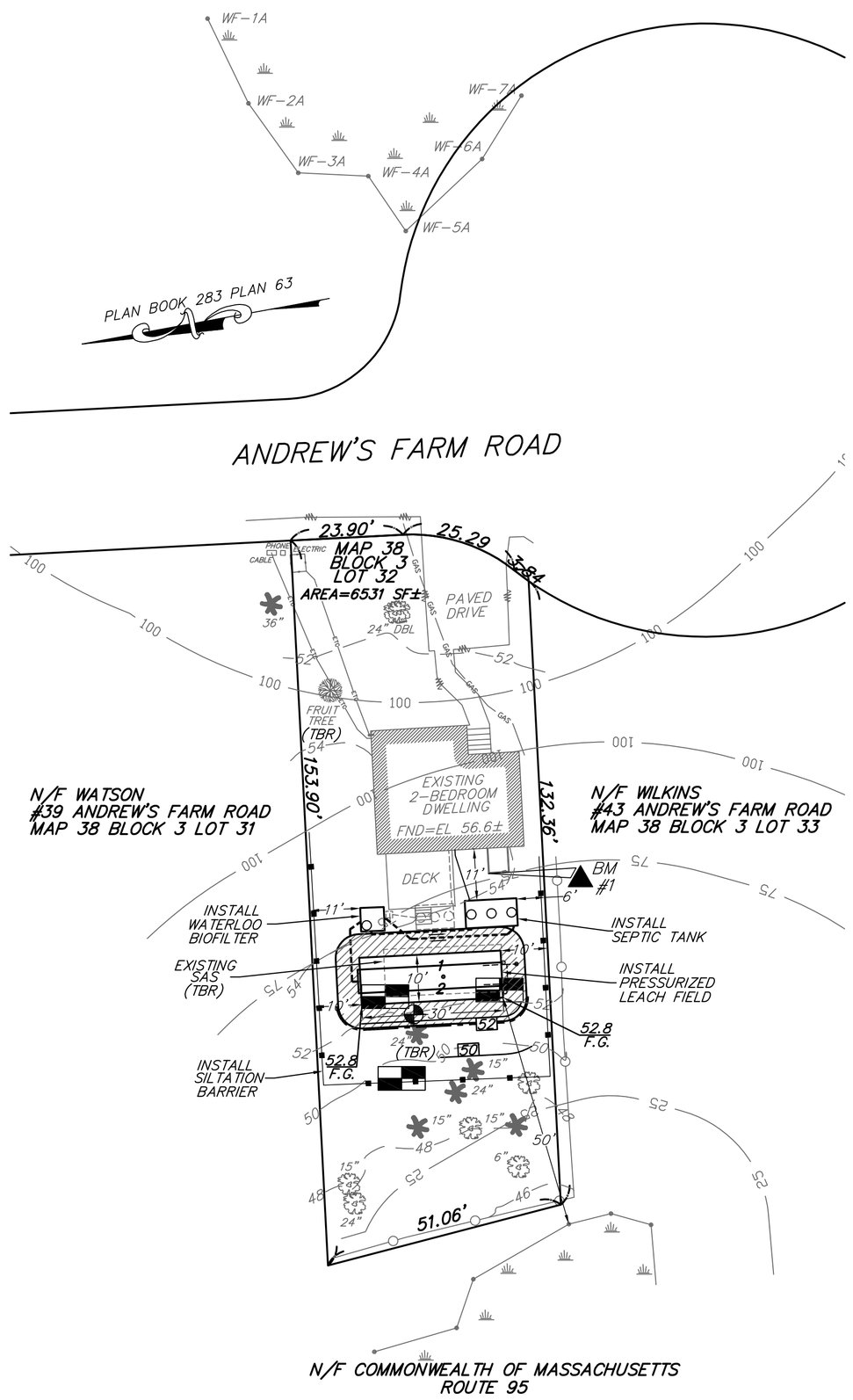
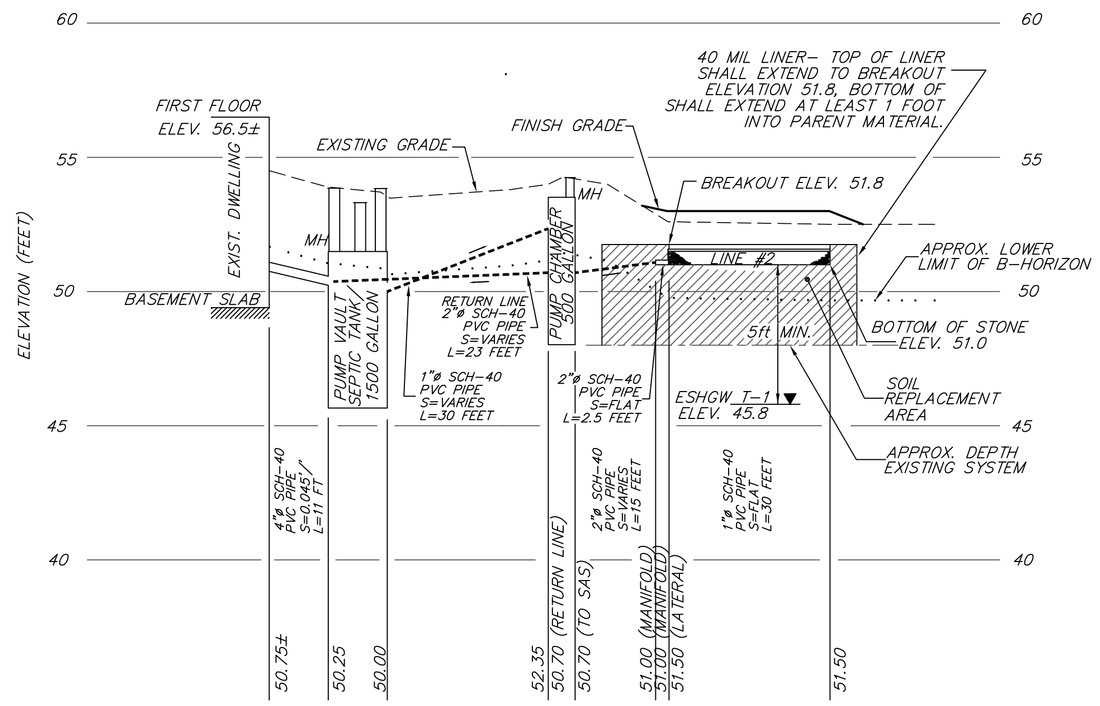


