

BENCHMARKS:	NGVD 1929	ELEV.
#1	NAIL IN UPOLE	88.75
#2	THRESHOLD	91.55
#3		

SOILS INFORMATION:

SOIL EVALUATOR: JAMES SCANLAN, P.E.
(SEE #2159 - APRIL 1995)
TOWN WITNESS: KENNEDY LONCO
DATE: 6/11/19

SOIL PERCOLATION RATE:
P-1: DEPTH TO 12"=16" SOIL PERC RATE=2.6%

SOIL ELEVATIONS:

TEST/PT	T-1	T-2
GRADE	82.0	82.6
E.S.H.G.W.	79.8	79.6
OBS. G.W.	79.3	78.9
BOTTOM PIT	75.8	75.9

SOIL PROFILES:

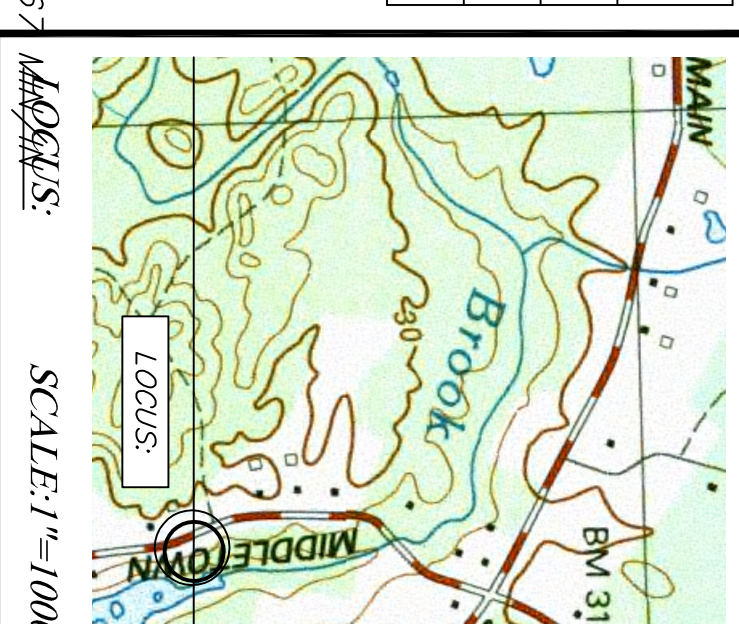
T-1:
1-1" AP FINE SANDY LOAM 10%R2/2 MASSIVE FRAGILE
2-18" Bw GRAVELLY SANDY LOAM 10%R3/2 MASSIVE FRAGILE
16-66" C1 GRAVELLY LOAMY SAND 2.5%V/4 SINGLE GRAIN LOOSE 30% GRAVEL
66-74" C2 NESTED ROCKS WITH MINIMAL SANDY LOAM (UNABLE TO OBTAIN SAMPLE)
ESHW @ 26" STANDING @ 32"
T-2:
16-24" AP FINE SANDY LOAM 10%R2/2 MASSIVE FRAGILE
16-24" Bw GRAVELLY SANDY LOAM 10%R3/2 MASSIVE FRAGILE
24-80" C1 GRAVELLY LOAMY SAND 2.5%V/4 SINGLE GRAIN LOOSE 30% GRAVEL
ESHW @ 36" STANDING @ 44"

DESIGN CRITERIA:

FACILITY TYPE: SINGLE FAMILY DWELLING	SOILS CLASS: CLASS 1
SIZE: 3 BEDROOMS	SOIL PERC RATE: <5 MIN/INCH
UNIT FLOW RATE: 110 GAL/BED/DAY	LONG TERM ACCEPTANCE RATE: 0.74 GAL/SF/DAY
DAILY FLOW: 330 GAL/DAY	
GARBAGE GRINDER: YES*	REQUIRED LEACH AREA: 669 SF (TOWN)
(IF YES SYSTEM DESIGN = 150% DAILY FLOW)	PROVIDED LEACH AREA: 360 SF (LEACH AREA: 15' X 24' = 360 SF)
SYSTEM DESIGN: 495 GAL/DAY	
*BOARD OF HEALTH REGULATIONS REQUIRE DESIGN TO BE SIZED FOR A GARBAGE GRINDER	

VARIANCES/WAIVERS (GRANTED)

REGULATION: 310CART5.102(2)	REQUIRED: A MINIMUM OF TWO DEEP HOLE OBSERVATIONS SHALL BE PERFORMED BY THE SCIENCE OF THE APPROVING AUTHORITY	PROVIDED: ONE DEEP HOLE IN PRIMARY AREA
CHAPTER 201-9(B)	150 FOOT SETBACK BETWEEN LEACHING FACILITY AND WETLANDS	50 FOOT SEPARATION
CHAPTER 201-9(D)	150 FOOT SETBACK BETWEEN LEACHING FACILITY AND WELL (PERC <5 MP)	100 FOOT SEPARATION (LOCUS)
CHAPTER 201-9(E)	150 FOOT SETBACK BETWEEN LEACHING FACILITY AND WETLANDS (PERC <5 MP)	130 FOOT SEPARATION (ABUTTER)
310CART5.242(1)(a)	669 SF LEACH AREA (DESIGNED WITH GARBAGE GRINDER)	50 FOOT SEPARATION
		360 SF WITH USE OF WATERLOO BIOFILTER (46% REDUCTION ALLOWABLE UNDER CERTIFICATION FOR REMEDIAL USE OF WATERLOO



