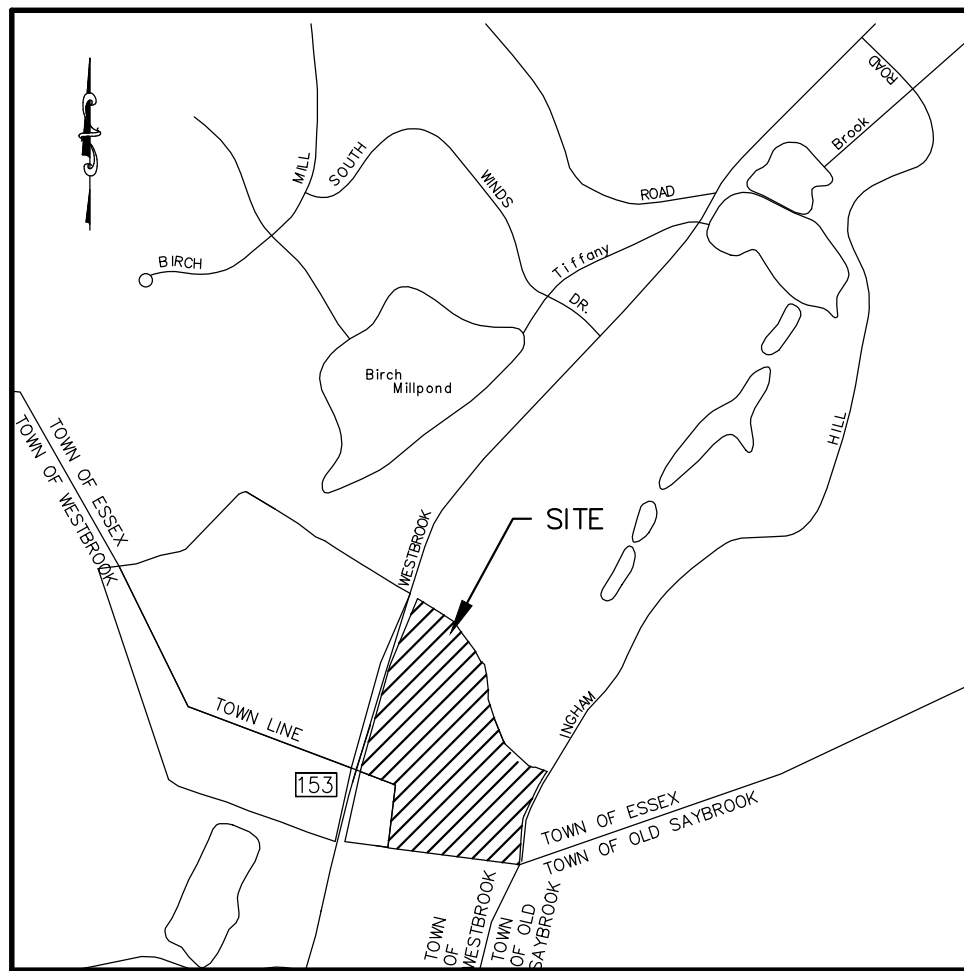
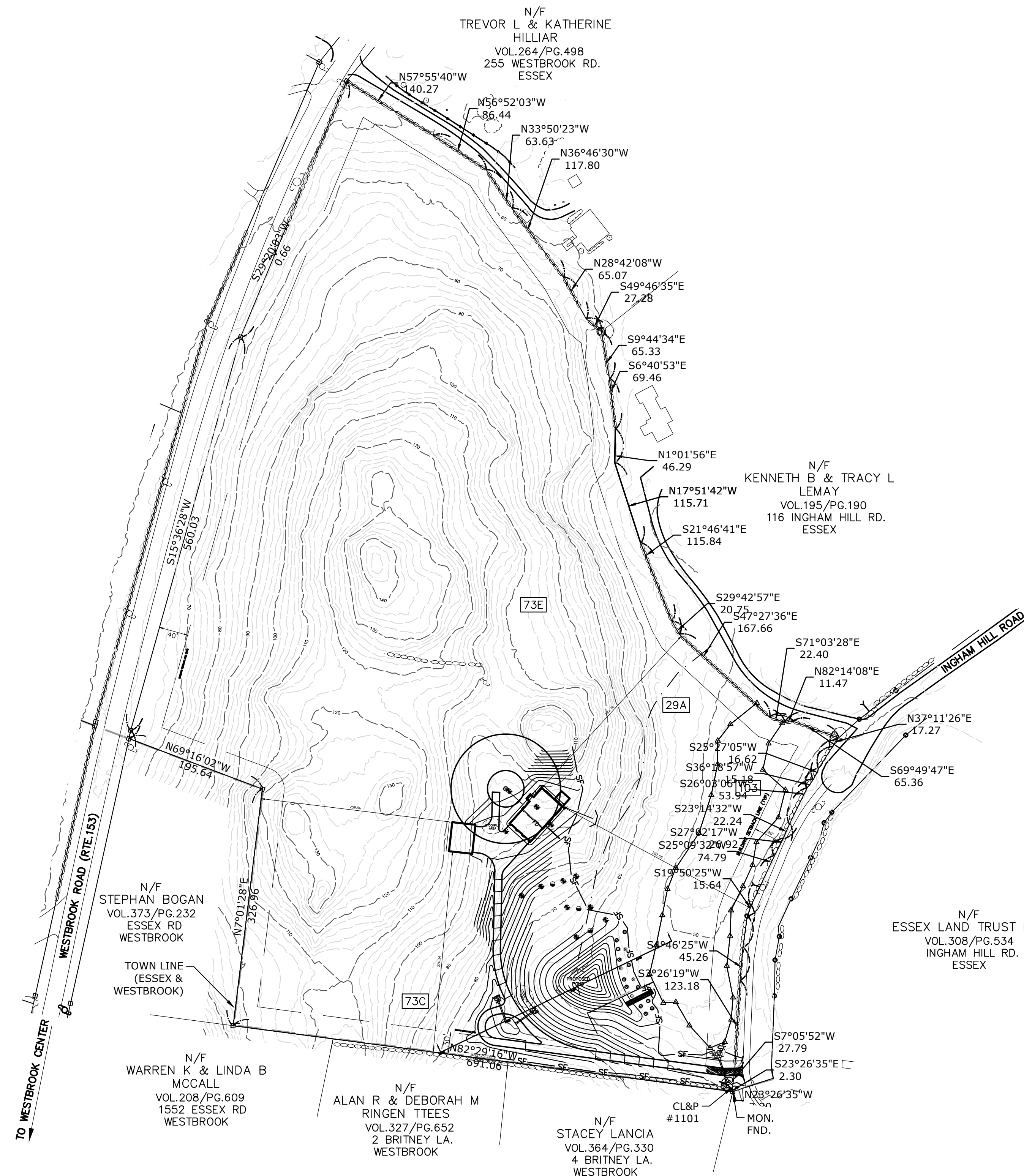


DATE	REVISION	CK.
07/11/23	POND SECTION ADDED	



LOCATION MAP
SCALE: 1"=2000'±



SOIL TYPES DATA TABLE

MAP LEGEND	MAP UNIT NAME
29A	Agawam fine sandy loam, 0-3% slopes
29B	Agawam fine sandy loam, 3-6% slopes
73C	Charlton-Chatfield complex, 0-15% slopes, very rocky
73E	Charlton-Chatfield complex, 15-45% slopes, very rocky
103	Rippowam fine sandy loam

