay National Estuary Program](#), the High Tide Line (the highest tide annually) is reported at elevation 6.68. This elevation is above the breach point north of the stone groin, meaning that the proposed coir logs will be subject to "wave attack" regularly.

2637	
2637	
Longitude	-70.082877
Latitude	41.999149
MHW_FT	4.15
MLW_FT	-5.22
MN_FT	9.37
LMSL_FT	-0.47
MHHW_FT	4.6
MLLW_FT	-5.54
MTL_FT	-0.53
HTL_FT	6.68
MARSH_RNG	7.15
NGVD29	-0.86
NAVD88	0



FEMA FIRM Map (location point is set on southern jetty)



The site is located in a FEMA VE flood zone elevation 13
(note cross section #63 at site)

Table 16: Coastal Transect Parameters

Flood Source	Coastal Transect	Starting Wave Conditions for the 1% Annual Chance		Starting Stillwater Elevations (ft NAVD88) Range of Stillwater Elevations (ft NAVD88)				
		Significant Wave Height H _s (ft)	Peak Wave Period T _p (sec)	10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Cape Cod Bay	61	*	*	8.9	*	9.7	10.2	11.0
Cape Cod Bay	62	*	*	7.9	*	8.7	9.1	10.7
Cape Cod Bay	63	*	*	6.2	*	9.0	9.4	10.7

The following spreadsheet estimates elevation of the still water surge (from FEMA) and the "wave attack" heights at various return period storms. Based on these estimates and the top of the coir logs being elevation 10 (the same as the revetment), it can be estimated that the coir logs (like the jetty) will be overtopped during 10-year storm events, presuming the wind direction is from the west and occurs during a high tide. Based on this limited assessment, the placement of the coir logs is considered a temporary repair which are likely to require periodic improvements to reduce the amount of nourishment that is needed to protect the channel and maintain the dune and beach.

			Estimated		
		Still Water Surge	Wave		Total
Return storm		Elev	crest ht		Wave elev
1		6.68	2		8.68
10		8.2	2.5		10.7
50		9	3		12
100		9.4	3.6		13
500		10.7	5		15.7

Spread Sheet of Wave Action

Nourishment Volume, Maintenance, Frequency, and Source: BSC anticipates annual nourishment along the beach along using the dredge sediment to maintain the current profile of the beach and/or rebuild the beach. The existing dredge and beach nourishment profile is a 1:10 slope. The proposed project involves rebuilding the dune and integrating the sand nourishment into the approved nourishment profile on the seaward side of the coastal beach. The Town of Truro plans to dredge annually and to supply the beach with nourishment from dredge sands. When a storm event uncovers the coir system, it would then be re-covered with 8-12" of sand to protect the system. When seasonally appropriate, the coir envelope system will also be replanted with beachgrass again promote a stabilized dune system.

If needed, the beach could also be nourished to maintain the current profile to prevent any additional impacts to the beach from the system. Most of the annual sand nourishment for this project will be from routine channel dredging. If the amount of nourishment from the dredge isn't enough to cover the coir envelope system and the surrounding beach, the outer Cape towns are working towards establishing a "sand bank" with dredge sand when there is an abundance of sand from other dredge projects. Another alternative sand source would be an approved upland site. Sand nourishment from both the "sand bank" and the upland site would be compatible grain size to the existing beach sand and placed at the existing 1:10 slope on the seaward side of the beach.

Construction Duration/Timeline: The proposed project is expected to take 1-2 months depending on weather conditions. The goal is to be complete all aspects of the project (aside from beachgrass planting, which will need to be assessed following the completion of the coir Installation) in the fall of 2023 following endangered shorebird season (after September 1st). All work to maintain the system would be completed before April 1st of any year (when needed).

Design to Meet Standards for State-Listed Species: The purpose of the proposed project is to rebuild the beach and dune system to preserve the channel entrance. Currently, due to regular flooding over the coastal beach areas within the final ~200 feet of Harbor Bar barrier beach that leads to the northern end of the jetty, piping plover nesting habitat is very low quality. This is due to the risk of washover events during high tides which would imperil nests and chicks.

The proposed rebuilt section of beach on the seaward side of the jetty and coir envelope system is likely to increase the value of piping plover nesting and foraging habitat due to the protection of the rebuilt dune. The rebuilt dune will also help anchor the beach and minimize erosion into the channel from around the end of the jetty. This will allow the beach to be more effectively rebuilt with dredge spoils, as is proposed in the approved maintenance dredging permit (cited previously). The proposed project was designed to "attach" to the dredge nourishment area, which was approved at a 1:10 slope as needed for piping plovers, therefore all aspects of the proposed project will provide a significant betterment in habitat quality when compared to the existing conditions at the project Site.

Mark Faherty, a Science Coordinator at Mass Audubon, recently confirmed on July 4th via email that monitoring crews have found minimal evidence of piping plover nesting and foraging activities in this area and in his opinion the installation of the coir envelope system and beach nourishment will not directly impact piping plovers. This further indicates that the existing habitat value at the site is low.

Further, the successful installation of the proposed coir envelope system will restore a portion of dune which was previously lost, and although this dune habitat is not of high value to piping plovers, according to the Massachusetts Tern and Piping Plover Handbook (first edition, May 1996, Bardford G. Blodget and Scott M. Melvin) dune habitat and sparsely vegetated coastal beaches can prove valuable nesting habitat for other shorebirds. Namely common terns (*Sterna hirundo*) which often nest in dunes at remote tips of barrier beaches with "moderate strands of beachgrass and other dune vegetation." Although less likely, least terns (*Sterna antillarum*) "sometimes nest in sparse beachgrass, beachpea, and other dune vegetation", although they prefer sandy or cobble beaches above the high tide line to nest. Given that the project site does not currently provide high quality habitat and the proposed conditions of the site following the installation of the coir envelope system, it can be assumed that the restoration of dune, beachgrass planting and beach nourishment will provide additional nesting habitat while also protecting and preserving foraging habitat on the seaward side of the beach.

- 3. Maintenance, Nourishment/Replenishment Plan:** The nourishment of the proposed coir envelope system is intended to occur on an as needed basis, such as following storm events which may expose some or all of the coir envelope system. It is anticipated that the beach area where the coir envelope system is proposed will conservatively experience between 1' and 6' of long-term erosion per year and 3.6' of short-term erosion per year, with a short-term uncertainty of 12.1' per year (based on the closest CZM transect). Given that the system is above MHW, it is expected that only larger storm events will reach and uncover the system. At least 8 - 12" of sand is required to top the system to prevent damaged from sun, wind, and tidal influence. The status of the sand covering over the coir envelope system will be regularly monitored by employees of the Town of Truro either on a monthly basis and/or after significant storms. This nourishment would be temporarily postponed during the shorebird Time of Year (TOY) restriction.
- 4. Determination of Annual Erosion:** The specific annual rate of erosion for this site is unknown. BSC's 2022 ground survey of the project site and the 2021 Lidar data cannot reveal significant information on retreat rate at the site. However, given that the terminus of the coastal dune at the end of Harbor Bar was non-existent in 1995 (see 1995 aerial imagery above), was rebuilt (see 2010 aerial imagery above), and has now eroded almost completely (see 2023 aerial imagery above), the volatile nature of the coastal influence on this site cannot be denied. At some point in time, the erosion may result in reconfiguring the inlet of the harbor, but for now the purpose of the proposed project is to maintain the conditions to provide safe access into Pamet Harbor, as quickly and as efficiently as possible, while also having the least amount of impact to protected resource areas and shorebird habitat.

If you have any questions or require additional information, please contact our office at (508) 778 - 8919.

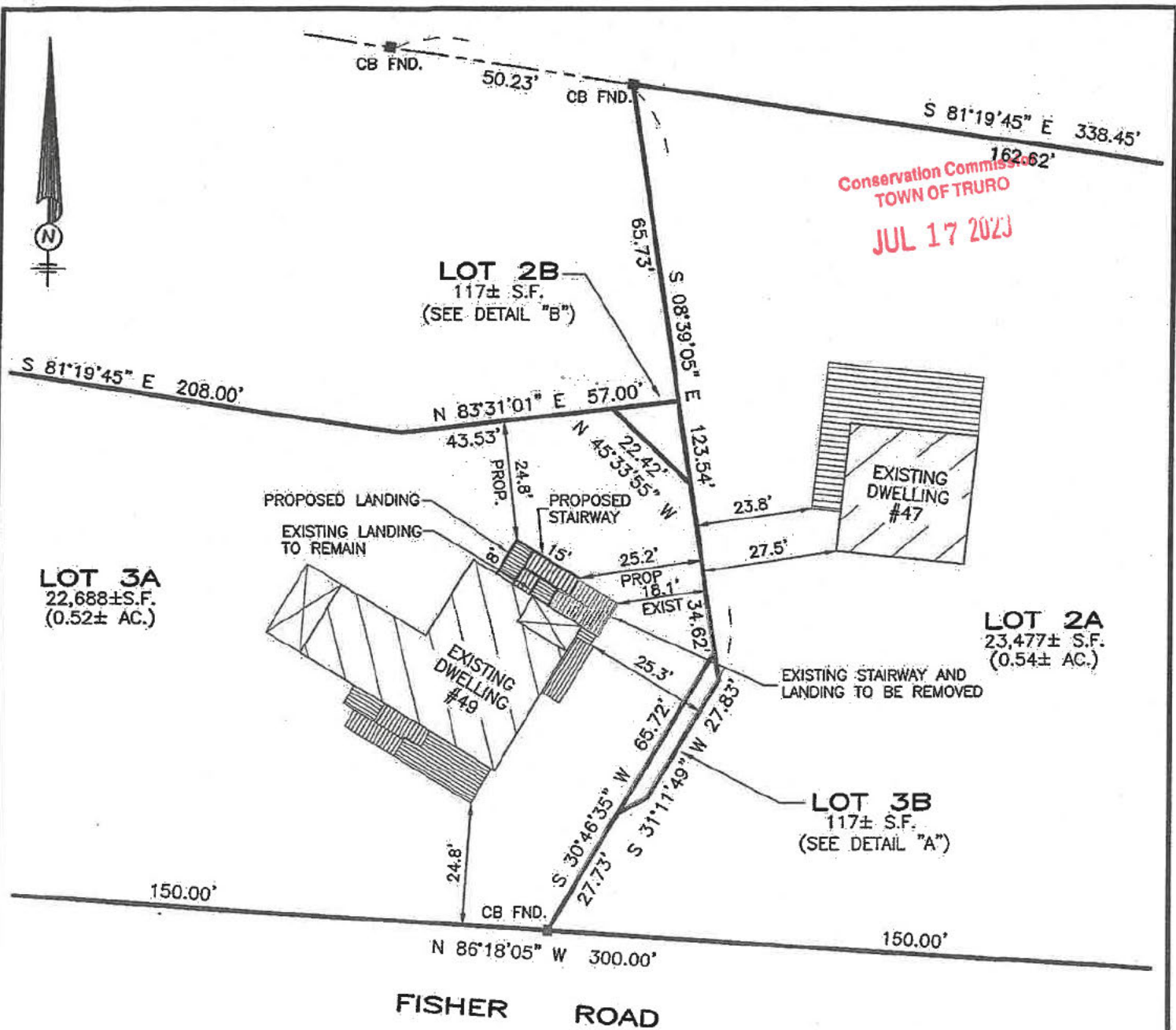
Truly yours,

BSC GROUP, INC.



Matthew Creighton, PWS
Senior Project Manager / Senior Associate
Manager of Ecological Services - West Yarmouth

cc: Massachusetts Department of Environmental Protection, Southeast Regional Office
Town of Truro
Truro Conservation Commission



SITE PLAN

LOCUS : 49 FISHER ROAD

TRURO, MA

REF : PLAN BOOK 206 PAGE 69

PLAN PREPARED FOR :

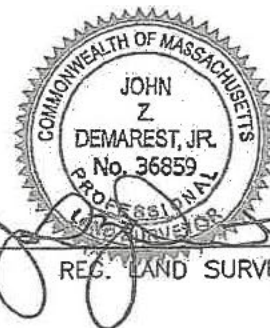
DOUGLAS AMBROSE

SCALE : 1"=30'

DATE : 9/26/2022

ASSESSORS MAP: 53

PARCEL : 24



9/26/22
DATE

DEMAREST LAND SURVEYING

338 MAYFAIR ROAD
SOUTH DENNIS, MA
508-364-9049



SURVEYING · ENGINEERING
HOME PLANNING & DESIGN

3 GIDDIAH HILL ROAD · P.O. BOX 439
SO. ORLEANS, MASSACHUSETTS 02662-0439
TEL: 508.255.8312 FAX: 508.240.2306
EMAIL: info@ryder-wilcox.com

PROJECT NARRATIVE
AMBROSE PROPERTY
49 Fisher Road
July 14, 2023

Property Description

The property is a 22,688+/- SF developed site overlooking Fisher Beach and Cape Cod Bay to the west. The entire property lies within Land Subject to Coastal Storm Flowage (Zone VE, EI 14'). In issuing the Order of Conditions for SE 75-1093, the Conservation Commission found the entire site is in a Coastal Dune.

According to Assessors records, the existing dwelling was built in 2021 in accordance with an Order of Conditions issued by the Conservation Commission (DEP File No. SE 75-1093). The house is constructed on timber piers and elevated above the flood level per FEMA requirements. Two sets of timber stairs provide access from the ground level to the first floor level. The stairs are constructed on posts supported by concrete sonotubes.

Project Description

The existing stairs on the north side of the building are only 18.1' from the property line and are in violation of the Truro Zoning Bylaw relative to lot line setback requirements. In order to bring the structure into compliance with the setback requirements, the Applicant proposes to remove the existing stairs/landing and replace them with a new set of stairs/landing in a new configuration. In order to minimize the disturbance to the Resource Area, the stairs will be constructed on posts supported by either Diamond piers or helical pile piers.

Construction Protocol

The proposed work is expected to be completed within a 3 -4 week time span. With the exception of a small helical pier installation machine, all vehicles, construction materials, and demolition debris shall remain in the existing parking area.

Prior to construction, a fabric siltfence shall be installed approximately 5' to either side of the existing and proposed stairs. With the exception of the upper landing, the existing stair structure will be dismantled. The existing concrete sonotube footings will be abandoned in place. All demolition debris shall be placed either in a dumpster or directly into trucks for removal from the site. The

dumpster/truck shall be provided with a lid or tarp secured so as to prevent wind-blown debris.

The proposed stairs shall be constructed on posts supported by either Diamond Piers or helical pile piers. A small track driven vehicle or hand-held Auto-hammer will be used to install the piers.

Upon completion of construction, all debris shall be removed from the site. The siltfence shall be removed after a final inspection and approval by the Conservation Agent.

Variance Request

The Applicant requests a variance from Section 2.01: Buffer Zone of the Truro Conservation Regulations to allow the removal of existing exterior stairs and the construction of new stairs on a Coastal Dune, within Land Subject to Coastal Storm Flowage, and within the Buffer Zone to a Coastal Dune. The proposed work is necessary in order to provide access to the existing elevated structure. Since the entire building is located within the Resource Area, there are no feasible alternatives to the proposed work.



Project at 379B Shore Road

The cottage with green trim at 379B Shore Road was lifted and put on cement foundation in 1980. It's currently three (3) bedrooms and I am asking permission to demolish cottage but save and use existing foundation. I would like to build a two (2) bedroom house on existing foundation footprint as shown on plans submitted. Reducing a bedroom reduces nitrogen output but we will need to dig a hole in front driveway to add leach pit to satisfy health board. This should be the only excavation done as well as small holes for deck footings. The deck is being reduced substantially on east side.

Demolition will be done carefully inside proposed work limits delineated by polypropylene black barricade fence. A covered dumpster will be on site for duration of construction. All construction materials will be stored in driveway or inside building.

In the back of the building I'm hoping to clear away overgrown brush, limitedly, inside proposed work limits, and add a reasonable sized porous paver patio; replant with native plants such as Virginia rose and beach grass.

The building will have full gutter system to drywells.

Thank you for your consideration,

Chuck Silva

Conservation Commission
TOWN OF TRURO
JUL 17 2023

FOR MORE INFORMATION REGARDING PROPOSED
"UNIT 1" RENOVATIONS SEE ARCHITECTURAL PLAN
SET PREPARED BY LEIF HAMNQUIST ARCHITECTS.

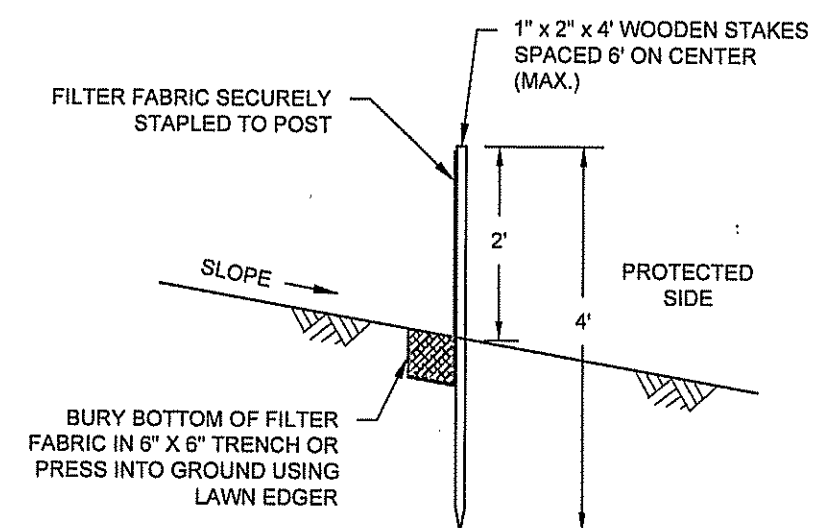
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2. PROPOSED DRIVE, PATH, AND PATIO LAYOUT PER CLIENT.

EXISTING

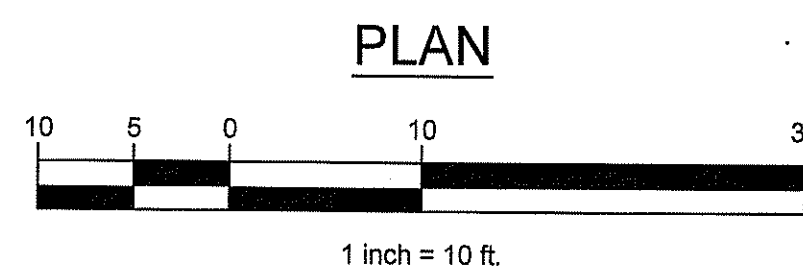
- | | |
|----------------|--------------|
| ■ | BOUND |
| Ⓣ | CABLE TV BOX |
| ○ | UTILITY POLE |
| —●—●—●—●—●— | FENCE |
| - - - 12 - - - | CONTOUR |
| x12.3 | SPOT GRADE |

 CONTOUR
 DRY WELL (TYP.)

1. ROOF RUNOFF TO BE DIRECTED FROM GUTTERS TO DOWNSPOUTS & DRYWELLS.
2. EXISTING GRAVEL DRIVEWAY TO BE RECONFIGURED AND RE-SURFACED WITH POROUS BLOCKS.

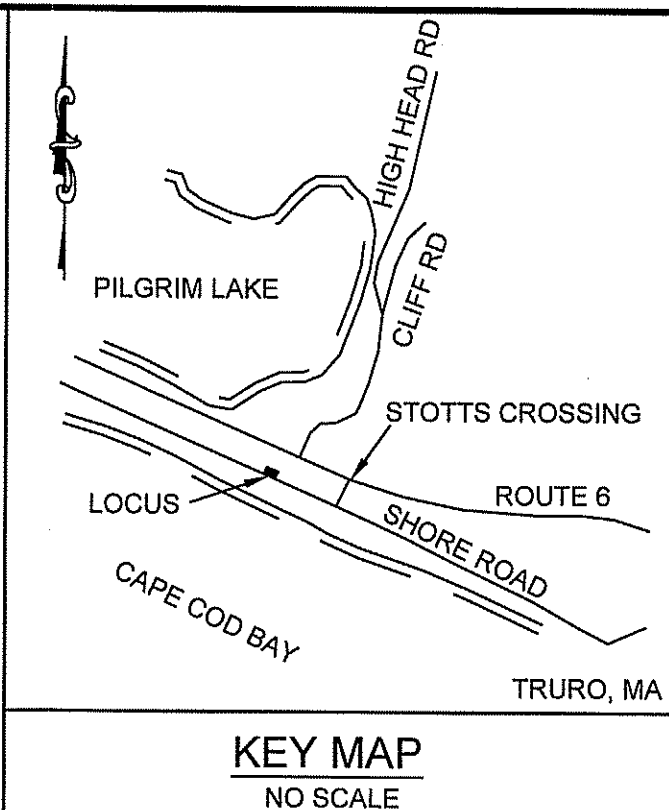


NOT TO SCALE



PLAN

ISSUED FOR CONSERVATION REVIEW 07-12-2023



ASSESSORS MAP 10, PARCEL 10
PLAN BOOK 33, PAGE 127
L.C.PLAN #41224A
DEED BOOK 2351, PAGE 316
WM. ROGERS S.D.S PLAN DATED AUG. 1981

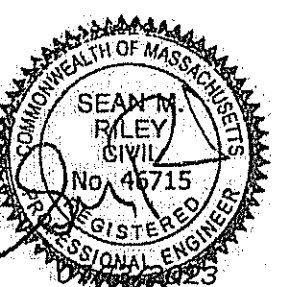
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SEE PLAN TITLED "C1.2.1 PLAN SHOWING EXISTING
SITE CONDITIONS" FOR 379 SHORE ROAD IN TRURO,
MA, PREPARED BY COASTAL ENGINEERING
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SEE PLAN TITLED "C2.1.1 PLAN SHOWING PROPOSED SITE IMPROVEMENTS" FOR 379 SHORE ROAD IN TRURO, MA, PREPARED BY COASTAL ENGINEERING COMPANY INC. AND DATED FEBRUARY 21, 2020 & PLAN TITLED "C2.1.2 PLAN SHOWING PROPOSED SITE IMPROVEMENTS" FOR 379 SHORE ROAD IN TRURO, MA, PREPARED BY COASTAL ENGINEERING COMPANY INC. AND DATED MARCH 13, 2020.

[illegible]

PROJECT	CHUCK SILVA	TRURO, MA
	379 SHORE ROAD	
SHEET TITLE	PLAN SHOWING PROPOSED "UNIT 1 - GREEN BLDG" SITE IMPROVEMENTS	

SCALE	1" = 10'
DRAWING FILE	C17012-CIV.dwg
DATE	07-12-2023
DRAWN BY	MJB
CHECKED BY	BPM

C2.2.4
1 OF 1 SHEETS
 PROJECT NO. C17012.00

REVISION DATES:






Leif Hamnquist Architects
info@lha.design 617.365.0130
www.lha.design

Title: FLOOR PLANS
Scale: As Noted
Date: 07.12.23 NOT FOR CONSTRUCTION

379 Shore Road Unit 1
379 Shore Road
Truro, MA

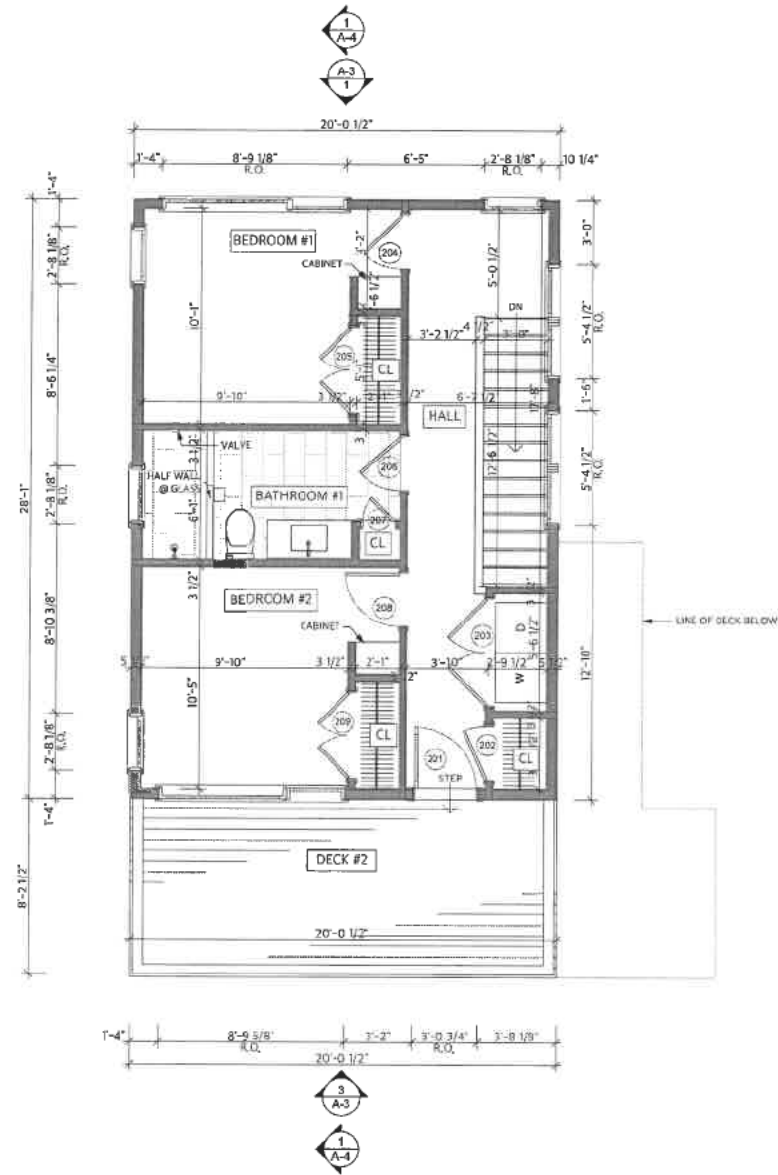
A-1



WALL LEGEND	
DEMO	
EXISTING FOUNDATION	
NEW FOUNDATION	
EXISTING CONSTRUCTION	
NEW CONSTRUCTION	

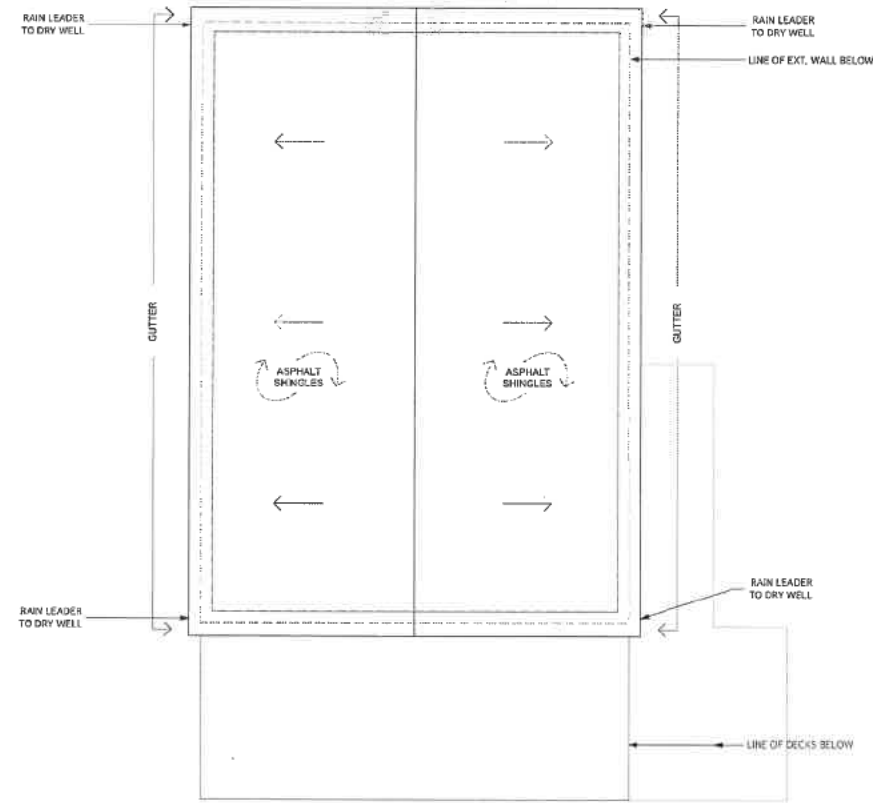
1 SECOND FLOOR

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



2 ROOF

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



WALL LEGEND	
DEMO	
EXISTING FOUNDATION	
NEW FOUNDATION	
EXISTING CONSTRUCTION	
NEW CONSTRUCTION	

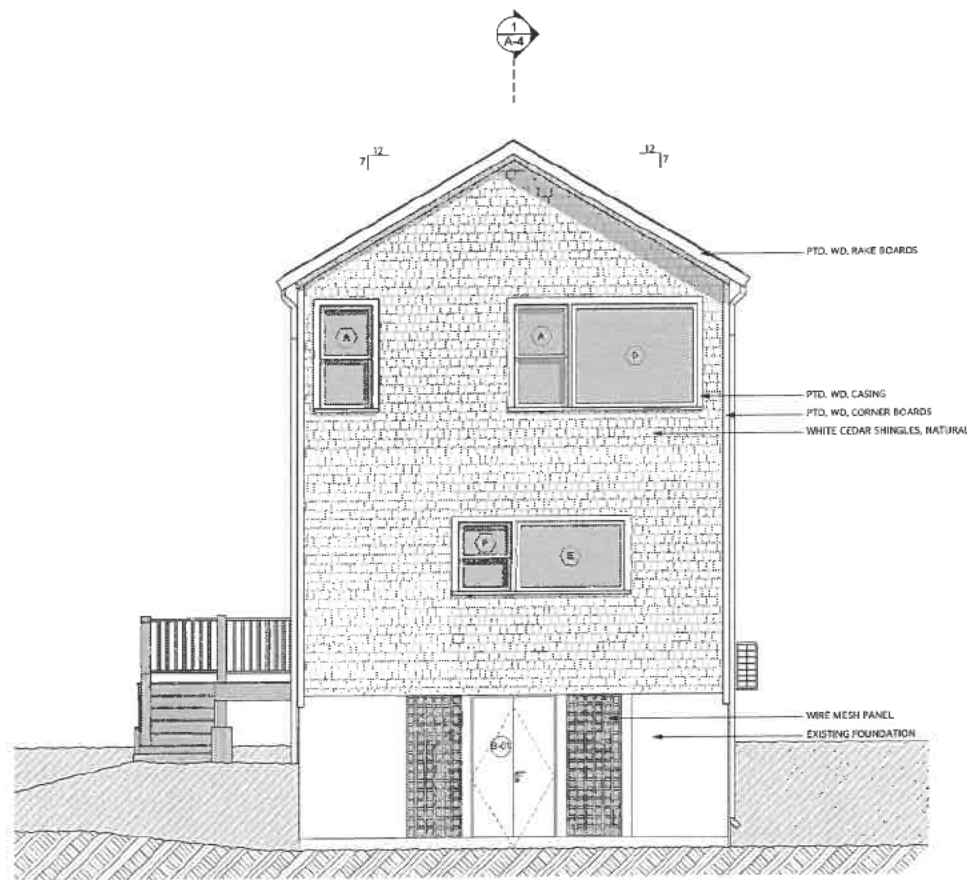
379 Shore Road Unit 1
379 Shore Road
Truro, MA

Title: FLOOR PLANS
Scale: As Noted
Date: 07.12.23 NOT FOR CONSTRUCTION

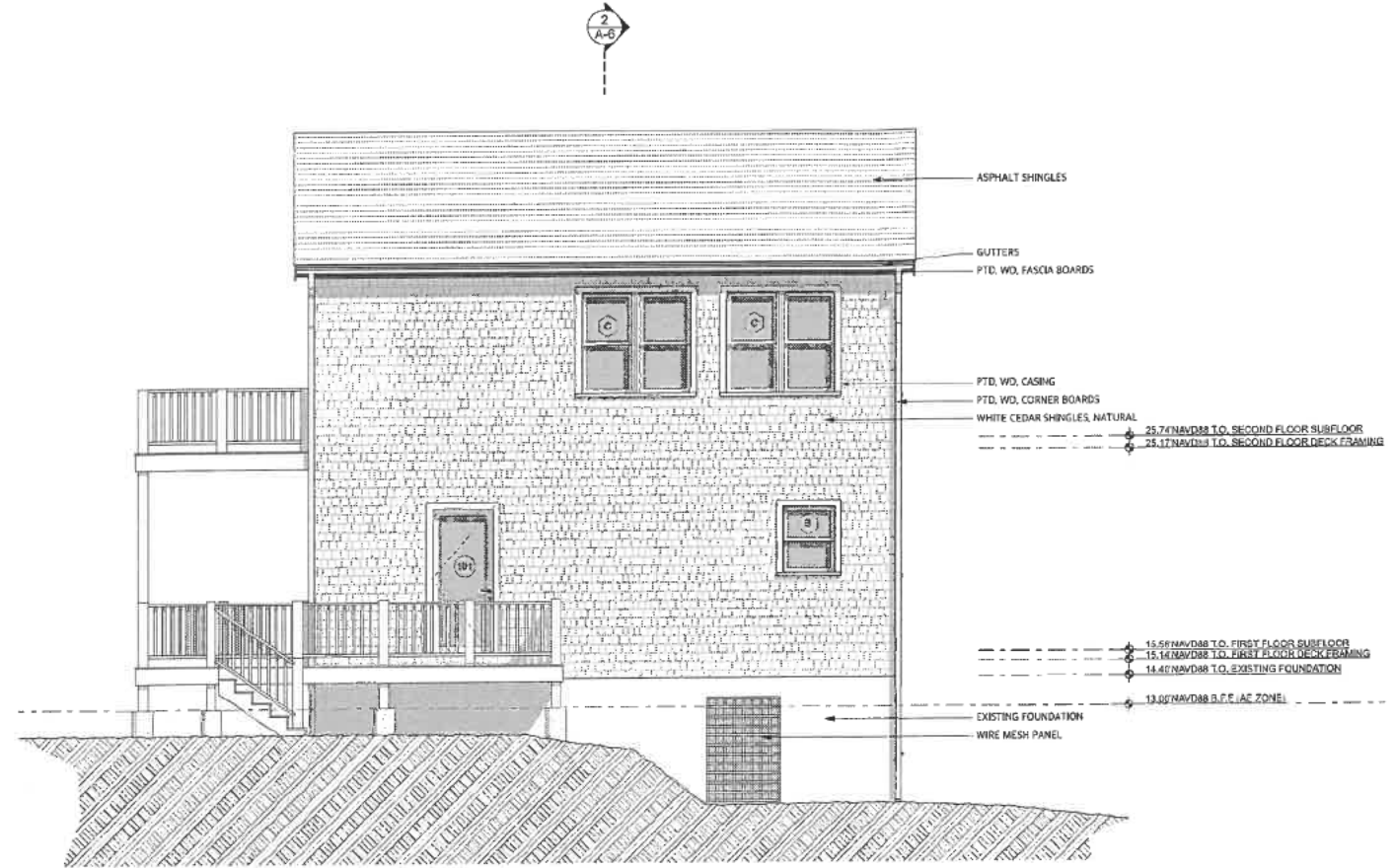
Leif Hamnquist Architects
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REVISION DATES:

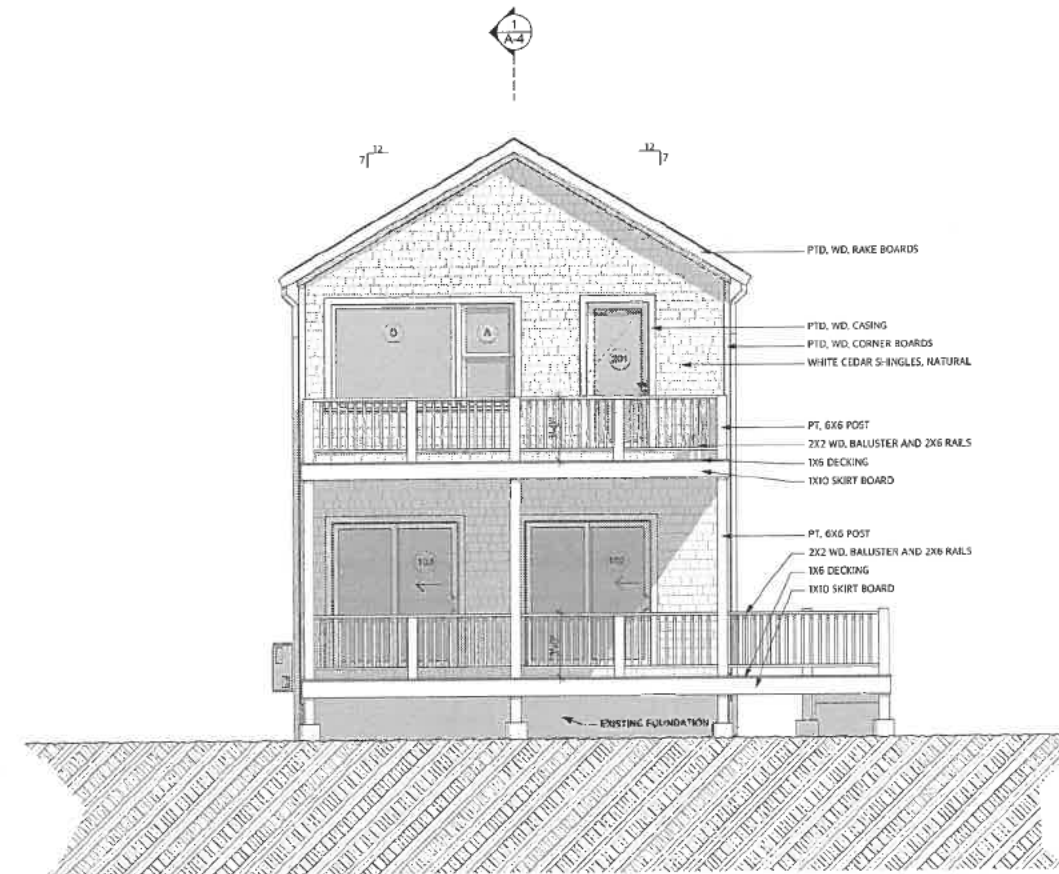
A-2



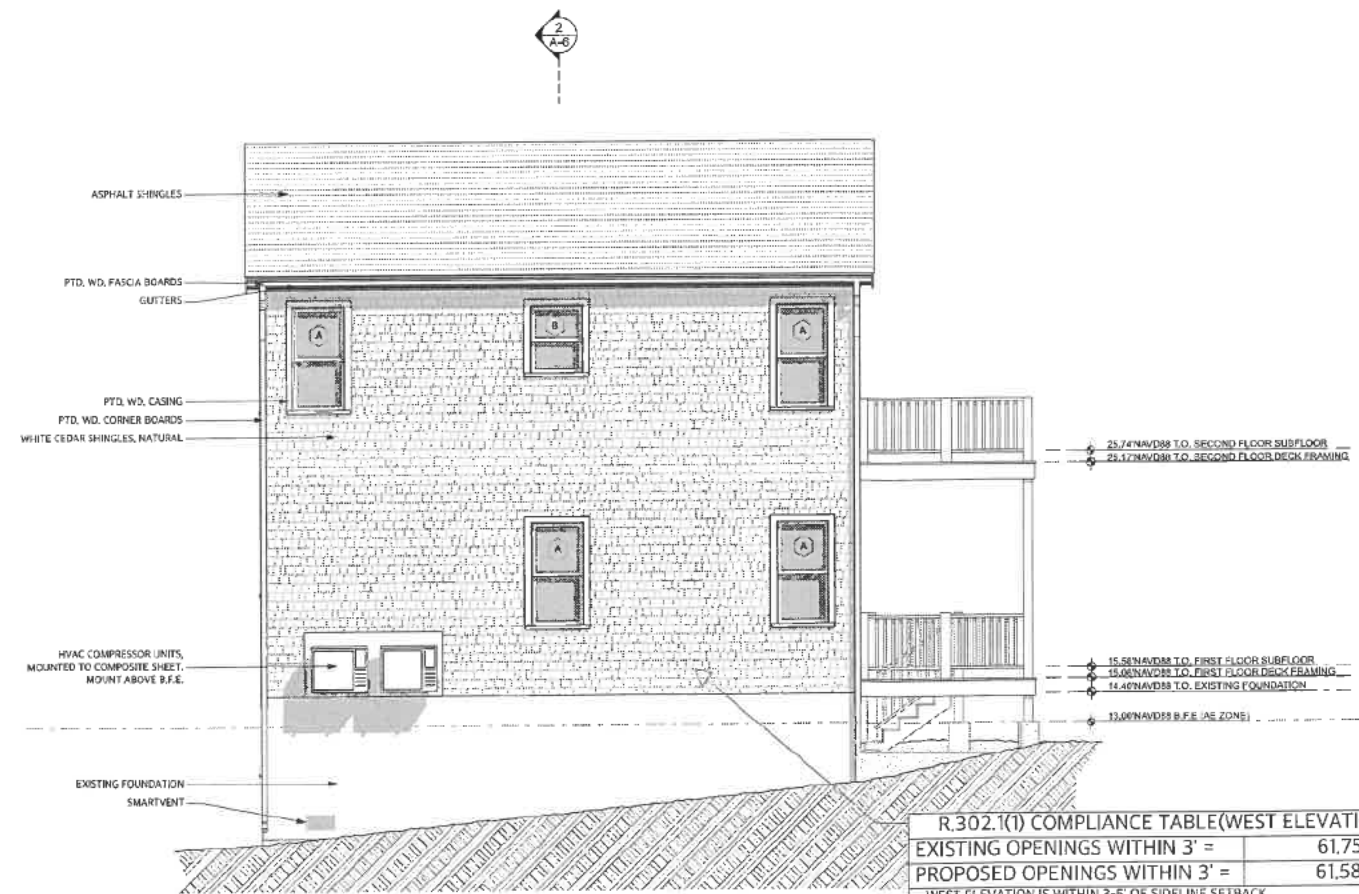
1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



4 WEST ELEVATION
SCALE: 1/4" = 1'-0"

R.302.1(1) COMPLIANCE TABLE (WEST ELEVATION)	
EXISTING OPENINGS WITHIN 3' =	61.75 sq. ft.
PROPOSED OPENINGS WITHIN 3' =	61.58 sq. ft.
-WEST ELEVATION IS WITHIN 3'-5' OF SIDELINE SETBACK	
-AREA OF OPENINGS MEASURED AND CONFIRMED BY ARCHITECT	

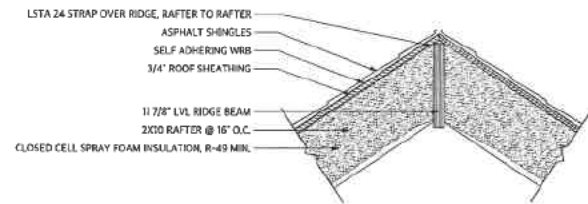
REVISION DATES:

Leif Hamquist Architects
info@lha.design 617.365.0130
www.lha.design

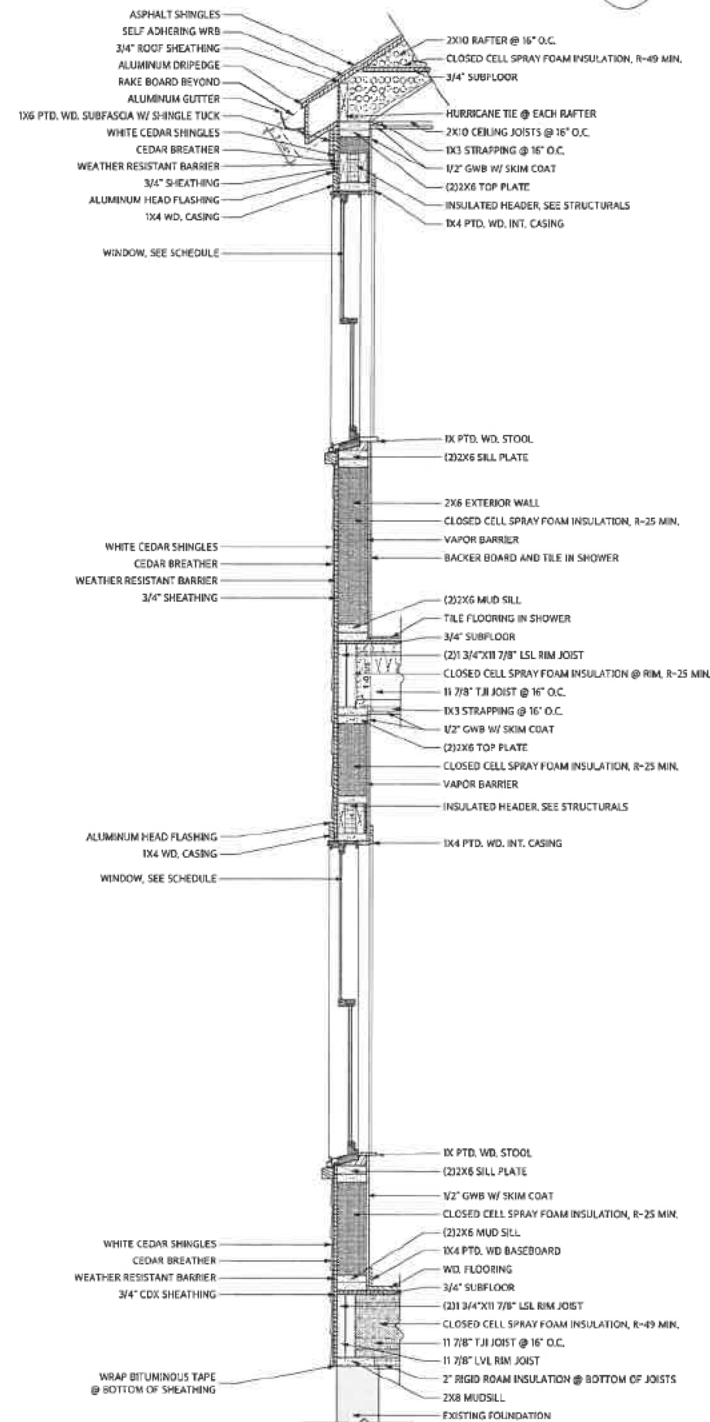
ELEVATIONS
As Noted
07.12.23 NOT FOR CONSTRUCTION

379 Shore Road Unit 1
379 Shore Road
Truro, MA

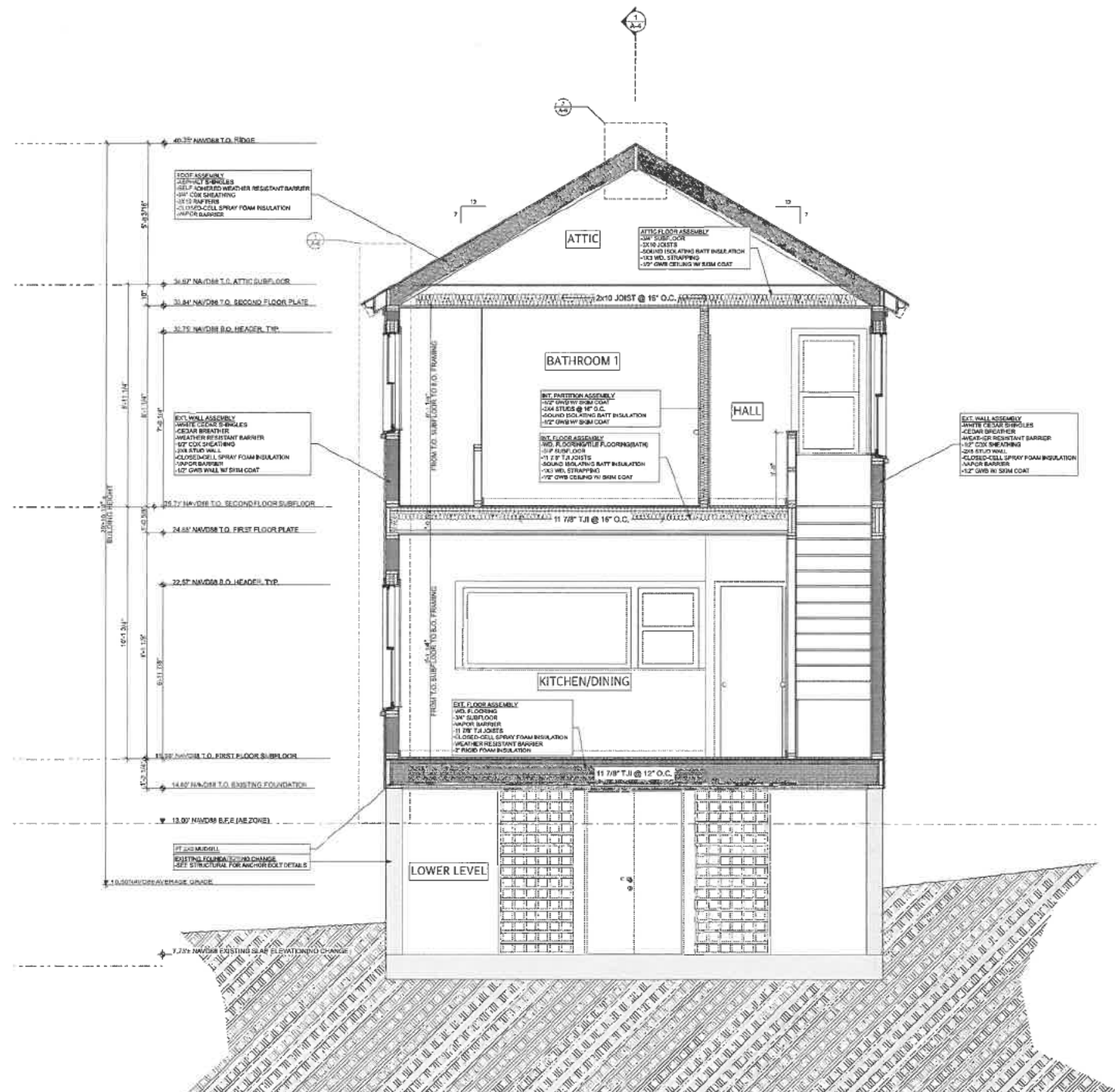
A-3



3 RIDGE DETAIL
SCALE: 1" = 1'-0"



1 WALL SECTION BB
SCALE: 3/4" = 1'-0"



2 BUILDING SECTION BB
SCALE: 3/8" = 1'-0"

REVISION DATES:

Leif Hamquist Architects
info@lha.design 617.365.0130
www.lha.design

Building Sections
Title: As Noted
Scale: 07.12.23 NOT FOR CONSTRUCTION
Date:

379 Shore Road Unit 1
379 Shore Road
Truro, MA

A-6



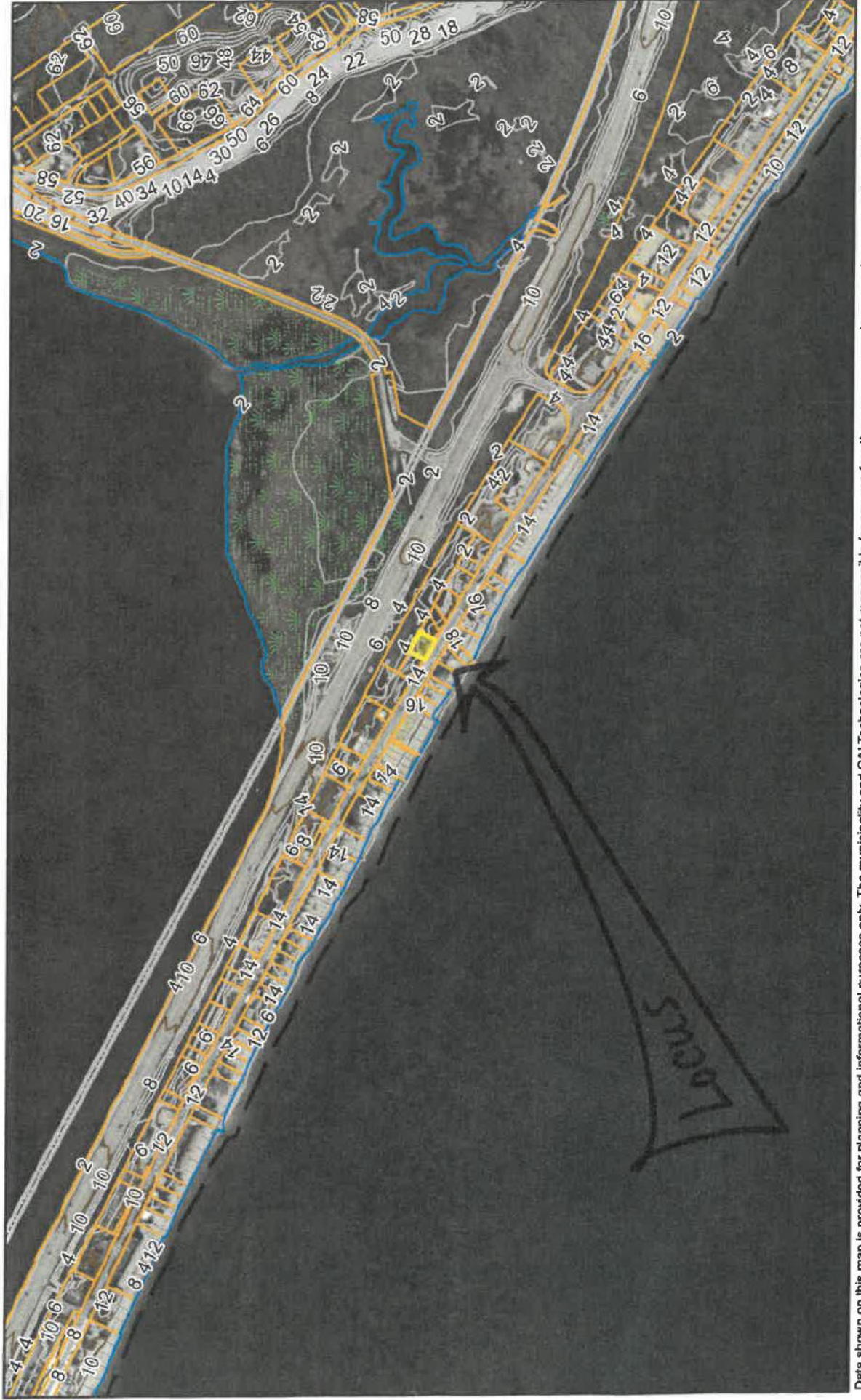
Conservation Commission
TOWN OF TRURO
JUL 17 2023

Truro, MA

1 inch = 559 Feet



January 15, 2020



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

JUL 17 2023

PROJECT DESCRIPTION

1. Introduction

This Notice of Intent (NOI) application has been submitted to permit the proposal to elevate the existing condominium located at 522 Shore Road, Unit 9 in Truro (the site). The Town of Truro Assessors Department references the site as Parcel ID: 7-8-9. The proposed project is located within a Barrier Beach/Coastal Dune and within Land Subject to Coastal Storm Flowage (FEMA Flood Zone VE). Prior to the start of work, erosion controls will be installed in order to protect wetland resource areas. This application is being submitted in accordance with the Massachusetts Wetlands Protection Act and the Town of Truro Wetlands Protection Bylaw.

