DEEP TEST HOLE RESULTS

TEST HOLES WERE PERFORMED ON JANUARY 25, 2022 AND WITNESSED BY ZAC JEZEK, R.S., AND LIZ DAVIDSON, MPH, R.S., OF THE CHATHAM HEALTH DISTRICT.

TP#1
0"– 15" TOPSOIL
15"– 22" MEDIUM BROWN SILTY LOAM W/ ROCKS & GRAVEL
22"– 67" LIGHT BROWN/OLIVE BROWN/GRAY COARSE SAND & GRAVEL, MOTTLED, DAMP
MOTTLES @ 26", NO GROUNDWATER, NO LEDGE
ROOTS TO 24", RESTRICTIVE @ 26"

TP#2
0"– 7" TOPSOIL
7"– 14" FILL MATERIAL
14"– 17" ORIGINAL TOPSOIL
17"– 29" MEDIUM BROWN SILTY LOAM W/ ROCKS & GRAVEL
29"– 68" MEDIUM BROWN/OLIVE BROWN/GRAY COARSE SAND & GRAVEL, MOTTLED, DAMP
MOTTLES @ 32", NO GROUNDWATER, NO LEDGE
ROOTS TO 28", RESTRICTIVE @ 32"

TP#3
0"– 6", 8", 12" TOPSOIL (VARIED)
6", 8", 12"– 21" MEDIUM BROWN SILTY LOAM W/ ROCKS & GRAVEL
21"– 45" MEDIUM BROWN/OLIVE BROWN GRAVELLY SAND W/ COBBLES, MOTTLED
45"– 70" MEDIUM BROWN COARSE SAND & GRAVEL
MOTTLES @ 38", NO GROUNDWATER, NO LEDGE
ROOTS TO 20", RESTRICTIVE @ 38"

TP#4
0"– 16" TOPSOIL
16"– 45" LIGHT BROWN SILTY LOAM W/ GRAVEL & COBBLES
45"– 76" OLIVE BROWN TO YELLOW BROWN COARSE SAND & GRAVEL, POSSIBLE MOTTLING AT 50"
MOTTLES @ 50" (POSSIBLE), NO GROUNDWATER, NO LEDGE
ROOTS TO TOPSOIL LAYER, RESTRICTIVE @ 50"

TP#5
0"– 16" TOPSOIL
16"– 29" MEDIUM BROWN SILTY LOAM W/ ROCKS & GRAVEL
29"– 49" MEDIUM BROWN COARSE SAND & GRAVEL, SOME SILTS & COBBLES
49"– 83" MEDIUM BROWN COARSE GRAVELLY SAND, POSSIBLE MOTTLING AT 49"
MOTTLES @ 49" (POSSIBLE), NO GROUNDWATER, NO LEDGE
ROOTS TO TOPSOIL LAYER, RESTRICTIVE @ 49"

TP#6
0"– 12" TOPSOIL
12"– 37" LIGHT BROWN SILTY LOAM W/ GRAVEL & COBBLES, MOTTLED
37"– 77" MEDIUM BROWN COARSE SAND & GRAVEL, MOTTLED
MOTTLES @ 42", 36", 27", NO GROUNDWATER, NO LEDGE
ROOTS TO TOPSOIL LAYER, RESTRICTIVE @ 27"

TP#7
0"– 13" TOPSOIL
13"– 21" LIGHT BROWN SILTY LOAM W/ GRAVEL
21"– 42" ORANGE BROWN SAND & GRAVEL W/ COBBLES, DAMP
42"– 86" LIGHT BROWN COARSE GRAVELLY SAND, STAINING AT 66"
MOTTLES @ 66" (POSSIBLE), NO GROUNDWATER, NO LEDGE
ROOTS TO TOPSOIL LAYER, RESTRICTIVE @ 66"

TP#8
0"– 11" TOPSOIL
11"– 20" LIGHT BROWN SILTY LOAM W/ GRAVEL
20"– 32" ORANGE BROWN SAND & GRAVEL W/ COBBLES, DAMP
32"– 69" LIGHT BROWN COARSE GRAVELLY SAND, STAINING AT 68"
MOTTLES @ 68" (POSSIBLE), NO GROUNDWATER, NO LEDGE
ROOTS TO TOPSOIL LAYER, RESTRICTIVE @ 68"

NARRATIVE

THIS PROJECT INVOLVES THE DEVELOPMENT OF A 12.5± ACRE PROPERTY IDENTIFIED AS 23 THREE BRIDGES ROAD IN THE TOWN OF EAST HADDAM, CONNECTICUT. THE PARCEL CURRENTLY CONTAINS A 3–BEDROOM RESIDENCE AND ASSOCIATED ACCESSORY STRUCTURES.

THE CURRENT ZONING DESIGNATION OF THE SUBJECT PROPERTY IS RESIDENTIAL R4.

THIS PLAN PROPOSES THE CONSTRUCTION OF A NEW 52 FOOT X 36 FOOT STABLE AND ALL ASSOCIATED IMPROVEMENTS INCLUDING A NEW SUBSURFACE SEWAGE DISPOSAL SYSTEM, DRIVEWAY, GRADING, AND REQUIRED CLEARING.

SOIL TYPES PRESENT IN THE AREA OF DEVELOPMENT ACCORDING TO THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA), NATURAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY FOR THE STATE OF CONNECTICUT, ARE AS FOLLOWS:

38A HINCKLEY LOAMY SAND, 0 TO 3% SLOPES
38C HINCKLEY LOAMY SAND, 3 TO 15% SLOPES

TOPSOIL WILL BE STOCKPILED ON–SITE FOR REUSE IN CONJUNCTION WITH FINAL GRADING AND STABILIZATION AND FOR STABILIZING AREAS OUTSIDE OF BUILDINGS, CIRCULATION AND PARKING AREAS. AFTER GRADING IS COMPLETED, A 4" MINIMUM DEPTH OF TOPSOIL WILL BE PLACED AND SEEDED WITH GRASS AND MULCHED FOR PERMANENT STABILIZATION.

