



LOT 9
1.35 ACRES
58,855 S.F.

DESIGN DATA SUMMARY

NUMBER OF BEDROOMS: 4
PERC RATE: 1.0-10.1 MIN./IN.
LEACHING AREA REQUIRED: 660 SQ.FT.
LEACHING AREA PROVIDED: 662.4 SQ.FT.
SEPTIC TANK SIZE: 1250 GAL. MIN.
(TANK SIZE BASED ON NO GARBAGE DISPOSAL)

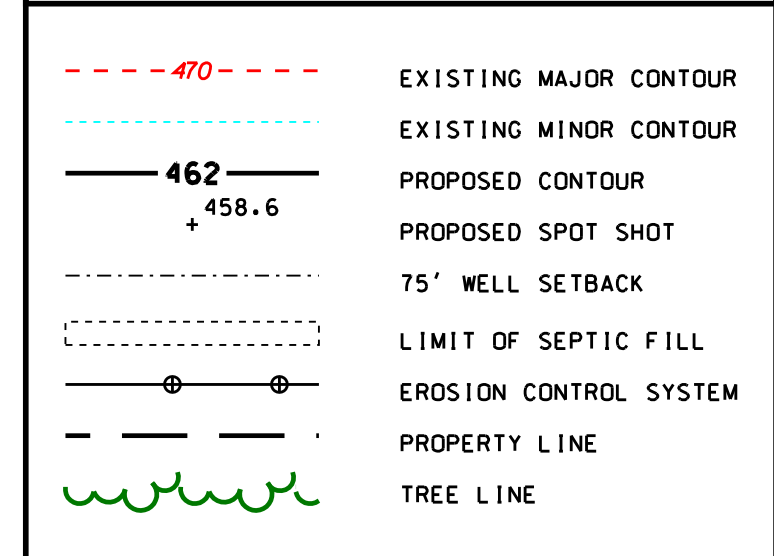
MINIMUM LEACHING SYSTEM SPREAD (MLSS)

MOTTILING GREATER THAN 60"
MLSS NEED NOT BE CONSIDERED

SCHEDULE OF INVERTS

INV. AT HOUSE:	31.05
INV. INTO TANK:	29.95
INV. OUT OF TANK:	29.70
INV. INTO D-BOX #1:	29.40
INV. OUT OF D-BOX #1:	29.30
D-BOX #1 H.L.O.:	29.50
INVERT INTO D-BOX #2:	29.15
INVERT OUT OF D-BOX #2:	29.05
BOTTOM OF UPPER TRENCH:	25.75
BOTTOM OF LOWER TRENCH:	25.50