2. Site Description

The site is located to the south of Shore Road and consists of a condominium with an associated sand driveway, wooden boardwalk, landscaped areas, etc. A Coastal Dune was delineated by Environmental Consulting & Restoration, LLC (ECR) on January 13, 2022, that follows along the southern limit of the property. The 2022 delineation follows along the limit of wetland where it meets the shore. As a result of the field work and review of available environmental databases, ECR is able to confirm that the site contains the following wetland resource areas and areas of Conservation Commission jurisdiction:

- Land Subject to Coastal Storm Flowage (FEMA flood zone VE)
- Coastal Dune
- Coastal Beach
- Barrier Beach
- 100-Foot Buffer Zone

Notes:

1. The southernmost portion of the site is located within an area mapped as Priority Habitat & Estimated Habitat for Rare Species according to the Massachusetts Natural Heritage & Endangered Species Program (MaNHESP).
2. The site does not contain or is near a Certified Vernal Pool according to the MaNHESP.
3. The site is not located within an Area of Critical Environmental Concern (ACEC).
4. The site is not located in an area of Chapter 91 jurisdiction.

3. Proposed Activities

The purpose of this application is to authorize the elevating of the existing condominium, Unit 9, in order to comply with the flood Zone VE el. 15 requirements. The proposed project is located within the Coastal Dune and a Barrier Beach. The proposed project will involve the following activities:

- Installation of Erosion Controls – Prior to the start of work, an erosion control line will be installed along the proposed limit of work to protect the downgradient coastal resource areas.
- Raising of the Existing Condominium – Raising of the existing condominium is proposed to an elevation of 17' NAVD for the lowest horizontal structural floor member, or 2-feet above the 15' elevation that is mapped in this area (see attached architectural drawings dated 10 July 2023). Being located in the VE Zone, an open pile foundation is proposed (2023-5-23 *Structural Permit Set*). The proposed foundation is a helical pile supported structure. From bottom up, the system consists of deep-driven helical piles capped with a grid of concrete grade beams just below the ground surface. Concrete piers extend up from the grade beams to support the superstructure. This foundation strategy is appropriate for tight

construction sites where a new foundation needs to be constructed beneath an existing structure and machinery is limited.

Driven wooden piles are not an appropriate foundation type for this project site as they require a high vertical clearance and large machinery. There isn't room on the site to temporarily relocate the structure to install new timber piles.

It is important to note, as proposed there is no increase to the building footprint. Ramps and decks are proposed for handicap access as well as stairways to provide adequate access to the structure (see attached architectural drawings dated 10 July 2023).

- **Property Stabilization & Restoration** – Following the completion of the building work, dune nourishment will be provided and all disturbed areas shall be restored and stabilized to their pre-existing condition. In the event of any disturbance to vegetation within the Barrier Beach/Coastal Dune, the disturbed areas shall be restored with American Beachgrass. Dormant beachgrass culms shall be planted with 2 culms per hole, spaced 12 – 18 inches on center, to stabilize and restore any areas of disturbance.

6. Compliance with Wetland Protection Regulations

The proposed project is located within a Coastal Dune and Land Subject to Coastal Storm Flowage. No work is proposed on the Coastal Beach. The activities are subject to the *Massachusetts Wetlands Protection Act*, the associated *Wetland Regulations (310 CMR 10.00)*, the *Truro Conservation Bylaw*, and the associated *Truro Conservation Regulations*. Specifically, the proposed project is subject to the state performance standards under 310 CMR 10.28(3) to (6) for Coastal Dune and to the Bylaw Regulations under Section II, Chapter 2.00, Subsection 2.05 for Land Subject to Coastal Storm Flowage. Below, the performance standards are shown in italics to include an analysis of how the proposed project meets those specific standards directly below.

310 CMR 10.28 Coastal Dunes

WHEN A COASTAL DUNE IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION, FLOOD CONTROL OR THE PROTECTION OF WILDLIFE HABITAT, 310 10.28(3) THROUGH (6) SHALL APPLY:

- (3) *Any alteration of, or structure on, a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:*
 - (a) *affecting the ability of waves to remove sand from the dune;*
 - (b) *disturbing the vegetative cover so as to destabilize the dune;*
 - (c) *causing any modification of the dune form that would increase the potential for storm or flood damage;*
 - (d) *interfering with the landward or lateral movement of the dune;*
 - (e) *causing removal of sand from the dune artificially; or*
 - (f) *interfering with mapped or otherwise identified bird nesting habitat.*

The proposed helical and concrete piles will allow for sand removal as well as sand deposition by waves. There is no vegetative cover to disturb. Construction will not modify the dune form and the pile foundations will decrease, not increase, the potential

for storm or flood damage in the future. The piles will not interfere with the landward or lateral movement of the dune. No removal of sand is proposed.

- (4) *Notwithstanding the provisions of 310 CMR 10.28(3), when a building already exists upon a coastal dune, a project accessory to the existing building may be permitted, provided that such work, using the best commercially available measures, minimizes the adverse effect on the coastal dune caused by the impacts listed in 310 CMR 10.28(3)(b) through (e). Such an accessory project may include, but is not limited to, a small shed or a small parking area for residences. It shall not include coastal engineering structures.*

Not applicable since no project accessory structures are proposed.

- (5) *The following projects may be permitted, provided that they adhere to the provisions of 310 CMR 10.28(3):*
- (a) pedestrian walkways, designed to minimize the disturbance to the vegetative cover and traditional bird nesting habitat;*
 - (b) fencing and other devices designed to increase dune development; and*
 - (c) plantings compatible with the natural vegetative cover.*

Not applicable since none of these activities are being proposed

- (6) *Notwithstanding the provisions of 310 CMR 10.28(3) through (5), no project may be permitted which will have any adverse effect on specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.37.*

Not applicable since there are no mapped specified habitat sites of rare vertebrate or invertebrate species on either property.

2.05: Land Subject to Coastal Storm Flowage

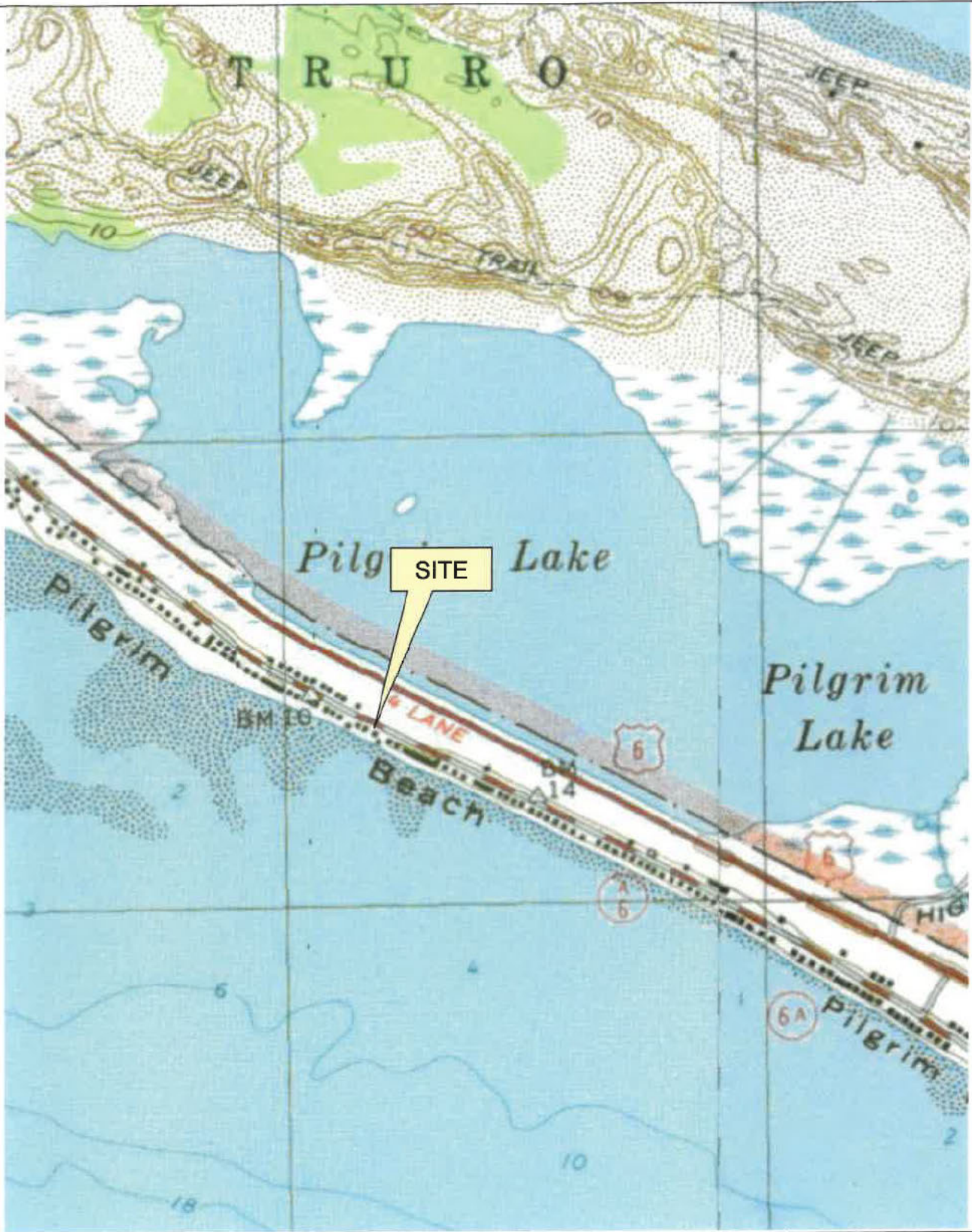
Any activity subject to jurisdiction, and proposed on LSCSF shall not:

- i. Reduce the ability of the resource to absorb and contain flood waters;*
- ii. Reduce the ability of the resource to buffer more inland areas from flooding and wave damage;*
- iii. Displace or divert flood waters to other areas;*
- iv. Cause or create the likelihood of damage by debris to other structures on land within the flood plain (collateral damage); built structures such as stairs or walkways shall be seasonally removable,*
- v. Cause ground or surface pollution triggered by coastal storm flowage; and*
- vi. Reduce the ability of the resource to serve as a wildlife habitat and migration corridor through activities such as, but not limited to the removal of vegetative cover and/or installation of fencing and other similar structures.*
- vii. Any activity proposed in the floodplain may require mitigation to enhance or restore natural functions of the floodplain.*

By elevating the dwelling, the ability of the resource to absorb and contain flood waters, as well as the ability of the resource to buffer more inland areas from flooding and wave damage will be increased, not reduced. The open pile foundation will not displace or divert flood waters to other areas and no collateral damage is expected due to the structural connections of the dwelling to the piles and all stairs to the dwelling. Finally, no ground or surface pollution, or wildlife habitat impacts will occur with this floodplain compliance project.

7. Summary

The purpose of this application is to authorize the elevating of the existing condominium located at Unit 9 in order to comply with the flood Zone VE el. 15 requirements. An open-pile foundation design will allow the passage of flood waters and the lateral movement of the nourished dune. Erosion and sediment control measures will be implemented and maintained throughout the duration of the construction process to prevent the conveyance of sedimentation into environmentally sensitive areas. Disturbed areas will be stabilized upon the completion of work, and in the event that intense rainfall is expected, reinforcing control measures will be installed as needed to protect all wetland resource areas. Stockpiling of soils, if any, and materials shall be located on the property and surrounded by the erosion controls, as necessary. Erosion control measures shall remain in place and be maintained until such time that a Certificate of Compliance has been issued by the Truro Conservation Commission, stating that the project has been constructed in accordance with the conditions set forth in the Order of Conditions.



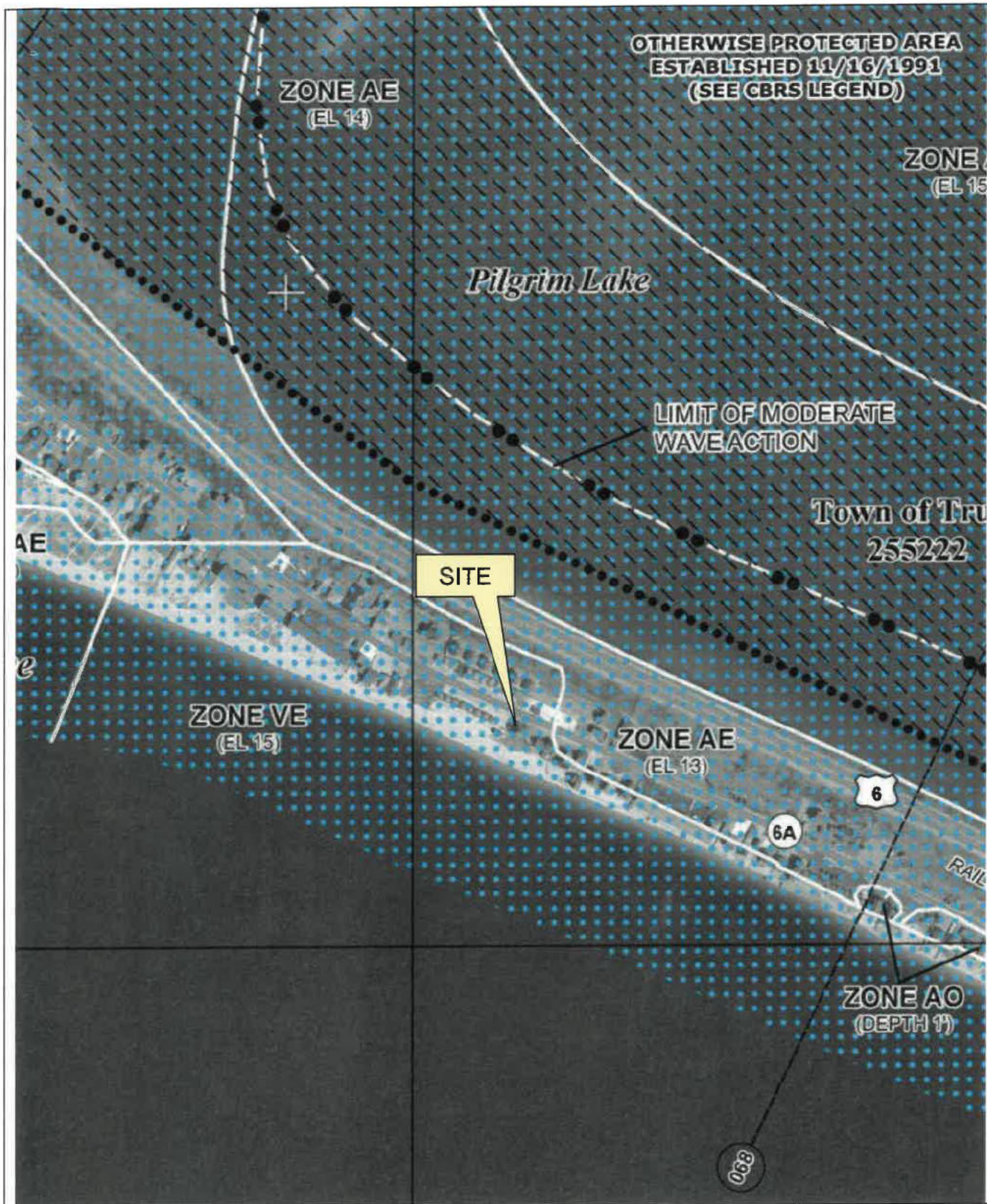
USGS SITE LOCUS MAP
522 Shore Road, Unit 9
Truro, Massachusetts

Source: MassGIS | Mass Mapper



Conservation Commission
TOWN OF TRURO

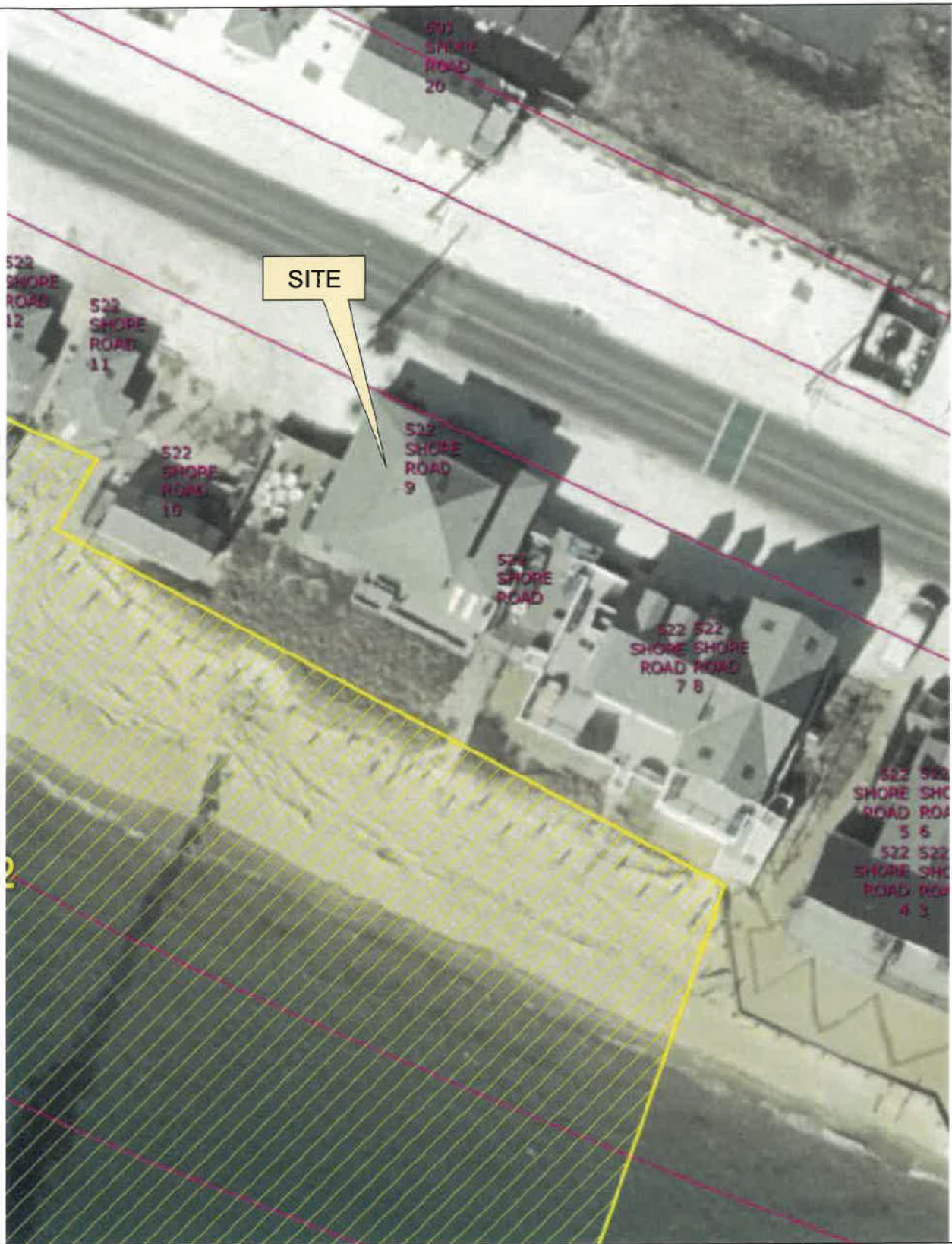
JUL 17 2023



FEMA F.I.R.M.
522 Shore Road, Unit 9
Truro, Massachusetts

N
△

Source: FEMA Map 25001C0117J Effective: 07/16/2014



**Priority Habitats of Rare Species, Estimated Habitat of Rare Wildlife
& Certified Vernal Pools Map
522 Shore Road, Unit 9
Truro, Massachusetts**

Source: MassGIS | MassMapper



FOR MORE INFORMATION REGARDING PROPOSED
"UNIT 1" RENOVATIONS SEE ARCHITECTURAL PLAN
SET PREPARED BY LEIF HAMNQUIST ARCHITECTS.

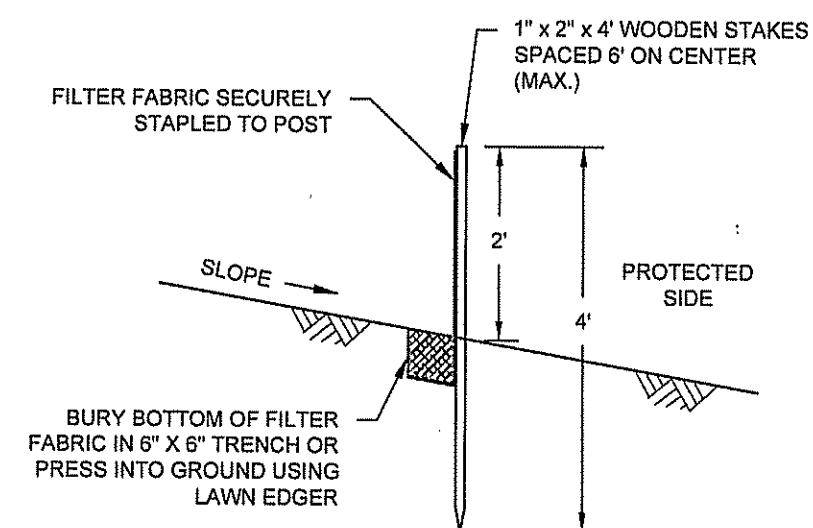
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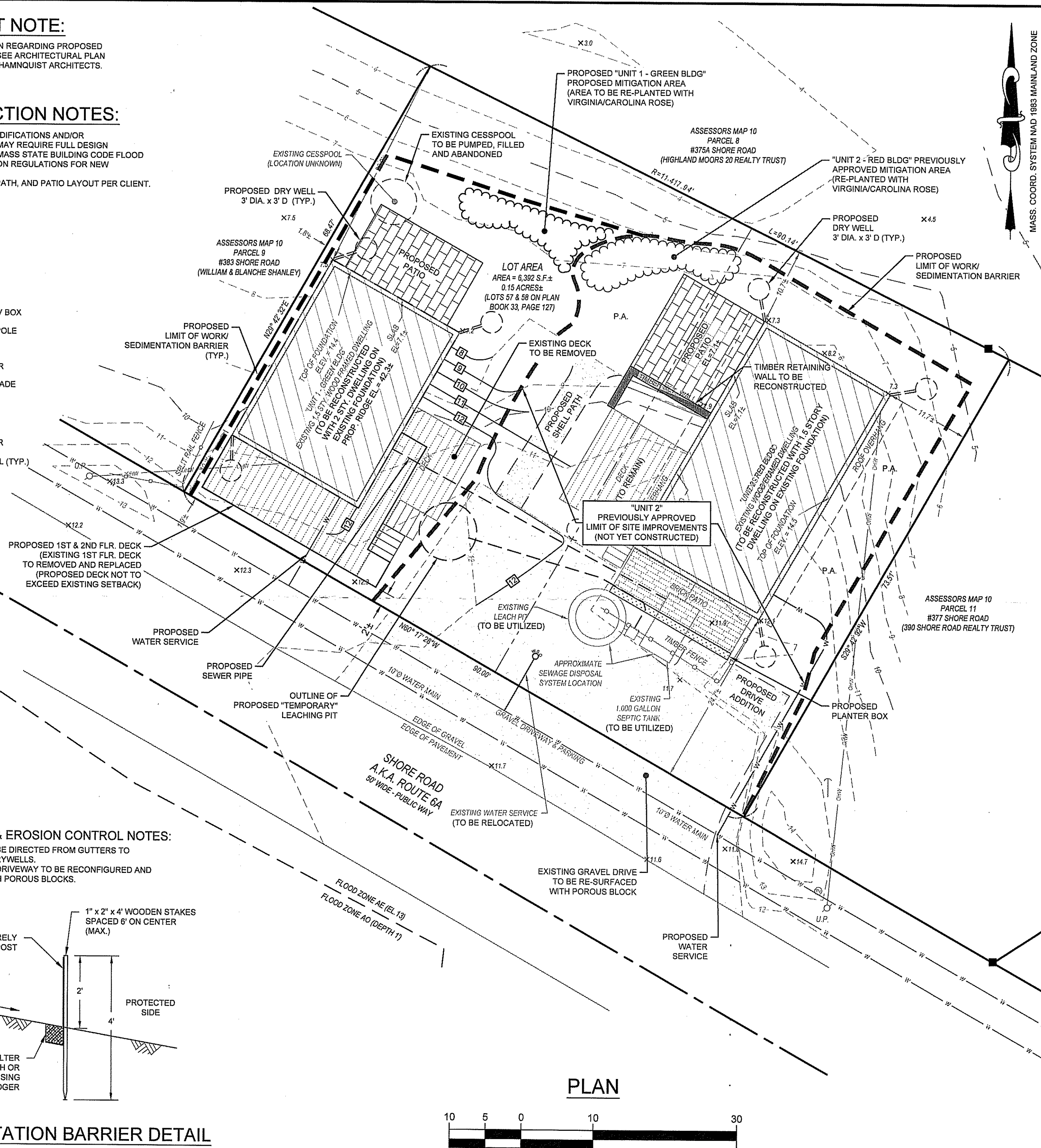
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| x12.3 | SPOT GRADE |

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NOT TO SCALE



KEY MAP
NO SCALE

ASSESSORS MAP 10, PARCEL 10
PLAN BOOK 33, PAGE 127
L.C.PLAN #41224A
DEED BOOK 2351, PAGE 316
WM. ROGERS S.D.S PLAN DATED AUG. 1981

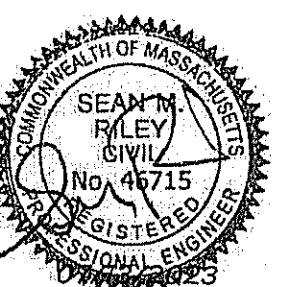
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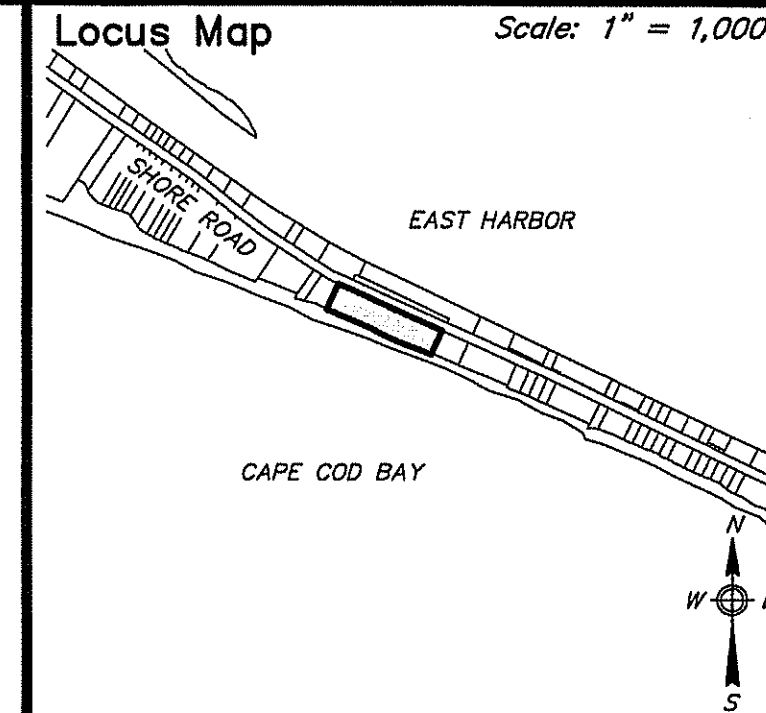
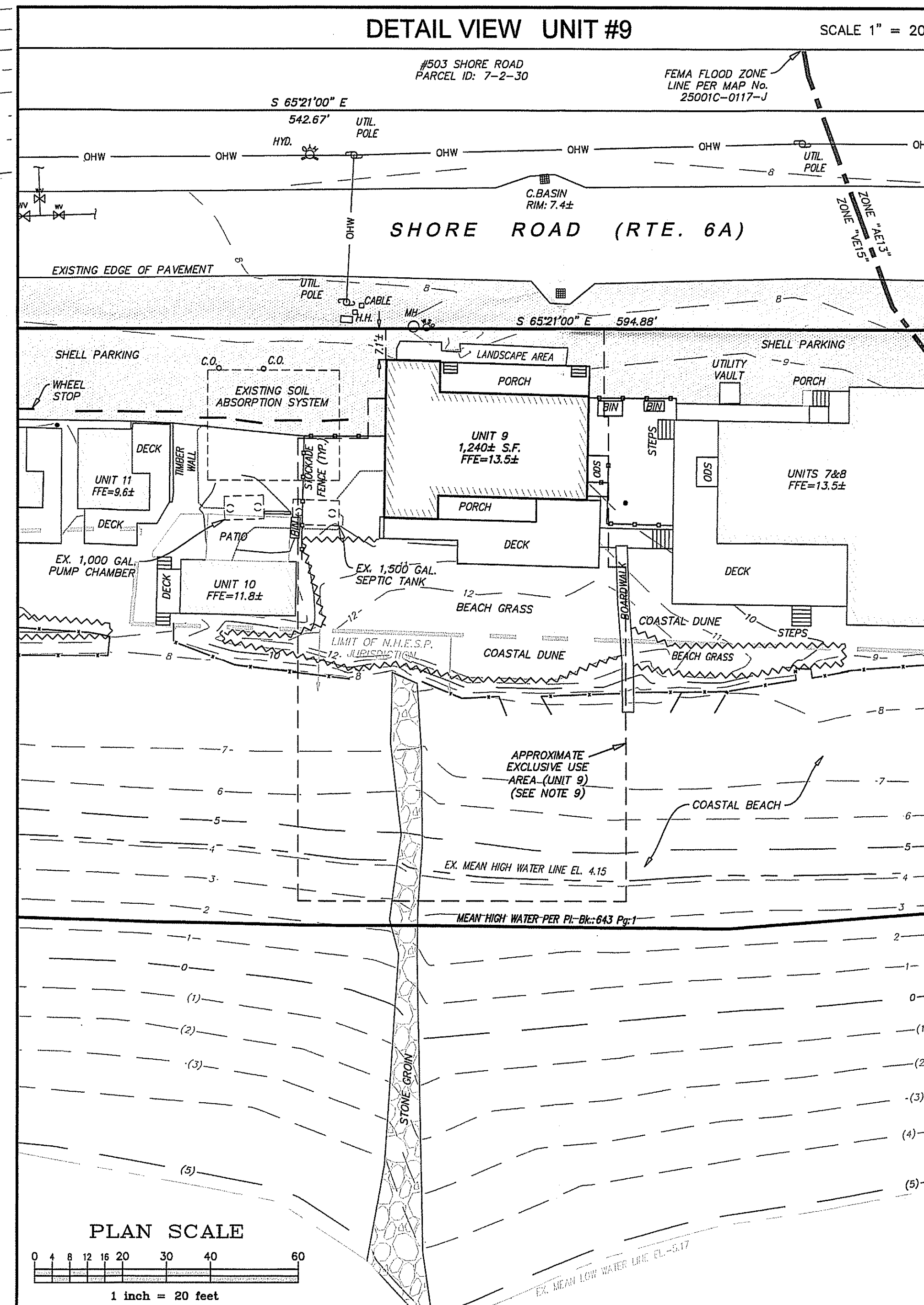
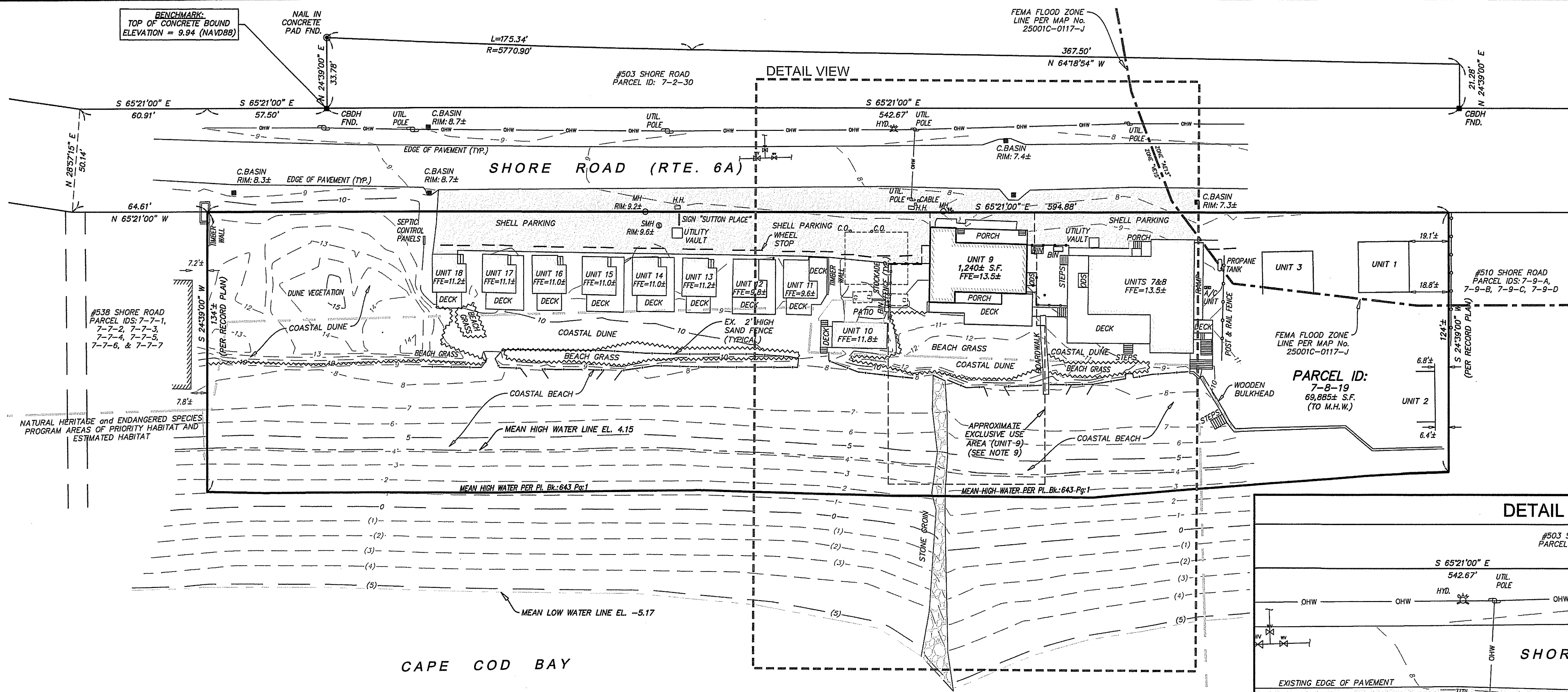
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[illegible]

PROJECT		CHUCK SILVA	379 SHORE ROAD	TRURO, MA
SHEET TITLE		PLAN SHOWING PROPOSED "UNIT 1 - GREEN BLDG" SITE IMPROVEMENTS		
SCALE	1" = 10'			
DRAWING FILE	C17012-CIV.dwg			
DATE	07-12-2023			
DRAWN BY	MJB			
CHECKED BY	BPM			
C2.2.4				
<u>1</u> OF <u>1</u> SHEETS				
PROJECT NO.		C17012.00		

ISSUED FOR CONSERVATION REVIEW 07-12-2023



- Notes**
- LOCUS: #522 SHORE ROAD PARCEL ID: 7-8-19 (UNIT 9)
 - OWNER: ERIC D. SHAPIRO & JULIE ANN SHAPIRO P.O. BOX 505 LEXINGTON, MA 02420
 - DEED REF: Bk: 27239 Pg: 260 (Unit 9) Bk: 26033 Pg: 1 (Master Deed) Bk: 33288 Pg: 217 (Trustee appl)
 - PLAN REF: Bk: 643 Pg: 1 Bk: 661 Pg: 63
 - LOCUS DOES FALL WITHIN A SPECIAL FLOOD HAZARD ZONE AE(EL.13) & VE(EL.15) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C-0117-J dated 07/16/2014.
 - LOCUS DOES PARTIALLY FALL WITHIN THE NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP) AREAS OF ESTIMATED HABITATS OF RARE WILDLIFE AND PRIORITY HABITATS OF RARE SPECIES.
 - MEAN HIGH WATER (MHW) AND MEAN LOW WATER (MLW) ELEVATIONS ESTABLISHED FROM BUZZARDS BAY NATIONAL ESTUARY PROGRAM INTERACTIVE TIDAL DATUM VIEWER. ELEVATIONS ARE RELATIVE TO NAVD88 GEOID12B.
 - EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED ON AN ON THE GROUND SURVEY BY THIS FIRM ON 9/02/2020.
 - EXCLUSIVE USE AREA PER PLAN RECORDED AT THE REGISTRY OF DEEDS IN Bk: 643 Pg: 1.

Conservation Commission
TOWN OF TRURO
JUL 17 2023

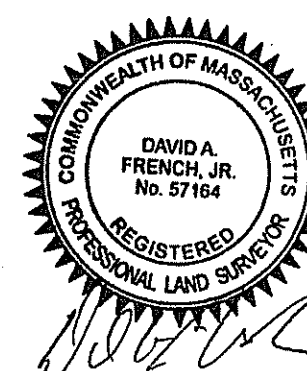
ZONE: LB (BEACH POINT) REQUIRED

LOT AREA: 33,750 s.f.
FRONTAGE: 150'
FRONT YARD: 25'
SIDE YARD: 25'
REAR YARD: 25'
BUILDING HEIGHT: 30' (MAX)

Prepared By:
BRACKEN ENGINEERING, INC.
49 HERRING POND ROAD BUZZARDS BAY, MA 02552
(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

EXISTING CONDITIONS PLAN IN NORTH TRURO, MASSACHUSETTS
Prepared For:
ERIC D. SHAPIRO & JULIE ANN SHAPIRO
THE SUTTON PLACE CONDOMINIUM
#522 SHORE ROAD (UNIT 9)
PARCEL ID: 7-8-19

No.	Date	Revision Description	By
1	02/27/23	Initial Plan	JPH/ERC/BEI



02/27/23

STRUCTURAL GENERAL NOTES

1. STRUCTURAL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE FOLLOWING GOVERNING STANDARDS:
- A. THE INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO-FAMILY DWELLINGS (IRC-2015) WITH 780 CMR 51.00: MASSACHUSETTS STATE BUILDING CODE, NINTH EDITION, RESIDENTIAL VOLUME AMENDMENTS.
- B. AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION.
- C. ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," (ACI 318-14)
- D. THE CODE FOR WELDING IN BUILDING CONSTRUCTION BY THE AMERICAN WELDING SOCIETY (AWS D1.1)
- E. AISI SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".
- F. THE TIMBER CONSTRUCTION MANUAL, 4TH EDITION," AMERICAN FOREST & PAPER ASSOCIATION.
- G. THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, LATEST EDITION.
2. CONSTRUCTION IS TO CONFORM TO THE MASSACHUSETTS STATE RESIDENTIAL BUILDING CODE AND APPLICABLE PRODUCT AND DESIGN STANDARDS. ABSENCE OF SPECIFIC ITEMS FROM THESE DRAWINGS DOES NOT INFER THAT THE CONTRACTOR IS RELIEVED FROM THE STATUTORY CODE REQUIREMENTS.
3. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO COMMENCING WORK. ANY DISCREPANCY BETWEEN WHAT IS SHOWN ON THE DRAWING AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED BACK TO THE ENGINEER IN WRITING BEFORE PROCEEDING WITH ANY WORK.
4. OPENINGS THROUGH THE FRAMING AND FOUNDATION MAY NOT BE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS IN ALL INSTANCES. THE GENERAL CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF OPENINGS. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S IMMEDIATE ATTENTION FOR REVIEW.
5. DESIGN VERTICAL LIVE LOADS:
- ROOF:
- GROUND SNOW LOAD: 25 PSF
- FIRST FLOOR:
- RESIDENTIAL: 40 PSF
- SLEEPING AREAS: 30 PSF
6. DESIGN LATERAL LOADS:
- WIND LOAD:
- EXPOSURE - D
- WIND SPEED (ULTIMATE): 139 MPH
7. NOTIFY THE ENGINEER OF ANY ARCHITECTURAL MODIFICATION OR DIMENSION CHANGES THAT MAY AFFECT THE STRUCTURAL DESIGN.
8. THE FOLLOWING ASSUMED SOIL PROPERTIES HAVE BEEN USED FOR THE FOUNDATION
- UNIT WEIGHT OF SOIL: 120 PCF
- SOIL BEARING CAPACITY: 2,000 PSF
- ULTIMATE FRICTION FACTOR: 0.45
- MINIMUM SUBGRADE MODULUS: 250 PCF
- COEFFICIENT OF INTERNAL FRICTION: 28 DEGREES
9. WORK SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS AND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. PRESENT IN WRITING TO THE ARCHITECT, ALL CONFLICTS BETWEEN THE DRAWINGS, SPECIFICATIONS, AND APPLICABLE CODES AND REGULATIONS, FOR RESOLUTION BEFORE COMMENCING THE WORK

SPECIAL REQUIREMENTS FOR COASTAL CONSTRUCTION

1. FLOOD ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM (NAVD 1988)
- FIRM REF #25001C-0117-J
- TOWN OF TRURO, MA
- FLOOD ZONE=VE
- BASE FLOOD ELEV.=+15 FT
- DESIGN FLOOD ELEV.=+17 FT (MEASURED TO BOTTOM OF LOWEST HORIZONTAL STRUCTURAL MEMBER)
2. SPECIAL PROVISIONS FOR COASTAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS FOUND IN THE "COASTAL CONSTRUCTION MANUAL" AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA-55).
3. THE BUILDING STRUCTURE AND COMPONENTS SHALL BE ADEQUATELY ANCHORED TO THE NEW FOUNDATION TO PREVENT FLOATATION, COLLAPSE, AND/OR LATERAL MOVEMENT.
4. THE ENTIRE BUILDING STRUCTURE IS TO BE TIED TOGETHER AT ACT AS A CONTINUOUS, INTEGRAL UNIT USING JOIST ANCHORS, METAL TIES DOWN STRAPS, WELL NAILED PLYWOOD SHEATHING, BOLTS THROUGH BEAMS AND PIERS, ETC.
5. ITEMS SHALL BE RIGIDLY ANCHORED OR ATTACHED, SQUARE, PLUMB AND TRUE, OR ON OTHER PLANES AND SHAPES SHOWN ON THE DRAWINGS. JOINTS SHALL BE TIGHT, EVEN AND FREE OF OFFSETS. SURFACES SHALL BE SANDED, FILLED OR OTHERWISE PREPARED TO RECEIVE FINISH WHERE INDICATED.
6. MATERIAL INSTALLED BELOW THE BASE FLOOD ELEVATION SHALL BE FLOOD-DAMAGE RESISTANT MATERIAL AS DEFINED IN THE COASTAL CONSTRUCTION MANUAL, UNLESS NOTED OTHERWISE

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL ROLLED SHAPES SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING ASTM DESIGNATIONS:
- ASTM A36 ANGLES, CHANNELS, PLATES AND MISC. FRAMING MEMBERS, UNLESS OTHERWISE NOTED (MINIMUM YIELD STRENGTH FY=36,000 PSI).
- ASTM A992 OR A572 WIDE FLANGE BEAM SHAPES (MINIMUM YIELD STRENGTH FY=50,000 PSI).
- ASTM A325 BOLTS USED FOR CONNECTING STRUCTURAL STEEL MEMBERS.
- ASTM A307 GR."A" ANCHOR BOLTS AND LAG SCREWS UNLESS NOTED OTHERWISE.
- ASTM A123/A123M GALVANIZED STEEL
2. STRUCTURAL STEEL DETAILS AND CONNECTIONS SHALL CONFORM TO THE STANDARDS OF THE CURRENT AISC SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
3. WELDING SHALL CONFORM TO THE CURRENT STANDARD OF THE AMERICAN WELDING SOCIETY (A.W.S.), SHOP AND FIELD WELDS SHALL BE MADE BY APPROVED CERTIFIED WELDERS.
4. ELECTRODES FOR ALL FIELD AND SHOP WELDING SHALL CONFORM TO ASTM A233 (CLASS 70), WELDS NOT SHOWN SHALL BE AWS MINIMUM. WELDS SHALL DEVELOP THE FULL STRENGTH OF THE MATERIAL BEING WELDED. SUBMIT WELDER CURRENT CERTIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.
5. SPLICING STRUCTURAL MEMBERS WHERE NOT DETAILED ON THE DRAWING IS PROHIBITED.
6. DURING THE CONSTRUCTION PHASE IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE NECESSARY, TEMPORARY SHORING AND BRACING TO MAKE THE STRUCTURE STABLE AND PLUMB BEFORE COMPLETION OF CONNECTIONS.
7. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL THE STRUCTURAL FRAME IS PROPERLY SECURED TO THE LATERAL LOAD RESISTING ELEMENTS IN THE BUILDING.
8. SUBMIT SHOP DRAWINGS TO THE ENGINEER SHOWING SETTING PLANS, ERECTION PLANS, DETAILS AND SIZES OF MEMBERS INCLUDING CONNECTIONS. STEEL FABRICATOR IS RESPONSIBLE FOR FINAL CONNECTION DETAILS AND DESIGN IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE A.I.S.C. DETAILING MANUAL.
9. WELD STEEL CONTACT SURFACES (OTHER THAN BOLTED CONNECTIONS) WITH A CONTINUOUS 3/16-INCH MINIMUM WELD, UNLESS OTHERWISE SPECIFIED.
10. TORCH CUTTING OR HOLE BURNING IS NOT ALLOWED, NO EXCEPTIONS.
11. NAILERS AND BLOCKING USED FOR STEEL BEAMS SHALL BE PRESSURE TREATED, SOUTHERN PINE, GRADE NO. 2.
12. STEEL BELOW THE BASE FLOOD ELEVATION SHALL BE CORROSION RESISTANT IN ACCORDANCE WITH THE "COASTAL CONSTRUCTION MANUAL"
13. STRUCTURAL STEEL MEMBERS SPECIFIED TO BE GALVANIZED SHALL BE FABRICATED WITH CONNECTION PIECES PRIOR TO GALVANIZATION

HELICAL PIER FOUNDATION

1. HELICAL PILES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE INTERNATIONAL RESIDENTIAL BUILDING CODE (IRC-15) WITH AMMENMENTS PER MASSACHUSETTS STATE BUILDING 780- CMR, FOR THE LOCAL JURISDICTION.
2. HELICAL PILES SHALL BE DESIGNED FOR LOADS GIVEN ON PLAN.
3. HELICAL PILE SYSTEM AND COMPONENTS SHALL BE RECONGNIZED BY ICC. THE MANUFACTURER SHALL HOLD A CURRENT ICC-ES ESR REPORT SHOWING COMPLIANCE WITH AC308S AND CURRENT INTERNATIONAL BUILDING CODE (IBC) ADOPTED BY THE LOCAL JURISDICTION.
4. DIMENSIONS OF THE CENTRAL SHAFT AND THE NUMBER, SIZE, SPACING AND THICKNESS OF THE HELICAL BEARING PLATES SHALL BE DESIGNED AND FABRICATED TO SUPPORT THE SPECIFIED DESIGN LOADS.
5. PILE SHAFTS SHALL BE SELECTED TO SUSTAIN LATERAL AND AXIAL LOADS AS DESIGNATED ON PLANS, WITH DUE CONSIDERATION FOR BUCKLING IN THE UPPER SOIL STRATA FROM LIMITED RESTRAINT PROVIDED BY SUB-SOILS IN THE LIQUEFIED STATE DURING EXTREME STORM EVENTS.
6. HELICAL PILE LEAD SECTIONS AND EXTENSIONS COULD CONSIST OF 1 3/4" SQUARE SHAFTS MINIMUM. STEEL FOR HELICAL PILES SHALL BE NEW AND OF UNIFORM QUALITY.
7. HELICAL PILE LEAD SECTIONS COULD CONSIST OF 8-10-12 MINIMUM HELIX CONFIGURATION
8. HELICAL PILES, EXTENSIONS, CAPS, CONNECTIONS, AND APPURTENANCES SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
9. THE HELICAL PILE INSTALLATION EQUIPMENT SHALL BE CAPABLE OF ACHIEVING THE TORQUE NECESSARY TO INSTALL THE PILES TO THE DESIGN CAPACITY AND TO THE DESIGN EMBEDMENT, BE SUITABLE FOR THE ACCESS AND OVERHEAD LIMITATIONS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.
- 10.THE MINIMUM EMBEDMENT OF EACH HELICAL PILE SHALL BE NO LESS THAN 20'-0", U.N.O.
- 11.THE CONTRACTOR SHALL CONTINUOUSLY MEASURE THE TORQUE APPLIED TO THE HELICAL PILES DURING INSTALLATION USING A CALIBRATED DIRECT TORQUE MONITOR ATTACHED TO THE HYDRAULIC INSTALLATION HEAD, A HYDRAULIC PRESSURE GAUGE CALIBRATED TO THE INSTALLATION TORQUE, OR AN APPROVED EQUIVALENT. INSTALLATION SHALL CONTINUE UNTIL THE MINIMUM EMBEDMENT DEPTH AND THE SPECIFIED TORQUE CORRESPONDING TO THE ULTIMATE CAPACITY ARE ACHIEVED.
12. MINIMUM AND MAXIMUM INSTALLATION TORQUES SHALL BE SPECIFIED BY THE HELICAL PILE MANUFACTURER. THE MINIMUM INSTALLATION TORQUE SHALL BE HIGH ENOUGH TO ACHIEVE THE REQUIRED BEARING CAPACITY, INCLUDING A SAFETY FACTOR OF 2. THE MAXIMUM INSTALLATION TORQUE SHALL NOT EXCEED THE ALLOWABLE TORSIONAL CAPACITY OF THE PILE SHAFTS.
13. HELICAL PILES SHALL BE DESIGNED AND MANUFACTURED TO RESIST ALL STRESSES INDUCED BY INSTALLATION.
14. EXISTING CONDITIONS AND UNDERGROUND OBSTRUCTIONS SHALL BE CONFIRMED BY THE PILE INSTALLER. PROBING OR SCANNING MAY BE NECESSARY TO LOCATE UNDERGROUND OBSTRUCTIONS. REPORT ANY UNFORESEEN OBSTRUCTIONS TO THE STRUCTURAL ENGINEER.
15. LOCATIONS OF PILES SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD (EOR). ADDITIONAL HELICAL PILES AND RE-DESIGN OF PILE CAP MAY BE REQUIRED IF OBSTRUCTIONS ARE ENCOUNTERED REQUIRING DEVIATION OR OFFSET FROM DESIGNATED LOCATIONS.
- 16.THE INSTALLER SHALL RECORD THE FOLLOWING AND SUBMIT TO THE ENGINEER FOR EACH PILE:
- A. INSTALLATION DATE.
- B. PILE MANUFACTURER.
- C. INSTALLATION CONTRACTOR.
- D. IDENTIFICATION OF INSTALLATION EQUIPMENT.
- E. MINIMUM ALLOWABLE INSTALLATION TORQUE.
- F. MAXIMUM ALLOWABLE INSTALLATION TORQUE.
- G. CENTRAL SHAFT DIAMETER OF EACH PILE.
- H. HELIX PLATE CONFIGURATION OF EACH PILE.
- I. ACTUAL TIP EMBEDMENT OF EACH PILE.
- J. ACTUAL INSTALLATION TORQUE OF EACH PILES.
- K. ULTIMATE CAPACITY OF EACH PILE AS SPECIFIED BY MANUFACTURER.
- L. ALLOWABLE CAPACITY OF EACH PILE AS SPECIFIED BY MANUFACTURER.