SEDIMENT FENCE WILL BE INSTALLED AT LOCATIONS SHOWN PRIOR TO ANY EARTHWORK OPERATIONS. THESE MEASURES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

CONSTRUCTION OF THE PROPOSED BUILDING IS INTENDED TO COMMENCE IN SUMMER 2022 AND BE COMPLETE BY WINTER 2022 (6± MONTHS).

PERCOLATION TEST RESULTS

PERCOLATION TESTS WERE PERFORMED ON JANUARY 25, 2022 BY BOUNDARIES, LLC.

PT#1
DEPTH = 28"
PRESOAK @ 9:50

TIME	READING
10:58	5"
11:03	10–1/2"
11:08	12–1/4"
11:13	14–5/8"
11:18	16–1/2"
11:23	17–3/4"
11:28	18–7/8"
11:33	19–1/2"
11:38	20–3/8"
11:43	21"
11:48	21–7/8"
11:53	22"
11:58	22–5/8"

PERCOLATION RATE AT 28" DEPTH = 8.0 MINUTES/INCH

PT#2
DEPTH = 25"
PRESOAK @ 10:08

TIME	READING
11:00	6–1/4"
11:05	7–7/8"
11:10	10–1/2"
11:15	11"
11:20	12–1/8"
11:25	13"
11:30	14–1/8"
11:35	15"
11:40	15–1/2"
11:45	16–1/8"
11:50	17"
11:55	17–1/4"
12:00	17–1/2"

PERCOLATION RATE AT 25" DEPTH = 20.0 MINUTES/INCH

SANITARY DESIGN CRITERIA

PROPOSED STABLE
DESIGN PERCOLATION RATE = <10.1 MINUTES/INCH
LEACHING AREA REQUIRED = 281.25 SF EFFECTIVE
SIZING CRITERIA: 4 HORSE STALLS @ 50 GALLONS PER DAY (GPD) EACH + 25 GPD FOR HALF–BATHROOM = 225 GPD
225 GPD/0.8 APPLICATION RATE = 281.25 SF REQUIRED
DESIGN: 1,000 GALLON SEPTIC TANK AND 1 ROW OF 48' OF 8' LONG, 4' WIDE, 12" HIGH CONCRETE LEACHING GALLERIES
LEACHING AREA PROVIDED = 283.2 SF EFFECTIVE (48 LF X 5.9 SF/LF)
100% RESERVE AREA PROVIDED (1 ROW OF 48' OF 8' LONG, 4' WIDE, 12" HIGH CONCRETE LEACHING GALLERIES)

MINIMUM LEACHING SYSTEM SPREAD (MLSS) CALCULATION

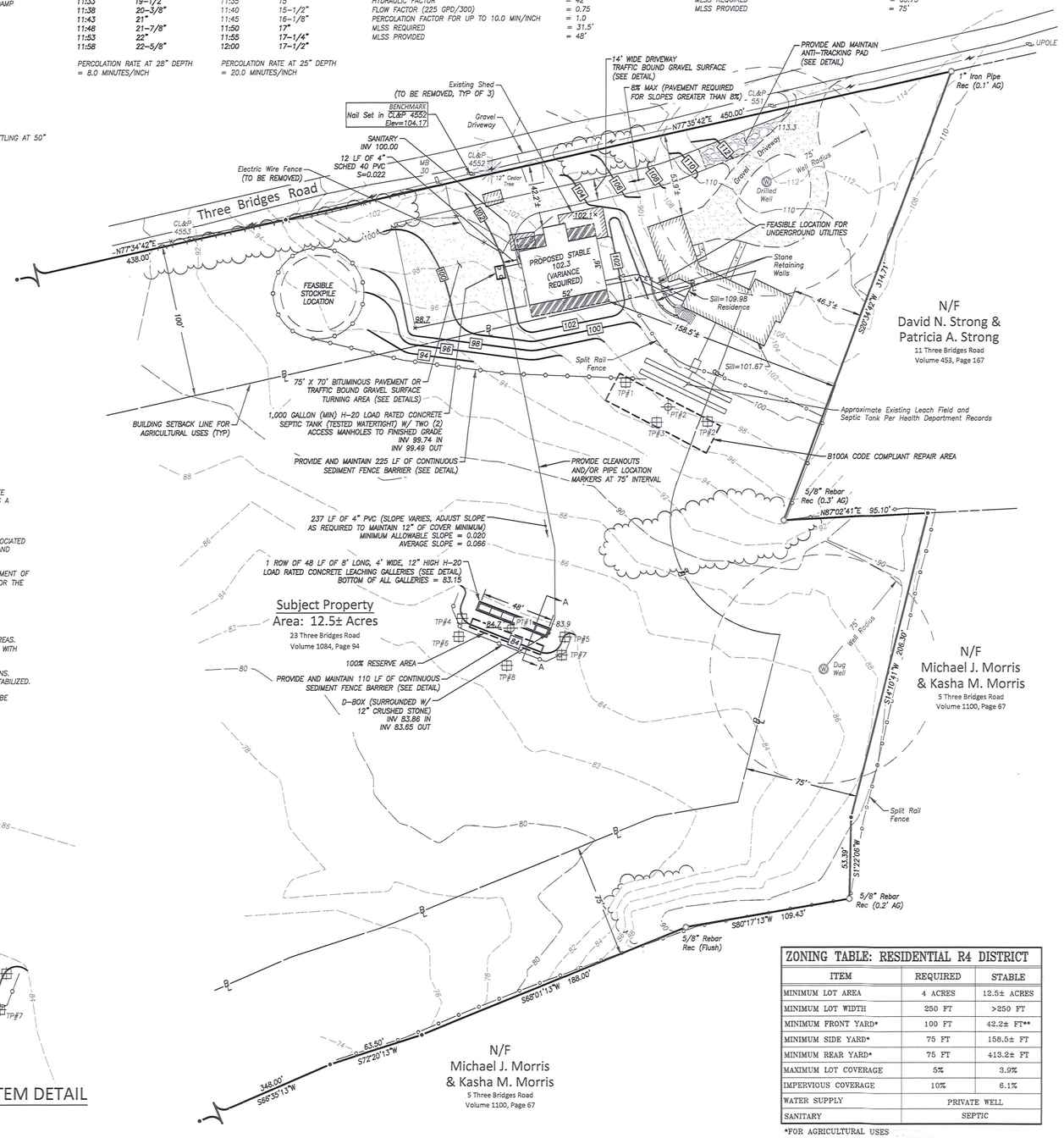
HYDRAULIC GRADIENT	= 2.3%
RECEIVING SOIL (PER TP#6)	= 27"
HYDRAULIC FACTOR	= 42
FLOW FACTOR (225 GPD/300)	= 0.75
PERCOLATION FACTOR FOR UP TO 10.0 MIN/INCH	= 1.0
MLSS REQUIRED	= 31.5'
MLSS PROVIDED	= 48'

