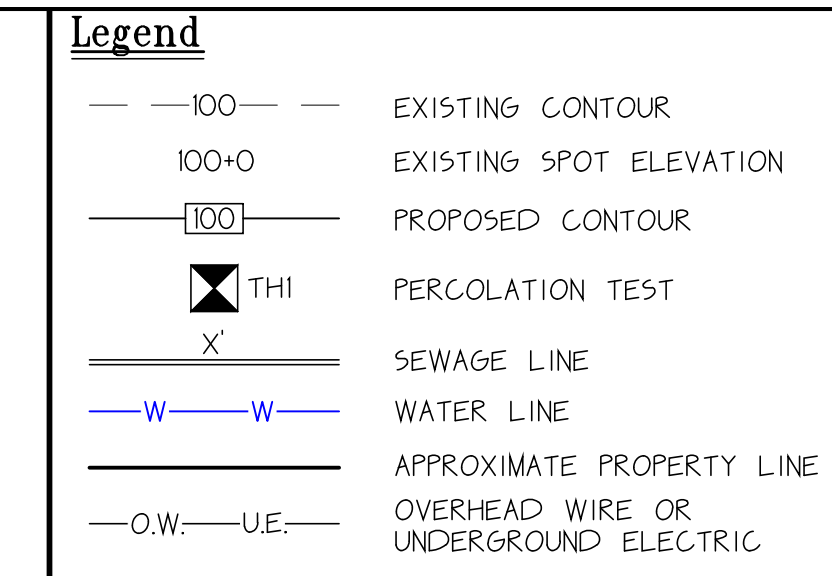


Plan of Land
 SCALE: 1"=30'
 MAP NO.: 38
 PARCEL NO.: 71
 AREA: 138,748 SF.

SOILS LOG

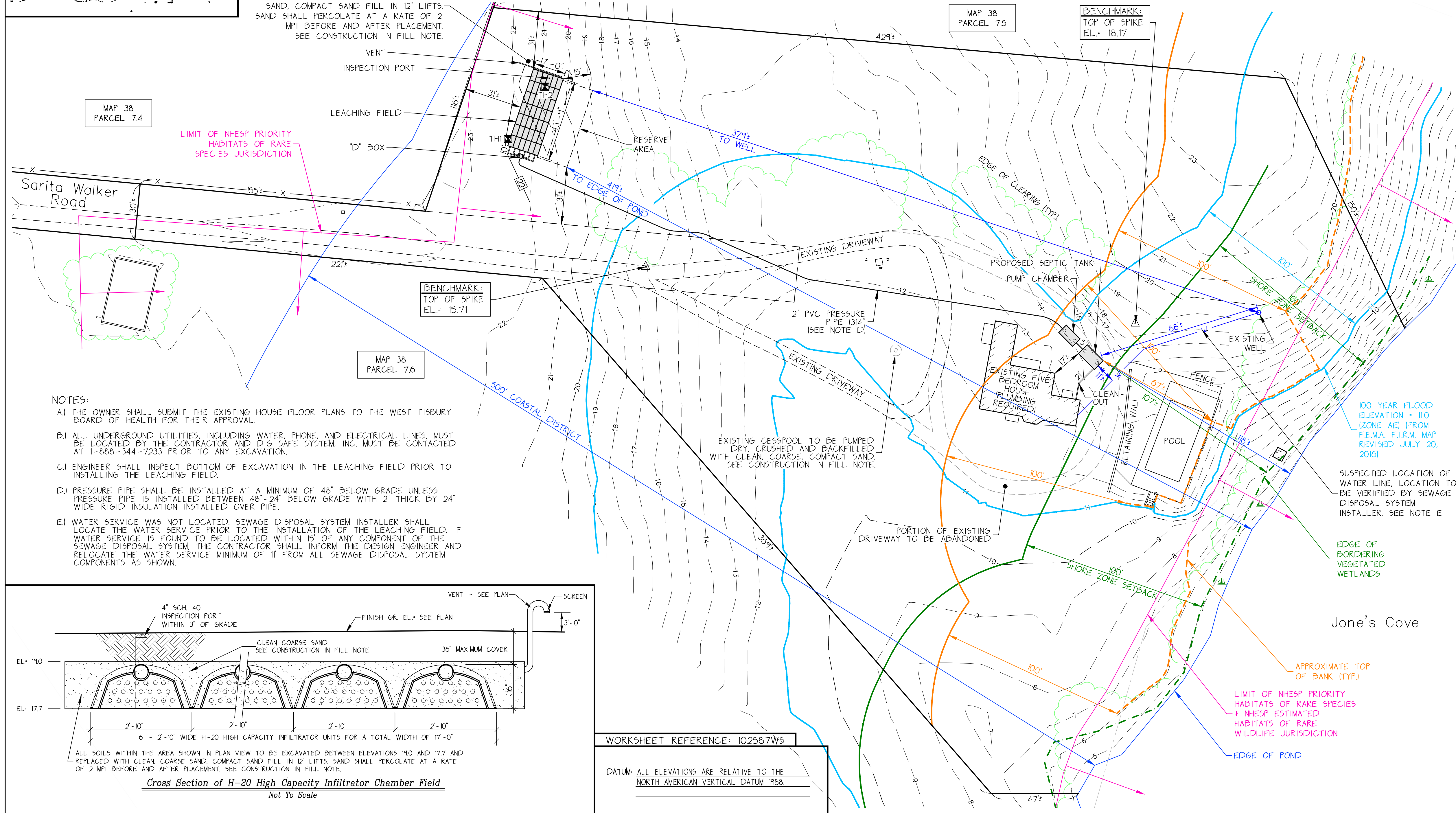
TEST HOLE #1	DATE: 6/15/2022	ELEV. + 22.4	TEST HOLE #2	DATE: 6/15/2022	ELEV. + 20.8
DEPTH	HORIZON	TEXTURE	DEPTH	HORIZON	TEXTURE
00-06"	A	SANDY LOAM	00-06"	A	SANDY LOAM
06-32"	B	SANDY LOAM	06-24"	B	SANDY LOAM
32-120"	C	SAND	24-120"	C	SAND



