NOT TO SCALE TEST HOLE DATA

PERFORMED MAY 31, 2023 WITH DANIELLE HOLMES, LLHD

TEST HOLE #1 - DEPTH 98" TOPSOIL 12-48" YELLOW-BROWN COARSE SAND & GRAVEL (30%) 48-98" LIGHT YELLOW-BROWN SAND MOTTLING AT 74" (NOT GROUNDWATER)

ROOTS TO 84" NO GROUNDWATER/NO APPARENT REDOX

NOTE: 30-32" APPEARED TO BE BURIED TOP SOIL REMNANTS TEST HOLE #2 - DEPTH 108"

TOPSOIL 13-58" YELLOW-BROWN COARSE SAND & GRAVEL (30%) 58-108" LIGHT YELLOW-BROWN SAND ROOTS TO 80"

NO GROUNDWATER/NO REDOX NOTE: 18-21" APPEARED TO BE BURIED TOP SOIL REMNANTS

TEST HOLE #3 - DEPTH 82" TOPSOIL

11-30" YELLOW-BROWN COARSE SAND & GRAVEL (20%) 30-82" LIGHT YELLOW-BROWN SAND MOTTLING AT 74" (NOT GROUNDWATER) ROOTS TO 58"

NO GROUNDWATER/NO REDOX NO REFUSAL

TEST HOLE #4 - DEPTH 88" 0-40" FILL SLOPING 40-49" ORIGINAL TOP SOIL

49-88" YELLOW-BROWN COARSE SAND & GRAVEL (30%) ROOTS TO 78"

NO GROUNDWATER/NO REDOX NO REFUSAL

PERC TEST DATA PERFORMED JUNE 1, 2023 BY JAMES BERNARDO, LS

PERC TEST #1 - TOTAL DEPTH 42" DEPTH TO MEASUREMENT DATUM 24" 11:03 11: 05

11: 09 11:11

11:07

RATE: 0.66 MINUTES/INCH

PERC TEST #2 - TOTAL DEPTH 44" DEPTH TO MEASUREMENT DATUM 26"