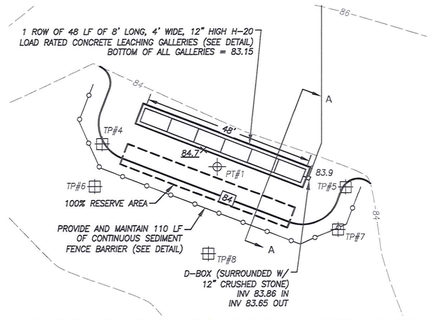
CODE COMPLYING AREA & MLSS CALCULATIONS

EXISTING 3–BEDROOM HOUSE
DESIGN PERCOLATION RATE = 10.1–20.0 MINUTES/INCH
LEACHING AREA REQUIRED = 675 SF EFFECTIVE
CODE COMPLYING SYSTEM: 1,000 GALLON SEPTIC TANK AND 3 ROWS OF 75' OF 12" HIGH, 4' WIDE LEACHING TRENCHES
LEACHING AREA PROVIDED = 675 SF EFFECTIVE (75 LF X 3 X 3.0 SF/LF)

MINIMUM LEACHING SYSTEM SPREAD (MLSS) CALCULATION

HYDRAULIC GRADIENT	= 8.0%
RECEIVING SOIL (PER TP#2, 32"–14" TS/FILL)	= 18"
HYDRAULIC FACTOR	= 34
FLOW FACTOR FOR 3 BEDROOMS	= 1.5
PERCOLATION FACTOR FOR 10.1–20.0 MIN/INCH	= 1.25
MLSS REQUIRED	= 63.75'
MLSS PROVIDED	= 75'





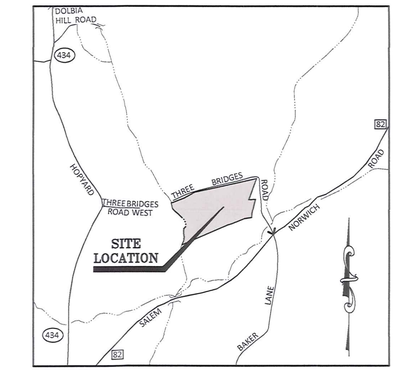
SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAIL

SCALE: 1"=20'

GRAPHIC SCALE
80 40 20 0 40
(IN FEET)
1 inch = 40 ft.

ZONING TABLE: RESIDENTIAL R4 DISTRICT		
ITEM	REQUIRED	STABLE
MINIMUM LOT AREA	4 ACRES	12.5± ACRES
MINIMUM LOT WIDTH	250 FT	>250 FT
MINIMUM FRONT YARD*	100 FT	42.2± FT**
MINIMUM SIDE YARD*	75 FT	158.5± FT
MINIMUM REAR YARD*	75 FT	413.2± FT
MAXIMUM LOT COVERAGE	5%	3.9%
IMPERVIOUS COVERAGE	10%	6.1%
WATER SUPPLY	PRIVATE WELL	
SANITARY	SEPTIC	

*FOR AGRICULTURAL USES
**VARIANCE REQUIRED FROM SECTION 9.2.9 OF THE TOWN OF EAST HADDAM ZONING REGULATIONS



LOCATION MAP

SCALE: 1"=1000'