Notes

- GENERAL NOTES:**
- THIS PLAN IS TO BE USED ONLY FOR THE PERMITTING AND INSTALLATION OF A SEWAGE DISPOSAL SYSTEM. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE.
 - NO CHANGES TO THIS PLAN ARE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL OF SOURATI ENGINEERING GROUP, LLC.
 - INSTALLATION SHALL BE IN STRICT CONFORMITY WITH TITLE 5 OF THE MASSACHUSETTS STATE SANITARY CODE AND THE RULES & REGULATIONS OF THE TOWN OF WEST TISBURY BOARD OF HEALTH.
 - MACHINERY THAT MAY DISTURB PIPE ALIGNMENT IN THE DISPOSAL SYSTEM SHALL NOT BE USED ON THE DISPOSAL AREA.
 - NO EXISTING WELLS WERE FOUND WITHIN 50' FROM THE PROPOSED SOIL ABSORPTION SYSTEM OR WITHIN 50' FROM THE SEPTIC TANK.
 - FINISHED SURFACE OF LEACHING AREA SHALL BE GRADED TO INSURE RUNOFF (2% MINIMUM SLOPE).
 - THE SEPTIC TANK AND THE DISTRIBUTION BOX SHALL BE EITHER:
 - A WATER TIGHT ACCORDING TO MANUFACTURERS SPECIFICATIONS AND WARRANTY, OR
 - MADE WATER TIGHT BY THE MANUFACTURER, EQUIPMENT SUPPLIER OR INSTALLER, USING ASPHALT OR SYNTHETIC POLYMER SEALER SPECIFIED BY THE CONCRETE OR SYNTHETIC MATERIAL MANUFACTURER.
 - SEPTIC TANKS AND DISTRIBUTION BOXES SHALL BE LEVEL AND TRUE TO GRADE ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ONTO WHICH 6 INCHES OF CRUSHED STONE HAVE BEEN PLACED TO MINIMIZE UNEVEN SETTLING.
 - ALL SYSTEM COMPONENTS SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIALS.
 - ALL PIPING SHALL BE A MINIMUM OF SCHEDULE 40 PVC UNLESS OTHERWISE NOTED.
 - DISTRIBUTION BOX OUTLET LINES SHALL BE LEVEL FOR A MINIMUM OF THE FIRST TWO FEET OF THEIR LENGTH.