TOWN OF ESSEX
SITE DATA TABLE

ZONE: RU	REQUIRED	EXISTING	PROPOSED
ITEM	150'		
MIN. LOT WIDTH	80,000 SF	776,379.96 SF	776,379.96 SF
MIN. LOT AREA	15%	N/A	0.05% (3,810SF.)
MAX. BUILDING COVERAGE	40'	N/A	292.66'
FRONT SETBACK	30'	N/A	282.78'(N) / 276.24'(S)
SIDE SETBACK	30'	N/A	259.96'
REAR SETBACK	35'	N/A	<35'
BUILDING HEIGHT		N/A	ON SITE
WATER SUPPLY		N/A	ON SITE
SEWAGE DISPOSAL		N/A	ON SITE

LEGEND

- IRON PIPE/ROD TO BE SET
- MON □ MONUMENT
- DH ○ DRILL HOLE
- IP/IR ○ IRON PIPE/ROD
- CONC. CONCRETE
- GTD GRADE TO DRAIN
- FND FOUND
- FF FINISHED FLOOR
- EXIST. EXISTING
- TW TOP OF WALL
- CL&P# 1198 ○ EXISTING UTILITY POLE
- PT#1 ○ PERCOLATION TEST
- TH#1 ○ TEST HOLE
- 7.0 ○ PROPOSED SPOT ELEVATION
- CORNUS SERICEA (RED-OSIER DOGWOOD)
- VACCINIUM CORYMBOSUM (HIGH BUSH BLUEBERRY)
- ILEX VERTICILLATA (WINTERBERRY)
- SOIL LIMITS LINE
- TOWN LINE (ESSEX AND WESTBROOK)
- 80 --- EXISTING CONTOURS
- 5' --- SILT FENCE

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-4 INCLUSIVE OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES AND "RECOMMENDED MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT". IT IS AN IMPROVEMENT LOCATION SURVEY INTENDED TO DEPICT THE PROPOSED IMPROVEMENTS RELATIVE TO THE PROPERTY LINES AND ZONING SETBACK LINES SHOWN. PROPERTY/BOUNDARY HAS BEEN DETERMINED BY A PARTIAL INDEPENDENT RESURVEY WITH REFERENCE TO THE MAPS LISTED HEREON.

PROPERTY BOUNDARY HAS BEEN ESTABLISHED BY A DEPENDENT RESURVEY WITH REFERENCE TO THE MAP(S) NOTED HEREON.

A.) OPEN SPACE PRESERVATION SUBDIVISION "BOUNDARY SURVEY MAP" PREPARED FOR RIVERSOUND DEVELOPMENT, LLC INGHAM HILL ROAD, ESSEX, CONNECTICUT SHEET 1 OF 1 SCALE: 1"=100' DATED 02-09-12 REVISED TO 02-28-14 BY DOANE-COLLINS ENGINEERING ASSOCIATES, LLC

B.) "PROPERTY LINE REVISION MAP" MAP DEPICTING PROPERTY OF DONALD M., JONATHAN M & DONALD M HIGGINS, CT ROUTE #153, WESTBROOK & ESSEX, CONNECTICUT SHEET 1 OF 1 SCALE: 1"=100' DATED 08/21/20 REVISED TO 08/27/21. BY DOANE ENGINEERING.

THE SUBJECT PROPERTY CONTAINS 776,379.96 SF 17.82 AC HORIZONTAL ACCURACY CONFORMS TO CLASS A-2.

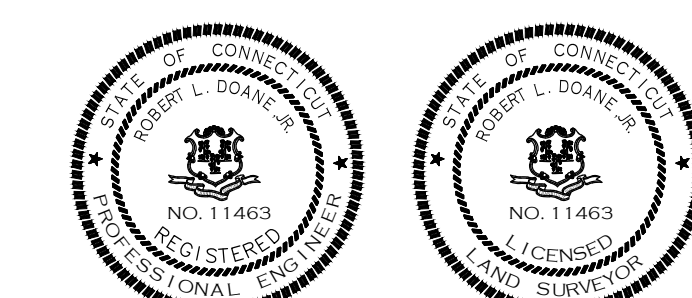
VERTICAL ACCURACY CONFORMS TO CLASS T-2 (ASSUM DATUM)

SUBJECT PROPERTY IS RECORDED IN TOWN OF ESSEX LAND RECORDS BOOK 94, PG. 12

THIS SITE IS NOT LOCATED WITHIN A FLOOD ZONE PER FIRM COMMUNITY PANEL NUMBER 09007C 1333 G MAP EFFECTIVE DATE 08/28/2008

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Robert L. Doane, Jr.
ROBERT L. DOANE, JR.
CONN. P.E. & L.S. LIC. NO. 11463



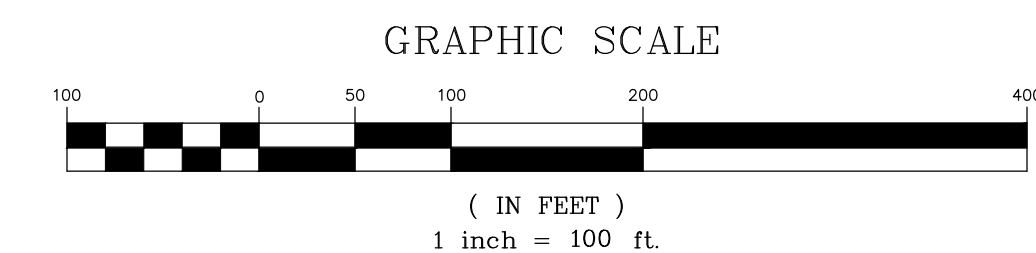
MAP #94 LOT #12



SITE PLAN
PREPARED FOR
GREG AND MIKAELA ZITO

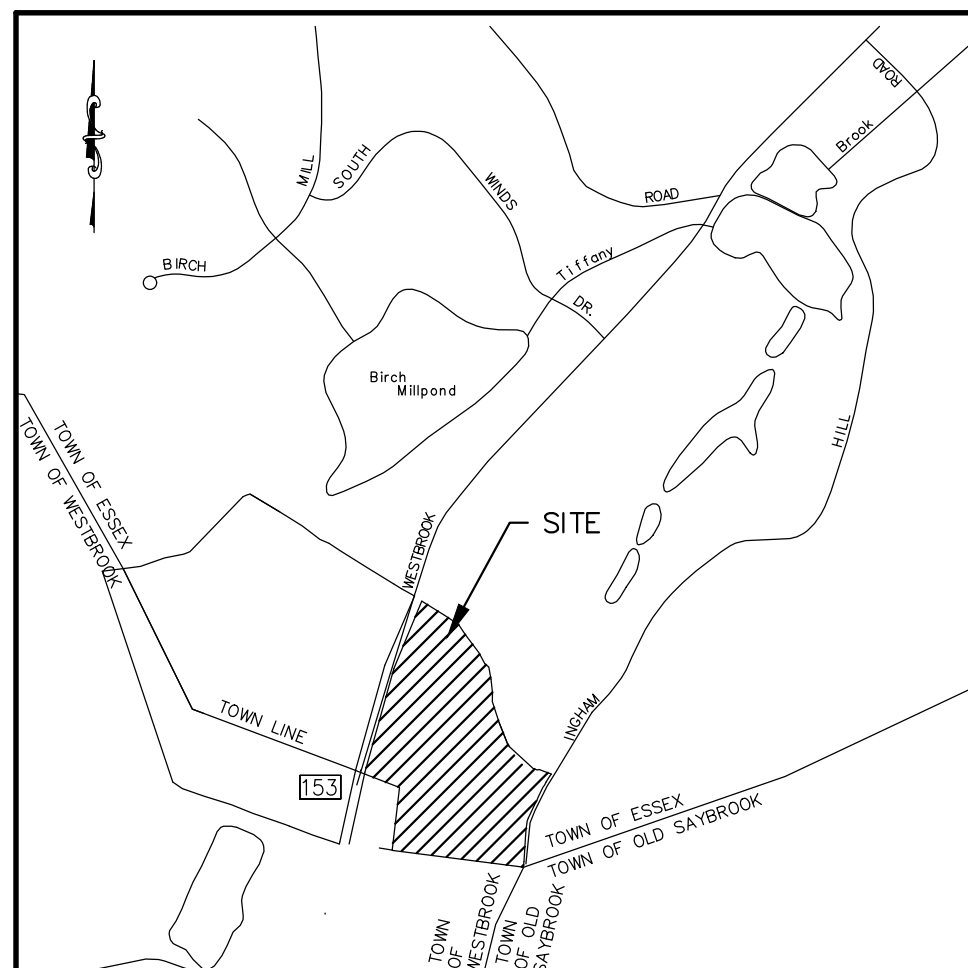
#118 INGHAM HILL ROAD, ESSEX, CONNECTICUT