SURVEY NOTES

1. *THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300B–1 THROUGH 20–300B–20 AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019. IT IS AN IMPROVEMENT LOCATION AND TOPOGRAPHIC SURVEY BASED ON RESURVEY AND CONFORMS TO HORIZONTAL CLASS A–2 AND TOPOGRAPHIC CLASS T–2 ACCURACY STANDARDS. IT IS INTENDED TO BE USED FOR MUNICIPAL PERMITTING.*
2. *NORTH ORIENTATION DEPICTED HEREON IS APPROXIMATE NORTH AMERICAN DATUM 1983 (NAD83) BASED UPON GLOBAL POSITIONING SYSTEM OBSERVATIONS, OBSERVED ON NOVEMBER 19, 2021.*
3. *VERTICAL DATUM DEPICTED HEREON IS APPROXIMATE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) BASED GLOBAL POSITIONING SYSTEM OBSERVATIONS USING GEOIDE12B ON NOVEMBER 19, 2021.*
4. *THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON THE LOCATION OF ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED BY OTHERS. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ALL SUBTERRANEAN FEATURES AND IMPROVEMENTS MAY NOT BE DEPICTED OR NOTED HEREON. THE LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. CONTACT "CALL BEFORE YOU DIG" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OPERATIONS.*
5. *THE FIELD SURVEY WAS COMPLETED ON NOVEMBER 19, 2021. LAND RECORD AND RELATED RESEARCH WAS COMPLETED ON OCTOBER 19, 2021 AND UPDATED ON JANUARY 11, 2022.*
6. *RECORD TITLE TO THE SUBJECT PROPERTY MAY BE REFERENCED TO A STATUTORY WARRANTY DEED FROM JANET R. CONANT TO MADELYN CURTO RECORDED MARCH 12, 2020 IN THE TOWN OF EAST HADDAM LAND RECORDS VOLUME 1084, PAGE 94.*
7. *SUBJECT PROPERTY IS ZONED RESIDENTIAL DISTRICT 4 (R4).*
8. *THE WESTERN EDGE OF THE SUBJECT PROPERTY RESIDES IN FLOOD ZONE AE AS SHOWN ON FEMA FLOOD MAP PANEL 09007C0279G EFFECTIVE DATE AUGUST 28, 2008.*

REFERENCE MAPS

1. *FINAL PLAN SUBDIVISION OF PROPERTY OF CHARLES E. REICHE, ET AL. HOP YARD ROAD, THREE BRIDGES ROAD & CONN. ROUTE #82, EAST HADDAM, CONNECTICUT, SCALE: 1"=60', DATED: NOVEMBER 5, 1979, LAST REVISED: MARCH 27, 1980, JOB NO. 791206, PREPARED BY ANGUS L. MCDONALD & ASSOCIATES INC. MAP #1179.*
2. *SURVEY MAP OF PROPERTY FOR DAVID N. STRONG TOWN OF EAST HADDAM, CONNECTICUT, SCALE 1"=20', DATED: JANUARY 14, 1981, PREPARED BY: RICHARD J. ZIOBRON L.S. MAP #1233.*
3. *A PORTION OF PROPERTY FOR JANET R. CONANT, TOWN OF EAST HADDAM, CONNECTICUT, SCALE: 1"=50', DATED: JUNE 9, 1984, LAST REVISED: DECEMBER 31, 1984, PREPARED BY: RICHARD J. ZIOBRON SURVEYOR. MAP #1529.*
4. *A PORTION OF PROPERTY FOR (NORTHERLY PLOT) JANET R. CONANT, TOWN OF EAST HADDAM, CONNECTICUT, SCALE: 1" = 80', DATED: DECEMBER 31, 1984, PREPARED BY: RICHARD J. ZIOBRON SURVEYOR. MAP #1528.*

LEGEND & ABBREVIATIONS

±	MORE OR LESS	℄	BUILDING SETBACK LINE
TYP	TYPICAL	82	EXISTING CONTOUR
SF	SQUARE FEET	82	PROPOSED CONTOUR
LF	LINEAR FEET		TREE LINE
ELEV	ELEVATION		PROPOSED TREE LINE
INV	INVERT		RETAINING WALL
S	SLOPE		SPLIT RAIL FENCE
PVC	POLYVINYL CHLORIDE	E	UNDERGROUND ELECTRIC
SCHED	SCHEDULE		OVERHEAD WIRES
MB	MAILBOX	W	WATER LINE
W/	WITH		ANGLE POINT
REC	RECOVERED		IRON PIPE OR REBAR
AG	ABOVE GRADE		UTILITY POLE
CL&P	CONNECTICUT LIGHT AND POWER		DEEP TEST PIT
UPOLE	UTILITY POLE		PERCOLATION TEST HOLE
N/F	NOW OR FORMERLY	W	WELL
x 82.0	EXISTING SPOT ELEVATION		
x 82.0	PROPOSED SPOT ELEVATION		

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

DAVID C. MCKAY, P.E. — 29102 LICENSE NO. — 7-25-22 DATE

JOHN U. FAULISE JR. L.S. — 70016 LICENSE NO. — 7/25/22 DATE

© 2022 BOUNDARIES LLC
THIS DRAWING IS THE PROPERTY OF BOUNDARIES LLC AND HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER OF THIS PROJECT, AT THIS SITE, AND IS NOT TO BE DUPLICATED OR USED IN PART OR WHOLE FOR ANY OTHER PURPOSE, PROJECT, LOCATION OR OWNER WITHOUT THE EXPRESSED WRITTEN CONSENT OF BOUNDARIES LLC.

811 Know what's below. Call before you dig.

P:\CIVIL 3D PROJECTS\2021\21-3092 CURTO\DWG\DESIGN\CURTO SITE PLAN REVISED LOC.DWG

BOUNDARIES
CIVIL ENGINEERING LAND SURVEYING LAND USE PLANNING SOIL SCIENCE
Boundaries LLC
179 Padanaram River Drive, Griswold, CT 06351
T 860.376.2090 | www.boundariesllc.net

Improvement Location & Topographic Survey "Proposed Stable Site Plan"

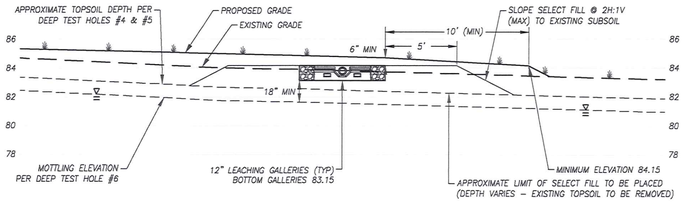
Prepared For
Dr. Madelyn Curto

23 Three Bridges Road - East Haddam, Connecticut

SCALE: 1" = 40'
DATE: February 2022
JOB I.D. NO. 21-3092

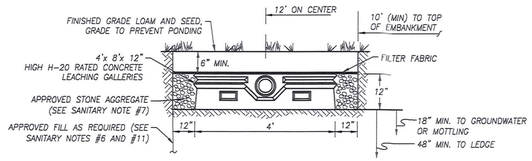
Revisions
Rev. "A" 3-11-2022 Per Chatham Health District
Rev. "B" 5-17-2022 Revised Stable Location
Rev. "C" 7-25-2022 Removed Future Riding Arena