ALL SOILS IN THE AREA SHOWN TO BE EXCAVATED BETWEEN ELEVATIONS 19.0 AND 17.7 AND REPLACED WITH CLEAN, COARSE SAND. COMPACT SAND FILL IN 12" LIFTS. SAND SHALL PERCOLATE AT A RATE OF 2 MPI BEFORE AND AFTER PLACEMENT. SEE CONSTRUCTION IN FILL NOTE.



- NOTES:**
- THE OWNER SHALL SUBMIT THE EXISTING HOUSE FLOOR PLANS TO THE WEST TISBURY BOARD OF HEALTH FOR THEIR APPROVAL.
 - ALL UNDERGROUND UTILITIES, INCLUDING WATER, PHONE, AND ELECTRICAL LINES, MUST BE LOCATED BY THE CONTRACTOR AND DIG-SAFE SYSTEM, INC. MUST BE CONTACTED AT 1-888-344-7233 PRIOR TO ANY EXCAVATION.
 - ENGINEER SHALL INSPECT BOTTOM OF EXCAVATION IN THE LEACHING FIELD PRIOR TO INSTALLING THE LEACHING FIELD.
 - PRESSURE PIPE SHALL BE INSTALLED AT A MINIMUM OF 48" BELOW GRADE UNLESS PRESSURE PIPE IS INSTALLED BETWEEN 48"-24" BELOW GRADE WITH 2" THICK BY 24" WIDE RIGID INSULATION INSTALLED OVER PIPE.
 - WATER SERVICE WAS NOT LOCATED. SEWAGE DISPOSAL SYSTEM INSTALLER SHALL LOCATE THE WATER SERVICE PRIOR TO THE INSTALLATION OF THE LEACHING FIELD. IF WATER SERVICE IS FOUND TO BE LOCATED WITHIN 15' OF ANY COMPONENT OF THE SEWAGE DISPOSAL SYSTEM, THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER AND RELOCATE THE WATER SERVICE MINIMUM OF 12' FROM ALL SEWAGE DISPOSAL SYSTEM COMPONENTS AS SHOWN.

CONSTRUCTION IN FILL:

- FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL BE COMPOSED OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES, MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN TWO INCHES. A SIEVE ANALYSIS USING A #4 SIEVE SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. SIEVE ANALYSIS ALSO SHALL BE PERFORMED ON THE FRACTION OF THE FILL SAMPLE PASSING THE #4 SIEVE. SUCH ANALYSES MUST DEMONSTRATE THAT THE MATERIAL MEETS EACH OF THE FOLLOWING SPECIFICATIONS:

SIEVE SIZE	EFFECTIVE PARTICLE SIZE	% THAT MUST PASS SIEVE
#10	2.0 MM	100
#40	0.30 MM	10
#100	0.15 MM	5
#200	0.075 MM	2

HIGH CAPACITY INFILTRATOR CHAMBER (SOIL ABSORPTION SYSTEM):

- THE INFILTRATORS SHALL BE INSTALLED IN STRICT CONFORMITY WITH THE MANUFACTURER SPECIFICATIONS.