SCALE: 1"=100'	DATE: 05/25/23	SHEET NO.: 1 OF 3	IDENT. NO.:
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FILE: (you name) \DWG\2023\2023\0505\118 INGHAM HILL ROAD\20-300b-4-25-23.dwg

DATE	REVISION	CK.
07/11/23	POND SECTION ADDED	



LOCATION MAP
SCALE: 1"=2000'±



LEGEND

- IRON PIPE/ROD TO BE SET
- MON □ MONUMENT
- IP ○ IRON PIPE/ROD
- DH ○ DRILL HOLE
- IP/IR ○ IRON PIPE/ROD
- CONC. CONCRETE
- GTD GRADE TO DRAIN
- FND FOUND
- FF FINISHED FLOOR
- EXIST. EXISTING
- TW TOP OF WALL
- CORNUS SERICEA (RED-OSIER DOGWOOD)
- VACCINIUM CORYMBOSUM (HIGH BUSH BLUEBERRY)
- ILEX VERTICILLATA (WINTERBERRY)
- CL&P# 1198 ○ EXISTING UTILITY POLE
- TH#1 ● TEST HOLE
- 7.0 PROPOSED SPOT ELEVATION
- - - 100 - - - EXISTING CONTOURS
- - - SF - - - SILT FENCE
- - - W - - - PROPOSED WATERLINE

Robert L. Doane, Jr.
ROBERT L. DOANE, JR.
 CONN. P.E. & L.S. LIC. NO. 11463



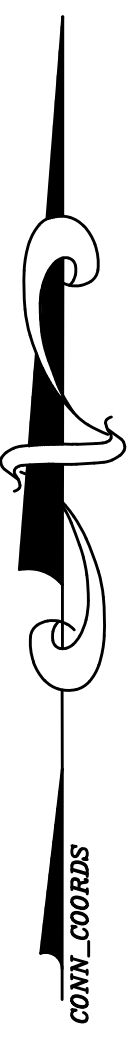
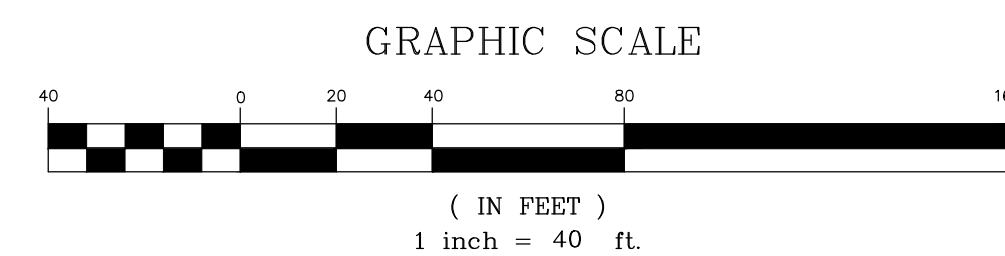
MAP #94 LOT #012

DOANE ENGINEERING
 CIVIL ENGINEERING AND LAND SURVEYING
 P.O. BOX 113 CENTERBROOK, CONNECTICUT 06409
 TEL: (860)767-0138, FAX: (860)767-9104

SITE PLAN
 PREPARED FOR
GREG AND MIKAELA ZITO

#118 INGHAM HILL ROAD, ESSEX, CONNECTICUT

SCALE: 1"=40'	DATE: 05/25/23	SHEET NO.: 2 OF 3	IDENT. NO.:
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DATE	REVISION	CK.
07/11/23	POND SECTION ADDED	

- CONSTRUCTION SEQUENCE (SANITARY SYSTEM)**
- NOTIFY TOWN HEALTH DEPARTMENT AND THE ENGINEER 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. NO PORTION OF THE SYSTEM WILL BE COVERED WITHOUT INSPECTION AND APPROVAL BY THE ENGINEER OR THE SANITARIAN.
 - PLACE SILT FENCE AS SHOWN ON THE DRAWING AND IN THE DETAIL.
 - REMOVE ALL TREES, STUMPS AND DELETERIOUS MATERIAL FROM SYSTEM AREA.
 - STOCKPILE TOPSOIL FOR REUSE.
 - DO NOT STOCKPILE TOPSOIL IN SANITARY SYSTEM AREA.
 - DO NOT REMOVE SUBSOIL.
 - ENGINEER/LAND SURVEYOR SHALL FIELD STAKE THE PROPOSED SYSTEM PRIOR TO INSTALLATION. ADDITIONAL A BENCH MARK SHOULD BE SET AT THE TIME OF STAKEOUT.
 - INSTALL SEPTIC SYSTEM AS SHOWN.
 - IF SOIL CONDITIONS OTHER THAN THOSE SHOWN IN THE SOIL LOGS ARE ENCOUNTERED DURING THE INSTALLATION OF THE SANITARY SYSTEM, THE DESIGN ENGINEER OR THE SANITARIAN SHALL BE NOTIFIED AND THE WORK WILL BE HALTED PENDING REVIEW OF THOSE CONDITIONS. IF NECESSARY THE SANITARY SYSTEM SHALL BE REVISED.
 - A MINIMUM OF 4 FEET MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND LEDGE. A MINIMUM OF 1.5 FEET MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND SEASONAL HIGH GROUNDWATER.
 - DO NOT BACKFILL ANY PORTION OF THE SANITARY SYSTEM UNTIL INSPECTED BY THE SANITARIAN AND UNTIL A "RECORD" SURVEY HAS BEEN COMPLETED.
 - REPLACE TOPSOIL, GRADE, SEED AND MULCH ALL DISTURBED AREAS.
 - MAINTAIN SYNTHETIC FILTER BARRIER UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- SANITARY SYSTEM NOTES:**
- NO LARGE CAPACITY TUBS (> 100 GALLON CAPACITY) ARE PLANNED AND WILL NOT BE PERMITTED IN THE PROPOSED RESIDENCE.
 - NO WATER TREATMENT SYSTEM WASTE WATER SHOULD BE DISCHARGED TO THE SEPTIC SYSTEM.
 - A GARBAGE GRINDER (DISPOSAL) IS PROPOSED AND THE SEPTIC TANK HAS BEEN INCREASED IN SIZE TO A 1,500 GALLON TANK.
 - WATER SUPPLY SHALL BE BY AN INDIVIDUALLY DRILLED WELL.
 - ALL SOLID PIPING AFTER THE SEPTIC TANK TO BE 4" PVC ASTM D 3034, SDR 35.
 - FILTER FABRIC SHALL BE SELECTED FROM THE FOLLOWING TABLE:

APPROVED FILTER FABRICS FOR COVERING STONE AGGREGATE

MANUFACTURE	DESIGNATION	NUMBER
AMERICAN ENGINEERING FABRICS	AEF-480	
BRADLEY INDUSTRIAL TEXTILE	PHENOX LJOUMA	
CARTHAGE MILLS	M35	
CULTEC	410	
DUPONT	SF20	
ENGINEERED SYNTHETIC PRODUCTS	TNS R020	
GEO FABRICS	GF 150	
L&M SUPPLY COMPANY	L&M 231	
MIRAFI	65304 (4' WIDE), 65303 (3' WIDE)	
SKAPS INDUSTRIES	SKAPS GT 120	
SRW PRODUCTS	SRW PRODUCTS DF1 SRW PRODUCTS DF2	
TERRA TEX	S01.5, P01.5	
TYPAR	3151, 3201	
US FABRIC INC.	US 1.5 GT	

- NO DEVIATION FROM THIS PLAN WILL BE ALLOWED WITHOUT THE APPROVAL OF THE ENGINEER AND SANITARIAN.
- SEPTIC TANK CONSTRUCTION JOINTS SHALL BE SEALED WITH ASPHALT CEMENT. ALL PIPE CONNECTIONS TO THE SEPTIC TANK AND DISTRIBUTION BOXES SHALL BE SEALED WITH A POLYETHYLENE GASKET ("POLY-LOK" OR APPROVED EQUAL).
- SEPTIC TANK AND BAFFLES SHALL CONFORM TO SECTION V.A.1 TECHNICAL STANDARDS OF THE STATE HEALTH CODE.
- SEPTIC TANK SHALL BE TWO COMPARTMENT TANK WITH HEAVY DUTY STEEL HANDLES FOR MANHOLE ACCESS COVERS AND GAS BAFFLES INSTALLED ON OUTLET PIPING. SEPTIC TANK TO BE EQUIPPED WITH AN APPROVED NON-BYPASS EFFLUENT FILTER AT THE OUTLET. SEE TABLE BELOW:

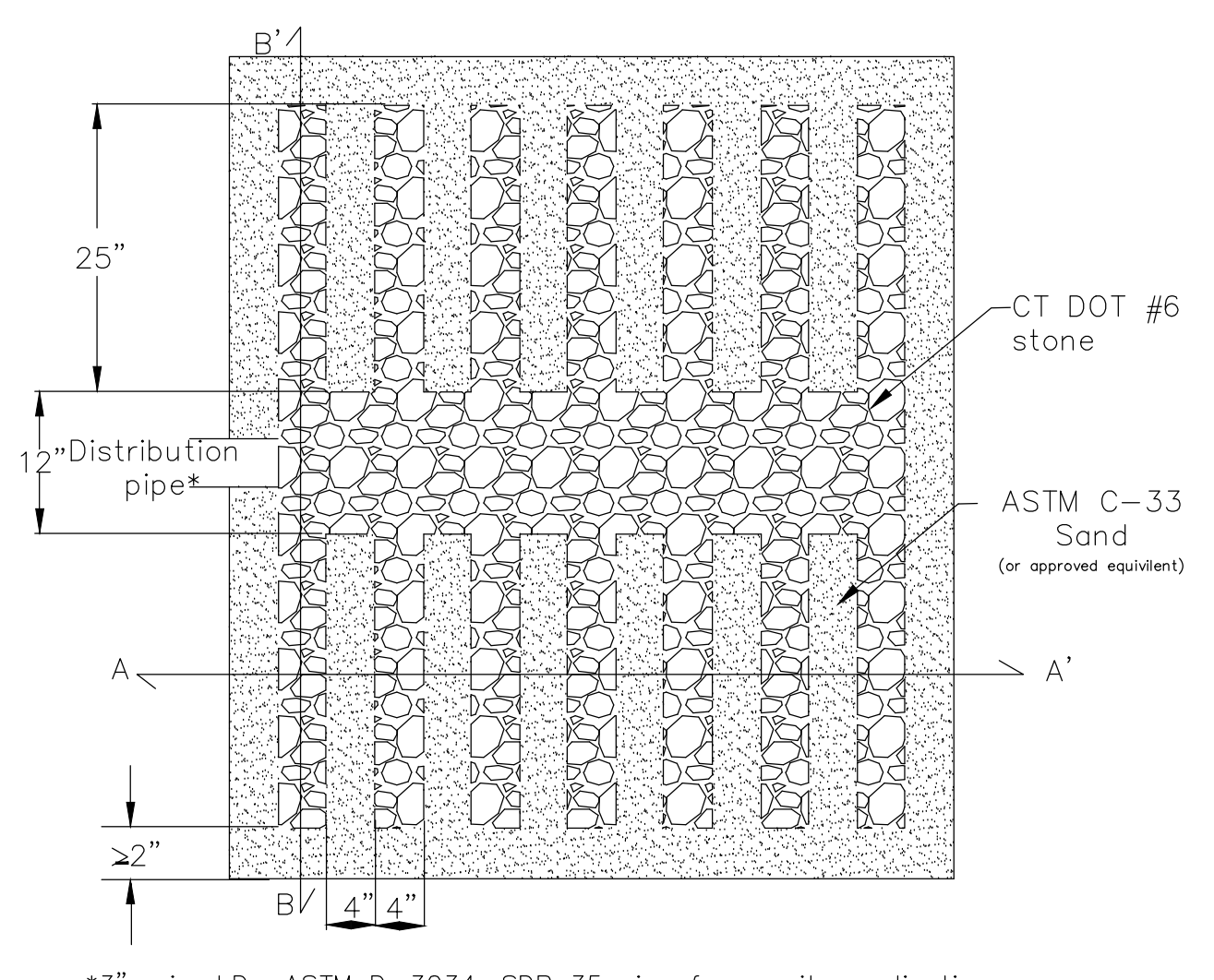
APPROVED SEPTIC TANK EFFLUENT FILTERS

MANUFACTURER	MODEL
BEAR ONSITE	ML2-416, ML2-920, ML3-910 ML3-916, ML3-925, ML3-932
BIO-MICROBICS	Sanitee Series, ST 416, ST 418, ST 818 ST 838, ST 1618, ST 1638
BOWCO INDUSTRIES	EF-235
GAG-SIMTECH	ST-110, ST-110-7R ST-110-6W, ST-110-8B
NORWECO	BIO-KINETIC BK2000
ORENCO SYSTEMS	FT0444-36 FT0854-36 FT1254-36 FT1554-36 FTJ0418
POLYLOK	PL-68, PL-122, PL-525, PL-625 GF 10-8, GF 10-16
PREMIER TECH	EF-080
RISSEY PLASTICS	45 - CLIK N'STICK
TUF-TITE	EF-4, EF-6
ZABEL	A100 A300 A1800 A1801 A100-HIP A300-HIP A1800-HIP A1801-HIP A600-12, A600-8 WW1 (170-0078) WW4 (5000-0007)
ZOELLER/CLARUS	

- STONE AGGREGATE MEANS BROKEN STONE, CRUSHED STONE, OR SCREENED GRAVEL MEETING DEPARTMENT OF TRANSPORTATION FORM 816 SPECIFICATION M.01.01 FOR NO. 4 OR NO. 6 STONE (AS SHOWN BELOW OR LATEST SPECIFICATION). STONE AGGREGATE SHALL BE FREE OF SILT, DIRT OR DEBRIS AND SHALL SHOW A LOSS OF ABRASION OF NOT MORE THAN 50 PERCENT USING AASHTO METHOD T-96.