SHEET NO. 1 / 2



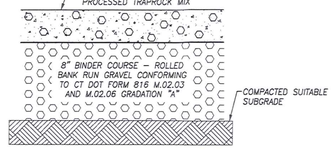
LEACHING SYSTEM CROSS SECTION A-A

SCALE: 1"=5' (HORIZONTAL & VERTICAL)



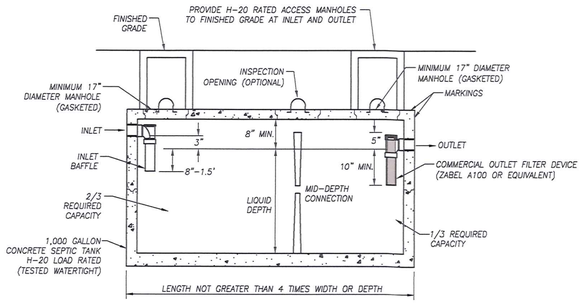
12" x 48" LEACHING GALLERIES

NOT TO SCALE



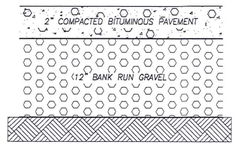
TRAFFIC BOUND GRAVEL SURFACE

NOT TO SCALE



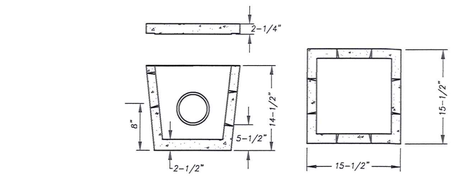
SEPTIC TANK DETAIL

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

NOT TO SCALE



NOTE: USE 4HDBOX BY JOLLEY PRECAST, INC. OR APPROVED EQUAL

D-BOX DETAIL

NOT TO SCALE

SANITARY NOTES

1. THIS SEPTIC SYSTEM INSTALLATION INCLUDING ALL MATERIALS (PIPING, SEPTIC TANK, STONE, FILL, ETC.) USED FOR THIS SEPTIC SYSTEM SHALL CONFORM TO THE CURRENT EDITION/REVISION OF THE "TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS" REVISED JANUARY 1, 2018 OF THE CONNECTICUT PUBLIC HEALTH CODE BY THE STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH.
2. THE PROPOSED HOUSE SEWER FROM THE BUILDING TO THE SEPTIC TANK SHALL BE SCHEDULE 40 PVC ASTM D 1785/ASTM D 2665 OR APPROVED EQUAL AND INDICATED IN TABLE NO. 2 OF "TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS". ALL OTHER SEWER PIPE FOR THIS SEPTIC SYSTEM SHALL BE 4" PVC ASTM D3034, SDR 35 WITH RUBBER COMPRESSION GASKET OR BELL AND SPIGOT OR APPROVED EQUAL.
3. THERE ARE NO WELLS (POTABLE, GEOTHERMAL OR IRRIGATION) WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM. THERE ARE NO SEPTIC SYSTEMS WITHIN 75' OF THE EXISTING WELL.
4. THERE SHALL BE NO STUMPS BURIED ON SITE OR BOULDERS BURIED WITHIN 50' DOWN GRADIENT OF THE SEPTIC SYSTEM. SHOULD ANY SIGNIFICANT VARIATIONS FROM THE TEST HOLE DATA BE ENCOUNTERED DURING EXCAVATIONS (LEDGE, GROUNDWATER, MOTTLING, SOIL TYPE, ETC.), THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF THE SEPTIC SYSTEM.
5. ALL EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL–BEFORE–YOU–DIG" AT 1–800–922–4455 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
6. THE PROPOSED FILL FOR THIS SEPTIC SYSTEM SHALL MEET THE FOLLOWING SPECIFICATIONS:
   A. 100% OF FILL SHALL PASS THROUGH A 3" SIEVE.
   B. MAXIMUM % OF GRAVEL (BETWEEN #4 & 3" SIEVE) = 45%.
   C. GRADATION OF FILL WITHOUT THE GRAVEL SHALL MEET THE FOLLOWING CRITERIA:

SIEVE SIZE	% PASSING (WET)	% PASSING (DRY)
#4	100%	100%
#10	70 – 100%	70 – 100%
#40	10 – 50%*	10 – 75%
#100	0 – 20%	0 – 5%
#200	0 – 5%	0 – 2.5%

   D. * PERCENT PASSING THE #40 WET SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
   E. PERCOLATION RATE AFTER PLACEMENT AND COMPACTION SHALL BE FASTER THAN OR EQUAL TO 10.0 MINUTES/INCH.