PUMP CHAMBER:

- BASE SECTION SHALL BE MONOLITHICALLY CAST REINFORCED CONCRETE AND SHALL HAVE A MINIMUM RISE OF 30" BEFORE ANY JOINT.
- BOTTOM SLAB OF BASE SECTION SHALL BE AT LEAST 4" IN THICKNESS.
- THE CHAMBER SHALL BE CLEANED OUT, MADE WATER TIGHT, AND TEST DURING FINAL INSPECTION BY THE CONTRACTOR. THE EXTERIOR WALLS SHOULD BE SPRAYED OR PAINTED WITH A WATERPROOF COMPOUND AND ALL PIPE INLETS OR CONNECTIONS SHALL BE MADE WATER TIGHT.
- THE CHAMBER SHALL BE EQUIPPED WITH ONE 20" MANHOLE WITH A READY REMOVABLE WATER TIGHT COVER OF DURABLE MATERIAL. THE ACCESS COVER SHALL BE LOCATED WITHIN 6' OF FINAL GRADE.

PUMP:

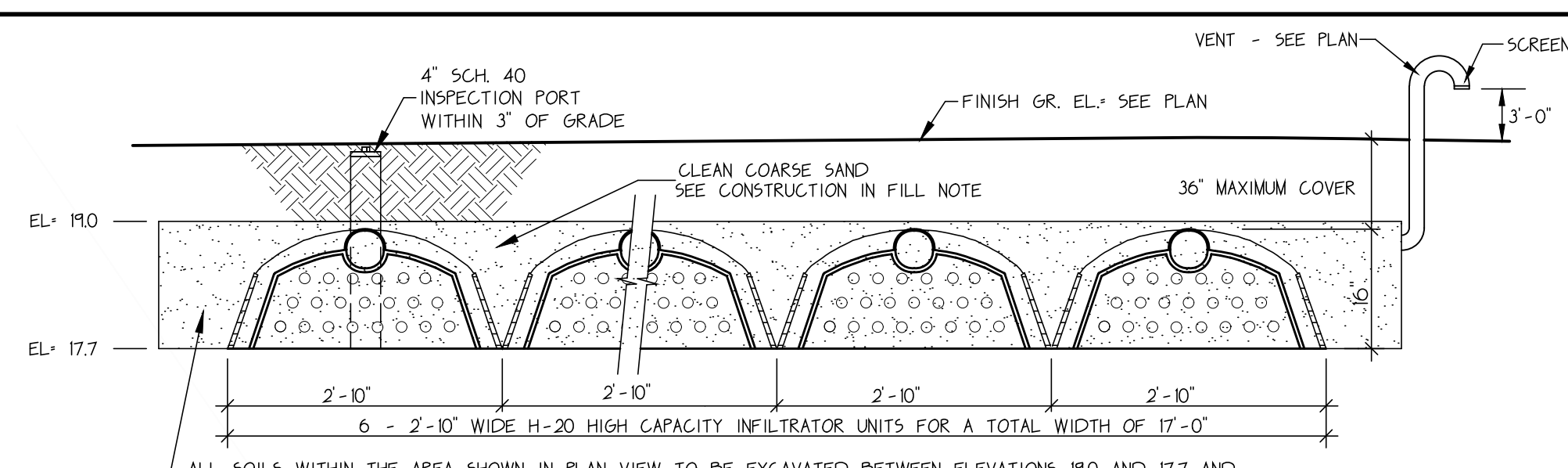
- THE PUMP TO BE INSTALLED IN THE PUMP CHAMBER SHALL CONSIST OF ONE (1) BEASAC-II MYERS HEAVY-DUTY SUBMERSIBLE SEWAGE PUMP OR APPROVED EQUAL. THE PUMP MUST HAVE A CAPACITY OF 30 GPM AGAINST A HEAD OF 15'. MOTORS TO BE 0.5 HP, SINGLE PHASE, 60 CYCLE, 115 VOLTS A.C. ELECTRICAL SERVICE FOR PUMPS MUST BE ON A SEPARATE CIRCUIT BREAKER NOT IN COMMON WITH THE HIGH WATER ALARM.
- THE PUMP SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER SPECIFICATIONS.
- THE PUMP AND ALARM REQUIRE PERIODIC OR ROUTINE INSPECTION AND MAINTENANCE SHALL BE OPERATED, INSPECTED AND MAINTAINED IN STRICT ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS. IN NO INSTANCE SHALL INSPECTION BE PERFORMED LESS FREQUENTLY THAN ONCE EVERY THREE MONTHS. THE RESULTS OF SUCH INSPECTIONS SHALL BE SUBMITTED TO THE APPROVING AUTHORITY.