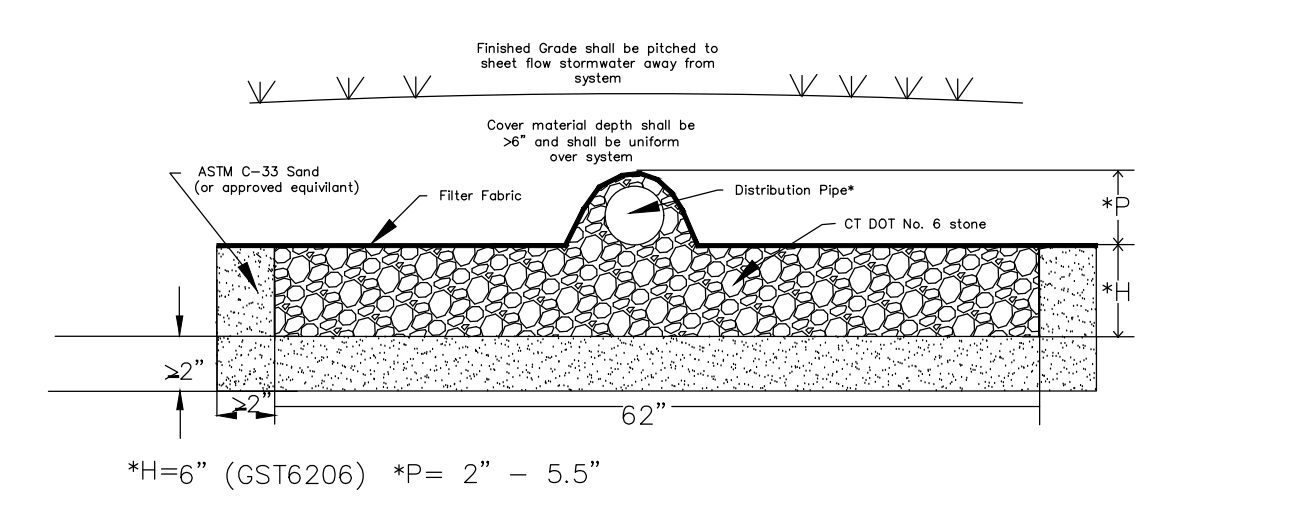
SIEVE SIZE	NO. 4 STONE AGGREGATE (A.K.A. 1 & 1/2" STONE) PERCENT PASSING (by weight)	NO. 6 STONE AGGREGATE (A.K.A. 3/4" STONE) PERCENT PASSING (by weight)
2 - INCH	100	N/A
1.5 INCH	90-100	N/A
1 INCH	20-55	100
3/4 INCH	0-15	90-100
1/2 INCH	N/A	20-55
3/8 INCH	0-5	0-15
#4	N/A	0-5
#40	0-3	0-3
#200	0-15	0-15

- ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS. HAVE RISER COVERS THAT WEIGHS AT LEAST 59 LBS. AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO THE TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.

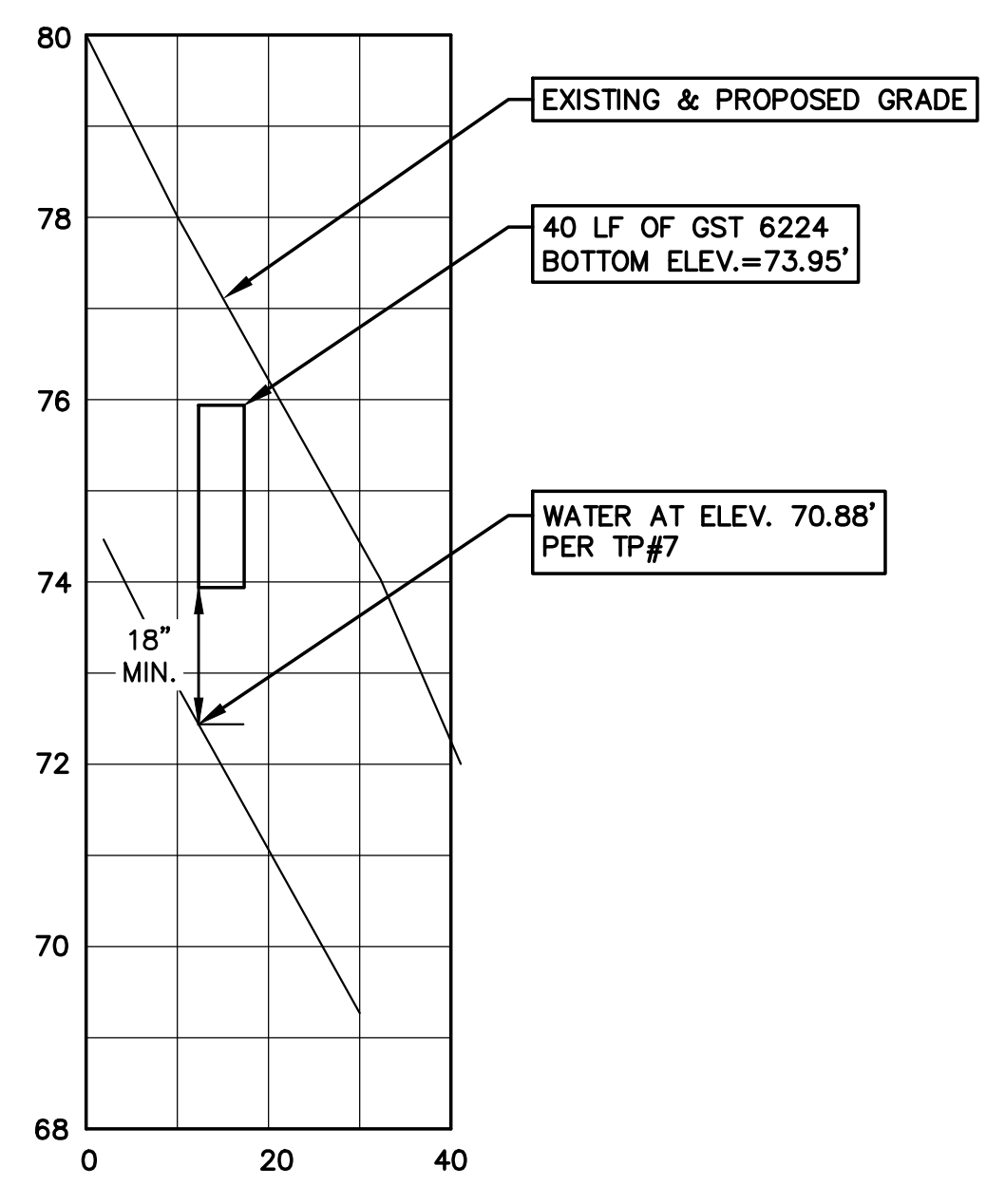


*3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
0.75" min. I.D., ASTM D-2665, SCH 40 PVC pipe for pressure applications