TEMPORARY JACKING AND SHORING

1. THE CONTRACTOR MUST PROVIDE TEMPORARY STRUCTURAL SUPPORT OR SHORING, AS REQUIRED, TO INSTALL FOUNDATIONS AND FRAMING WORK AS SHOWN ON THE DRAWINGS.
2. NEW STRUCTURAL BEAMS AND JOISTS SHALL BE PLACED IN SUCH A MANNER TO TRANSFER ALL EXISTING LOADS TO THE FOUNDATION. TEMPORARY JACKING AND SHORING OF THE EXISTING STRUCTURE IS REQUIRED TO RELIEVE ALL EXISTING APPLIED LOADS UNTIL NEW FOUNDATIONS AND CONNECTIONS HAVE BEEN COMPLETELY PLACED AND SECURED. JACKS MAY NOT BE RELIEVED. NOR SHORES REMOVED, UNTIL ALL NEW CONSTRUCTION WORK IS COMPLETE, THEREBY TRANSFERRING APPLIED LOADS TO NEW STRUCTURAL ELEMENTS.
3. FOR PURPOSES OF TEMPORARY SUPPORT OF SHORING SYSTEMS PLACED UPON EXISTING GRADE AND SOILS, A MAXIMUM SOIL BEARING CAPACITY OF 500PSF SHALL BE ASSUMED.

WOOD FRAMING NOTES

1. FRAMING LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AND SUPPLEMENT "DESIGN VALUES FOR WOOD CONSTRUCTION", LATEST EDITION. MAXIMUM MOISTURE CONTENT SHALL BE 19%.
2. PRESSURE TREATED WOOD MEMBERS USED FOR PLACEMENT AGAINST CONCRETE OR MASONRY (SILLS, PLATES, ETC.) SHALL BE PRESSURE TREATED WITH ACQ PRESERVATIVE, OR APPROVED EQUAL, TO MINIMUM RETENTION OF 0.6 PCF IN ACCORDANCE WITH AWPA C3
3. EXPOSED WOOD MEMBERS USED FOR STRUCTURAL FRAMING, DECKING, STAIRS, RAILS, BRACING, ETC. SHALL BE PRESSURE TREATED WITH ACQ PRESERVATIVE, OR APPROVED EQUAL, TO MINIMUM DETENTION OF 0.6 PCF IN ACCORDANCE WITH AWPA C3.
4. NAILERS AND BLOCKING USED FOR STEEL BEAMS SHALL BE PRESSURE TREATED, SOUTHERN PINE, GRADE 2.
5. THE FRAMING LUMBER SHALL BE OF THE FOLLOWING MINIMUM GRADE AND SPECIES FOR THE SPECIFIED USE, UNLESS OTHERWISE SPECIFIED:

LUMBER SHALL BE GRADE STAMPED BY A RECOGNIZED GRADING AGENCY AND SHALL BE SURFACE DRY.

FOR EXPOSED PRESSURE TREATED MEMBERS**

FLOOR JOISTS & BEAMS, #2 SOUTHERN PINE:
FB = 1000 PSI, E = 1.5E6 PSI

TIMBERS AND POSTS, #2 SOUTHERN PINE (5X5 & LARGER):
FC = 800 PSI, E = 1.4E6 PSI

FOR NON-EXPOSED MEMBERS**

STUDS #2 SPRUCE PINE FIR:
FC = 1150 PSI, E = 1.4E6 PSI

TIMBERS AND POSTS #1 DOUGLAS FIR (5X5 & LARGER):
FB = 1000 PSI, E = 1.5E6 PSI

(*DESIGN VALUES ADJUSTED ONLY BY CM)
(*DESIGN VALUES NOT ADJUSTED)

6. ENGINEERED LUMBER PRODUCTS SHALL BE AS MANUFACTURED BY THE TRUSS JOIST CORPORATION, BOISE CASCADE, LOUISIANA PACIFIC CORPORATION OR APPROVED EQUAL.

FOLLOW MANUFACTURERS' SPECIFICATIONS FOR ERECTION, INSTALLATION, AND PLACEMENT OF ENGINEERED LUMBER PRODUCTS. PENETRATIONS THROUGH ENGINEERED LUMBER PRODUCTS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.

LAMINATED VENEER LUMBER (LVL) TO HAVE A MINIMUM ALLOWABLE BENDING STRESS (FB) OF 3,100 PSI. THE MINIMUM ALLOWABLE COMPRESSION STRESS (FC) PERPENDICULAR TO THE GRAIN SHALL BE 750 PSI. THE MINIMUM ALLOWABLE MODULUS OF ELASTICITY (E) SHALL BE 2,100,000 PSI. INSTALL LVL'S IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

7. LUMBER WHICH IS SPLIT, CRACKED, NOTCHED OR OTHERWISE ALTERED OR DAMAGED SHALL BE IMMEDIATELY REJECTED AND NOT ALLOWED FOR USE, UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

8. WOOD PRODUCTS SHALL BE STORED IN A DRY LOCATION.

9. JOISTS, RAFTERS, BEAMS, POSTS, STUDS OR ANY OTHER FRAMING MEMBER SHALL NOT BE CUT, NOTCHED, DRILLED, OR OTHERWISE MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.

10. CONNECTORS AND FASTENERS USED TO SECURE ACQ PRESSURE TREATED LUMBER SHALL BE STAINLESS STEEL UNLESS OTHERWISE SPECIFIED.

11. NAILS, FASTENERS, AND CONNECTORS EXPOSED TO THE WEATHER SHALL BE STAINLESS STEEL.

12. DETAILS OF WOOD FRAMING SUCH AS NAILING, BLOCKING, BRIDGING, FIRESTOPPING, ETC. SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION (AFPA), THE TIMBER CONSTRUCTION MANUAL (AITC), AND ARCHITECTURAL GRAPHICS STANDARD BY RAMSEY & SLEEPER.

CONT. WOOD FRAMING NOTES

13. WHERE DIMENSIONAL FRAMING LUMBER IS FLUSH FRAMED TO ENGINEERED LUMBER OR STEEL GIRDERS, SET THESE GIRDERS 1/4" CLEAR BELOW THE TOP OF FRAMING LUMBER TO ALLOW FOR SHRINKAGE.
14. WOOD STUD WALLS ARE TO BE 2x6 @ 16" O.C. UNLESS OTHERWISE SPECIFIED.
15. RAFTERS AND JOISTS SHALL ALIGN WITH ONE ANOTHER AND WITH STUDS BELOW.
16. USE DOUBLE TRIMMERS AND HEADERS AT FLOOR OPENINGS WHERE BEAMS ARE NOT DESIGNATED.
17. LAP PLATES AND SILLS AT CORNERS AND AT INTERSECTIONS OF PARTITIONS.
18. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS UNDER EACH PARTITION. EACH END OF EACH JOIST SHALL BE FULL DEPTH BLOCKED AT THE SUPPORT LOCATION. PROVIDE JOIST BRIDGING AT MID-SPAN AND QUARTER POINTS, OR AS SHOWN ON DRAWINGS. BRIDGING PLACEMENT SHALL NOT EXCEED 8 FT. O.C. SPACING.
19. USE FULLY NAILED METAL CONNECTORS (USP, SIMPSON, OR EQUAL), JOIST, OR BEAM HANGERS WHEN JOISTS OR BEAMS FRAME INTO OTHER JOISTS OR BEAMS. PROVIDE METAL POST CAPS AND BASES FOR POSTS. REFER TO FRAMING PLAN FOR CONNECTOR TYPES.
20. FLOOR SHEATHING SHALL BE GLUED TO SUPPORTING WOOD FRAMING MEMBERS USING AMERICAN PLYWOOD ASSOCIATION (A.P.A.) GLUED FLOOR SYSTEM. WOOD GLUE TO BE CONTECH, INC., PL400 SUB-FLOOR CONSTRUCTION ADHESIVE, OR APPROVED EQUAL.
21. ROOF SHEATHING SHALL BE PLACED USING SIMPSON PSCL PANEL SHEATHING CLIPS, MINIMUM OF TWO (2) PER JOINT, EQUALLY SPACED.
22. WOOD FRAMING COMPONENTS BELOW THE DESIGN FLOOD ELEVATION SHALL BE FLOOD-RESISTANT IN ACCORDANCE WITH THE COASTAL CONSTRUCTION MANUAL (FEMA P-55), UNLESS NOTED OTHERWISE.

CONCRETE NOTES

1. CONCRETE MIXTURE, FORM-WORK, DELIVERY AND PLACEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 (LATEST EDITION), UNLESS OTHERWISE NOTED.
2. CONCRETE MATERIALS SHALL BE: TYPE 1 OR 2 PORTLAND CEMENT, SAND AND GRAVEL AGGREGATES. CONCRETE SHALL BE AIR-ENTRAINED PER ACI RECOMMENDATIONS. CONCRETE COMPRESSIVE STRENGTH, (F'C) IN 28 DAYS, WHEN TESTED IN ACCORDANCE WITH ACI 318-LATEST EDITION, SHALL BE AS FOLLOWS: 4,000 PSI
3. THE MAXIMUM CONCRETE SLUMP FOR FOUNDATION WALLS, FOOTINGS, PIERS, ETC., SHALL BE 4". THE MAXIMUM CONCRETE SLUMP FOR SLABS SHALL BE 3" (MEASURED AT POINT OF DISCHARGE), EXCEPT FOR NON-EXPOSED INTERIOR CONCRETE SLABS ON GRADE. CONCRETE SHALL BE AIR ENTRAINED TO 5% (+/- 1%).
4. MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE CURRENT AMERICAN CONCRETE INSTITUTE SPECIFICATIONS AND GUIDELINES.
5. GROUT SHALL BE NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI. THE MAXIMUM APPLICATION THICKNESS OF GROUT UNDER COLUMN BASES SHALL BE 11/2". USE SIKAGROUT 212 (SIKA CORP.) OR APPROVED EQUAL.
6. REINFORCING STEEL SHALL BE NEW DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, EXCEPT WHERE NOTED. RUSTED REINFORCING BARS ARE NOT ALLOWED.
7. DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI PUBLICATION 315 AND CURRENT CRSI SPECIFICATIONS, LATEST EDITIONS.
8. PROVIDE MINIMUM TEMPERATURE REINFORCEMENT AS REQUIRED BY ACI 318-LATEST EDITION, IN SLABS AND WALLS WHERE NO REINFORCEMENT IS INDICATED ON DRAWINGS.
9. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, REINFORCING STEEL SHALL BE PLACED TO PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER:
- | | |
|--------------------------|--------------------------|
| BOTTOM OF FOOTINGS | 3" |
| FORMED SIDES OF FOOTINGS | 2" |
| FOUNDATION WALL | 1 1/2" |
| SLAB ON GRADE | 1 1/2" BELOW TOP SURFACE |
| PIERS | 2" |
10. COLUMN ANCHOR BOLTS ARE TO BE FURNISHED AND INSTALLED ACCORDING TO DESIGN PLAN. COLUMN ANCHOR BOLTS SHALL BE SET BY TEMPLATE. WET-STICKING IS NOT ALLOWED.
11. CONTINUOUS REINFORCEMENT SHALL HAVE CLASS "B" SPLICES (ACI 318-LATEST EDITION, SECTION 12.15) OR SHALL BE LAPPED 48 BAR DIAMETERS MINIMUM, UNLESS NOTED OTHERWISE.
12. FOOTING REINFORCING SHALL BE CONTINUOUS AND SHALL HAVE 90-DEGREE BENDS AT CORNERS AND INTERSECTIONS; OR PROVIDE 2'-0" X 2'-0" CORNER BARS SIZE TO MATCH, AS SHOWN ON TYPICAL BAR PLACING DETAILS.
13. REINFORCING BARS MAY NOT BE WELDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER. WHEN APPROVED, WELDING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE CURRENT A.W.S.
14. CONCRETE SHALL BE PROTECTED AGAINST FROST UNTIL PROJECT IS COMPLETED. PROVIDE CONCRETE PROTECTION AND/OR HEAT IN COLD WEATHER AND MAINTAIN CURING PROCEDURES IN ACCORDANCE WITH CURRENT ACI CODE OF STANDARD PRACTICE SPECIFICATIONS AND GUIDELINES.
15. REINFORCING BARS SHALL BE COLD BENT IN ACCORDANCE TO THE RADII ESTABLISHED BY THE ACI UNDER NO CIRCUMSTANCES SHALL HEAT BE APPLIED TO THE BARS TO OBTAIN BENDS.
16. FORMS SHALL BE OILED PRIOR THEIR THE ERECTION. REINFORCING BARS THAT ARE COATED WITH FORM OIL OR ANY OTHER BOND BREAKING MATERIAL WILL BE REJECTED AND WILL REQUIRE REPLACEMENT AT NO ADDITIONAL COST. FORM OIL SHALL NOT BE PETROLEUM BASED IF DETERMINED BY THE ENGINEER OR ARCHITECT TO HAVE A COMPATIBILITY ISSUE WITH WATERPROOFING OR DAMPROOFING.
17. ADDITION OF WATER TO CONCRETE MIXES AT THE SITE IS NOT ALLOWED.
18. CONCRETE SHALL BE READI-MIXED AT PLANT COMPLYING WITH ASTM C94 AND ASTM C1116. SITE MIXING IS NOT ALLOWED.
19. CONTROL JOINTS IN THE SLABS ARE REQUIRED TO CONTROL CRACKING. PROVIDE CONTROL JOINTS EVERY 20' MINIMUM, AND ALONG COLUMN LINES. SAW CUT CONTROL JOINTS 1/4" WIDE TO A DEPTH OF 1/4 SLAB THICKNESS WITHIN 48 HOURS OF CONCRETE PLACEMENT. AFTER CONCRETE HAS CURED, CLEAN AND PREPARE JOINTS AND FILL SOLID WITH "SIKADUR 51 SL FLEXIBLE EPOXY CONTROL JOINT RESIN" (SIKA CORP.) OR AN APPROVED EQUAL. PROVIDE SIMILAR SEALED JOINT USING FULL DEPTH EXPANSION JOINT FILLER AROUND FLOOR DRAIN PERIMETERS.
20. PLACEMENT OF CONCRETE POURS FOR FOUNDATION WALL AND FOOTINGS ARE NOT TO EXCEED 40 FEET IN ANY STRAIGHT LENGTH, AND SHALL HAVE CONTINUOUS SPECIFIED REINFORCING (40 BAR DIA. MIN.) THROUGH ANY CONSTRUCTION JOINT. CONSTRUCTION JOINTS SHALL BE PLACED NO CLOSER THAN 10 FT. FROM ANY CORNER.
21. CHAIR BARS FOR SECURE PLACEMENT AND POSITIONING OF REINFORCING STEEL ARE TO BE PROVIDED. IN NO CASE SHALL BRICK, WOOD, OR OTHER NON-CONFORMING REINFORCING STEEL SUPPORTS BE USED.

TIMBER PRESERVATIVE TREATMENT AND GRADE SPECIFICATIONS

MEMBER	LUMBER GRADE AND SPECIES	USE CATEGORY	PRESERVATIVE TREATMENT
PILE CAP AND BRACING	SOUTHERN PINE #2	UC4B: SALT WATER SPLASH / NOT IN GROUND CONTACT	1.5 CCA
JOISTS / SHIMS / BLOCKS / BLKG	SOUTHERN PINE #2	UC4A: SALT WATER SPLASH / NOT IN GROUND CONTACT	0.6 ACQ 0.23 MCA

NOTE: USE THE ABOVE PRESERVATIVE TREATMENTS FOR EXPOSED LUMBER


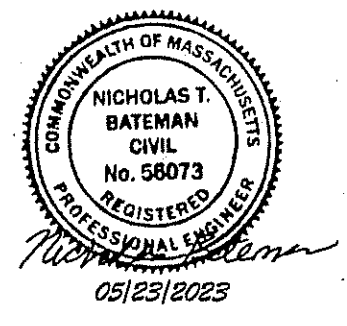
STRUCTURAL SHEET LIST

SHEET NUMBER	SHEET NAME
S-001	GENERAL NOTES
S-100	FOUNDATION PLAN
S-101	FIRST FLOOR FRAMING PLAN
S-102	SECOND FLOOR FRAMING PLAN
S-103	ROOF FRAMING PLAN
S-500	FOUNDATION DETAILS

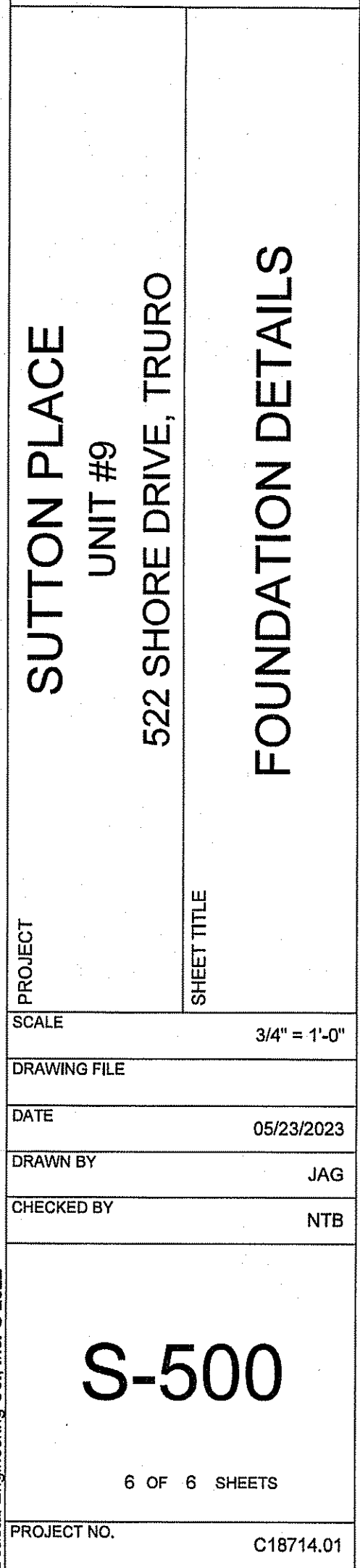
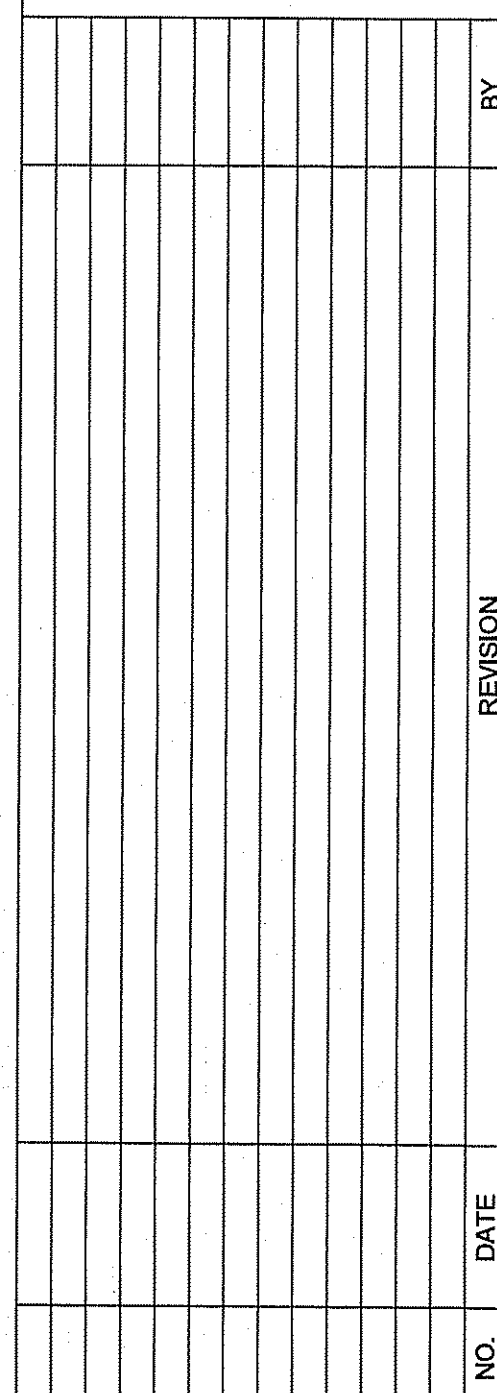
Conservation Commission
TOWN OF TRURO
JUL 17 2023

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PERMIT SET
"NOT FOR CONSTRUCTION"

 <p>260 Cranberry Hwy, Orleans, MA 02653 508.255.6511 P 508.255.6700 F</p>									
									BY
									REVISION
									DATE
									NO.
SEAL									
									
PROJECT SCALE DRAWING FILE DATE DRAWN BY CHECKED BY									
SUTTON PLACE UNIT #9 522 SHORE DRIVE, TRURO SHEET TITLE									
GENERAL NOTES									
S-001									
1 OF 6 SHEETS									
PROJECT NO. C18714.01									

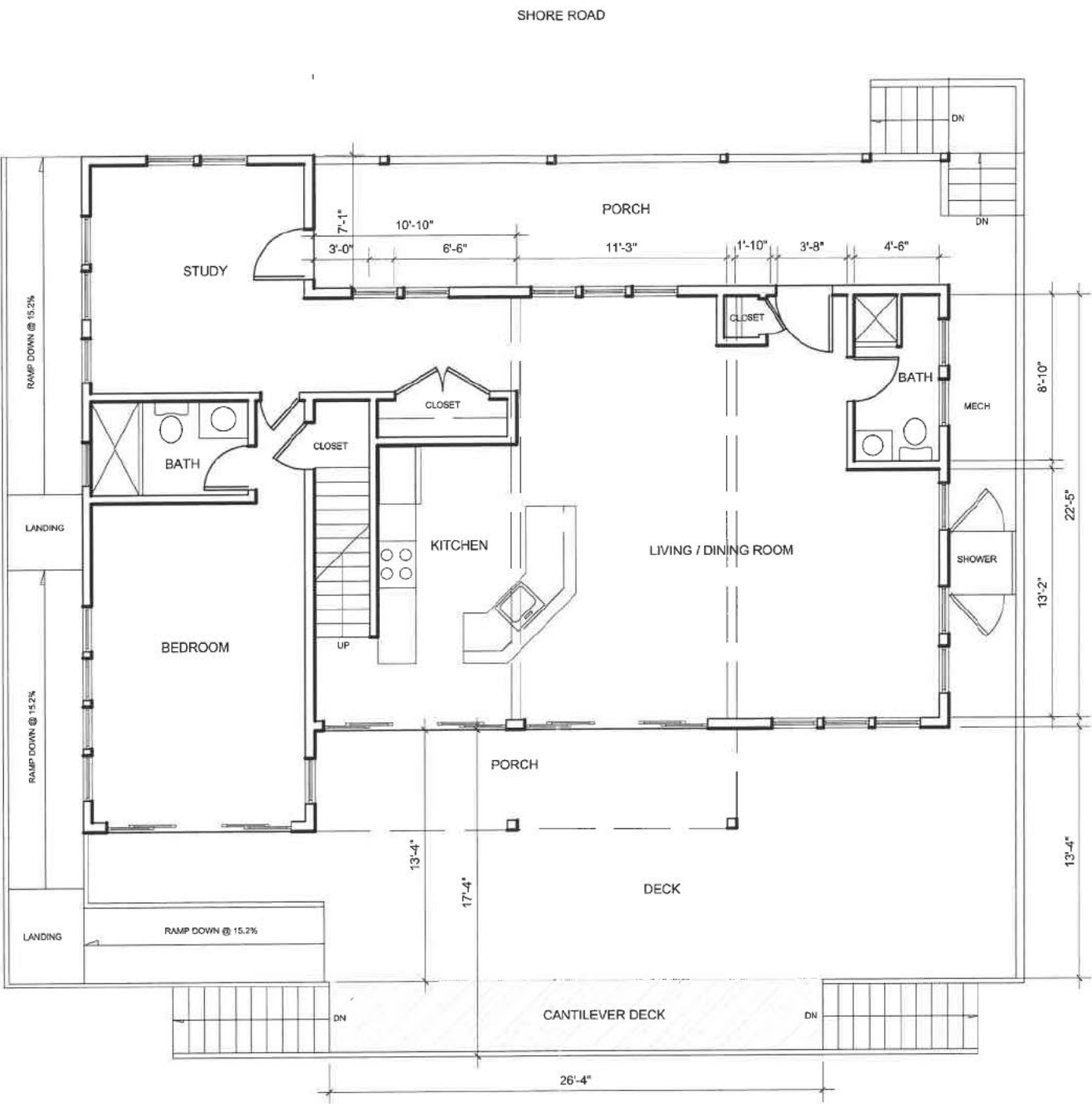
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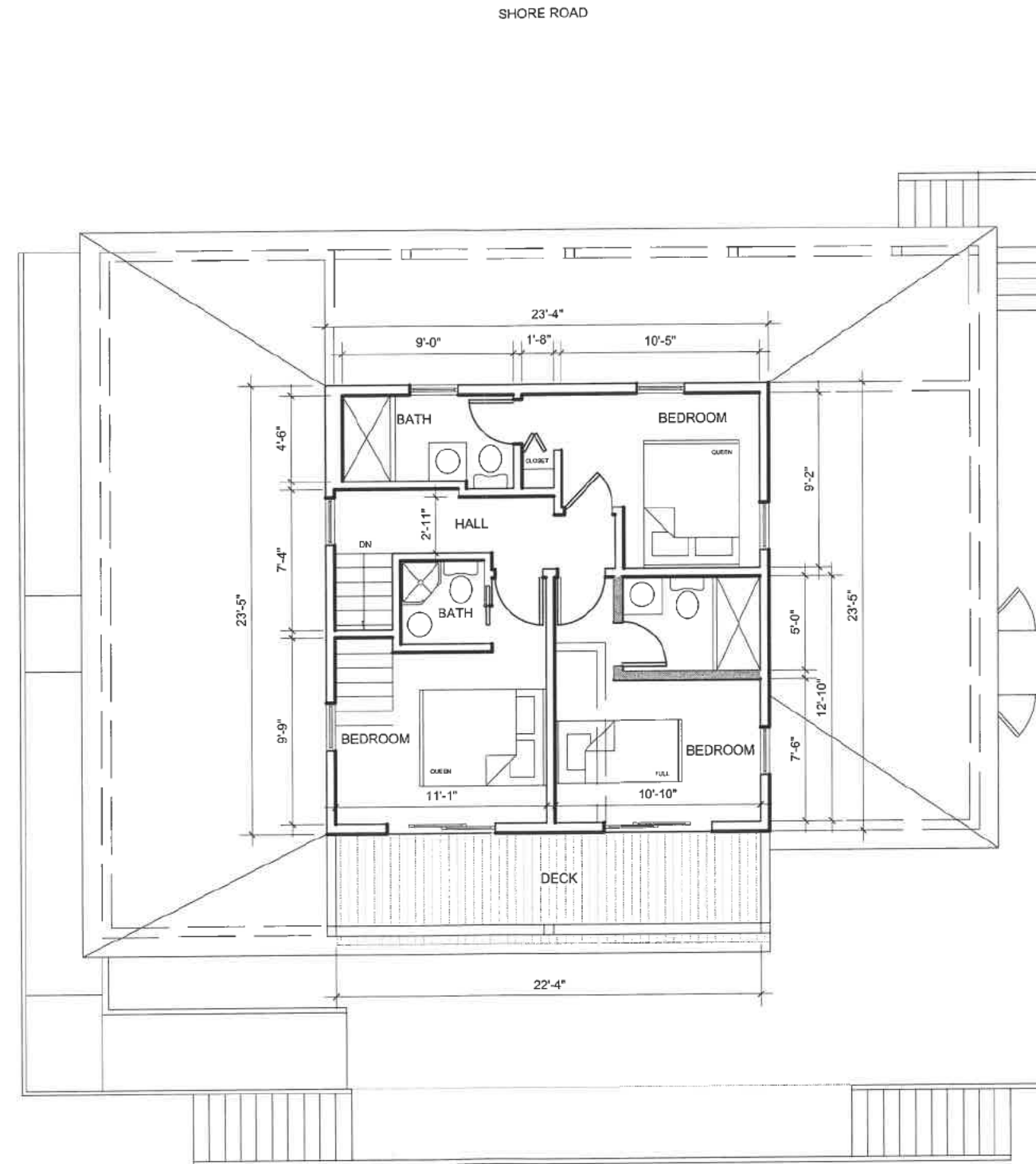
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PROJECT TITLE
522 SHORE ROAD
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DRAWING TITLE
PROPOSED FIRST FLOOR PLAN

SCALE
1/8" = 1'-0"
DATE
10 JULY 2023

SHEET NO.
A1.1



TED SMITH
Architect, LLC
12 Dartmouth Place . Boston
422 Commercial Street . Provincetown
617 . 247 . 0023
TEDSMITHARCHITECT@GMAIL.COM

PROJECT TITLE

522 SHORE ROAD
SUTTON PLACE UNIT 9
North Truro, Massachusetts

DRAWING TITLE

PROPOSED SECOND FLOOR PLAN

SCALE

1/8" = 1'-0"

DATE

10 JULY 2023

SHEET NO.

A1.2



NORTH ELEVATION



EXISTING NORTH ELEVATION

<p>TED SMITH Architect, LLC 12 Dartmouth Place . Boston 422 Commercial Street . Provincetown 617 . 247 . 0023 TEDSMITHARCHITECT@GMAIL.COM</p>	<p>PROJECT TITLE</p> <p>522 SHORE ROAD SUTTON PLACE UNIT 9 North Truro, Massachusetts</p>	<p>DRAWING TITLE</p> <p>NORTH ELEVATION</p>	<p>SCALE</p> <p>1/8" = 1'-0"</p> <p>DATE</p> <p>10 JULY 2023</p>	<p>SHEET NO.</p> <p>A2.1</p>
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WEST ELEVATION



EXISTING WEST ELEVATION

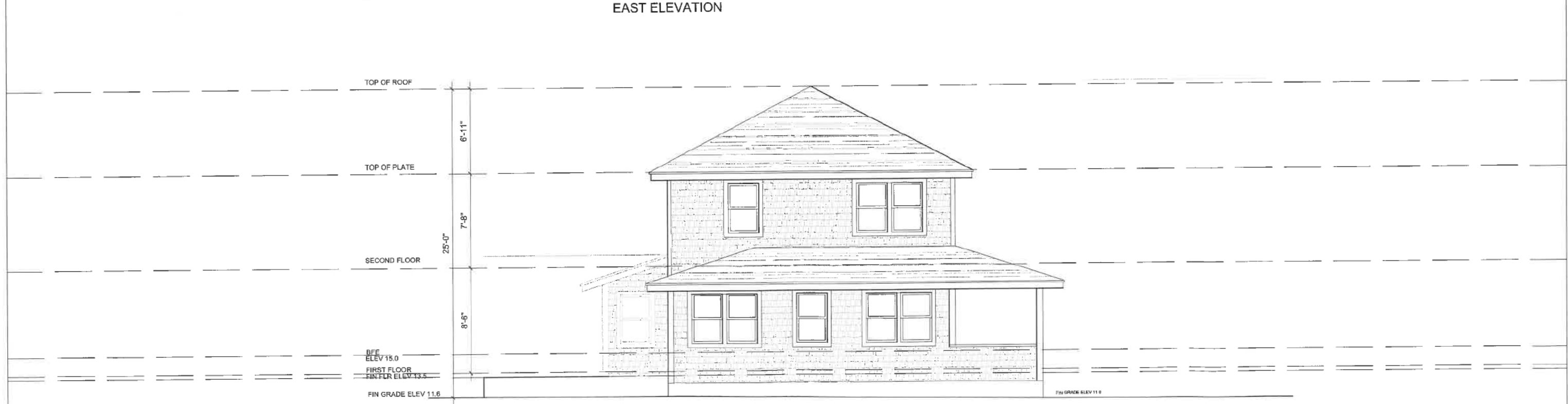
<p>TED SMITH Architect, LLC 12 Dartmouth Place . Boston 422 Commercial Street . Provincetown 617 . 247 . 0023 TEDSMITHARCHITECT@GMAIL.COM</p>	<p>PROJECT TITLE</p> <p>522 SHORE ROAD SUTTON PLACE UNIT 9 North Truro, Massachusetts</p>	<p>DRAWING TITLE</p> <p>WEST ELEVATION</p>	<p>SCALE</p> <p>1/8" = 1'-0"</p> <p>DATE</p> <p>10 JULY 2023</p>	<p>SHEET NO.</p> <p>A2.2</p>
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TED SMITH Architect, LLC 12 Dartmouth Place . Boston 422 Commercial Street . Provincetown 617 . 247 . 0023 TEDSMITHARCHITECT@GMAIL.COM	PROJECT TITLE 522 SHORE ROAD SUTTON PLACE UNIT 9 North Truro, Massachusetts	DRAWING TITLE SOUTH ELEVATION	SCALE 1/8" = 1'-0"	SHEET NO. A2.3
			DATE 10 JULY 2023	

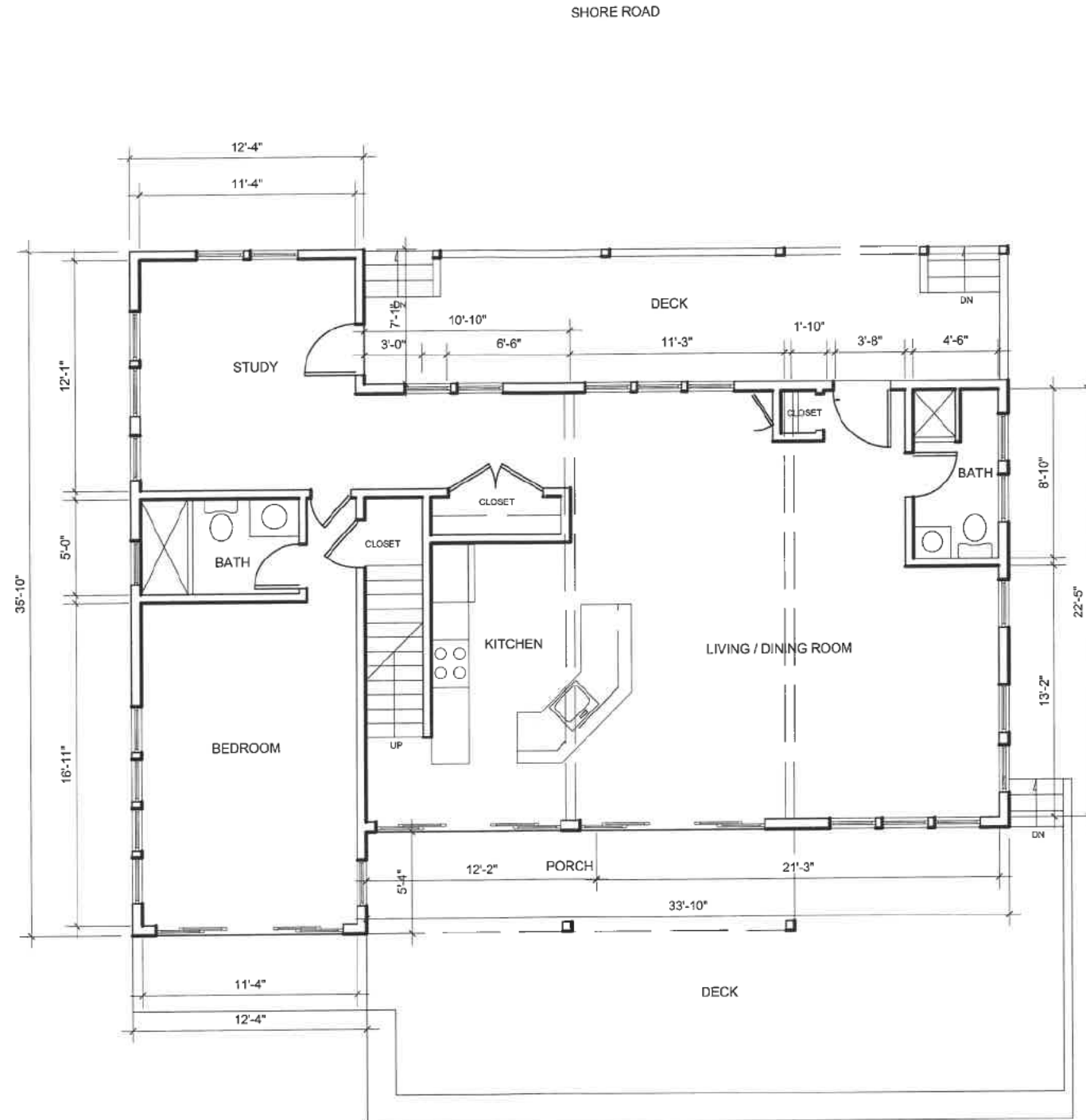


EAST ELEVATION



EXISTING EAST ELEVATION

<div>TED SMITH Architect, LLC 12 Dartmouth Place . Boston 422 Commercial Street . Provincetown 617 . 247 . 0023 TEDSMITHARCHITECT@GMAIL.COM</div>	<div>PROJECT TITLE</div> <div>522 SHORE ROAD SUTTON PLACE UNIT 9 North Truro, Massachusetts</div>	<div>DRAWING TITLE</div> <div>EAST ELEVATION</div>	<div>SCALE</div> <div>1/8" = 1'-0"</div>	<div>SHEET NO.</div> <div>A2.4</div>
			<div>DATE</div> <div>10 JULY 2023</div>	



TED SMITH
Architect, LLC
12 Dartmouth Place . Boston
422 Commercial Street . Provincetown
617 . 247 . 0023
TEDSMITHARCHITECT@GMAIL.COM

PROJECT TITLE

522 SHORE ROAD
SUTTON PLACE UNIT 9
North Truro, Massachusetts

DRAWING TITLE

EXISTING FIRST FLOOR PLAN

SCALE

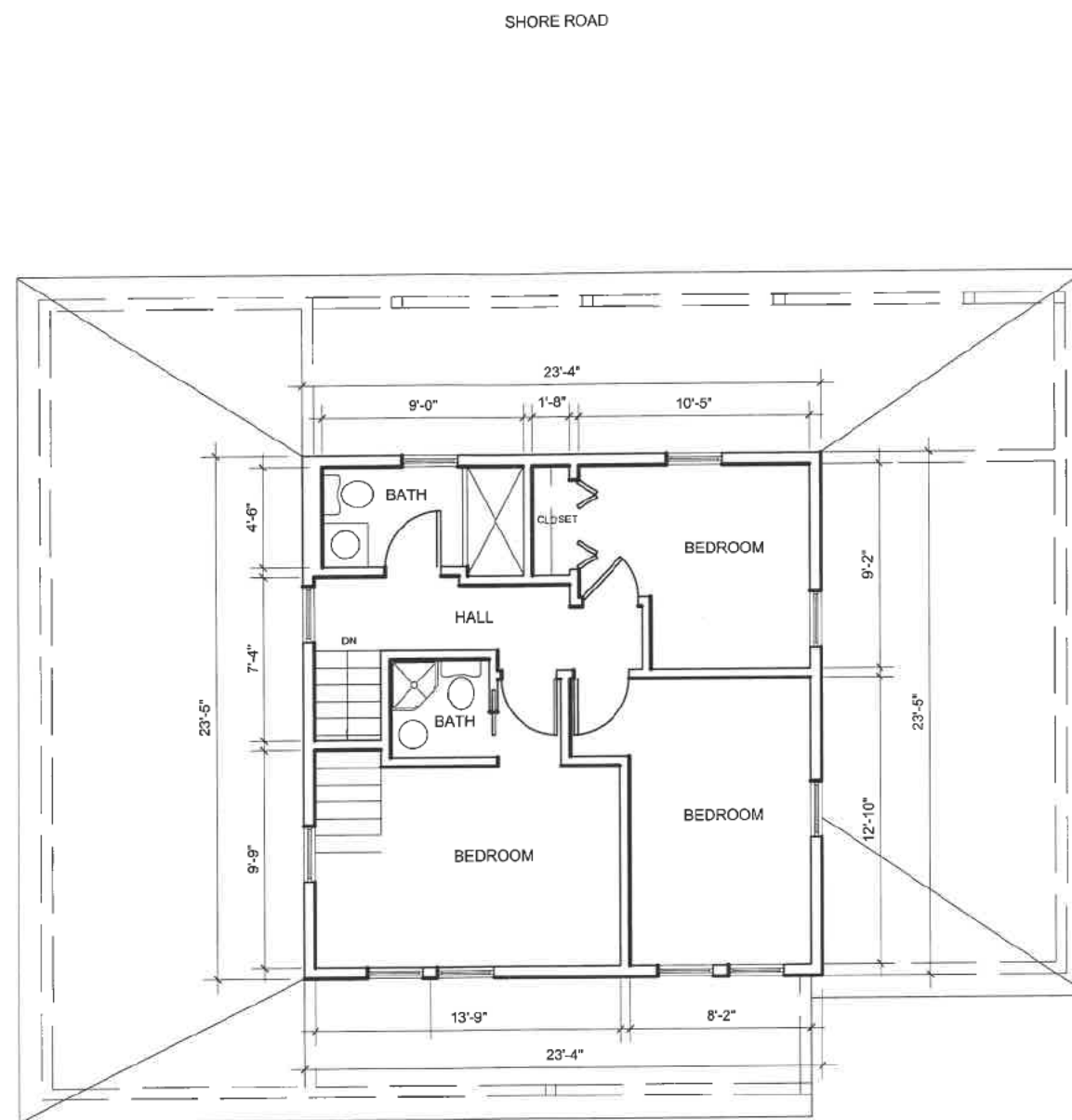
1/8" = 1'-0"

DATE

10 JULY 2023

SHEET NO.

E1.1



TED SMITH
Architect, LLC
12 Dartmouth Place . Boston
422 Commercial Street . Provincetown
617 . 247 . 0023
TEDSMITHARCHITECT@GMAIL.COM

PROJECT TITLE

522 SHORE ROAD
SUTTON PLACE UNIT 9
North Truro, Massachusetts

DRAWING TITLE

EXISTING SECOND FLOOR PLAN

SCALE

1/8" = 1'-0"

DATE

10 JULY 2023

SHEET NO.

E1.2

JUL 17 2023

SAFE HARBOR

ENVIRONMENTAL MANAGEMENT
HABITAT RESTORATION



REMOVE CONCRETE, USE STEPPINGSTONES AND PAVERS, REPLACE STAIRS: ADD SOAPLESS RINSE STATION. 3 SMALL DECK ADDITIONS

Date: July 17, 2023

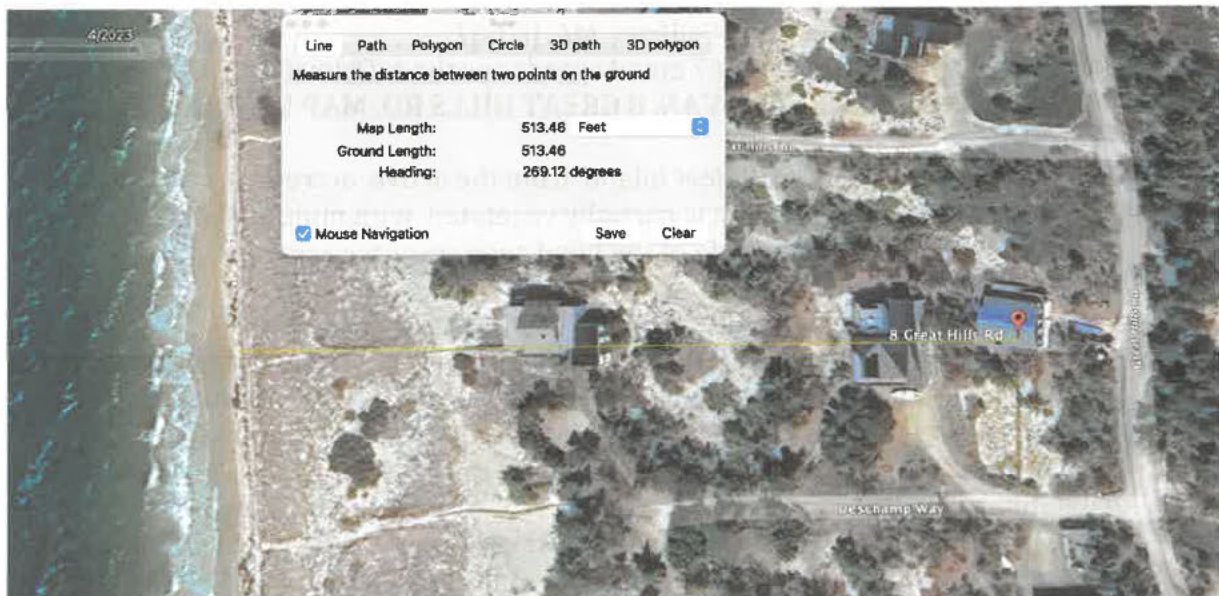
To: Truro Conservation Commission, Attn: Emily Beebe, Agent, Cc: Arozana Davis

From: Gordon Peabody, Safe Harbor Environmental

Office: 95 Commercial St. Room 211, Wellfleet, MA, 02667

Mail: P.O. Box 880, Wellfleet, MA, 02667 email : gordonpeabody@gmail.com 508 237, 3724

RE: NOI, BRUCE AND JOANNE SULLIVAN, 8 GREAT HILLS RD, MAP53, PARCEL 11



The property is 500 feet from the active primary dune. The coastal dune resource area is composed of small, partially vegetated and developed, dunes. Proposed improvements will reduce the overall footprint by 105 sq ft. Proposed activity area is outside of flood zone. The owners want to replace hardened, concrete exterior surfaces around their home with storm water friendly, permeable, dry laid pavers and steppingstones. Steps and stairways are also being upgraded with more permeable and safer surfaces. 3 small deck additions will make outdoor space more usable. No changes in elevation are proposed. Mitigations include use of small, soft tire equipment and recycling of materials. Replacement materials will be permeable. Planting area (600 sq ft) includes: American Beach Grass (600 stems, 3 culm plantings 14" OC); Beach Plum (20-2 gal 4' OC); and Bayberry (20-2 gal 4' OC). An underground utility cable requires replacement and will be planted with American Beach Grass (350 stems, 3 culm plantings 14" OC). No fertilizers, pesticides or herbicides used. Soap less, outdoor rinse station will utilize Safe Harbor shower safe, layered drywell.

SAFE HARBOR

ENVIRONMENTAL MANAGEMENT
HABITAT RESTORATION



NOI ENVIRONMENTAL MANAGEMENT PLAN: EXTERIOR IMPROVEMENTS

IMPROVE EXTERIOR STORMWATER PERFORMANCE BY REPLACING CONCRETE SURFACES WITH FLAG STONES & PERMEABLE PAVERS, REPLACE STEPS AT GRADE WITH WOOD TREADS & PEASTONE, 3 SMALL DECK ADDITIONS, RINSE STATION

Date: July 17, 2023

To: Truro Conservation Commission, Attn: Emily Beebe, Agent, Cc: Arozana Davis

From: Gordon Peabody, Safe Harbor Environmental

Office: 95 Commercial St. Room 211, Wellfleet, MA, 02667

Mail: P.O. Box 880, Wellfleet, MA, 02667 email : gordonpeabody@gmail.com 508 237, 3724

RE: NOI, BRUCE AND JOANNE SULLIVAN, 8 GREAT HILLS RD, MAP 53, PARCEL 11

1. The property is currently 500 feet inland, from the active, accreting primary dune.
2. The coastal dune resource area is partially vegetated, with multiple homes.
3. Proposed activity area is outside of the flood zone resource area.
4. No changes in elevation are proposed.
5. Proposed improvements reduce the overall footprint by 105 sq ft.
6. The owners want to replace hardened, concrete exterior surfaces around their home with storm water friendly, permeable, dry laid pavers and steppingstones.
7. Deteriorated steps at grade are being replaced with permeable and safer surfaces.
8. 3 small deck additions will make outdoor space more usable.
9. Mitigations include:
 - ✓ Safe Harbor will coordinate site meeting prior to exterior work commencing.
 - ✓ use of small, soft tire equipment. All rubble will be removed.
 - ✓ recycling of materials.
 - ✓ Replacement materials will be permeable.
 - ✓ Planting area (600 sq ft) includes: American Beach Grass (600 stems, 3 culm plantings 14" OC); Beach Plum (20-2 gal 4' OC); Bayberry (20-2 gal 4' OC).
 - ✓ Plantings will be made and monitored by trained Safe Harbor workers.
 - ✓ Underground utility cable requires replacement and will be planted with American Beach Grass (400 stems, 3 culm plantings 14" OC).
 - ✓ No fertilizers, pesticides or herbicides used.
 - ✓ Soap less, outdoor rinse station will utilize Safe Harbor layered drywell.
 - ✓ Worker parking and toilet will be as shown on proposed site plan.
 - ✓ Materials and demo storage will be as shown on proposed site plan.
 - ✓ Erosion control wattle and 24" sand fence, as shown on proposed site plan.
 - ✓ Safe Harbor shall provide regular project updates to the Commission.

Title: Locus Map



Title: USGS Map



N

12-

ZONE AE
(EL 12)

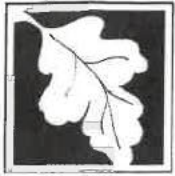
π/π

 n/f

53-17



SCALE: 1"=20' JULY 12, 2023



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

Conservation Commission
TOWN OF TRURO

JUL 17 2023

A. General Information

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



1. Applicant:

The E. Hope Macewen Trust c/o William & Beverly Larkin

Name

E-Mail Address

76 Farirman Road

Mailing Address

Orange

MA

01364

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

2. Representative (if any):

J.C. Ellis Design Co., Inc.

Firm

Jason C. Ellis, R.S.

jason@jcellisdesign.com

Contact Name

E-Mail Address

P.O. Box 81

Mailing Address

North Eastham

MA

02651

City/Town

State

Zip Code

508-240-2220

508-240-2221

Phone Number

Fax Number (if applicable)

B. Determinations

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

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

Truro

Name of Municipality

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description

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

19 Knowles Heights Road

Street Address

Truro

City/Town

24

Assessors Map/Plat Number

14

Parcel/Lot Number

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

The property lies within the 100' buffer zone to a coastal bank.

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

Septic System Upgrade Plan: 19 Knowles Heights Road, Truro, MA

Title

March 1, 2023

Title

Date

Title

Date

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

Abandonment of cesspool and installtion of new septic tank aand Orenco Advantex system and pump vault and sewer line piping within 100' buffer zone.



WPA Form 1- Request for Determination of Applicability

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

C. Project Description (cont.)

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

Residential property, 100' buffer zone only - limited disturbance..

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

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

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

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

Name and address of the property owner:

The E. Hope Macewen Trust

Name

78 Fairman Road

Mailing Address

Orange

City/Town

MA

State

01364

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 40.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

7-16-2023

Date

Signature of Representative (if any)

7-16-2023

Date



J.C. ELLIS DESIGN COMPANY, INC.

SEPTIC SYSTEM DESIGN & ENGINEERING – SEPTIC INSPECTION –
SITE PLANNING – WETLAND CONSULTATION & PERMITTING
P.O. BOX 81, NORTH EASTHAM, MA 02651 PHONE 508-240-2220 FAX 508-240-2221
EMAIL jason@jcellisdesign.com

Notification to Abutters Under the Massachusetts Wetland Protection Act & Truro Wetlands Bylaw

July 16, 2023

RE: Request for Determination of Applicability

The E. Hope Macewen Trust c/o William & Beverly Larkin
19 Knowles Heights Road, Truro, MA
Assessor's Map 24, Parcel 14

In accordance with the MA Wetlands Protection Act and the Truro Wetlands Bylaw, you are hereby notified that the E. Hope Macewen Trust c/o William & Beverly Larkin has filed a Request for Determination of Applicability with the Truro Conservation Commission regarding proposed work, on the above-referenced property, which lies within an area subject to regulation under the MA Wetlands Protection Act and the local Wetland Protection Bylaw.

Specifically, the proposed work consists of the installation of a new septic tank, Orenco Advantex AX-20 system and pump vault and abandonment of existing cesspool within 100' of the top of Coastal Bank.

Copies of the Notice of Intent and project plans may be examined at the Truro Conservation Department, located at 24 Town Hall Road, during regular business hours.

A public hearing, regarding the proposed work described above, will be held by the Truro Conservation Commission on August 7, 2023 at 5:00 P.M at the Truro Town Hall. Should you be interested in attending the public hearing, you should contact the Conservation Department for confirmation of the date, time and place of the public hearing at 508-349-7004 x31.

