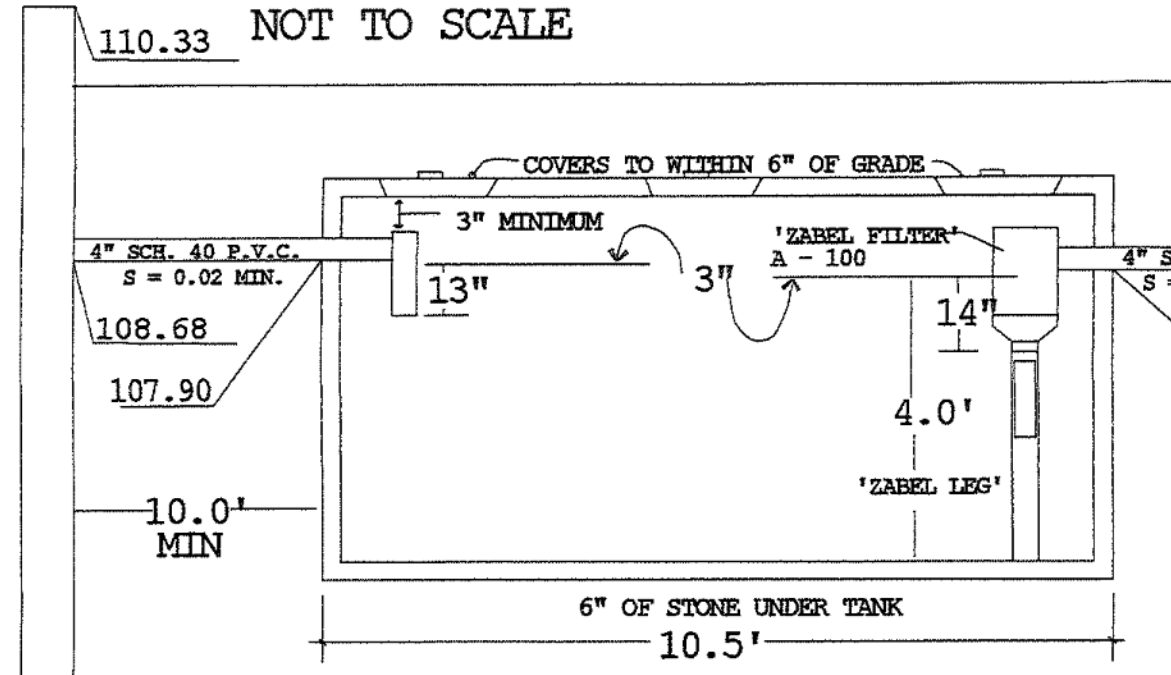
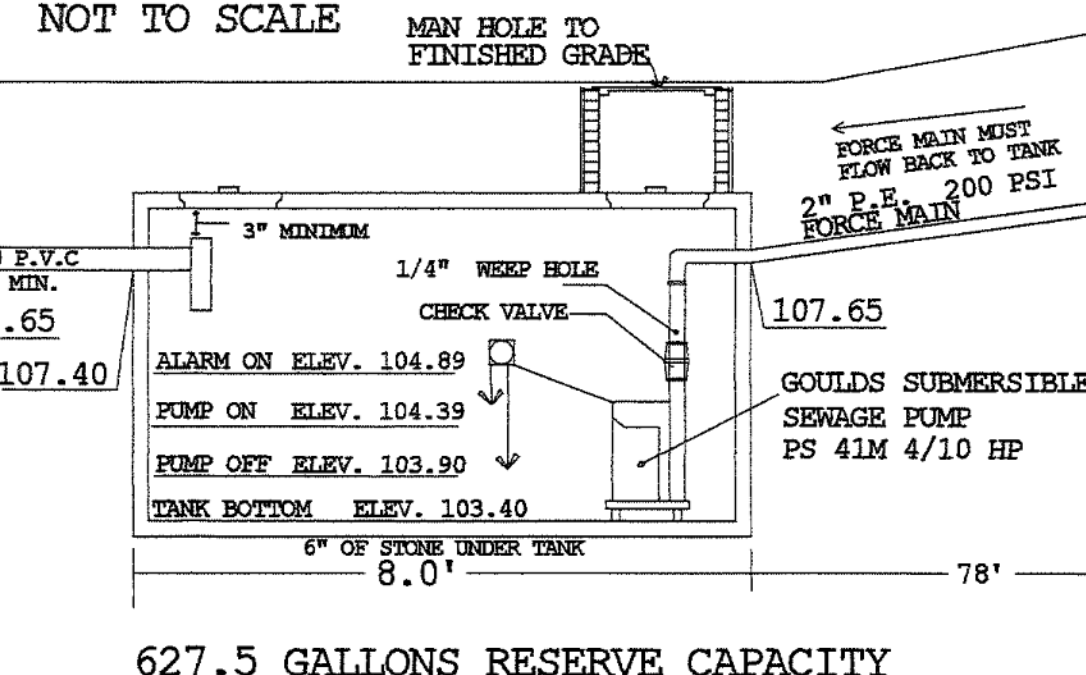


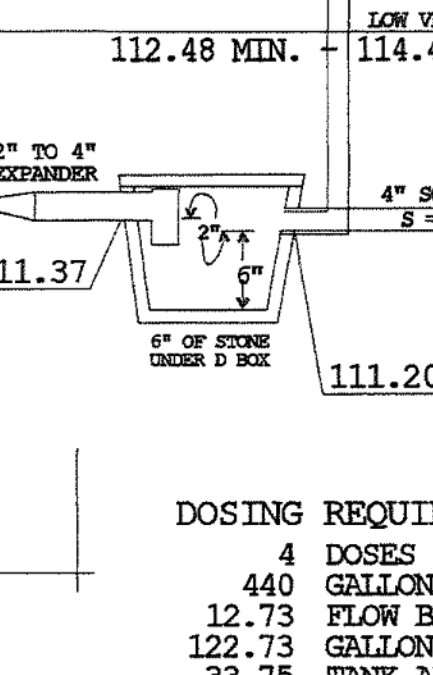
PROPOSED 1500 GALLON TANK
MONOLITHIC AND BITUMINOUS SEALCOAT
NOT TO SCALE



PROPOSED 1000 GAL. PUMP CHAMBER
MONOLITHIC AND BITUMINOUS SEALCOAT
NOT TO SCALE



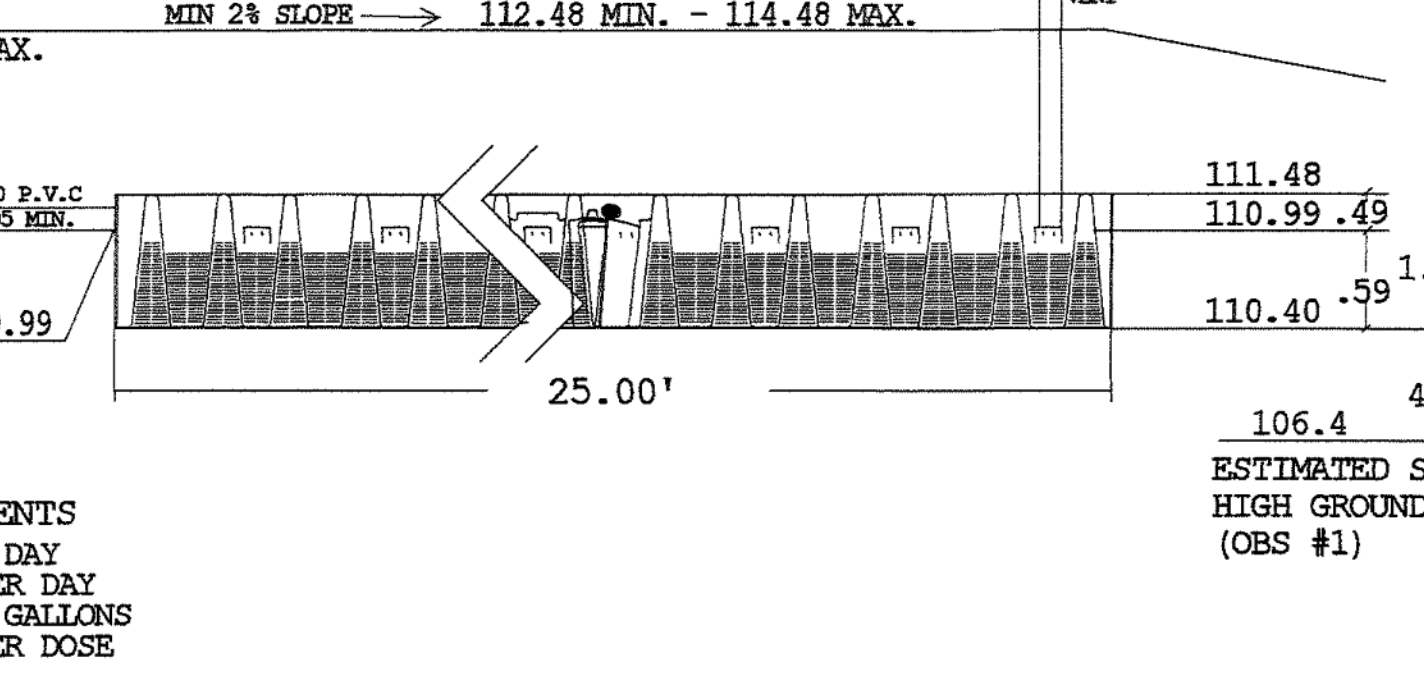
DISTRIBUTION BOX
NOT TO SCALE



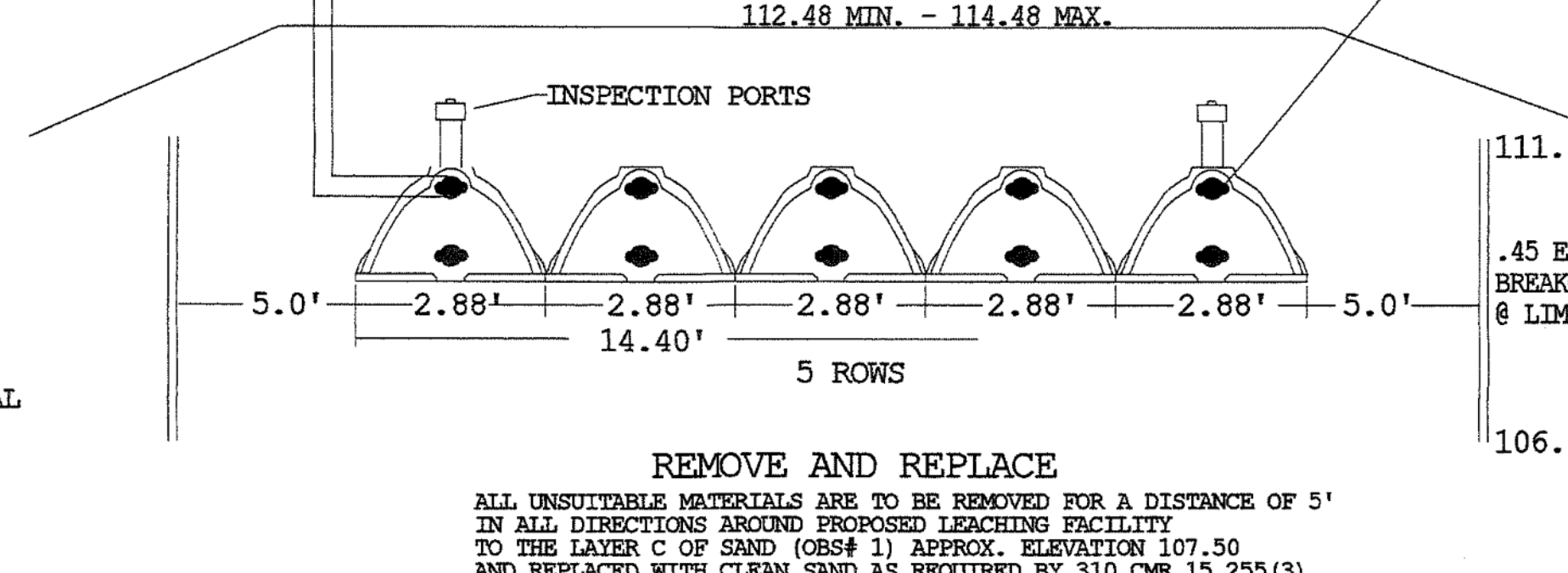
DOSING REQUIREMENTS

4	DOSES PER DAY
440	GALLONS PER DAY
12.73	FLOW BACK GALLONS
122.73	GALLONS PER DOSE
33.75	TANK AREA
0.49	FEET

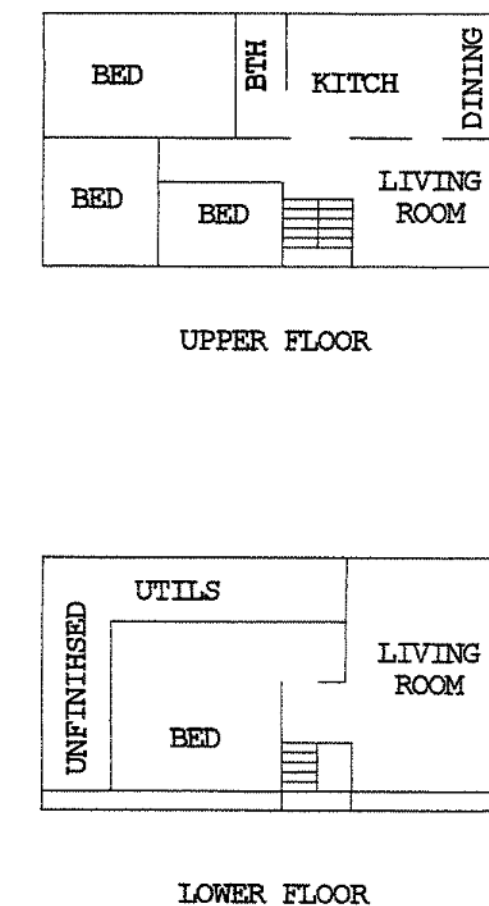
PROPOSED S.A.S.: "ARC 36" CHAMBER DETAIL
NOT TO SCALE



CROSS SECTION
NOT TO SCALE



FLOOR PLAN
NOT TO SCALE



DESIGN CALCULATIONS

EXISTING BEDROOMS:	4
SYSTEM DESIGNED FOR:	4 @ 110 GPD = 440 GPD
NUMBER OF ROWS	5
NUMBER OF UNITS PER ROW	5
NUMBER OF CHAMBERS	25
NUMBER OF COUPLINGS	0
DEPTH BELOW INVERT	0.59
LENGTH OF BED	25.00
WIDTH OF BED	14.40
TOTAL CHAMBER LENGTH	125.00
LTAR	0.74
SQ. FT. MIN.	595
SQ. FT. PER X235253 @ 4.8	600.00
CAPACITY TOTAL	444.00

THIS SEPTIC SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARAGE DISPOSAL

GENERAL NOTES

ALL PIPING TO BE SCHEDULE 40
ALL LOCATIONS OF UTILITIES SHOWN
BY INSTALLER PRIOR TO CONSTRUCTION
THERE ARE NO KNOWN POTABLE WATER
LINES WITHIN 150' OF THE PROPOSED LEACHING
FACILITY.
THERE ARE NO KNOWN IRRIGATION LINES
WITHIN 100' OF THE PROPOSED LEACHING
FACILITY.
THIS PROPERTY DOES NOT FALL WITHIN
ZONE II OF A WELLSHEAD PROTECTION
FLOOD ZONE AS SHOWN ON FIRM
2502300236K dated 7/06/2021
THIS DESIGN REQUIRES VARIANCE
TO TITLE 5 (310 C.M.R. 15.00)
SUPPLEMENTAL REGULATIONS
ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TITLE 5 AND DUXBURY SUPERIOR
REGULATIONS.
ALL SYSTEM COMPONENTS SHALL BE
EQUIPPED WITH 1" WASHERS

IN-LINE ELEVATIONS

IN-LINE ELEVATIONS	PROPOSED	AS-BUILT
INV. @ HSE	108.68	
INV INTO TANK	107.90	
INV OUT OF TANK	107.65	
INV INTO PUMP CHAMBER	107.40	
INV OUT OF PUMP CHAMBER	107.65	
INV INTO D-BOX	111.37	
INV OUT OF D-BOX	111.20	
INV INTO ARC 36	110.99	
BOTTOM OF ARC 36	110.40	
SEPARATION PROVIDED	4.0'	
WATER TABLE	106.4 (ESHGW @ OBS #1)	
BOTTOM OF OBS #1	102.0	

SOIL LOGS

DATE:	OBSERVED BY:	WITNESSED BY:
1/19/2022	FREEMAN BOYNTON III SOIL EVALUATOR	TRACY BOARD OF

OBS. HOLE #1

ELEV.	DEPTH
109.2	0"
108.5	8"
107.5	21"
106.4	34"
104.4	58"
102.0	86"

PERC RATE < 2 MINS. / INCH

FRIMPTER ADJUSTMENT
Duxbury (D4W) 79

INPUT	OUTPUT
109.2	adjusted elevation (ft.)
58	measured depth to water (in.)
1/19/2022	month/year of monthly well data
9.84	well info on day of perc
7.83	yearly well info
4.2	10% exceedence in sand
4.23	largest annual fluctuation
2.00	adjustment value
2.84	adjustment to measured depth of water to
106.36	adjusted water table elevation (ft.)
34"	adjusted depth to water (in.)

PLAN SHOWING:
PROPOSED SEPTIC SYSTEM REPAIR IN D

FOR: **SCOTT WHEATON**

LOC: **424 SUMMER ST**

LOT #: **030 - 845 - 002** DATE: **MAR 30 2022**

DRAWN BY: CHRIS LEAMY
DESIGN & CHECKED BY: FREEMAN BOYNTON III
REVISIONS: DESCRIPTION:

DUXBURY CONSTRUCTION,
P.O. BOX 2514 DUXBURY MASSACHUSETTS 781 9

VARIANCES

DUXBURY SUPPLEMENTAL REGS
SECTION 1.11 (1B) GROUNDWATER SEPARATION

VARIANCE REQUESTED: PROPOSED S.A.S. TO BE CONSTRUCTED 5.01' ABOVE MAXIMUM GROUNDWATER (DUXBURY REGULATIONS REQUIRE 6.0' WHERE THE PERC RATE IS LESS THAN 2 MINS./INCH

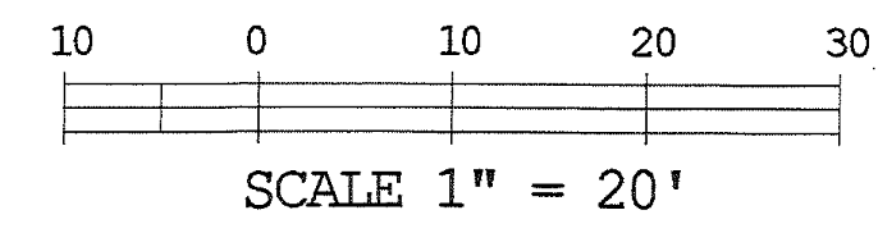
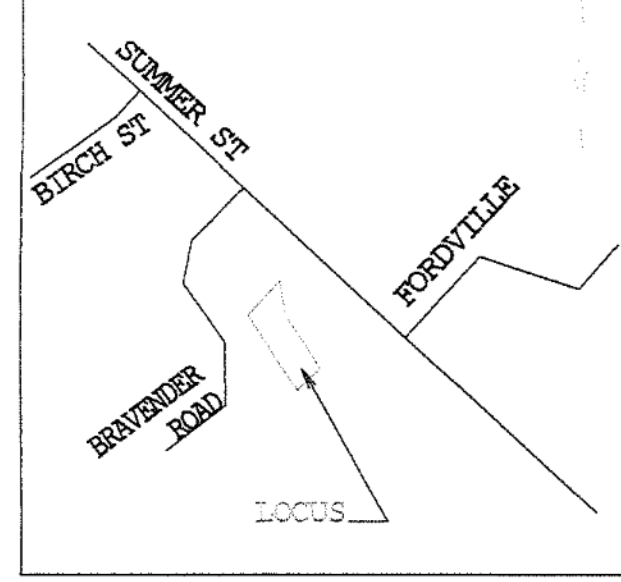
LOCAL UPGRADE APPROVAL

(h) THE LOCAL APPROVING AUTHORITY MAY REDUCE THE REQUIRED... FIVE FOOT SEPARATION (IN SOILS WITH A RECORDED PERCOLATION RATE OF LESS THAN TWO MINUTES PER INCH) ... BETWEEN THE BOTTOM OF THE SOIL ABSORPTION SYSTEM AND THE HIGH GROUNDWATER ELEVATION ONLY IF ALL OF THE FOLLOWING CONDITIONS ARE MET:

2. A MINIMUM FOUR FOOT SEPARATION (IN SOILS WITH A RECORDED PERCOLATION RATE OF LESS THAN TWO MINUTES PER INCH) ... BETWEEN THE BOTTOM OF THE SOIL ABSORPTION SYSTEM AND THE HIGH GROUNDWATER ELEVATION IS MAINTAINED.

VARIANCE REQUESTED: PROPOSED S.A.S. TO BE CONSTRUCTED 4.00' ABOVE MAXIMUM GROUNDWATER

LOCUS PLAN



WATER SUPPLY LOCATIONS LIST

PARCEL #	STREET ADDRESS	SUPPLY TYPE
030 - 845 - 002	424 SUMMER ST	TOWN WATER
031 - 944 - 006	53 BRAVENDER RD	TOWN WATER
030 - 944 - 007	41 BRAVENDER RD	TOWN WATER
030 - 944 - 008	11 BRAVENDER RD	TOWN WATER
030 - 944 - 001	446 SUMMER ST	TOWN WATER
030 - 845 - 001	418 SUMMER ST	TOWN WATER
030 - 046 - 000	404 SUMMER ST	TOWN WATER
030 - 847 - 002	398 SUMMER ST	TOWN WATER

BUOYANCY CALCULATIONS

1500 GALLON MONO SEPTIC TANK		1000 GAL MONO PUMP CHAMBER	
WEIGHT OF TANK	12,000 LBS.	WEIGHT OF TANK	8,000 LBS.
SOIL DEPTH OVER TANK	0.71'	SOIL DEPTH OVER TANK	1.00'
SOIL WEIGHT OVER TANK	4,649.68 LBS	SOIL WEIGHT OVER TANK	5,118.96 LBS
DOWNWARD FORCE	16,649.68 LBS	DOWNWARD FORCE	13,118.96 LBS
DEPTH OF TANK UNDER WATER	3.04'	DEPTH OF TANK UNDER WATER	3.29'
UPWARD FORCE	11,293.55 LBS	UPWARD FORCE	9,553.65 LBS
DOWNWARD FORCE EXCEEDS UPWARD FORCE BY	1.47 : 1	DOWNWARD FORCE EXCEEDS UPWARD FORCE BY	1.37 : 1



FREEMAN BOYNTON III DATE: 4/4/22

I CERTIFY THAT THIS PLAN CONFORMS TO TITLE 5 AND DUXBURY B.O.H. REGULATIONS (EXCLUDING WAIVERS SPECIFIED)