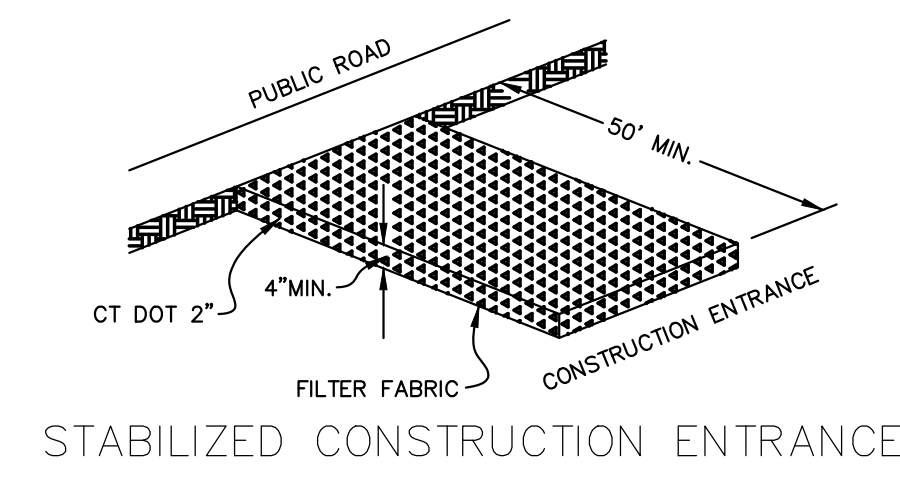
GEOMATRIX GST LEACHING SYSTEM
Plan View
N.T.S.
12" (GST6212)



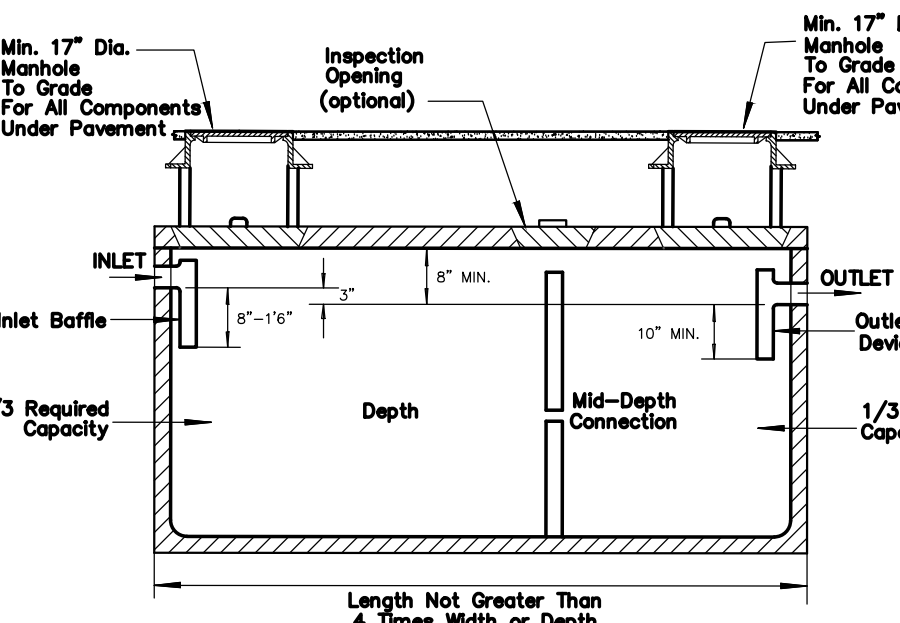
GEOMATRIX GST LEACHING SYSTEM
B-B' CROSS SECTION
N.T.S.



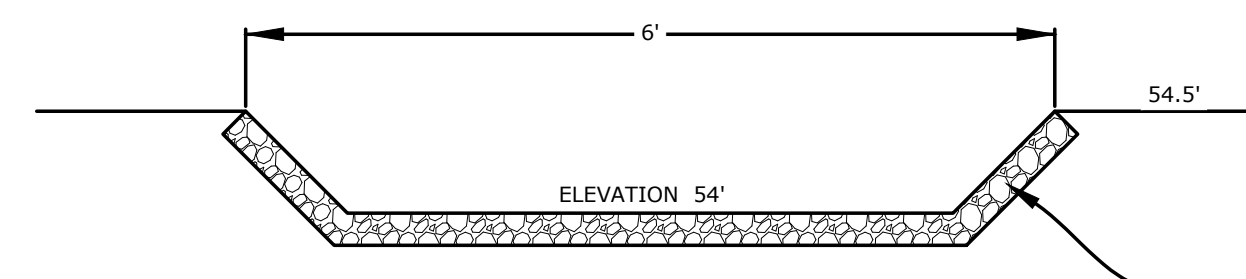
SECTION A-A
SANITARY SYSTEM X-SECTION
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 2'



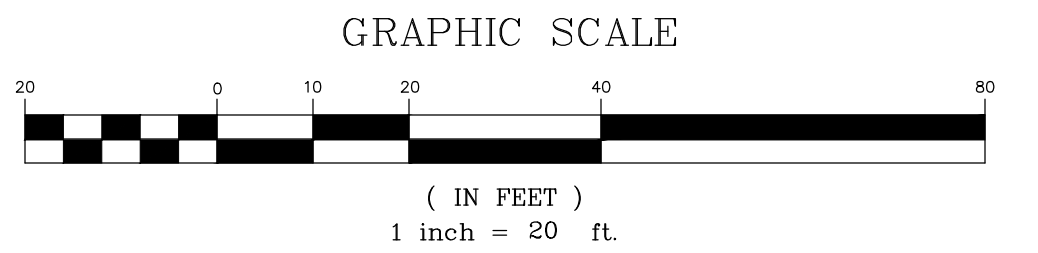
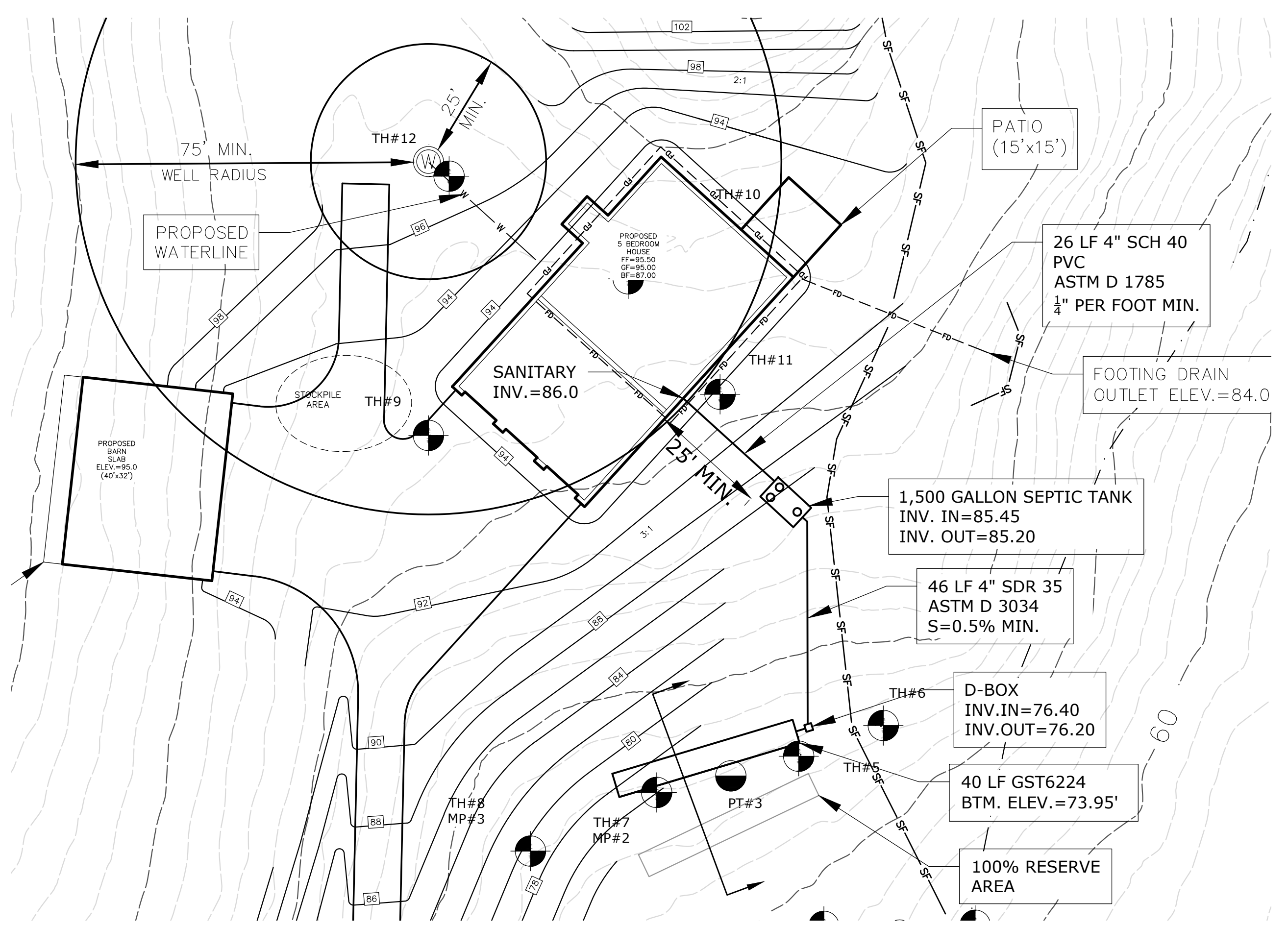
STABILIZED CONSTRUCTION ENTRANCE