ALARMS AND SWITCHES:

- THE ON-OFF SWITCHES MUST BE BUILT INTO THE PUMP AND MOTOR ASSEMBLY OR SET AS PER THE DESIGN PLAN.
- THE HIGH WATER ALARM SWITCH MUST BE SET TO THE ELEVATION SHOWN ON THE DESIGN PLAN ATTACHED AND CONSIST OF A MERCURY FLOAT TYPE. THE HIGH WATER ALARM PANEL MUST BE INSTALLED IN THE MAIN HOUSE SO AS TO BE EASILY HEARD WHEN ACTIVATED. THIS ALARM MUST BE CONNECTED TO SEPARATE ELECTRICAL CIRCUIT NOT COMMON WITH THE PUMP AND MOTOR ASSEMBLY.
- THE PUMP CONTROLS SHALL BE MOISTURE PROOF.

FORCE MAIN:

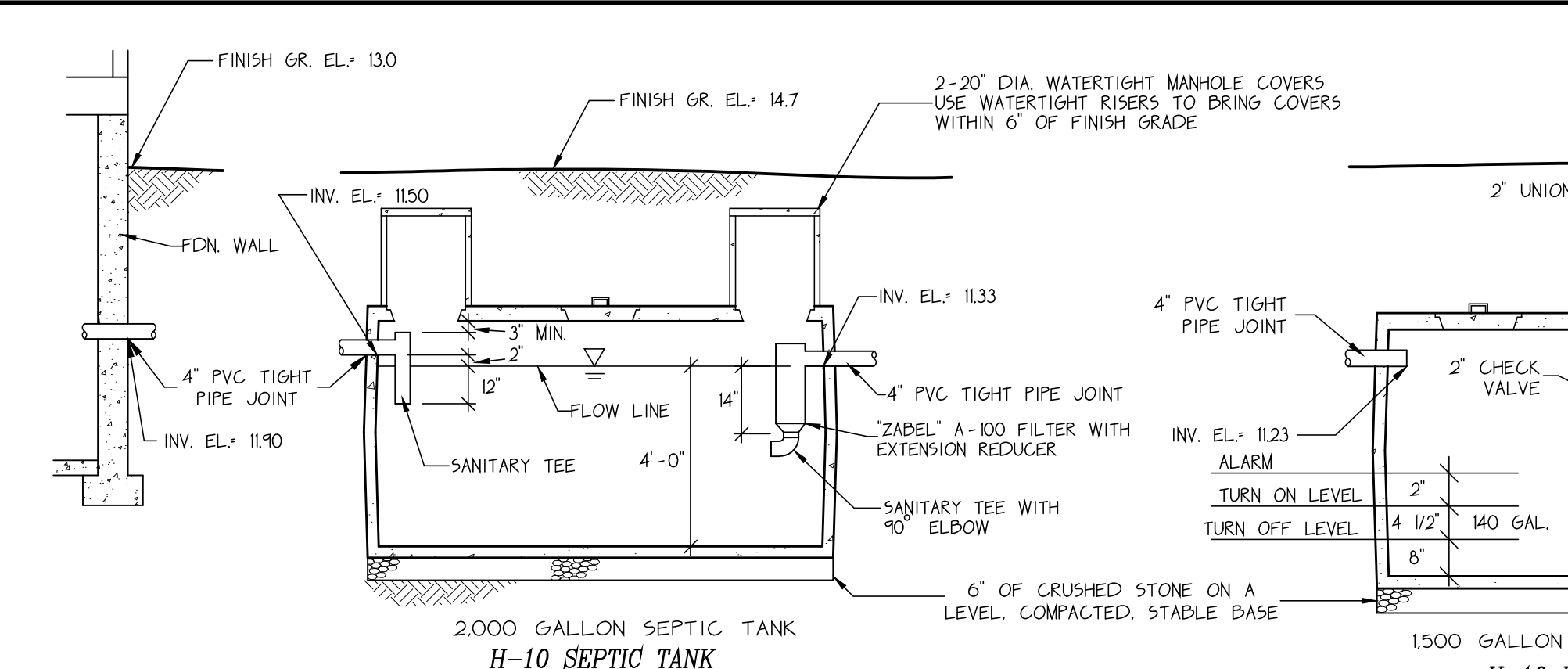
- ALL PIPING FROM THE PUMP CHAMBER TO THE LEACHING AREA SHALL CONSIST OF 2" DIAMETER PVC SCHEDULE 40 PIPE, UNLESS OTHERWISE NOTED ON THE DESIGN PLAN.
- FORCE MAINS SHALL BE COVERED WITH A MINIMUM OF THREE (3) FEET OF COVER MATERIAL. THE COVER MATERIAL SHALL CONSIST OF CLEAN COMPACT SAND FREE OF LARGE STONES OR OBJECT FOR A DISTANCE OF 6' AROUND THE FORCE MAIN FOR PROPER BEDDING.