   A WET OR DRY SIEVE ANALYSIS MAY BE REQUIRED PRIOR TO FILL PLACEMENT TO VERIFY THAT IT MEETS THESE SPECIFICATIONS. THE FILL SHALL BE APPROVED BY THE LOCAL HEALTH DISTRICT/DEPARTMENT OR DESIGN ENGINEER PRIOR TO ITS PLACEMENT ON SITE.
7. APPROVED STONE AGGREGATE MEANS CRUSHED OR BROKEN STONE, OR CRUSHED AND UNCRUSHED GRAVEL MEETING THE GRADATION FOR NO. 4 (¾" STONE) AGGREGATE PER DEPARTMENT OF TRANSPORTATION FORM 817 SPECIFICATION M.01.01 (OR LATEST SPECIFICATION), AND THE #40 AND #200 SIEVE GRADATION STIPULATED IN SECTION VIII A, BASED ON A WET SIEVE ANALYSIS. STONE AGGREGATE SHALL BE FREE OF SILT, DIRT OR DEBRIS, AND SHALL SHOW A LOSS OF ABRASION OF NOT MORE THAN 50% USING AASHTO METHOD T–96, AND WHEN TESTED FOR SOUNDNESS USING AASHTO METHOD T–104 NOT HAVE A LOSS OF MORE THAN 15% AT THE END OF 5 CYCLES.

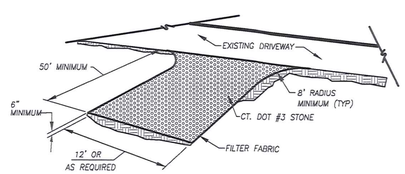
   NO. 4 AGGREGATE

SIEVE SIZE	% PASSING
2 INCH	100%
1.5 INCH	90 – 100%
1 INCH	20 – 55%
3/4 INCH	0 – 15%
1/2 INCH	N/A
3/8 INCH	0 – 5%
#4	N/A
#40	0 – 3%
#200	0 – 1.5%

8. NO DEVIATION FROM THE APPROVED DESIGN PLAN SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE LOCAL HEALTH DISTRICT/DEPARTMENT AND THE DESIGN ENGINEER.
9. THE SEPTIC TANK ASHALL BE PRECAST CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE DESIGN ENGINEER. THE SEPTIC TANK SHALL BE WATERTIGHT AS VERIFIED BY THE LOCAL HEALTH DEPARTMENT/DISTRICT (VACUUM TEST OR WATER PRESSURE TEST) IN ACCORDANCE WITH SECTION V.A.6. OF THE TECHNICAL STANDARDS. IF RISER ASSEMBLIES ARE UTILIZED OVER CLEANOUT OPENINGS, THE COVERS SHALL BE LEFT ON THE TANK. RISER COVERS SHALL WEIGH AT LEAST 59 POUNDS AND A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED INSIDE THE RISER.
10. THIS SEPTIC SYSTEM HAS NOT BEEN SIZED TO INCLUDE CAPACITY FOR A GARBAGE GRINDER OR LARGE TUB. A GARBAGE GRINDER OR LARGE TUB SHALL NOT BE USED IN THE RESIDENCE WITHOUT INCREASING THE SIZE OF THE SEPTIC TANK. IF A GARBAGE GRINDER OR LARGE TUB IS DESIRED THEN THE SEPTIC TANK SIZE SHALL BE INCREASED IN ACCORDANCE WITH SECTION V.B.4 OF THE TECHNICAL STANDARDS. WATER TREATMENT WASTEWATER (WATER SOFTENER) SHALL NOT BE DISCHARGED TO THIS SEPTIC SYSTEM.
11. SITE PREPARATION PROCEDURE FOR THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM:
   A. STRIP ALL TOPSOIL, VEGETATION AND ORGANIC MATERIAL IN THE AREA OF, AND 5' SURROUNDING, THE PRIMARY LEACHING TRENCHES EXTENDING TO THE LIMITS SHOWN ON CROSS SECTION A–A.
   E. USING A HEAVY RAKE OR EQUAL, THOROUGHLY SCARIFY AND ROUGHEN UP THE EXPOSED SUBSOIL. REMOVE ANY LARGE STONES (3"+) AND OTHER DEBRIS. PREVENT ANY VEHICULAR TRAFFIC, BACKHOE, TRUCKS, ETC. FROM SMOOTHING/COMPACTING THE EXPOSED SUBSOIL.
   F. PLACE AND COMPACT SELECT FILL MATERIAL MEETING SPECIFICATIONS INDICATED ABOVE (NOTE #6) IN LIFTS OF NOT GREATER THAN 12" IN THE AREA OF THE PROPOSED LEACHING SYSTEM UP TO AT LEAST THE ELEVATION OF THE TOP OF THE LEACHING SYSTEM. SELECT FILL SHALL BE PLACED 5' FROM THE EDGE OF THE SYSTEM AND SLOPE TO THE EXISTING SUBSOIL AT 2H:1V (MAX) OUTSIDE OF THAT LIMIT.
   G. PERFORM AT LEAST 1 PERCOLATION TEST ON PLACED FILL. FILL MUST HAVE A PERCOLATION RATE EQUAL TO OR FASTER THAN THAT AS INDICATED IN NOTE #6E. IF PERCOLATION RATE IS SLOWER THAN THAT RATE, ALL FILL SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE FILL MEETING PROPER SPECIFICATIONS.
   H. EXCAVATE TRENCH TO DESIGN GRADES AND INSTALL SEPTIC SYSTEM PER PLAN USING CONCRETE GALLERIES AND STONE AGGREGATE AS INDICATED IN NOTE #7.
   I. COVER SYSTEM WITH APPROVED FILTER FABRIC AND A MINIMUM OF 6" OF LOAM IN LAWN AREAS. GRADE TO PREVENT PONDING AND SEED WITH GRASS TO STABILIZE. THE FINISHED GRADE 10' FROM ANY PART OF THE PROPOSED LEACHING SYSTEM SHALL BE AT LEAST THE SAME ELEVATION AS THE TOP OF THE RESPECTIVE ROW.
   J. ACCESS MANHOLES AT THE INLET BAFFLE AND AT THE OUTLET FILTER OF THE SEPTIC TANK SHALL BE INSTALLED TO FINISHED GRADE.
12. FOR EXACT BUILDING DIMENSIONS, SEE BUILDING PLANS.
13. BENCHMARK SHALL BE LOCATED IN THE AREA OF DEVELOPMENT PRIOR TO THE START OF CONSTRUCTION.
14. PRIOR TO CONSTRUCTION, THE BUILDING AND SEPTIC SYSTEM SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR.

