SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 20–300b–1 THRU 20–300b–20 OF THE REGULATIONS FOR STATE AGENCIES "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.

A. TYPE OF SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY
B. BOUNDARY DETERMINATION CATEGORY: RESURVEY
C. HORIZONTAL ACCURACY: A–2
VERTICAL ACCURACY: V–2
TOPOGRAPHIC ACCURACY: T–2
D. SURVEY INTENT: TO DEPICT THE BOUNDARY AND TOPOGRAPHY OF THE SITE.

2. HORIZONTAL ORIENTATION AND VERTICAL DATUM IS BASED UP GPS OBSERVATIONS (CTNAD83 / NAVD 88).

3. LATEST DATE OF FIELDWORK : MAY 2021

SEPTIC GENERAL NOTES

1. PRIOR TO EXCAVATION, SILT FENCE SHALL BE INSTALLED PER PLAN.
2. ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE, ETC.) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE ON–SITE SEWAGE DISPOSAL REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS, AS REVISED.
2. PROPOSED SEPTIC SYSTEMS SHALL BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT. A BENCHMARK SHALL BE SET WITHIN 10'–15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC – ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE.
4. PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO ASTMD–3034 AND SDR–35.
5. LEACHING SYSTEM ROWS SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING AS CALLED FOR IN THE CONNECTICUT PUBLIC HEALTH CODE.
6. THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEMS.
7. PROPOSED SEPTIC AREAS SHALL BE CLEARED AND GRUBBED. ALL TOPSOIL IN THE AREA SHALL BE STRIPPED AND STOCKPILED FOR FUTURE USE.
8. ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
9. TOPSOIL SHALL BE RE–APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS.
10. ALL EXISTING UTILITIES TO BE ACCURATELY LOCATED PRIOR TO CONSTRUCTION CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG: 811.

DEEP TEST PIT DATA

TEST PITS AS WITNESSED BY CHATHAM HEALTH DISTRICT
10/13/2021

TP #1A
0–6" TOPSOIL
6 – 32" ORANGE BROWN FINE SILTY LOAM
32 – 48" FIRM TO MODERATELY COMPACT OLIVE BROWN SANDY LOAM
48 – 91" OLIVE BROWN MEDIUM TO COARSE SANDY HARDPAN
MOTTLES: 46" – GW; NONE – LEDGE: NONE – ROOTS: 30" • RESTRICTIVE: 46" (MOT.)

TP #2A
0 – 6" TOPSOIL
6 – 20" LIGHT ORANGE BROWN MEDIUM SANDY LOAM SOME GRAVEL
20 – 46" YELLOW BROWN, LIGHT BROWN MEDIUM SAND FIRM
46 – 105" MODERATELY COMPACT OLIVE BROWN MEDIUM TO COARSE SANDY HARDPAN
MOTTLES: 42" – GW: NONE – LEDGE: NONE – ROOTS: 51" – RESTRICTIVE: 42" (MOT.)

TP #1B
0 – 13" TOPSOIL
13 – 53" ORANGE/BROWN SILTY LOAM
53 – 62" BROWN/GREY MOTTLED SOIL, SOIL COMPACT
MOTTLES: 53" – GW: NONE – LEDGE: NONE – ROOTS: NONE" • RESTRICTIVE: 53"

TP #2B
0 – 10" TOPSOIL
10– 26" SANDY SILT/TAN BROWN
26 – 43" SANDY/SILTY ORANGE BROWN LOAM
43 – 60" MOTTLED SILTY SAND, ORANGE BROWN COMPACT
MOTTLES: 43" – GW: NONE – LEDGE: NONE – ROOTS: NONE – RESTRICTIVE: 43"

DEEP TEST PIT DATA

TEST PITS AS WITNESSED AND DESCRIBED BY .SUSAN HOPKINS, P .E. ALSO WITNESSED BY LIZ DAVIDSON, R.s., 5/1 8/05

TEST PIT DATA IS REFERENCED FROM PLAN PREPARED BY DUTCH & ASSOCIATES LAND SURVEYORS.
PLAN PREPARED FOR LUIS & KATHLEEN INFANTE.
"MAP 58–LOTS 4,5&36–EAST HADDAM,CT, 2/12/19" PLAN

TP #1
0–13" TOPSOIL
13 – 34" FIRM .ORANGE BROWN FSL W/ SILT
34 – 60"GREY FINE SILTY SAND FIRM
60 – 96" MOIST RED BROWN SILTY SAND
MOTTLES: 58" – GW; NONE – LEDGE: NONE – ROOTS: 30" • RESTRICTIVE: 58" (MOT.)

