

SCHNEIDER, DAVIGNON & LEONE, INC.

PROFESSIONAL CIVIL ENGINEERS & LAND SURVEYORS

N. DOUGLAS SCHNEIDER, P.E., P.L.S.
MATTHEW C. LEONE, P.L.S.



DAVID M. DAVIGNON, P.E.
JAY MCKINNON, E.I.T.

February 27, 2020

Town of Fairhaven
Conservation Commission
40 Centre Street
Fairhaven, MA 02719

Attn: Whitney McClees, Agent

Re: Request for an Extension Permit - DEP File No. SE 23-1247

Project Type: House Reconstruction & Tight Tank Installation
Applicant/Owner: Sherry L. Gomes
Site Address: 16 Wilbur's Point Drive, Fairhaven

Dear Whitney,

Schneider, Davignon & Leone, Inc., acting as agent for Sherry L. Gomes hereby requests that the Fairhaven Conservation Commission (FCC) issue a 3-year Extension Permit for the above described project.

On April 18, 2017 the FCC issued the Order of Conditions permitting the removal of the ground level cottage and replacement with a single family dwelling on an open concrete column foundation in compliance with FEMA and Mass Building Code for construction within a Velocity Zone – together with associated site work.

The above described project was delayed due to extensive State and Federal Permitting for the upgrade of the existing vertical concrete seawall, work which was permitted by the FCC under DEP File No. SE 23-1268. Said work has now been completed.

The next phase of work to be completed is the sloped rip-rap seawall along the northerly portion of the shoreline, which is expected to be completed this spring.

The hope is to begin the construction of the new home this year, but just in case there are further delays, she respectfully requests that a 3-year Extension Permit be issued.

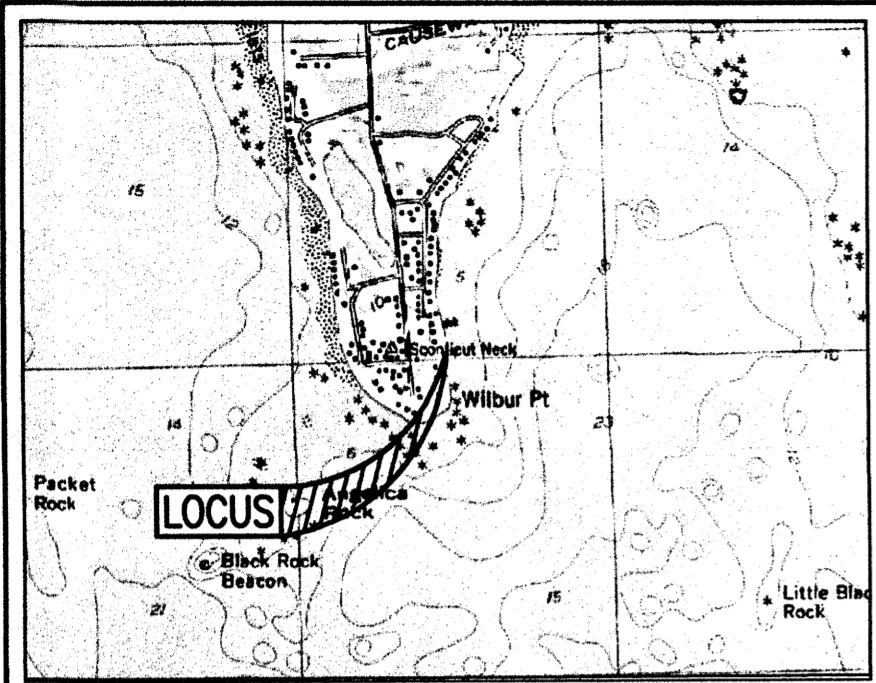
Should you have any questions or need additional information, please call me at (508) 758-7866 (Ext. 203).

Sincerely,

Schneider, Davignon & Leone, Inc.

David M. Davignon, P.E.

cc: Sherry L. Gomes
Victor Barboza
File 224



LOCUS MAP SCALE: 1"=2,000'±

SEPTIC DESIGN: (NOT DESIGNED FOR GARBAGE GRINDER)

- DESIGN DAILY FLOW: 2 BR. x 110 GPD = 220 GPD
 - SEPTIC TIGHT TANK: 220 GPD x 500% = 1,100 GAL. USE: 2,000 GAL. TANK. (MIN.)*
- *PER 310 CMR 15.260(2)(c)

OPERATION AND MAINTENANCE PLAN:

- TIGHT TANK SHALL BE PUMPED BY A LICENSED SEPTAGE TRANSPORTER WHEN THE ALARM IN THE TIGHT TANK IS TRIPPED.

BUOYANCY CALCULATIONS:

SEPTIC TIGHT TANK:

FORCE OF TANK, $F_T = 21,225 \text{ LBS}$
 FORCE OF SOIL, $F_S = (13.00\text{FT} \times 7.00\text{FT} \times 0.75\text{FT}) \times 100\text{LBS/FT}^3 = 6,825\text{LBS}$
 BUOYANT FORCE, $F_B = (13.00\text{FT} \times 7.00\text{FT} \times 3.15\text{FT}) \times 62.4\text{LBS/FT}^3 = 17,887\text{LBS}$
 NET FORCE, $F_{NET} = F_B - F_T - F_S = 17,887\text{LBS} - 21,225\text{LBS} - 6,825\text{LBS} = -10,163\text{LBS}$

SEPTIC NOTES:

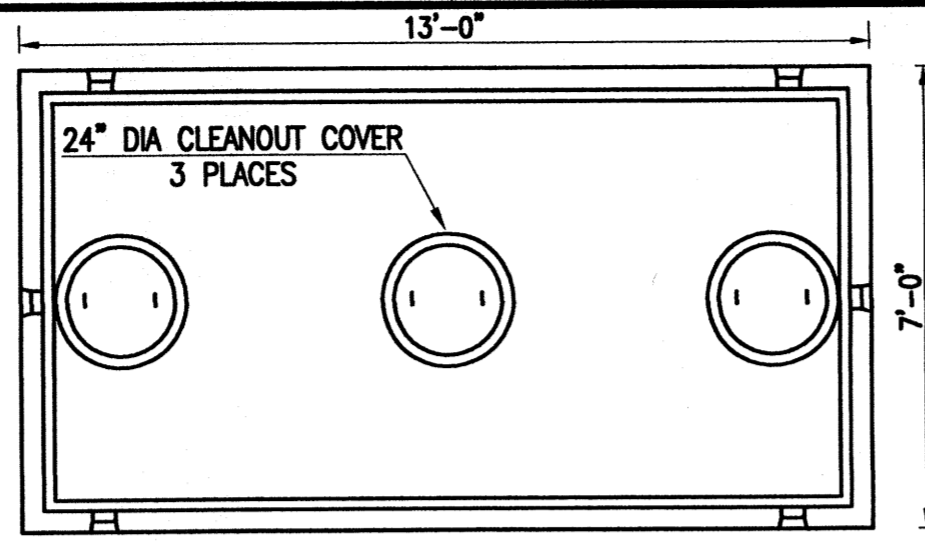
- T.H. 1 PERFORMED BY STEVE CARVALHO OF FARLAND CORP. AND WITNESSED BY PATRICIA FOWLE OF THE FAIRHAVEN BOARD OF HEALTH ON 11/14/16.
- ENGINEER SHALL SET BENCHMARK WITHIN 50' OF SYSTEM PRIOR TO START OF CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL STANDARDS AND REGULATIONS.
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
- SOIL TESTING PERFORMED IN ACCORDANCE WITH THE INSTRUCTIONS OF MASSACHUSETTS ENVIRONMENTAL CODE, TITLE 5.
- EXISTING SOIL ABSORPTION SYSTEM TO BE ABANDONED OR REMOVED IN ACCORDANCE WITH 310 CMR 15.354.
- THERE ARE KNOWN SURFACE WATER SUPPLIES OR WETLANDS BORDERING SURFACE WATER SUPPLIES OR PUBLIC WELLS WITHIN 200' OF SITE.
- THERE ARE NO KNOWN PRIVATE WELLS WITHIN 200' OF SITE.
- THERE ARE NO KNOWN BORDERING VEGETATED WETLANDS, INLAND BANKS, OR SURFACE WATERS WITHIN 100' OF TIGHT TANK, OTHER THAN SHOWN.
- THERE ARE NO KNOWN SURFACE OR SUBSURFACE DRAINS WHICH ARE USED TO LOWER THE GROUND WATER ON THE SITE.
- THERE ARE NO KNOWN VERNAL POOLS WITHIN 100' OF SITE.
- EFFLUENT BEING DISCHARGED TO THE TANK CAN BE ASSOCIATED WITH NORMAL STRENGTH DOMESTIC USE ONLY.
- ANY ALTERATIONS MUST BE APPROVED IN WRITING BY THE DESIGN ENGINEER. ANY CONDITIONS ENCOUNTERED DURING CONSTRUCTION DIFFERING FROM THOSE SHOWN HEREON OR REPORTED HEREIN SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION CONTINUES.
- TEST HOLE INFORMATION SHOWN HEREON IS LIMITED TO SOIL CONDITIONS FOUND AT THAT PARTICULAR TEST HOLE LOCATION AND IS NOT TO BE CONSIDERED AN IMPLIED OR EXPRESSED WARRANTY OF SOIL CONDITIONS BEYOND THE LIMITS OF SUCH TEST HOLES.
- SYSTEM CAN NOT BE BACKFILLED OR CONCEALED UNTIL DESIGN FIRM AND BOARD OF HEALTH HAVE INSPECTED THE SYSTEM AND PERMISSION TO BACKFILL HAS BEEN GIVEN.
- AUDIO AND VISUAL ALARMS SHALL BE INSTALLED IN ACCORDANCE WITH 310 CMR 15.260(2)(c).
- DESIGN FIRM MUST PREPARE AND SUBMIT "AS BUILT" PLAN TO BOARD OF HEALTH. THIS PLAN MUST CERTIFY THAT THE SYSTEM WAS INSTALLED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS AND THAT IT COMPLIES WITH PROPOSED PLAN. THEREFORE, THE CONTRACTOR MUST NOTIFY FARLAND CORP. IN ADVANCE FOR PERIODIC INSPECTIONS OF THE CONSTRUCTION AT THE FOLLOWING MINIMUM POINTS:
 - SEPTIC TIGHT TANK EXCAVATION WITH STONE PRIOR TO SEPTIC TIGHT TANK PLACEMENT.
 - ALL PIPING AND TANK & ALARM ELEVATIONS PRIOR TO BACKFILL.
 - FINAL GRADING OVER ENTIRE SYSTEM.
- OWNER SHALL CONNECT TO MUNICIPAL SEWER WITHIN 30 DAYS OF AVAILABILITY.

NOTES:

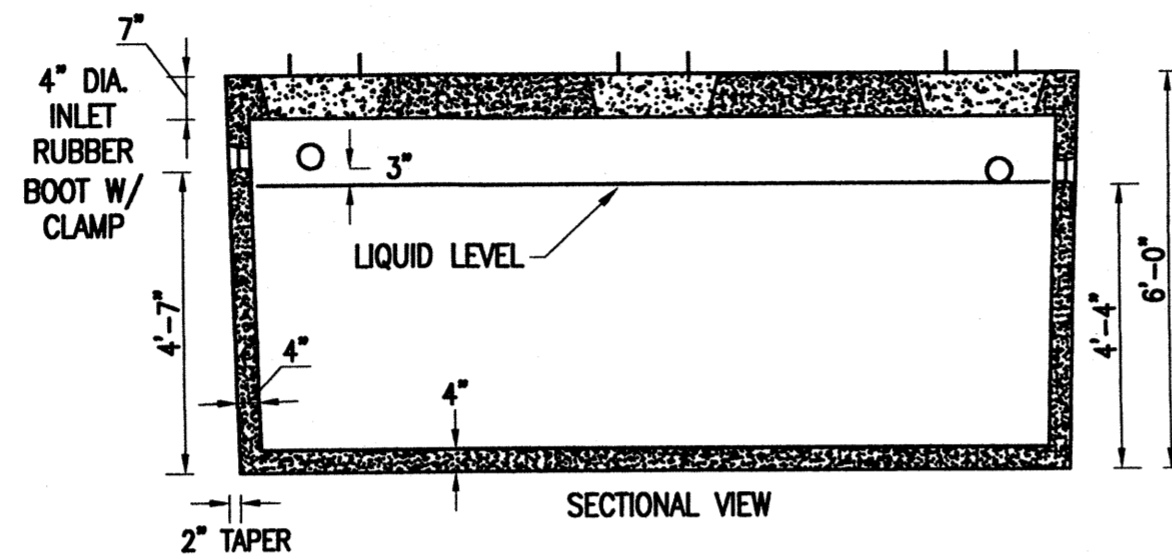
- TOPOGRAPHIC AND PROPERTY LINE SURVEY PERFORMED BY FARLAND CORP. IN OCTOBER OF 2015.
- VERTICAL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND HORIZONTAL LOCATIONS REFER TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).

FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THE PROPERTY DEPICTED ON THIS PLAN FALLS ENTIRELY IN ZONE "VE (EL 19 FEET), AS SHOWN ON THE FLOOD INSURANCE RATE MAP 25005C0503F, EFFECTIVE DATE: JULY 7, 2009.



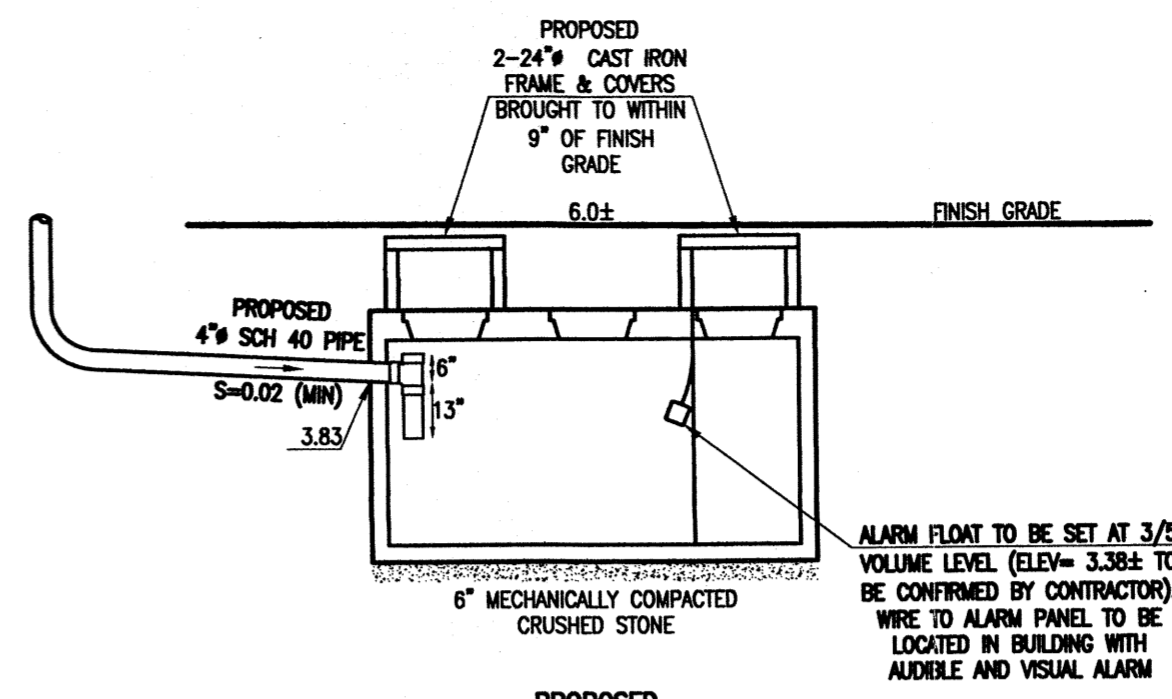
PLAN VIEW



SECTIONAL VIEW

SEPTIC TIGHT TANK

(NOT TO SCALE)