CONSTRUCTION SEQUENCE

1. SECURE ALL NECESSARY LOCAL, STATE AND FEDERAL PERMITS.
2. ROUGH GRADE DRIVEWAY ENTRANCE AND INSTALL ANTI–TRACKING PAD. INSTALL SEDIMENT FENCE IN SPECIFIED LOCATION AS SHOWN DOWNGRADIENT OF PROPOSED DEVELOPMENT AREA.
3. CLEAR AND GRUB DEVELOPMENT AREA AND DISPOSE OF VEGETATION OFF–SITE AT AN APPROVED LOCATION.
4. STRIP TOPSOIL FROM DEVELOPMENT AREA AND STOCKPILE AT AN APPROVED LOCATION FOR LATER REUSE. SURROUND STOCKPILE WITH SEDIMENT FENCE INSTALLED PER DETAIL AND SEED TOPSOIL STOCKPILE WITH RYEGRASS FOR TEMPORARY STABILIZATION.
5. ROUGH GRADE SITE, CONSTRUCT DRIVEWAY.
6. CONSTRUCT STABLE BUILDING, INSTALL SUBSURFACE SEWAGE DISPOSAL SYSTEM, UTILITIES, AND PERFORM FINAL SITE GRADING.
7. AT COMPLETION OF CONSTRUCTION, LOAM ALL DISTURBED AREAS (4" MINIMUM), SEED WITH GRASS AND MULCH. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE EROSION CONTROL MEASURES.



ANTI-TRACKING PAD AT DRIVEWAY

NOT TO SCALE

OPERATION & MAINTENANCE OF EROSION CONTROLS

NO CONSTRUCTION SHALL PROCEED UNTIL PROPER SEDIMENTATION AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS THE SEQUENCE OF CONSTRUCTION NECESSITATES.

ALL TEMPORARY FILL, STORAGE OR STOCKPILE AREAS SHALL BE PROPERLY STABILIZED TO PREVENT EROSION AND SUITABLY CONTAINED TO PREVENT TURBID RUNOFF. ALL AREAS AFFECTED BY TEMPORARY FILLS SHALL BE RESTORED TO THEIR ORIGINAL CONTOURS AND REVEGETATED WITH SUITABLE VEGETATION. THE USE OF TEMPORARY FILL AND/OR EXCAVATION SHALL BE MINIMIZED TO ONLY THAT AREA REQUIRED TO PERFORM THE WORK.

DUMPING OF OIL OR OTHER DELETERIOUS MATERIALS ON THE GROUND IS FORBIDDEN. THE DEVELOPER OR CONTRACTOR SHALL PROVIDE A MEANS OF CATCHING, RETAINING AND PROPERLY DISPOSING OF DRAINED OIL, REMOVED OIL FILTERS, OR OTHER DELETERIOUS MATERIAL FROM EQUIPMENT USED ON SITE. MAJOR VEHICLE MAINTENANCE SHALL BE COMPLETED OFF SITE. ALL OIL SPILLS SHALL BE IMMEDIATELY REPORTED TO THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION/HAZARDOUS MATERIALS OFFICE. FAILURE TO DO SO MAY RESULT IN THE IMPOSITION OF FINES UNDER THE APPLICABLE CONNECTICUT GENERAL STATUTES.

EVERY PRECAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT AND MINIMIZE THE DEGRADATION OF THE EXISTING WATER QUALITY. ALL ACTIVITIES SHALL BE IN CONFORMANCE TO AND CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES AS SET FORTH BY LOCAL, STATE AND FEDERAL AGENCIES.

DURING THE PERIOD OF CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL MEASURES. SAID MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINSTORM. ACCUMULATED DEPOSITS OF SEDIMENT AND SILT SHALL BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION AND SEDIMENT CONTROL BARRIERS, AND UPON ESTABLISHMENT OF PERMANENT VEGETATIVE COVER. SUCH MATERIALS REMOVED SHALL BE SPREAD AND STABILIZED IN NON–WETLAND AREAS WHICH ARE NOT SUBJECT TO EROSION, OR WHICH ARE NOT TO BE PAVED OR BUILT UPON.

WOOD CHIP BERMS, SEDIMENT FENCE AND OTHER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED, CLEANED AND/OR REPLACED AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD IN ORDER TO MAINTAIN COMPLETE AND INTEGRAL EROSION AND SEDIMENT CONTROL PROTECTION. ONCE IN PLACE, ALL EROSION AND SEDIMENT CONTROL FACILITIES AND MEASURES ARE TO REMAIN IN PLACE AND IN PROPER CONDITION AND BE CONTINUOUSLY MAINTAINED UNTIL FINAL GRADING HAS BEEN COMPLETED. ALL DISTURBED AREAS UPGRADIENT OF SAID FACILITIES HAVE BEEN PERMANENTLY STABILIZED, AND ALL NEWLY GRASSED AREAS HAVE HAD AT LEAST TWO MOWINGS. FOLLOWING SUCH PERMANENT STABILIZATION, THE FACILITIES SHALL BE DISMANTLED, REMOVED, AND DISPOSED OF IN AN APPROVED MANNER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES BEYOND THOSE SHOWN ON THE PLANS OR PRESCRIBED HEREIN SHALL BE PUT IN PLACE, WHENEVER NECESSARY, TO ADDRESS FIELD CONDITIONS AND/OR AS ORDERED BY THE TOWN STAFF OR THEIR DESIGNATED AGENT.