11:14 1 1/2" 11:16 11:18 8 1/2" 11: 20

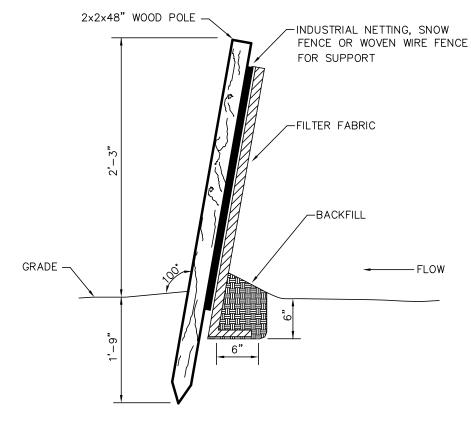
11: 24

AC ACRES

SQUARE FEET

TR TO REMAIN

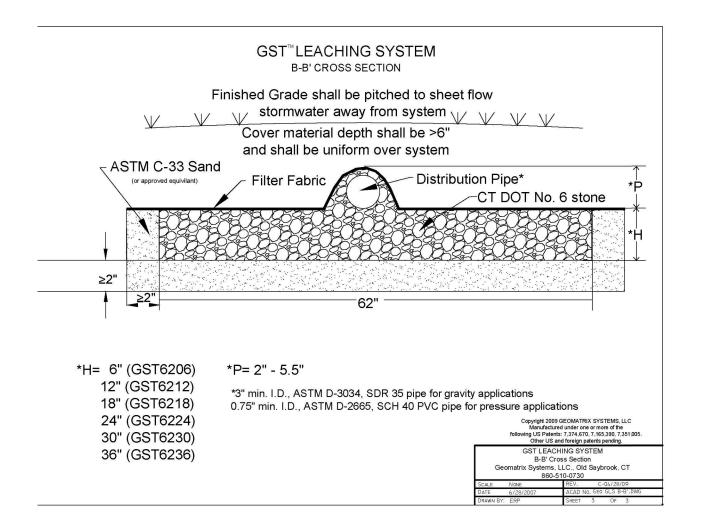
RATE: 0.66 MINUTES/INCH

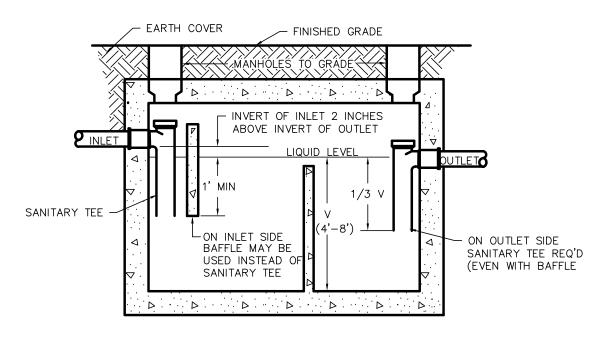


NOTE: PREMANUFACTURED FENCE MAY BE USED.

SEDIMENT FENCE

NOT TO SCALE





TYPICAL SEPTIC TANK CROSS SECTION

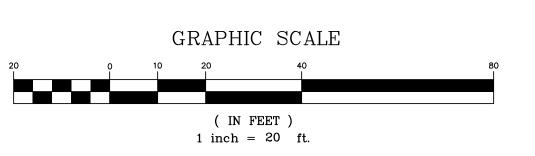
THE FOLLOWING SYMBOLS/ABBREVIATIONS MAY APPEAR ON THIS DRAWING HTB HIGH TIDE BUSH

BASEMENT FLOOR SPARTINA PATENS BITUMINOUS SPARTINA ALTERNAFLORA BCLC BITUMINOUS CONCRETE LIP CURBING TBR TO BE REMOVED CONC CONCRETE TYP TYPICAL DIA DIAMETER SOIL PERC TEST LOCATION DISTRIBUTION BOX SOIL DEEP TEST LOCATION EOP EDGE OF PAVEMENT ELEV ELEVATION HYDRANT FINISHED FIRST FLOOR TREE LINEAR FOOT BUILDING SETBACK LINE CLEARING LIMIT LINE (MIN) MINIMUM EXISTING TREELINE M/L MORE OR LESS N/F NOW OR FORMERLY ----158---- **EXISTING CONTOUR** PVC POLY VINYL CHLORIDE 158 NEW CONTOUR SCH40 SCHEDULE 40 · · · · SEDIMENT FENCE 5.4x SPOT ELEVATION - - - - STORM DRAIN PIPE

STONE WALL

----- W ----- WATER

———— S ———— SANITARY SEWER





4/20/2023 MR. JIM BERNARDO BERNARDO SURVEYING LLC 102-A SPITHEAD RD.

WATERFORD, CT. 06385 RE: WETLAND DELINEATION, 50 GURLEY ROAD, EAST LYME, CT. DEAR MR. BERNARDO,

AT YOUR REQUEST I HAVE DELINEATED THE WETLANDS AND WATERCOURSE ON THE ABOVE THESE WETLANDS HAVE BEEN DELINEATED IN ACCORDANCE WITH THE STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY AND THE DEFINITIONS OF WETLANDS AND

WATERCOURSES AS FOUND IN THE CONNECTICUT STATUTES, CHAPTER 440, SECTION 22A-

WETLAND, THE HIGH WATER MARK OF THE NIANTIC RIVER, AND ITS ASSOCIATED FLOODPLAIN

FLUORESCENT PINK FLAGS WITH A CORRESPONDING LOCATION NUMBER DELINEATE THE BOUNDARY OF THE UPLANDS AND WETLANDS/WATERCOURSE. FLAG SERIES WF- 1 THROUGH WF-25 DELINEATE THE BOUNDARY OF A PALUSTRINE FORESTED

FLAG SERIES WF-1 A THROUGH WF-1 OA DELINEATE A PORTION OF THE NIANTIC RIVER AND ITS In conclusion, if you have any questions concerning the delineation or this REPORT, PLEASE FEEL FREE TO CONTACT ME.

Joseph R. Theroux

JOSEPH R. THEROUX MEMBER SSSSNE, NSCSS, SSSA.

1. THIS PLAN AND THE SURVEY IT IS BASED ON HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS. THE TYPE OF SURVEY IS AN IMPROVEMENT LOCATION SURVEY, THE BOUNDARY DETERMINATION CATEGORY IS DEPENDENT RESURVEY AND THE HORIZONTAL ACCURACY CONFORMS TO CLASS A-2. TOPOGRAPHIC SURVEY IS CLASS T-2 AND THE VERTICAL ACCURACY CONFORMS TO CLASS V-2.

NO DECLARATION IS EXPRESSED OR IMPLIED BY THIS MAP OR COPIES THEREOF UNLESS THE PRINT BEARS THE IMPRESSION TYPE SEAL AND ORIGINAL LIVE SIGNATURE OF THE SURVEYOR WHOSE NAME AND REGISTRATION NUMBER APPEARS BELOW OR THEREON.

2. REFERENCE IS MADE TO EAST LYME LAND EVIDENCE RECORDS VOLUME 718 AT PAGE 43 FOR A WARRANTY DEED DATED SEPTEMBER 2, 2005 REGARDING RECORD TITLE TO THE SUBJECT PROPERTY.

3. THE PROPERTY SHOWN HERE MAY BE SUBJECT TO, OR BENEFITED BY THE FOLLOWING:

4. THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN THE CA & R-10 ZONE DISTRICTS.

5. BY GRAPHICAL DEPICTION ONLY, THIS PARCEL LIES WITHIN FLOOD HAZARD ZONES AE (EL 9 FEET), X (0.2% ANNUAL CHANCE) & X AS SHOWN ON "NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NEW LONDON COUNTY, CONNECTICUT PANEL 477, COMMUNITY: TOWN OF EAST LYME MAP NUMBER: 09011C0477J MAP EFFECTIVE: 8-5-2013, FEDERAL EMERGENCY MANAGEMENT AGENCY".

6. THE SUBJECT PROPERTY IS SHOWN ON THE EAST LYME TAX ASSESSOR MAP 36.0 AS LOT 56 AND HAS AN ASSIGNED STREET ADDRESS OF 50 GURLEY ROAD.

7. BEARINGS AND COORDINATES NOTED HEREON ARE REFERENCED TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD 83) EPOCH 2011 (2010.0). ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) TRANSFORMED FROM ELLIPSOID HEIGHT TO ORTHOMETRIC HEIGHT UTILIZING NGS2018 GEOID. AS DETERMINED BY GLOBAL POSITIONING SYSTEM (GPS) OBSERVATIONS UTILIZING THE STATE OF CONNECTICUT'S ADVANCED CONTINUOUSLY OPERATING REFERENCE NETWORK (ACORN) BASE STATION: CTGR. HAVING THE FOLLOWING VALUES:

LATITUDE = N41° 20' 07.3560" LONGITUDE = W72° 02' 58.96923" ELLIPSOID HEIGHT = -18.342 METERS

ROW IN FAVOR OF NOAHS ARC

8. THIS PLAN REPRESENTS THE LOCATION OF THE BOUNDS AND SITE CONDITIONS DETERMINED BY FIELD SURVEY ON APRIL 28, 2023. RECORD TITLE AND ADJOINER INFORMATION WAS OBTAINED FROM TAX ASSESSOR AND LAND EVIDENCE RECORDS ON MAY 2, 2023.

9. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMËNTAL AGËNCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE EXISTENCE OF WHICH ARE UNKNOWN TO JAMES BERNARDO LAND SURVEYING, LLC. THE SIZE. LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

10. TIDAL ELEVATIONS ARE AS FOLLOWS BASED ON THE TIDAL EPOCH 83-01

NAVD88: 0.0 FEET MLW: -1.6 FEET

11. THE INLAND WETLANDS SHOWN HEREON WERE DELINEATED IN THE FIELD BY JOSEPH THEROUX, CERTIFIED SOIL SCIENTIST AND WERE FIELD LOCATED BY JAMES BERNARDO LAND SURVEYING, LLC

MAP REFERENCES:

1. PLAN TWO ROD RIGHT OF WAY & VICINITY BETWEEN INTERSTATE I-95 & ROUTE NO. 1 BOSOTON POST ROAD, EAST LYME, CONN. SCALE: 1"=40' OCT. 1979 BY CECIL BANNING LAND SURVEYOR (UNRECORDED).

2. PLAN SHOWING LAND IN THE THE TOWN OF EAST LYME BELONGING TO THE ESTATE OF KATHERINE LEWIS GURLEY AND SOME ADJACENT LANDS 1929 SCALE: 1"=50' SURVEYED AND DRAWN BY DABOLL AND CRANDALL C. ENGR'S (UNRECORDED).

3. CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF EAST LYME CONNECTICUT TURNPIKE FROM THE OLD LYME TOWN LINE NORTHEASTERLY TO THE WATERFORD TOWN LINE SCALE: 1"=80" NUMBER 44-09 SHEETS 10 & 11 OF 11 (CT-DOT RECORDS)

4. PLAN OF LAND IN EAST LYME CONN TO BE CONVEYED BY MARY VINE TO JOHN BURKE SCALE: 1"=50' APRIL 1934 L.E. DABOLL CIVIL ENG'R (BOOK 2 PAGE 65)

5. PLAN OF PROPERTY KATHLEEN MACGREGOR GURLEY ROAD - EAST LYME, CONN. SCALE 1"=28' NOV. 1971 BY CECIL BANNING (DR 2 #34)

1. THIS PLAN IS FOR A PERMIT PURPOSES ONLY. IT IS NOT A CONTRACT DOCUMENT OR

2. NO EXCAVATION SHALL TAKE PLACE WITHOUT NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455.

3. WATER SUPPLY WILL BE FROM A NEW PRIVATE DRILLED WELL.

4. NO UTILITIES SHALL RUN THROUGH ANY PORTION OF THE PRIMARY OR RESERVE LEACHING AREAS

5. THE PLACEMENT OF FILL, PIPES AND APPURTENANCES SHALL BE INSPECTED AND APPROVED

BY THE TOWN SANITARIAN OR AUTHORIZED REPRESENTATIVE. THE TOWN SANITARIAN SHALL BE NOTIFIED 24 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.

6. SITE PREPARATION PROCEDURES FOR THE INSTALLATION OF THE NEW SSDS: A. STRIP ALL VEGETATION, ORGANIC MATTER (APROX 7" DEPTH) AND TOPSOIL IN THE AREA OF AND FIVE FEET DOWNGRADIENT, 2' LATERALLY SURROUNDING THE NEW LEACHING SYSTEM. AND ANY UNSUITABLE MATERIAL THAT MAY INTERFERE WITH THE PROPER FUNCTION OF OF THE SSDS. INSTALL APPROVED SELECT FILL IN ACCORDANCE WITH REQUIREMENTS PRIOR TO INSTALLATION OF SYSTEM.

B. INSTALL SYSTEM PER PLAN. C. NATIVE SOIL SHALL BE USED AS BACKFILL, PLACED AND COMPACTED IN 12 INCH LIFTS. THIS FILL MUST HAVE A MINIMUM PERCOLATION

RATE OF 10 MINUTES/INCH AFTER PLACEMENT AND COMPACTION. D. SEPTIC TANK SHALL BE SET LEVEL ON A MINIMUM OF SIX INCHES OF PROCESSED AGGREGATE OR BROKEN STONE BASE ON COMPACTED SUBGRADE. ALL COMPACTION SHALL BE TO 95% MODIFIED PROCTER DENSITY. BACKFILL AROUND TANK SHALL BE PLACED AND COMPACTED IN SIX INCH LIFTS TO 95% MODIFIED PROCTOR DENSITY. FILL TANK WITH WATER TO

7. SUBSURFACE SEWAGE DISPOSAL SYSTEM DESIGN CRITERIA:

DISCHARGE LEVEL AFTER ACCEPTANCE.

A. EFFECTIVE LEACHING AREA REQUIRED: NEW THREE (3) BEDROOM RESIDENCE WITH NO LARGE CAPACITY TUBS OR GARBAGE GRINDERS DESIGN PERCOLATION RATE 10.1 MIN / 1 INCH 495 SF EFFECTIVE LEACHING AREA REQUIRED

B. DESIGN: USE NEW 1000 GALLON SEPTIC TANK BY JOLLEY PRECAST (OR APPROVED EQUAL) WITH AN APPROVED OUTLET EFFLUENT FILTER AND

1 ROW OF 52 LF OF GST6212 C. EFFECTIVE LEACHING AREA PROVIDED 52 TOTAL LINEAR FEET OF EXCAVATED ROW LEACHING AREA PER LINEAL FOOT 10.0 SF/FT

TOTAL EFFECTIVE LEACHING AREA PROVIDED = 520 SF D. 100% RESERVE AREA = 20 LF OF GST 6236

E. MLSS CALCULATION NEED NOT BE CONSIDERED, DEPTH TO RESTRICTIVE LAYER GREATER THAN 60". 8. ALL SOLID AND PERFORATED DISTRIBUTION PIPE USED AFTER THE SEPTIC TANK SHALL BE PVC ASTM D 3034, SDR 35.

9. A CONFIRMATION TEST HOLE WILL BE REQUIRED AT THE TIME OF THE FOUNDATION EXCAVATION TO VERIFY THE BOTTOM OF THE LEACHING SYSTEM IS GREATER THAN 8 FEET ABOVE LEDGE ROCK.

STANDARD CONDITIONS OF LLHD APPROVAL

1. DESIGN APPROVED WITHOUT A GARBAGE GRINDER OR LARGE TUB EXCEEDING 100 GALLONS, IF INSTALLED

SEPTIC TANK SHALL BE SIZED ACCORDINGLY. 2. ALL NEWLY INSTALLED SEPTIC TANKS SHALL HAVE AN APPROVED NON-BYPASS EFFLUENT FILTER THAT IS RATED FOR THE DESIGN FLOW OF THE SSDS. 3. STABLE BENCHMARK ADJACENT TO PROPOSED BUILDING AND SEWAGE DISPOSAL SYSTEM. INSTALLER SHOULD NOT BE REQUIRED TO TRANSFER BENCHMARKS WHEN CONSIDERABLE DIFFERENCES (MORE THAN 10'TO 15')

EXIST BETWEEN THE BENCHMARK AND LEACHING AREA. IF THE BENCHMARK IS DISTURBED PRIOR TO CONSTRUCTION, THE ENGINEER SHOULD SET ANOTHER ONE FOR CONSTRUCTION PURPOSES. 4. IF A RISER COVER WEIGHS LESS THAN 100 LBS, THEN THE TANK COVER SHALL REMAIN IN PLACE OR A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED. IT IS RECOMMENDED THAT SECONDARY SAFETY LIDS OR DEVICES BE UTILIZED FOR SAFETY REASONS EVEN IF THE RISER COVER WEIGHS 100 LBS OR GREATER. SECONDARY SAFETY LIDS OR DEVICES MUST BE INSTALLED PER MANUFACTURER SPECIFICATIONS AND SHOULD BE INSTALLED AS SHALLOW AS POSSIBLE TO FACILITATE MAINTENANCE.

THE FOLLOWING ARE NOT CURRENTLY REQUIRED BY CT PUBLIC HEALTH CODE AND/OR LLHD PLAN REVIEW POLICIES BUT ARE ENCOURAGED/RECOMMENDED TO PROTECT THE PROPOSED STRUCTURES, ONSITE SEPTIC SYSTEM, WATER TREATMENT DISCHARGE SYSTEM AND/OR WATER SUPPLY/GROUNDWATER.



TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

James Dernardo JAMES BERNARDO LICENSE #70121

12-4-2023 DATE

S BERNARDO JRVEYING, LLC ITHEAD ROAD CONNECTICUT



LEACH FIELD REVISED WELL MOVED AND LLHD COMMENTS ADDRESSED DESCRIPTION DATE

REVISIONS 0

0

GUR

Sheet No. SHEET 1 OF 2

1" =20'

MAY 2, 2023

roject No. 23023-1