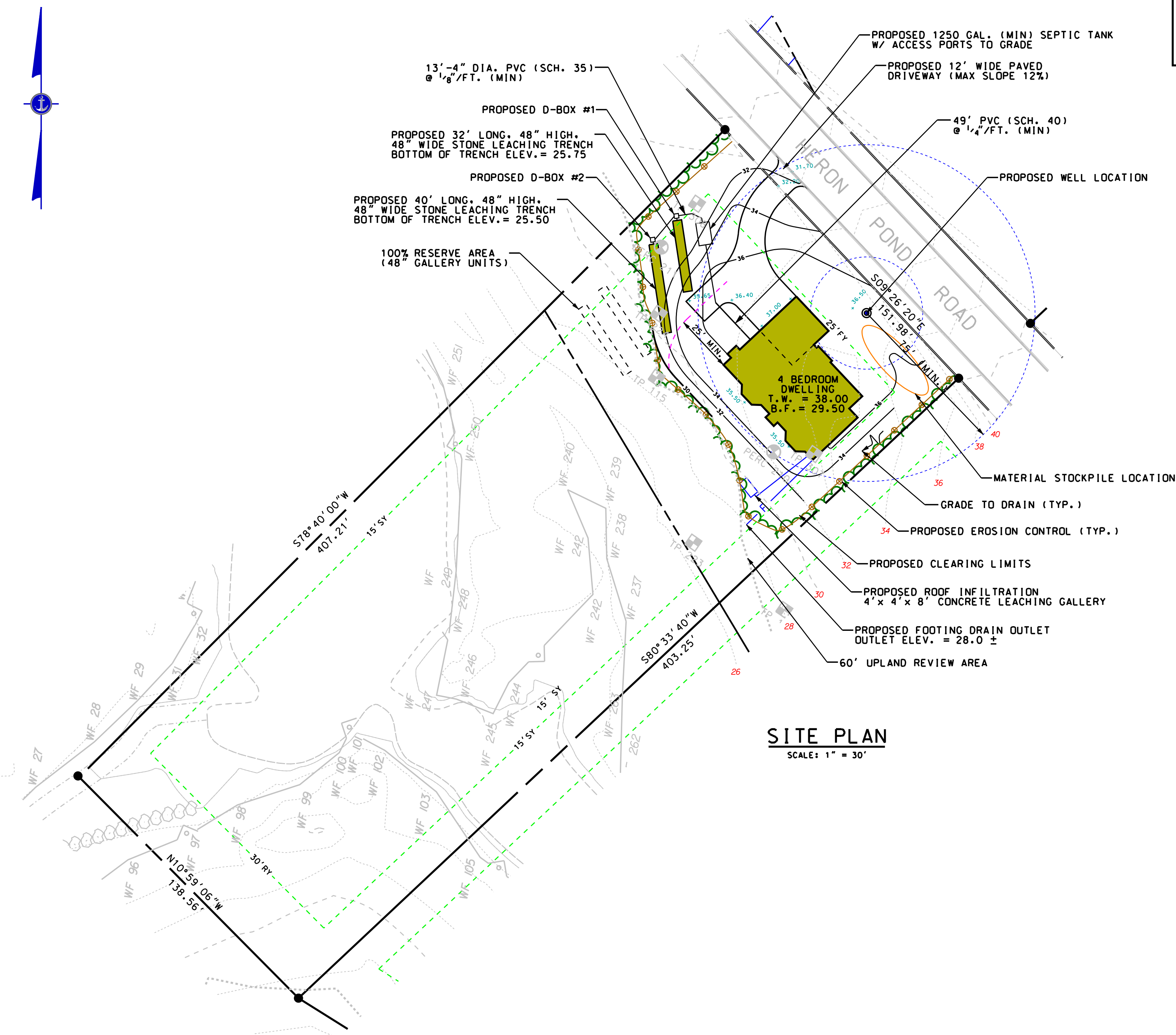
LEGEND



- NOTES:
- LEACHING SYSTEM BASED ON A PERCOLATION RATE OF 1.0-10.0 MIN./IN. AND NO RESTRICTIVE LAYER PRESENT IN TEST PITS #224, #307 AND #308.
 - SYSTEM SIZE BASED ON NO TUB LARGER THAN 100 GALLONS.
 - SEPTIC TANK ACCESS PORTS LOCATED MORE THAN 12" BELOW GROUND REQUIRE RISERS.
 - BENCHMARK TO BE SET WITHIN 40' OF SEPTIC AREA PRIOR TO INSTALLATION.
 - FOOTING DRAIN SHALL BE TIGHT PIPING WHEN CONSTRUCTED WITHIN 25' UPGRADIENT OR 50' DOWNGRADIENT OF THE LEACHING SYSTEM.
 - CONFIRMATION TEST PITS SHALL BE PERFORMED IN PRIMARY AND RESERVE AREAS PRIOR TO CONSTRUCTION. SCHEDULING SHALL BE COORDINATED WITH SANITARIAN.

GENERAL NOTES

- BOUNDARY REFERENCE**
"BOUNDARY SURVEY PLAN" PREPARED FOR ESSEX HIGHLANDS, LLC, ESSEX, CT, SCALE 1"=100', DATED FEBRUARY 6, 2006, AS REVISED FEBRUARY 7, 2007, SHEET 3 OF 9 BY ANCHOR ENGINEERING SERVICES INC., GLASTONBURY, CT
- DATUM**
ELEVATIONS ARE IN FEET AND ARE BASED UPON PROJECT DATUM, PREPARED FOR TRUEBE ASSOCIATES, LTD., ESSEX, CT (SEE NOTE 1). ONE BENCH MARK IS TO BE SET IN THE FIELD PRIOR TO CONSTRUCTION
- DESIGN BASIS**
THE SANITARY DESIGN IS BASED UPON A PROPOSED FOUR BEDROOM HOUSE WITH A DESIGN SOIL PERCOLATION RATE CATEGORY OF 1-10.1 MINUTES TO DROP ONE INCH. THE CONSTRUCTION OF THE SANITARY DISPOSAL SYSTEM AND ITS COMPONENTS SHALL RESPECTS WITH THE LATEST REVISION OF THE DEPARTMENT OF HEALTH SERVICES' REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS, AND THE REQUIREMENTS OF THE TOWN OF ESSEX HEALTH DEPARTMENT.
- SOIL TESTING**
PERCOLATION RATE TESTING PERFORMED BY ANCHOR ENGINEERING ON 12/23/05. DEEP HOLE OBSERVATION TEST PITS TP# 115, 223, 224, 307, & 308 WERE PERFORMED BY ANCHOR ENGINEERING & WITNESSED BY THE TOWN OF ESSEX HEALTH DEPARTMENT ON 04/18/05, 12/21/05 AND 03/22/06.
- GRADING**
EXISTING CONTOURS HAVE BEEN FIELD LOCATED. PROPOSED CONTOURS ARE SHOWN IN AREAS OF PROPOSED CONSTRUCTION. FINISH GRADING SHALL BE ACCOMPLISHED AS INDICATED BY THE PROPOSED CONTOURS. DRAINAGE SWALES SHALL BE CONSTRUCTED AS INDICATED TO DIVERT SURFACE WATER RUNOFF AWAY FROM THE HOUSE AND THE LEACHING SYSTEM.
- SEWER PIPE**
SEWER PIPE FROM THE HOUSE TO THE SEPTIC TANK SHALL BE PVC SCH. 40 OR OTHER APPROVED TIGHT PIPING. PIPING FROM THE SEPTIC TANK TO THE LEACHING SYSTEM SHALL BE PVC SDR 35 OR APPROVED EQUAL. ALL PIPING SHALL BE A MINIMUM OF FOUR INCHES IN DIAMETER AND SHALL BE INSTALLED AT A MINIMUM PITCH OF 1/4" INCH PER FOOT, OR AS NOTED ON THE PLAN. ALL CHANGES OF PIPE DIRECTION SHALL BE MADE WITH PROPER FITTINGS. PIPE LEADING INTO AND OUT OF THE SEPTIC TANK AND DISTRIBUTION BOX SHALL BE PROPERLY SECURED INTO PLACE AFTER THE PIPE INSTALLATION IS COMPLETE. INSTALLED PIPING SHALL BE PROTECTED DURING CONSTRUCTION AND GRADING TO AVOID CRUSHING OR DISPLACING.
- SEPTIC TANK AND DISTRIBUTION BOXES**
THE SEPTIC TANK AND DISTRIBUTION BOXES SHALL BE PRECAST CONCRETE WITH OUTLETS AS SHOWN AND SHALL BE STANDARD PRODUCTS OF A SUPPLIER REGULARLY ENGAGED IN THE MANUFACTURE OF SUCH UNITS. THE SEPTIC TANK SHALL BE OF 1250-GALLON MINIMUM CAPACITY AND SHALL BE SET LEVEL ON A FIRM BED OF NATIVE SOIL OR SAND FILL. THE DISTRIBUTION BOXES SHALL BE SET LEVEL ON PRECAST CONCRETE PAD (APPROXIMATELY 30-INCH DIAMETER AND 2 INCH THICK) IN A FULLY EXCAVATED TRENCH AFTER BACK FILLING WITH STONE.
- LEACHING SYSTEM**
THE LEACHING SYSTEM SHALL CONSIST OF A MINIMUM 72 LINEAR FEET OF 48"-HIGH 48"-WIDE CONCRETE LEACHING GALLERIES LAID OUT AND CONSTRUCTED TO THE DETAILS AS SHOWN ON THE DRAWING. THE PROPOSED LEACHING SYSTEM WILL PROVIDE AN "EFFECTIVE AREA" OF 662.4 SQUARE FEET. THE TRENCHES SHALL BE EXCAVATED TO THE ELEVATION SHOWN IN THE CROSS SECTION AND SHALL BE LEVEL.
- LEACHING SYSTEM INSTALLATIONS**
THE AREA WHERE THE PROPOSED LEACHING SYSTEM TO BE INSTALLED SHALL BE PROPERLY PREPARED ACCORDING TO THE FOLLOWING REQUIREMENTS PRIOR TO PERFORMING ANY ACTUAL INSTALLATION OF THE LEACHING TRENCHES. THE AREA FOR THE PROPOSED LEACHING SYSTEM SHALL MEAN THE ENTIRE AREA WITHIN THE PERIMETER FEET OUTSIDE THE ENDS AND UPPER SIDE AND 10 FEET OUTSIDE THE LOWER SIDE OF THE PRIMARY LEACHING TRENCHES AS INDICATED.
 - WHERE THE PLAN INDICATES THAT THE FILLING SHALL OCCUR, ALL VEGETATION SHALL BE REMOVED AND THE TOPSOIL CAREFULLY STRIPPED AND STOCKPILED FOR LATER REPLACEMENT OVER THE FILLED AREA
 - THE AREA TO BE FILLED SHALL BE ROCKED BY HAND OR MACHINE, IN A DIRECTION PARALLEL TO PROPOSED LEACHING TRENCHES, TO ALLOW PROPER UNITING WITH THE PROPOSED FILL AFTER PREPARATION. THIS AREA SHALL BE PROTECTED FROM TRAFFIC.
 - THE FILL MATERIAL SHALL CONFORM TO THE FILL SPECIFICATIONS OUTLINED IN THE SECTION VIII.A OF THE LATEST REVISION TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS. ALL FILL SHALL BE ACCEPTABLE TO THE TOWN OF ESSEX HEALTH DEPARTMENT.
 - THE FILL MATERIAL SHALL BE DUMPED ON THE UP HILL SIDE OF THE PROPOSED LEACHING AREA AND SPREAD TOWARD THE DOWNHILL SIDE WITH A BULLDOZER, TAKING CARE THAT MACHINERY RIDES ONLY ON NEW FILL
 - THE FILL SHALL BE SPREAD OVER THE ENTIRE AREA IN 12" LIFTS AND THEN COMPACTED BY HEAVY MACHINERY, TO A POINT WHERE IT IS FIRM. UPON COMPLETION OF SPREADING AND COMPACTING THE ENTIRE FILLED AREA SHALL BE BACKBLADED FROM THE UPHILL SIDE TO THE DOWNHILL SIDE. SPECIAL PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT THE ENTIRE FILL AREA, AND ESPECIALLY THE TOE OF THE SLOPE, IS EVENLY AND ADEQUATELY COMPACTED.
 - AFTER THE AREA FOR THE PROPOSED LEACHING SYSTEM HAS BEEN PROPERLY FILLED, THE CONCRETE LEACHING GALLERIES SHALL BE INSTALLED AS FOLLOWS:
 - EXCAVATE FOR LEACHING TRENCHES.
 - HAND RAKE THE BOTTOM AND SIDES OF ALL TRENCHES TO ELIMINATE ANY SOIL SMEARS AND FOOTPRINTS BEFORE PLACING CONCRETE GALLERY UNITS.
 - INSTALL CONCRETE GALLERY UNITS, BACKFILL WITH FILL MATERIAL AND COVER AREA WITH A MIN. 6" LAYER OF SOIL, OF WHICH A MINIMUM OF 4" IS TOPSOIL.
 - FINE GRADE AREA TO THE PROPOSED GRADES AS SHOWN ON THE PLAN.
- WATER SUPPLY**
A MINIMUM OF 75 FEET SHALL BE MAINTAINED BETWEEN ANY PART OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM AND THE POTABLE WATER SUPPLY WELL.
- FOOTING PERIMETER DRAIN**
A FOOTING PERIMETER DRAIN IS PROPOSED AND SHALL DISCHARGE TO THE SOUTHWEST AS SHOWN ON THE PLAN
- SPECIAL RECOMMENDATIONS**
LOW FLOW SANITARY FIXTURES AND FLOW RESTRICTIVE SHOWER HEADS ARE RECOMMENDED FOR INSTALLATION IN PROPOSED HOUSES.

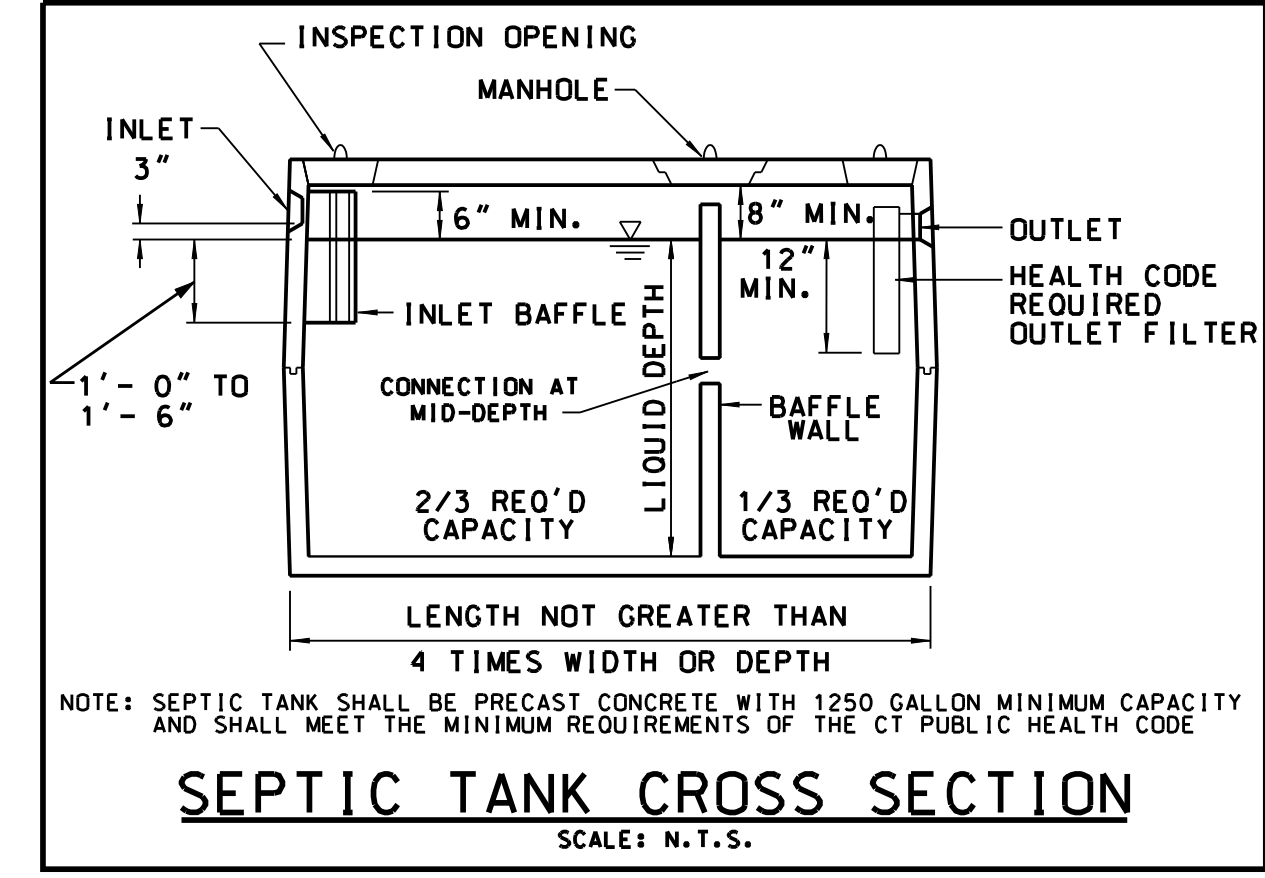
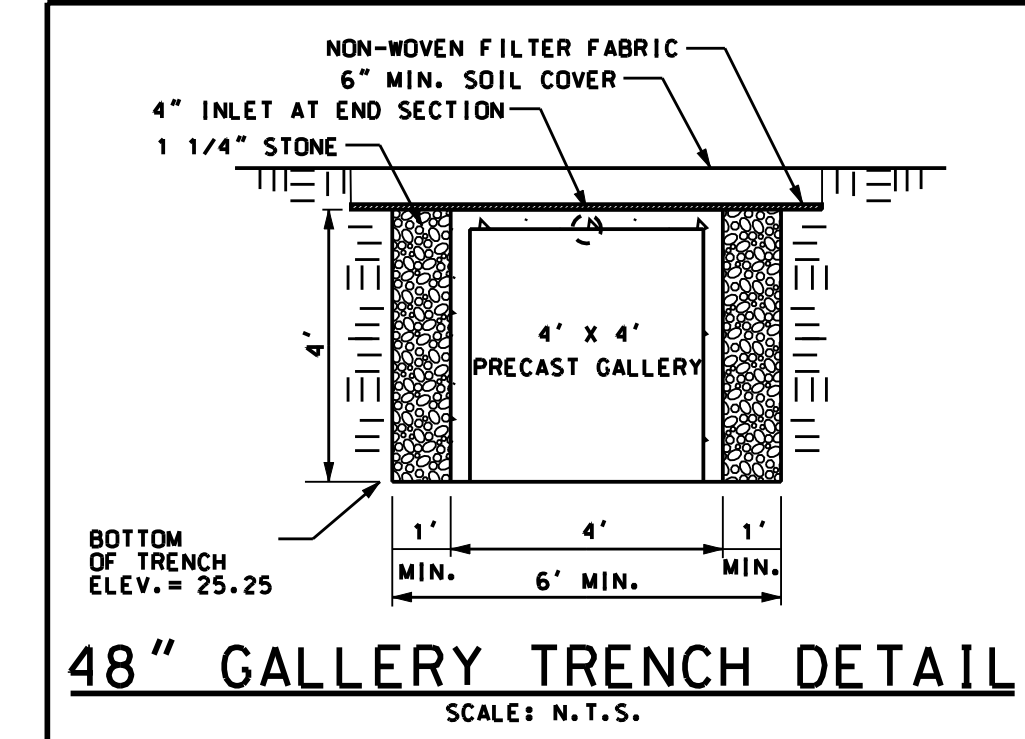


SOIL TESTING RESULTS

<p>TEST PIT #: 115 DEPTH OF TEST PIT: 91" WATER OBSERVED AT: N/A LEDGE OBSERVED AT: N/A ROOTS AT: 26" MOTTILING OBSERVED AT: 66" SEEPS AT: 81"</p> <p>SOIL DESCRIPTION</p> <p>0" - 9" TOPSOIL 9" - 23" BROWN FINE SANDY LOAM 23" - 91" GR/BR SILTY SAND, SOME GRAVEL STONES & COBBLES</p>	<p>TEST PIT #: 224 DEPTH OF TEST PIT: 86" WATER OBSERVED AT: 76" LEDGE OBSERVED AT: N/A ROOTS AT: 34" MOTTILING OBSERVED AT: N/A SEEPS AT: 76"</p> <p>SOIL DESCRIPTION</p> <p>0" - 8" TOPSOIL 8" - 22" RD/BR FINE SANDY LOAM 22" - 34" BR M-C SAND & GRAVEL 34" - 43" TAN F SAND, POCKETS SILT 43" - 72" BR M-C SAND & GRAVEL 72" - 86" GR/BR F SILTY SAND, WET</p>	<p>TEST PIT #: 308 DEPTH OF TEST PIT: 83" WATER OBSERVED AT: N/A LEDGE OBSERVED AT: N/A ROOTS AT: N/A MOTTILING OBSERVED AT: N/A SEEPS AT: N/A</p> <p>SOIL DESCRIPTION</p> <p>0" - 4" TOPSOIL 4" - 32" BR SANDY LOAM 32" - 42" FINE TAN SAND 42" - 61" M/C SAND W/ GRAVEL & STONES 61" - 70" LENSES OF VERY FINE SILT, NOT CONTINUOUS 70" - 83" BR M/C SAND</p>
<p>TEST PIT #: 223 DEPTH OF TEST PIT: 48+" WATER OBSERVED AT: 46" LEDGE OBSERVED AT: N/A ROOTS AT: N/A MOTTILING OBSERVED AT: 29" SEEPS AT: 46"</p> <p>SOIL DESCRIPTION</p> <p>0" - 6" TOPSOIL 6" - 27" BR FINE SANDY LOAM 27" - 36" LT-GR F SANDY SILT 36" - 48" BR F FILTY SAND, WET & MOTTLED 48+ " BR M-C SILTY SAND & GRAVEL, STONES, WET</p> <p>COMMENTS: EDGE OF WETLANDS, WET HOLE</p>	<p>TEST PIT #: 307 DEPTH OF TEST PIT: 78" WATER OBSERVED AT: N/A LEDGE OBSERVED AT: N/A ROOTS AT: N/A MOTTILING OBSERVED AT: N/A SEEPS AT: N/A</p> <p>SOIL DESCRIPTION</p> <p>0" - 4" TOPSOIL 4" - 24" RD/BR FINE SILTY LOAM 24" - 78" GRAY/BR M/C GRAVEL SAND, MANY STONES & COBBLE</p>	

PERCOLATION TEST RESULTS

<p>PERC TEST #: 210 DEPTH OF HOLE: 26" (AFTER PRESOAK): 24.75" DATE OF PRESOAK: 3/22/06 TIME OF PRESOAK: 11:13 A.M. DATE PERFORMED: 3/22/06</p> <p>TIME READING RATE 1:29 17.50 - 1:34 24.75 DRY <1.0 REFILL 1:42 16.75 1:47 24.75 DRY <1.0</p>	<p>PERC TEST #: 211 DEPTH OF HOLE: 24" (AFTER PRESOAK): 22.25" DATE OF PRESOAK: 3/22/06 TIME OF PRESOAK: 11:20A.M. DEPTH OF PRESOAK: 12"</p> <p>DATE PERFORMED: 3/22/06</p> <p>TIME READING RATE 1:18 10.25 - 1:23 13 1.8 1:28 15.125 2.3 1:33 16.5 3.6 1:38 17.5 5.0 1:44 18.75 4.8 REFILL 1:51 10.375 1:56 12.625 2.0 2:04 14.75 3.8 2:10 16 4.8 2:20 17.625 6.2 2:25 18.375 6.7</p>
PERC RATE - <1.0 MIN./IN.	PERC RATE: 1 -10.0 MIN./IN.



THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES- "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. IT IS A ZONING LOCATION SURVEY, BOUNDARY DETERMINATION CATEGORY DEPENDANT SURVEY, CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND A TOPOGRAPHIC SURVEY CONFORMING TO VERTICAL ACCURACY CLASS T-D.

THE PURPOSE OF THIS SURVEY AND MAP IS TO ALLOW DETERMINATION OF COMPLIANCE OR NON-COMPLIANCE WITH STATUTORY OR MUNICIPAL REQUIREMENTS.

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

WILLIAM E. WERTZ, CT. L.S. #70067

ANY ORIGINAL OR DUPLICATE OF THIS MAP IS NOT VALID UNLESS IT BEARS THE EMBOSSED SEAL OF THE SURVEYOR WHOSE REGISTRATION NUMBER APPEARS ABOVE NO OTHER CERTIFICATION OR WARRANTY IS EXPRESSED OR IMPLIED.

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PLOT PLAN
PREPARED FOR
CELEBRATION DEVELOPMENT GROUP
LOT 9 HERON POND SUBDIVISION
HERON POND ROAD ESSEX, CT

REVISIONS
05/02/08
05/22/08

PROJECT: 1037-03 DATE: 4/21/08 SHEET NO. 1 OF 1

SCALE: AS NOTED