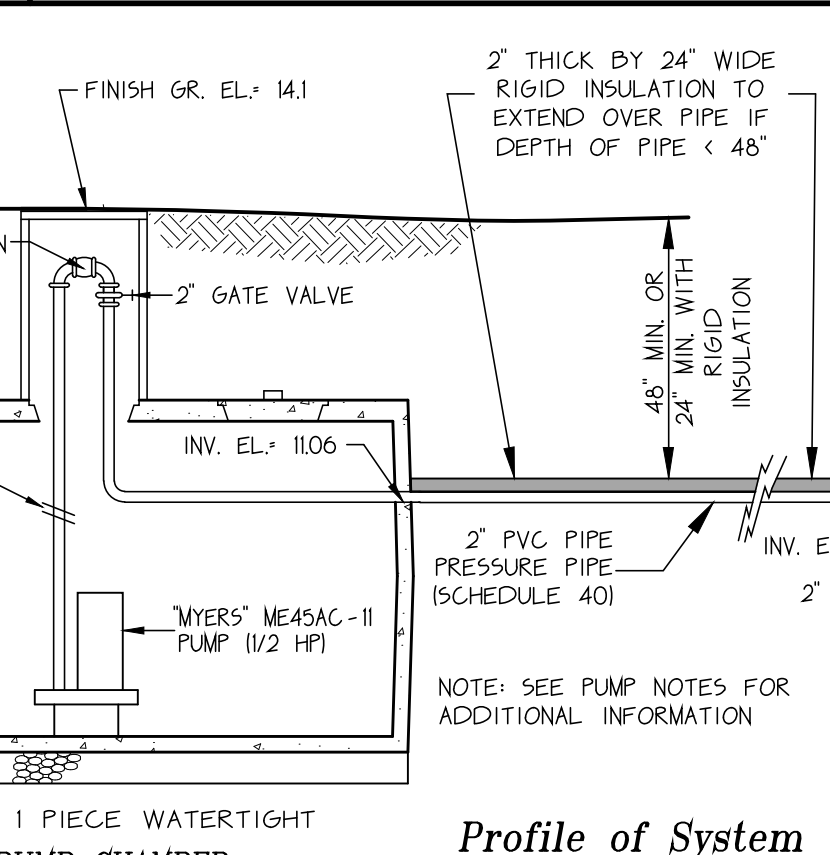
Cross Section of H-20 High Capacity Infiltrator Chamber Field
 Not To Scale

WORKSHEET REFERENCE: 102587W5

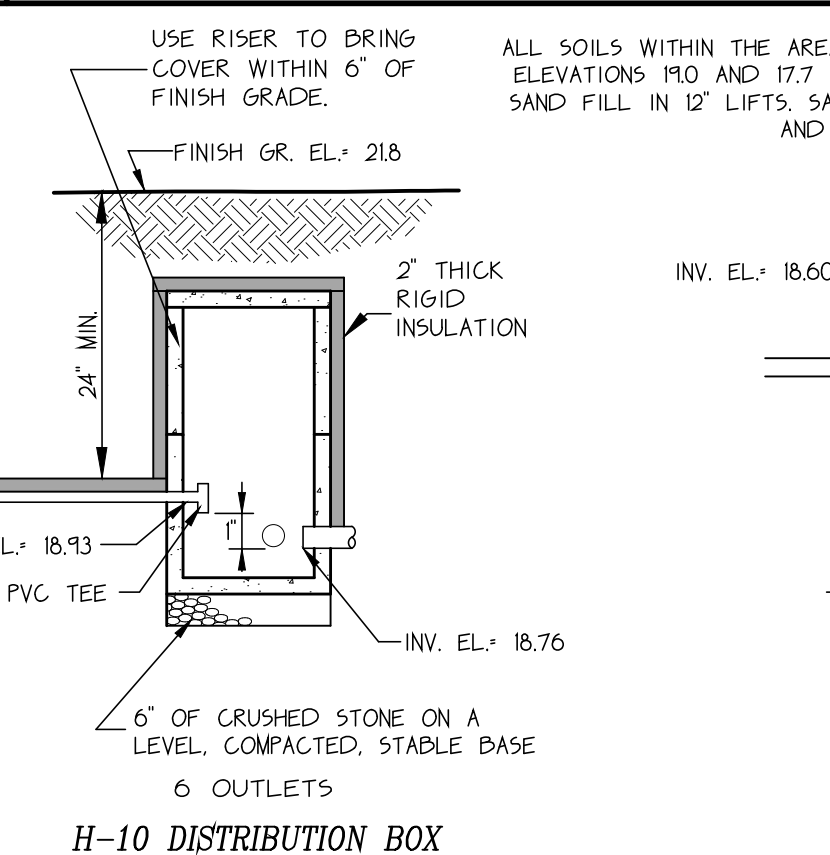
DATUM: ALL ELEVATIONS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM 1988.



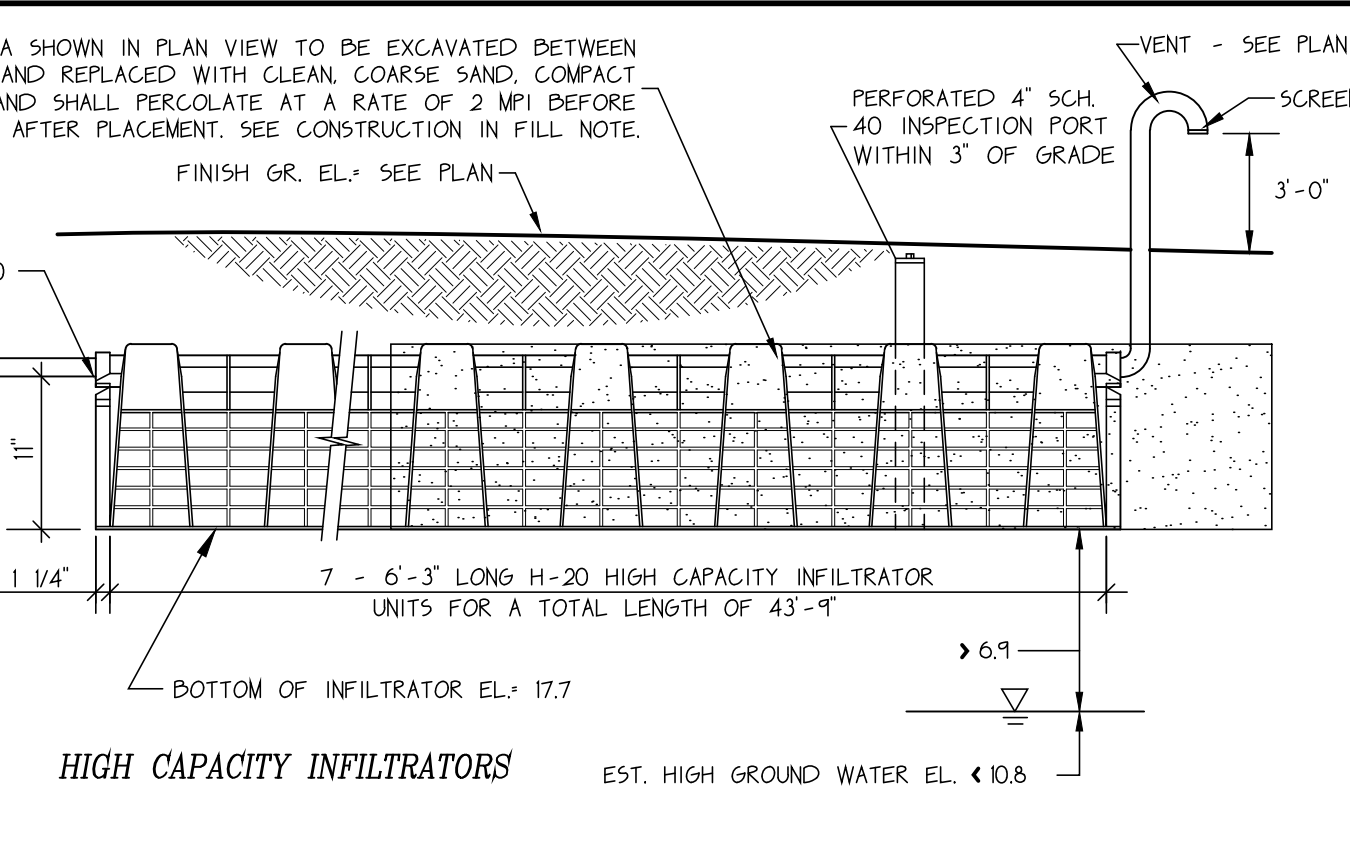
H-10 SEPTIC TANK



H-10 PUMP CHAMBER



H-10 DISTRIBUTION BOX



HIGH CAPACITY INFILTRATORS

Design Computations:

HYDRAULIC LOADING:
 5 BEDROOMS AT 110 GPD + 550 GPD
 A GARBAGE DISPOSAL IS NOT ALLOWED IN THIS DESIGN.

SEPTIC TANK SIZE:
 INCREASE FLOW TO 200% (TITLE VI) = 1100 GALLONS USE 2,000 GALLON SEPTIC TANK.

PUMP CHAMBER SIZE:
 USE 1,500 GALLON PUMP CHAMBER.

LEACHING CAPACITY:
 DESIGN PERCOLATION RATE IS 5 MIN/INCH SOIL TYPE: CLASS I
 EFFLUENT LOADING RATE 0.74 G/5' D
 USE 1 LEACHING FIELD WITH 42 CHAMBERS.
 TOTAL AREA OF FIELD = 42 CHAMBERS X 6.25 LF/CHAMBER X 4.72 SF/LF = 1,239 SF.
 TOTAL LEACHING CAPACITY PROVIDED = 1,239 SF. X 0.74 G/5' D = 916 G/D.
 TOTAL LEACHING CAPACITY PROVIDED = 916 G/D.
 TOTAL HYDRAULIC LOADING REQUIRED = 550 G/D.

New Sewage Disposal System
 In The Town Of
West Tisbury

Site:
 Existing Five Bedroom House
 Map 38, Parcel 7.1
 140 Sarita Walker Road

Owner:
 Troy & Kimberly Stanfield
 153 Valley Road
 Needham, MA 02492

Scale: As Shown
 Job No.: 102587
 Drawing No.: 102587SP
 Sheet 1 of 1

Date: June 8, 2022
 Drawn By: H. Chen
 Designed By: H. Chen
 Checked By: G. Sourati

Professional Land Surveyors
Sourati Engineering Group LLC
 Professional Land Surveyors

P.O. Box 4458
 107 Beach Road, Suite 202
 Vineyard Haven, MA 02568
 Phone: (508) 693-9933
 Fax: (508) 693-4933