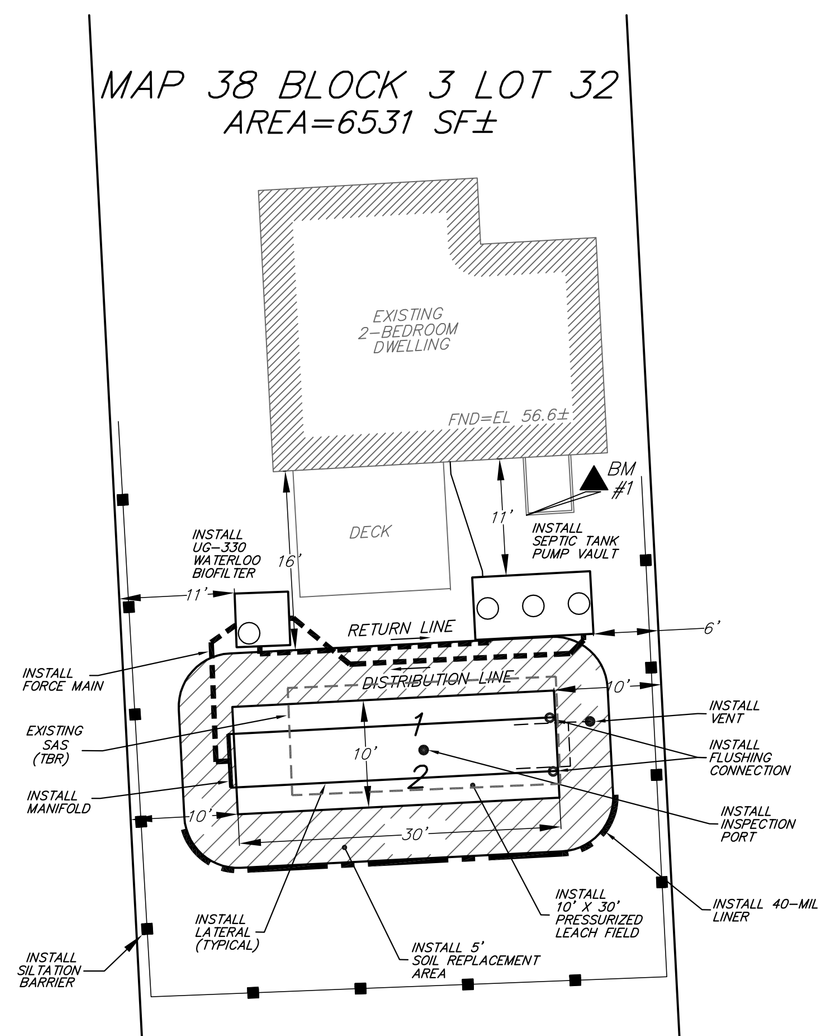
SITE PLAN:

SCALE 1"=20'



FLOW PROFILE:

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



SYSTEM PLAN:

SCALE 1"=10'

TABLE OF INVERT ELEVATIONS:

ST/PV COMBO IN	50.25	BOTTOM OF STONE	51.00
ST/PV COMBO OUT	50.00	MANIFOLD INVERT	51.00
WATERLOO BIOFILTER IN	52.35	LATERAL INVERT	51.50
WATERLOO BIOFILTER OUT	50.70	TOP OF LINER	51.8