TP #2
0 – 6" TOPSOIL
6 – 32" ORANGE BROWN FSL
32 – 61" GREY SILTY SAND COMPACT W/ POCKETS OF FINE SAND
61 – 89" MOIST GREY SILTY SAND, ORANGE MOTTLING THROUGHOUT
MOTTLES: 48" – GW: NONE – LEDGE: NONE – ROOTS: 20" – RESTRICTIVE: 48" (MOT.)

TP #3
0 – 8" TOPSOIL 8 – 27" LOOSE RED BROWN FSL
27 – 44" FIRM TAN–GREY MED. SAND W/ STONES (POCKETS OF LOOSE OR MED SAND)
44 – 77"COMPACT GREY FINE SAND W/SILT
77 – 96" MOIST DARK. GREY FINE SAND W/ SILT
MOTTLES: NONE – GW: 96" – LEDGE: NONE – ROOTS: 65" • RESTRICTIVE: 44"

TP #4
0 – 12" TOPSOIL
12– 22" ORANGE BROWN FSL
22 – 38" FINE SAND GREY–TAN W/ ORANGE STRIATED LAYERS
38 – 56" LIGHT GREY SILTY SAND COMP ACT
56 – 89"LIGHT GREY ORANGE FIRM SAND
(POCKETS OF LOOSE OR COURSE SAND)
MOTTLES: NONE – GW: NONE – LEDGE: NONE –
ROOTS: 65" – RESTRICTIVE: 56"

ZONING COMPLIANCE CHART - ZONE: R80

LOT 8197–10

ITEM	REQUIRED	PROPOSED
LOT AREA	1.0 AC	1.08± ACRES
LOT WIDTH	150 FT.	175 FT.
FRONT YARD SETBACK	25 FT.	59 FT.
SIDE YARD SETBACK	25 FT.	50 FT.
REAR YARD SETBACK	25 FT.	70 FT.
MAX. LOT COVERAGE	10%	2.8%
LOT IMPERVIOUS COVER	15%	7.7%
MAX HEIGHT (FEET)	30.0'	24.0'

SEPTIC SYSTEM DESIGN

	PRIMARY	UNIT
SINGLE FAMILY – 4 BEDROOM HOUSE		
PERCOLATION RATE:	15.0	Min/In
EFFECTIVE LEACHING AREA REQUIRED =	787.5	SF
USE ELJEN MANTIS 536-8 LOW PRO		
EFFECTIVE LEACHING AREA OF GALLERY	6.5	SF/LF
REQUIRED LENGTH =	121.2	LF
MLSS CALCULATION		
HYDRAULIC FACTORS		
DOWNSTREAM SLOPE =	10.0	%
DEPTH TO RESTRICTIVE LAYER	44.0	IN
HYDRAULIC FACTOR(HF) =	18.0	
FLOW FACTOR(FF) =	1.8	
PERCOLATION FACTOR(PF) =	1.3	
MLSS REQUIRED = HF x FF x PF	39.4	LF
PROPOSED SYSTEM		
NUMBER OF ROWS OF 536–8 LOW PRO	2.0	
MLSS PROVIDED	61.0	LF
LEACHING AREA PROVIDED =	793	SF
PROPOSED RESERVE SYSTEM		
NUMBER OF ROWS OF 536–8 LOW PRO	3.0	
MLSS PROVIDED	41.0	LF
LEACHING AREA PROVIDED =	793	SF

PERCOLATION TEST DATA

PT# 1
DEPTH: 18.5"
PRESOAK: 1 HOUR

TIME:	READING:
1:40	6"
1:45	9"
1:50	11 1/2"
1:55	12 3/4"
2:00	13 3/4"
2:05	14 3/4"
2:10	16"
2:15	16 3/4"
2:20	17 1/2"

RATE: UP TO 10.0 MIN./IN.

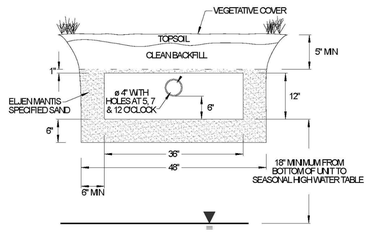
PERCOLATION TEST CONDUCTED BY CLA ENGINEERS 10/13/2021

PT# 2
DEPTH: 21.5"
PRESOAK: 1 HOUR

TIME:	READING:
1:43	3 1/2"
1:48	7 1/2"
1:53	10"
1:58	12"
2:03	14"
2:08	15 1/4"
2:13	16 1/4"
2:18	17 1/2"
2:23	18 1/2"
2:28	19 1/2"

RATE: UP TO 10.0 MIN./IN.