TYPICAL SEPTIC TANK



RIPRAP SWALE DETAIL
NOT TO SCALE



Test Hole Data
Performed by Doane Engineering
& Don Mitchell, R.S., Town of Essex
ON 2/1/23

TH 1

0 - 10" Topsoil		
10 - 32" Orange brown silt loam with roots observed at 37"		
32 - 64" Grey very fine silty sand		
No ledge observed		
Groundwater observed at 37"		

TH 2

0 - 14" Topsoil with rocks		
14 - 37" Brown silt loam, some gravel (wet)		
37 - 62" Grey very fine sand turning to coarse sand and gravel		
Roots observed at 43"		
No ledge observed		
Groundwater observed at 43"		

TH 3

0 - 12" Topsoil		
12 - 45" Brown silty fine sandy loam		
45 - 69" Gray coarse sand, gravel, and rocks		
Roots observed to 54"		
Groundwater observed at 56"		

TH 4

0 - 6" Topsoil		
6 - 33" Brown silty fine sandy loam		
33 - 72" Gray well graded sand and gravel, some stones (not tight)		
Roots observed to 33-60"		
No ledge observed		
Groundwater observed at 56"		

TH 5

0 - 9" Topsoil		
9 - 44" Brown fine sandy loam		
44 - 78" Olive gray well graded sand and gravel, some stones (not tight)		
Roots observed at 52"		
No ledge observed		
No groundwater		

TH 6

0 - 12" Topsoil		
12 - 30" Brown fine sandy loam		
30 - 76" Gray glacial till with rocks (not compact)		
Roots observed to 51"		
No ledge observed		
No groundwater observed		

TH 7

0 - 10" Topsoil		
10 - 24" Orange brown fine sand, some silt		
24 - 50" Grayish tan medium sand		
50 - 70" Gray sand and gravel with stones		
Roots observed to 53"		
No ledge observed		
Groundwater observed at 65"		

TH 8

0 - 12" Topsoil		
12 - 33" Brown silty fine sandy loam (wet)		
33 - 63" Gray sands and gravel		
Roots observed to 33"		
No ledge observed		
No groundwater observed		

Perc Test Data
Performed by Doane Engineering
On 2/23/23

PT 1

2:50 - Pre-Soak	24" - Depth	
3:50 - Fill		
Time	Depth	Min./Inch
3:50	3.25	3.0
4:00	5.75	4.0
4:10	7.75	5.0
4:20	10.75	3.3
4:30	12.5	1.75
4:40	13.75	8.0
4:50	14.75	10.0

Perc Rate = 0 - 10.0 min./inch

PT 2

2:50 - Pre-Soak	24" - Depth	
3:50 - Fill		
Time	Depth	Min./Inch
3:50	3.0	3.0
4:00	8.5	1.8
4:10	12.0	2.9
4:20	15.25	3.1
4:30	18.0	13.3
4:40	17.75	5.7
4:50	18.75	10.0

Perc Rate = 10.1 - 20.0 min./inch

Perc Test Data
Performed by Doane Engineering
on 4/18/23

PT 3

9:30 - Pre-Soak	24" - Depth	
10:35 - Fill		
Time	Depth	Min./Inch
10:35	8.25	3.0
10:45	13.25	2.0
10:55	16.5	3.1
11:05	20.5	2.5
11:15	23.5 (DRY)	3.3
11:25	-	-
11:35	-	-

Perc Rate = 0 - 10.0 min./inch

PROPOSED HOUSE SANITARY SYSTEM DESIGN:
5 BEDROOM HOUSE

DESIGN PERCOLATION RATE = 0 - 10.0 MIN/IN
REQUIRED EFFECTIVE LEACHING AREA = 660 SF

PROVIDE 1-40 FT ROW OF GST 6224
EFFECTIVE LEACHING AREA PROVIDED
40 LF X 18.1 SF/LF = 724 SF

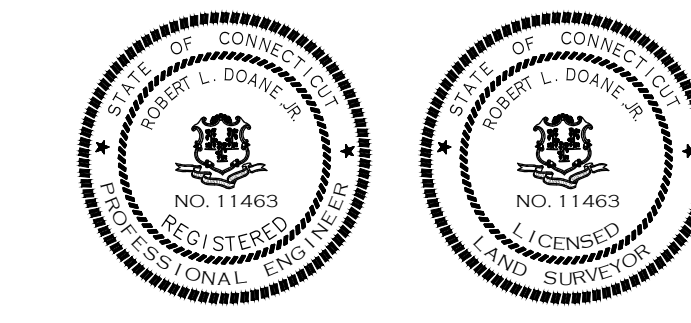
PROVIDE 1,500 GALLON SEPTIC TANK
PROVIDE 100% RESERVE AREA

DEPTH TO RESTRICTIVE LAYER 56" (TH#4)
ROOTS OBSERVED AT TEST HOLES 1 THRU 8

HF X FF X PF
HF = 10
FF = 2.0
PF = 1.0
10 X 2.0 X 1.0 = 40.0

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Robert L. Doane, Jr.
ROBERT L. DOANE, JR.
CONN. P.E. & L.S. LIC. NO. 11463