▲ BENCHMARKS: ASSUMED DATUM		ELEV.
#1	LEFT FRONT CORNER BULKHEAD CONCRETE	54.32
#2		
#3		

SOILS INFORMATION:

SOIL EVALUATOR: JAMES SCANLAN, P.E. (SE#2159 – APRIL 1995)
TOWN WITNESS: KENDELL LONGO
DATE: MARCH 22, 2016

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 PERCOLATION RATE:
P-1: DEPTH TO 12"=36" SOIL PERC RATE= <2 MIN/IN

SOIL ELEVATIONS:

TESTPIT	T-1	T-2	T-3	
GRADE	49.1	52.5	52.6	
E.S.H.G.W.	45.8	N/D	N/D	
OBS. G.W.	44.1	N/D	N/D	
BOTTOM PIT	41.1			

SOIL PROFILES:

T-1:
0-14" FILL
14-20" Ab FINE SANDY LOAM 10YR3/2 MASSIVE FRIABLE
20-34" Bb FINE SANDY LOAM 10YR4/6 MASSIVE FRIABLE
34-96" C1 MEDIUM/COARSE SAND 2.5Y5/3 SINGLE GRAIN LOOSE
ESHGW@40" STD@60"
NO REFUSAL

T-2:
HIT EXISTING SYSTEM (TESTPIT ABANDONED)

T-3:
HIT EXISTING SYSTEM (TESTPIT ABANDONED)

DESIGN CRITERIA:

FACILITY TYPE: SINGLE FAMILY DWELLING
SIZE: 2 BEDROOMS
UNIT FLOW RATE: 110 GAL/BED/DAY
DAILY FLOW: 220 GAL/DAY
GARBAGE GRINDER: NO (SEE WAIVERS)
SYSTEM DESIGN: 220 GAL/DAY

SOILS CLASS: CLASS I
SOIL PERC RATE: <5 MIN/INCH
LONG TERM ACCEPTANCE RATE: 0.74 GAL/SF/DAY

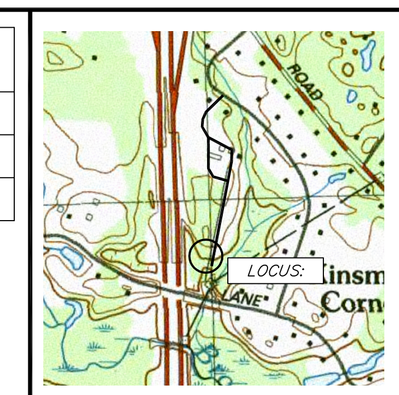
REQUIRED LEACH AREA:
(TOWN) 298 SF
(STATE) 298 SF
PROVIDED LEACH AREA: 300 SF
(LEACH AREA: 10' X 30' = 300 SF)

VARIANCES/WAIVERS:

BOXFORD HEALTH REGULATION BBOH SEC 201-9(B)	SETBACK BETWEEN SAS AND WETLANDS REQUIRED 100 FEET	PROVIDED 50 FEET W/WATERLOO BIOFILTER
BOXFORD HEALTH REGULATION BBOH SEC 201-9(E)	SETBACK BETWEEN SAS AND WETLANDS REQUIRED 150 FEET WITH PERC RATE > 5 MIN/IN	PROVIDED 50 FEET W/WATERLOO BIOFILTER
BOXFORD HEALTH REGULATION BBOH SEC 201-10	REQUIRES SAS TO BE SIZED FOR A GARBAGE GRINDER (165 GAL/BED/DAY)	DESIGN FOR NO GARBAGE GRINDER (110 GAL/BED/DAY) WITH DEED RESTRICTION
310CMR15.211(1) SETBACKS	REQUIRES SEPTIC TANK TO BE 10 FEET FROM PROPERTY LINES	PROVIDED 6 FEET MINIMUM
310CMR15.203(2) SYSTEM DESIGN FLOW	REQUIRES 110 GAL/BED/DAY WITH 330 MINIMUM DESIGN	PROVIDED 110 GAL/BED/DAY WITH 220 MINIMUM DESIGN AND BEDROOM COUNT DEED RESTRICTION

LEGEND:

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



LOCUS: SCALE:1"=1000'±

SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE

41 ANDREWS FARM RD
BOXFORD, MA 01921

REGISTRY INFORMATION:
DEED:
BOOK NO.: 28119
PAGE NO.: 80

ASSESSORS INFORMATION:
MAP: 38
BLOCK: 03
LOT: 32

PREPARED FOR:
LEIGHTON LOBDELL
86 BENNETT HILL RD
ROWLEY, MA

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WEB: www.scanlanengineering.com

#	BY	DATE	REVISIONS TO PLANS

DATE: APRIL 4, 2016
DESIGN BY: JBS
DRAWN BY: JBS

PLAN & FLOW PROFILE

SHEET 1 OF 2 | SCALE: 1"= 20'
PROJECT # 0722