PERCOLATION TEST CONDUCTED BY CLA ENGINEERS 10/13/2021



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURED FROM THE TOP OF THE UNIT TO FINISHED GRADE

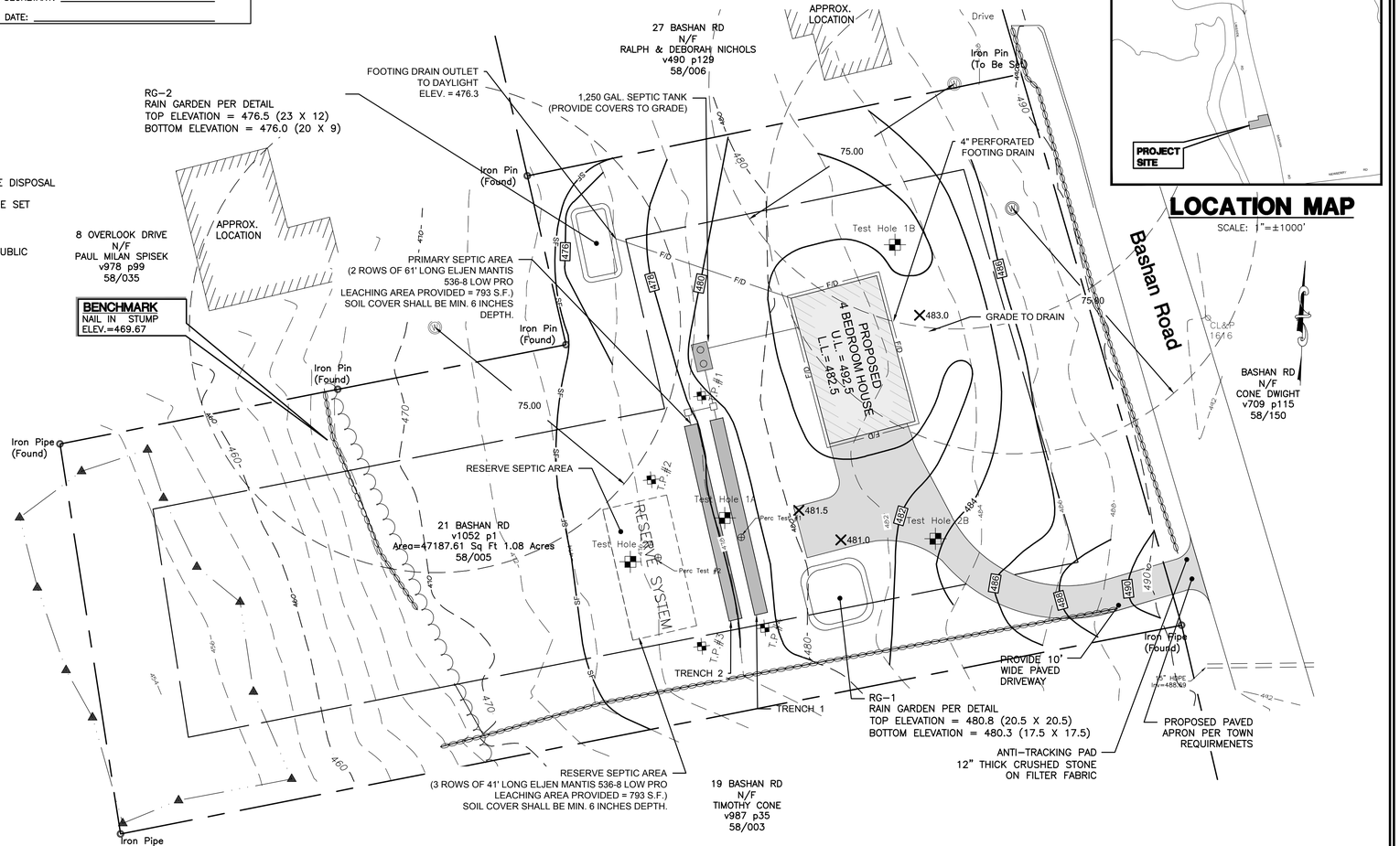
INVERT SCHEDULE

BUILDING CONNECTION	OUT	480.0
SEPTIC TANK	IN	479.25
	OUT	479.0
D-BOX 1 (REVERSE)	IN (From Septic Tank)	477.3
	OUT (To Trench 1)	
	OUT (To D-Box 2)	477.5
TRENCH 1 BOTTOM	476.5	
D-BOX 2 (REVERSE)	IN (From D-Box 1)	466.7
	OUT (To Trench 2)	
	OUT (To D-Box 3)	466.5
TRENCH 2 BOTTOM	475.5	

APPROVED BY THE EAST HADDAM PLANNING AND ZONING COMMISSION/ZONING BOARD OF APPEALS:

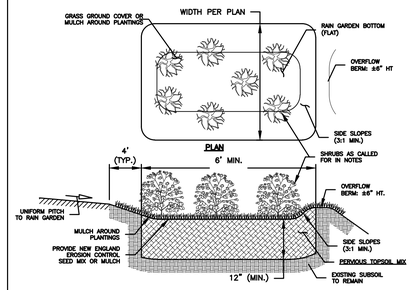
CHAIRMAN/SECRETARY: _____

APPROVAL DATE: _____



LOCATION MAP

SCALE: 1"=±1000'



TYPICAL RAIN GARDEN DETAILS

NOT TO SCALE

NOTES:
1. PERVIOUS TOPSOIL MIX SHALL MEET THE REQUIREMENTS OF DOT FORM 816, ARTICLE M.13.01.1 WITH THE FOLLOWING GRADATION:

SIEVE	% PASSING
#10	100%
#40	60–80%
#80	5%
#200	0%

DO NOT COMPACT MATERIAL DURING INSTALLATION.
2. EXCAVATE RAIN GARDEN TO THE GRADES SPECIFIED WITH SIDEWALLS AS NEAR TO VERTICAL AS POSSIBLE. INSTALL PERVIOUS TOPSOIL MIX. DO NOT COMPACT TOPSOIL MIX.
3. SEED MIX SHALL CONFORM THE REQUIREMENTS SPECIFIED IN THE VEGETATIVE COVER NARRATIVE HEREIN.
4. INSTALL SHRUBS AND ALL PLANTINGS IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND LANDSCAPING NOTES HEREIN.

LANDSCAPE SCHEDULE:
1. EACH RAIN GARDEN SHALL BE PLANTED WITH A MINIMUM OF 9 SHRUBS. CONTRACTOR MAY SELECT FROM THE FOLLOWING PLANT SPECIES:
A. WINTERBERRY HOLLY
B. ARROWOOD VIBURNAM
C. HIGHBUSH BLUEBERRY
D. SWEET PEPPERBUSH

TYPICAL MAINTENANCE:
1. MOW BOTTOM 2–3 TIMES PER YEARS, AS NEEDED.
5. REPLENISH MULCH AROUND PLANTINGS AS NEEDED.
6. REMOVE SEDIMENT AND LEAF LITTER TWICE YEARLY
A. BETWEEN NOVEMBER 15 AND DECEMBER 15 (AFTER LEAF FALL)
B. DURING APRIL (AFTER SNOW MELT)

I HAVE DELINEATED THE WETLANDS ON THE PROPERTY IN THE FIELD AND HAVE REVIEWED THE WETLANDS AS SHOWN ON THE PLAN AND FIND THAT THEY SUBSTANTIALLY REPRESENT THE WETLANDS AS DELINEATED IN THE FIELD.

ROBERT C. RUSSO
CERTIFIED SOIL SCIENTIST

TO MY KNOWLEDGE AND BELIEF THIS PLAN IS SUBSTANTIALLY CORRECT AS NOTED OR DEPICTED HEREON.

RYAN J. CHEVERIE, L.L.S. #70454

LEGEND

PROPERTY LINE
SETBACK LINE
480 EXIST. CONTOURS
PROPOSED BUILDING
EDGE OF ROAD
EDGE OF DRIVEWAY
WETLANDS
WETLAND BUFFER
PRIMARY SEPTIC SYSTEM
RESERVE SEPTIC SYSTEM
STONEWALL
468 PROPOSED CONTOUR LINE
SF SF SILT FENCE

20' 0 20' 40'
SCALE: 1"=20'

No.	DATE	REVISION
2	11/30/21	MISC. REVISIONS
1	11/4/21	MISC. REVISIONS

CLA Engineers, Inc.
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CALLINAN CONSTRUCTION, LLC

21 BASHAN ROAD
EAST HADDAM, CT

SEPTIC SYSTEM DESIGN

Project No. CLA–6848
Proj. Engineer R.A.D.
Date: 06/17/21
Sheet No. 1

CLA

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