SUBSURFACE SEWAGE DISPOSAL SYSTEM ASBUILT

68 MIDDLETON ROAD
BOXFORD, MA 01921

REGISTRY INFORMATION:

DEED:
BOOK NO.: 6964
PAGE NO.: 7

ASSESSORS INFORMATION:

MAP: 32
BLOCK: 2
LOT: 4

PREPARED FOR:

KENNETH SEUS
68 MIDDLETON ROAD
BOXFORD, MA 01921



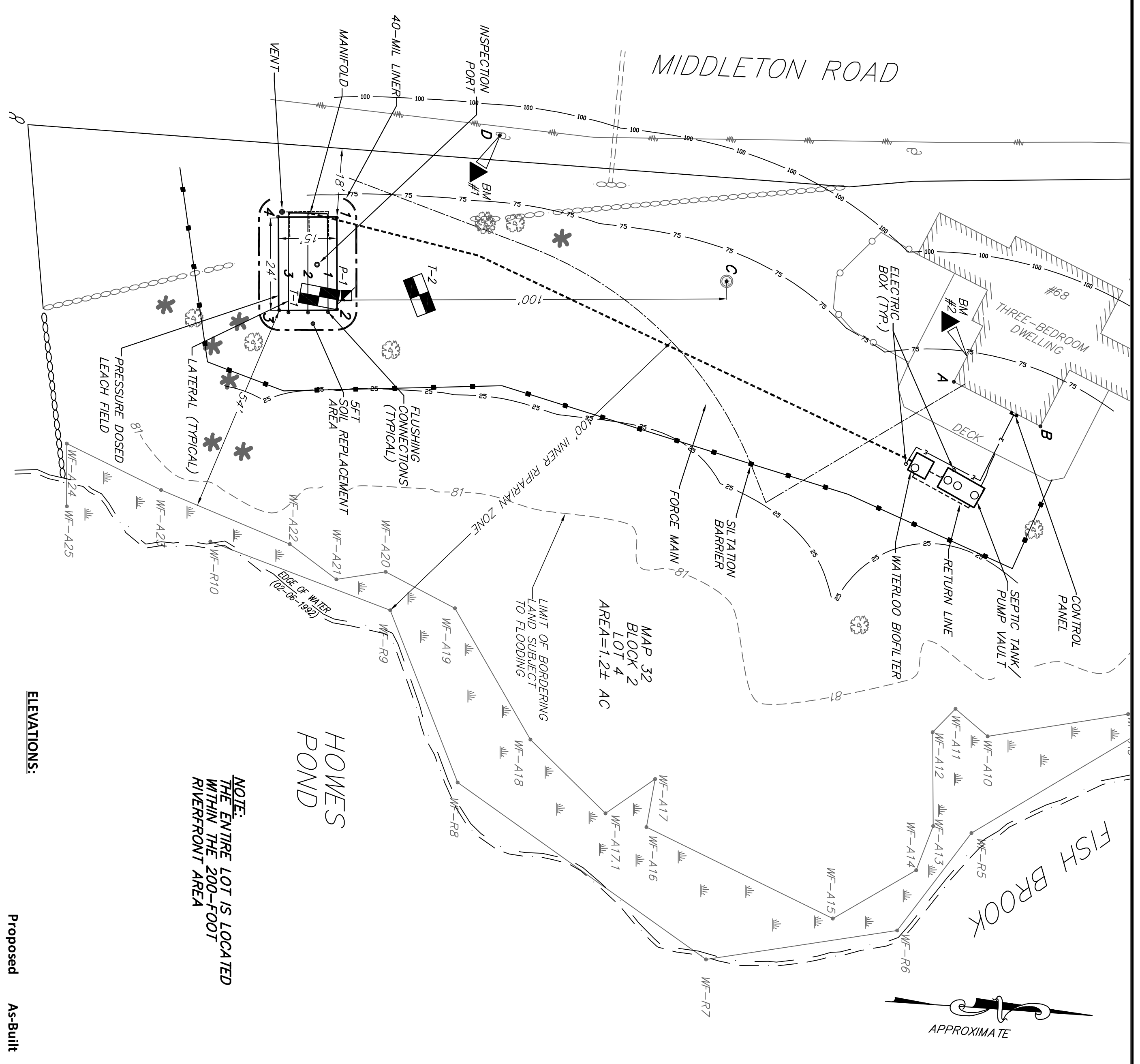
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#	BY	DATE	REVISIONS TO PLANS

DATE: JANUARY 17, 2020
DESIGN BY: JBS
DRAWN BY: JBS

ASBUILT PLAN

SHEET 1 OF 1 SCALE: 1" = 20'
PROJECT # 0964



SITE PLAN:
SCALE: 1" = 20'

ELEVATIONS:

	Proposed Elevations	As-Built Elevations
Dwelling	82.50	84.35
Septic Tank Inlet from Bldg	82.50	82.89
Septic Tank Top	---	84.14
Septic Tank Outlet	82.25	82.69
Septic Tank Inlet from Waterloo	82.50	82.85
Waterloo Inlet	83.40	83.56
Waterloo Top	---	84.54
Waterloo Outlet to Field	82.60	82.62
Manifold @ Tee	83.80	83.83
Lateral #1 Beginning	84.30	84.30
Lateral #2 Beginning	84.30	84.31
Lateral #1 End	84.30	84.30
Lateral #2 End	84.30	84.29
Lateral #3 End	84.30	84.30
Inspection Port	83.80	83.74
Liner #1	84.60	85.41
Liner #2	84.60	84.81
Liner #3	84.60	84.61
Liner #4	84.60	84.77

NOTE:
THE ENTIRE LOT IS LOCATED WITHIN THE 200-FOOT RIVERFRONT AREA

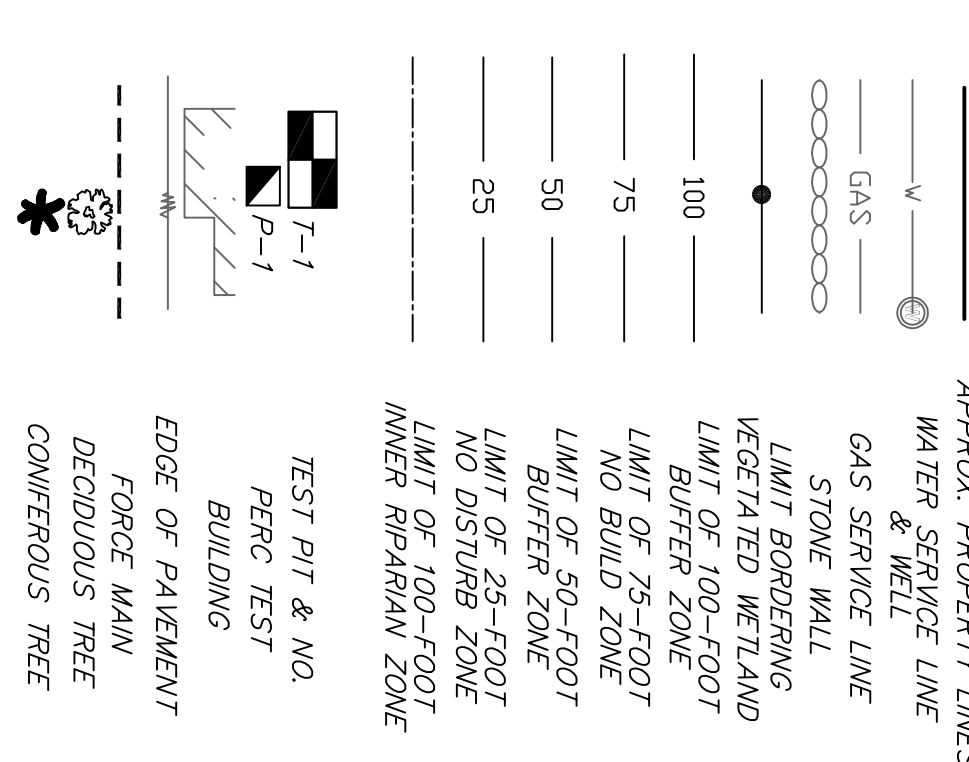
SYSTEM TIES: System located by instrument.

LOCUS PLAN:
SCALE: 1" = 100'

	A	B	C	D
Septic Tank/Pump Vault Inlet	29.6	24.6	---	---
Septic Tank/Pump Vault Outlet	25.4	27.6	---	---
Electric Box #1	22.7	24.9	---	---
Waterloo Biofilter Cover	24.3	34.1	---	---
Electric Box #2	24.4	35.9	---	---
Manifold	---	108.4	52.7	---
Corner Field #1	---	101.5	47.0	---
Corner Field #2	---	100.4	61.2	---
Corner Field #3	---	115.2	72.3	---
Corner Field #4	---	116.5	60.7	---
Inspection Port	---	105.3	57.5	---
Vent	---	115.7	59.3	---

STRUCTURES:
1500 Gallon Monolithic Septic Tank/Pump Vault (Pre-Step Tank)
UG-330 Waterloo Biofilter with Liberty LE-41 Pump
2" dia. Sch-40 PVC Force Main
2" dia. Sch-40 PVC Manifold
(3) 1.25 dia. Sch-40 PVC Laterals with 10 (1/4") orifices (8 up and 2 down) and a Squirt Height of 3.8 Feet
Pressurized Leach Field (15' x 24')
Inspection Port, as shown
Vent, as shown
Liner, as shown
Soil Replacement, as shown

LEGEND:



ASBUILT:
Installer - Daniel Briscoe, Briscoe Services LLC
Engineer - Jim Scanlan, P.E. - Scanlan Engineering
Date: 1/16/2020