Sincerely,

Jason C. Ellis, R.S., L.S.I.T.

cc: abutters
file

6968 11 S
(PROVINCE

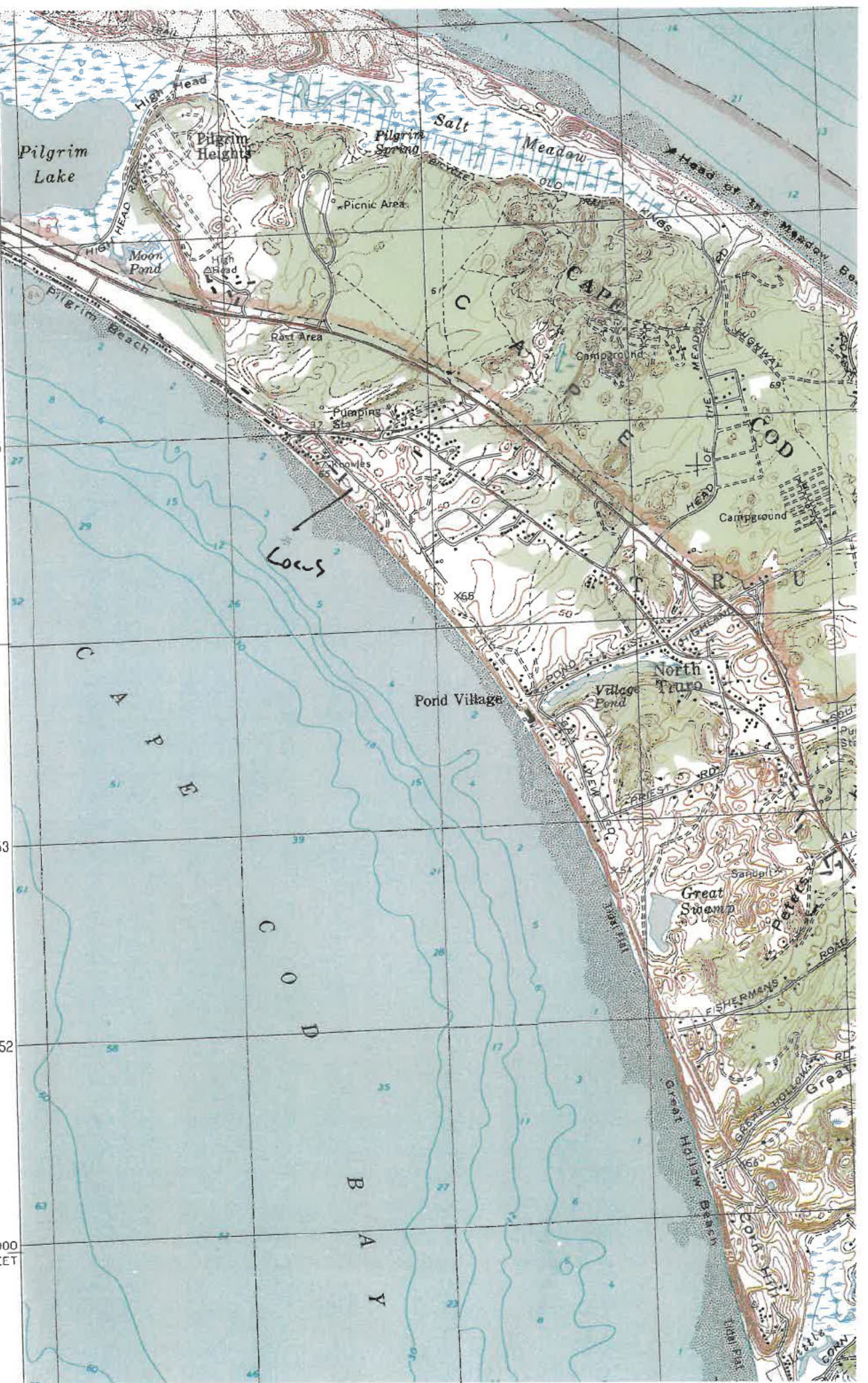
PROVINCETOWN 4.2 MI.

4655
2' 30"

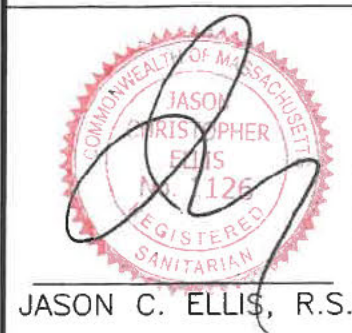
4653

4652

370 000
FEET







SURVEY PLAN REFERENCE:
PLAN BOOK 663 PAGE 43
PLAN BOOK 88 PAGE 35
THIS PLAN IS FOR SEPTIC SYSTEM
DESIGN PURPOSES ONLY.
THIS PLAN IS NOT FOR BOUNDARY
DETERMINATION.
PROPERTY OWNER AND
CONTRACTORS TO VERIFY
ALL WATER LINES AND GAS
UTILITIES ON PROPERTY.

NOTE: THIS PLAN REQUIRES CONSERVATION
COMMISSION APPROVAL.
WORK LIMIT TOP BE STAKED SILT FENCE AND
STRAW WADDLE.
ALL DISTURBED AREAS IN 100' BUFFER ZONE TO
BE REVEGETATED WITH AMERICAN BEACH GRASS.

Conservation Commission
TOWN OF TRURO
JUL 17 1999

BENCHMARK
TOP OF CONC. BOUND
EL. 38.81' N.A.V.D.88

SEPTIC SYSTEM UPGRADE PLAN

SUBJECT:
19 KNOWLES HEIGHTS ROAD
TRURO, MA

PREPARED FOR:
THE E. HOPE MACEWEN TRUST
c/o WILLIAM & BEVERLY LARKIN
78 FAIRMAN ROAD
ORANGE, MA 01364

ASSESSOR'S
MAP 24 PARCEL 14

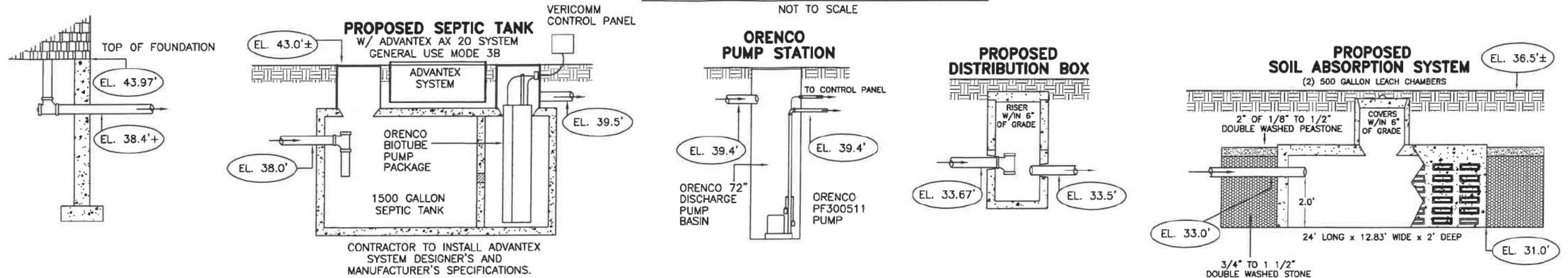
DATE: MARCH 1, 2023

SCALE: 1"=30'

SHEET 1 OF 3

SECTION DETAIL – COMPONENTS

NOT TO SCALE



DESIGN CALCULATIONS

FLOW RATE:
3 BEDROOM DWELLING = 330 G/P/D REQUIRED
(110 G/P/D PER BEDROOM x 3 BEDROOMS)
NO GARBAGE GRINDER ALLOWED

PROPOSED SEPTIC TANK:
330 G/P/D x 2 = 660 G/P/D REQUIRED
USE 1500 GALLON ORENCO ADVANTEX AX-20 SEPTIC TANK

PROPOSED SOIL ABSORPTION SYSTEM:
PERC RATE = <2 MIN/IN – CLASS I SOIL
SIDEWALL = (24 + 12.83)(2)(2) = 147.32 S.F.
BOTTOM: (24)(12.83) = 307.92 S.F.
(147.32 + 307.92)(0.74) = 336.87 G/P/D PROVIDED

USE: (2) 500 GALLON LEACH CHAMBERS W/ STONE
AS SHOWN IN DETAIL.

NOTES

1. ALL PRECAST COMPONENTS TO BE H-10 RATED. ALL COMPONENTS WITH ANY ANTICIPATED VEHICULAR TRAFFIC TO BE H-20 RATED.
2. ELEVATION DATUM IS NAVD 1988.
3. MUNICIPAL WATER IS NOT AVAILABLE.
4. ALL CONSTRUCTION TO CONFORM WITH 310 CMR 15.000 AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
5. INSTALLER/CONTRACTOR TO REVIEW & VERIFY ALL ELEVATIONS AND DETAILS AND REPORT ANY DISCREPANCIES TO DESIGNER PRIOR TO CONSTRUCTION OR ASSUME ALL RESPONSIBILITY.
6. INSTALLER/CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SAFE WORK AREA, VERIFYING ALL UTILITIES AND NOTIFYING DIG SAFE PRIOR TO CONSTRUCTION.
7. ANY CHANGES TO OR DEVIATIONS FROM THIS PLAN MUST BE APPROVED IN WRITING BY J.C. ELLIS DESIGN CO. AND BOARD OF HEALTH.
8. FINISH COVER OVER COMPONENTS IS NOT TO EXCEED 3' PER 310 CMR 15.000.
9. ALL COMPONENTS TO BE PROVIDED WITH WATERTIGHT ACCESS PORTS WITHIN 6" OF FINISH GRADE.
10. ALL SEPTIC TANKS, DISTRIBUTION BOXES AND PIPING TO BE INSTALLED WATERTIGHT.
11. NO KNOWN WELLS EXIST WITHIN 100' OF PROPOSED LEACH AREA.
12. EXCAVATE ALL UNSUITABLE SOIL, ONLY AS NECESSARY, 5' AROUND AND UNDER S.A.S. DOWN TO C LAYER AND REPLACE WITH CLEAN MEDIUM SAND.
13. LEACH AREA TO BE PROVIDED WITH AT LEAST ONE INSPECTION PORT CONSISTING OF A PERFORATED FOUR INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE WITHIN 3" OF GRADE.
14. CONTRACTOR TO TAKE ALL MEANS NECESSARY (FLUSH TESTS ETC.) TO LOCATE AND VERIFY ALL EXISTING BUILDING SEWER INVERT LOCATIONS AND ELEVATIONS. ALL BUILDING SEWERS TO BE CHANGED, ONLY IF NECESSARY, TO LOCATION AND ELEVATION SPECIFIED.
15. CONTRACTOR TO TAKE ALL MEANS NECESSARY (FLUSH TESTS ETC.) TO LOCATE AND VERIFY ALL EXISTING CESSPOOL LOCATIONS. ALL EXISTING CESSPOOLS TO BE PUMPED AND FILLED WITH CLEAN SAND.

DEEP HOLE DATA

PERFORMED BY: JASON C. ELLIS, R.S., S.E.
WITNESSED BY: COURTNEY WARREN, TRURO B.O.H.
TEST DATE: FEBRUARY 21, 2023

#1		#2	
DEPTH	ELEV.	DEPTH	ELEV.
0.00'	35.7'	0.00'	37.1'
2.66'	33.04'	3.33'	33.77'
3.08'	32.62'	4.16'	32.94'
4.66'	31.04'	5.5'	31.6'
10.0'	25.7'	10.5'	26.6'
NO WATER ENCOUNTERED		NO WATER ENCOUNTERED	

SEPTIC SYSTEM UPGRADE PLAN

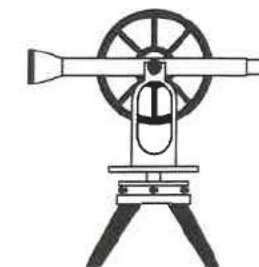
SUBJECT:
19 KNOWLES HEIGHTS ROAD
TRURO, MA

PREPARED FOR:
THE E. HOPE MACEWEN TRUST
c/o WILLIAM & BEVERLY LARKIN
78 FAIRMAN ROAD
ORANGE, MA 01364

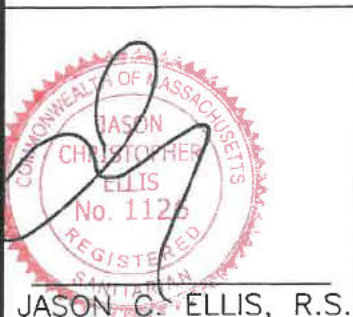
ASSESSOR'S
MAP 24 PARCEL 14

DATE: MARCH 1, 2023

SHEET 2 OF 3



J.C. ELLIS DESIGN
P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
jason@jcellisdesign.com



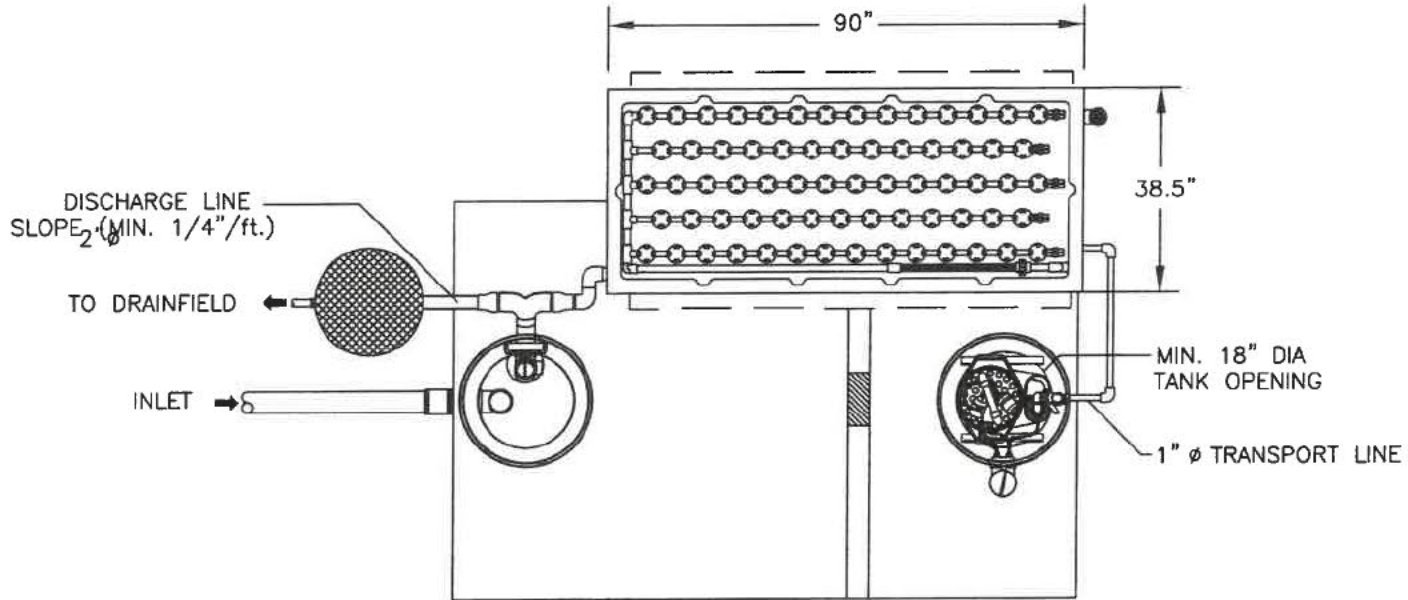
ADVANTEX® AX20 MODE 3B

DESIGN NOTES

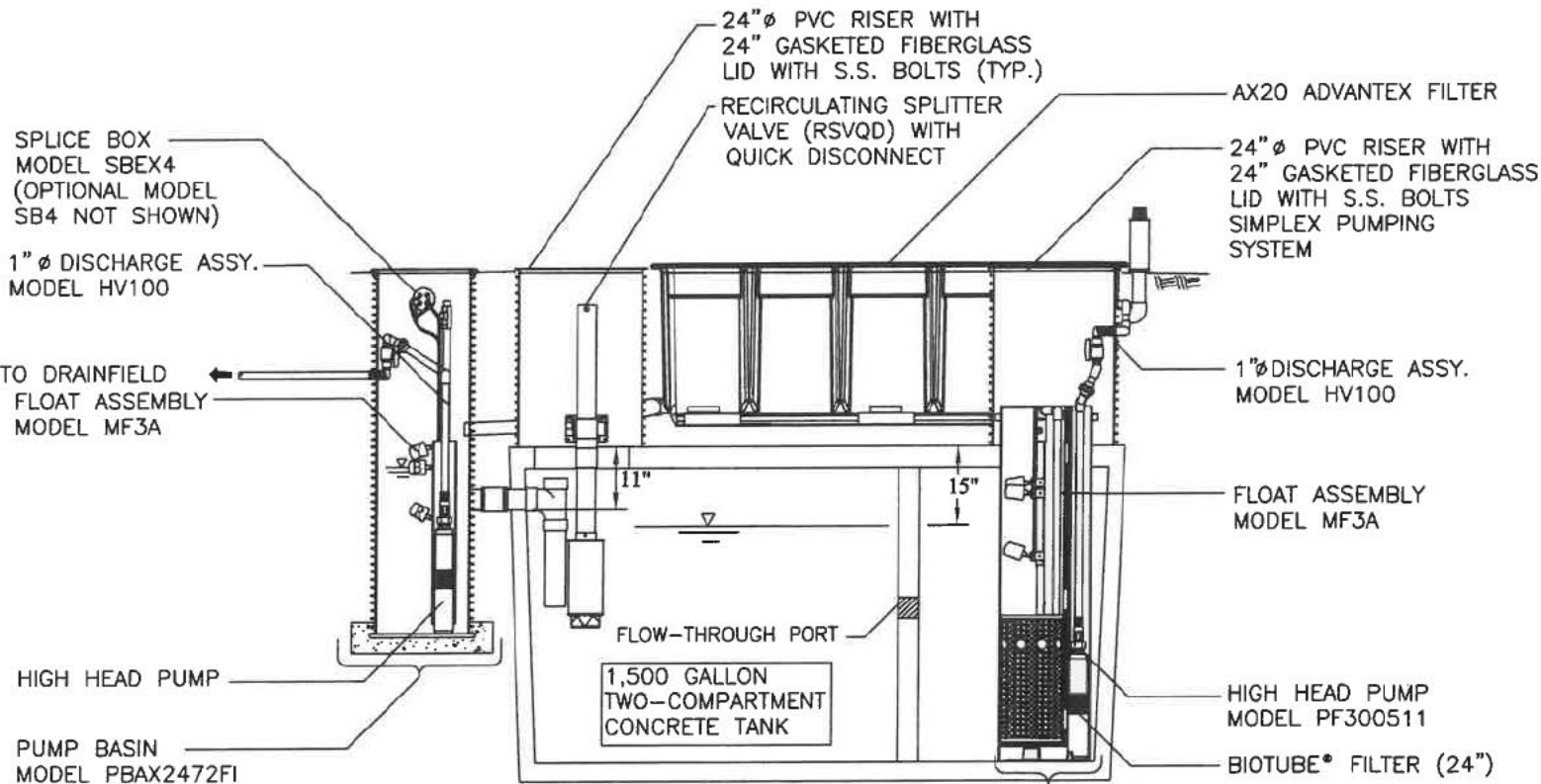
FOR RESIDENTIAL STRENGTH WASTE UP TO 4-BEDROOMS

INSTALLATION TO BE PERFORMED BY AN ADVANTEX AUTHORIZED INSTALLER ONLY.

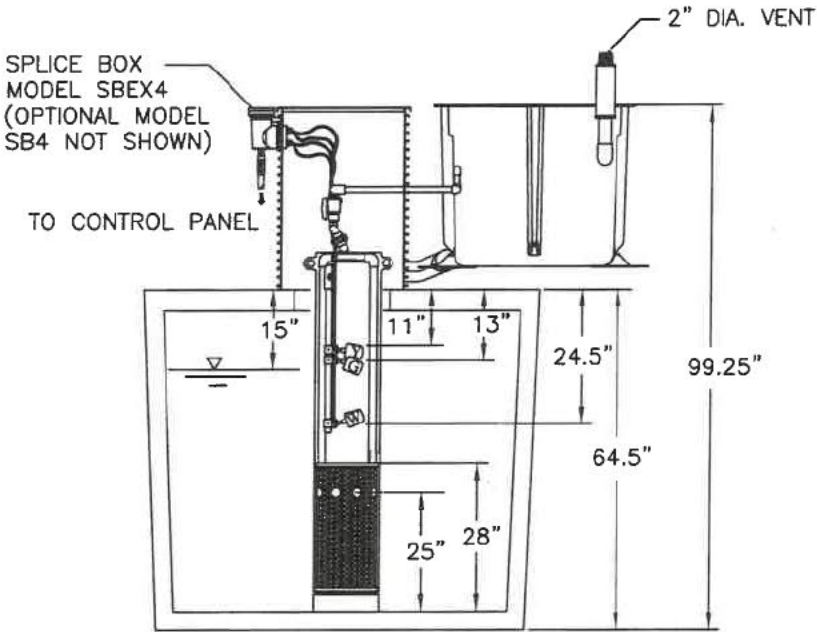
START-UP AND SERVICE TO BE PERFORMED BY AN ADVANTEX AUTHORIZED SERVICE PROVIDER ONLY.



TOP VIEW
NOT TO SCALE



SIDE VIEW
NOT TO SCALE



END VIEW
NOT TO SCALE

FLOAT FUNCTIONS	
Y	HIGH LEVEL ALARM
G	OVERRIDE TIMER ON/OFF
W	LLA/RO
B	PUMP ON
R	PUMP OFF

SEPTIC SYSTEM UPGRADE PLAN

SUBJECT:
19 KNOWLES HEIGHTS ROAD
TRURO, MA

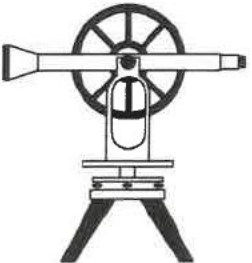
PREPARED FOR:
THE E. HOPE MACEWEN TRUST
c/o WILLIAM & BEVERLY LARKIN
78 FAIRMAN ROAD
ORANGE, MA 01364

ASSESSOR'S
MAP 24 PARCEL 14

DATE: MARCH 1, 2023

SHEET 3 OF 3

J.C. ELLIS DESIGN



P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
jason@jcellisdesign.com



JASON C. ELLIS, R.S.

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ORENCO SYSTEMS®, INC. NDW-ATX-BNDR-6



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

Conservation Commission

TOWN OF TRURO

JUL 17 2023

A. General Information

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



1. Applicant:

Joann Hollander

Name

P.O. Box 262

Mailing Address

Truro

City/Town

E-Mail Address

MA

State

02666

Zip Code

Phone Number

Fax Number (if applicable)

2. Representative (if any):

J.C. Ellis Design Co., Inc.

Firm

Jason C. Ellis, R.S.

Contact Name

P.O. Box 81

Mailing Address

North Eastham

City/Town

508-240-2220

Phone Number

jason@jcellisdesign.com

E-Mail Address

MA

State

02651

Zip Code

508-240-2221

Fax Number (if applicable)

B. Determinations

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

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

Truro

Name of Municipality

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

C. Project Description

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

13& 15 Tom's Hill Road

Street Address

Truro

City/Town

49

Assessors Map/Plat Number

2 & 5

Parcel/Lot Number

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

The property lies within the 100' buffer zone to a coastal bank.

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

Septic System Upgrade Plan: 13 & 15 Tom's Hill Road, Truro, MA

June 15, 2023

Title

Title

Date

Title

Date

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

Abandonment of cesspools and sewer line piping within 100' buffer zone.



WPA Form 1- Request for Determination of Applicability

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

C. Project Description (cont.)

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

Residential property, 100' buffer zone only - limited disturbance..

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.
- ☒ Single family house on a lot recorded on or before 8/1/96
 - ☐ Single family house on a lot recorded after 8/1/96
 - ☐ Expansion of an existing structure on a lot recorded after 8/1/96
 - ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
 - ☐ New agriculture or aquaculture project
 - ☐ Public project where funds were appropriated prior to 8/7/96
 - ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
 - ☐ Residential subdivision; institutional, industrial, or commercial project
 - ☐ Municipal project
 - ☐ District, county, state, or federal government project
 - ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
- b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

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

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

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

Name and address of the property owner:

Joanne Hollander

Name

P.O. Box 262

Mailing Address

Truro

City/Town

MA

State

0666

Zip Code

Signatures:

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

Signature of Applicant

7-16-2023

Date

Signature of Representative (if any)

7-16-2023

Date



J.C. ELLIS DESIGN COMPANY, INC.

SEPTIC SYSTEM DESIGN & ENGINEERING – SEPTIC INSPECTION –

SITE PLANNING – WETLAND CONSULTATION & PERMITTING

P.O. BOX 81, NORTH EASTHAM, MA 02651 PHONE 508-240-2220 FAX 508-240-2221

EMAIL jason@jcellisdesign.com

Notification to Abutters **Under the Massachusetts Wetland Protection Act &** **Truro Wetlands Bylaw**

July 16, 2023

RE: Request for Determination of Applicability

Joanne Hollander

13 & 15 Tom's Hill Road, Truro, MA

Assessor's Map 49, Parcels 2 & 5

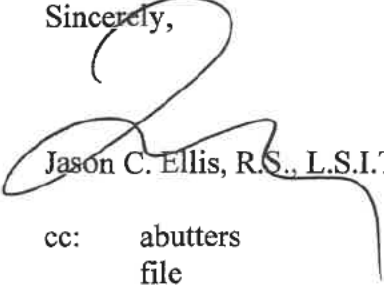
In accordance with the MA Wetlands Protection Act and the Truro Wetlands Bylaw, you are hereby notified that Joanne Hollander has filed a Request for Determination of Applicability with the Truro Conservation Commission regarding proposed work, on the above-referenced property, which lies within an area subject to regulation under the MA Wetlands Protection Act and the local Wetland Protection Bylaw.

Specifically, the proposed work consists of the installation of new sewer lines and abandonment of existing cesspool within 100' of the top of Coastal Bank.

Copies of the Notice of Intent and project plans may be examined at the Truro Conservation Department, located at 24 Town Hall Road, during regular business hours.

A public hearing, regarding the proposed work described above, will be held by the Truro Conservation Commission on August 7, 2023 at 5:00 P.M at the Truro Town Hall. Should you be interested in attending the public hearing, you should contact the Conservation Department for confirmation of the date, time and place of the public hearing at 508-349-7004 x31.

Sincerely,


Jason C. Ellis, R.S., L.S.I.T.

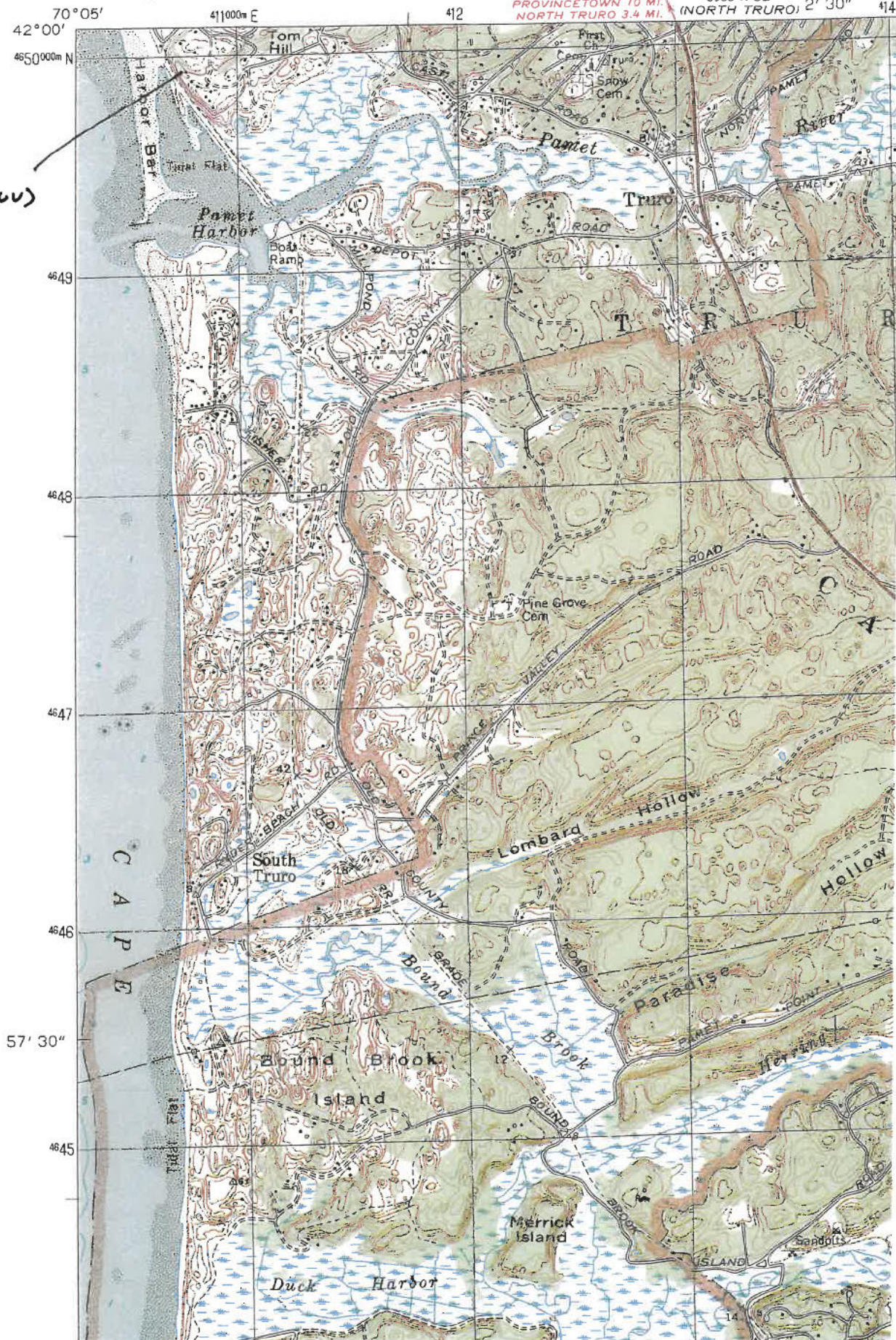
cc: abutters
file

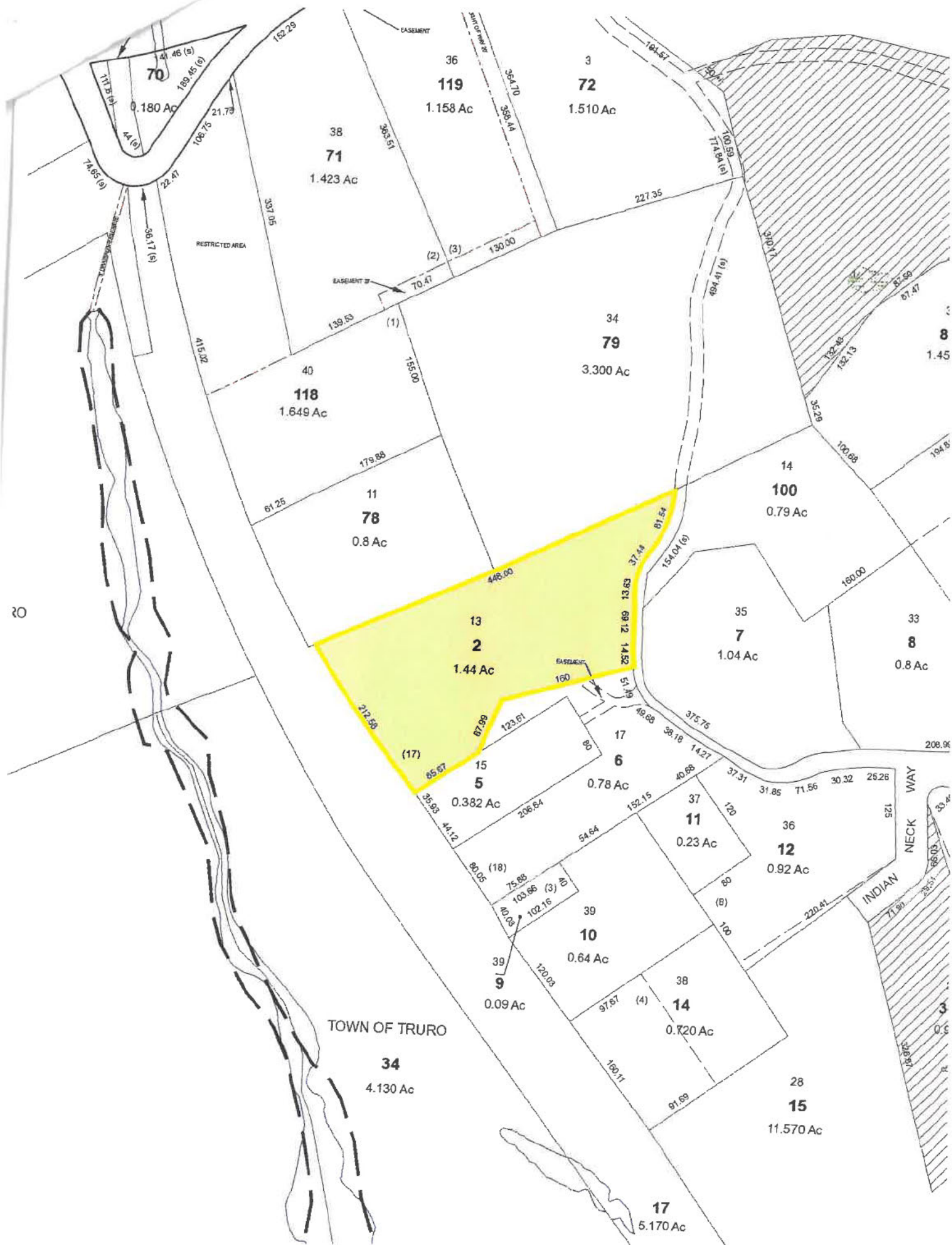
6958 11 SE
(NORTH TRURO)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROVINCETOWN 10 MI.
NORTH TRURO 3.4 MI. 6958 11 SE
(NORTH TRURO) 2' 30" 414

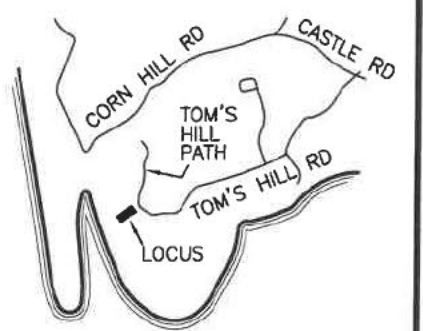
Low





NOTE:
THIS PLAN REQUIRES CONSERVATION COMMISSION APPROVAL.
WORK LIMIT TO BE STAKED SILT FENCE AND STRAW WADDLE.
ALL DISTURBED AREAS TO BE REVEGATED WITH
CONSERVATION GRASS SEED MIXTURE.

LOCUS MAP



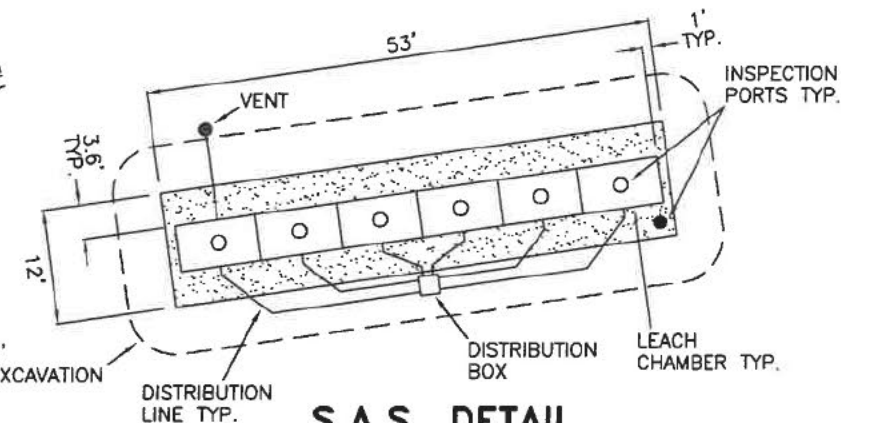
NOT TO SCALE

SURVEY PLAN REFERENCE:
L.C. PLAN 29915 A
L.C. PLAN 29915 J
PLAN BOOK 671 PAGE 24
THIS PLAN IS FOR SEPTIC SYSTEM
DESIGN PURPOSES ONLY.
THIS PLAN IS NOT FOR BOUNDARY
DETERMINATION.
PROPERTY OWNER AND
CONTRACTORS TO VERIFY
ALL WATER LINES AND GAS
UTILITIES ON PROPERTY.

Conservation Commission
TOWN OF TRURO

JUL 17 2023

S.A.S. DETAIL



SEPTIC SYSTEM UPGRADE PLAN

SUBJECT:
13 & 15 TOM'S HILL ROAD
TRURO, MA

PREPARED FOR:
JOANNE HOLLANDER
P.O. BOX 262
TRURO, MA 02666

ASSESSOR'S
MAP 49 PARCELS 2 & 5

SCALE: 1"=30'

DATE: JUNE 15, 2023

SHEET 1 OF 3

J.C. ELLIS DESIGN

P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
Email: jason@jcellisdesign.com



LOT 17

#13 TOMS HILL PATH
MAP 49 PARCEL 2

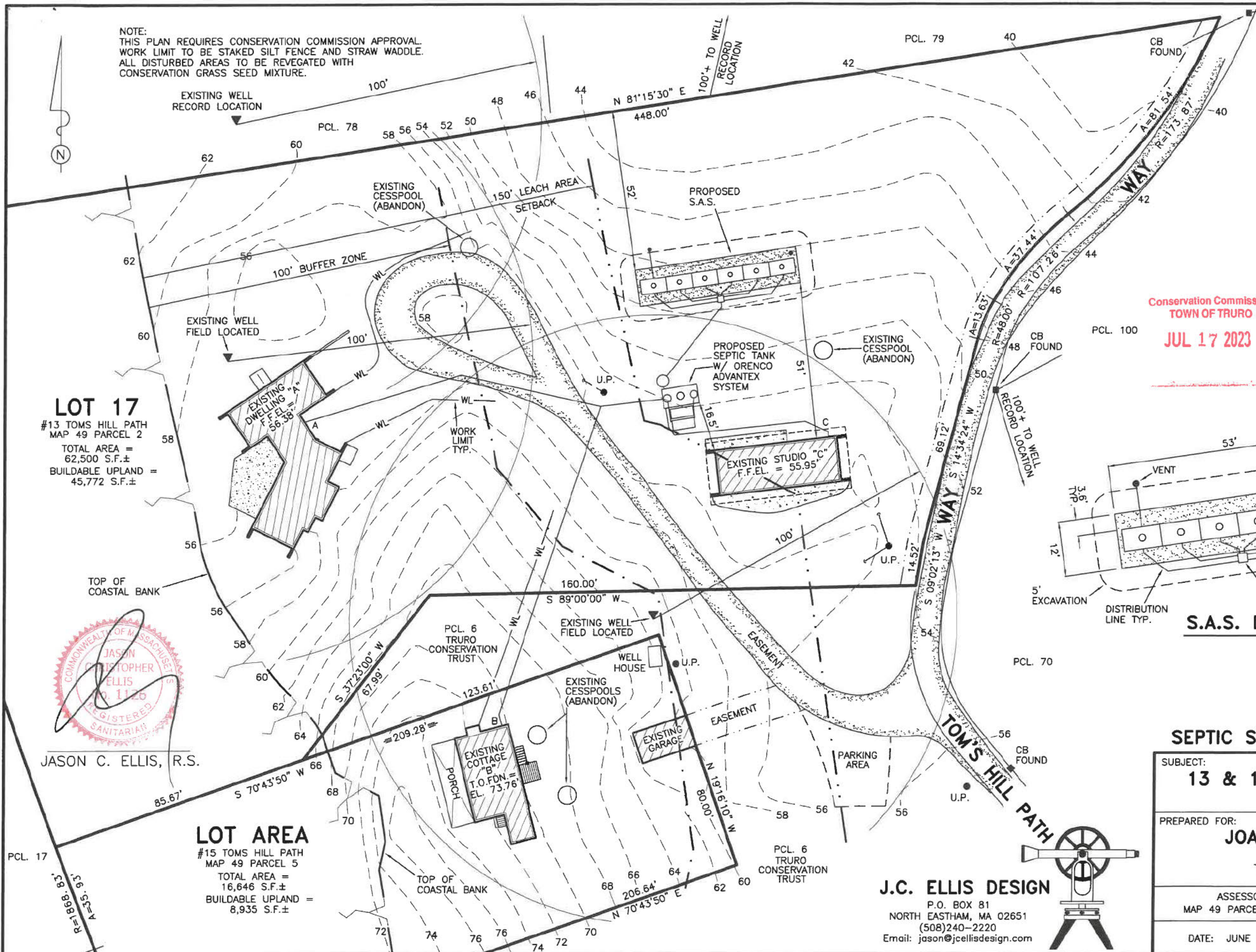
TOTAL AREA =
62,500 S.F.±
BUILDABLE UPLAND =
45,772 S.F.±

JASON C. ELLIS, R.S.

LOT AREA

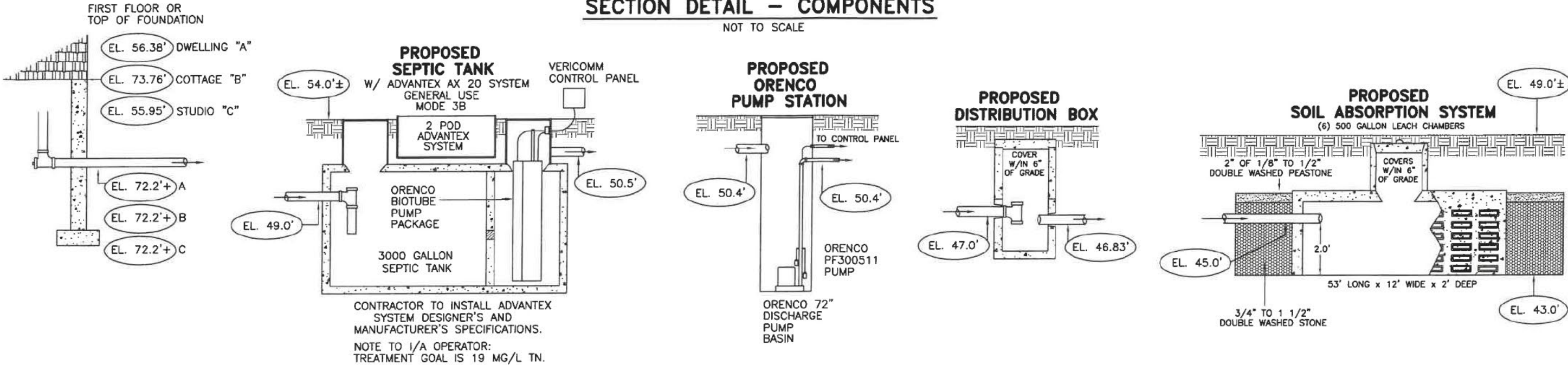
#15 TOMS HILL PATH
MAP 49 PARCEL 5

TOTAL AREA =
16,646 S.F.±
BUILDABLE UPLAND =
8,935 S.F.±



SECTION DETAIL – COMPONENTS

NOT TO SCALE



DESIGN CALCULATIONS

FLOW RATE:
2 BEDROOM DWELLING ("A")= 220 G/P/D REQUIRED
3 BEDROOM COTTAGE ("B")= 330 G/P/D REQUIRED
1 BEDROOM STUDIO ("C")= 110 G/P/D REQUIRED
TOTAL FLOW = 660 G/P/D REQUIRED
(110 G/P/D PER BEDROOM x 6 BEDROOMS)
NO GARBAGE GRINDER ALLOWED

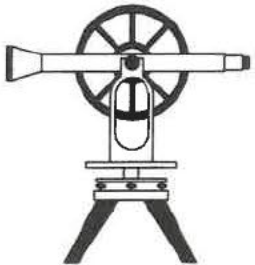
PROPOSED SEPTIC TANK:
660 G/P/D x 2 = 1320 G/P/D REQUIRED
USE PROPOSED 3000 GALLON SEPTIC TANK

PROPOSED SOIL ABSORPTION SYSTEM:
PERC RATE = <2 MIN/IN – CLASS I SOIL
SIDEWALL = (53 + 12)(2)(2) = 260 S.F.
BOTTOM: (53)(12) = 636 S.F.
(260 + 636)(0.74) = 663 G/P/D PROVIDED
USE: (1) 53' LONG x 12' WIDE x 2.0' DEEP
LEACH AREA AS SHOWN IN DETAIL.

NOTES

1. ALL PRECAST COMPONENTS TO BE H-10 RATED. ALL COMPONENTS WITH ANY ANTICIPATED VEHICULAR TRAFFIC TO BE H-20 RATED.
2. ELEVATION DATUM IS FROM USGS QUAD MAP.
3. MUNICIPAL WATER IS NOT AVAILABLE.
4. ALL CONSTRUCTION TO CONFORM WITH 310 CMR 15.000 AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
5. INSTALLER/CONTRACTOR TO REVIEW & VERIFY ALL ELEVATIONS AND DETAILS AND REPORT ANY DISCREPANCIES TO DESIGNER PRIOR TO CONSTRUCTION OR ASSUME ALL RESPONSIBILITY.
6. INSTALLER/CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SAFE WORK AREA, VERIFYING ALL UTILITIES AND NOTIFYING DIG SAFE PRIOR TO CONSTRUCTION.
7. ANY CHANGES TO OR DEVIATIONS FROM THIS PLAN MUST BE APPROVED IN WRITING BY J.C. ELLIS DESIGN CO. AND BOARD OF HEALTH.
8. FINISH COVER OVER COMPONENTS IS NOT TO EXCEED 3' PER 310 CMR 15.000.
9. ALL ABANDONED SEPTIC SYSTEM COMPONENTS TO BE PUMPED DRY AND FILLED WITH CLEAN SAND OR REMOVED AND REPLACED WITH CLEAN SAND.
10. ALL COMPONENTS TO BE PROVIDED WITH WATERTIGHT ACCESS PORTS WITHIN 6" OF FINISH GRADE.
11. ALL SEPTIC TANKS, DISTRIBUTION BOXES AND PIPING TO BE INSTALLED WATERTIGHT.
12. NO KNOWN WELLS EXIST WITHIN 100' OF PROPOSED LEACH AREA.
13. THIS IS NOT A CERTIFIED PLOT PLAN AND UNDER NO CIRCUMSTANCES IS THIS PLAN TO BE USED FOR BUILDING OR ZONING PURPOSES.
14. LEACH AREA TO BE PROVIDED WITH AT LEAST ONE INSPECTION PORT CONSISTING OF A PERFORATED FOUR INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE WITHIN 3" OF GRADE.
15. EXCAVATE ALL UNSUITABLE SOIL, ONLY IF NECESSARY, 5' AROUND AND UNDER S.A.S. DOWN TO C LAYER AND REPLACE WITH CLEAN MEDIUM SAND.
16. INSTALL 40 MIL POLY FLOW BARRIER AS SHOWN AROUND S.A.S. FROM EL. 62.0' DOWN TO EL. 54.0'.
17. CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING BUILDING SEWER LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

J.C. ELLIS DESIGN



P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
Email: jason@jcellisdesign.com

SEPTIC SYSTEM UPGRADE PLAN

SUBJECT:
13 & 15 TOM'S HILL ROAD
TRURO, MA

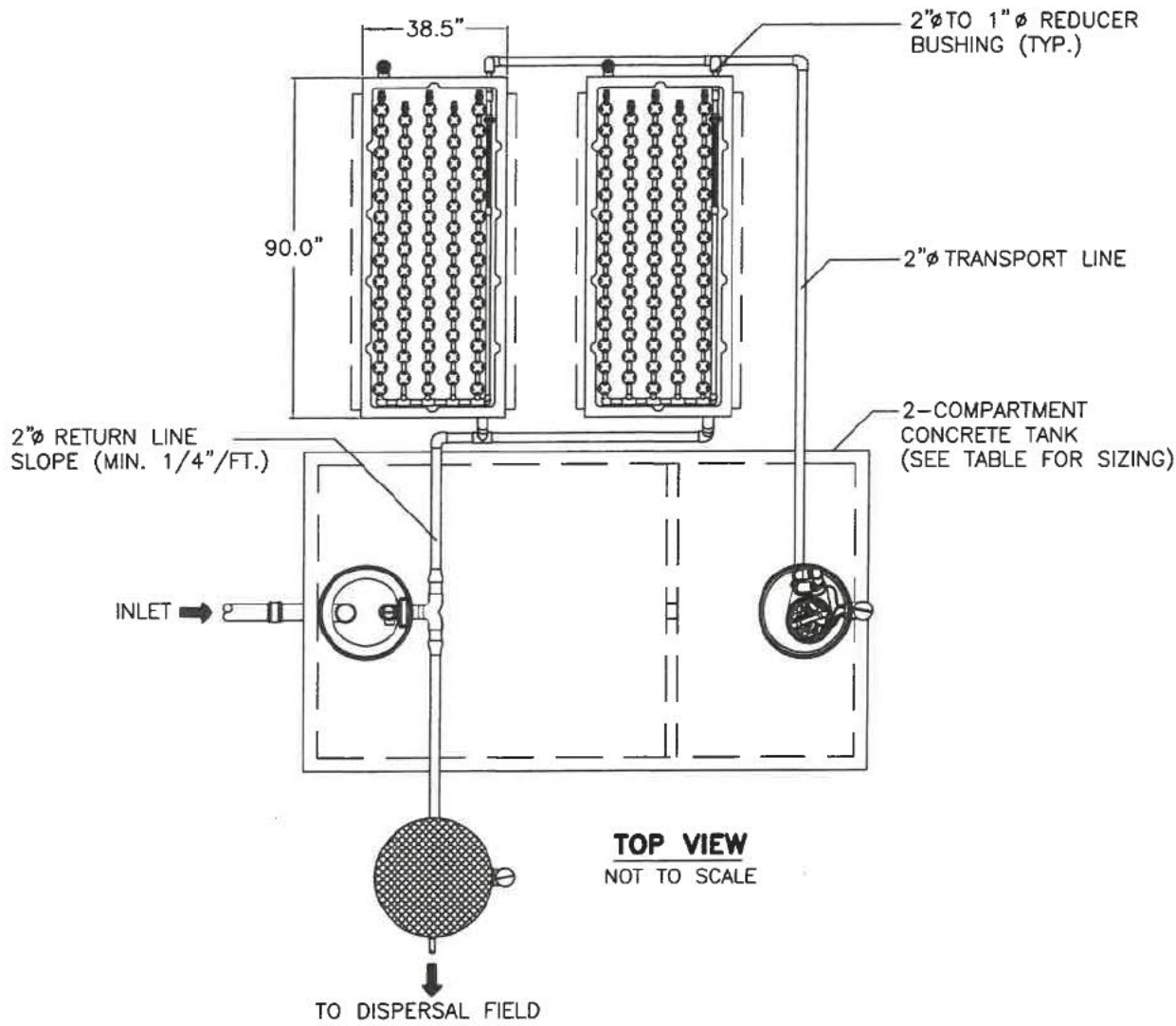
PREPARED FOR:
JOANNE HOLLANDER
P.O. BOX 262
TRURO, MA 02666

ASSESSOR'S
MAP 49 PARCELS 2 & 5



JASON C. ELLIS, R.S.

ADVANTEX® AX20 2 POD MODE 3B



PROCESSING TANK SIZING		
BEDROOMS	OCCUPANTS (MAXIMUM)	2-COMPARTMENT PROCESSING TANK (MIN. GALLONS)
5	10	2,500
6	12	3,000

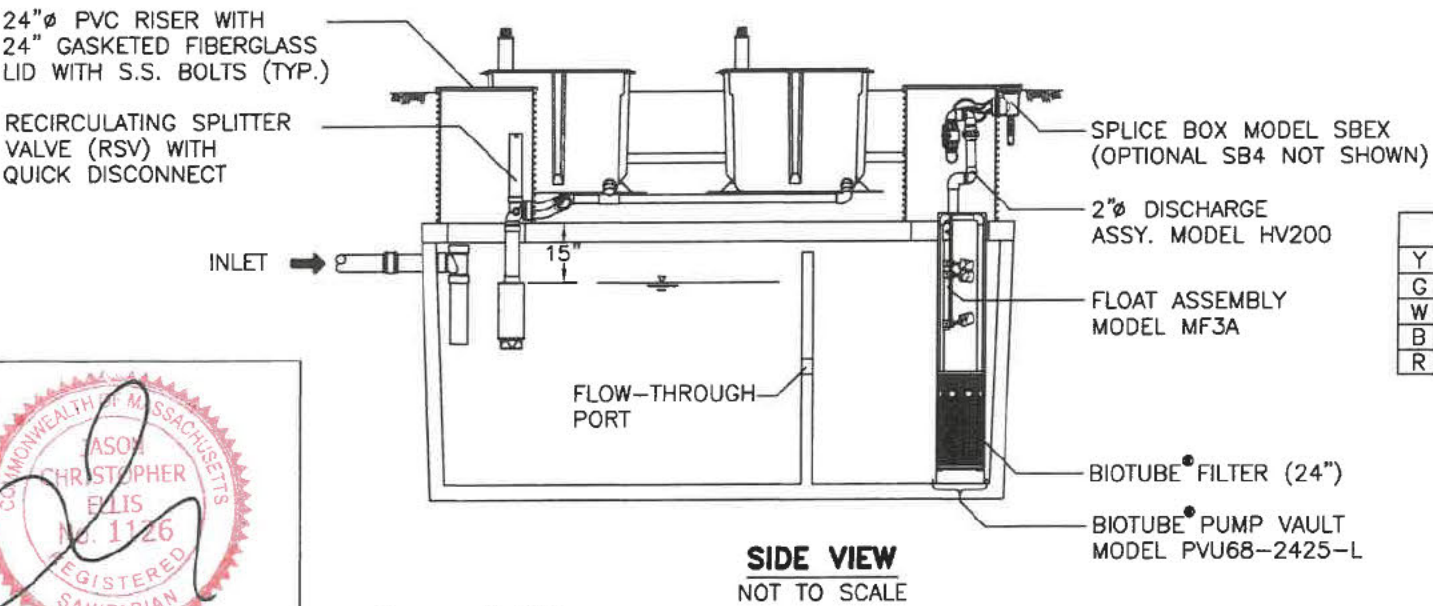
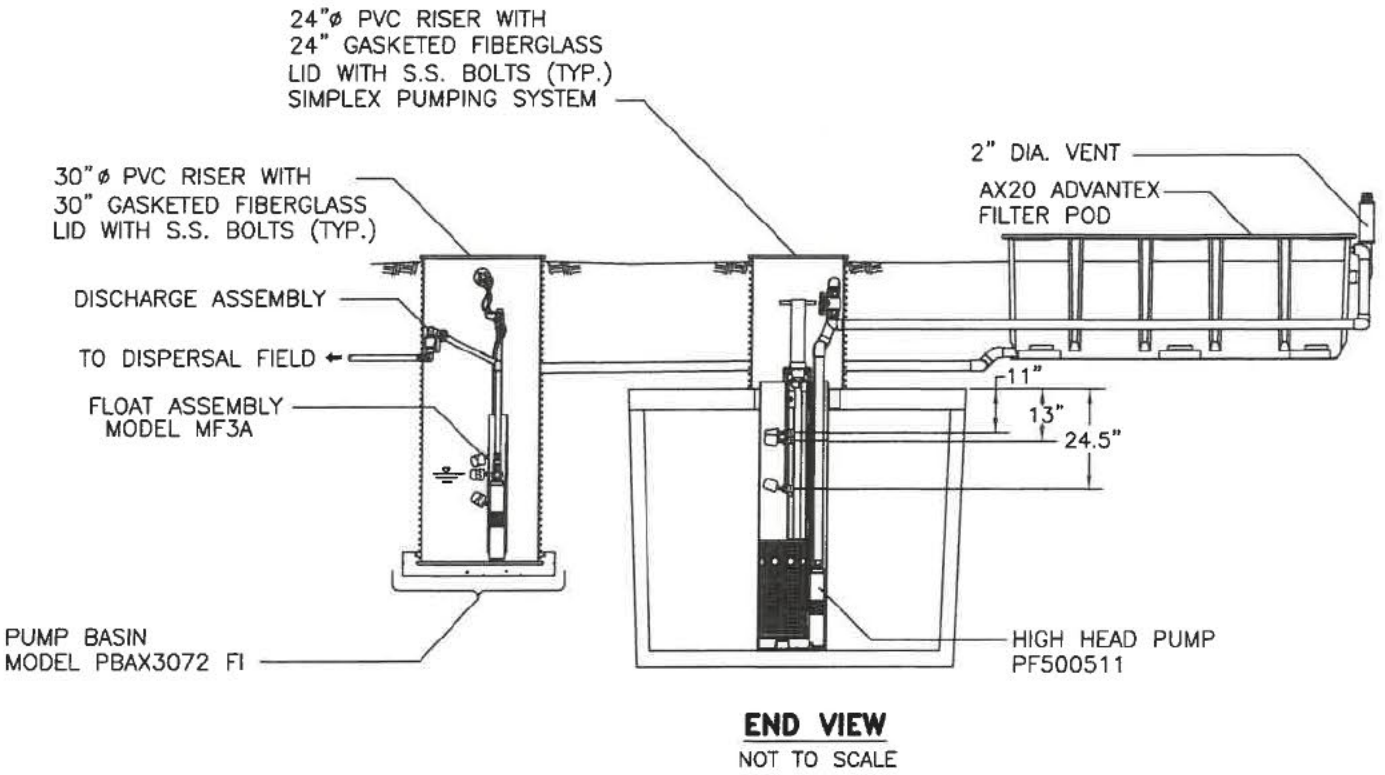
DESIGN NOTES

FOR RESIDENTIAL STRENGTH WASTE UP TO 6 BEDROOMS APPLICATIONS GREATER THAN 6 BEDROOMS REQUIRE A DESIGN REVIEW BY ORENCO.

INSTALLATION TO BE PERFORMED BY AN ADVANTEX AUTHORIZED INSTALLER ONLY.

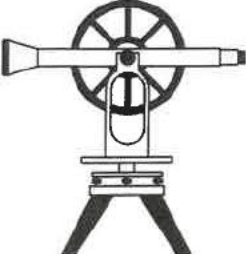
START-UP AND SERVICE TO BE PERFORMED BY AN ADVANTEX AUTHORIZED SERVICE PROVIDER ONLY.

NOTE TO I/A OPERATOR:
TREATMENT GOAL IS 19 MG/L TN.



FLOAT FUNCTIONS	
Y	High Level Alarm
G	Override Timer ON/OFF
W	LLA/RO
B	Pump On
R	Pump Off

J.C. ELLIS DESIGN



P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
Email: jcellisdesign@verizon.net

SEPTIC SYSTEM UPGRADE PLAN
ADVANTEX AX20 2 POD MODE 3B

SUBJECT:
13 & 15 TOM'S HILL ROAD
TRURO, MA

PREPARED FOR:
JOANNE HOLLANDER
P.O. BOX 262
TRURO, MA 02666

ASSESSOR'S
MAP 49 PARCELS 2 & 5



JASON C. ELLIS, R.S.

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ORENCO SYSTEMS, INC.



PAID
7589

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1- Request for Determination of Applicability

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

Conservation Commission

TOWN OF TRURO

JUL 17 2023

A. General Information

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



1. Applicant:

Laura Anello

Name

E-Mail Address

3330 Summerfield Cove

Mailing Address

Palm Harbor

City/Town

FL

State

34683

Zip Code

Phone Number

Fax Number (if applicable)

2. Representative (if any):

Safe Harbor Environmental

Firm

Gordon Peabody

Contact Name

gordonpeabody@gmail.com

E-Mail Address

P.O. Box 880

Mailing Address

Wellfleet

City/Town

MA

State

02667

Zip Code

(508) 237-3724

Phone Number

Fax Number (if applicable)

B. Determinations

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

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

Name of Municipality

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Truro
City/Town

WPA Form 1 - Request for Determination of Applicability

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

C. Project Description

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

12 Pilgrims Path

Street Address

35

Assessors Map/Plat Number

Truro

City/Town

111

Parcel/Lot Number

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

Within the bufferzone to the top of a Coastal Bank. Proposed activity area is approx. 70 ft away from to of the Bank.

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

Site Plan Existing

Title

March 18, 2022

Date

Site Plan Proposed

Title

March 18, 2022

Date

Title

Date

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

Small addition above existing deck footprint with no change in footprint. Helical piles will provide support, with no excavation. Silt fence/straw wattle will surround activity area. Materials will be stored outside the BZ. Upon completion, Safe Harbor will plant native groundcover vegetation on bare areas and monitor growth.



WPA Form 1- Request for Determination of Applicability

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

C. Project Description (cont.)

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

small addition above existing deck footprint, no change in footprint.

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

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

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



WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

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

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

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

Name and address of the property owner:

Laura Anello

Name

3330 Summerfield Cove

Mailing Address

Palm Harbor

City/Town

FL

State

34683

Zip Code

Signatures:

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

See Auth. Form

Signature of Applicant

Date

Signature of Representative (if any)

Date

7/17/23

Request for Determination

Project address: 12 Pilgrims Path, Truro

Map 35

Parcel 111

- Is the project located in a resource area or buffer zone yes
- Resource Area Type(s): Coastal Bank
- If Buffer Zone what is the distance from Resource Area: approx. 70ft

Description of project: (list all activities and describe methodology for construction or installation including equipment type if applicable) small addition above existing deck foot print, with no change in footprint. Helical piles will provide support, with no excavation

Attached site plan titles/dates, and any other plan or narratives title/dates: Site Plan Existing (3/18/22); Site Plan Proposed (3/18/22); RDA: Addition Above Deck, No Change in Footprint (7/17/23)

Describe the best management practices/mitigation that will be used on the site: silt fence/straw wattle will surround activity area. Materials will be stored outside BZ. Safe Harbor to plant native groundcover

Special Conditions required by the Conservation Include: _____

The proposed project is approved subject to the conditions included herein.

The use of town property for beach access or staging of construction materials requires a permit issued by the Board of Selectmen. The owner and applicant/representative are responsible for obtaining this permit prior to work start.

The owner and applicant/representative shall, avoid and otherwise minimize any activities in the buffer zone or in resource areas by use of best management practices on the site, such as:

- Placement of an agreed upon work limit;
- Proper placement of construction materials in developed or already disturbed areas;
- Proper installation/maintenance of erosion control;
- Good housekeeping that includes at a minimum daily trash pickup; no dumping of paint, plaster or concrete on the site but rather, disposing of it properly.

Approval of the project as described herein includes only the scope and specifications reviewed by the Conservation Commission; any changes to this project shall require additional review by the Conservation Commission prior to the work being done. Expansion of the scope of work may result in the applicant being required to file a full notice of intent. Any work done that exceeds the scope defined in the approved application shall be subject to issuance enforcement action; Violation of these conditions may result in issuance of an enforcement Order; non-criminal violation citations to the owner and/or applicant/representative accompanied by fines that accrue per offense and may accrue daily.

By reading and signing this letter of agreement the applicant acknowledges that they have read and understand the terms as stated herein; the scope of this approval is limited to the work described herein; and your signature on this conditional approval is acknowledgement that no work shall go forward until the RDA conditions have been issued by the Conservation Commission.

Applicant/Representative printed name and signature: GORDON PEABODY

Owners printed name and signature: See Auth. form

SAFE HARBOR

ENVIRONMENTAL MANAGEMENT
HABITAT RESTORATION



RDA: ADDITION ABOVE DECK, NO CHANGE IN FOOTPRINT

Date: July 17, 2023

To: Truro Conservation Commission

Attn: Emily Beebe, Conservation Agent Cc: Arozana Davis

From: Gordon Peabody, Safe Harbor Environmental

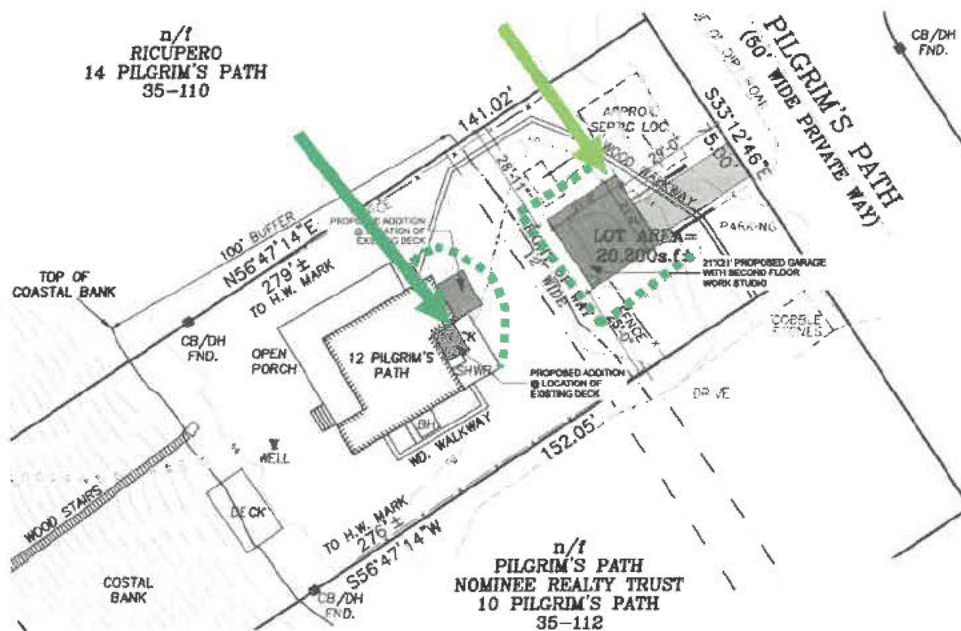
Office: 95 Commercial St. Room 211, Wellfleet, MA, - P.O. Box 880, Wellfleet, MA, 02667

Mail: P.O. Box 880, Wellfleet

Contact: email gordonpeabody@gmail.com Phone: 508-237-3724

RE: Request for Determination of Applicability:

Laura Anello - 12 Pilgrims Path, Truro, MA 02666 - Map 35 - Parcel 111



This property is within the BZ to Top of a Coastal Bank. Proposed activity area is approximately 70 feet away from Top of Bank. The property owner is seeking approval for a small addition above existing deck footprint, with no change in footprint. Helical piles will provide support, with no excavation. Silt Fence/Straw Wattle (- - - -) will surround activity area. Materials will be stored outside the BZ. Upon completion, Safe Harbor will plant native groundcover vegetation (Harmony Mix) on bare areas and monitor growth, to assure survivability.

A long-awaited garage, with appropriate erosion control mitigations is proposed outside the 100' BZ and is therefore not considered here.

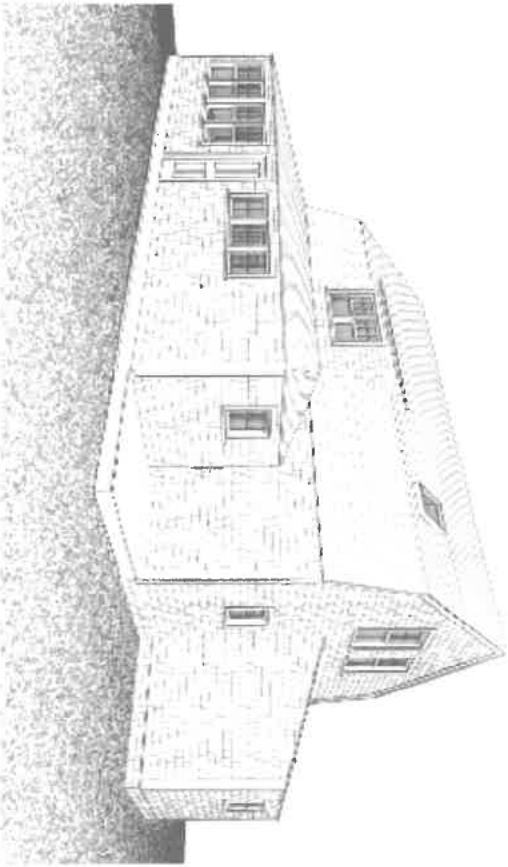
Title: Locus Map



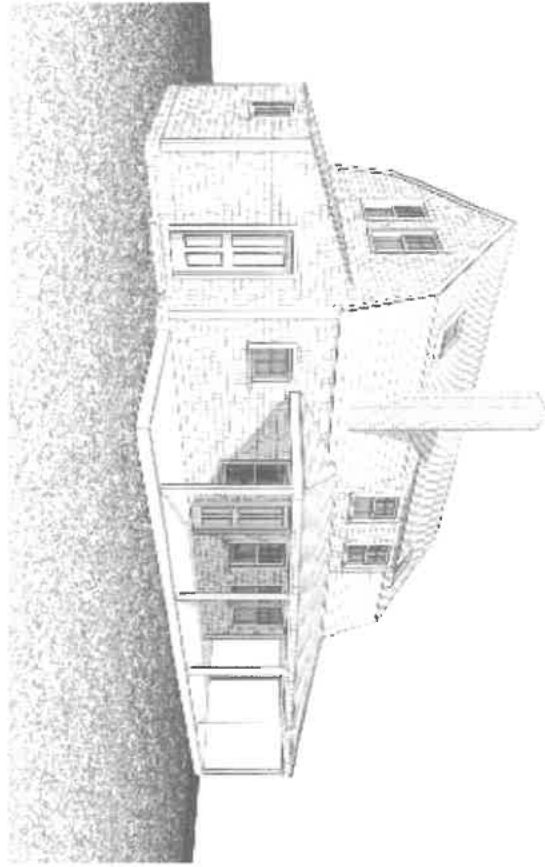
Title: USGS Map



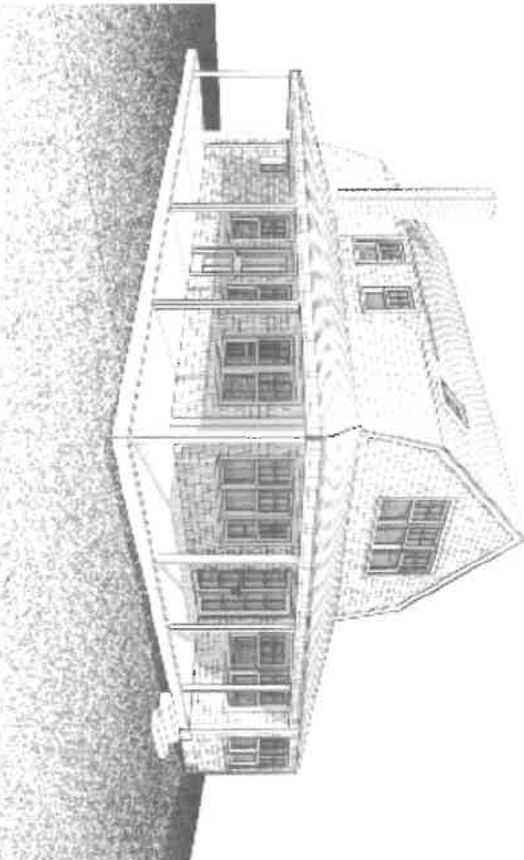
1

VIEW LOOKING NORTH WEST
SCALE 1/8" = 1'-0"

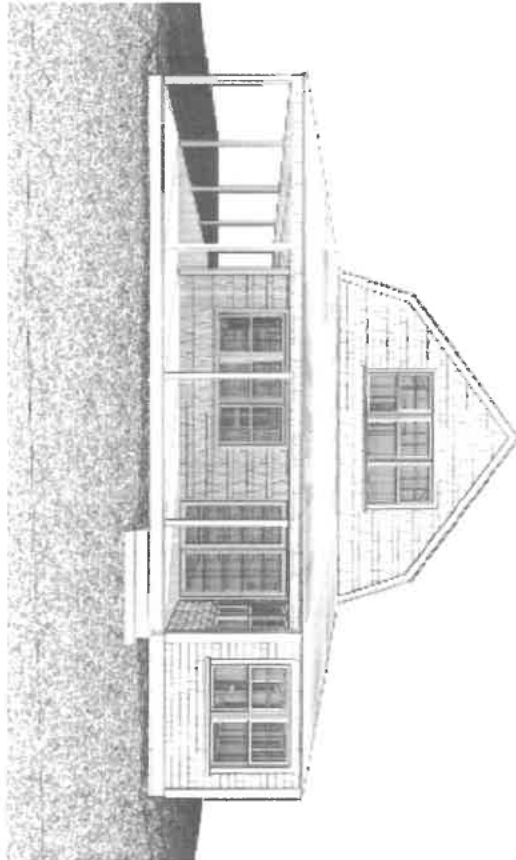
4

VIEW LOOKING SOUTH WEST
SCALE 1/8" = 1'-0"

2

VIEW LOOKING SOUTH EAST
SCALE 1/8" = 1'-0"

3

VIEW LOOKING EAST
SCALE 1/8" = 1'-0"

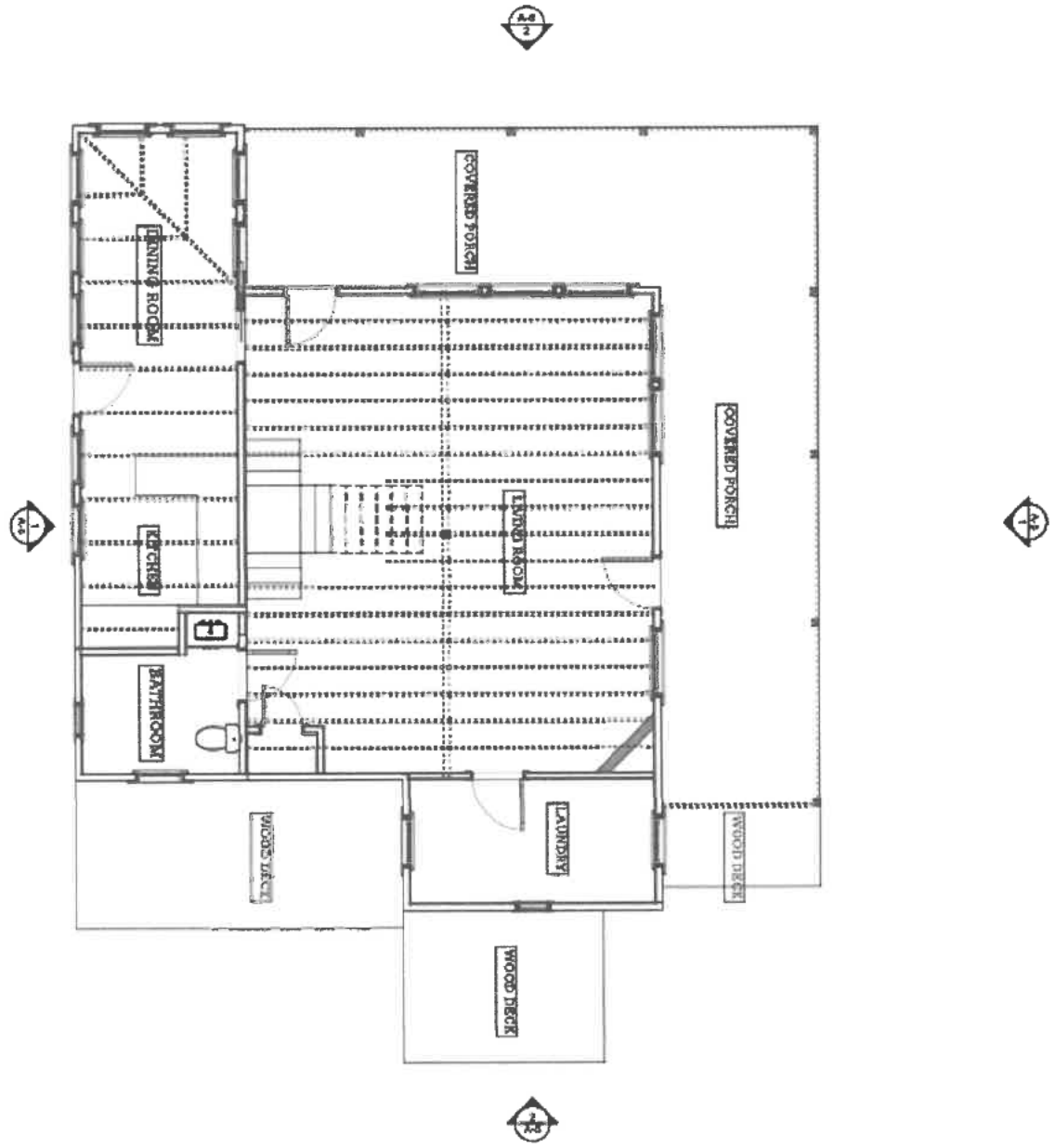
Anello Residence
12 Pilgrim's Path
Truro, MA

Title: 3D VIEWS
Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121

1

FIRST FLOOR EXISTING



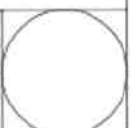
WALL LEGEND	
EXISTING	EXISTING FOUNDATION
NEW FOUNDATION	EXISTING CONSTRUCTION
NEW CONSTRUCTION	

A-2

Anello Residence
12 Firrim's Path
Truro, MA

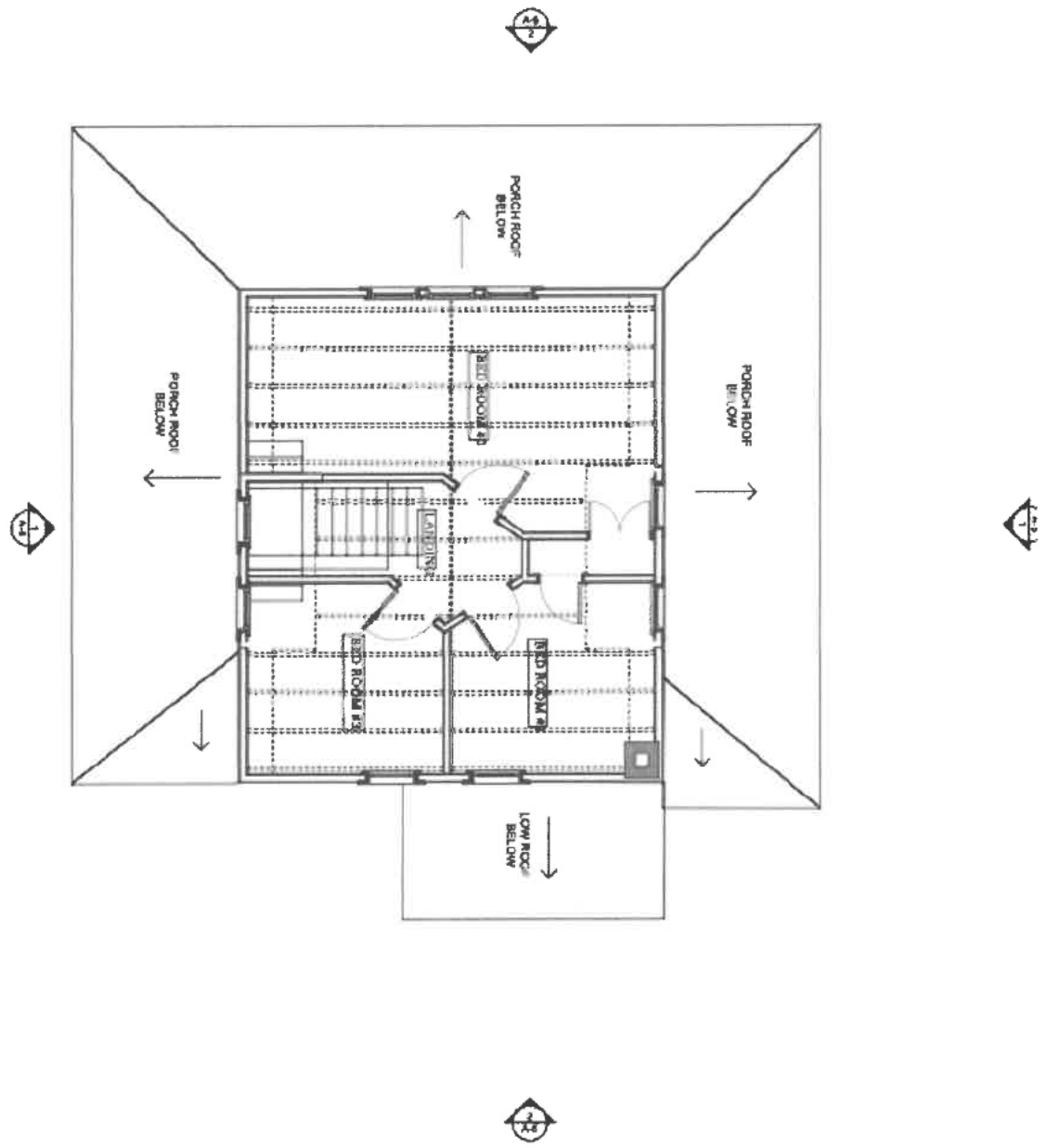
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Scale: As Noted
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Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121



1

SECOND FLOOR EXISTING



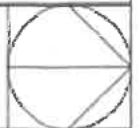
WALL LEGEND	
DEMO	
EXISTING FOUNDATION	
NEW FOUNDATION	
EXISTING CONSTRUCTION	
NEW CONSTRUCTION	

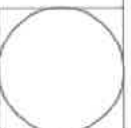
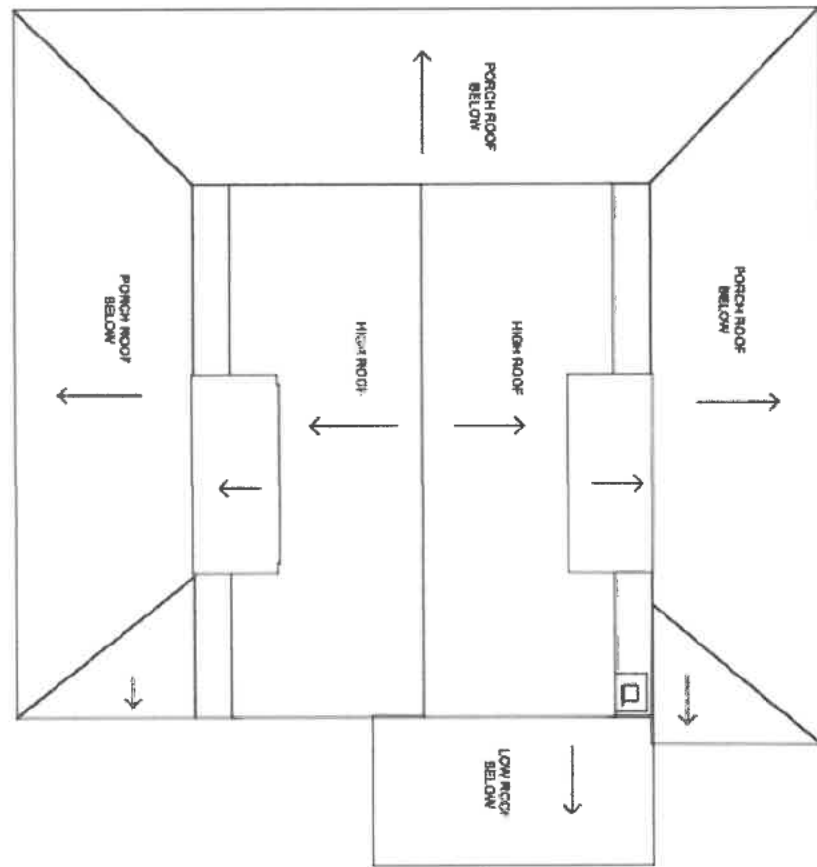
A-3

Anello Residence
12 Pilgrim's Path
Truro, MA

Title: SECOND FLOOR EXISTING
Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Hammer Architects
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Cambridge, MA 02139
617.876.5121

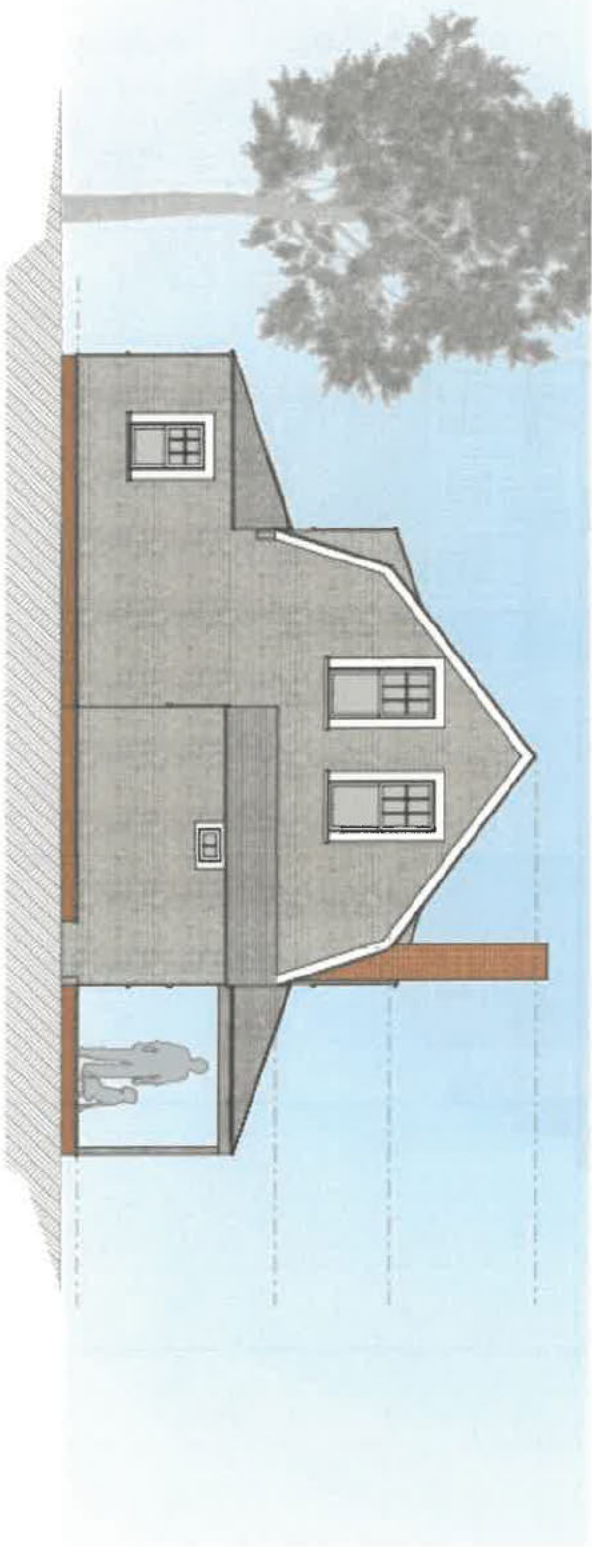




1 NORTH ELEVATION EXISTING



2 EAST ELEVATION EXISTING



A-5

Anello Residence
12 Pilgrim's Path
Truro, MA

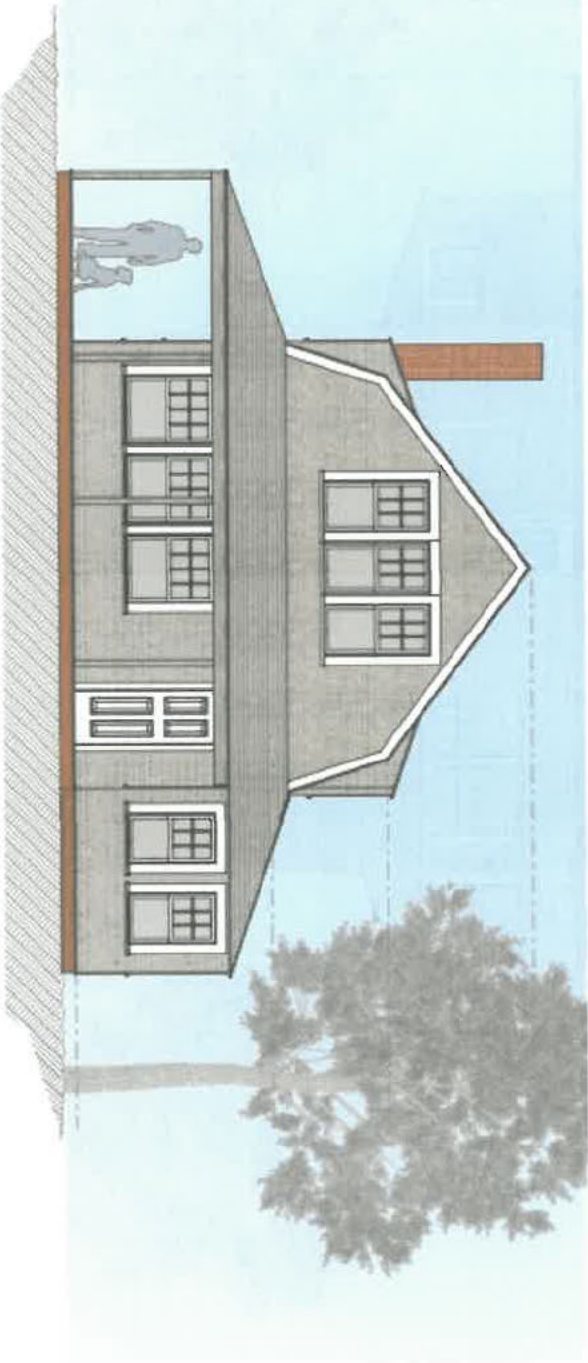
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Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121



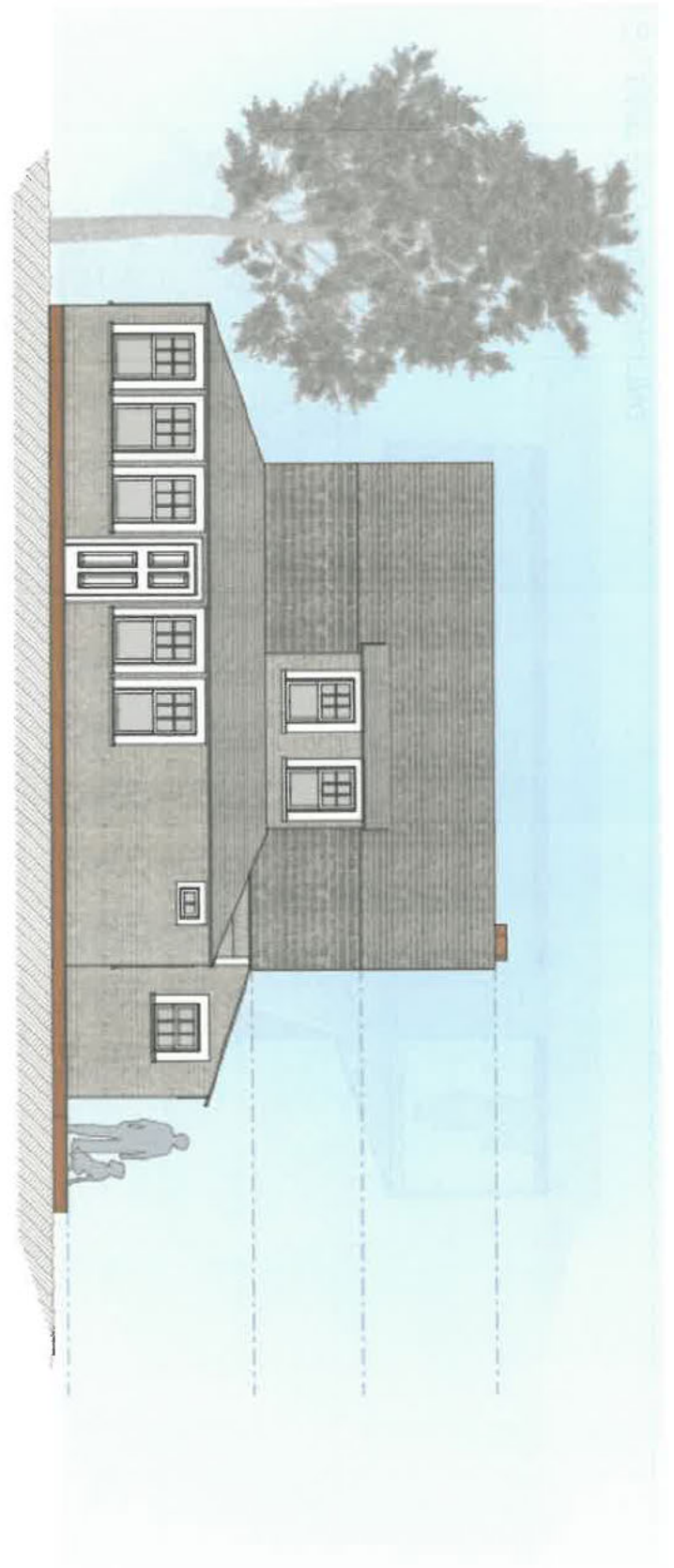
2

WEST ELEVATION EXISTING



1

SOUTH ELEVATION EXISTING

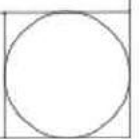


A-6

Anello Residence
12 Pilgrim's Path
Truro, MA

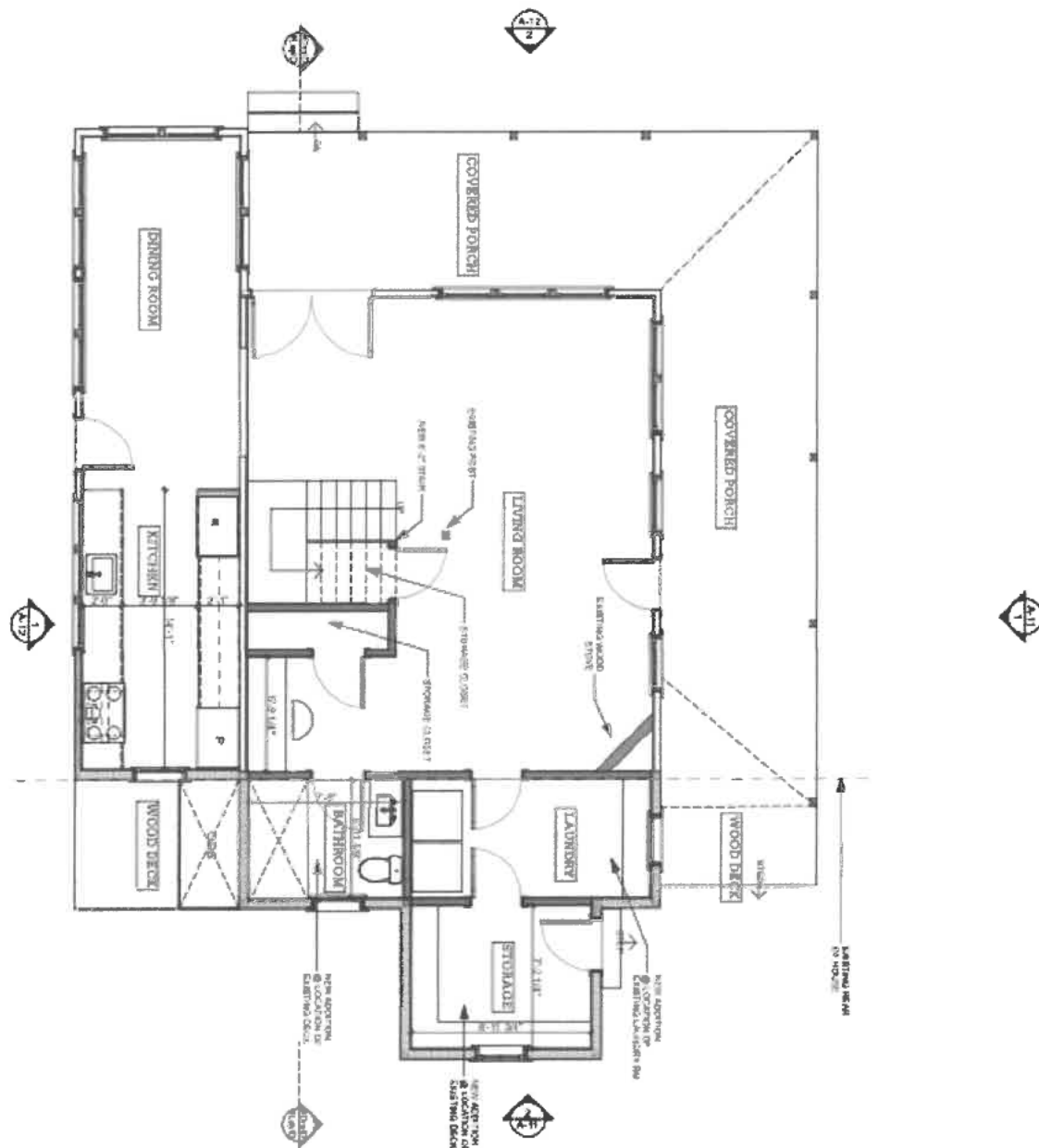
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Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121



1

FIRST FLOOR PROPOSED B2



WALL LEGEND	
	EXISTING FOUNDATION
	NEW FOUNDATION
	EXISTING CONSTRUCTION
	NEW CONSTRUCTION

A-8

Anello Residence
12 Pilgrim's Path
Truro, MA

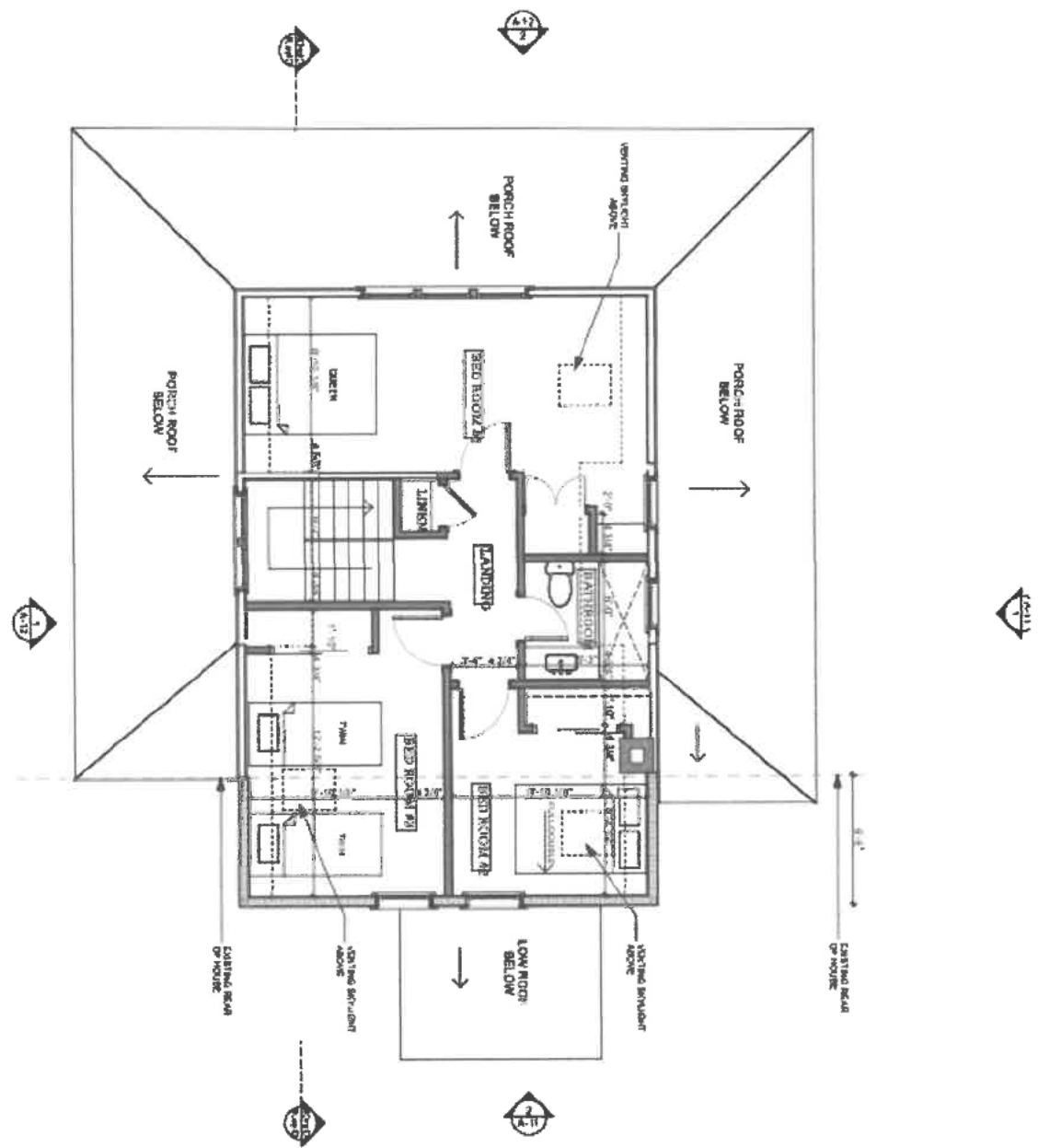
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Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121



1

SECOND FLOOR PROPOSED B2



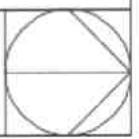
WALL LEGEND	
EXISTING FOUNDATION	EXISTING FOUNDATION
NEW FOUNDATION	NEW FOUNDATION
EXISTING CONSTRUCTION	EXISTING CONSTRUCTION
NEW CONSTRUCTION	NEW CONSTRUCTION

A-9

Anello Residence
12 Pirim's Path
Truro, MA

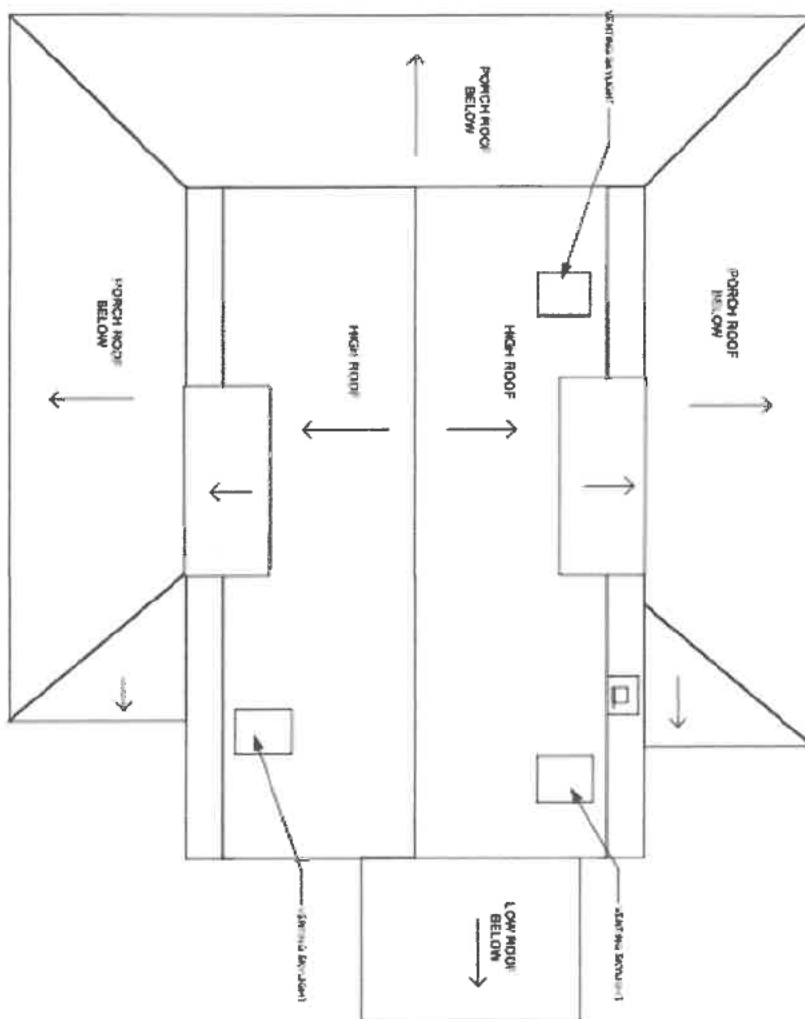
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Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

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Cambridge, MA 02139
617.876.5121



1

ROOF PLAN PROPOSED B2



A-10

Anello Residence
12 Pilgrim's Path
Truro, MA

Title: ROOF PLAN PROPOSED B2
Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

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19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121

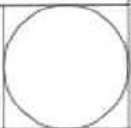




1 NORTH ELEVATION PROPOSED B2



2 EAST ELEVATION PROPOSED B2

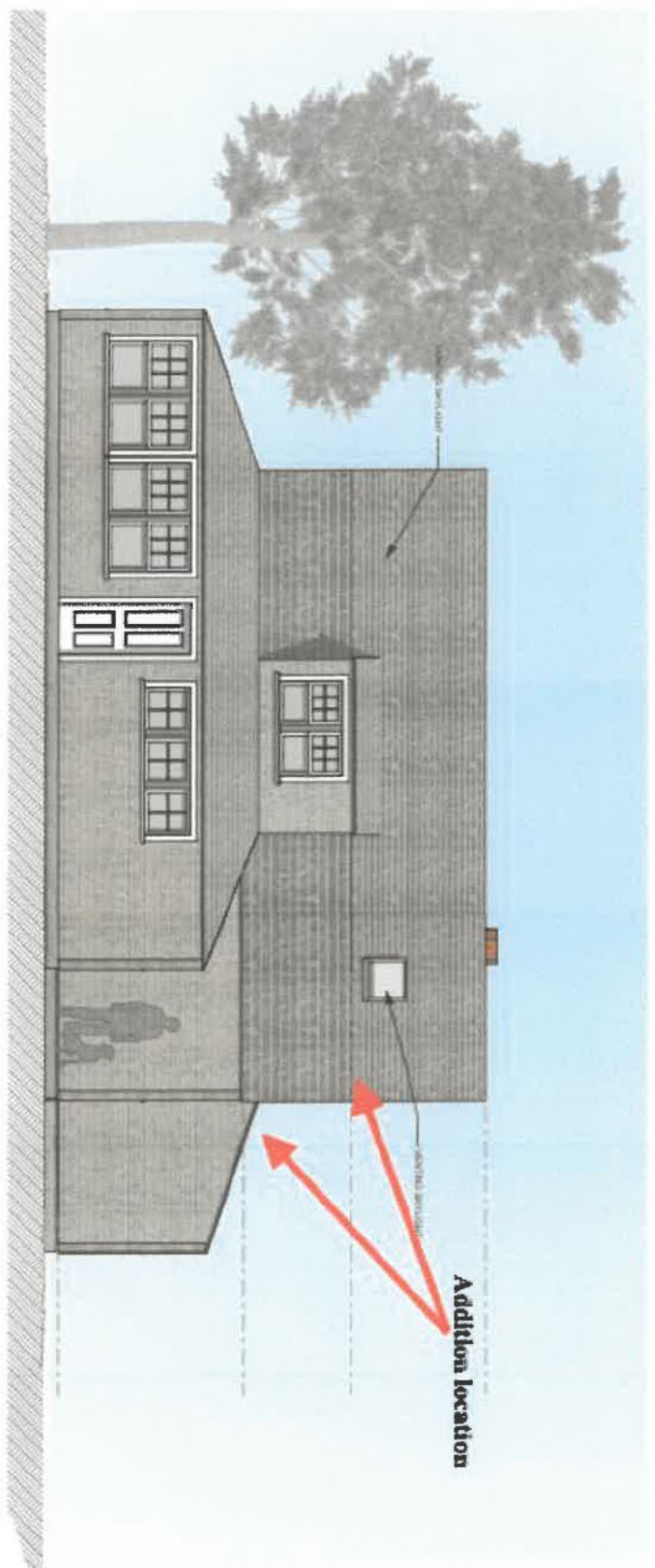


Hammer Architects
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Cambridge, MA 02139
617.876.5121

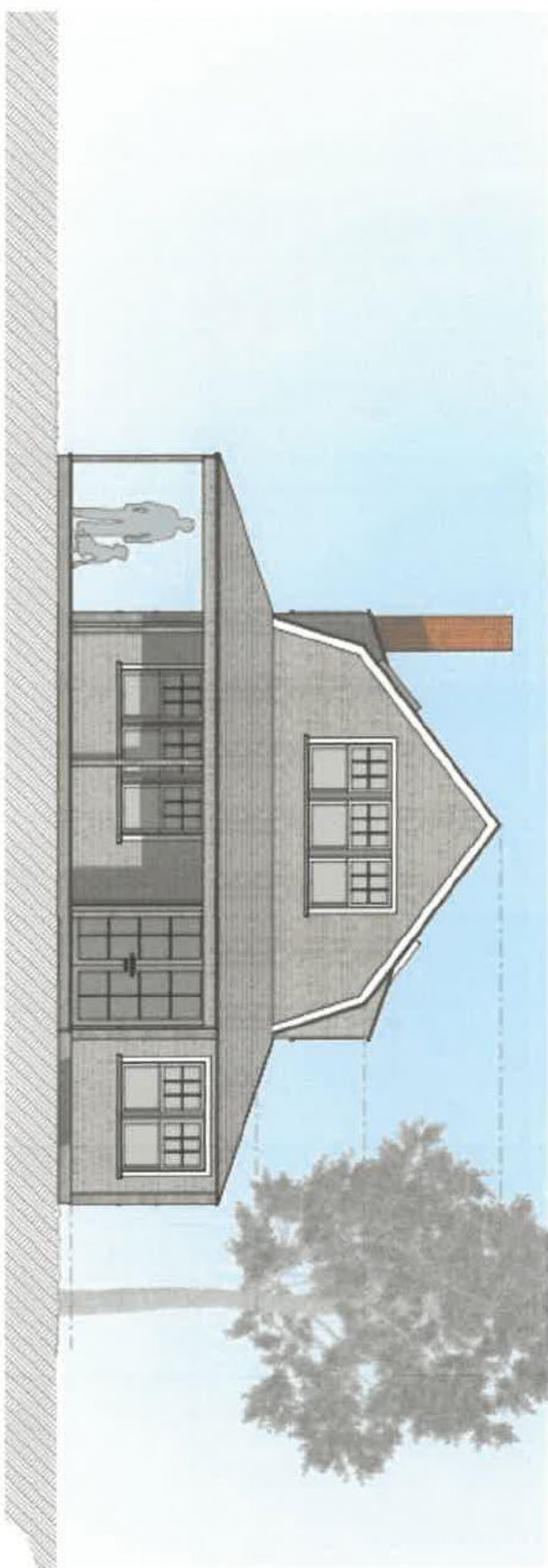
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Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Anello Residence
12 Pilgrim's Path
Truro, MA

A-11

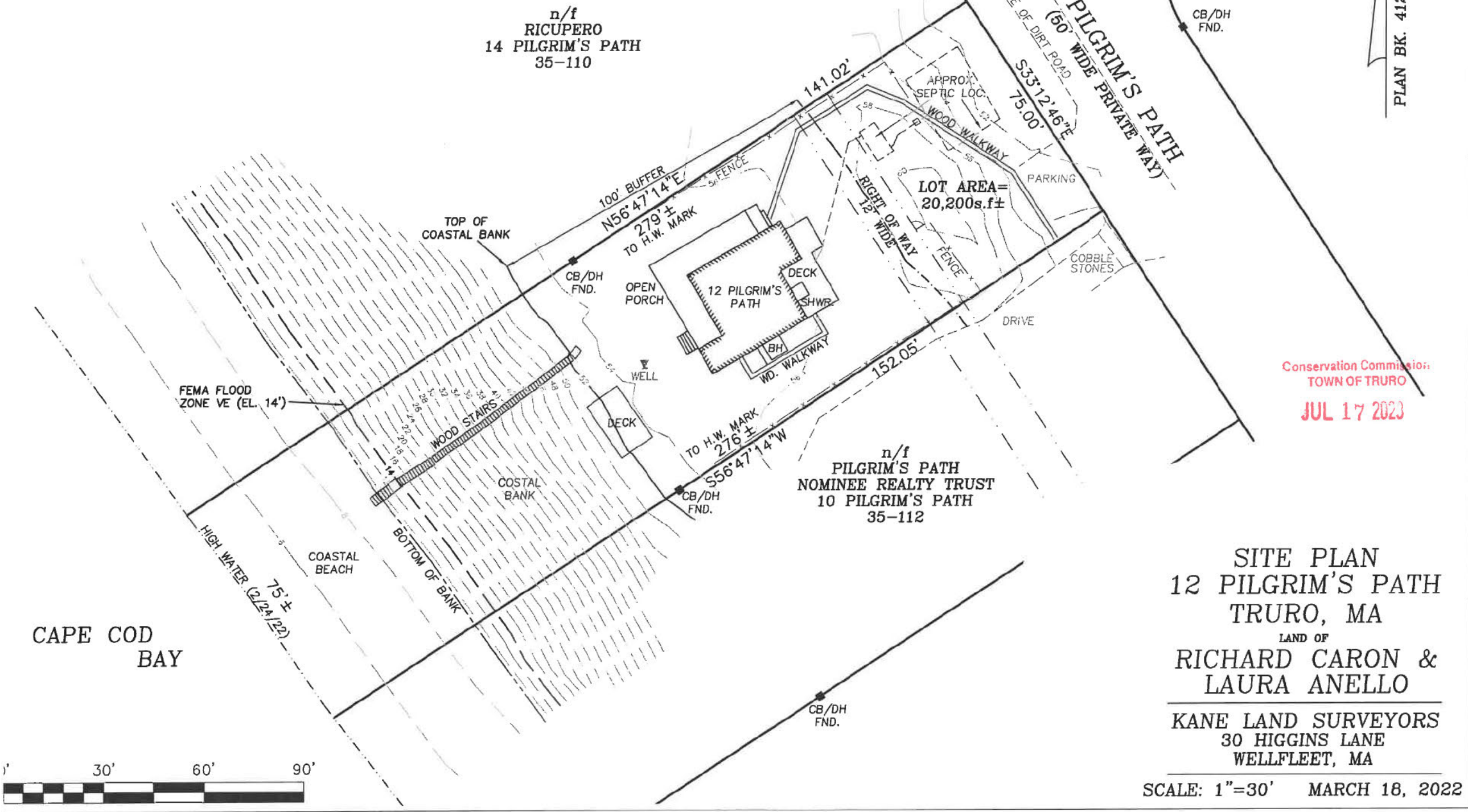


1 SOUTH ELEVATION PROPOSED B2
SCALE: 1/8" = 1'-0"




2 WEST ELEVATION PROPOSED B2
SCALE: 1/8" = 1'-0"

REFERENCES:
LOCUS DEED: BK. 31729 PG. 162
ASSESSORS MAP 35 PARCEL 111
ELEVATION DATUM: NAVD88
SEPTIC DATA FROM AS-BUILT PLAN
ON FILE WITH B.O.H.

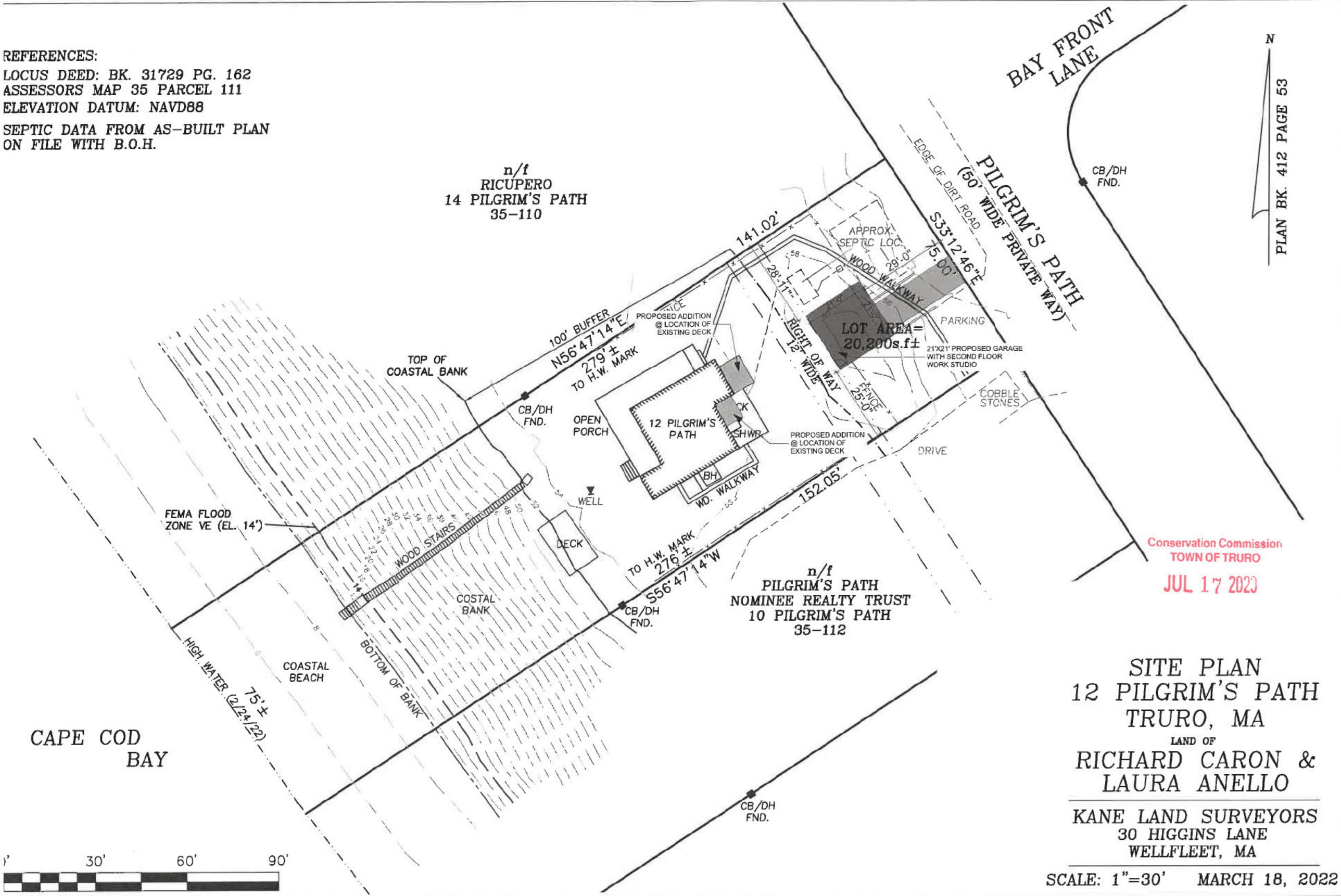


SITE PLAN
12 PILGRIM'S PATH
TRURO, MA
LAND OF
RICHARD CARON &
LAURA ANELLO
KANE LAND SURVEYORS
30 HIGGINS LANE
WELLFLEET, MA

SCALE: 1"=30' MARCH 18, 2022

 <p>Hammer Architects 19 Bishop Allen Drive Cambridge, MA 02139 617.876.5121</p>	<p>Title: SITE PLAN EXISTING Scale: As Noted Date: 12.29.22 NOT FOR CONSTRUCTION</p>	<p>Anello Residence 12 Pilgrim's Path Truro, MA</p>	<p>L-1</p>
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REFERENCES:
LOCUS DEED: BK. 31729 PG. 162
ASSESSORS MAP 35 PARCEL 111
ELEVATION DATUM: NAVD88
SEPTIC DATA FROM AS-BUILT PLAN
ON FILE WITH B.O.H.

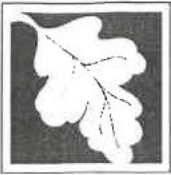


Hammer Architects
19 Bishop Allen Drive
Cambridge, MA 02139
617.876.5121

Title: SITE PLAN PROPOSED
Scale: As Noted
Date: 12.29.22 NOT FOR CONSTRUCTION

Anello Residence
12 Pilgrim's Path
Truro, MA

L-2



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

PAID
5793

WPA Form 1- Request for Determination of Applicability

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

Truro
Municipality

A. General Information

Conservation Commissioner
TOWN OF TRURO

JUL 17 2023

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



1. Applicant:
First Name: Tina
Last Name: Ryman
Address: 8 Button Road
City/Town: Easthampton
State: MA
Zip Code: 01027
Phone Number: [REDACTED]
Email Address: [REDACTED]
2. Property Owner (if different from Applicant):
First Name: _____
Last Name: _____
Address: _____
City/Town: _____
State: _____
Zip Code: _____
Phone Number: _____
Email Address (if known): _____
3. Representative (if any)
First Name: Laura
Last Name: Schofield
Company Name: Schofield Brothers of Cape Cod
Address: PO Box 101
City/Town: Orleans
State: MA
Zip Code: 02642
Phone Number: 508.255.2098
Email Address (if known): schobro@capecod.net

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):
Street Address: 38 Toms Hill Road
City/Town: Truro
Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX): 41.997
Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX): -70.0755
Assessors' Map Number: 49
Assessors' Lot/Parcel Number: 14
- b. Area Description (use additional paper, if necessary):
See Attached Narrative
- c. Plan and/or Map Reference(s): (use additional paper if necessary)
Proposed Sewage Disposal System For: An Existing 4 Bedroom Dwelling
Title: At: 38 Toms Hill Road Truro, MA
Date: July 5, 2023

[How to find Latitude
and Longitude](#)

[and how to convert
to decimal degrees](#)



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Truro
Municipality

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

B. Project Description (cont.)

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

See Attached Narrative

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

See Attached Narrative

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability Truro

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

Municipality

C. Determinations

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

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

Truro

Name of Municipality

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

D. Signatures and Submittal Requirements

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

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

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

Signatures:

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

[Signature]

Signature of Applicant

7/10/23

Date

[Signature]

Signature of Representative (if any)

7/12/23

Date

Locus Map - 38 Toms Hill Road

Property Tax Parcels



SCHOFIELD BROTHERS OF CAPE COD
Land Surveying and Environmental Permitting
161 Cranberry Highway
P.O. Box 101
Orleans, MA 02653-0101
508-255-2098 - 508-240-1215 (fax)
E-mail: schobro@capecod.net

**Narrative to Accompany
a Request for Determination of Applicability
at 38 Toms Hill Road in Truro, Massachusetts**

Area and Project Description

The subject property is a 31,363± square foot lot overlooking Cape Cod Bay to the west and Pamet Harbor to the south. An existing 4 bedroom cottage built in 1955 exists on the site with associated appurtenances. The cottage is served by a single cesspool and a private well. A coastal bank associated with the Little Pamet River estuary exists along the westerly portion of the site, it's buffer zone overlaps the entire property.

Work Description

The project is the upgrade of the septic system serving the dwelling. A 1,500 gallon septic tank is provided along with a soil absorption system comprised of Cultec chambers in a stepped trench configuration to maximize the distance to the top of the coastal bank. The leaching area design takes advantage of the reduction of leaching area allowed pursuant to a local upgrade approval and in anticipation of a future innovative/alternative technology being installed at a later date.

The existing dwelling is a seasonal dwelling that is not winterized and therefore not possible to utilize for most of the year. The property owners would like to phase in the requirement for providing an innovative/alternative technology to such a time that the house is winterized or the house is sold.

There is minimal available upland area on the lot for subsurface sewage disposal due to the presence of the coastal bank and its overlapping buffer zone. The lot has numerous site constraints impacting the septic system design including the location of the existing private water supply well and the location of the existing building sewer location and elevation.

Erosion control shall be installed prior to any disturbance on the site and shall remain in good working order until disturbed areas have been stabilized. A revegetation plan for disturbed areas within the work limit is attached to this narrative. Details of the septic system are shown on the attached site plan.



Provisions from the Massachusetts Wetlands Protection Act which may exempt the applicant from having to file a Notice of Intent:

The proposed project is the upgrade of an existing cesspool to a Title 5 septic system. The project itself is a benefit to many of the interest of the MA Wetlands Protection Act. The project is limited and temporary in nature. Erosion control has been provided on the plan to prevent adverse impact to any resource area during installation of the new septic system. Upon completion of the project disturbed areas are to be revegetated with native species.

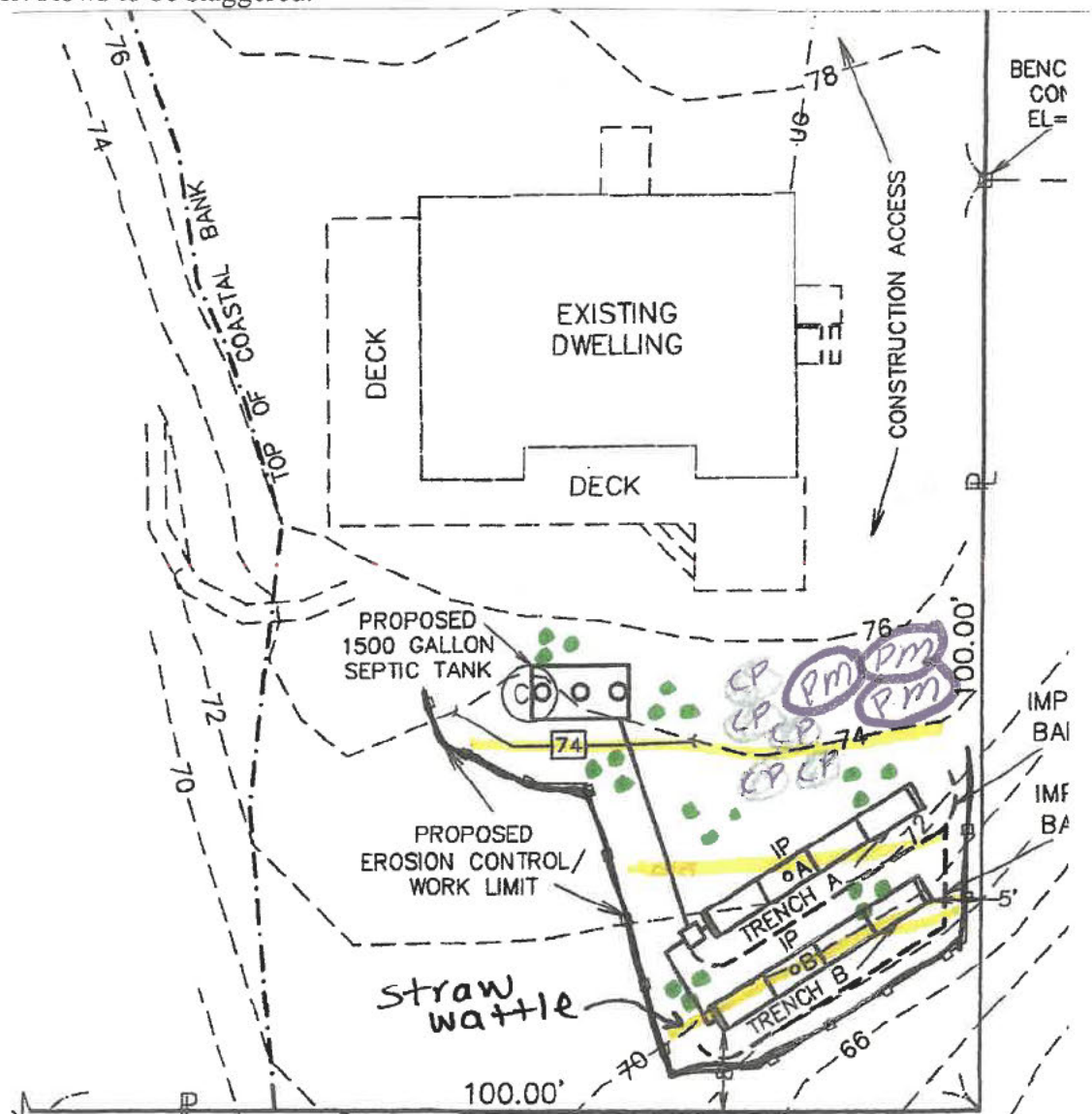
E-mail: schobro@capecod.net

Upon installation of septic system at 38 Toms Hill Road:

The following native species shall be planted within disturbed areas as shown on the revegetation plan:

Number	Species	Size	Spacing	Symbol
21	Arctostaphylos uva-ursi/Bearberry	4"	Spaced 3-4 feet apart in groups of 3	
5	Comptonia peregrina/Sweet fern	1 gallon	Spaced 2-3 feet apart	
3	Prunus maritima/ Beach Plum	3 gallon	Spaced 5 feet apart	

The remaining disturbed areas within the work limit will be planted with plugs of American Beach Grass planted 12 inches on center. Rows to be staggered.



PLOT PLAN

SCALE: 1 in. = 20 ft.
ASSESSOR'S MAP 49 PARCEL 14
LOT AREA: 31,363 SQ.FT.±

MAP 49, PARCEL 10

MAP 49, PARCEL 12

MAP 49, PARCEL 15

LOCAL UPGRADE APPROVAL REQUESTED PURSUANT TO TITLE V, THE STATE ENVIRONMENTAL CODE:

15.405(1)(A) REDUCTION OF THE REQUIRED 10 FOOT SEPARATION TO PROPERTY LINES AS FOLLOWS:
5 FEET PROVIDED BETWEEN THE SOIL ABSORPTION SYSTEM (SAS) AND EASTERLY PROPERTY LINE
8 FEET PROVIDED BETWEEN THE SAS AND SOUTHERLY PROPERTY LINE

15.405(1)(C) TO ALLOW A 25% REDUCTION IN THE REQUIRED SUBSURFACE DISPOSAL AREA DESIGN REQUIREMENTS

15.405(1)(F) REDUCTION OF SYSTEM LOCATION SETBACKS FROM A COASTAL BANK TO A SAS, 48 FEET PROVIDED (50 FEET REQUIRED)

15.405(1)(G) REDUCTION OF THE REQUIRED 100 FOOT SEPARATION BETWEEN A PRIVATE WATER SUPPLY WELL (LOCUS WELL) AND A SAS: 78 FEET PROVIDED (100' REQUIRED)

VARIANCES REQUESTED FROM THE TOWN OF TRURO BOARD OF HEALTH REGULATIONS SECTION VI-LOCAL REGULATIONS TO SUPPLEMENT TITLE 5, STATE SANITARY CODE:

RELIEF IS REQUESTED TEMPORARILY FROM ARTICLE 8 - INNOVATIVE ALTERNATIVE TECHNOLOGY (1) APPLICABILITY (D) FOR UPGRADES OF PREVIOUSLY APPROVED SYSTEMS THAT EXCEED CURRENT NITROGEN LOADING STANDARDS OF 110 GPD/10,000SF OF LOT AREA AND FROM ARTICLE 13 - NITROGEN LOADING LIMITATIONS (2) UPGRADES FOR SYSTEMS THAT EXCEED CURRENT NITROGEN LOADING SHALL INCLUDE THE USE OF I/A TECHNOLOGY.

A VARIANCE FROM THE TOWN OF TRURO BOARD OF HEALTH REGULATIONS SECTION VI, ARTICLE 9 IS REQUIRED FOR THE MINIMUM SETBACK DISTANCES FOR THE SEPTIC TANK AND SAS AS FOLLOWS:

MINIMUM SETBACK DISTANCE BETWEEN A SEPTIC TANK AND WETLANDS: 100' REQUIRED
28' PROVIDED FROM THE TOP OF THE COASTAL BANK TO THE PROPOSED SEPTIC TANK.

MINIMUM SETBACK DISTANCE BETWEEN A SAS AND A WETLANDS: 150 FEET REQUIRED
78' PROVIDED BETWEEN THE PROPOSED SAS AND TOP OF COASTAL BANK.

SECTION VII - WATER PROTECTION REGULATIONS
ARTICLE 2(A) - REGULATIONS IN THE PAMET RIVER PROTECTION DISTRICT...ALL SYSTEMS...SHALL BE LOCATED AND INSTALLED AT LEAST ONE HUNDRED AND FIFTY (150') FEET FROM ALL WETLANDS AS DEFINED HEREIN...
RELIEF IS REQUESTED FROM THIS REGULATION TO ALLOW THE SEPTIC TANK AND SAS TO BE WITHIN 150 FEET OF THE TOP OF A COASTAL BANK.

DEEP TEST HOLE OBSERVATION LOG #1

DATE: MAY 6, 2022 JOB: 0-12588
PERFORMED BY: LAURA SCHOFIELD, RS, SE WITNESSED BY: AROZANA DAVIS, TRURO BOH

ELEVATION (FT)	DEPTH FROM SURFACE (IN)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
77.0-78.9	0-13	A/TILL	VARIABLE SAND	10YR8/4	-	-
75.9-71.5	15-66	P.L.	OLD SANDY LOAM	10YR8/4	-	-
71.5-70.8	68-77	OLD A	SANDY LOAM	10YR4/6	-	-
70.8-69.3	77-92	BW	SANDY LOAM	10YR4/6	-	-
69.3-65.2	92-142	C	SAND	10YR6/6	-	-

PARENT GEOLOGICAL MATERIAL: GLACIAL OUTWASH STANDING WATER IN HOLE: NO
WEEPING FROM FACE: NO DEPTH TO BEDROCK:
ESTIMATED SEASONAL HIGH GROUNDWATER BELOW EL. 65.2
PERCOLATION TEST:

DEEP TEST HOLE OBSERVATION LOG #2

DATE: MAY 6, 2022 JOB: 0-12588
PERFORMED BY: LAURA SCHOFIELD, RS, SE WITNESSED BY: AROZANA DAVIS, TRURO BOH

ELEVATION (FT)	DEPTH FROM SURFACE (IN)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
79.1-78.1	0-12	A	LOAMY SAND	10YR4/3	-	-
78.1-77.0	12-25	BW	LOAMY SAND	10YR4/6	-	-
77.0-67.1	25-144	C	SAND, COARSE	10YR6/6	-	-

PARENT GEOLOGICAL MATERIAL: GLACIAL OUTWASH STANDING WATER IN HOLE: NO
WEEPING FROM FACE: NO DEPTH TO BEDROCK:
ESTIMATED SEASONAL HIGH GROUNDWATER BELOW EL. 67.1
PERCOLATION TEST: TOP OF PERC. AT 30", 24 GAL. ABSORBED IN 4:15 MIN., PERC. RATE < 2 MP

A CONFIRMATORY TESTHOLE SHALL BE PERFORMED PRIOR TO INSTALLATION OF TRENCHES

GENERAL NOTES (CONT.)

14. PLASTIC MEMBRANE IMPERMEABLE BARRIER SHALL BE:
-OF SUFFICIENT TENSILE STRENGTH TO WITHSTAND PERFORMANCE, INCLUDING CRACKING, TEARING, AND BREAKING;
-AT LEAST 40 MILS IN THICKNESS, AND HAVE SIGNIFICANT DURABILITY AND RESISTANCE TO THE TEMPERATURE AND MOISTURE CONDITIONS EXPECTED IN THE SUBSURFACE ENVIRONMENT; AND
-INSTALLED WITHOUT GAPS OR HOLES AND SO THAT PERFORATIONS DO NOT DEVELOP AFTER INSTALLATION.

FOR TRENCH A:
TOP OF IMPERMEABLE BARRIER ELEV = 69.5
BOTTOM OF IMPERMEABLE BARRIER = 66.0

FOR TRENCH B:
TOP OF IMPERMEABLE BARRIER ELEV = 67.5
BOTTOM OF IMPERMEABLE BARRIER = 63.0

15. CULTEC DESIGN PURSUANT TO MODIFIED CERTIFICATION FOR GENERAL USE PERMIT.

LEGEND

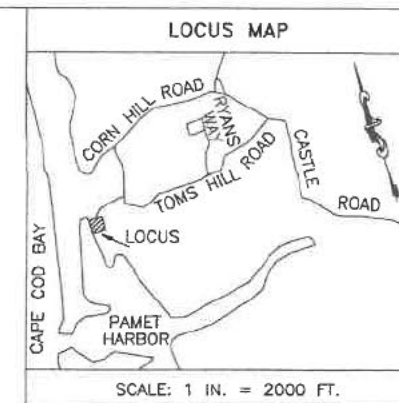
- XX--- PROPOSED CONTOUR LINE
- XX--- EXISTING CONTOUR
- C--- EXISTING CESSPOOL
- W--- WATER LINE
- S--- PROPOSED 1500 GALLON SEPTIC TANK
- D--- PROPOSED DISTRIBUTION BOX
- L--- PROPOSED LEACHING TRENCH
- #--- EXISTING SPOT ELEVATIONS
- R--- TEST HOLE LOCATIONS
- P--- PROPERTY LINE
- E--- PROPOSED SPOT ELEVATION
- OH--- OVERHEAD UTILITIES
- UG--- UNDERGROUND UTILITIES
- FG--- FINISHED GRADE
- IP--- INSPECTION PORT

PROFILE OF SYSTEM - NO SCALE

TYPICAL LEACHING TRENCH CROSS SECTION - NO SCALE

PROFILE OF TRENCHES - NO SCALE

NOTE: ALL PIPE TO BE 4" DIAM. PVC TIGHT JOINT SCH. 40



GENERAL NOTES

1. ELEVATIONS REFER TO NAVD 88 DATUM. SEE BENCHMARK ON PLAN.
2. ALL CONSTRUCTION AND MATERIALS TO CONFORM TO TITLE 5 OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF TRURO.
3. ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE BOARD OF HEALTH AND SCHOFIELD BROTHERS OF CAPE COD.
4. FOR PROPER PERFORMANCE, THE SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE PER YEAR. THE TANK SHOULD BE PUMPED WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 OF ITS LIQUID DEPTH.
5. SCHOFIELD BROTHERS OF CAPE COD DOES NOT ASSUME RESPONSIBILITY FOR MATERIALS ENCOUNTERED DURING EXCAVATION.
6. ANY UNSUITABLE OR DELETERIOUS MATERIAL ENCOUNTERED MUST BE EXCAVATED AND REMOVED TO A DISTANCE OF 5 FEET FROM ALL SIDES OF THE SOIL ABSORPTION SYSTEM (S.A.S) AND TO A DEPTH AT WHICH THE C HORIZON IS ENCOUNTERED. BACKFILL WITH CLEAN SAND MATERIAL MEETING TITLE 5 SPECIFICATIONS TO APPROX. TOP OF CHAMBER ELEVATION. CONTACT SCHOFIELD BROTHERS IF ANY DOUBT OR QUESTIONS ARISE REGARDING SOIL QUALITY.
7. INSTALLATION CONTRACTOR SHALL CONTACT SCHOFIELD BROTHERS FOR A CONFIRMATORY TEST HOLE AND PRIOR TO BACKFILLING FOR SYSTEM CERTIFICATION.
8. EXISTING CESSPOOL IS TO BE PUMPED, ABANDONED AND REMOVED.
9. EXISTING BUILDING SEWER INVERT(S) SHALL BE VERIFIED IN FIELD PRIOR TO COMPONENT INSTALLATION. CONTACT SCHOFIELD BROTHERS IF SIGNIFICANT DISCREPANCIES EXIST.
10. SITE RESTORATION REQUIRES ALL STRIPPED TOPSOIL AND SUBSOIL TO BE STOCKPILED AND REUSED AT OWNERS OPTION. RE-SPREAD OVER DISTURBED AREAS TO PROMOTE OPTIMAL GROWTH.
11. ALL SEPTIC SYSTEM COMPONENTS ARE DESIGNED FOR A MINIMUM H-10 LOADING. ANY COMPONENT THAT WILL BE SUBJECT TO VEHICLE OR OTHER HEAVY EQUIPMENT TRAFFIC SHALL BE INSTALLED WITH H-20 LOADING CAPACITY.
12. UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
13. NO KNOWN WELLS EXIST WITHIN 200' OF THE PROPOSED LEACHING AREA EXCEPT THOSE THAT ARE SHOWN.

DESIGN CALCULATIONS

1. ESTIMATED HYDRAULIC LOADING:
BEDROOMS AT 110 GPD PER BEDROOM = 440 GPD
GARBAGE GRINDER IS NOT ALLOWED WITH THIS DESIGN
2. SEPTIC TANK SIZE:
AVERAGE DAILY FLOW = 440 GPD X 2 DAYS = 880 GALLONS
SEPTIC TANK PROVIDED = 1500 GALLONS
3. DESIGN PERCOLATION RATE = <2 MINUTES PER INCH
SOIL TEXTURE SANDS, CLASS I
310 CMR 15.242 EFFLUENT LOADING RATE = 0.74 GPD/SF
4. LEACHING AREA REQUIRED:
TOTAL SQUARE FOOTAGE REQUIRED BY TITLE 5 =
440 GPD x .74 GPD/SF = 595 SF REQUIRED MINIMUM

LEACHING AREA PROVIDED:
CULTEC SYSTEM: RECHARGER 180 (8) CHAMBERS PROVIDED)
MASSACHUSETTS ALLOWABLE EFFECTIVE LEACHING AREA = 8.9 SF/LF
(FOR TRENCH CONFIGURATION)
8 CHAMBERS x 6.3 LF/CHAMBER x 8.9 SF/LF = 448 SF PROVIDED*

* 25% REDUCTION IN SAS REQUESTED

PROPOSED SEWAGE DISPOSAL SYSTEM

FOR: AN EXISTING 4 BEDROOM DWELLING
AT: 38 TOMS HILL ROAD
TRURO, MA

ASSESSOR'S MAP: 49	PARCEL: 14
APPLICANT: TINA RYMAN 8 BUTTON ROAD EASTHAMPTON, MA 01027	TEL. NO.: (973)216-8782 JOB #: O-12568

DATE: JULY 5, 2023

DESIGNED BY:

DRAWN BY:

LAS
CHECKED BY

CHECKED BY:
LAS

SCHOFIELD BROTHERS OF CAPE COD
LAND SURVEYING - ENVIRONMENTAL PERMITTING
P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA
(508) 255-2098



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

PAID
5794

Location: Truro
Municipality: TOWN OF TRURO

JUL 17 2023

A. General Information

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



1. Applicant:
Estate of Marguerite Yannetty
First Name
19 Mermaid Ave
Address
Winthrop
City/Town
MA
State
02346
Zip Code
[Redacted]
Phone Number
[Redacted]
Email Address
c/o Christine Bernstein
Last Name
2. Property Owner (if different from Applicant):
First Name
Last Name
Address
City/Town
State
Zip Code
Phone Number
Email Address (if known)
3. Representative (if any)
Laura
First Name
Schofield
Last Name
Schofield Brothers of Cape Cod
Company Name
PO Box 101
Address
Orleans
City/Town
MA
State
02653
Zip Code
508.255.2098
Phone Number
schofieldfreeman@gmail.com
Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):
5 Valentina Way
Street Address
41.9673
Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)
60
Assessors' Map Number
Truro
City/Town
-70.0294
Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)
23
Assessors' Lot/Parcel Number
- b. Area Description (use additional paper, if necessary):
See Attached Sheet
- c. Plan and/or Map Reference(s): (use additional paper if necessary)
Proposed Sewage Disposal System for: Two Existing Cottages, 3 Bedrooms
Title
Total at: 5 Valentina Way Truro, MA
Title
7/6/23
Date
Date

[How to find Latitude
and Longitude](#)

[and how to convert
to decimal degrees](#)



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Truro
Municipality

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

B. Project Description (cont.)

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

See Attached Sheet

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

See Attached Sheet

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

Truro
Municipality

C. Determinations

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

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

Truro
Name of Municipality

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

D. Signatures and Submittal Requirements

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

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

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

Signatures:

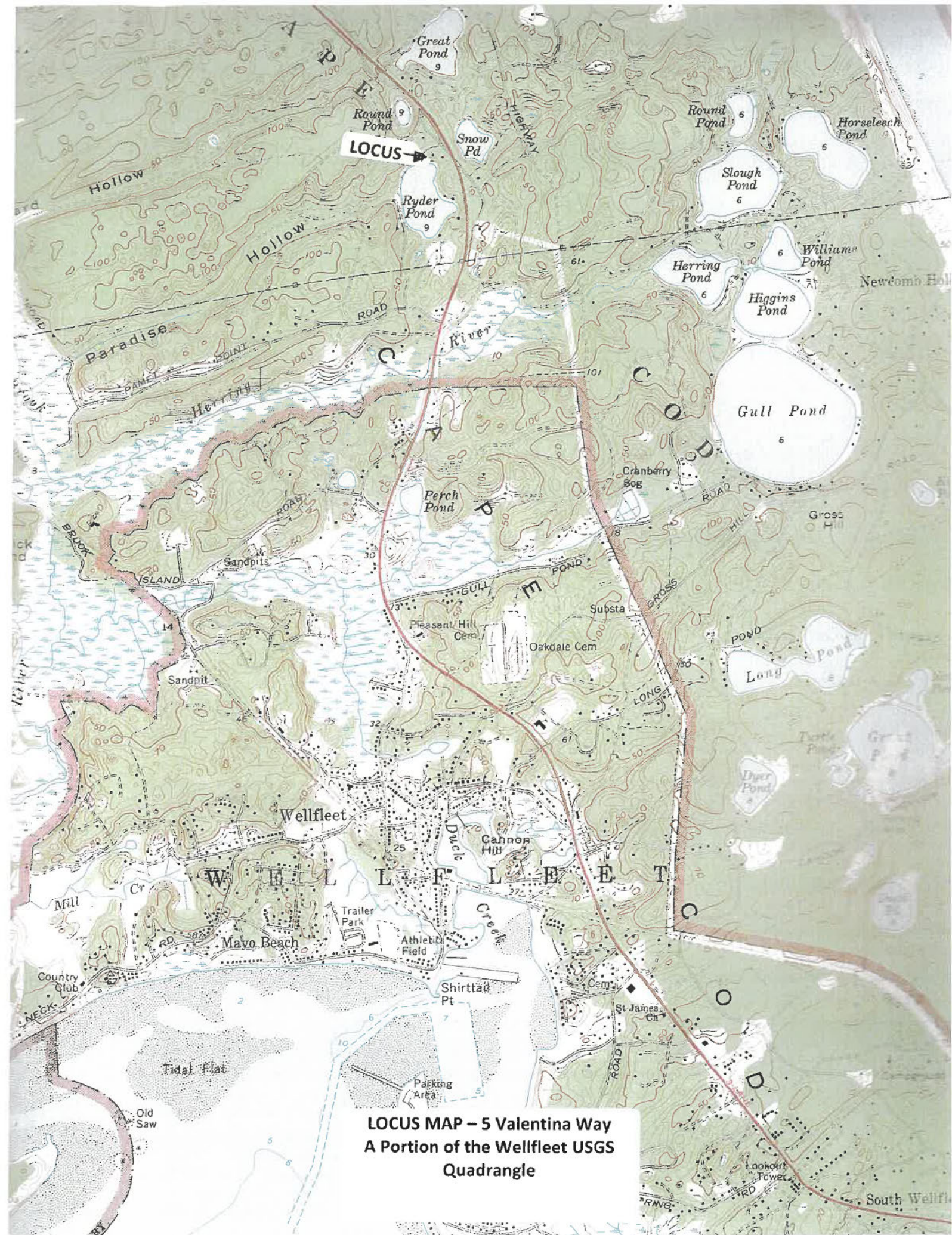
I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Christine Bernstein
Signature of Applicant

7/07/23
Date

Laura Schopf
Signature of Representative (if any)

7/12/23
Date



LOCUS MAP – 5 Valentina Way
A Portion of the Wellfleet USGS
Quadrangle

SCHOFIELD BROTHERS OF CAPE COD
Land Surveying and Environmental Permitting
161 Cranberry Highway
P.O. Box 101
Orleans, MA 02653-0101
508-255-2098 - 508-240-1215 (fax)
E-mail: schobro@capecod.net

**Narrative to Accompany
a Request for Determination of Applicability
at 5 Valentina Way in Truro, Massachusetts**

Area and Project Description

The subject property is 30,056± square foot lot located at the end of Valentina Way in Truro, Massachusetts. Two small seasonal cottages built in 1953 exist on the site. The two bedroom cottage is currently served by a cesspool and is being upgraded to a Title 5 septic system providing an innovative alternative technology to comply with the Truro Board of Health Regulations. The one bedroom cottage is served by a separate septic system: a septic tank and leaching pit. The property borders on Ryder Pond to the west/southwest. Most of the property is pitch pine/oak woodland.

Work Description

The existing private water supply well serving the property is to be abandoned and a new well is proposed in the northerly most corner of the lot in order to provide a 100 foot setback between the proposed soil absorption system and the new well. The septic tank and leaching pit serving the one bedroom cottage will be abandoned and removed as it is within the setback to the new well and the buffer zone to Ryder Pond. The one bedroom cottage will also be connected to the new septic system.

The proposed septic system is comprised of a 1500 gallon septic tank with an Advantex AX-20 innovative alternative technology, pump discharge basin, a distribution box and a soil absorption system comprised of leaching galleys in a trench configuration. The Advantex unit will reduce nitrogen to the 19mg/L standard. The septic tank, Advantex I/A and pump discharge are located within the buffer zone to Ryder Pond as the building sewer exiting the cottage is the lowest collection point for the new system. The existing cesspool serving the two bedroom cottage is within 50 feet of Ryder Pond and will be abandoned. The pump discharge basin will pump the treated effluent to the distribution box and leaching area which are located under the existing driveway to minimize clearing on the lot to install the new septic system.

Vegetation Removal:

Several trees are proposed to be removed to provide construction access to install the septic tank and to remove a couple of trees that are in extreme proximity to the existing cottages and in poor condition. Several of the trees to be removed are outside of the buffer zone to Ryder Pond. There will be some shrubs within the proposed work limit that will be removed to install the new septic tank/Advantex I/A and pump basin.

Erosion control shall be installed prior to any disturbance on the site and shall remain in good working order until disturbed areas have been stabilized. The erosion control barrier shall also be the limit of work. Details of the septic system are shown on the attached site plan. The proposed well and the proposed leaching area are located outside of the buffer zone to Ryder Pond. Upon installation and backfilling of the new septic tank, disturbed areas will be stabilized with native species. Please refer to attached "Erosion control and re-planting plan upon installation at 5 Valentina Way".

SCHOFIELD BROTHERS OF CAPE COD
Land Surveying and Environmental Permitting

Provisions from the Massachusetts Wetlands Protection Act which may exempt the applicant from having to file a Notice of Intent:

The proposed project is the upgrade of an existing cesspool within 50 feet of Ryder Pond and a leaching pit within 70 feet of Ryder Pond to a Title 5 septic system providing an innovative/alternative technology to reduce nitrogen to the 19mg/L standard. The project itself is a benefit to many of the interest of the MA Wetlands Protection Act. The project is limited and temporary in nature. Erosion control has been provided on the plan to prevent adverse impact to any resource area during installation of the new septic system. Disturbed areas will be loamed and stabilized with native plantings upon completion of the project. The proposed septic tank/Advantex treatment unit and the pump discharge basin are located in the buffer zone to Ryder Pond. The soil absorption system is completely outside of the buffer zone to Ryder Pond.

SCHOFIELD BROTHERS OF CAPE COD
 Land Surveying & Environmental Permitting
 161 Cranberry Highway
 P.O. Box 101
 Orleans, MA 02653-0101
 508-255-2098 - 508-240-1215 (fax)
 E-mail: schobro@capecod.net

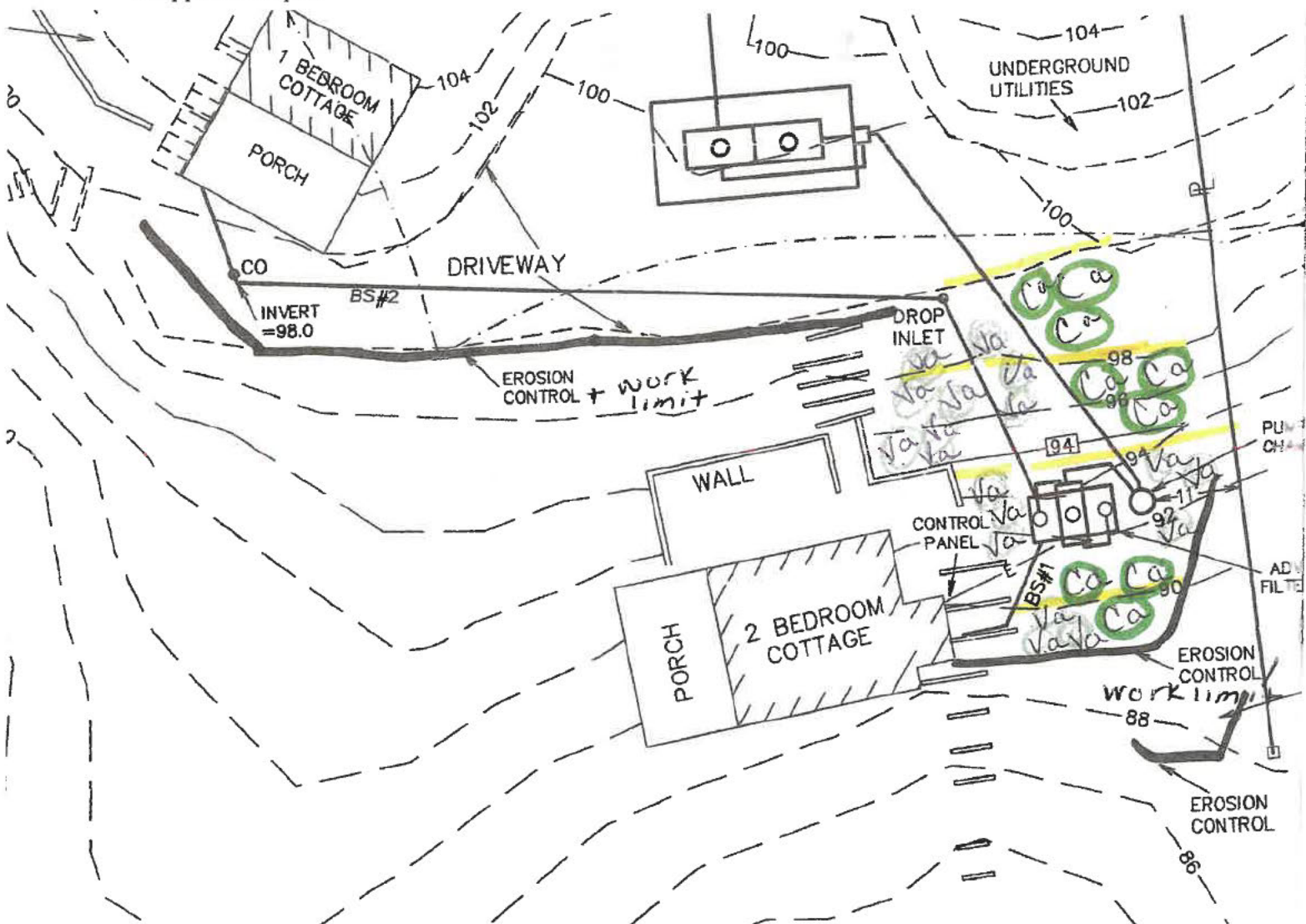
Erosion Control and Planting Plan Upon installation of septic system at 5 Valentina Way:

Upon backfilling the septic tank, Advantex unit and pump basin, tiers of staked straw wattles shall be placed within the existing work limit as shown on the attached revegetation plan and shall remain in place until disturbed areas have been stabilized and plantings are established. Finished slopes of greater than 3:1 may require jute netting.

The following native species* shall be planted within disturbed areas as shown on the revegetation plan:

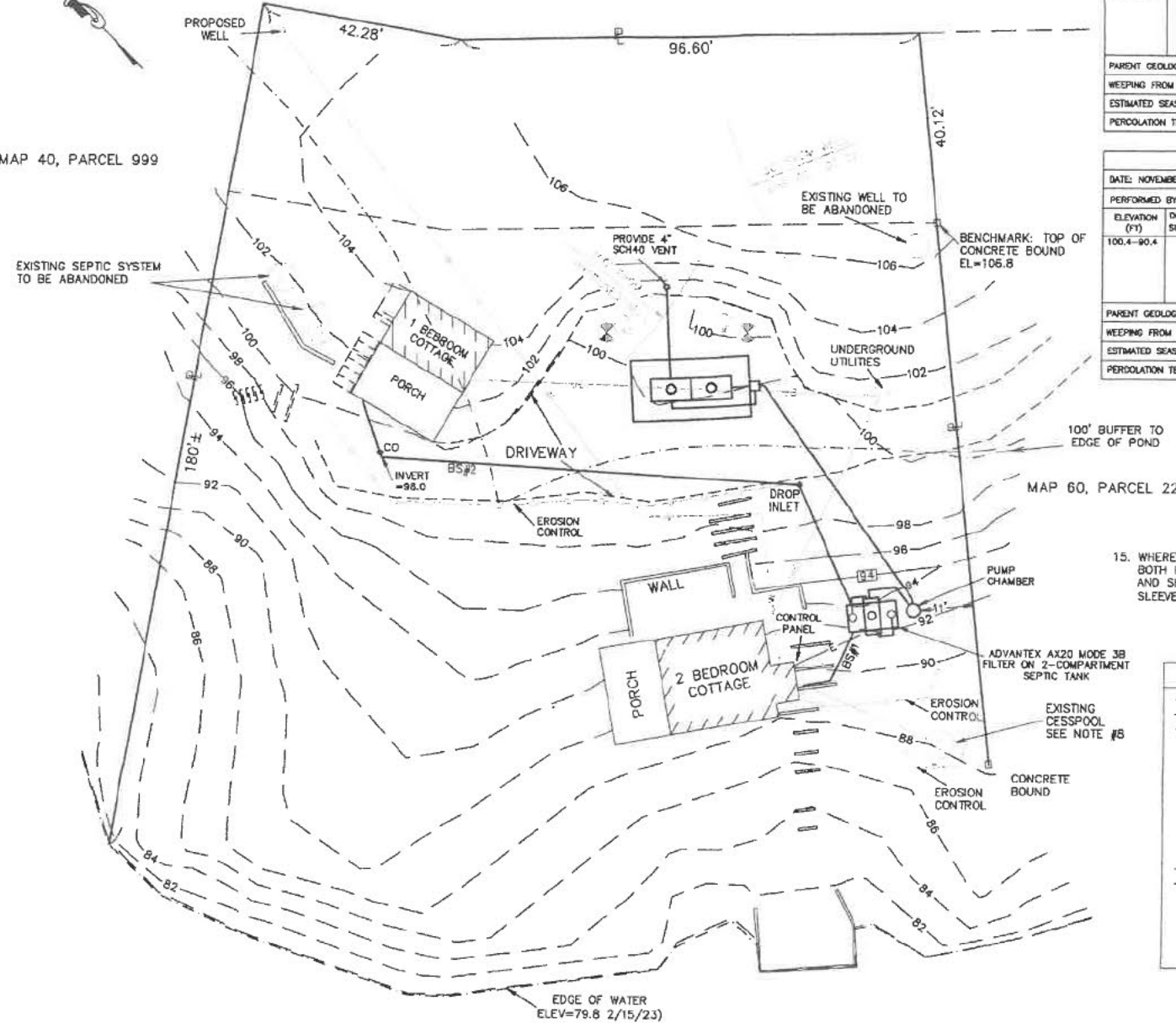
Number (minimum)	Species	Size	Spacing	Symbol
9	Clethra alnifolia/Sweet pepperbush	1 gallon	4' O.C.	Ca
18	Vaccinium angustifolium/ low bush blueberry	1 gallon	3' O.C.	Va
50	Carex Pennsylvania/Pennsylvania Sedge	2" plugs	12" o.c. to be planted within remaining disturbed areas within work limit	

* or approved equal



PLOT PLAN
SCALE: 1 in. = 20 ft.
ASSESSOR'S MAP 80 PARCEL 23
LOT AREA: 30,056 ± SQ FT

MAP 40, PARCEL 999



RYDER POND

Conservation Commission
TOWN OF TRURO
JUL 17 2023

VARIANCES FROM THE TOWN OF TRURO BOARD OF HEALTH REGULATIONS SECTION VI, ARTICLE 9 ARE REQUIRED FOR THE MINIMUM SETBACK DISTANCES FOR THE SEPTIC TANK AND SOIL ABSORPTION SYSTEM AS FOLLOWS:

MINIMUM SETBACK DISTANCE BETWEEN A SEPTIC TANK AND WETLAND: 100' REQUIRED
62' PROVIDED BETWEEN PROPOSED SEPTIC/ADVANTEX AX-20 TANK AND RYDER POND.

MINIMUM SETBACK DISTANCE BETWEEN A SOIL ABSORPTION SYSTEM AND A WETLAND:
150' REQUIRED
106' PROVIDED BETWEEN PROPOSED SAS AND RYDER POND.

DEEP TEST HOLE OBSERVATION LOG #1						
DATE: NOVEMBER 18, 2022			JOB: 0-12614			
PERFORMED BY: LAURA A. SCHOFIELD, RS, SE			WITNESSED BY: COURTNEY WARREN, TRURO BOH			
ELEVATION (FT)	DEPTH FROM SURFACE (IN)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER
100.0-90.0	0-120	C	SAND	10YR4/6	NO	MED-COARSE TEST HOLE PERFORMED IN A PREVIOUSLY DISTURBED AREA. A&B HORIZON WERE ABSENT
PARENT GEOLOGICAL MATERIAL: GLACIAL OUTWASH				STANDING WATER IN HOLE: NO		
WEEDING FROM FACE: NO			DEPTH TO BEDROCK:			
ESTIMATED SEASONAL HIGH GROUNDWATER AT EL. = AT ELEV. 80±						
PERCOLATION TEST: TOP OF PERC. AT 30", 24 GAL. ABSORBED IN 4:33 MIN., PERC. RATE < 2 MP						

DEEP TEST HOLE OBSERVATION LOG #2							
DATE: NOVEMBER 18, 2022				JOB: 0-12614			
PERFORMED BY: LAURA A. SCHOFIELD, RS, SE				WITNESSED BY: COURTNEY WARREN, TRURO BOH			
ELEVATION (FT)	DEPTH FROM SURFACE (in)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER	
100.4-90.4	0-120	C	SAND	10YR4/6	NO	MED-COARSE TEST HOLE PERFORMED IN A PREVIOUSLY DISTURBED AREA. A&B HORIZON WERE ABSENT	
PARENT GEOLOGICAL MATERIAL: GLACIAL OUTWASH				STANDING WATER IN HOLE: NO			
WEEDING FROM FACE: NO				DEPTH TO BEDROCK:			
ESTIMATED SEASONAL HIGH GROUNDWATER AT EL. = AT ELEV. 80±							
PERCOLATION TEST:							

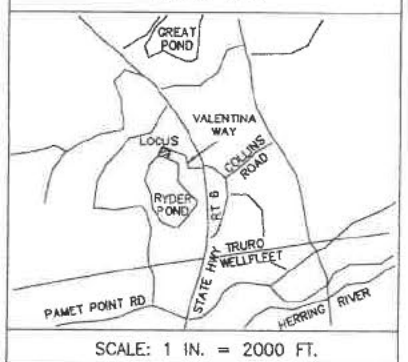
GENERAL NOTES (CONTINUED)

15. WHEREVER A SEPTIC SYSTEM LINE CROSSES A WATER SERVICE LINE, BOTH PIPES SHALL BE CONSTRUCTED OF CLASS 150 PRESSURE PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATERTIGHTNESS OR SLEEVED WITH A 20" PIPE SECTION CENTERED ON THE CROSSING.

LEGEND

XX	PROPOSED CONTOUR LINE
-XX-	EXISTING CONTOUR
W	WATER LINE
□	PROPOSED 1500 GALLON, ADVANTEX SEPTIC TANK
□	PROPOSED DISTRIBUTION BOX
□	PROPOSED LEACHING AREA
##	EXISTING SPOT ELEVATIONS
●	TEST HOLE LOCATIONS
—	PROPERTY LINE
##	PROPOSED SPOT ELEVATION
OH	OVERHEAD UTILITIES
UG	UNDERGROUND UTILITIES
FG	FINISHED GRADE
UP	UTILITY POLE
TOF	TOP OF FOUNDATION ELEVATION
BS	BUILDING SEWER
CO	CLEAN OUT

LOCUS MAP



GENERAL NOTES

- ELEVATIONS REFER TO AN ASSUMED DATUM. SEE BENCHMARK ON PLAN.
- ALL CONSTRUCTION AND MATERIALS TO CONFORM TO TITLE 5 OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF TRURO.
- ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE BOARD OF HEALTH AND SCHOFIELD BROTHERS OF CAPE COD.
- FOR PROPER PERFORMANCE, THE SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE PER YEAR. THE TANK SHOULD BE PUMPED WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 OF ITS LIQUID DEPTH.
- SCHOFIELD BROTHERS OF CAPE COD DOES NOT ASSUME RESPONSIBILITY FOR MATERIALS ENCOUNTERED DURING EXCAVATION.
- ALL UNSUITABLE OR DELETERIOUS MATERIAL ENCOUNTERED MUST BE EXCAVATED AND REMOVED TO A DISTANCE OF 5 FEET FROM ALL SIDES OF THE SOIL ABSORPTION SYSTEM (S.A.S) AND TO A DEPTH AT WHICH THE C HORIZON IS ENCOUNTERED. BACKFILL WITH CLEAN SAND MATERIAL MEETING TITLE 5 SPECIFICATIONS TO APPROX. ELEVATION 96.5. CONTACT SCHOFIELD BROTHERS IF ANY DOUBT OR QUESTIONS ARISE REGARDING SOIL QUALITY.
- INSTALLATION CONTRACTOR SHALL CONTACT SCHOFIELD BROTHERS PRIOR TO BACKFILLING FOR SYSTEM CERTIFICATION.
- THE EXISTING CESSPOOL AND LEACH PIT ARE TO BE PUMPED, ABANDONED AND COLLAPSED OR FILLED WITH CLEAN SAND. THE EXISTING SEPTIC TANK SHALL BE PUMPED, RUPTURED AND FILLED.
- EXISTING BUILDING SEWER INVERTS SHALL BE VERIFIED IN FIELD PRIOR TO COMPONENT INSTALLATION. CONTACT SCHOFIELD BROTHERS IF SIGNIFICANT DISCREPANCIES EXIST.
- SITE RESTORATION REQUIRES ALL STRIPPED TOPSOIL AND SUBSOIL TO BE STOCKPILED AND REUSED AT OWNERS OPTION. RE-SPREAD OVER DISTURBED AREAS TO PROMOTE OPTIMAL GROWTH.
- ALL SEPTIC SYSTEM COMPONENTS ARE DESIGNED FOR A MINIMUM H-10 LOADING. ANY COMPONENT THAT WILL BE SUBJECT TO VEHICLE OR OTHER HEAVY EQUIPMENT TRAFFIC SHALL BE INSTALLED WITH H-20 LOADING CAPACITY.
- UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
- NO KNOWN WELLS EXIST WITHIN 200' OF THE PROPOSED LEACHING AREA EXCEPT THOSE THAT ARE SHOWN.
- LEACHING AREA STONE SHALL BE OVERLAIN WITH MIRAFI 500x FILTER FABRIC. THE FILTER FABRIC SHALL EXTEND 12" BEYOND THE STONE.

DESIGN CALCULATIONS

- ESTIMATED HYDRAULIC LOADING:
3 BEDROOMS AT 110 GPD PER BEDROOM = 330 GPD
GARBAGE GRINDER IS NOT ALLOWED WITH THIS DESIGN
- SEPTIC TANK SIZE:
AVERAGE DAILY FLOW = 330 GPD X 2 DAYS = 660 GALLONS
SEPTIC TANK PROVIDED = 1500 GALLONS
- DESIGN PERCOLATION RATE = 2 MINUTES PER INCH
SOIL TEXTURE SANDS, CLASS 1
310 CMR 15.242 EFFLUENT LOADING RATE = 0.74 GPD/SF
- LEACHING AREA:
TOTAL SIDEWALL AREA PROVIDED = 151.2 SF X 0.74 GPD/SF = 111.9 GPD
TOTAL BOTTOM AREA PROVIDED = 320 SF X 0.74 GPD/SF = 236.8 GPD
MAXIMUM ALLOWABLE LOADING UNDER TITLE 5 = 348 GPD
ACTUAL HYDRAULIC LOADING = 330 GPD (SEE 1.)
DESIGNED LEACHING AREA EXCEEDS LEACHING AREA REQUIRED UNDER BOTH TITLE 5 AND THE TOWN OF TRURO BOARD OF HEALTH REGULATIONS
- NITROGEN SENSITIVE AREA LOADING CALCULATION:
LOT SIZE REQUIRED = 330 GPD X 10,000 SF/110 GPD = 30,000 SF
LOT SIZE PROVIDED = 30,056 SF

PROPOSED SEWAGE DISPOSAL SYSTEM

FOR: TWO EXISTING COTTAGES, 3 BEDROOMS TOTAL

AT: 5 VALENTINA WAY
TRURO, MA

ASSESSOR'S MAP: 60

PARCEL: 23

APPLICANT: ESTATE OF MARGUERITE YANNETTY
5 VALENTINA WAY
TRURO, MA

JOB #: 0-12614

DATE: JULY 6, 2023

DESIGNED BY:
LAS

DRAWN BY:
LAS

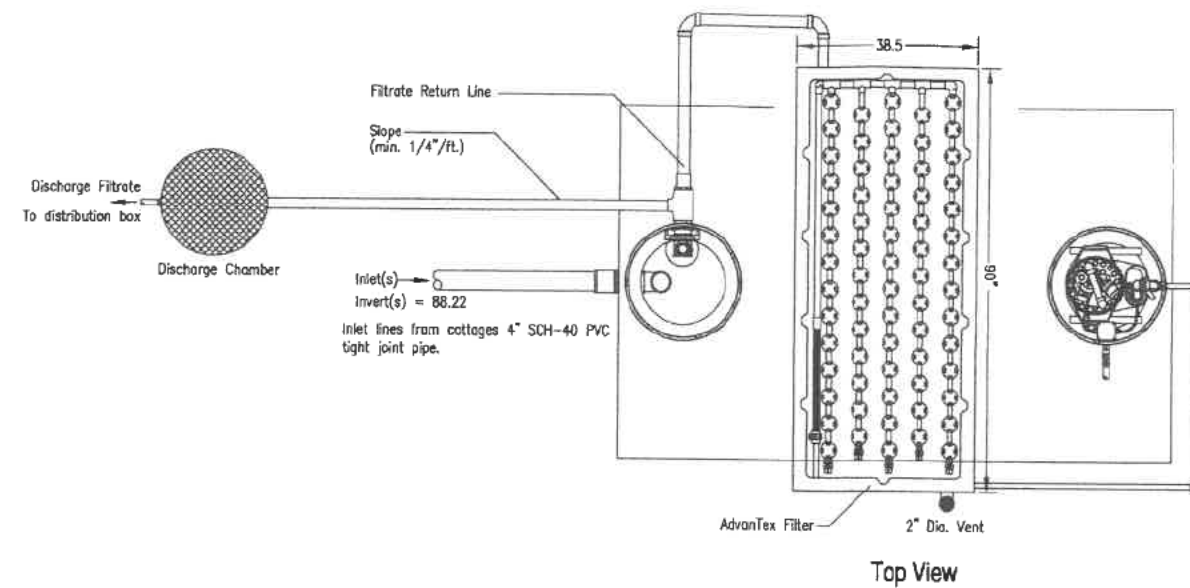
CHECKED BY:
LAS



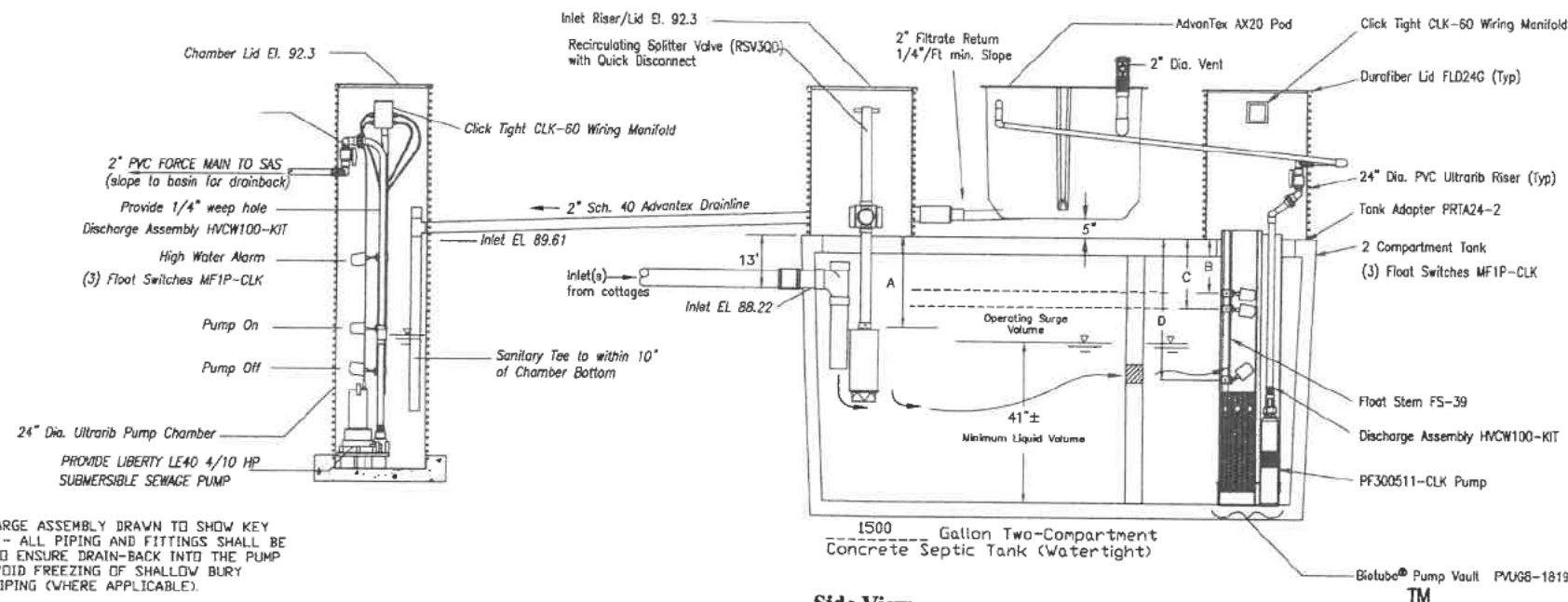
SCHOFIELD BROTHERS OF CAPE COD
LAND SURVEYING - ENVIRONMENTAL PERMITTING
P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA
(508) 255-2098

AdvanTex™ AX20 Mode3B System Details

NTS



Top View



Side View
No Scale

USE ACME-SHOREY PRECAST CONCRETE ADVANTEX 1500 GALLON (H-10) MONO 2-COMPARTMENT PROCESS TANK OR APPROVED EQUAL. PLACE 6" OF CRUSHED STONE ON TO A LEVEL, STABLE, MECHANICALLY COMPACTED BASE.

SETTINGS A-D TO BE SET IN THE FIELD DURING INSTALLATION AS DETERMINED BY AUTHORIZED ORENCO REPRESENTATIVE

ADDITIONAL STORAGE IS PROVIDED IN THE ADVANTEX UNIT, ABOVE THE HIGH WATER LEVEL.

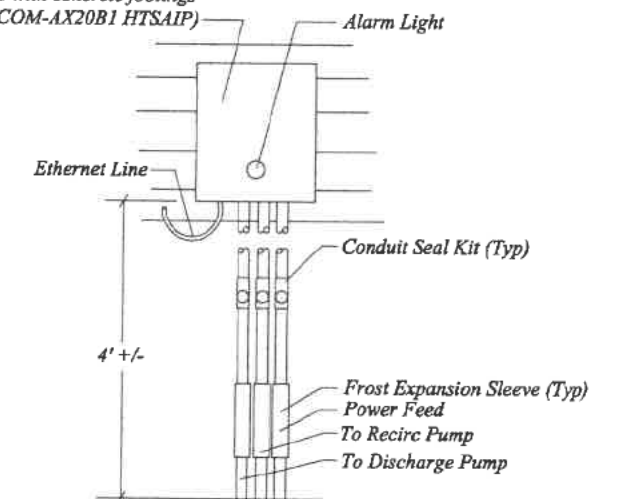
* CONTRACTOR TO CONFIRM WITH ORENCO REPRESENTATIVE ELECTRICAL REQUIREMENTS FOR PUMPS AND CONTROL PANEL.

OWNER TO APPROVE CONTROL PANEL LOCATION

General Notes:

1. Ethernet Line is required.
2. Set Treatment Pod over tank on solid level base of 5" clean sand or pea stone.
3. Tank coordination and approval by Cape Cod WinWater is required prior to construction. Tank must meet minimum structural standards and be tested for watertightness.
4. Float and RSV settings based on typical tank dimensions - to be verified upon tank approval.
5. Manufacturer requires this system to be installed and maintained by a trained/authorized installer/maintenance provider in accordance with the manufacturer's instructions. Failure to maintain an ongoing O&M contract may result in voiding of any/all warranties. Other State and/or Local requirements or regulations may apply.
6. For more details regarding components, installation or operation of this system; please contact Cape Cod WinWater 508-862-0166, or an Orenco representative at 1-800-348-9843

Control Panel Mounted On
Pressure Treated H Frame with concrete footings
(VCOM-AX20B1 HTSAIP)



Electrical Notes: (Per Orenco Systems, Inc.)

1. Required Circuits from main breaker panel:
(1) 20A BREAKER FOR THE ORENCO PUMP
(1) 10A BREAKER FOR THE CONTROLS
A SEPARATE BREAKER WILL BE REQUIRED FOR THE LIBERTY PUMP -

* CONTRACTOR TO CONFIRM WITH ORENCO REPRESENTATIVE ELECTRICAL REQUIREMENTS FOR PUMPS AND CONTROL PANEL

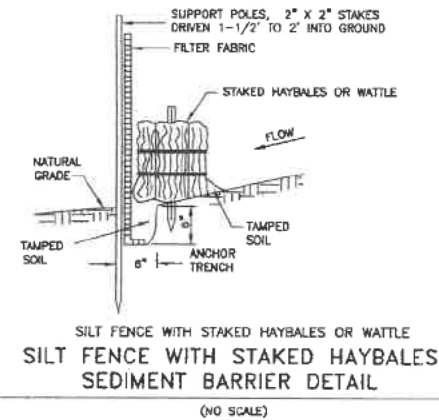
NOTE: DISCHARGE ASSEMBLY DRAWN TO SHOW KEY COMPONENTS - ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK INTO THE PUMP BASIN TO AVOID FREEZING OF SHALLOW BURY DISCHARGE PIPING (WHERE APPLICABLE).

DISCHARGE PUMP FLOAT SETTING CALCULATIONS

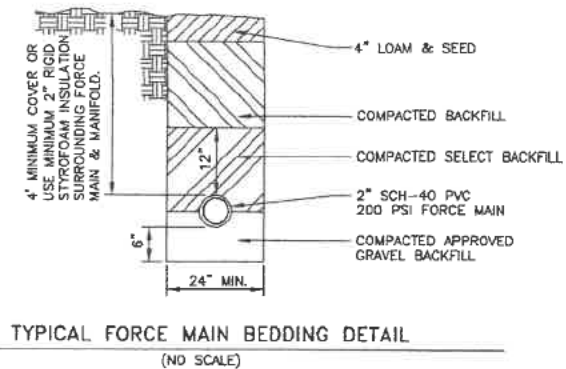
TOTAL DAILY FLOW = 330 GALLON/DAY
TOTAL CYCLES PER DAY = 330 GALLONS/10 DOSES/DAY = 33 GALLONS/DOSE
29.3 GAL/DOSE + 10 GAL OF FORCE MAIN FLOW BACK VOLUME = 39.3 GALLONS/DOSE
DOSE SETTINGS: 39.3 GALLON DOSE / 23.50 GALLON/LIQ. FT. = 1.7 FT.
PUMP SHALL BE CAPABLE OF OPERATING AT 45 GPM @ 17' TDH

PUMP CHAMBER ELEVATIONS (72" CHAMBER):
RIM = 92.30 (TOP OF CHAMBER)
INLET = 89.61
HWA = 89.44 (2" BELOW INLET)
PUMP ON = 89.00
PUMP OFF = 87.30
BOTTOM CHAMBER = 86.30

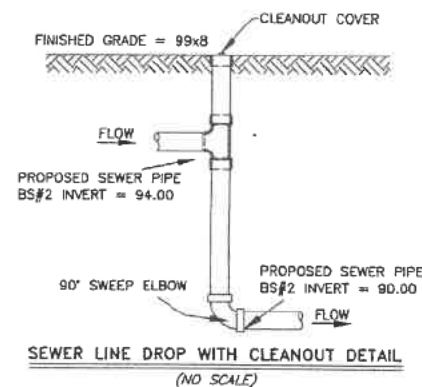
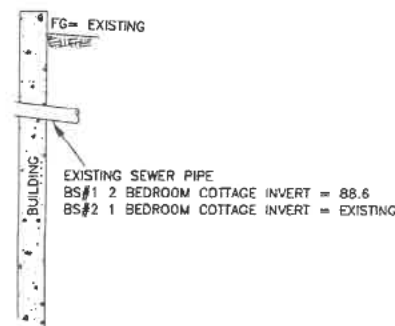
PROPOSED SEWAGE DISPOSAL SYSTEM			
FOR: TWO EXISTING COTTAGES, 3 BEDROOMS TOTAL			
AT: 5 VALENTINA WAY TRURO, MA			
ASSESSOR'S MAP: 60		PARCEL: 23	
APPLICANT: ESTATE OF MARGUERITE YANNETTY 5 VALENTINA WAY TRURO, MA			
DATE: JULY 6, 2023		JOB #: 0-12614	
DESIGNED BY: LAS		DRAWN BY: LAS	
CHECKED BY: LAS			
SCHOFIELD BROTHERS OF CAPE COD LAND SURVEYING - ENVIRONMENTAL PERMITTING P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA (508) 255-2098			



- CONSTRUCTION & EROSION CONTROL NOTES**
1. PRIOR TO ANY DISTURBANCE OF THE SITE, A STAKED SILT FENCE / LIMIT OF WORK SHALL BE INSTALLED IN THE LOCATION SHOWN. THE SILT FENCE SHALL REMAIN IN PLACE UNTIL ALL AREAS UPGRADIENT FROM THE BARRIER HAVE BEEN STABILIZED.
 2. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED OR WHERE SPECIAL STABILIZATION MEASURES OR LANDSCAPE PLANTINGS ARE NOT PROPOSED SHALL HAVE 4\"-6\" OF LOAM ADDED AND SEEDED WITH A RYE FESCUE MIX.
 3. ALL AREAS OUTSIDE OF THE LIMIT OF WORK ARE TO BE LEFT UNDISTURBED. DURING THE SITE WORK, ALL PERSONS AND EQUIPMENT SHALL STAY OUT OF THESE AREAS AND PRESERVE EXISTING VEGETATION.

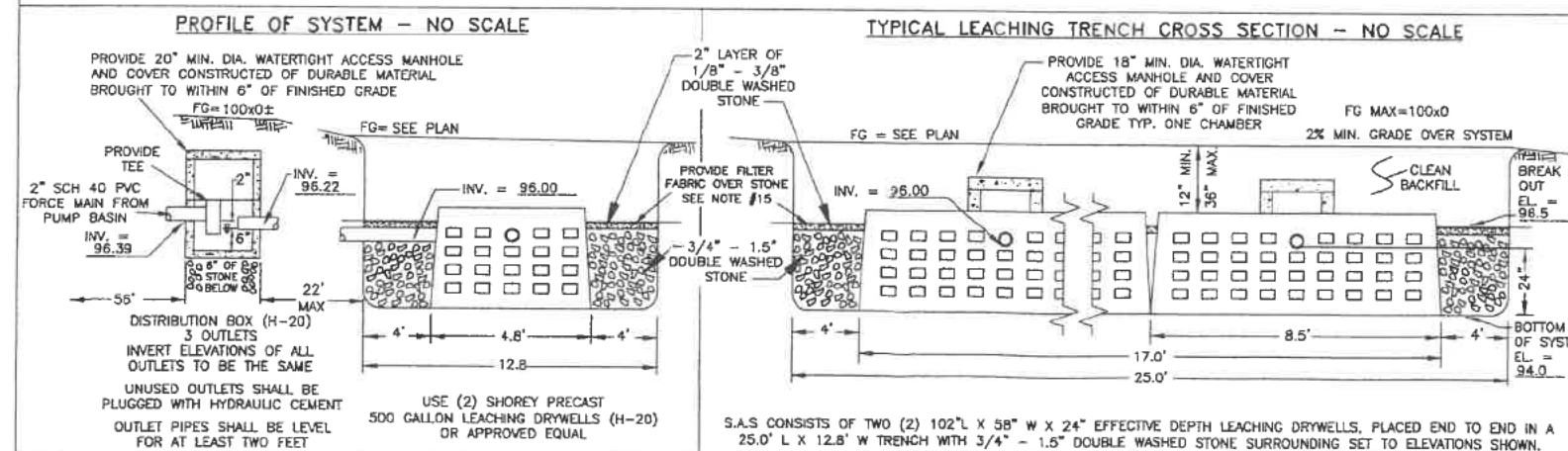
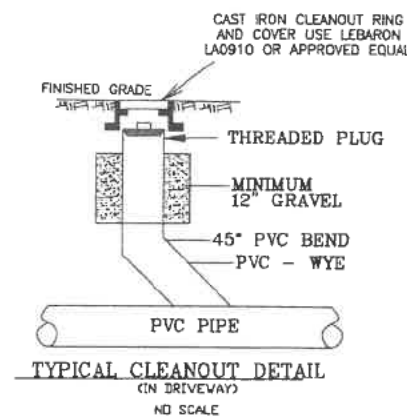


FORCE MAIN SHALL BE LAID IN A "CLASS B" TRENCH BEDDING .
ALL PIPING OUTSIDE THE PUMP CHAMBER WHICH IS LESS THAN FOUR (4) FEET BELOW FINAL FINISHED GRADE SHALL BE SURROUNDED WITH A MINIMUM OF TWO (2) INCHES OF RIGID STYROFOAM INSULATION, OR SHALL DRAIN BACK TO PUMP/DISCHARGE CHAMBER. PROVIDE CONCRETE THRUST BLOCKING AT ALL FORCE MAIN BENDS WITH MINIMUM SOIL BEARING SURFACE AREA OF ONE SQUARE FOOT.



*BUILDING SEWERS WITH A SLOPE GREATER THAN OR EQUAL TO 12% SHALL BE PROVIDED WITH A DROP CLEANOUT.

ALL PIPING SHALL BE 4\" SCH-40 PVC TIGHT JOINT PIPE UNLESS OTHERWISE NOTED.



PROPOSED SEWAGE DISPOSAL SYSTEM			
FOR: TWO EXISTING COTTAGES, 3 BEDROOMS TOTAL			
AT: 5 VALENTINA WAY			
TRURO, MA			
ASSESSOR'S MAP: 60		PARCEL: 23	
APPLICANT: ESTATE OF MARGUERITE YANNETTY			
5 VALENTINA WAY			
TRURO, MA			
DATE: JULY 6, 2023		JOB #: 0-12614	
DESIGNED BY: LAS		DRAWN BY: LAS	
CHECKED BY: LAS		SIGNED BY: LAS	
SCHOFIELD BROTHERS OF CAPE COD LAND SURVEYING - ENVIRONMENTAL PERMITTING P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA (508) 255-2098			

JUL 17 2023

Request for Determination

Project address: 11 Truro Center Rd #1

Map⁵¹

Parcel¹⁰

- Is the project located in a resource area or buffer zone Resource
- Resource Area Type(s): Riverfront
- If Buffer Zone what is the distance from Resource Area: _____

Description of project: (list all activities and describe methodology for construction or installation including equipment type if applicable) 1:1 replacement of driveway material; no expansion; remove gravel, replace with crushed oyster shell; minor grading to address uneven areas that pool water which can leak into basement; equipment: small walk around bobcat and power tamper

Attached site plan titles/dates, and any other plan or narratives title/dates: _____
see attached maps

Describe the best management practices/mitigation that will be used on the site: Will ensure does not pitch stormwater into nearby wetlands

Special Conditions required by the Conservation Include: _____

The proposed project is approved subject to the conditions included herein.

The use of town property for beach access or staging of construction materials requires a permit issued by the Board of Selectmen. The owner and applicant/representative are responsible for obtaining this permit prior to work start.

The owner and applicant/representative shall, avoid and otherwise minimize any activities in the buffer zone or in resource areas by use of best management practices on the site, such as:

- Placement of an agreed upon work limit;
- Proper placement of construction materials in developed or already disturbed areas;
- Proper installation/maintenance of erosion control;
- Good housekeeping that includes at a minimum daily trash pickup; no dumping of paint, plaster or concrete on the site but rather, disposing of it properly.

Approval of the project as described herein includes only the scope and specifications reviewed by the Conservation Commission; any changes to this project shall require additional review by the Conservation Commission prior to the work being done. Expansion of the scope of work may result in the applicant being required to file a full notice of intent. Any work done that exceeds the scope defined in the approved application shall be subject to issuance enforcement action; Violation of these conditions may result in issuance of an enforcement Order; non-criminal violation citations to the owner and/or applicant/representative accompanied by fines that accrue per offense and may accrue daily.

By reading and signing this letter of agreement the applicant acknowledges that they have read and understand the terms as stated herein; the scope of this approval is limited to the work described herein; and your signature on this conditional approval is acknowledgement that no work shall go forward until the RDA conditions have been issued by the Conservation Commission.

Applicant/Representative printed name and signature: Sarah Hamlett

Owners printed name and signature: (same)



TOWN OF TRURO

Conservation Commission

24 Town Hall Road

P.O. Box 2030, Truro MA 02666

Tel: 508-349-7004, Ext. 31 Fax: 508-349-5508

WAIVER

I, Sarah Hamlett (print name), hereby waive the twenty-one (21) day time period for a public hearing following receipt of a: ☐ Notice of Intent ☐ Abbreviated Notice of Intent ☒ Request for Determination of Applicability ☐ Amended Order of Conditions ☐ Abbreviated Notice of Resource Area Delineation by the Truro Conservation Commission under Massachusetts General Laws, Ch. 131, sec. 40, and under Truro Conservation Bylaw, Section 8.5.2.

The ☐ Notice of Intent ☐ Abbreviated Notice of Intent ☒ Request for Determination of Applicability ☐ Amended Order of Conditions ☐ Abbreviated Notice of Resource Area Delineation was submitted on July 17, 2023 (date) for work at 11 Truro Center Rd #1 (address). I understand that the next meeting of the Conservation Commission is scheduled for August 7, 2023 and that the Commission will open the public hearing on that date.

I am the: ☒ Applicant
☐ Applicant's Representative

Sarah Hamlett
(signature)

7/10/23
(date)



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

Truro
Municipality
Conservation Commission
TOWN OF TRURO

JUL 17 2023

A. General Information

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



1. Applicant:
Sarah
First Name
11 Truro Center Rd #1
Address
Truro
City/Town
MA
State
02666
Zip Code
Phone Number
Email Address
2. Property Owner (if different from Applicant):
SAME
First Name
Last Name
Address
City/Town
State
Zip Code
Phone Number
Email Address (if known)
3. Representative (if any)
N/A
First Name
Last Name
Company Name
Address
City/Town
State
Zip Code
Phone Number
Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):
11 Truro Center Rd #1
Street Address
41.99443
Latitude (Decimal Degrees Format with 5 digits after decimal
e.g. XX.XXXXX)
51
Assessors' Map Number
Truro
City/Town
-70.05047
Longitude (Decimal Degrees Format with 5 digits after
decimal e.g. -XX.XXXXX)
10
Assessors' Lot/Parcel Number
- b. Area Description (use additional paper, if necessary):
Existing gravel driveway within the riverfront area
- c. Plan and/or Map Reference(s): (use additional paper if necessary)
see attached
Title
see attached
Title
Date
Date

[How to find Latitude
and Longitude](#)

[and how to convert
to decimal degrees](#)



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

Truro

Municipality

B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):
1:1 replacement; no expansion; remove gravel, replace with oyster shell; minor grading to address uneven areas (can cause leaks into basement during excessive rains); grading will not pitch stormwater into wetlands; equipment to be used: small walk around bobcat (MT-55) and a power tamper (Bartell BCF1570)

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

N/A

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

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

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

N/A



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

Truro

Municipality

C. Determinations

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

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.

☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.

☒ c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.

☒ d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance** or **bylaw** of:

Truro

Name of Municipality

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

D. Signatures and Submittal Requirements

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

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

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

Signatures:

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

Signature of Applicant

7/8/2023

Date

Signature of Representative (if any)

Date



11 Truro Center Rd

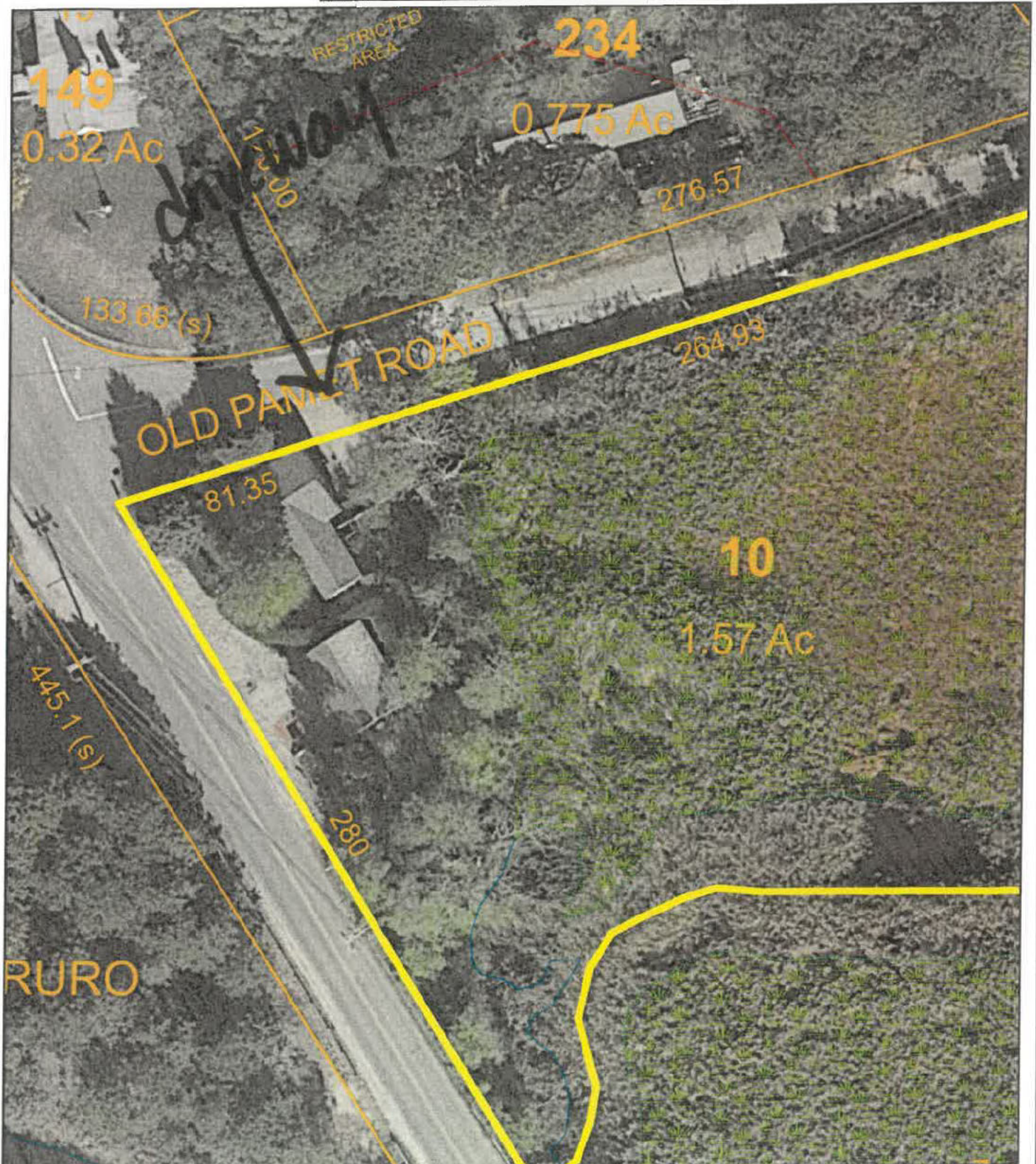
Town of Truro, MA

1 inch = 47 Feet



www.cai-tech.com

July 6, 2023

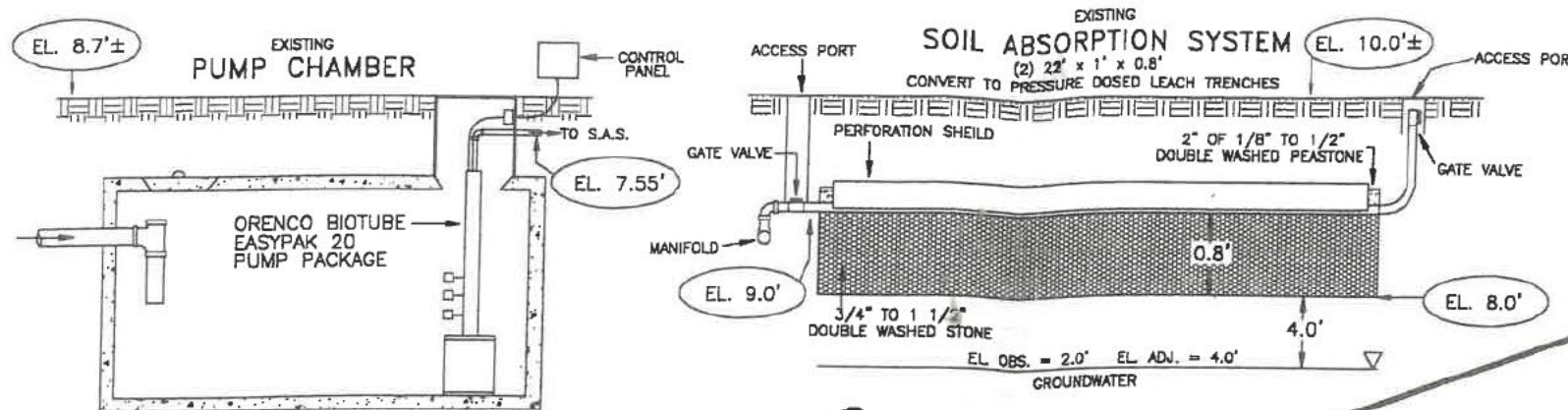


Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

SECTION DETAIL - COMPONENTS

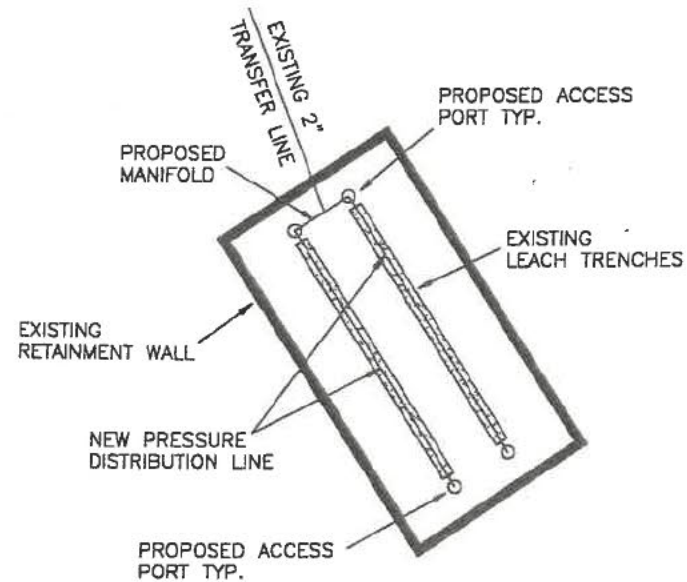
NOT TO SCALE

LEACH TRENCH DESIGN DETAILS:
 LATERALS: (2) 22' x 1.25" PVC PRESSURE PIPE
 MANIFOLD: (1) 5' x 2" PVC PRESSURE PIPE
 PERFORATION SHIELD: (2) 22' x 8" PVC PIPE (HALF PIECE)
 PERFORATIONS: 3/16" @ 24" O.C. (STAGGER BETWEEN LATERALS)
 PITCH: PROVIDE 1/4" PITCH MIN. BACK TO PUMP CHAMBER



NOTE:
 THIS PLAN IS FOR THE REPLACEMENT OF THE EXISTING SUBMERSIBLE PUMP WITH A SCREENED PUMP VAULT AND THE REPLACEMENT OF THE EXISTING 4" GRAVITY FED LEACH TRENCH LATERALS WITH 1.25" PRESSURE DOSED LATERALS. DISTRIBUTION BOX TO BE REMOVED.

PUMP CHAMBER:
 USE EXISTING 1,000 GALLON SEPTIC TANK
 USE ORENCO PUMP P12005111/2 HP (BEP20 EZPAK PUMP VAULT)
 FLOAT SETTINGS: PUMP ON = 22"
 PUMP OFF = 20" ALARM ON = 24"
 STORAGE CAPACITY PROVIDED = 500 GALLONS
 MINIMUM 4 CYCLES REQUIRED PER DAY
 MAXIMUM VOLUME REQUIRED PER DOSE CYCLE: 57 GALLONS
 VOLUME PROVIDED PER DOSE CYCLE: 43.2 GALLONS

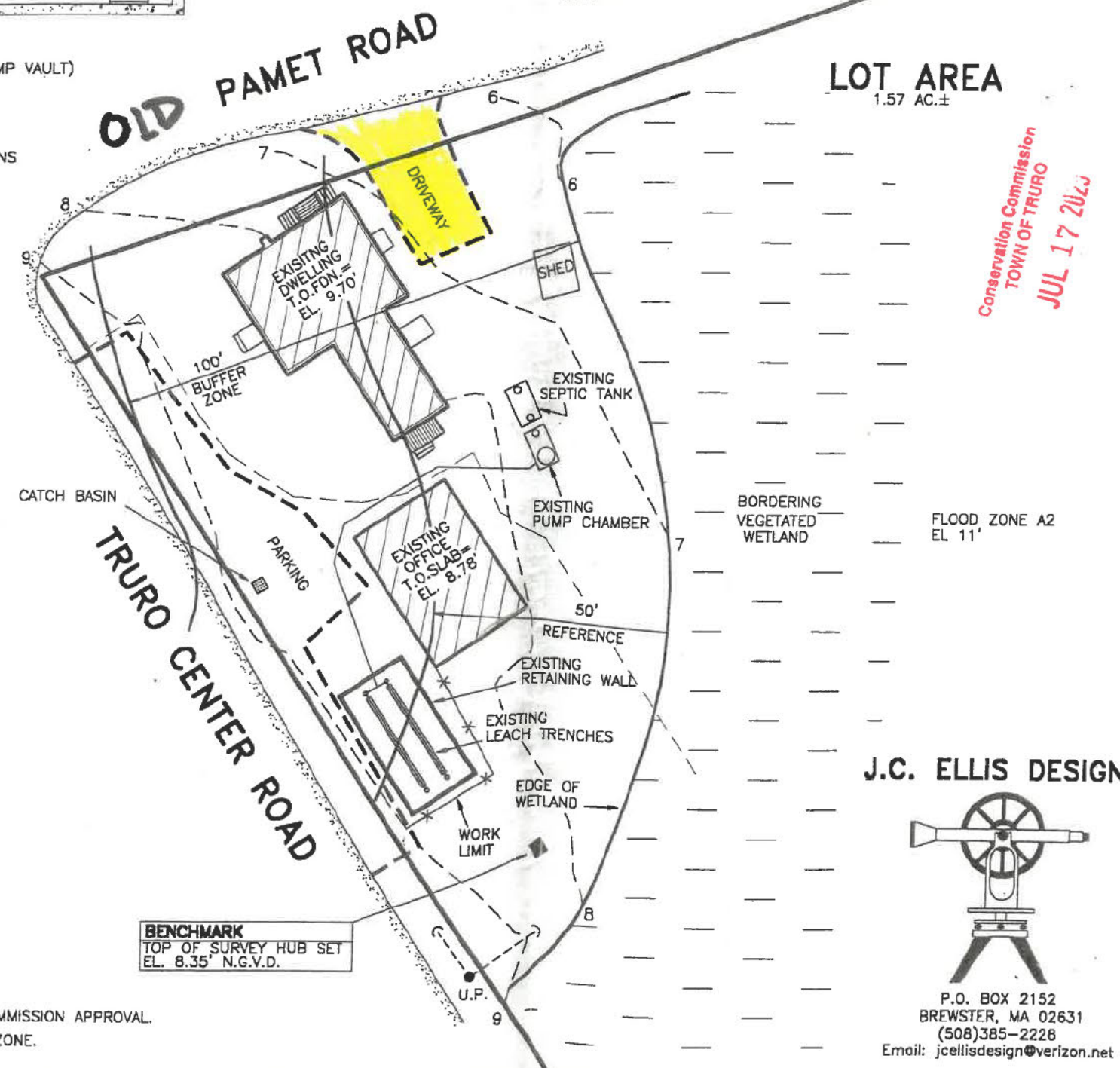


S.A.S. DETAIL

PROPERTY OWNER AND CONTRACTORS TO VERIFY ALL WATER LINES AND GAS UTILITIES ON PROPERTY.



THIS PLAN REQUIRES CONSERVATION COMMISSION APPROVAL.
 ENTIRE PROPERTY LIES IN RIVERFRONT ZONE.
 ENTIRE PROPERTY LIES IN FLOOD ZONE.



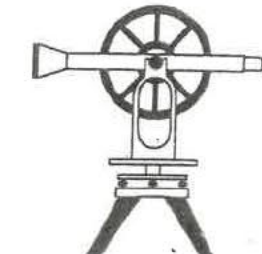
LOT AREA
 1.57 AC.±

Conservation Commission
 TOWN OF TRURO
 JUL 17 2010

NOTES

- ELEVATION DATUM IS N.G.V.D.
- MUNICIPAL WATER IS NOT AVAILABLE.
- ALL CONSTRUCTION TO CONFORM WITH 310 CMR 15.000 AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
- INSTALLER/CONTRACTOR TO REVIEW & VERIFY ALL ELEVATIONS AND DETAILS AND REPORT ANY DISCREPANCIES TO DESIGNER PRIOR TO CONSTRUCTION OR ASSUME ALL RESPONSIBILITY.
- INSTALLER/CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SAFE WORK AREA, VERIFYING ALL UTILITIES AND NOTIFYING DIG SAFE PRIOR TO CONSTRUCTION.
- ANY CHANGES TO OR DEVIATIONS FROM THIS PLAN MUST BE APPROVED IN WRITING BY J.C. ELLIS DESIGN CO. AND BOARD OF HEALTH.
- FINISH COVER OVER COMPONENTS IS NOT TO EXCEED 3' PER 310 CMR 15.000.
- ALL PIPING TO BE INSTALLED WATERTIGHT.
- WORK LIMIT TO BE STAKED SILT FENCE.
- PROVIDE 40 MIL POLY FLOW BARRIER AROUND INSIDE OF RETAINMENT WALL.
- PROVIDE FILTER FABRIC ON TOP OF LEACH TRENCHES.

J.C. ELLIS DESIGN



P.O. BOX 2152
 BREWSTER, MA 02631
 (508)385-2228
 Email: jcellisdesign@verizon.net

SEPTIC SYSTEM REPAIR PLAN

SUBJECT: 11 TRURO CENTER ROAD TRURO, MA	
PREPARED FOR: 11 T.C.R. CONDOMINIUM C/O NICK NORMAN P.O. BOX 746 TRURO, MA 02666	
ASSESSOR'S MAP 51 PARCEL 10-1, 10-2	SCALE: 1" = 30'
DATE: NOVEMBER 25, 2009 REVISED:	SHEET 1 OF 1

Approved 6/17/2010



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

PALID
5795

WPA Form 1 - Request for Determination of Applicability

Truro
Municipality

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

A. General Information

Conservation Commission
TOWN OF TRURO

JUL 17 2023

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



1. Applicant:

Irene

First Name

390 Riverside Drive, Apt 2F

Address

New York

City/Town

Phone Number

Selver

Last Name

NY

State

10025

Zip Code

Email Address

2. Property Owner (if different from Applicant):

First Name

Last Name

Address

City/Town

State

Zip Code

Phone Number

Email Address (if known)

3. Representative (if any)

Laura

First Name

Schofield

Last Name

Schofield Brothers of Cape Cod

Company Name

PO Box 101

Address

Orleans

City/Town

508.255.2098

Phone Number

MA

State

02653

Zip Code

schobro@capecod.net

Email Address (if known)

B. Project Description

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

7 Amity Lane

Street Address

Truro

City/Town

42.0057

Latitude (Decimal Degrees Format with 5 digits after decimal e.g.
XX.XXXXX)

-70.0657

Longitude (Decimal Degrees Format with 5 digits after
decimal e.g. -XX.XXXXX)

46

Assessors' Map Number

18

Assessors' Lot/Parcel Number

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

See Attached Sheet

c. Plan and/or Map Reference(s): (use additional paper if necessary)

Proposed Sewage Disposal System For: An Existing 4 Bedroom Dwelling

Title

July 5, 2023

Date

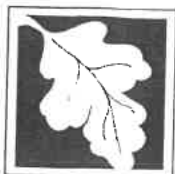
At: 7 Amity Lane, Truro, MA

Title

Date

[How to find Latitude
and Longitude](#)

[and how to convert
to decimal degrees](#)



Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

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

Truro
Municipality

B. Project Description (cont.)

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

See Attached Sheet

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

See Attached Sheet

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

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

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



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability Truro

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

Municipality

C. Determinations

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

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.

☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.

☒ c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.

☒ d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance or bylaw** of:

TRURO

Name of Municipality

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

D. Signatures and Submittal Requirements

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

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

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

Signatures:

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

X [Signature]
Signature of Applicant

5/26/2023
Date

Laura Schafner
Signature of Representative (if any)

7/12/23
Date

Lous Map - 7 Amity Lane in Truro, MA

Property Tax Parcels



SCHOFIELD BROTHERS OF CAPE COD
Land Surveying and Environmental Permitting
161 Cranberry Highway
P.O. Box 101
Orleans, MA 02653-0101
508-255-2098 - 508-240-1215 (fax)
E-mail: schobro@capecod.net

**Narrative to Accompany
a Request for Determination of Applicability
at 7 Amity Lane in Truro, Massachusetts**

Area and Project Description

The subject property is a two acre lot located at the end of Amity Lane. A four bedroom dwelling built in 1820 exists on the site. The dwelling is currently served by a cesspool and is being upgraded to a Title 5 septic system with an innovative/alternative technology to comply with the Truro Board of Health Regulations.

The topography of the lot slopes to the west and southwest from the end of Amity Lane. The property borders on the large wetland system associated with the Little Pamet River. Riverfront Area to the Little Pamet River overlaps approximately half of the property. Land Subject to Coastal Storm Flowage is delineated by elevation 13 and is shown on the site plan. A bordering vegetated wetland associated with the Little Pamet River wraps around the property as shown on the site plan and there is a small section of coastal bank. The buffer zone to the bordering vegetated wetland and coastal bank is shown on the attached site plan.

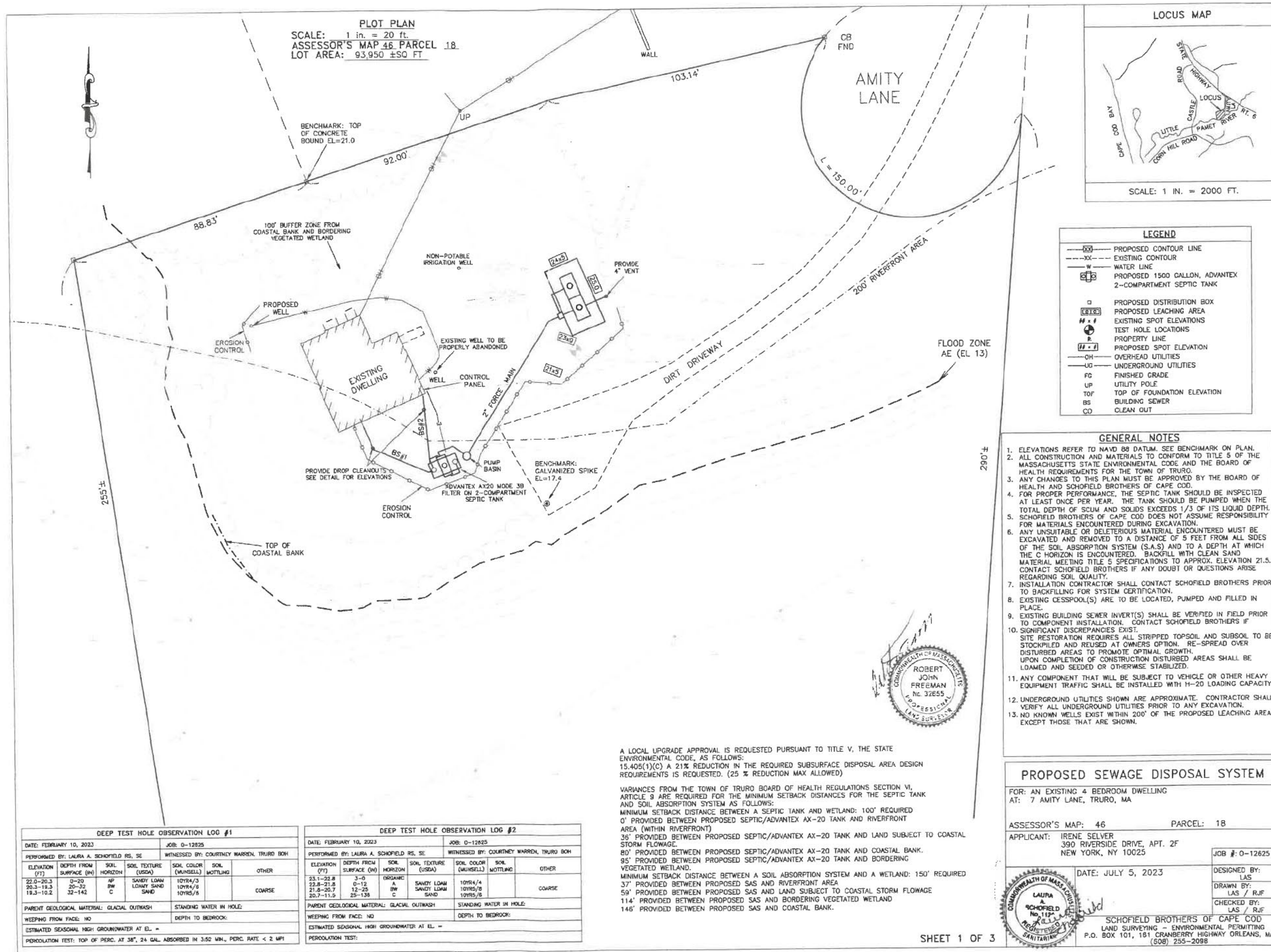
Work Description

A new private water supply well to serve the property is proposed in order to provide a 100 foot setback between the proposed soil absorption system and the re-located well. The proposed septic system is comprised of a 1500 gallon septic tank with an Advantex AX-20 innovative alternative technology, pump discharge basin, a distribution box and a soil absorption system comprised of leaching galleys in a trench configuration. The new well and the septic system are all located within the existing grassy areas around the existing dwelling. Two locust trees near the house may have to be removed to accommodate the proposed septic tank, but otherwise there is no clearing of vegetation required for the project. Erosion control shall be installed prior to any disturbance on the site and shall remain in good working order until disturbed areas have been stabilized. Details of the septic system are shown on the attached site plan.

Provisions from the Massachusetts Wetlands Protection Act which may exempt the applicant from having to file a Notice of Intent:

The proposed project is the upgrade of an existing cesspool to a Title 5 septic system providing an innovative/alternative technology to reduce nitrogen to the 19mg/L standard. The project itself is a benefit to many of the interest of the MA Wetlands Protection Act. The project is limited and temporary in nature. Erosion control has been provided on the plan to prevent adverse impact to any resource area during installation of the new septic system and well. The installation will occur in existing grassy areas that will be loamed and seeded with a rye/fescue mix upon completion of the project. The soil absorption system is completely outside of the Riverfront Area and the buffer zone to the coastal bank/bordering vegetated wetland (bvw). The proposed septic tank/Advantex treatment unit and the well are located in the outer buffer zone to the coastal bank and bwv and just inside the 200 foot riverfront area.

Conservation Commission
TOWN OF TRURO
JUL 17 2023

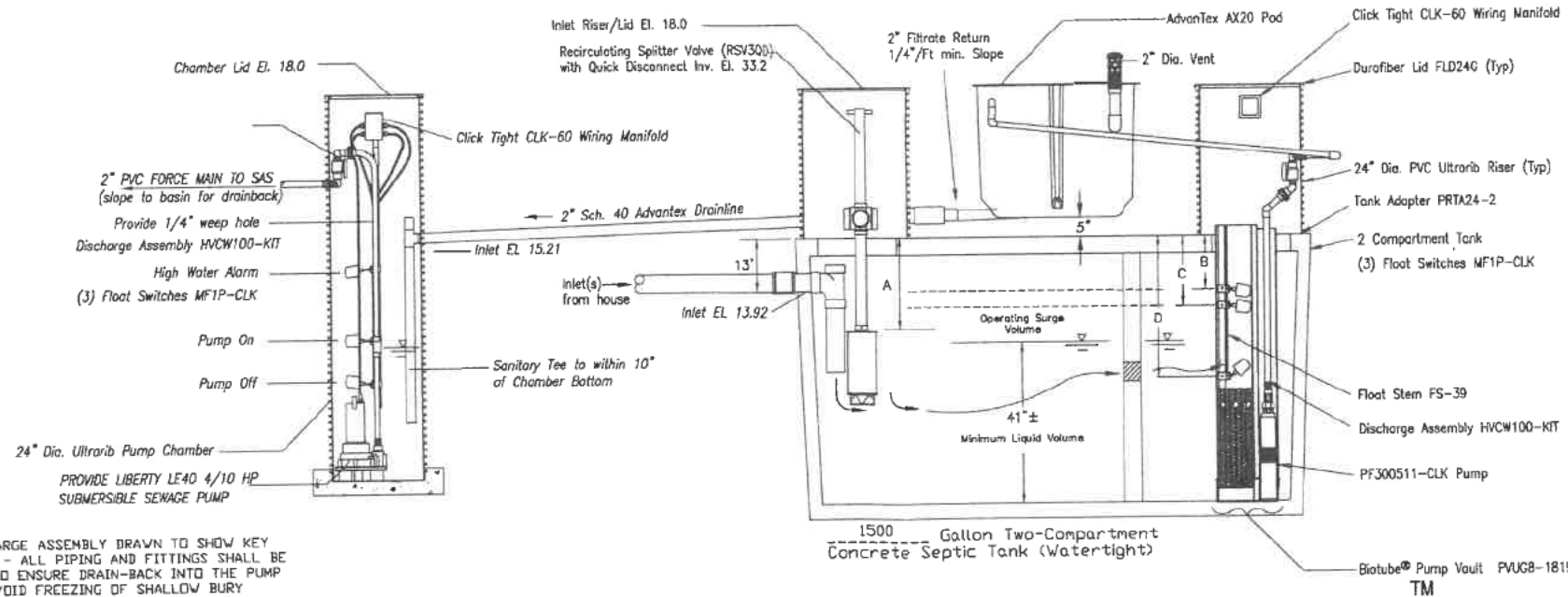
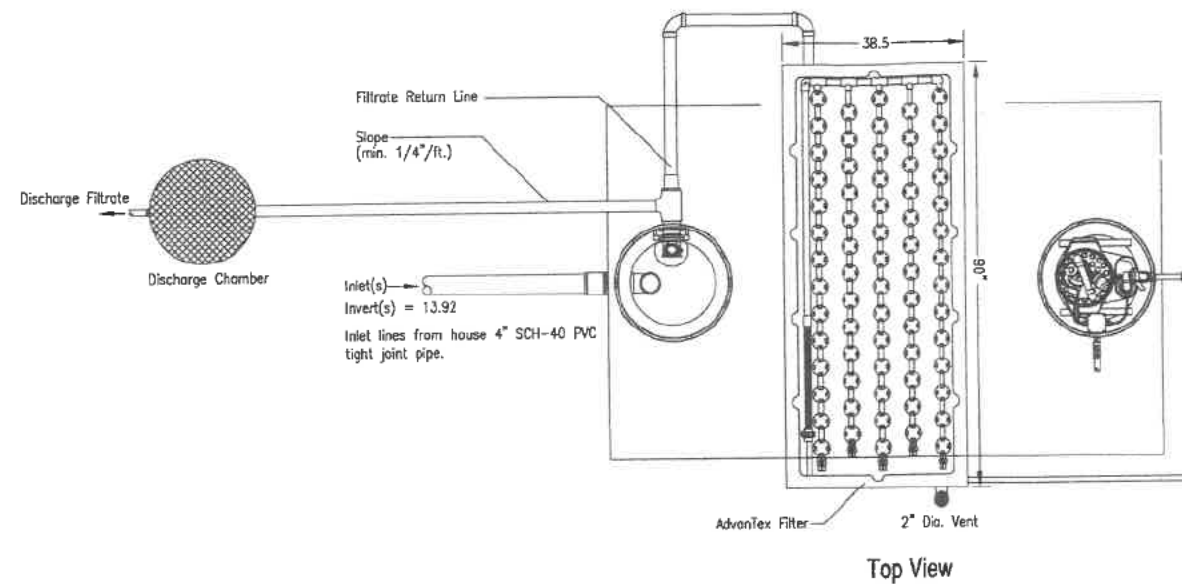


A LOCAL UPGRADE APPROVAL IS REQUESTED PURSUANT TO TITLE V, THE STATE ENVIRONMENTAL CODE, AS FOLLOWS:
15.405(1)(C) A 21% REDUCTION IN THE REQUIRED SUBSURFACE DISPOSAL AREA DESIGN REQUIREMENTS IS REQUESTED. (25% REDUCTION MAX ALLOWED)

VARIANCES FROM THE TOWN OF TRURO BOARD OF HEALTH REGULATIONS SECTION VI, ARTICLE 9 ARE REQUIRED FOR THE MINIMUM SETBACK DISTANCES FOR THE SEPTIC TANK AND SOIL ABSORPTION SYSTEM AS FOLLOWS:
MINIMUM SETBACK DISTANCE BETWEEN A SEPTIC TANK AND WETLAND: 100' REQUIRED
0' PROVIDED BETWEEN PROPOSED SEPTIC/ADVANTECH AX-20 TANK AND RIVERFRONT AREA (WITHIN RIVERFRONT)
35' PROVIDED BETWEEN PROPOSED SEPTIC/ADVANTECH AX-20 TANK AND LAND SUBJECT TO COASTAL STORM FLOWAGE.
80' PROVIDED BETWEEN PROPOSED SEPTIC/ADVANTECH AX-20 TANK AND COASTAL BANK.
95' PROVIDED BETWEEN PROPOSED SEPTIC/ADVANTECH AX-20 TANK AND BORDERING VEGETATED WETLAND.
MINIMUM SETBACK DISTANCE BETWEEN A SOIL ABSORPTION SYSTEM AND A WETLAND: 150' REQUIRED
37' PROVIDED BETWEEN PROPOSED SAS AND RIVERFRONT AREA
59' PROVIDED BETWEEN PROPOSED SAS AND LAND SUBJECT TO COASTAL STORM FLOWAGE
114' PROVIDED BETWEEN PROPOSED SAS AND BORDERING VEGETATED WETLAND
146' PROVIDED BETWEEN PROPOSED SAS AND COASTAL BANK.

AdvanTex™ AX20 Mode3B System Details

NTS



Side View

No Scale

USE ACME-SHOREY PRECAST CONCRETE ADVANTEX 1500 GALLON (H-10) MONO 2-COMPARTMENT PROCESS TANK OR APPROVED EQUAL. PLACE 6" OF CRUSHED STONE ON A LEVEL, STABLE, MECHANICALLY COMPACTED BASE.

SETTINGS A-D TO BE SET IN THE FIELD DURING INSTALLATION AS DETERMINED BY AUTHORIZED ORENCO REPRESENTATIVE

ADDITIONAL STORAGE IS PROVIDED IN THE ADVANTEX UNIT, ABOVE THE HIGH WATER LEVEL.

* CONTRACTOR TO CONFIRM WITH ORENCO REPRESENTATIVE ELECTRICAL REQUIREMENTS FOR PUMPS AND CONTROL PANEL.

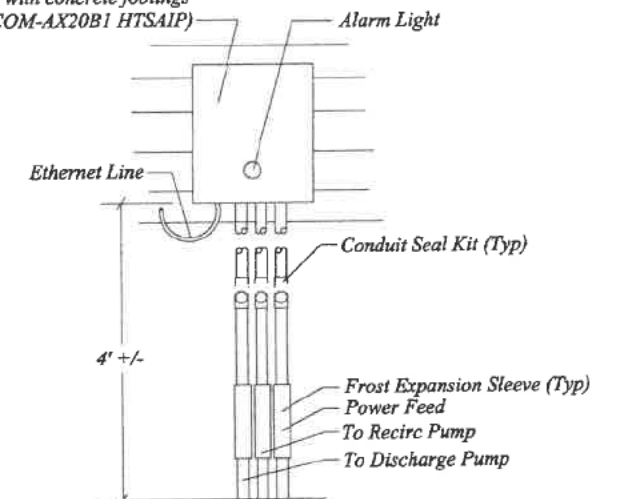
OWNER TO APPROVE CONTROL PANEL LOCATION

DISCHARGE PUMP FLOAT SETTING CALCULATIONS
 TOTAL DAILY FLOW = 440 GALLON/DAY
 TOTAL CYCLES PER DAY = 440 GALLONS / 15 DOSES/DAY = 29.3 GALLONS/DOSE
 29.3 GAL/DOSE + 10 GAL OF FORCE MAIN FLOW BACK VOLUME = 39.3 GALLONS
 DOSE SETTINGS: 39.3 GALLON DOSE / 23.50 GALLON/LIQ. FT. = 1.7 FT.
 PUMP CHAMBER ELEVATIONS (72" CHAMBER):
 RIM = 18.0 (TOP OF CHAMBER)
 INLET = 15.21
 HWA = 15.00 (2' BELOW INLET)
 PUMP ON = 14.70
 PUMP OFF = 13.00
 BOTTOM CHAMBER = 12.00

General Notes:

1. Ethernet Line is required.
2. Set Treatment Pod over tank on solid level base of 5" clean sand or pea stone.
3. Tank coordination and approval by Cape Cod WinWater is required prior to construction. Tank must meet minimum structural standards and be tested for watertightness.
4. Float and RSV settings based on typical tank dimensions - to be verified upon tank approval.
5. Manufacturer requires this system to be installed and maintained by a trained/authorized installer/maintenance provider in accordance with the manufacturer's instructions. Failure to maintain an ongoing O&M contract may result in voiding of any/all warranties. Other State and/or Local requirements or regulations may apply.
6. For more details regarding components, installation or operation of this system; please contact Cape Cod WinWater 508-862-0166, or an Orenco representative at 1-800-348-9843

Control Panel Mounted On
 Pressure Treated H Frame with concrete footings
 (VCOM-AX20B1 HTSAIP)



Electrical Notes: (Per Orenco Systems, Inc.)

1. Required Circuits from main breaker panel:
 (1) 20A BREAKER FOR THE ORENCO PUMP
 (1) 10A BREAKER FOR THE CONTROLS
 A SEPARATE BREAKER WILL BE REQUIRED FOR THE LIBERTY PUMP -

* CONTRACTOR TO CONFIRM WITH ORENCO REPRESENTATIVE ELECTRICAL REQUIREMENTS FOR PUMPS AND CONTROL PANEL

PROPOSED SEWAGE DISPOSAL SYSTEM

FOR: AN EXISTING 4 BEDROOM DWELLING
 AT: 7 AMITY LANE, TRURO, MA

ASSESSOR'S MAP: 46

PARCEL: 18

APPLICANT: IRENE SELVER
 390 RIVERSIDE DRIVE, APT. 2F
 NEW YORK, NY 10025

JOB #: 0-12625

DATE: JULY 5, 2023

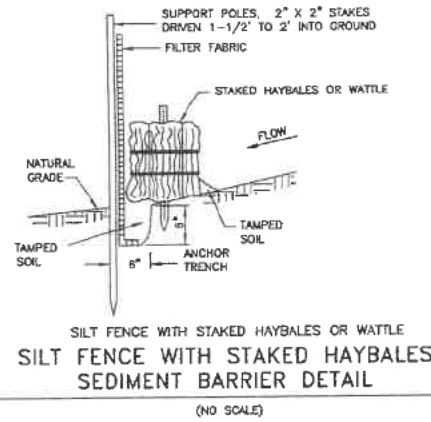
DESIGNED BY: LAS

DRAWN BY: LAS / RJF

CHECKED BY: LAS / RJF

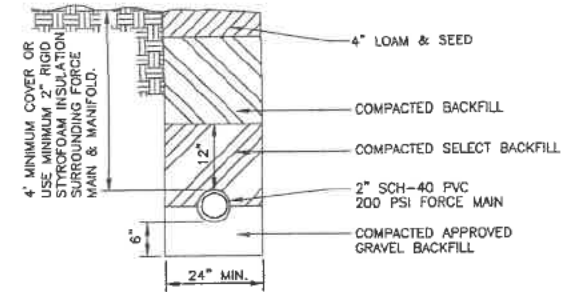


SCHOFIELD BROTHERS OF CAPE COD
 LAND SURVEYING - ENVIRONMENTAL PERMITTING
 P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA
 (508) 255-2098

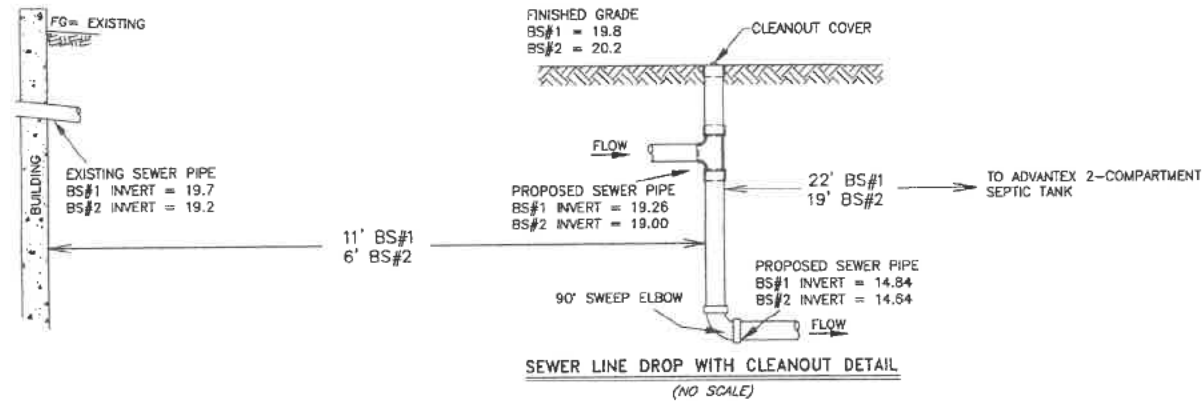


CONSTRUCTION & EROSION CONTROL NOTES

1. PRIOR TO ANY DISTURBANCE OF THE SITE, A STAKED SILT FENCE / LIMIT OF WORK SHALL BE INSTALLED IN THE LOCATION SHOWN. THE SILT FENCE SHALL REMAIN IN PLACE UNTIL ALL AREAS UPGRADIENT FROM THE BARRIER HAVE BEEN STABILIZED.
2. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED OR WHERE SPECIAL STABILIZATION MEASURES OR LANDSCAPE PLANTINGS ARE NOT PROPOSED SHALL HAVE 4"-6" OF LOAM ADDED AND SEEDING WITH A RYE FESCUE MIX.
3. ALL AREAS OUTSIDE OF THE LIMIT OF WORK ARE TO BE LEFT UNDISTURBED. DURING THE SITE WORK, ALL PERSONS AND EQUIPMENT SHALL STAY OUT OF THESE AREAS AND PRESERVE EXISTING VEGETATION.



FORCE MAIN SHALL BE LAID IN A "CLASS B" TRENCH BEDDING .
ALL PIPING OUTSIDE THE PUMP CHAMBER WHICH IS LESS THAN FOUR (4) FEET BELOW FINAL FINISHED GRADE SHALL BE SURROUNDED WITH A MINIMUM OF TWO (2) INCHES OF RIGID STYROFOAM INSULATION, OR SHALL DRAIN BACK TO PUMP CHAMBER.
PROVIDE CONCRETE THRUST BLOCKING AT ALL FORCE MAIN BENDS WITH MINIMUM SOIL BEARING SURFACE AREA OF ONE SQUARE FOOT.

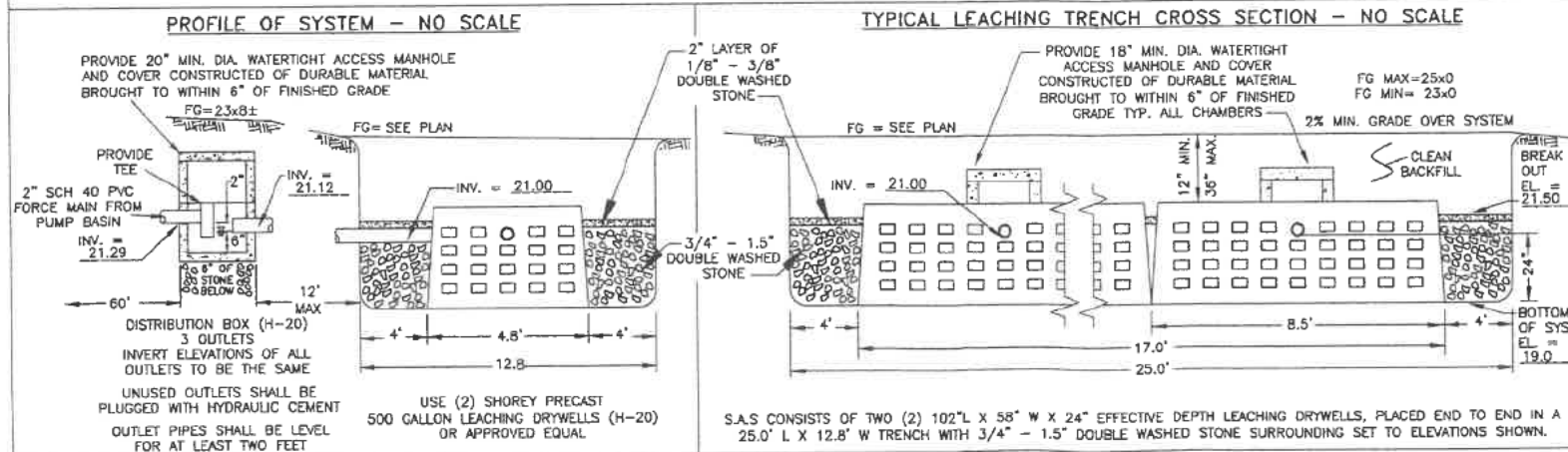


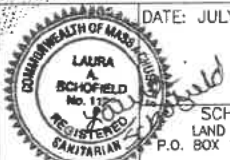
*BUILDING SEWERS WITH A SLOPE GREATER THAN OR EQUAL TO 12% SHALL BE PROVIDED WITH A DROP CLEANOUT.

ALL PIPING SHALL BE 4" SCH-40 PVC UNLESS OTHERWISE NOTED.

DESIGN CALCULATIONS

1. ESTIMATED HYDRAULIC LOADING:
4 BEDROOMS AT 110 GPD PER BEDROOM = 440 GPD
GARBAGE GRINDER IS NOT ALLOWED WITH THIS DESIGN
 2. SEPTIC TANK SIZE:
400 GPD x 200% = 800 GALLON MINIMUM
USE ACME-SHOREY ADVANTEX PROCESS TANK, ITEM #AX20-15M,
MONO, 2-COMPARTMENT 1500 GALLON H-10 TANK.
 3. DESIGN PERCOLATION RATE = < 2 MINUTES PER INCH
SOIL TEXTURE LOAMY SANDS, CLASS T
310 CMR 15.242 EFFLUENT LOADING RATE = 0.74 GPD/SF
 4. LEACHING AREA:
TOTAL SIDEWALL AREA PROVIDED = 151.2 SF X .74 GPD/SF = 111.8 GPD
TOTAL BOTTOM AREA PROVIDED = 320 SF X .74 GPD/SF = 236.8 GPD
MAXIMUM ALLOWABLE LOADING UNDER TITLE 5 = 348 GPD
ACTUAL HYDRAULIC LOADING = 440 GPD (SEE 1.)
- * 21% OF SAS DESIGN REQUIREMENT PROVIDED.
SEE LOCAL UPGRADE APPROVAL REQUEST



PROPOSED SEWAGE DISPOSAL SYSTEM	
FOR: AN EXISTING 4 BEDROOM DWELLING AT: 7 AMITY LANE, TRURO, MA	
ASSESSOR'S MAP: 46	PARCEL: 18
APPLICANT: IRENE SELVER 390 RIVERSIDE DRIVE, APT. 2F NEW YORK, NY 10025	
DATE: JULY 5, 2023	JOB #: 0-12625
DESIGNED BY: LAS	DRAWN BY: LAS / RJF
CHECKED BY: LAS / RJF	
	
SCHOFIELD BROTHERS OF CAPE COD LAND SURVEYING - ENVIRONMENTAL PERMITTING P.O. BOX 101, 161 CRANBERRY HIGHWAY ORLEANS, MA (508) 255-2098	

Courtney Warren

From: Cheryl Silvernail [REDACTED]
Sent: Thursday, August 3, 2023 12:40 PM
To: Courtney Warren
Subject: Continuance request

Dear Conservation Commission,

I am writing to request a continuance of the 525 Shore Rd Unit 525 notice of intent hearing scheduled for August 7th. I am asking that it be heard during the September 11th meeting.

I have followed up with the guidance provided during the July meeting. After doing further research into this issue, I decided to retain Paul Shea, a certified professional wetland scientist, to help with a plan to correct and mitigate the backyard activity. He will be providing a site plan and appropriate plantings for the different areas. I will then create a narrative to accompany this plan.

Although we have begun the process we have not been able to complete it yet.

I would appreciate your approval for this to be presented during the September meeting.

Gratefully,
Cheryl Silvernail

Sent from Yahoo Mail for iPhone

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Conservation Commission
TOWN OF TRURO
AUG 03 2023

Emily Beebe

From: PAUL RENAUD [REDACTED]
Sent: Wednesday, July 12, 2023 7:40 AM
To: Emily Beebe
Subject: 8 Castle Rd

Emily

Could you please put me on the docket for the August 1st Conscom meeting agenda. Louise Briggs 8 Castle Rd File # 75-1105 for a 1 to 1 replacement of a set of stairs on the south side of the property in the buffer zone. We would like to replace the rotted framing and stair treads. The footprint will remain the same.

Thank You
Paul Renaud
agent for Louise Briggs

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

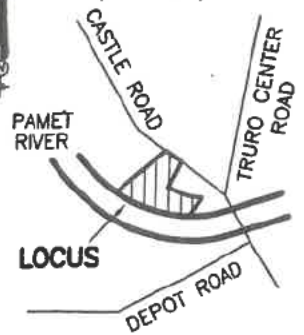
NOTE: THIS PLAN REQUIRES CONSERVATION COMMISSION APPROVAL.

Conservation Commission,
TOWN OF TRURO

SEP 29 2020

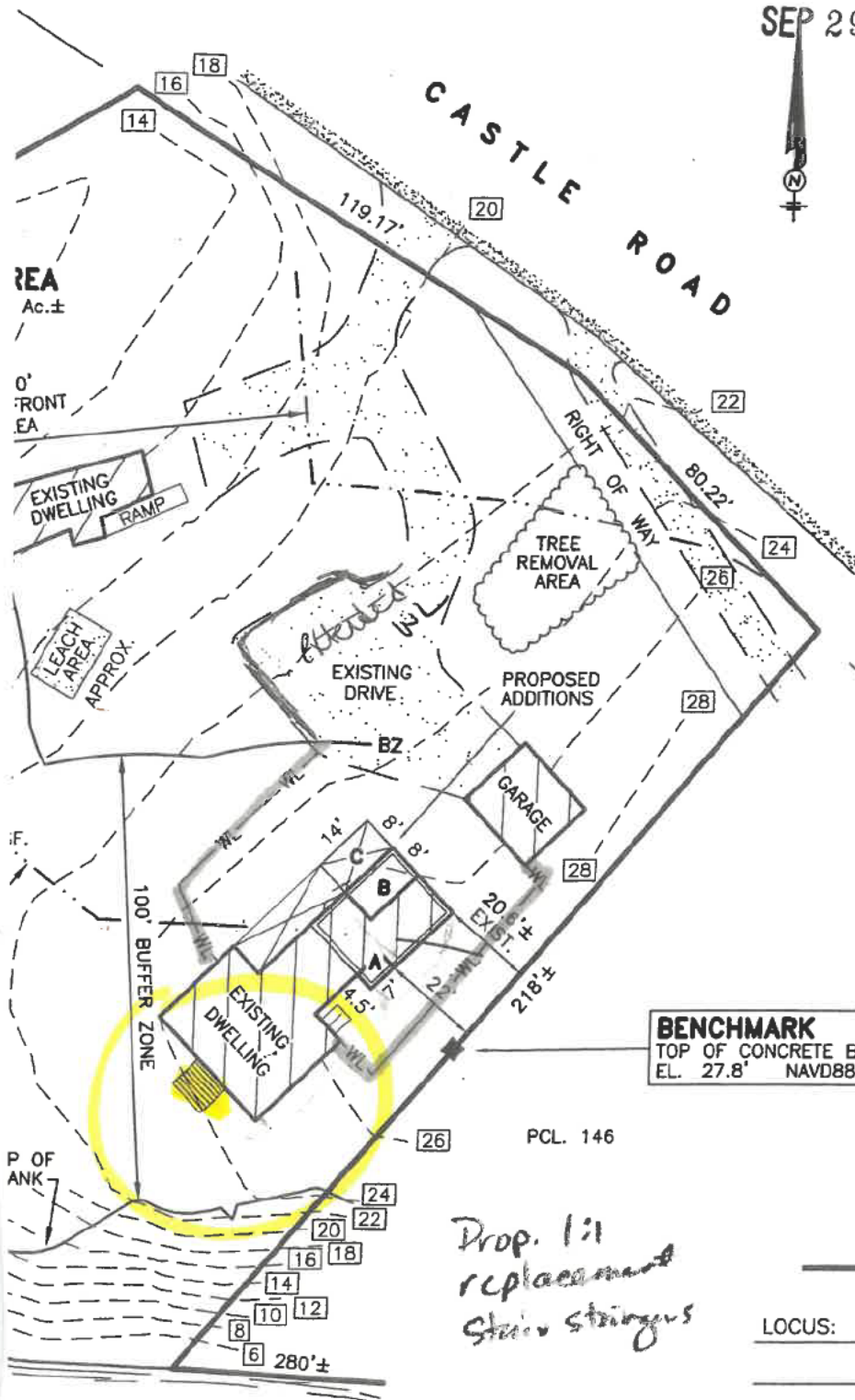
LOCUS

(NO SCALE)



LEGEND

- EXISTING CONTOUR
- EXISTING SEPTIC TANK
- WL- WORK LIMIT
- LOCUST TREE
- CHERRY TREE
- PRICKLY PEAR SHRUB



DEP
SE # 75-1105
open order -
Proposed work not
described in order but
is Diminimus

Drop 1:1
replacement
stair stringers

SITE PLAN

LOCUS: **8 CASTLE ROAD**
TRURO, MA

PREPARED FOR: **LOUISE BRIGGS**
P.O. BOX 94
TRURO, MA 02666

REFERENCE: ASSR'S MAP **50** PARCEL **145**

SCALE : 1" = 40' DATE : 7-11-2020

SHEET No. 1 OF 1 JOB No. 10115

9-22-2020 WL/PLANTINGS
8-18-2020 DEED REF.
REVISIONS

FILE:10115SP.DWG

PERMIT # 2023-20



TOWN OF TRURO

Conservation Commission

24 Town Hall Road
P.O. Box 2030, Truro MA 02666

Conservation Commission
TOWN OF TRURO

JUL 28 2023

PAID
cash

APPLICATION FOR ADMINISTRATIVE REVIEW PERMIT

PERMIT FEE \$20

Applicant Name: CHRIS LUCY Telephone: [REDACTED]
Email address: [REDACTED]

Owner Name: STEPHEN + SHARON PATRICE Telephone: [REDACTED]

(If the applicant is not the owner of the property, written consent to the work MUST be attached to this Application.)

Address of subject property: 4 RIVERVIEW RD Map: 50 Parcel: 266

Description of proposed work: REMOVE INVASIVES, THORN BRUSH
SAPLINGS AND UNDERBRUSH, TREES + PREFERRED NATIVES TO REMAIN

Proximity to Resource Areas: WITHIN 200' RIVER FRONT

CRITERIA FOR ADMINISTRATIVE REVIEW (AR) PERMITS

Vegetation Projects:

- No removal of vegetation within any inland or coastal wetland resource.
- No uprooting of vegetation.
- No mowing to the ground or clear cutting.
- Any proposed tree removal is demonstrated to be necessary, e.g., to protect existing structures, public safety, traffic visibility, etc.
- Mitigation may be required, i.e., an area to be planted with native species of trees or shrubs.
- Trees for removal must be tagged for inspection.
- No excavation by machinery is required or proposed.

Sheds and Other Construction Projects:

- No construction within any wetland resource except for minimal projects with the consent of the Conservation Agent.
- Any proposed new construction is more than 50' from the edge of resource area.
- No excavation by machinery is required or proposed.
- Foundation for structure shall be concrete blocks, sonotubes, diamond piers
- Repairs or replacement of existing structures remain within the same footprint.
- New structures must be less than 160 square feet.
- Only minimal projects such as biomimicry, sand nourishment, beach grass and planting of native species shall be allowed under this permit

Procedure:

- The fee shall be submitted with the Administrative Review Application.
- The Agent shall conduct a site visit, at which time the proposed project must be clearly defined in the field with stakes. Trees shall be flagged.

- If the Agent determines that all of the conditions of this Policy are met, the Agent may approve the Application. If the conditions of this policy are not met; the application is incomplete; or the field ID is inadequate the application is denied.
- **If the Agent approves the application, such approval must be ratified by the Truro Conservation Commission prior to the issuance of this permit and prior to the commencement of any work.**
- Any Property Owner, contractor or other agent of the owner performing any work pursuant to an Administrative Review permit shall have a copy of the permit available at the site at all times during the period that the work is being performed.
- Upon approval and ratification by the Commission, an Administrative Permit shall issue.
- The applicant shall notify the Commission prior to the start of the work, and must complete the work within thirty (30) days of issuance of the permit, unless otherwise permitted by the Commission.
- The Conservation Agent shall inspect the property to verify that the work completed is within the scope of the Approved Application.
- Any work beyond the scope of the approved Administrative Review shall be subject to enforcement action.
- NOTE: Use of town property for beach access or staging of construction materials requires a permit issued by the Board of Selectmen.

By signing this permit application, you are acknowledging that you have read and understand the terms as stated herein. You are also aware that no work shall go forward until the permit has been issued by the Conservation Commission.

CEG 7/27/23
(Signature of Applicant) (Date)

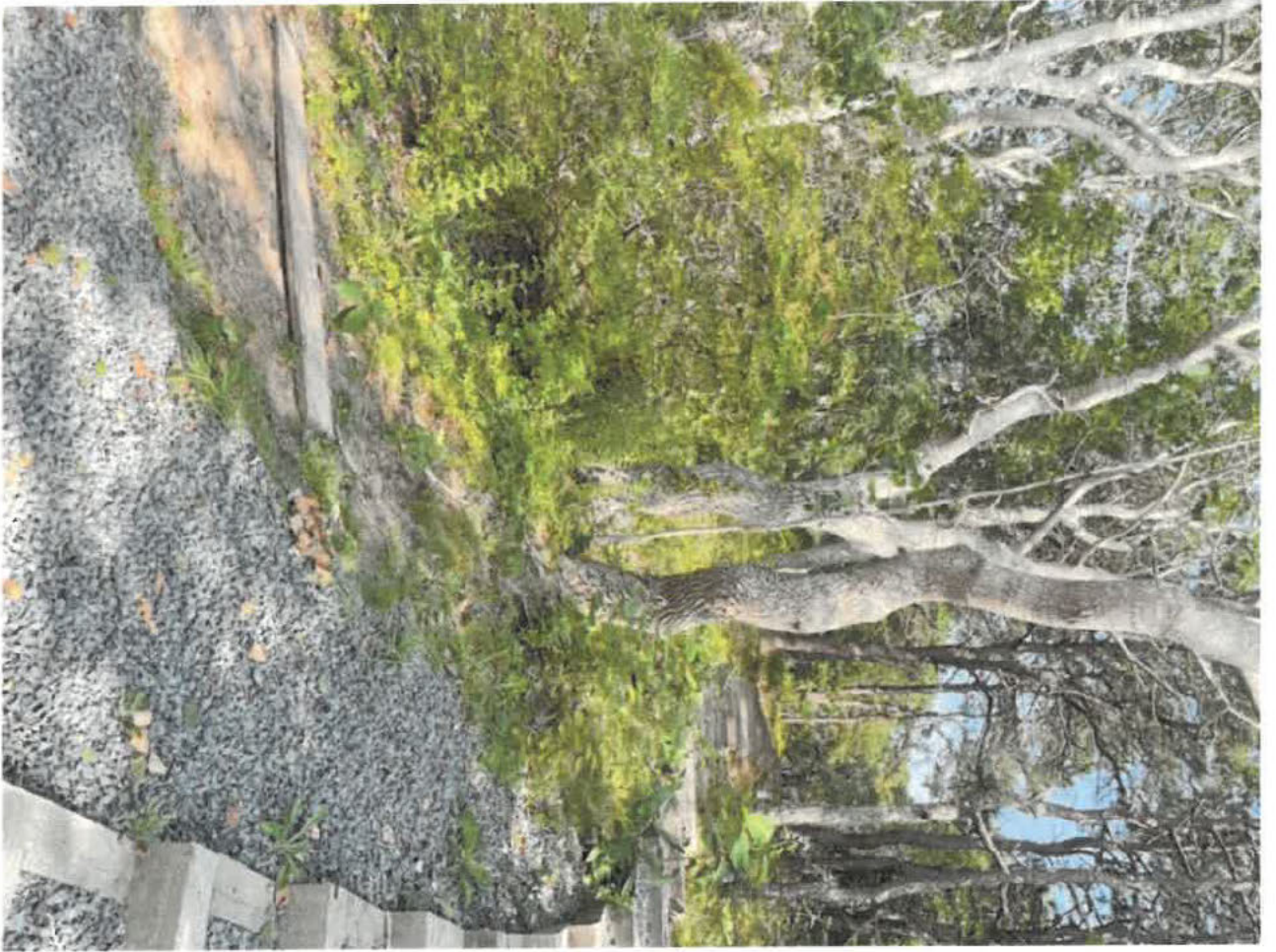
FOR OFFICE USE ONLY:

Agent's Comments: OK for AR; will follow with a more detailed landscaping proposal

Site Inspection Date: 8/4/2023 Application Approved: ☒ Yes ☐ No

Conservation Commission Review: Meeting Date: _____ Permit Approved: ☐ Yes ☐ No
Conditions: _____

Signature of Commission Chair or Agent: _____ Date: _____











60 day request

PAID
CC

PERMIT # 2023-18



TOWN OF TRURO

Conservation Commission

24 Town Hall Road
P.O. Box 2030, Truro MA 02666

Conservation Commission
TOWN OF TRURO

JUL 17 2023

APPLICATION FOR ADMINISTRATIVE REVIEW PERMIT

PERMIT FEE \$20

Applicant Name: Claudia Dent Telephone: [REDACTED]

Email address: [REDACTED]

Owner Name: Claudia Dent Telephone: [REDACTED]

(If the applicant is not the owner of the property, written consent to the work MUST be attached to this Application.)

Address of subject property: 657 Shore Road Map: 2 Parcel: 1-657

Description of proposed work: Replace split rail fence in front of the house (along 6A/Shore Road)

Fence will be same type and footprint.

Proximity to Resource Areas: Barrier Beach and LSCSF

CRITERIA FOR ADMINISTRATIVE REVIEW (AR) PERMITS

Vegetation Projects:

- No removal of vegetation within any inland or coastal wetland resource.
- No uprooting of vegetation.
- No mowing to the ground or clear cutting.
- Any proposed tree removal is demonstrated to be necessary, e.g., to protect existing structures, public safety, traffic visibility, etc.
- Mitigation may be required, i.e., an area to be planted with native species of trees or shrubs.
- Trees for removal must be tagged for inspection.
- No excavation by machinery is required or proposed.

Sheds and Other Construction Projects:

- No construction *within* any wetland resource except for minimal projects with the consent of the Conservation Agent.
- Any proposed new construction is more than 50' from the edge of resource area.
- No excavation by machinery is required or proposed.
- Foundation for structure shall be concrete blocks, sono tubes, diamond piers
- Repairs or replacement of existing structures remain within the same footprint.
- New structures must be less than 160 square feet.
- Only minimal projects such as biomimicry, sand nourishment, beach grass and planting of native species shall be allowed under this permit

Procedure:

- The fee shall be submitted with the Administrative Review Application.
- The Agent shall conduct a site visit, at which time the proposed project must be clearly defined in the field with stakes. Trees shall be flagged.

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- If the Agent determines that all of the conditions of this Policy are met, the Agent may approve the Application. If the conditions of this policy are not met; the application is incomplete; or the field ID is inadequate the application is denied.
- If the Agent approves the application, such approval must be ratified by the Truro Conservation Commission prior to the issuance of this permit and prior to the commencement of any work.
- Any Property Owner, contractor or other agent of the owner performing any work pursuant to an Administrative Review permit shall have a copy of the permit available at the site at all times during the period that the work is being performed.
- Upon approval and ratification by the Commission, an Administrative Permit shall issue.
- The applicant shall notify the Commission prior to the start of the work, and must complete the work within thirty (30) days of issuance of the permit, unless otherwise permitted by the Commission.
- The Conservation Agent shall inspect the property to verify that the work completed is within the scope of the Approved Application.
- Any work beyond the scope of the approved Administrative Review shall be subject to enforcement action.
- NOTE: Use of town property for beach access or staging of construction materials requires a permit issued by the Board of Selectmen.

By signing this permit application, you are acknowledging that you have read and understand the terms as stated herein. You are also aware that no work shall go forward until the permit has been issued by the Conservation Commission.

Claudia Hunt 07.17.2023
(Signature of Applicant) (Date)

FOR OFFICE USE ONLY:

Agent's Comments

replacement in kind just like
unit 655.

Site Inspection Date: 7/28/2023 Application Approved: ☒ Yes ☐ No

Conservation Commission Review: Meeting Date: _____ Permit Approved: ☐ Yes ☐ No
Conditions: _____

Signature of Commission Chair or Agent: _____ Date: _____

657 Shore Road Fence Proposal

Conservation Commission
TOWN OF TRURO

JUL 17 2023



Proposed fence replaces existing split rail fence with another split rail fence in the same place as existing fence. The existing fence needs repair and is unsafe.



Proposed fence will match 655 Shore Road neighbors fence using the same fence company, same materials, methods, etc. Their permit granted June 2023, Work completed July.



07/17/2023

www.SafeHarborEnv.com



**HABITAT RESTORATION
ENVIRONMENTAL MANAGEMENT**

LIVING SHORELINE INNOVATIONS by Gordon Peabody

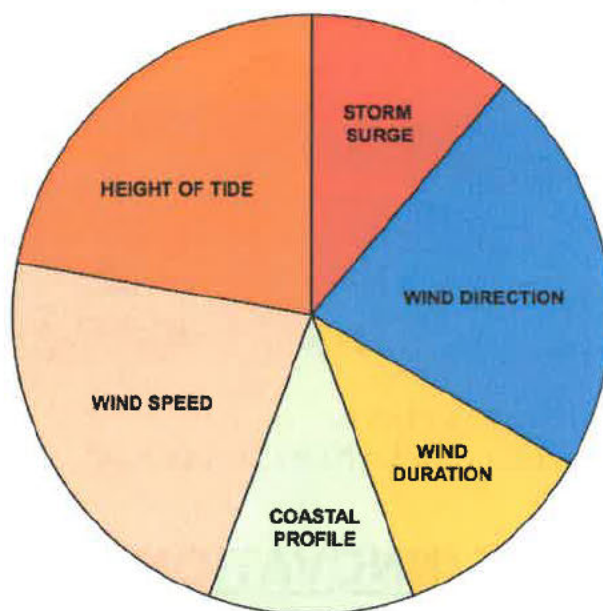
gordonpeabody@gmail.com Edited by Camille Smokelin, Tufts University, 2023



Image by Gordon Peabody. Changing risk at Ryder Cove, Chatham MA

Safe Harbor advocates for the use of "living shorelines" to offer a diversity of vegetation that can adapt to changing conditions. This is referred to as "Coastal Resiliency" and is a sought-after management strategy. Erosion reflects multiple cofactors: shoreline profiles, wind direction, tide height, wind speed, and wave fetch (distance a wave can travel before striking land). Living Shorelines offer a layered response system, of diverse Native vegetation over sand/shells/coir or other subsurface materials, which can be jacketed by coir fabric and secured with wire or fiber. Successful erosion management requires careful assessment of exposure and risk.

COASTAL EROSION CO-FACTORS



Safe Harbor Image, Cape Cod Bayside Experience Based, by Gordon Peabody

These multiple co-factors must interact for significant erosion to occur. Erosion may be minimal or non-existent, when most, but not all, of the co-factors are in play. “Normal”, synergistic erosion events, when they do occur, based on our experience on nourishment sites, are usually 1/3 cubic yard per linear foot of shoreline. Our Bayside nourishment sites receive 1 cubic yard per foot.

NEARSHORE ALTERNATIVE: INNOVATIVE, LIVING OYSTER REEF



Inter Tidal, Near Shore Oyster Reef. Image The Nature Conservancy.

Reduces storm wave energy underwater, in low-velocity zones, while providing habitat biomass.

COIR COCONUT HUSK PRODUCTS

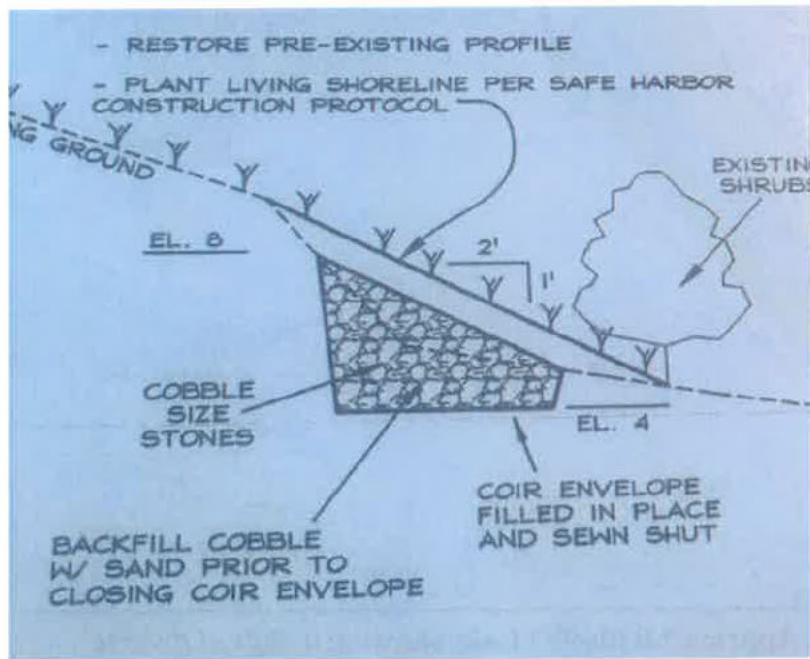
Sample Fiber Wrapped Coir Usage. Image Delaware Living Shorelines Committee



Sample Wire Wrapped Coir. Image by G. Peabody
Coir Will Fail In Velocity Zones If Not Properly Secured, Covered & Planted With Vegetation



INTRODUCING NON-FLOATING, BALLASTED COIR



Coconut Fiber Effectively Absorbs Wave Energy But Also Floats. We Have Used Varying Degrees Of Stone Ballast, Mixed Inside The Coir Envelope to Counteract Flotation. At some Point This Stone Strategy Gets Defined by Regulators As a Structure. Protective Coastal Structures Are Usually Prohibited In MA. Only Limited Approvals Have Been Issued On The Outer Cape. We Have Been Experimenting With The Use of Native Shell Material.



Fully “Ballasted Coir”, in freshwater, with native plantings. *Muskegon Lake Watershed.*

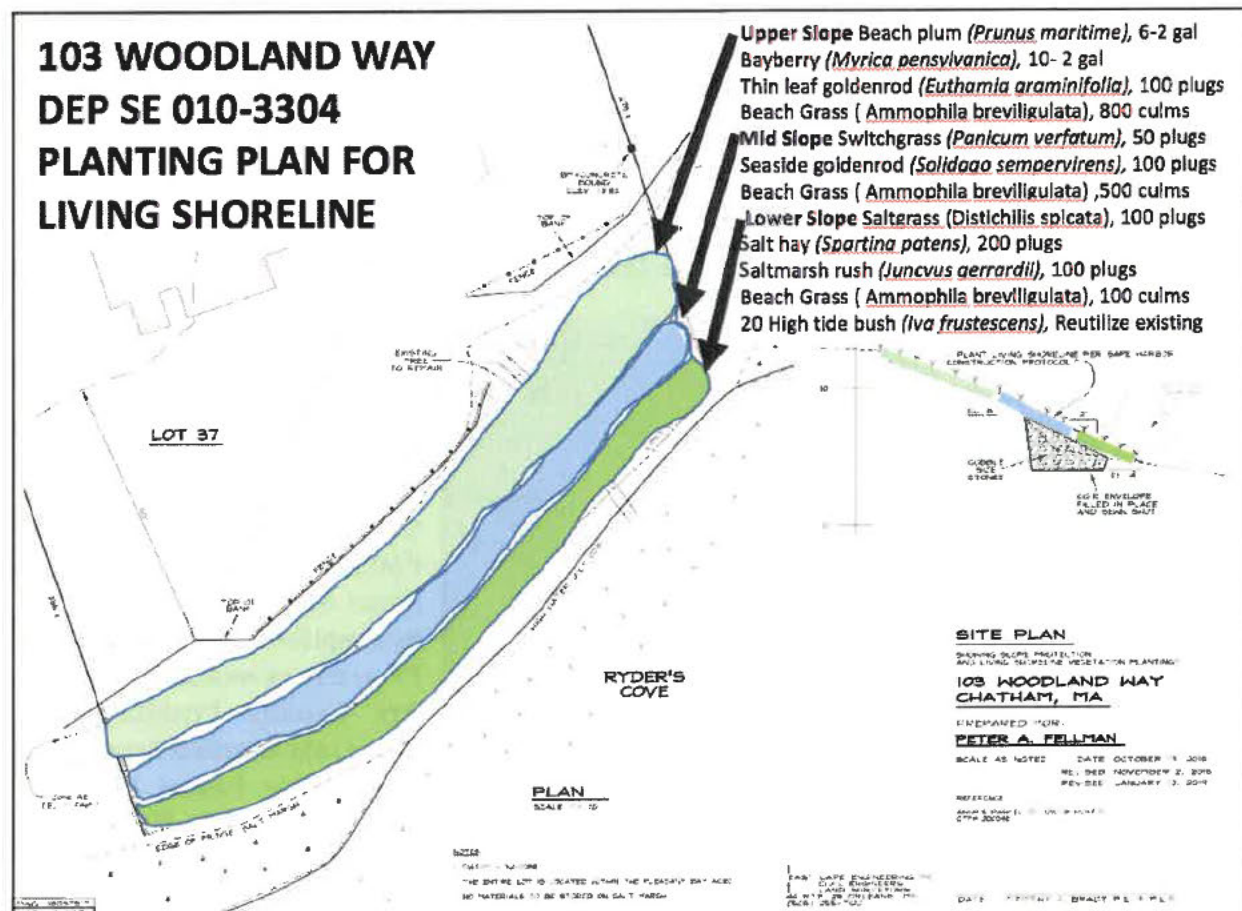


Image by East Cape Engineering. Approved Ballasted Coir, showing details of diverse layered, Native vegetation planted above compatible nourishment. Chatham, MA.

Ballasted Coir Project approved in Chatham, in part due to the detailed diversity of plantings specified, with the management and monitoring plan, including irrigation. Safe Harbor workers performed the planting activity. Limited renourishment and minimal replanting were required.



Ballasted Coir Project in Chatham. First Year Growing Season. Limited Replanting after storm season. *Image by Gordon Peabody.*



Ballasted Coir Project in Chatham. *Image by G. Peabody.* Detail Showing Second Year Growing Season and Layered Vegetation.



Ballasted Coir Project in Chatham, Third Year. *Safe Harbor Image by Kayla Anderson.*



Experimental Ballasted Coir Using Native Shells. *Images Camille Smokelin, Safe Harbor.*

Our idea of utilizing indigenous Native Shells introduces stabilizing weight through the use of a recycled, more compatible, acceptable, natural Native product. While full shells might tear into the coir envelope, shell pieces would not have the same impact. We would introduce the shells throughout the coir, with the goal of creating a more stable system, should over wash occur. Keeping any form of coir nourished, secured, planted, monitored and managed, should always be a required regulatory Condition. **These are in the experimental phase but seem approvable.**