MAP #94 LOT #012

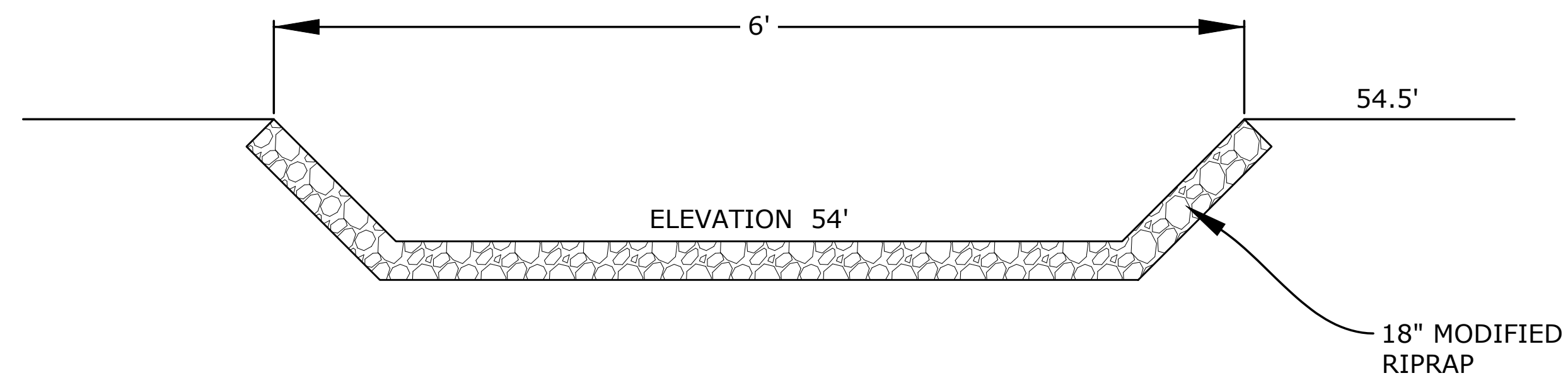
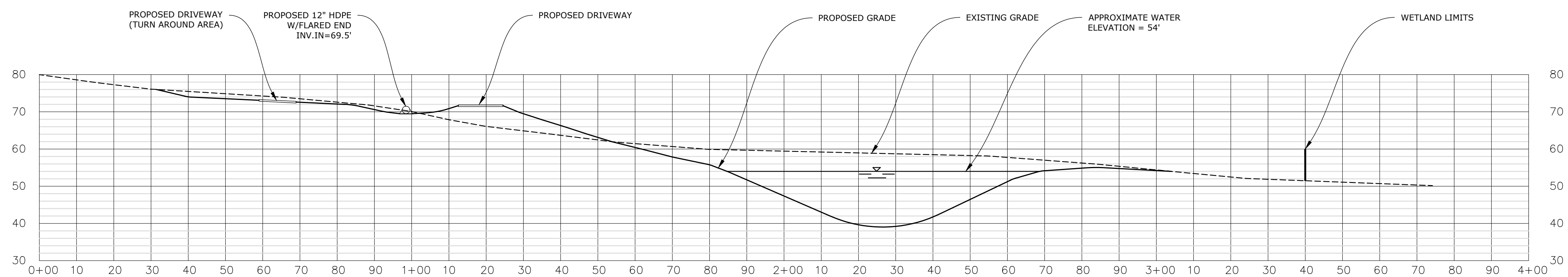
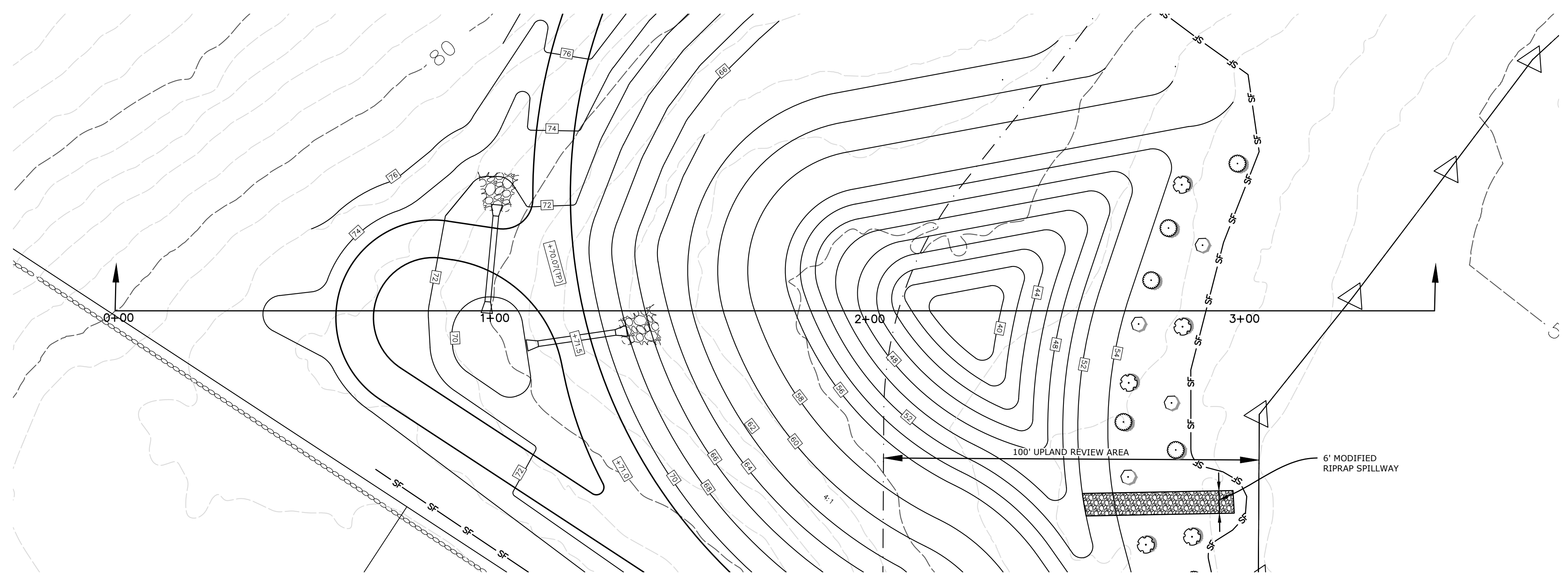
DOANE ENGINEERING
CIVIL ENGINEERING AND LAND SURVEYING
P.O. BOX 113 CENTERBROOK, CONNECTICUT 06409
TEL: (860)767-0138, FAX: (860)767-9104

DETAIL SHEET
PREPARED FOR
GREG AND MIKAELA ZITO
#118 INGHAM HILL ROAD, ESSEX, CONNECTICUT

SCALE: N.T.S.	DATE: 05/25/23	SHEET NO.: 3 OF 3	IDENT. NO.:
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FILE: \\P01501\WORK\23\2307\118 INGHAM HILL ROAD\DWG\23-0525\23-05-25.dwg

DATE	REVISION	CK.

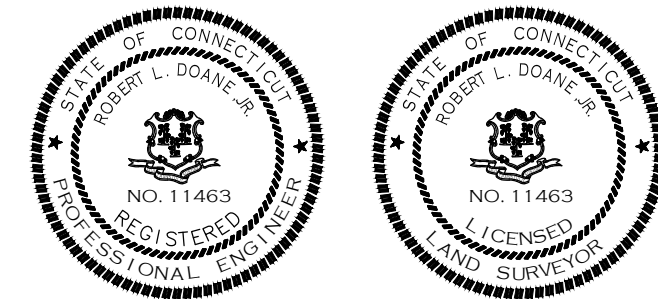


RIPRAP SWALE DETAIL
NOT TO SCALE

- LEGEND**
- CORNUS SERICEA (RED-OSIER DOGWOOD)
 - VACCINIUM CORYMBOSUM (HIGH BUSH BLUEBERRY)
 - ILEX VERTICILLATA (WINTERBERRY)

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Robert L. Doane, Jr.
ROBERT L. DOANE, JR.
 CONN. P.E. & L.S. LIC. NO. 11463



MAP #94 LOT #012

DOANE ENGINEERING
 CIVIL ENGINEERING AND LAND SURVEYING
 P.O. BOX 113 CENTERBROOK, CONNECTICUT 06409
 TEL: (860)767-0138, FAX: (860)767-9104

POND PROFILE SHEET			
PREPARED FOR			
GREG AND MIKAELA ZITO			
#118 INGHAM HILL ROAD, ESSEX, CONNECTICUT			
SCALE: 1" = 20'	DATE: 07/11/23	SHEET NO.: 1 OF 1	IDENT. NO.: