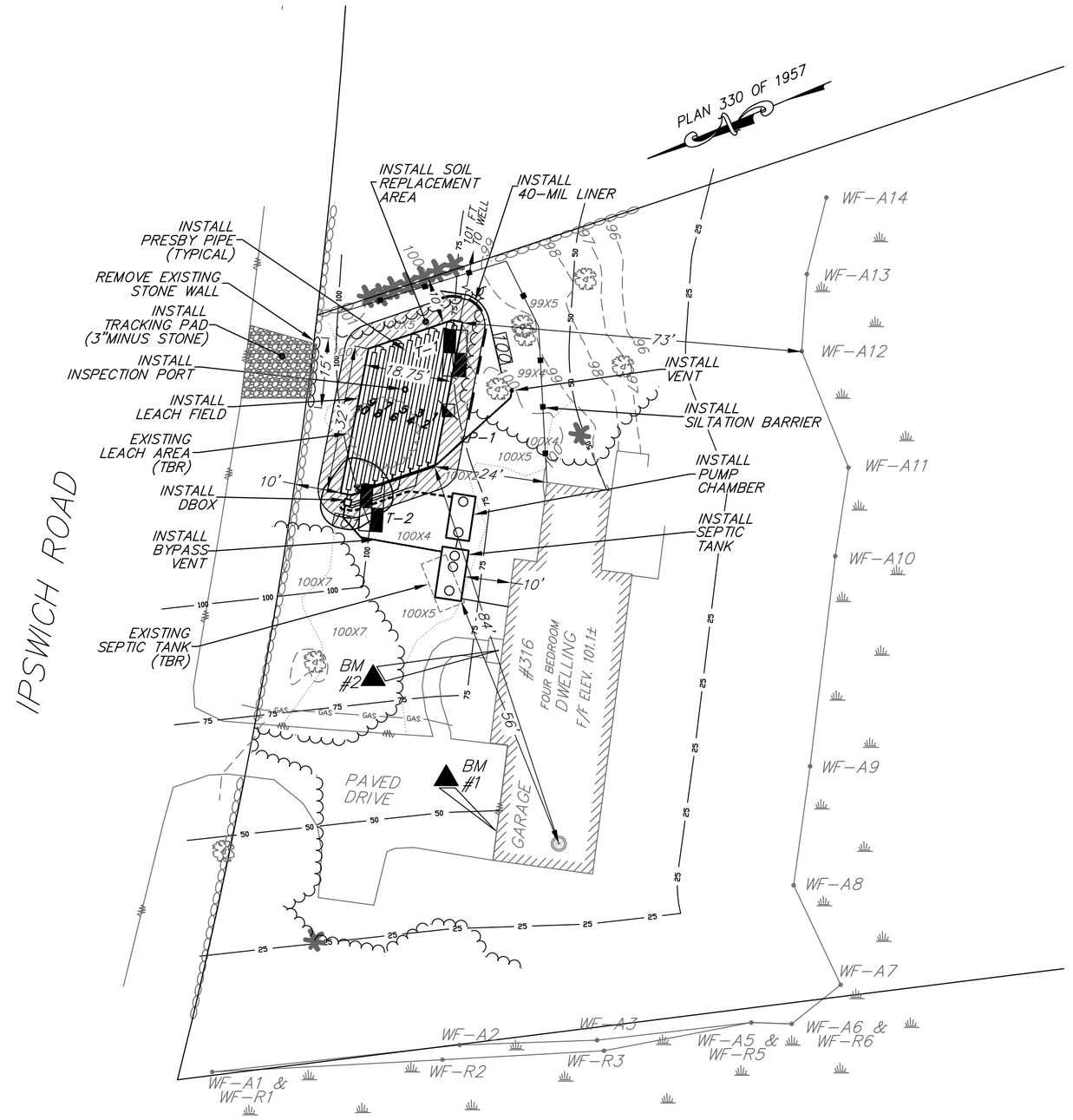


SITE PLAN:

SCALE 1"=20'

PLAN INTENT:

THIS PLAN IS INTENDED ONLY FOR THE CONSTRUCTION OF A SEPTIC SYSTEM TO SERVE THE SITE. NO OTHER USE OF THIS PLAN IS AUTHORIZED.

LEGEND:

EXISTING		PROPOSED
100	CONTOURS	100
100X0	SPOT SHOTS	100
	APPROX. PROPERTY LINES	FG
W	WATER SERVICE LINE & WELL	
	STONE WALL	
	LIMIT BORDERING VEGETATED WETLAND	
100	LIMIT OF 100-FOOT BUFFER ZONE	
75	LIMIT OF 75-FOOT NO-BUILD ZONE	
50	LIMIT OF 50-FOOT BUFFER ZONE	
25	LIMIT OF 25-FOOT NO DISTURB ZONE	
	SILTATION BARRIER	
T-1	TEST PIT & NO.	
P-1	PERC TEST	
	BUILDING	
	EDGE OF PAVEMENT	
	FORCE MAIN	
	DECIDUOUS TREE	
	CONIFEROUS TREE	
	DIRECTION OF SURFACE FLOW	
	TO BE ABANDONED	TBA
	TO BE REMOVED	TBR

DESIGN CRITERIA:

FACILITY TYPE: SINGLE FAMILY DWELLING
SIZE: 4 BEDROOMS
UNIT FLOW RATE: 110 GAL/BED/DAY
DAILY FLOW: 440 GAL/DAY
GARBAGE GRINDER: NO*
SYSTEM DESIGN: 660 GAL/DAY
*BOXFORD SEPTIC REGULATIONS REQUIRE DESIGN TO INCLUDE A GARBAGE GRINDER

SOILS CLASS: CLASS I
SOIL PERC RATE: <5 MIN/INCH
LONG TERM ACCEPTANCE RATE: 0.74 GAL/SF/DAY
REQUIRED LEACH AREA:
(TOWN) 892 SF
(STATE) 595 SF
PROVIDED LEACH AREA: 600 SF
(LEACH AREA: 18.75' X 32' = 600 SF)
MINIMUM PRESBY SAND AREA: 892 X 0.6= 536 SF
PRESBY LEACH AREA PROVIDED: 18.75' X 32' = 600 SF
MINIMUM PRESBY PIPE= 280 LF (4 BDRM @ 2 MPI)
PROVIDED PIPE= 10 LINES @ 30 LF = 300 LF PIPE

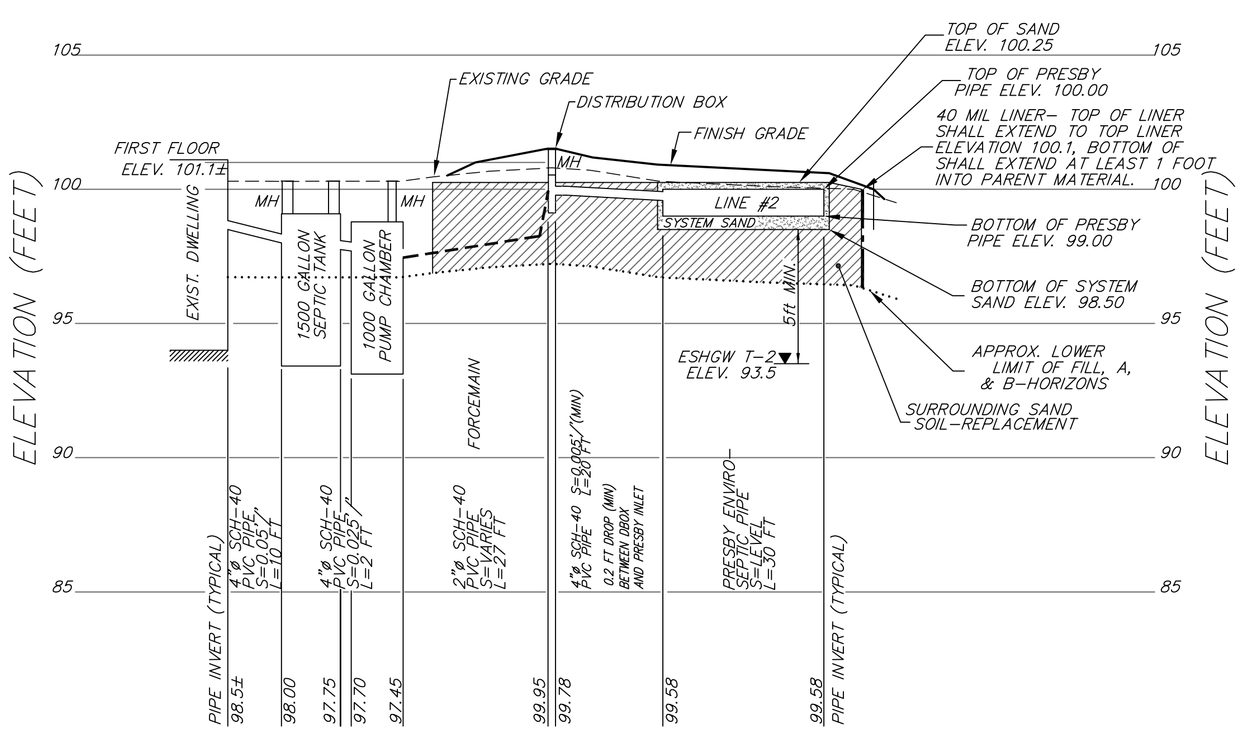
CONSTRUCTION SEQUENCE:

1) INSTALL SILTATION BARRIER
2) CONSTRUCT ACCESS FROM IPSWICH ROAD TO AREA OF PROPOSED CONSTRUCTION (REMOVE WALL & INSTALL TRACKING PAD)
3) INSTALL SEPTIC TANK AND PUMP CHAMBER AND CONNECT TO THE EXISTING BUILDING SEWER PIPE(S)
4) INSTALL FORCEMAIN TO LEACH AREA.
5) INSTALL LEACH FIELD AND CONNECT TO FORCEMAIN.
6) REMOVE ALL EXCESS MATERIALS AND EQUIPMENT FROM SITE.
7) FINISH GRADING AND STABILIZATION OF DISTURBED AREAS.
8) REPLACE STONE WALL TO PRE-EXISTING CONDITION, AND REMOVE TRACKING PAD.
9) REMOVE SILTATION BARRIER, WITH APPROVAL OF CONSERVATION AGENT.

INVERT ELEVATIONS:

DWELLING	98.5±
SEPTIC TANK INLET	98.00
SEPTIC TANK OUTLET	97.75
PUMP CHAMBER INLET	97.70
PUMP CHAMBER OUTLET	97.45
DBOX INLET	99.95
DBOX OUTLET	99.78
PRESBY INLET	99.58

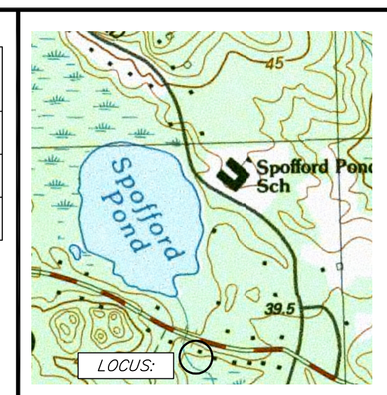
Presby Elevation Chart	1	2	3	4	5	6	7	8	9	10
High Grade	100.3	100.3	100.3	100.3	100.4	100.5	100.6	100.7	100.8	100.8
ESHGW	93.50	93.50	93.50	93.50	93.50	93.50	93.50	93.50	93.50	93.50
Bottom System Sand	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50
Bottom Presby Pipe	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
Presby Inlet Invert	99.58	99.58	99.58	99.58	99.58	99.58	99.58	99.58	99.58	99.58
Top Presby Pipe	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Top System Sand	100.25	100.25	100.25	100.25	100.25	100.25	100.25	100.25	100.25	100.25
Top Liner	100.10	100.10	100.10	100.10	100.10	100.10	100.10	100.10	100.10	100.10
Min. Finish Grade	100.59	100.59	100.59	100.59	100.59	100.59	100.59	100.59	100.59	100.59



FLOW PROFILE:

SCALE 1"=20' HORIZONTAL
1"=4' VERTICAL

▲	BENCHMARKS: ASSUMED DATUM	ELEV.
#1	GARAGE SLAB (CENTER RIGHT DOOR)	100.58
#2	FRONT DOOR THRESHOLD	101.14
#3		



LOCUS: SCALE:1"=1000'±

SOILS INFORMATION:

SOIL EVALUATOR: JAMES SCANLAN, P.E. (SE#2159 - APRIL 1995)
TOWN WITNESS: KENDELL LONGO
DATE: MAY 3, 2021

I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310CMR15.017 TO CONDUCT SOIL EVALUATIONS AND THE THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE AND EXPERIENCE DESCRIBED IN 310CMR15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED IN THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310CMR 15.100 THROUGH 15.107.

SIGNATURE: _____

DATE: _____

SOIL ELEVATIONS:

TESTPIT	T-1	T-2
GRADE	100.2	100.7
E.S.H.G.W.	93.2	93.5
OBS. G.W.	91.5	92.0
BOTTOM PIT	90.9	91.8

SOIL PERCOLATION RATE:

P-1: DEPTH TO 12"= 38"
SOIL PERC RATE= <2 MIN/IN

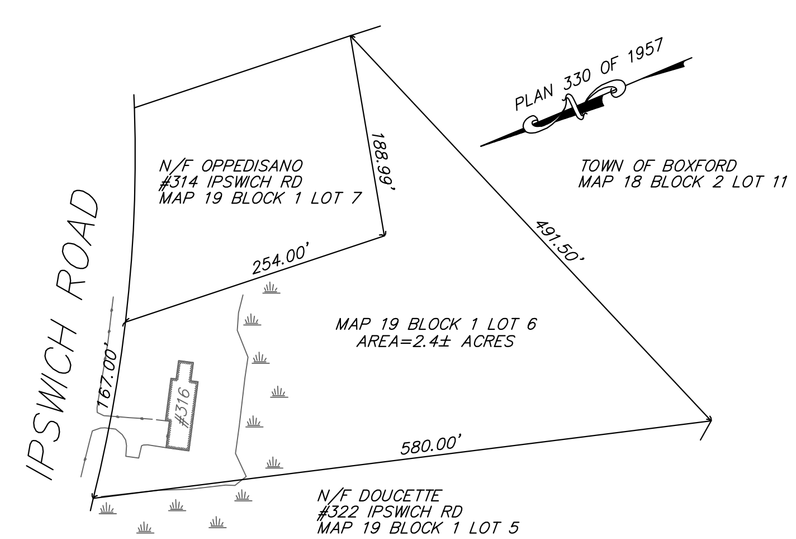
SOIL PROFILES:

T-1:
0-30" FILL & Ab FINE SANDY LOAM 10YR3/3 GRANULAR FRIABLE
30-38" Bwb FINE SANDY LOAM 10YR3/6 MASSIVE FRIABLE
38-112" C1 GRAVELLY MEDIUM-COARSE SAND 2.5Y5/4 SINGLE GRAIN LOOSE 15% GRAVEL
ROOTS(FEW) TO 78" ESHGW @ 84" STANDING @ 104" NO REFUSAL

T-2:
0-36" FILL & Ab FINE SANDY LOAM 10YR3/3 GRANULAR FRIABLE
36-43" Bwb FINE SANDY LOAM 10YR3/6 MASSIVE FRIABLE
43-107" C1 GRAVELLY MEDIUM-COARSE SAND 2.5Y5/4 SINGLE GRAIN LOOSE 15% GRAVEL POCKETS OF MEDIUM SAND
ROOTS TO 80" ESHGW @ 86" STANDING @ 105" NO REFUSAL

VARIANCES/WAIVERS:

REGULATIONS:	REQUIRED:	PROVIDED:
TOWN OF BOXFORD REGULATION 201-9(B)	100 FOOT SETBACK BETWEEN WETLANDS AND SAS	73 FT+ TO WETLANDS
TOWN OF BOXFORD REGULATION 201-9(E)	150 FT SETBACK BETWEEN WETLANDS AND SAS	73 FT+ TO WETLANDS
TOWN OF BOXFORD REGULATION 201-9(D)	150 FT SETBACK BETWEEN WELL AND SAS	84 FT+ TO WELL ON SITE 101 FT+ TO ABUTTING WELL
310CM515.211(1)	100 FT SETBACK BETWEEN WELL AND SAS	84 FT+ TO WELL ON SITE



LOCUS PLAN

SCALE 1"=100'

SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE

316 IPSWICH ROAD
BOXFORD, MA 01921

REGISTRY INFORMATION:
DEED:
BOOK NO.: 37784
PAGE NO.: 287

ASSESSORS INFORMATION:
MAP: 19
BLOCK: 1
LOT: 6

PREPARED FOR:
BRIAN & LINDA SHEA
316 IPSWICH ROAD
BOXFORD, MA 01921

SCANLAN ENGINEERING LLC
PO BOX 906-GEORGETOWN, MA 01833
PHONE: (978) 372-3440
FAX: (978) 891-3888
EMAIL: info@scanlanengineering.com
WEB: www.scanlanengineering.com

#	BY	DATE	REVISIONS TO PLANS
1	JBS	10/11/2021	CONSERVATION COMMENTS

DATE: AUGUST 11, 2021
DESIGN BY: JBS
DRAWN BY: JBS

PLAN & FLOW PROFILE

SHEET 1 OF 2 SCALE:1"= 20'

PROJECT # 1060