DISTURBANCE OF THE LAND SHALL BE LIMITED TO THE MINIMUM EXTENT NECESSARY TO COMPLETE THE PROPOSED DEVELOPMENT. ALL EXISTING TREES AND SHRUBS SHALL BE CONSERVED WHERE POSSIBLE, EXCEPT THOSE WHOSE REMOVAL IS REQUIRED TO PERFORM THE PROPOSED WORK. THE LIMITS OF DISTURBANCE SHALL BE ESTABLISHED IN THE FIELD PRIOR TO STARTING ANY ACTUAL CONSTRUCTION ACTIVITIES AND SHALL BE GENERALLY AS DEPICTED ON THIS PLAN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE IN ACCORDANCE WITH THE PROCEDURES AS OUTLINED IN THE "GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS FROM CONSTRUCTION ACTIVITIES" AS ADOPTED BY THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, EFFECTIVE ON OCTOBER 1, 2013.

THE CONTRACTOR SHALL INSPECT ALL DISTURBED AREAS OF CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF ALL RAIN EVENTS. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE CONSECUTIVE MONTHS.

DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE INSPECTION AND MAINTENANCE TO INSURE PROPER PERFORMANCE OF THE SEDIMENTATION AND EROSION CONTROL SYSTEM. INSPECTING AND MAINTAINING SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

- INSPECTION OF ALL SEDIMENT FENCE, REMOVE ACCUMULATED SEDIMENT IF REQUIRED (GREATER THAN 4" DEPTH)
- INSPECTION OF ANTI–TRACKING PAD, REMOVE, DISPOSE AND REPLACE IF PAD IS NO LONGER FUNCTIONAL IN THE CATCHMENT OF SEDIMENTS FROM VEHICULAR/TRUCK TRAFFIC.
- INSPECTION OF ALL DRIVEWAY AND PARKING AREAS AFTER PAVING, REMOVE ACCUMULATED SEDIMENT AND ANY LITTER/DEBRIS.

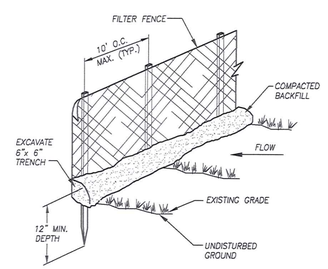
DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE INSPECTED TO INSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO DOWNSTREAM WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF–SITE SEDIMENT TRACKING. STREET SWEEPING SHALL BE COMPLETED AS NECESSARY.

EROSION CONTROL NOTES

1. ALL UTILITIES ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT "CALL–BEFORE–YOU–DIG" AT 1–800–922–4455 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
2. THE RESPONSIBLE PARTY FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES IS THE SITE CONTRACTOR.
3. THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, CT DEEP BULLETIN 34, SHALL BE USED FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES. THE PROPERTY OWNER SHALL INSTALL ADDITIONAL MEASURES AS NECESSARY IF DIRECTED BY THE ENGINEER OR TOWN STAFF.
4. SEEDING FOR PERMANENT STABILIZATION SHALL BE COMPLETED BETWEEN APRIL 15 THROUGH JUNE 15 OR BETWEEN AUGUST 15 THROUGH SEPTEMBER 15. IF SEEDING CANNOT BE COMPLETED WITHIN THESE TIMES, APPLICATION OF TEMPORARY MULCH WILL BE CONDUCTED UNTIL THE NEXT SEEDING PERIOD. SEED MIXTURE SHALL BE AS FOLLOWS:

KENTUCKY BLUEGRASS	20 LBS/ACRE	OR	0.45 LBS/1,000 S.F.
CREEPING RED FESCUE	20 LBS/ACRE	OR	0.45 LBS/1,000 S.F.
PERENNIAL RYEGRASS	5 LBS/ACRE	OR	0.10 LBS/1,000 S.F.

5. MULCH SHALL BE A GOOD QUALITY HAY OR STRAW AND SHALL BE APPLIED AT A RATE OF APPROXIMATELY 2–3 BALES/1,000 SF.
6. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WITHIN 24 HOURS AFTER RAIN EVENTS AND REPAIRED OR REPLACED AS NECESSARY TO INSURE COMPLIANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.



SEDIMENT FENCE DETAIL

NOT TO SCALE

DAVID C. MCKAY, P.E. — 29102 LICENSE NO. — 7/25/22 DATE

© 2022 BOUNDARIES LLC
THIS DRAWING IS THE PROPERTY OF BOUNDARIES LLC AND HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER OF THIS PROJECT, AT THIS SITE, AND IS NOT TO BE DUPLICATED OR USED IN PART OR WHOLE FOR ANY OTHER PURPOSE, PROJECT, LOCATION OR OWNER WITHOUT THE EXPRESSED WRITTEN CONSENT OF BOUNDARIES LLC.

P:\CIVIL 3D PROJECTS\2021\21-3092 CURTO\DWG\DESIGN\CURTO SITE PLAN REVISED LOC.DWG

CIVIL ENGINEERING · LAND SURVEYING · LAND USE PLANNING · GIS & SCIENCE
BOUNDARIES
Boundaries LLC
179 Padanaram Road, Danbury, CT 06811
T 860.376.2006 | www.boundariesllc.net

Improvement Location & Topographic Survey
"Notes & Details"

Prepared For
Dr. Madelyn Curto
23 Three Bridges Road - East Haddam, Connecticut

SCALE: As Noted
DATE: February 2022
JOB I.D. NO. 21-3092

Revisions
Rev. "A" 3-11-2022 Per Chatham Health District
Rev. "B" 5-17-2022 Revised Stable Location
Rev. "C" 7-25-2022 Removed Future Riding Arena

SHEET NO. 2 / 2