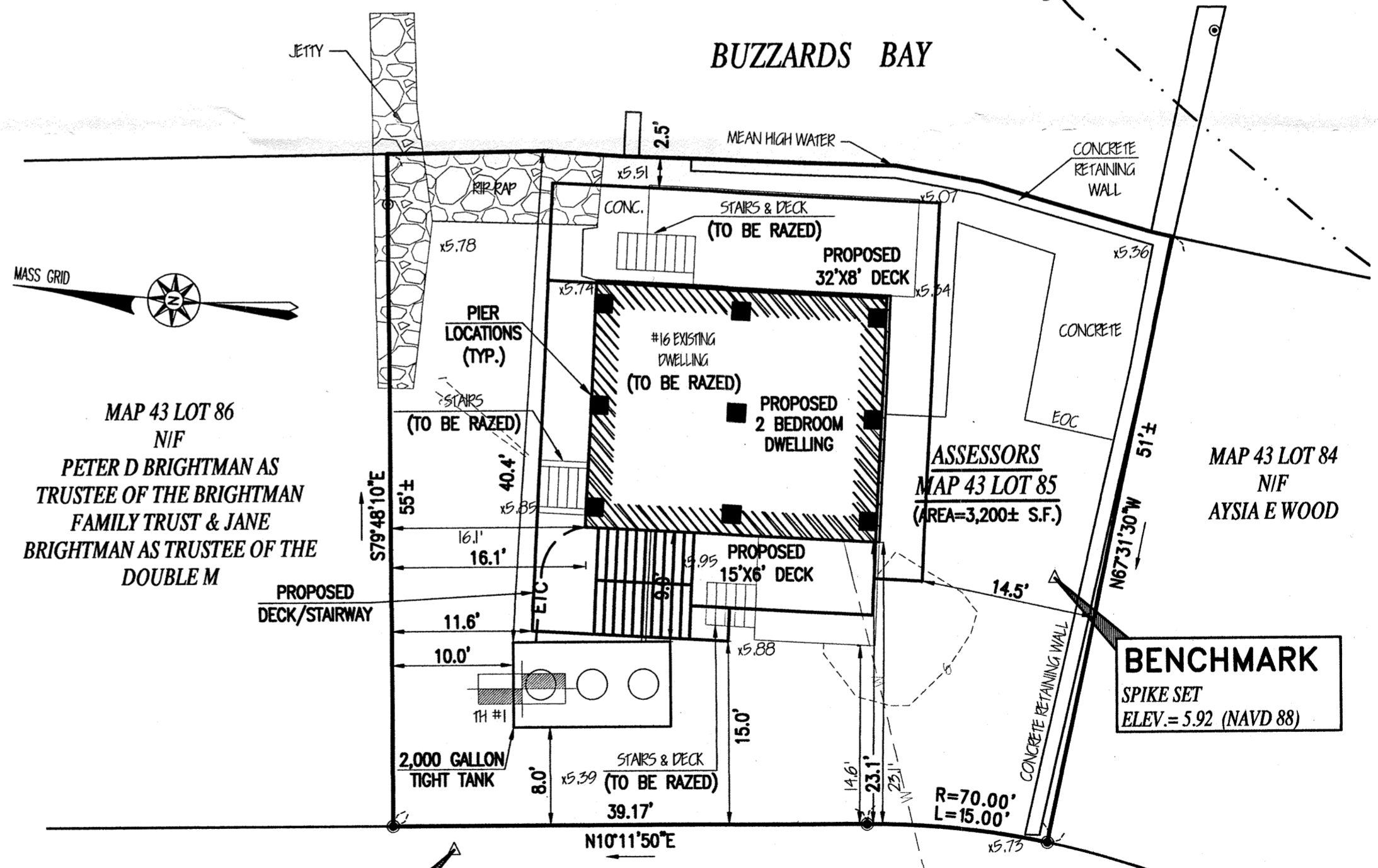
SUBSURFACE SEWAGE TIGHT TANK SYSTEM

(NOT TO SCALE)

SOIL LOGS

T.H. #1
ELEV.=5.4±
11/14/16

DEPTH (FEET)	SOIL TYPE	REMARKS
0"-16"	A HORIZON SANDY LOAM 10YR3/2	4.1
16"-36"	B HORIZON SANDY LOAM 10YR4/2	2.4
36"-84"	C HORIZON SANDY LOAM 2.5Y6/4	-1.6
REDOX @ 36"	ELEV.=2.4±	



BENCHMARK

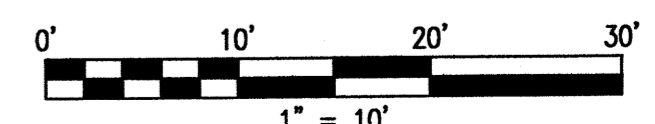
SPIKE SET
ELEV.= 5.32 (NAVD 88)

BENCHMARK

SPIKE SET
ELEV.= 5.92 (NAVD 88)

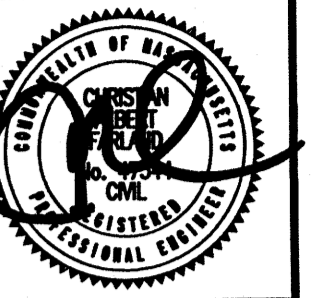
RECORD OWNER:

ASSESSORS MAP 43 LOT 85
SHERRY L GOMES
80 BAYDEN PATH
PLYMOUTH, MA 02360
DEED BOOK 7783 PAGE 244



REVISIONS

NO.	DATE	DESCRIPTION



www.FarlandCorp.com

401 COUNTY STREET
NEW BEDFORD, MA 02740
P.508.717.3479
OFFICES IN:
•TAUNTON
•MARLBOROUGH
•WARWICK, RI

DRAWN BY: JT
DESIGNED BY: JT
CHECKED BY: SC

SUBSURFACE SEWAGE TIGHT TANK SYSTEM
16 WILBURS POINT DRIVE
ASSESSORS MAP 43 LOT 85
FAIRHAVEN, MASSACHUSETTS

PREPARED FOR:
SHERRY GOMES
80 BAYDEN PATH
PLYMOUTH, MA 02360

FEBRUARY 28, 2017
SCALE: 1"=10'
JOB NO. 16-1087
LATEST REVISION:



February 13, 2020

Fairhaven Conservation Commission
40 Center Street
Fairhaven, MA 02719

**RE: Certificate of Compliance
Huttleston Avenue - Map 31, Lot 115A & 117C
Mass DEP File #SE 23-1245**

Dear Commission Members,

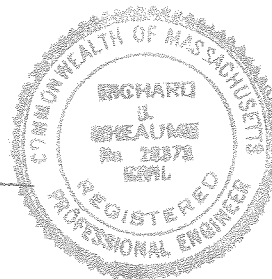
We request that you issue a Certificate of Compliance for the above referenced file number. No work has been done and the Order of Conditions is about to expire.

The land is currently owned by:
Dana B. Lewis
18 Tanner Lane
Fairhaven, MA 02719

Please send the issued Certificate to me at Prime Engineering.

Sincerely,
PRIME ENGINEERING, INC.


Richard J. Rheume, P.E., LSP
Chief Engineer



RJR/mc



TOWN OF FAIRHAVEN, MASSACHUSETTS

CONSERVATION COMMISSION

Town Hall · 40 Center Street · Fairhaven, MA 02719

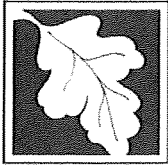
CERTIFICATE OF COMPLIANCE CHECKLIST

Once the project has been completed and all areas of work are stabilized, you must request a Certificate of Compliance be issued to you. This Certificate of Compliance will allow you to finalize your obligation to the Conservation Commission and close out the Order of Conditions. This is very important, as it lifts the cloud that an open Order of Conditions places on your deed. If the project was never initiated and the Order of Conditions has expired, you are still responsible for requesting a Certificate of Compliance.

The following checklist indicates the materials that need to accompany your request for a Certificate of Compliance and must be submitted **at least 7 days prior to the target meeting date** of the Conservation Commission. The request shall be placed on the meeting agenda for the Commission's consideration and sign-off.

- 1 Original and 1 Copy of WPA Form 8A – Request for Certificate of Compliance
- Letter requesting a Certificate of Compliance, including:
 - name & address of the current landowner
 - name & address of the individual to whom the Certificate is to be issued
 - street address and map and lot number where the project is located
 - DEP file number
- ~~N/A~~ 2 copies of an As-Built Plan showing existing built conditions, if required in the Order of Conditions. This plan should be in the same scale as the approved plan.
- 2 copies of a letter from a Registered Professional Engineer or Land Surveyor certifying compliance with the Order of Conditions and approved plan, as well as explaining any deviations from the approved plan
- Electronic copy of all materials listed above, emailed to conservation@fairhaven-ma.gov
- Check, made payable to the Town of Fairhaven, in the amount of:
 - \$75.00, if a residential project
 - \$200.00, if a commercial project or subdivision

Please Note: The Conservation Agent or a member of the Conservation Commission must schedule a site inspection with the applicant or applicant's representative prior to the meeting to ensure existing conditions are in compliance with the Order and approved/as-built plan.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands

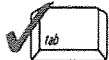
DEP File Number:

WPA Form 8A – Request for Certificate of Compliance
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

SE 23-1245
 Provided by DEP

A. Project Information

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



Upon completion of the work authorized in an Order of Conditions, the property owner must request a Certificate of Compliance from the issuing authority stating that the work or portion of the work has been satisfactorily completed.

1. This request is being made by:
 Richard J. Rheume/Prime Engineering, Inc.

Name
 P.O. Box 1088

Mailing Address
 Lakeville MA 02347

City/Town State Zip Code
 (508) 947-0050 Phone Number

2. This request is in reference to work regulated by a final Order of Conditions issued to:
 John Kalisz

Applicant
 March 6, 2017 SE 23-1245

Dated DEP File Number

3. The project site is located at:
 Huttleston Avenue

Street Address City/Town
 31 Fairhaven

Assessors Map/Plat Number Parcel/Lot Number
 115A & 117C

4. The final Order of Conditions was recorded at the Registry of Deeds for:
 Same

Property Owner (if different)
 Bristol 12756 60

County Book Page

Certificate (if registered land)

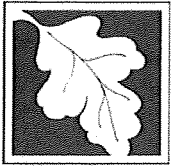
5. This request is for certification that (check one):

the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed (use additional paper if necessary).

A few paths were cleared but no other work was done and the Order is about to lapse.

the above-referenced Order of Conditions has lapsed and is therefore no longer valid, and the work regulated by it was never started.



A. Project Information (cont.)

6. Did the Order of Conditions for this project, or the portion of the project subject to this request, contain an approval of any plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor?

Yes

If yes, attach a written statement by such a professional certifying substantial compliance with the plans and describing what deviation, if any, exists from the plans approved in the Order.

No

B. Submittal Requirements

Requests for Certificates of Compliance should be directed to the issuing authority that issued the final Order of Conditions (OOC). If the project received an OOC from the Conservation Commission, submit this request to that Commission. If the project was issued a Superseding Order of Conditions or was the subject of an Adjudicatory Hearing Final Decision, submit this request to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).

SITEC

Civil and Environmental Engineering
Land Use Planning

SITEC, Inc.
449 Faunce Corner Road
Dartmouth, MA 02747
Tel. (508) 998-2125 FAX (508) 998-7554

Unit C
769 Plain Street
Marshfield, MA 02050
Tel. (781) 319-0100 FAX (781) 834-4783

MEMORANDUM

TO: CONSERVATION COMMISSION
TOWN OF FAIRHAVEN

FROM: STEVEN D. GIOIOSA, P.E. 

DATE: MARCH 4, 2020

SUBJECT: **DEP FILE #SE023-1273**
LEE & ELIZETT MIGUEL

We are in receipt of the Commission's letter dated February 12, 2020. The letter outlines the Commission's decision to require "...the area that was the subject of the request for amendment be restored to previous conditions".

Attached please find two photographs for your consideration. The first photograph was taken after placement of the sod on the south side of the silt fence. As you will note, the area on the north side of the silt fence did not have sod when this picture was taken. You can see that the area in question was a grassed surface with the exception of the exposed soil area in the foreground.

The second photograph depicts the site conditions after placement of the sod (November 20, 2019). You can see by the position of the dead tree in both photographs that the applicant did not expand the lawn to the north past the previous limit of grass.

As we discussed, the crushed stone surrounding the drainage manhole was placed by the contractor who completed the marsh restoration project and was not placed by the Applicant.

At this time we respectfully request an appointment with the Commissioner to discuss your request for restoration. We are available to attend the March 9th meeting if you have time for a brief discussion.

Thank you in advance for your consideration of this request.

cc: Lee & Elizett Miguel

Attachment: Photographs



②
Nov 20, 2019





Whitney McClees <wmcclees@fairhaven-ma.gov>

86 - 88 Middle Street- Fairhaven

scarvalho farlandcorp.com <scarvalho@farlandcorp.com>
To: Whitney McClees <wmcclees@fairhaven-ma.gov>
Cc: "info@a1crane.com" <info@a1crane.com>

Fri, Feb 28, 2020 at 11:37 AM

Whitney,

As you are aware we are working on the Notice of Intent filing for the above referenced address. Unfortunately we will not be able to submit by the March 1st deadline and respectfully request a 30 day extension. However, the applicant was hoping it would be possible to have a further discussion with the Commission at the March 9, 2020 hearing. Would this be possible?

Please do not hesitate to contact me with any further questions regarding this matter.

Sincerely,

Stevie Carvalho, E.I.T.

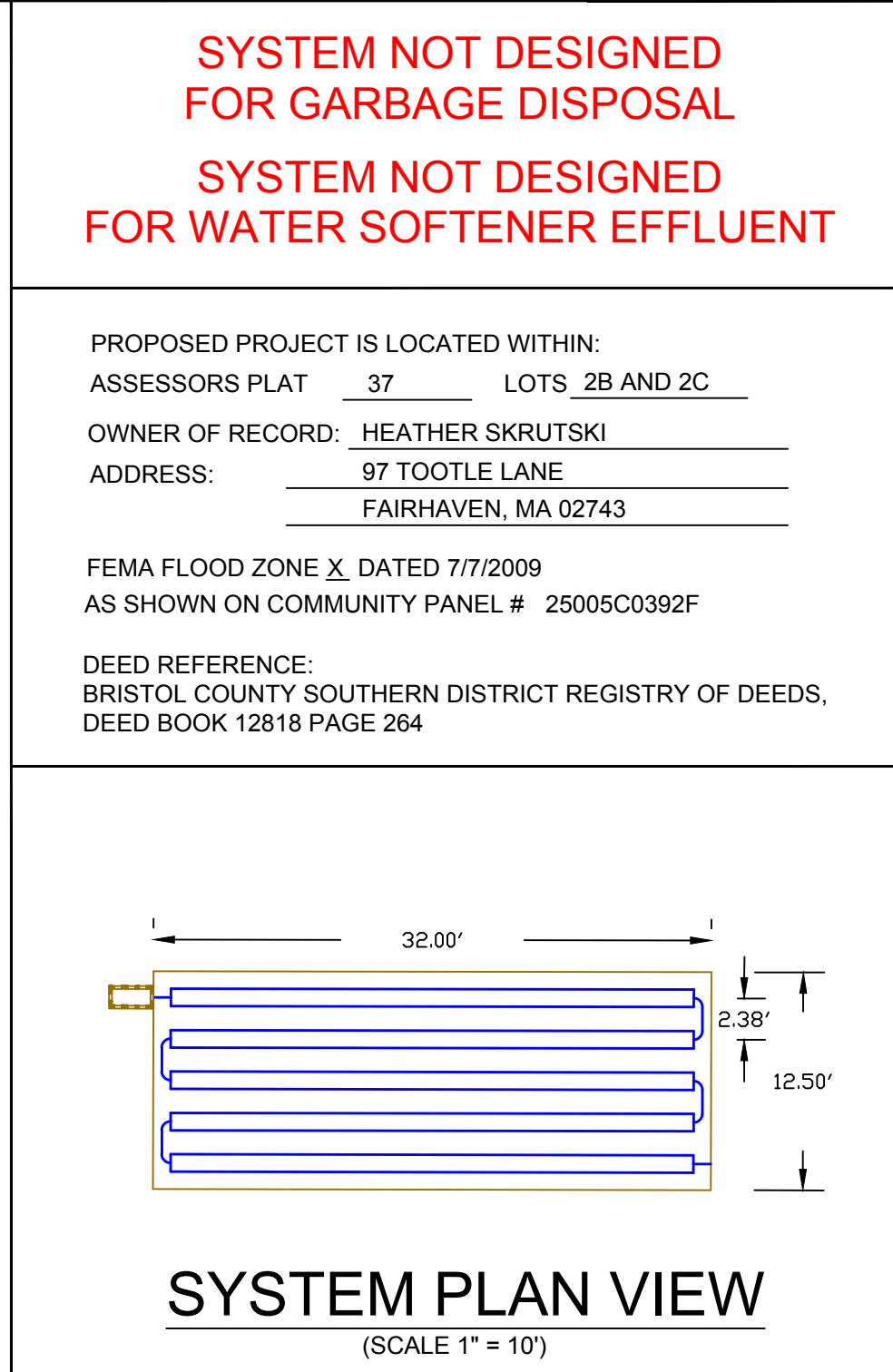
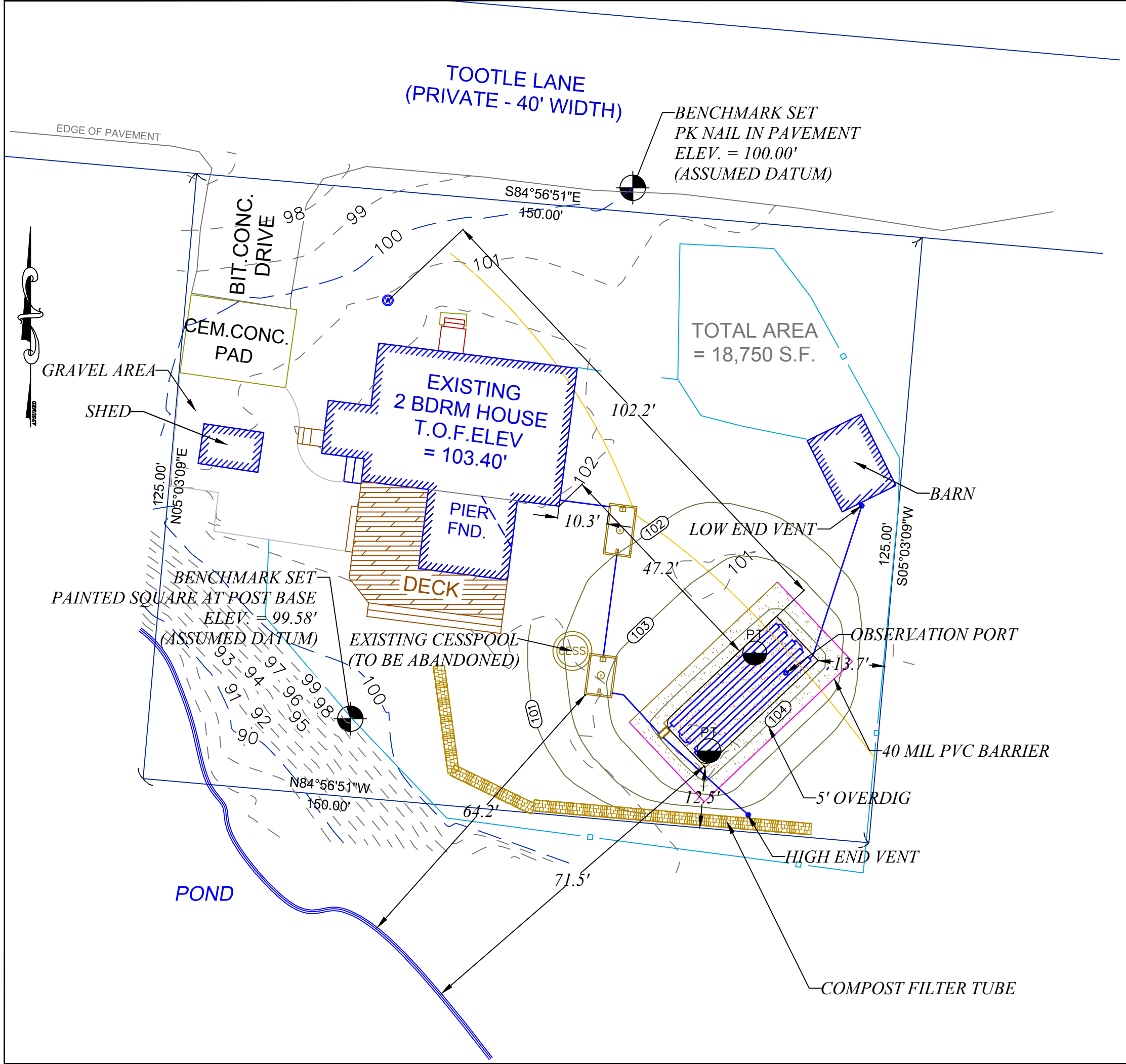
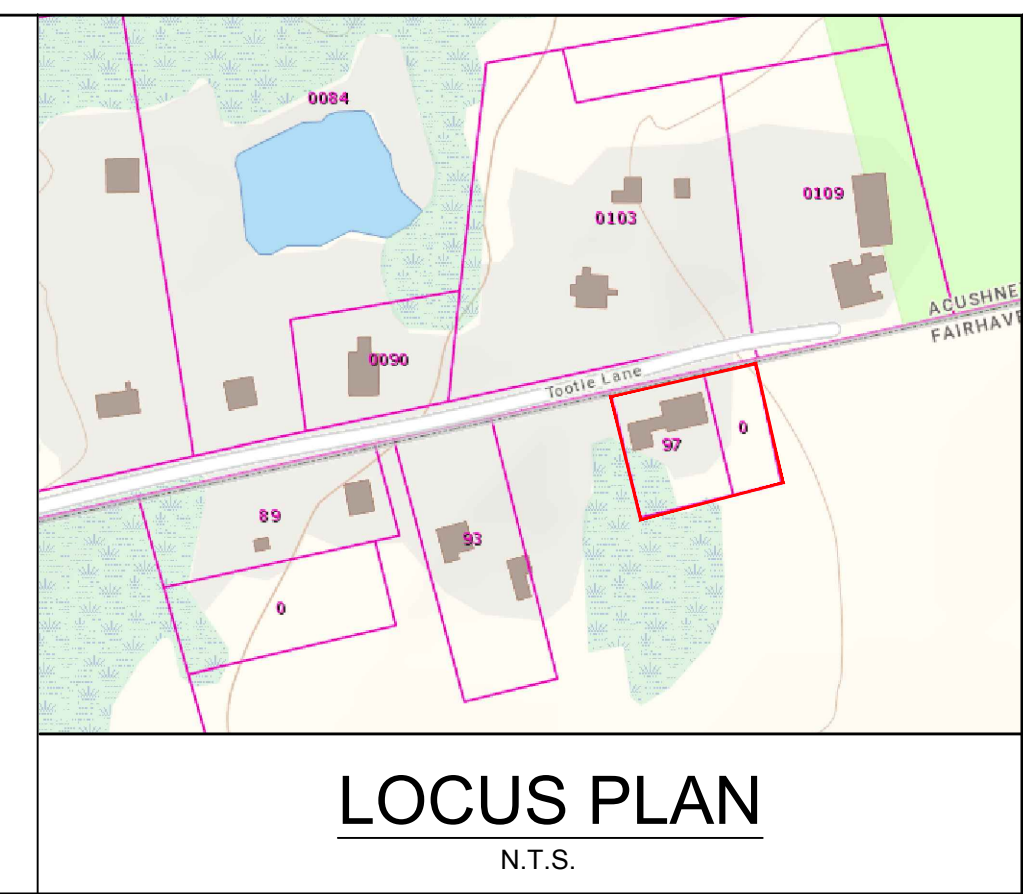
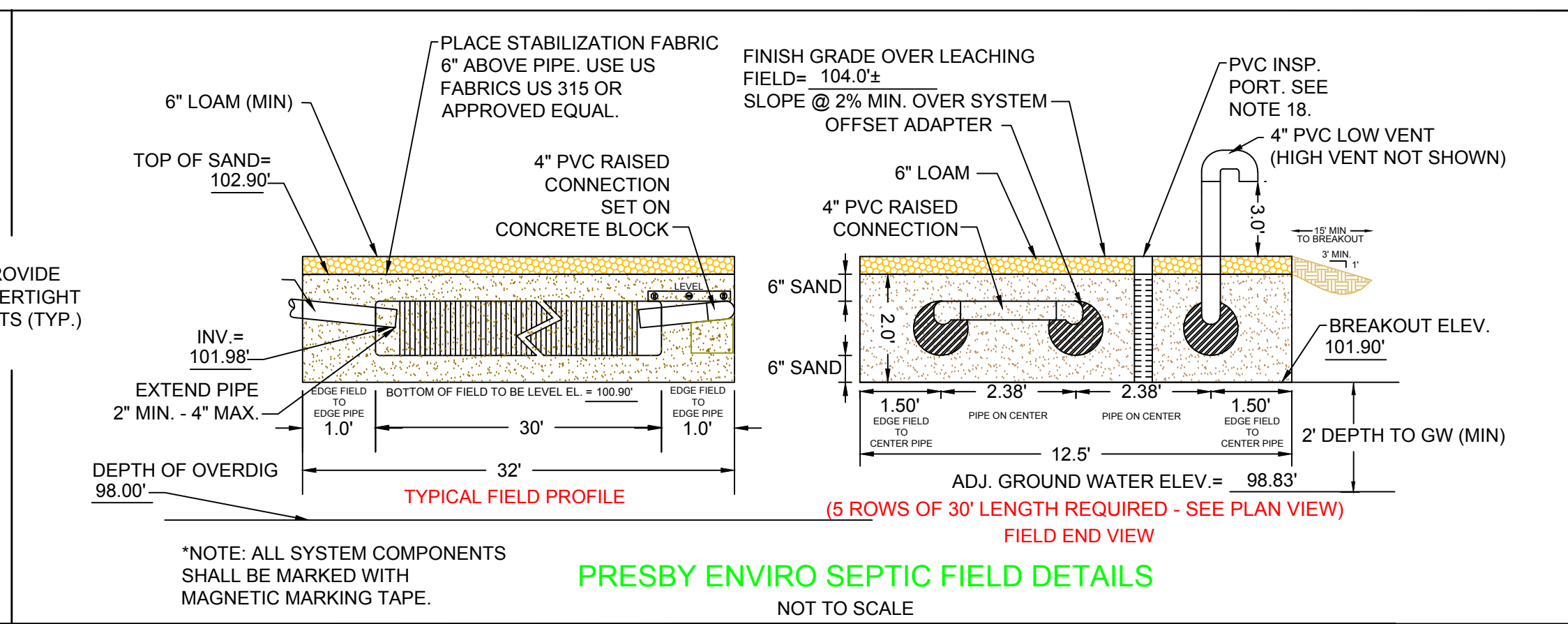
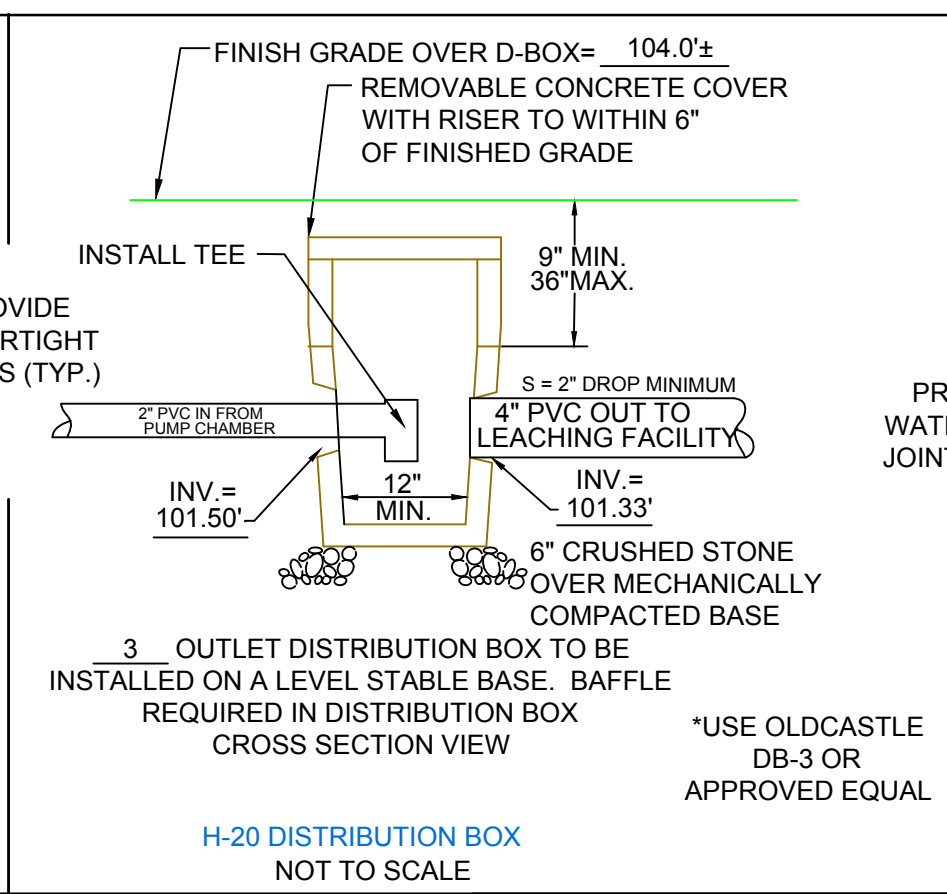
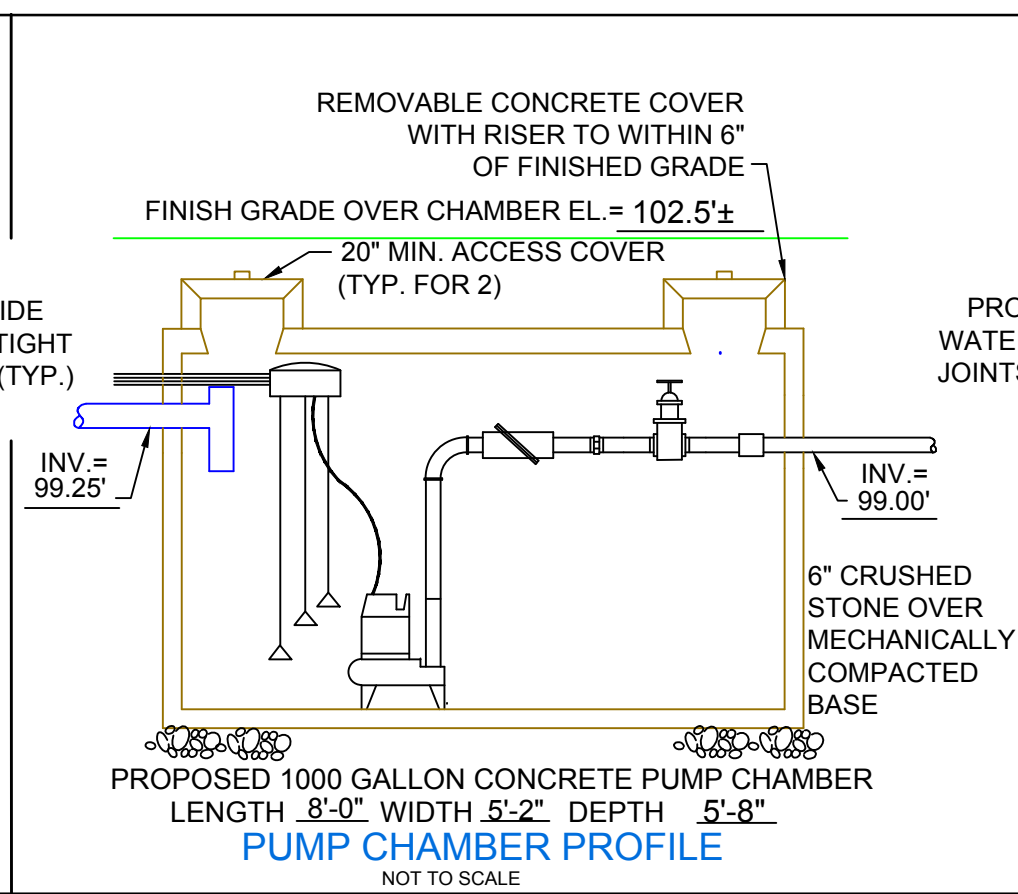
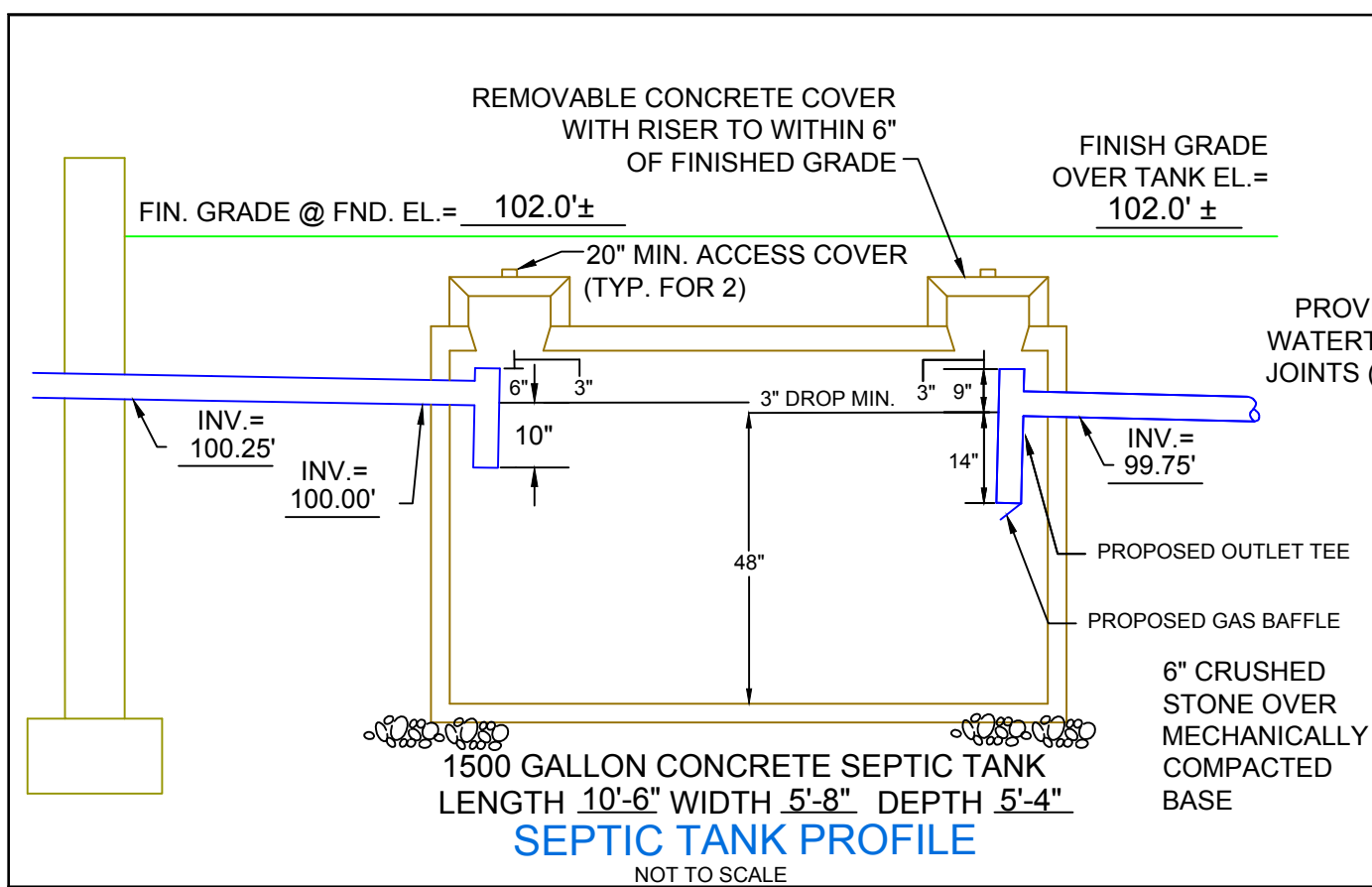
Senior Project Manager

(MAIN OFFICE) 401 COUNTY STREET, NEW BEDFORD, MA 02740 P 508.717.3479 F 508.717.3481

WWW.FARLANDCORP.COM

ADDITIONAL OFFICES IN: TAUNTON • MARLBOROUGH • WARWICK, RI





DESIGN DATA

NUMBER OF BEDROOMS: 2
 DESIGN FLOW: 220 GAL/DAY/BEDROOM
 TOTAL DESIGN FLOW: 220 GAL/DAY

SEPTIC TANK DESIGN FLOW X 200% = 440 GAL. SEPTIC TANK (REQ.)
 INSTALL NEW 1500 GAL SEPTIC TANK

INSTALL 12.5' x 32' FIELD

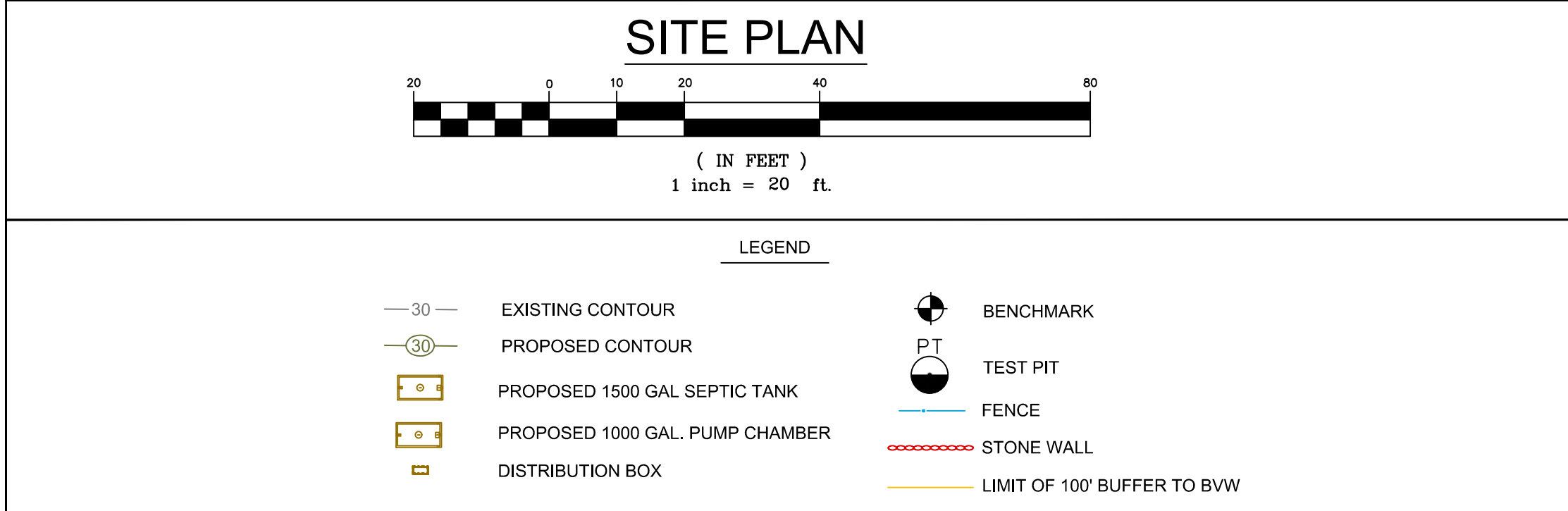
FROM REVISED DEC 2016 PRESBY DESIGN MANUAL:
 PERC RATE = 30 MIN/INCH
 MINIMUM PIPE REQUIREMENT = 130' PROVIDED = 150'
 REQ'D SAND AREA = 400 S.F., USE 2'-4\"/>

TEST PIT DATA

AGENT: Mary Freire-Kellogg, Fairhaven B.O.H.
 EVALUATOR: Shane Sousa, PE
 DATE: 12/19/2019

TEST PIT #	ELEV TOP	ELEV WATER	PERC RATE	DEPTH OF PERC	TEXTURAL CLASS
1	100.83'	98.83'	30 min/inch	48" - 66"	2
2	101.22'	98.55'			2

- GENERAL NOTES**
- UNLESS OTHERWISE NOTED, ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH 310 CMR 11.00 - 17.00 (TITLE V OF THE STATE ENVIRONMENTAL CODE) AND ANY APPLICABLE LOCAL RULES.
 - ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE BOARD OF HEALTH AND THE DESIGN ENGINEER.
 - SCHEDULE 40 PVC PIPE WITH WATER TIGHT JOINTS SHALL BE USED IN DISPOSAL SYSTEM UNLESS OTHERWISE NOTED.
 - TO PREVENT BREAKOUT, THE PROPOSED FINISHED GRADE SHALL NOT BE LESS THAN ELEVATION = 98.00' FOR A DISTANCE OF 15' AROUND THE PERIMETER OF THE SAS. UNLESS A 40 MIL GEOMEMBRANE LINER IS PLACED AT LEAST FIVE FEET FROM S.A.S. AND THE TOP OF THE LINER IS NOT LESS THAN THE BREAKOUT ELEVATION.
 - SLOPE ALL SOLID PIPE AT 1.0% MINIMUM.
 - THIS SYSTEM IS NOT DESIGNED FOR A GARBAGE DISPOSAL.
 - LOCAL BOARD OF HEALTH AND DESIGN ENGINEER TO BE NOTIFIED PRIOR TO BACK FILLING WHEN SYSTEM IS NEARLY COMPLETE AND READY FOR INSPECTION. SYSTEM IS NOT TO BE BACK FILLED WITHOUT FIRST OBTAINING APPROVAL FROM BOARD OF HEALTH AND DESIGN ENGINEER.
 - ELEVATIONS BASED ON ASSUMED DATUM OF 100.00' AT LOCATIONS SHOWN AND DESCRIBED ON PLAN.
 - CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION THROUGH DIG-SAFE AT LEAST 72 HOURS PRIOR TO COMMENCING WORK ON SITE AT 1-888-DIG-SAFE AND ANY OTHER APPLICABLE AGENCIES. REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER.
 - ALL JOINTS WHERE PIPE ENTERS AND EXITS CONCRETE STRUCTURES SHALL BE MADE WATERTIGHT.
 - NO DETERMINATION HAS BEEN MADE AS TO COMPLIANCE WITH DEEDED OR ZONING REGULATIONS. OWNER/APPLICANT IS TO OBTAIN SUCH DETERMINATION FROM APPROPRIATE AUTHORITY.
 - ALL SEPTIC SYSTEM COMPONENTS SHALL WITHSTAND H-10 LOADING UNLESS LOCATED UNDER PAVEMENT, DRIVES OR TRAVELED WAYS IN WHICH CASE THEY SHALL WITHSTAND H-20 LOADING.
 - O&M AGREEMENT IS NOT REQUIRED AS PER TRANSMITTAL # X255470b DATED DECEMBER 29, 2016.
 - CONTRACTOR SHALL REMOVE ALL LOAM, SUBSOIL AND UNSUITABLE MATERIAL IN AREA BENEATH AND FOR A WIDTH OF 5.0 FT. ON ALL SIDES OF LEACHING FACILITY TO ELEVATION 98.00' (40"). ALL UNSUITABLE MATERIAL SHALL BE REPLACED WITH CLEAN COARSE SAND FREE FROM CLAY, FINES OR OTHER UNSUITABLE MATERIAL TO A DEPTH OF 40" IN ACCORDANCE WITH ASTM C-33, MAXIMUM PASSING #200 SIEVE 3%.
 - CONTRACTOR SHALL NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES FOUND IN SITE CONDITIONS FROM THOSE SHOWN PRIOR TO CONTINUATION OF WORK.
 - ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION.
 - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE.
 - PVC INSPECTION PORT TO BE ANCHORED WITH REBAR.
 - PROPERTY LINES BASED UPON EXISTING MONUMENTATION AND BY LINES OF OCCUPATION. NO DEFINITIVE BOUNDARY SURVEY WAS PERFORMED AS PART OF THIS PROJECT.
 - EXISTING CESSPOOL TO BE ABANDONED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF TITLE V AND TOWN OF FAIRHAVEN ABANDONMENT PERMIT CONDITIONS.
 - SEPARATION DISTANCE FROM BOTTOM OF SYSTEM TO GROUNDWATER = 2.0'.
 - ALL CONTOURS ESTABLISHED BY TOTAL STATION RADIAL DATA COLLECTION.
 - SURVEYOR'S CERTIFICATION IS FOR TOPOGRAPHICAL DATA ONLY.
 - CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS INCLUDING SEWER OUTLET TO BE CHECKED AGAINST PROPOSED PLAN. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED.
 - NO KNOWN WELLS WITHIN 150' OF PROPOSED SOIL ABSORPTION SYSTEM EXCEPT AS SHOWN ON PLAN.
 - PVC BARRIER TO BE INSTALLED AS SHOWN ON PLAN, TOP ELEVATION OF BARRIER = 102.90', BOTTOM ELEVATION = 100.90'.
 - DESIGN WILL NECESSITATE A CHANGE IN LOCATION AND ELEVATION OF EXISTING SEWER PIPE AT FOUNDATION AND THUS NECESSITATE PLUMBING PERMIT.



REQUESTED VARIANCES FROM LOCAL APPROVING AUTHORITIES:

- RELIEF FROM TOWN OF FAIRHAVEN LOCAL REGULATIONS § 487-1 ACCEPTABLE DISTANCE BETWEEN A WELL AND A LEACHING FACILITY 150' REQUIRED, 100' PROPOSED.
- RELIEF FROM TOWN OF FAIRHAVEN LOCAL REGULATIONS § 423-19 ACCEPTABLE DISTANCE BETWEEN A LEACHING FACILITY AND A WETLAND 100' REQUIRED, 71.5' PROPOSED.

CONSERVATION NOTES:

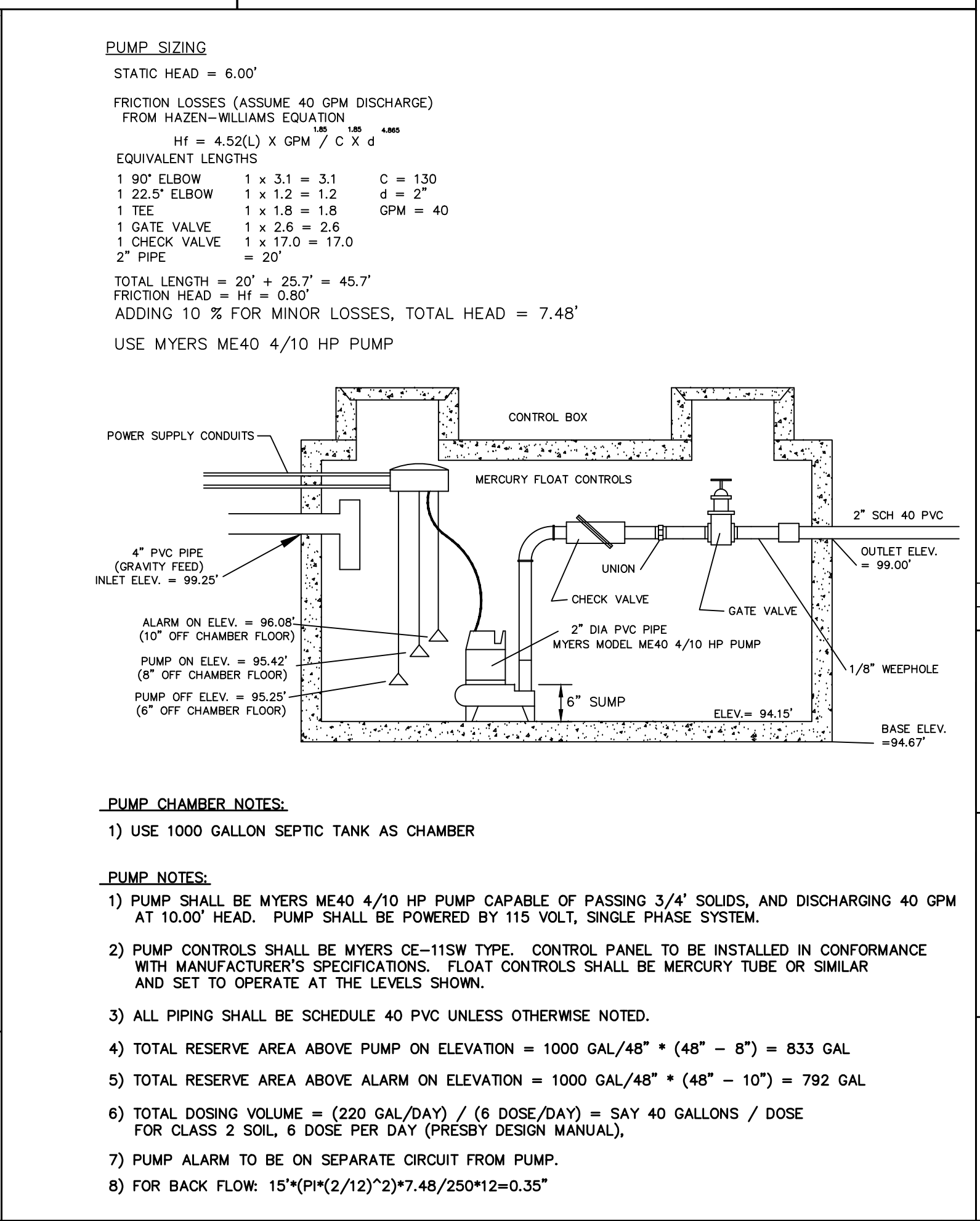
- EDGE OF BVW ESTABLISHED AS BEING EDGE OF WATER. SLOPE IS GREATER THAN 2:1.
- COMPOST FILTER TUBE TO BE STAKED AT 10' INTERVALS AND IS TO BE INSTALLED PRIOR TO ANY EARTHWORK BEGINNING ON SITE.

Project Name: Title V Lab Testing
Project Location: 97 Tootle Lane Fairhaven, MA
Client: Southcoast Engineering
Material Description: Test Pit Sample
Material Source: On Site at Septic

Project Number: 19-0513
Lab ID: 21117
Date Received: 12/23/2020
Date Completed: 1/3/2021
Tested By: RHB

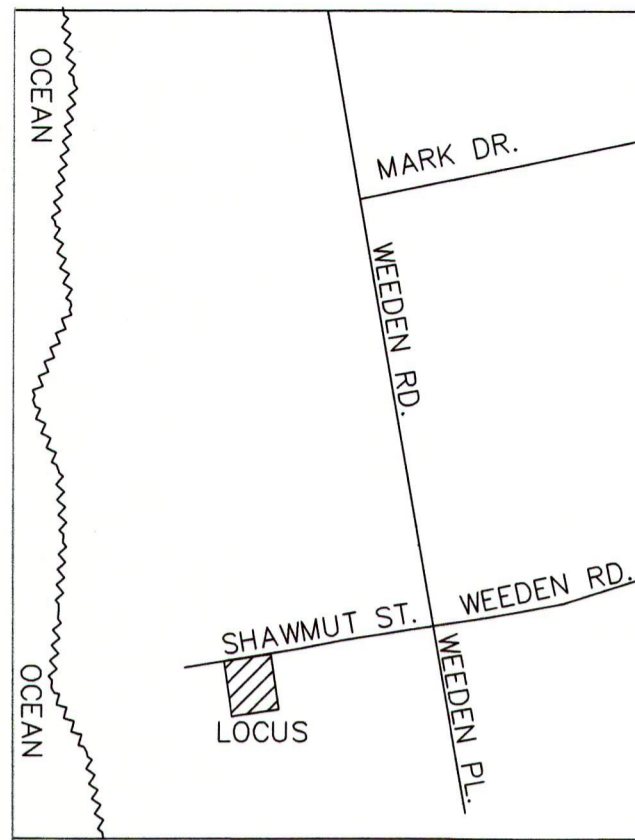
Sieve Analysis			Hydrometer Analysis		
Sieve Size	Standard Designation (mm)	Amount Passing (%)	Particle Size (mm)	Amount (%)	Passing (%)
3"	75	100	0.01734	19.8	
2"	50	100	0.01282	17.6	
1 1/2"	38.1	100	0.00934	11.0	
1"	25	100	0.00665	8.8	
3/4"	19	95	0.00479	5.5	
1/2"	12.5	90	0.00342	3.3	
3/8"	9.5	82			
No. 4	4.75	79			
No. 10	2	71			
No. 20	0.85	58			
No. 40	0.425	46			
No. 60	0.25	37			
No. 140	0.106	24			
No. 270	0.053	20.7			

Particle Distribution: Gravel (3" - No. 4) 20.7%, Sand (No. 4 - No. 200) 58.6%, Fines (0.074 - 0.005) 14.9%, Clay (<0.005) 5.8%

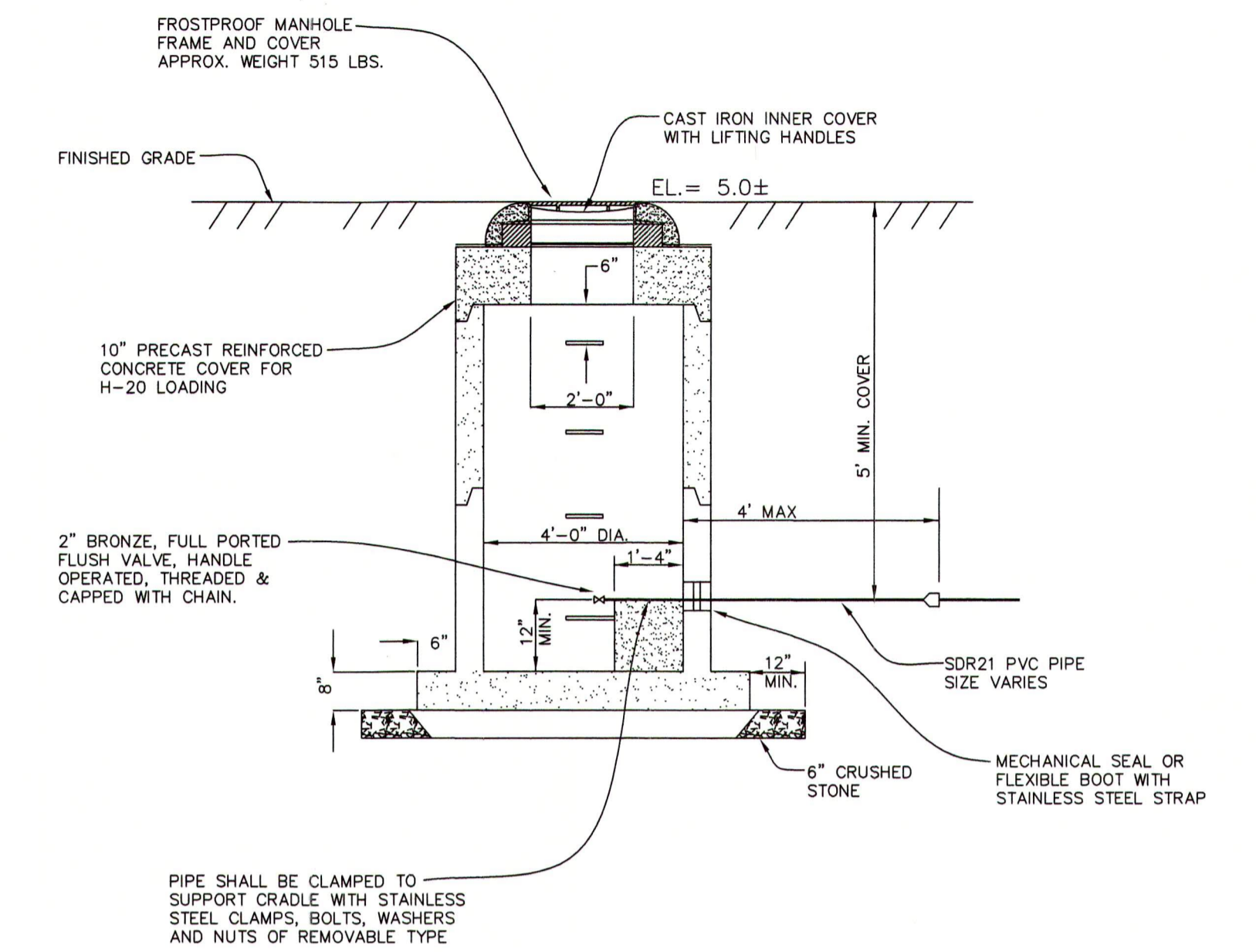
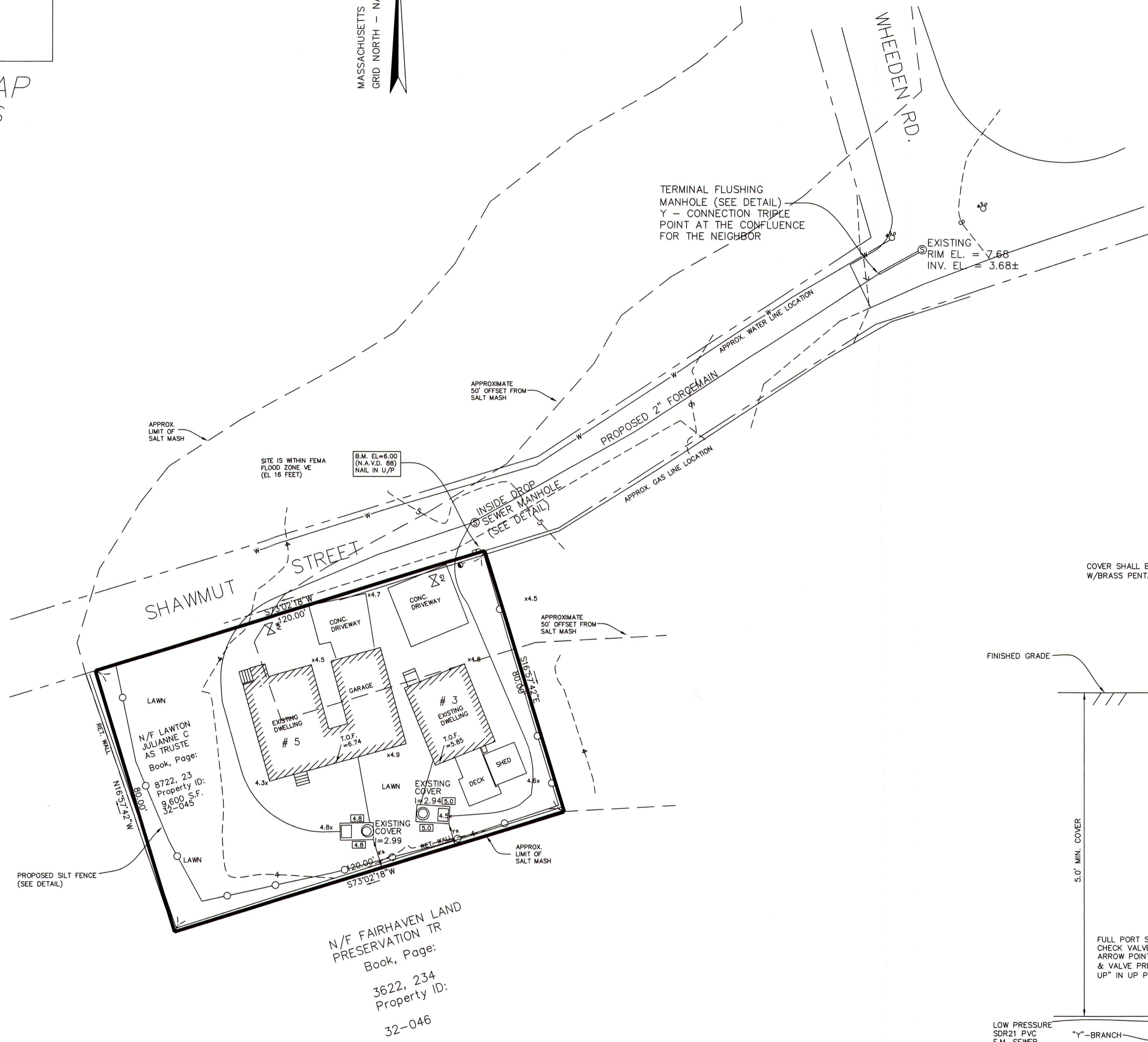
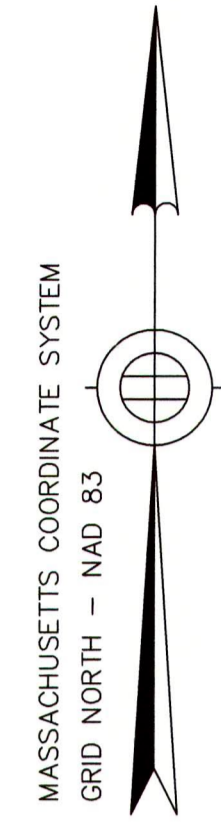


REV.	DATE	BY	APP'D.	DESCRIPTION
BOARD OF HEALTH STAMPS				
SEWAGE REPAIR PLAN				
PUMP/FIELD SYSTEM				
AT:	97 TOOTLE LANE			
FOR:	HEATHER SKRUTSKI			
SOUTHCOAST ENGINEERING				
P.O. BOX N 217 WESTPORT, MA				
SCALE: AS NOTED	(508) 636-8815	DATE: 1/14/2020		
DESIGN:GN	DRAWN BY: GN	REV. 3/5/2020		

PLAN & PROFILE



LOCUS MAP
Scale: NTS

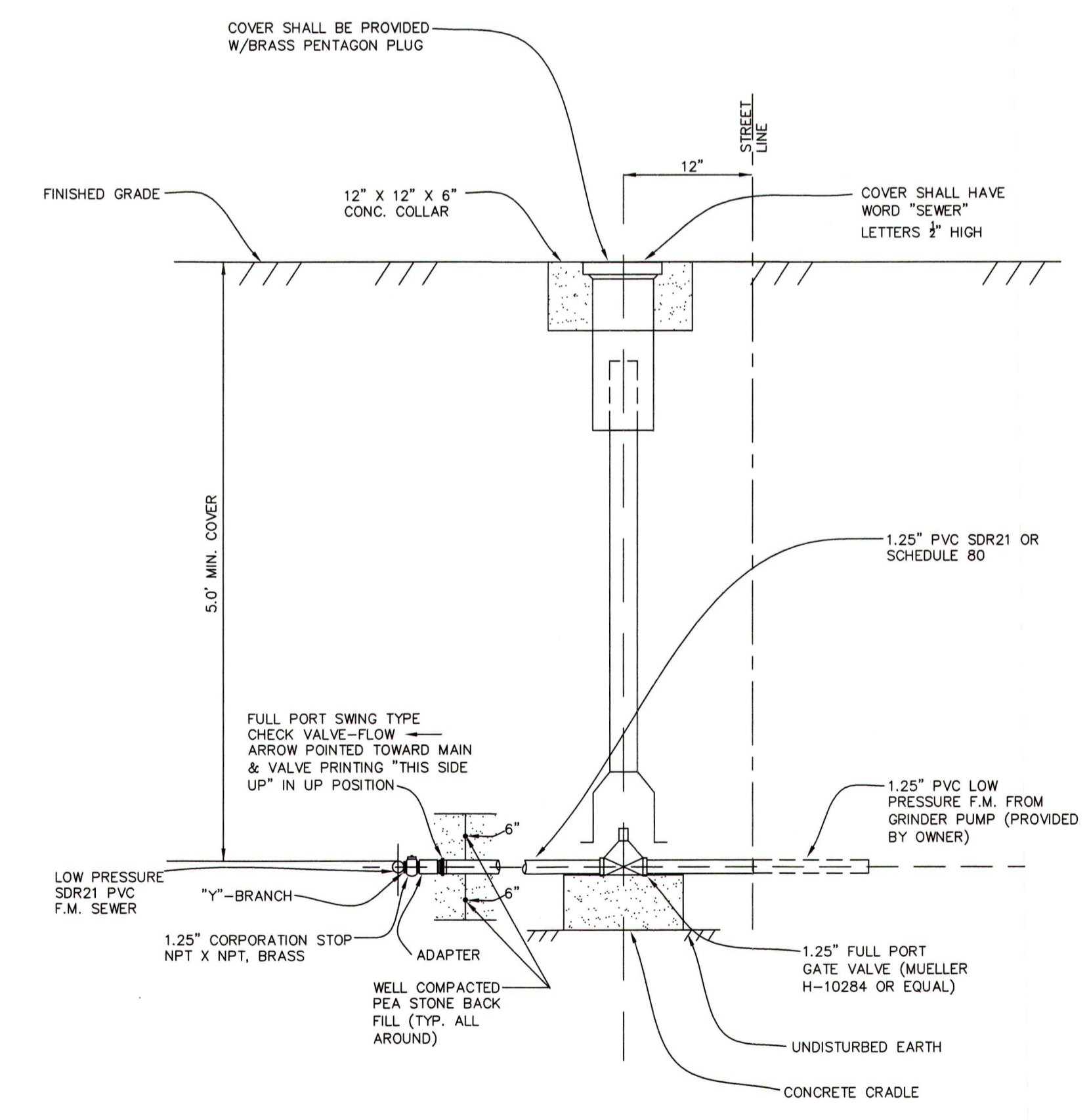


INSIDE DROP SEWER MANHOLE
NOT TO SCALE

LEGEND	
	SW STONE WALL
	TL TREE LINE
	SMH SEWER MANHOLE
	DMH DRAIN MANHOLE
	W WELL
	EC EROSION CONTROL
	PROPOSED CONTOUR
	EXISTING CONTOUR
	CB CATCH BASIN
	BM BENCH MARK
	UP UTILITY POLE
	HYD FIRE HYDRANT
	PRC PERC TEST
	DH DEEP HOLE
	PROPOSED SPOT ELEV.
	EXISTING SPOT ELEV.

NOTES

1. ALL ELEVATIONS REFER TO THE NAIL SET IN A UP, SEE PLAN FOR BENCHMARK LOCATION.
2. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN'S SEWER COMMISSION.
3. ALL TANKS, SHALL BE SET LEVEL AND TRUE TO GRADED ON A MECHANICALLY COMPACTED STABLE BASE.
5. AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED TO MINIMIZE EROSION. THE AREA OVER THE SYSTEM SHALL BE GRADED TO A MINIMUM OF 2% SLOPE TO PROVIDE POSITION SURFACE DRAINAGE.
6. THE ORIGINAL TOPOGRAPHIC SURVEY AND PLAN WERE DONE BY BORDERLAND ENGINEERING.
7. THIS PLAN SHALL NOT BE USED FOR THE REPRODUCTION OF PROPERTY LINES, NOR SHALL IT BE USED AS A MORTGAGE PLOT PLAN OR TITLE SURVEY. CONFORMANCE TO LOCAL BYLAWS SHALL BE DETERMINED BY THE OWNER PRIOR TO CONSTRUCTION.
8. THE OWNER IS RESPONSIBLE FOR THE DETERMINATION OF THE LOCATIONS OF ALL BURIED UTILITIES.
9. ANY ALTERATIONS MUST BE REPORTED TO THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
10. THE SYSTEM MUST BE INSPECTED DURING CONSTRUCTION BY THE SEWER COMMISSION OR ITS AGENT AND THE DESIGN ENGINEER AND BE CERTIFIED BY THE DESIGN ENGINEER.
11. ALL STONE USED IS TO BE DOUBLE WASHED STONE.
12. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
13. THERE ARE NO WELLS WITHIN 100' OF THE SYSTEM.
14. THE EXISTING CESSPOOL STRUCTURES WILL BE PUMPED DRY AND ABANDONED ACCORDING TO TITLE 5 REGULATIONS
20. SLOPES MUST BE STABILIZED POST CONSTRUCTION.
22. THE SYSTEM IS NOT DESIGNED FOR A GARBAGE GRINDER.
23. PLUMBING IN THE BASEMENT WILL BE MADE TO MEET THE PROPOSAL PUMP CHAMBERS.
24. INSTALL RISERS FOR THE INLET AND OUTLET OF THE PUMP CHAMBER FOR EASY ACCESS TO MAINTAIN OR INSPECT THE PUMPS.

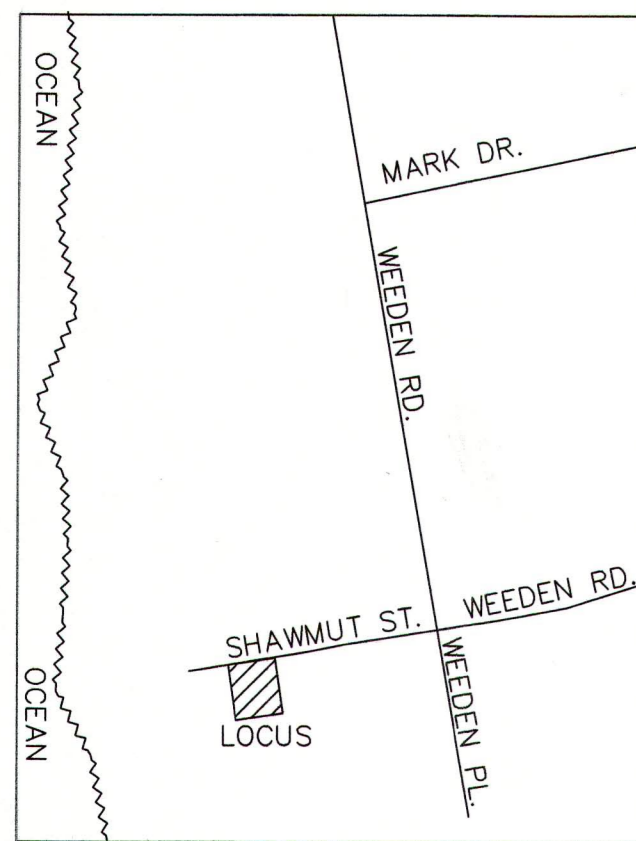


TERMINAL FLUSHING MANHOLE
NOT TO SCALE

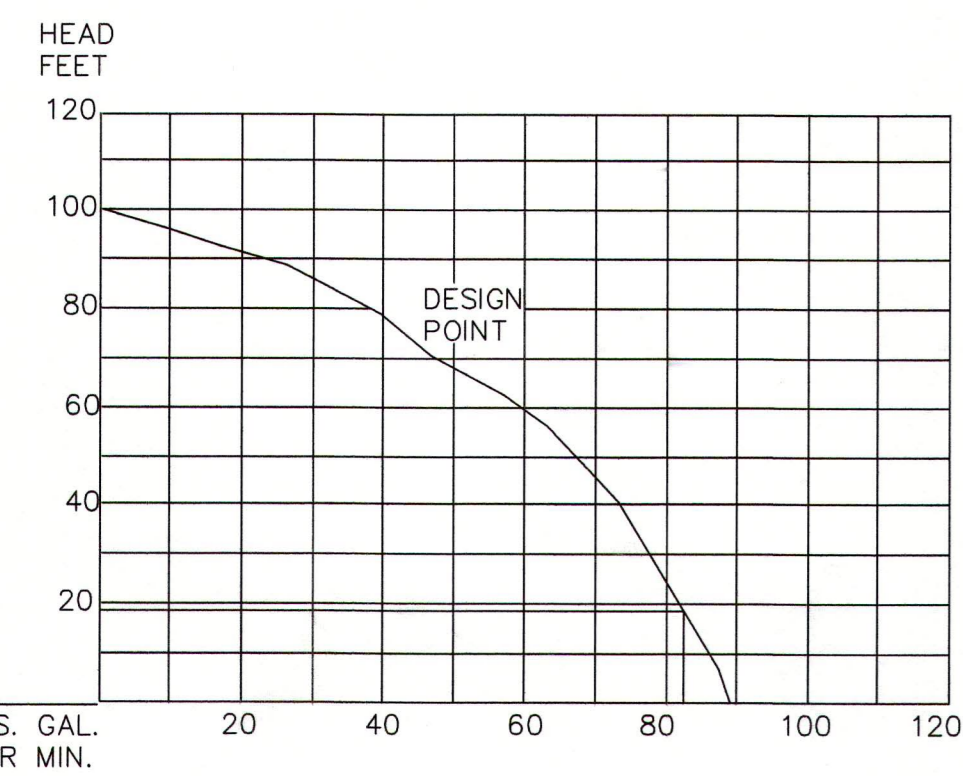
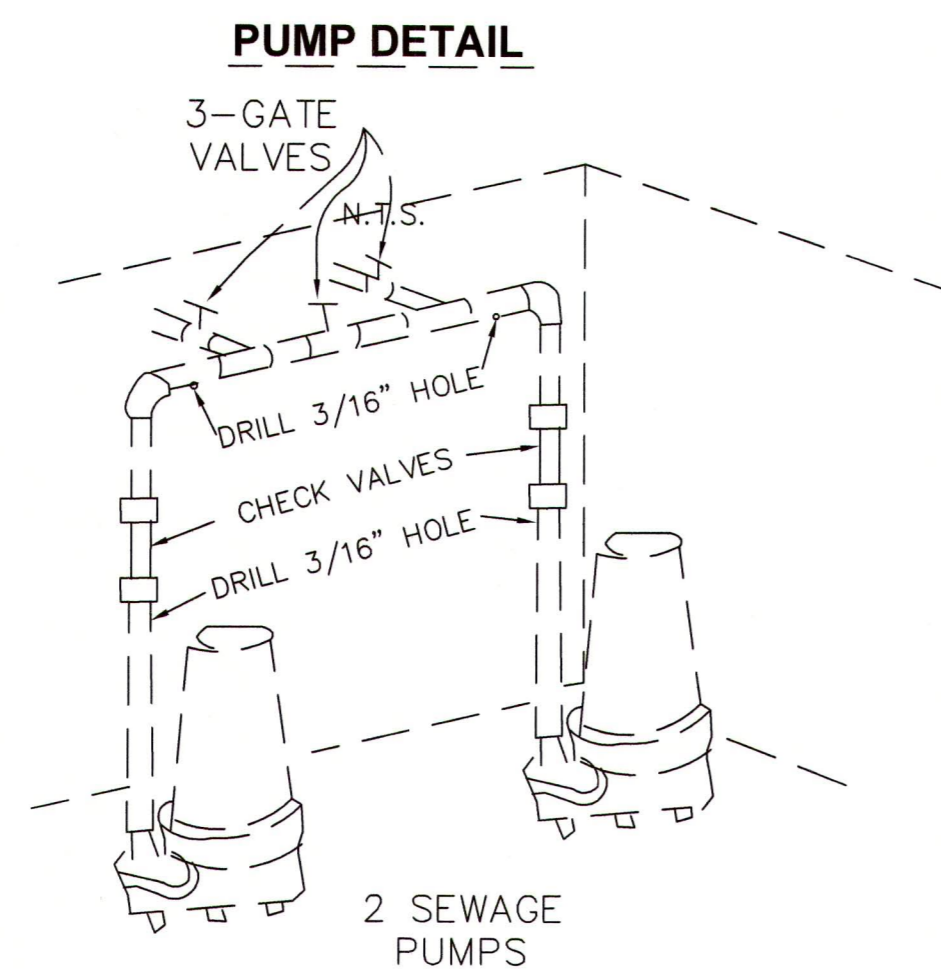
SEPTIC SYSTEM DESIGN PLAN

LAWTON, IRT		LOCATION: 7 SHAWMUT ST. FAIRHAVEN, MA. 02719	
DATE: FEBRUARY 10, 2020	SCALE: 1" = 20'	DESIGNED BY: TCR	
DRAWING NO.:	JOB NO.:	CHECKED BY: JCS	
DATE	REVISION DESCRIPTION	DRAWN	CHK

SCALE: 1" = 20'	DATE: 2/10/2020	PROJECT: SEPTIC SYSTEM DESIGN PLAN	PREPARED FOR: LAWTON, IRT 7 SHAWMUT ST. FAIRHAVEN, MASSACHUSETTS 02719	
	DRAWN/ CHECK: TCR/JCS	SPINK DESIGN 59 CLAY STREET MIDDLEBORO, MASSACHUSETTS 02346-1052 774-766-0544 OR 774-678-9066 jspink1@gmail.com	Designer: JOHN CULVER NO. 3099 REGISTERED PROFESSIONAL ENGINEER	



LOCUS MAP
Scale: NTS



PUMP SYSTEM NOTES AND SPECIFICATIONS

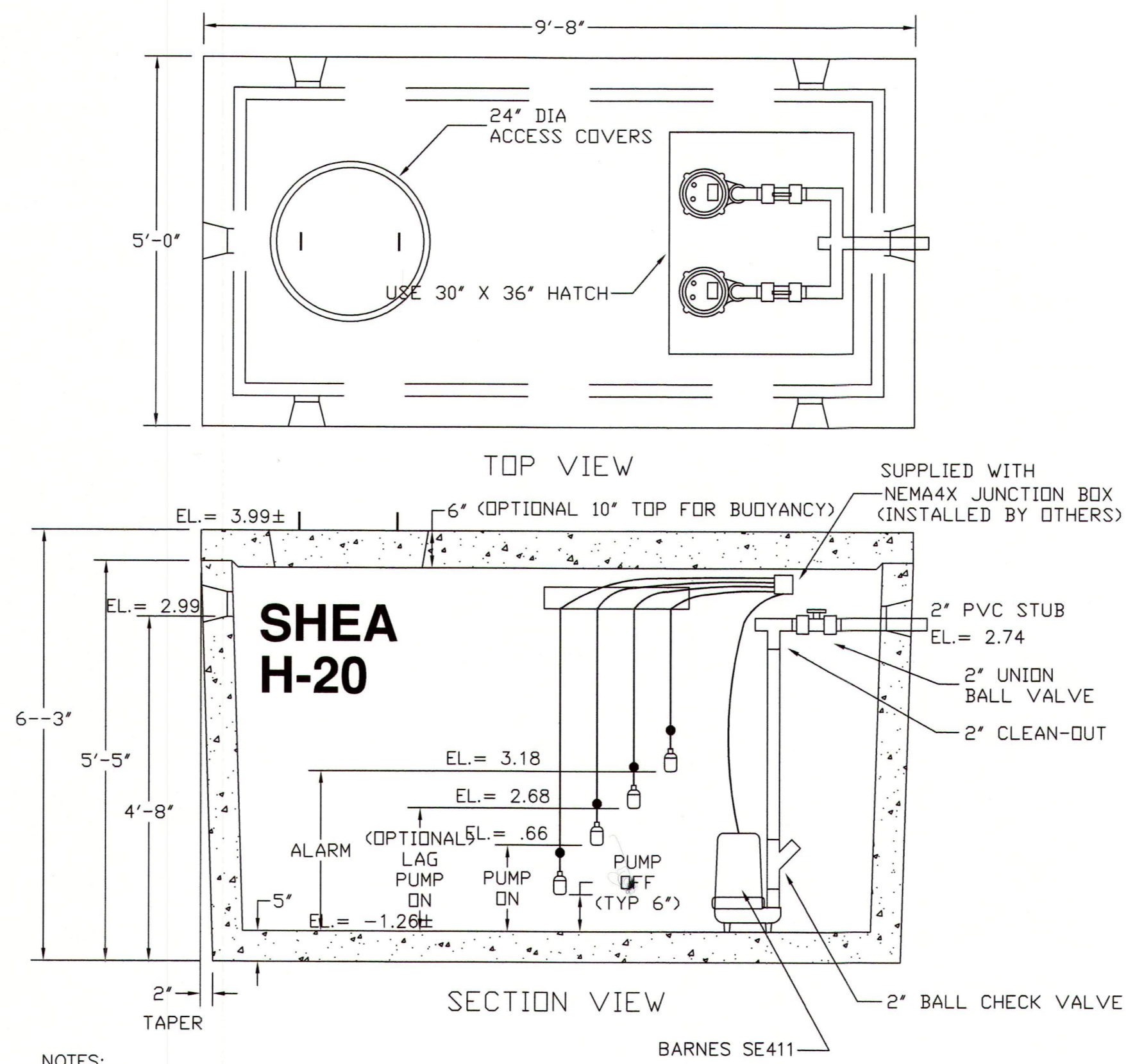
1. PUMP DESIGN INFORMATION
PUMP: BARNES STEP1022SS , SINGLE PHASE, 1.0 HP 5.25" IMPELLER,
2 INCH DISCHARGER. GRINDER PUMP

STATIC HEAD: 9.8'
DYNAMIC HEAD: 9.0'
TOTAL DYNAMIC HEAD: 18.8'
PROPOSED DISCHARGE RATE: 82 GPM ± T.D.H. : 18.8'
PUMP WILL HANDLE 1 1/2" SOLIDS
FLOW VELOCITY: 16 F.P.S. ±

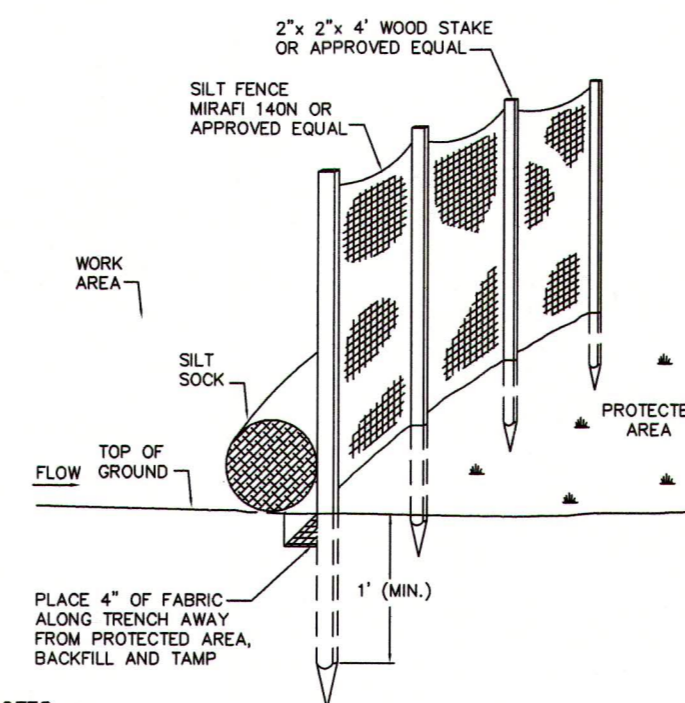
- FLOAT CONTROL ELEVATIONS**
OVERRIDE SWITCH: BOTH PUMPS ON: 2.68
ALARM ON: 3.18
LEAD PUMP ON: .66 BOTH PUMPS OFF: -.76
- PUMP SHALL DELIVER MINIMUM OF 42 GPM AT 18.8 FEET T.D.H.
 - PUMP CHAMBER PROVIDES FOR JUST OVER 1 DAY OF DESIGN FLOW.
 - PUMPS SHALL BE INSTALLED ON STAINLESS STEEL SLIDE RAIL SYSTEM WITH QUICK DISCONNECT FEATURE.
 - PUMP CONTROL SHALL BE PRESSURE ACTIVATED LINEAR CONTROL SWITCH ATTACHED DIRECTLY UNDER ACCESS HATCH.
 - PUMP SYSTEM SHALL BE INSTALLED AND TESTED WITH WATER PRIOR TO FINAL APPROVAL OR DISCHARGE OF SANITARY WASTE.
 - PUMP ALARM SYSTEM SHALL BE ON A SEPARATE CIRCUIT, ISOLATED FROM PUMP ELECTRICAL SYSTEM.
 - EACH CYCLE PUMPS ± 350 GALLONS WASTE WATER
TOTAL RUN PER CYCLE = ± 4.5 MINUTES
CYCLES PER DAY = 1.0±
 - ALL ELECTRICAL COMPONENTS SHALL BE HARD-WIRED TO PANELS. NO JUNCTION BOXES SHALL BE USED.
 - NUMBER OF DOSING CYCLES PER DAY = 1.0±
 - THE ALARM PANEL SHALL BE INSTALLED IN THE GARAGE OR SIMILAR LOCATION.
 - THE DESIGN POINT IS 82 GPM± FOR A TOTAL DYNAMIC HEAD OF 18.8'.

SCALE: NTS	DATE: 2/10/2020	PROJECT: SPINK DESIGN 59 CLAY STREET MIDDLEBORO, MASSACHUSETTS 02346-1052 774-766-0544 jspink1@gmail.com	PREPARED FOR: LAWTON, IRT 7 SHAWMUT ST. FAIRHAVEN, MASSACHUSETTS 02719	
	DESIGNED BY: TOR/JCS	SEPTIC SYSTEM DESIGN PLAN	Designer	

HOUSE #5



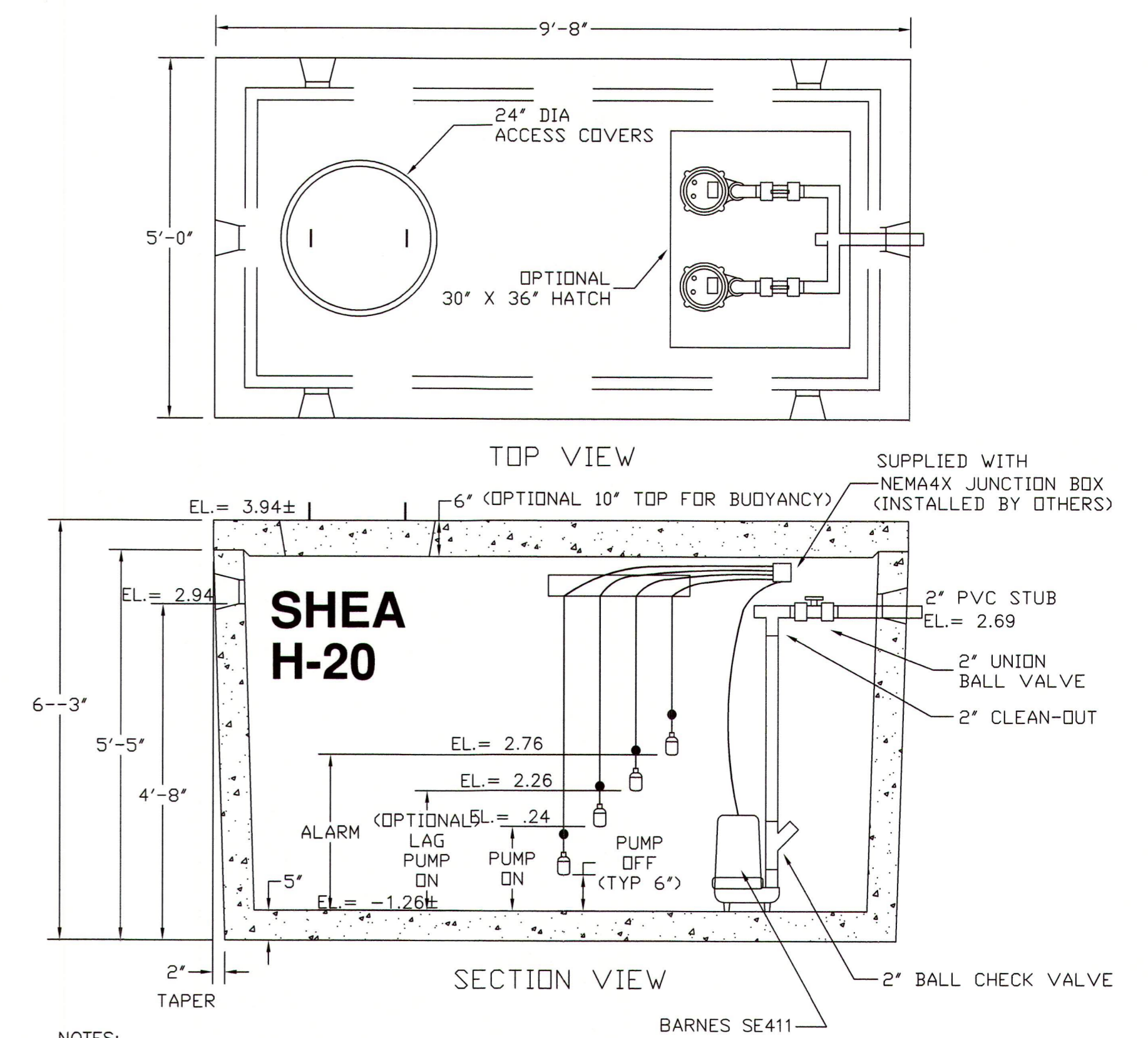
- NOTES:
- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 - CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
 - ALL REINFORCEMENT PER ASTM C1227.
 - JOINT SEALED WITH BUTYL RESIN.
 - DESIGNED FOR H-20 LOADING.
 - PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
 - SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
 - LAG & ALARM FLOATS CAN BE SWAPPED OR COMBINED INTO ONE FLOAT.



- NOTES:
- FILTER CLOTH SHALL BE FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES AND POSTS SHALL BE PLACED EVERY 10 FEET.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
 - ENTRENCH SILT FENCE AT LEAST 6 INCHES.
 - INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED, OR WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT OF FENCING.

EROSION CONTROL SILT FENCE DETAIL N.T.S.

HOUSE #3



- NOTES:
- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 - CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
 - ALL REINFORCEMENT PER ASTM C1227.
 - JOINT SEALED WITH BUTYL RESIN.
 - DESIGNED FOR H-20 LOADING.
 - PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
 - SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
 - LAG & ALARM FLOATS CAN BE SWAPPED OR COMBINED INTO ONE FLOAT.

SEPTIC SYSTEM DESIGN PLAN				
CLIENT: LAWTON, IRT	LOCATION: 7 SHAWMUT ST. FAIRHAVEN, MA. 02719			
DATE: FEBRUARY 10, 2020	SCALE: NTS	DESIGNED BY: TCR		
DRAWING NO.: 2 OF 2	JOB NO:	CHECKED BY: JCS		
#	DATE	REVISION DESCRIPTION	TCR	JCS



Request for Determination of Applicability

Fort Phoenix State Reservation
Fairhaven, MA

Pavement Repairs and Maintenance
Narrative and Plans

February 18, 2020

Table of Contents

Request for Determination of Applicability (WPA Form 1) 1

Project Description..... 2

 Work Description..... 2

 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 work described 3

Resource Area Description 4

 Land Subject to Coastal Storm Flowage..... 4

Figures 5

 Figure 1: Project site and wetland resource areas..... 5

 Figure 2: USGS locus map. 5

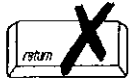


WPA Form 1- Request for Determination of Applicability

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

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:

Jeffrey Parenti, Deputy Chief Engineer, DCR
Name

jeffrey.parenti@mass.gov
E-Mail Address

251 Causeway Street
Mailing Address

Boston MA 02114
City/Town State Zip Code

617-626-1250
Phone Number

Fax Number (if applicable)

2. Representative (if any):

MA Dept. of Conservation & Recreation (DCR)
Firm

Stefanie Farrington stefanie.farrington@mass.gov
Contact Name E-Mail Address

251 Causeway Street, Ste. 600
Mailing Address

Boston MA 02114
City/Town State Zip Code

617-626-1367
Phone Number

Fax Number (if applicable)

B. Determinations

1. I request the Fairhaven 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:

Fairhaven
Name of Municipality

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



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):

1 Old Fort Road/ Fort Phoenix State Reservation courts	Fairhaven
1	City/Town
Assessors Map/Plat Number	01-002
	Parcel/Lot Number

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

Please see attached.

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

Pavement Repairs and Maintenance Narrative and Plans	2/13/20
Title	Date
Title	Date

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

Please see attached.



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).

Please see attached.

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:

Priscilla Geigis, Deputy Commissioner, DCR

Name

251 Causeway Street, Ste. 600

Mailing Address

Boston

City/Town

MA

State

02114

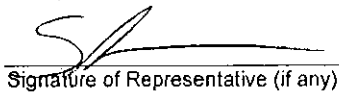
Zip Code

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

2-12-20
Date


Signature of Representative (if any)

02/10/2020
Date

Project Description

Work Description

The Massachusetts Department of Conservation and Recreation (DCR) is proposing to perform in-kind pavement resurfacing of the Fort Phoenix State Reservation courts, Fairhaven, MA. The purpose of this project is to repave areas of deteriorating pavement to support public safety.

Site Preparation:

The existing surface of the area to be paved will be milled out using a cold-planing machine with a smaller ride-on grinding machine. This process involves removing approximately 2 inches of paved surface in order to prepare the surface for paving and remove any deficiencies on the pavement itself. Approximately 2 inches will be paved using asphalt to create a paper joint in order to transition from the cold-planed roadway to the existing pavement. Milling and structure debris will be disposed of offsite. Materials will be stored only in a designated area outside of the resource area and/or buffer zone, and will be encircled by erosion controls and covered with tarps as necessary.

Existing drainage structures, including but not limited to drain catch basins, drain manholes, sewer manholes, gas and water gates/boxes, will be re-aligned to meet the finished paving grade. This process may include adjusting the structures to grade and repairing structures to their original strength and stability. This process may include jackhammering around the structure frame to remove it and repair the structure with brick, block and mortar, then replacing and "collaring" the frame with concrete.

Paving:

A paving machine is used to place the asphalt on the prepared surface and two hydro-static rollers are used for compaction. Asphalt will be placed at a depth of 2-4" and a final grade consistent with the existing condition. A thermoplastic kettle truck and a "mini mac" (a small vehicle) are used to place thermoplastic lines (road striping).

Equipment:

Type	Purpose
Cold-planing machine with a smaller ride-on grinding machine	Milling
Sweeper	Milling and paving
Bobcat	Milling, paving and structure adjustments
Paving machine	Paving
Hydro-static rollers	Paving
Thermoplastic kettle truck	Thermoplastic line placement
"mini mac"	Thermoplastic line placement

Paving vehicles are removed directly after the paving operation. Cold-planing vehicles arrive the day of paving or are stored onsite before construction. The thermoplastic kettle truck and mini mac are driven to and from the construction site. No vehicles will be stored within the resource area or buffer zone, and vehicles will be fueled off-site.

Erosion and Sedimentation Controls:

Straw wattles and silt fencing will be placed at the limit of work adjacent to the resource area/buffer zone, or other areas the Conservation Commission deems appropriate, prior to the start of the project. All erosion and sedimentation controls will be removed upon completion of the project.

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 work described

310 CMR 10.02(2)(b): Any activity other than minor activities identified in 310 CMR 10.02(2)(b)2. proposed or undertaken within 100 feet of an area specified in 310 CMR 10.02(1)(a) (hereinafter called the Buffer Zone) which, in the judgment of the issuing authority, will alter an Area Subject to Protection under M.G.L. c. 131, § 40 is subject to regulation under M.G.L. c. 131, § 40 and requires the filing of a Notice of Intent. (See also 310 CMR 10.05(3)(a)2.). The areas subject to jurisdiction identified in 310 CMR 10.02(1)(b) through (f) do not have a buffer zone.

1. Minor activities, as described in 310 CMR 10.02(2)(b)2., within the buffer zone and outside any areas specified in 310 CMR 10.02(1)(a) through (e) are not otherwise subject to regulation under M.G.L. c. 131, § 40 provided that the work is performed: solely within the buffer zone, as prescribed in 310 CMR 10.02(2)(b)2.a. through q., in a manner so as to reduce the potential for any adverse impacts to the resource area during construction, and with post-construction measures implemented to stabilize any disturbed areas. Factors to consider when measuring the potential for adverse impacts to resource areas include the extent of the work, the proximity to the resource area, the need for erosion controls, and the measures employed to prevent adverse impacts to resource areas during and following the work.

2. The following minor activities, provided that they comply with 310 CMR 10.02(2)(b)1., are not otherwise subject to regulation under M.G.L. c. 131, § 40:

p. Pavement repair, resurfacing, and reclamation of existing roadways within the right-of-way configuration provided that the roadway and shoulders are not widened, no staging or stockpiling of materials, all disturbed road shoulders are stabilized within 72 hours of completion of the resurfacing or reclamation, and no work on the drainage system is performed, other than adjustments and/or repairs to respective structures within the roadway;

Applicability to the Fort Phoenix State Reservation Project:

No activity will occur within any of the resource areas present at the project locus, except for Land Subject to Coastal Storm Flowage (LSCSF). No work apart from pavement repair and resurfacing will occur, and any material staging and vehicles will be located outside of the resource areas and buffer zone(s). No roadways or shoulders will be widened in the course of these repairs.

Resource Area Description

Resource areas and associated buffer zones were not delineated in the field. Land Subject to Coastal Storm Flowage is depicted as identified in the 2017 FEMA National Flood Hazard Layer (NFHL) data layer.

Land Subject to Coastal Storm Flowage

Definition

Land Subject to Coastal Storm Flowage means land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater (310 CMR 10.04).

WPA Performance Standards (for Land Subject to Coastal Storm Flowage are not included in the WPA Regulations – accordingly, the performance standards for Bordering Land Subject to Flooding are inserted here (310 CMR 10.57(4)(a)):

1. Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows. Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.
2. Work within Bordering Land Subject to Flooding, including that work required to provide the above-specified compensatory storage, shall not restrict flows so as to cause an increase in flood stage or velocity.
3. Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.

Applicability to the Fort Phoenix State Reservation Project:

There will be no loss of flood storage volume due to this project, nor will flows be restricted, as all court repairs will occur in-kind. There are no areas significant to the protection of wildlife habitat (NHESP Estimated Habitats of Rare Wildlife) at the project site.

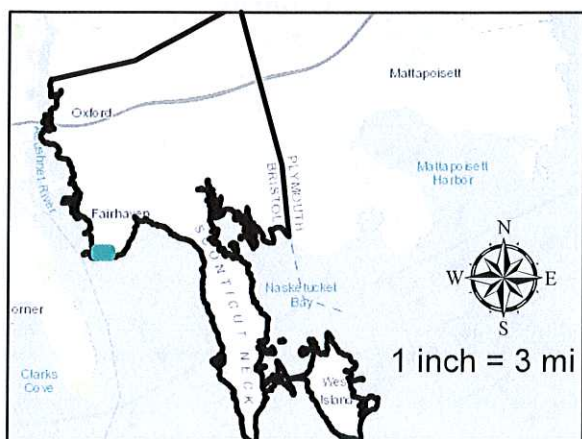
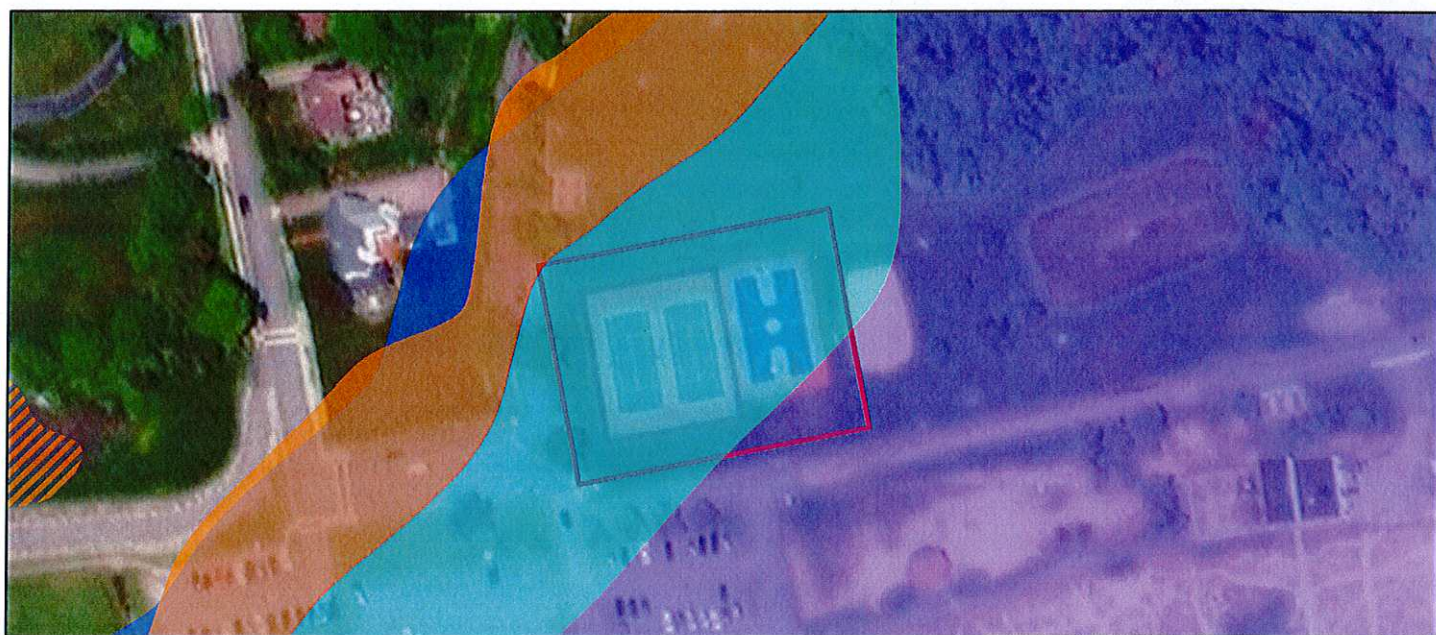
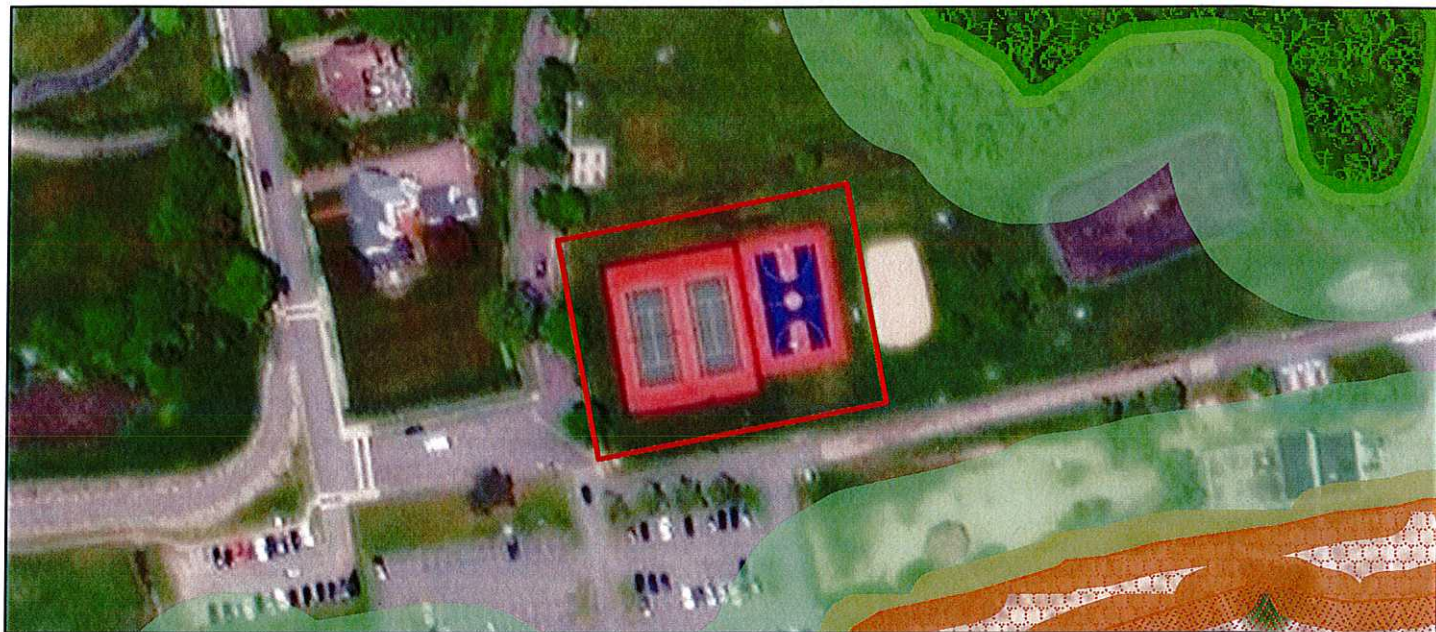
Figures

Figure 1: Project site and wetland resource areas.

Figure 2: USGS locus map.

Figure 1

Paving Improvements Fort Phoenix State Reservation, Fairhaven, MA



Key

100-ft Buffer Zone	MassDEP Wetlands (2005)	COASTAL DUNE
	COASTAL BEACH	WOODED SWAMP DECIDUOUS



FEMA NFHL Flood Zone Designations

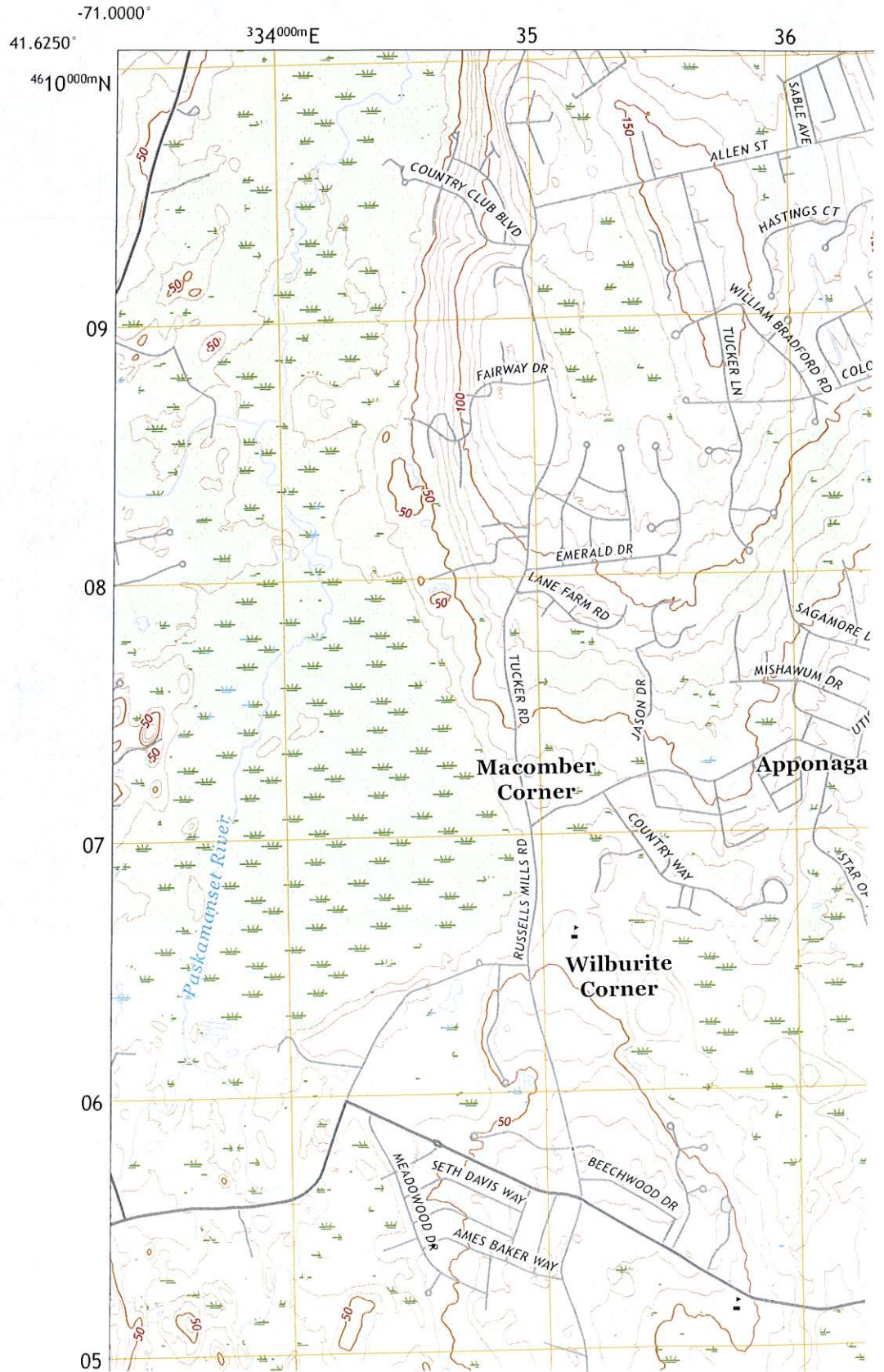
AE: 1% Annual Chance of Flooding, with BFE	VE: High Risk Coastal Area	Land Sub. to Flooding 100-ft Buffer Zone (Fairhaven)
	X: 0.2% Annual Chance of Flooding	
	X: Reduced Flood Risk due to Levee	

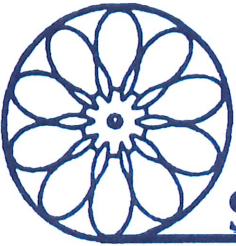
1 inch = 150 feet





U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY





March 4, 2020

Mr. Jay Simmons, Chairman
Commissioners
Fairhaven Conservation Commission
Town Hall
40 Center Street
Fairhaven, MA 02719

RE: Letter of Findings, Site Assessment, 44 Torrington Road, Fairhaven, Mr. Jack Fournier, Wetland Violation/Enforcement Order, Map 29B, Parcel 246

Dear Mr. Simmons & Commissioners:

On February 18, 2020, Sabatia, Inc. conducted a site assessment with Ms. Whitney McClees (Conservation Agent) and Mr. Peter Therrien, Project Engineer (Field Engineering Co. Inc.) of unpermitted work at 44 Torrington Road. The purpose of the site assessment was to evaluate the extent of the unpermitted work subject to the jurisdiction of MGL Chapter 131, section 40 (The Massachusetts Wetlands Protection Act) and its regulations at 310 CMR 10.00 et seq. and the Town of Fairhaven Wetlands Protection Bylaw (Chapter 192) and to develop a Wetland Restoration Plan (WRP) for the impacted area.

1.0 Wetland Resource Areas:

The site assessment revealed that a bordering vegetated wetland (BVW-310 CMR 10.55)/wooded swamp extends landward and covers a portion of 44 Torrington Road. Seaward and off-site are a mapped freshwater marsh (310 CMR 10.55) which borders a barrier beach (310 CMR 10.29). Only a portion of the wooded swamp was impacted from the unpermitted work. The area is likely also land subject to coastal storm flowage {310 CMR 10.02 (1d)}/coastal flood zone.

2.0 Plan of Record (POR):

The original Plan of Record (POR) entitled “*Stonewall Relocation Plan, Lot 246-270 Map 29B, Waybridge Road, Fairhaven, MA prepared for Jack & Lorraine Fournier*”, dated September 2, 1997, with a scale of 1” = 30’, was prepared by N. Douglas Schneider & Associates. This POR depicts a delineated wetland boundary on the parcel wetland flags (WF-1 to WF-7 just below the proposed “relocated stonewall”).

The new Plan of Record (nPOR) is titled “*Site Plan, Proposed Wetland Restoration, Jack Fournier, 44 Torrington Road, Fairhaven, Massachusetts*”, dated 3/7/2020 and has a scale of 1” = 10’. This plan depicts the 1997 “wetland boundary”, WF-1 to WF-7, and the area of the unpermitted work labelled as “area of tree cutting” and calculated to be approximately 1,800 SF. This nPOR was prepared in response to the Enforcement Order (EO 023-010) issued in late 2019 or early 2020. The violation was first notice by the FCC on October 8, 2019. The EO requires submittal of a Wetland Restoration Plan by March 9, 2020.

3.0 Unauthorized Cutting of Trees/Shrubs as addressed in the Enforcement Order:

The site assessment (2-18-2020) revealed that 21 trees had been cut within the “area of tree cutting” as noted on the nPOR prepared by Field Engineering Co. Inc. These trees ranged in the 9”-20” diameter at cut height (near the ground). Most of the cut trees were black gum tupelo (*Nyssa sylvatica*), several red maples (*Acer rubrum*), several white oaks (*Quercus alba*) and 1 red oak (*Quercus rubra*). Understory shrub vegetation was NOT cut. No tree stumps have been “pulled” and thus minimal disturbance to the soil surface has occurred.

This violation did not include the placement of new fill and/or in any excavation of the BVW or buffer zone (1800 SF).

4.0 Wetland Restoration Plan (WRP):

4.1 Tree and shrub replacements:

Based on the guidance on plant spacing in the *Massachusetts Inland Wetland Replication Guidelines*, DEP 2002, an area of 1800 SF could theoretically accommodate 18 tree saplings planted at 10’ on center (o.c.) or 8 tree saplings planted at 15’ o.c. If the 21 cut tree stumps are left in the ground the actual spacing will be unable to follow the DEP recommendation of 10’-15’ o.c. Field Engineering Co. Inc. has depicted on the nPOR proposed locations of tree saplings. The actual placement of the tree saplings will need to be discussed further with the FCC. It is planned to plant 21 tree saplings as noted on the nPOR. The nPOR also depicts the stump locations of the 21 trees that were cut.

It is important for the FCC to realize that the replacement tree species will be saplings & not mature trees. These tree saplings would have a height of 8’ to 10’. Mature tree species would not survive the stress of transplantation especially in a coastal setting with the added stress from salt spray.

Although the shrub layer was minimally impacted from the tree cutting, the 1800 SF impact area could accommodate some shrubs @ 8-10’ o.c. However, the fact that cut tree stumps will not be removed would limit the actual number of shrubs.

4.2 Suitable Tree Saplings:

Tree saplings should be planted according to the nPOR prepared by Field Engineering Co. Inc. and/or at the discretion of the FCC. Each tree should be no smaller than 8'-10' in height and approximately 3" caliper. It is proposed to plant 7 saplings of each species.

Common Name	Scientific Name	USFWS Wetland Indicator Status
Red maple	<i>Acer rubrum</i>	FAC
Black gum tupelo	<i>Nyssa sylvatica</i>	FAC
Yellow birch	<i>Betula alleghaniensis</i>	FAC

4.3 Suitable Woody Shrubs:

Woody shrubs should be planted according to the nPOR prepared by Field Engineering Co. Inc. and/or at the discretion of the FCC. Each shrub should be no smaller than 3-4' in height

Common Name	Scientific Name	USFWS Wetland Indicator Status
High bush blueberry	<i>Vaccinium corymbosum</i>	FACW-
Sweet pepperbush	<i>Clethra alnifolia</i>	FAC+
Inkberry	<i>Ilex glabra</i>	FAC+
Bayberry	<i>Myrica pensylvanica</i>	FAC

4.4 Existing Conditions within the 1800 SF Impact Area:

Despite the 1997 wetland delineation identifying the area seaward of the “relocated wall” as wetland (WF-1 to WF-7), some of this area within 20-30' seaward of the wall is not wetland. This is supported by the DEP Wetland Change Map that depicts some of this area landward of the mapped wooded swamp (WS1) as upland and the on-line Soil Map which indicates this area to be underlain by an upland soil (mapped 305B).

During the site assessment (2/18/20), I observed that this upper area 20-30' seaward of the stone wall appeared to be old fill material. As one moves seaward (about 30-40') from the wall the fill tapers to the natural wetland grade. At this point the vegetative community is predominantly wetland with wetland ferns {sensitive fern (*Onoclea sensibilis*) & cinnamon fern (*Osmunda cinnamomea*)} and soft rush (*Juncus effusus*) occupying the ground layer. These are absent from the ground layer in the area 20-30' seaward of the stone wall.

While most of the cut trees were wetland species (black gum tupelo & red maple), the understory (shrubs/vines) in this area (1800 SF altered area) are primarily invasive and non-native species: bittersweet vine (*Celastrus scandens*), multiflora rose (*Rosa multiflora*), Japanese knotweed (*Polygonum cuspidatum*) and common privet (*Ligustrum vulgare*). There are very few wetland shrub species in the area 20-30' seaward of the stone wall. I would highly recommend the removal of most of the invasive species prior to implementation of the Wetland Restoration Plan (WRP) and a backhoe would be recommended.

The tree stumps should remain to lessen soil disturbance and to allow production of manageable stump sprouts, which can be managed during the monitoring period by selecting 1-2 "terminal buds" per stump and pruning out the rest. This would likely ensure that most of the 21 tree species that were cut will regenerate functioning healthy saplings and eventually trees.

Prior to removing the invasive species, all cut trees, branches and other brush/slash should be removed from the altered area (1800 SF). The use of heavy equipment in the filled area will not further destroy or disturb the wetland but would facilitate cut tree/branch removal and allow this project to move forward faster.

The removal of the cut trees/brush should occur in March or very early April 2020. Once the invasive species are removed, the planting of saplings & shrubs can occur.

I would highly recommend that this be done prior to May 31, 2020 (not June 30, 2020). A late June planting is not recommended as the July-August period can be brutally hot and dry. Heat stress is one of the greatest causes of transplanted plant death. One other recommendation is that the WRA will need to be frequently watered during the summer of 2020. The FCC might wish to require some type of sprinkler system be installed just seaward of the wall to permit timed watering.

4.5 Monitoring and Compliance:

The Wetland Restoration Plan (WRP) will need to comply with 310 CMR 10.55 (4)(b) (1-6) which necessitates monitoring over at least a two-year period to achieve at least a 75% surface replacement within two growing seasons. Assuming the WRP is implemented on or before June 30, 2020 it shall be monitored through June 20, 2022 prior to requesting the FCC to rule on compliance.

Monitoring should include written correspondence to the FCC indicating the progress of the WRP. This should be done twice per year, late spring & late fall. Invasive species should be pruned to the ground during each monitoring visit. Pictures should be submitted with the written documentation.

4.6 Wetland Restoration Area Monitoring Implementation Schedule:

March 2020	Submit the initial Wetland Restoration Plan (WRP) to the Fairhaven Conservation Commission (FCC) for its review on March 9, 2020. Attend the FCC public meeting on March 23, 2020 to present the WRP and to answer questions from commissioners/public.
April 2020	All cut trees/brush/slash to be removed from the altered 1800 SF area followed by the removal of the invasive species. Area to be inspected by the wetland scientist. FCC and/or its Conservation Agent inspects the area prior to implementation of the planting plan.
May 2020	The planting within the altered 1800 SF area (WRA) should be completed no later than May 31, 2020, earlier if possible. The planted WRA will be inspected by the wetland scientist & the Conservation Agent after the plantings have been installed.
June 2020	Prior to June 30, 2020 the wetland scientist will conduct a site assessment and provide the FCC with an Email report.
Fall 2020	On or about October 31, 2020, the wetland scientist will conduct a fall assessment. Any plants that have not survived the transplantation process and/or the summer heat stress will need to be replaced at this time. A Letter of Findings with pictures will be submitted to the FCC.
Spring 2021	Wetland scientist conducts the 2021 spring assessment on or about April 30, 2021. Plants that have not survived must be replanted at this time. A Letter of Findings with pictures will be submitted to the FCC. <i>This will represent year one of the monitoring.</i>
Fall 2021	Wetland scientist conducts the 2021 fall assessment on or about October 31, 2020. Plants that have not survived must be replanted at this time. A Letter of Findings with pictures will be submitted to the FCC.

Spring 2022	Wetland scientist conducts the 2022 spring assessment on or about April 30, 2022. Plants that have not survived must be replanted at this time. A Letter of Findings with pictures will be submitted to the FCC. <i>This will represent year two of the monitoring. At this time, the property owner will request the FCC to determine if compliance with 310 CMR 10.55 (4)(b) (1, 2 & 6) have been complied with. If FCC concurs then the monitoring will be terminated.</i>
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5.0 Final Comments:

Mr. and Mrs. Fournier pledge to work with the FCC to remediate the problems identified in the Enforcement Order (EO). They intend to comply fully with the EO. Please consider this a fluid “working document” for discussion at the FCC meeting of March 9, 2020.

I am available to conduct an on-site with members of the Commission and/or you. Please feel free to contact me at 1-508-563-5349 or by email at sabatia@comcast.net.

Sincerely yours,
 Robert M. Gray, PWS, RS, SE
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