



SANITARY DESIGN CRITERIA

- PROPOSED THREE BEDROOM HOME. NO TUBS GREATER THAN 100 GALLONS IN SIZE.
- 1000 GALLON TWO COMPARTMENT SEPTIC TANK REQUIRED BY CODE AND PROVIDED.
- DESIGN PERCOLATION RATE: LESS THAN 10 MIN./IN.
- MINIMUM LEACHING SYSTEM SPREAD: NOT APPLICABLE
- EFFECTIVE LEACHING AREA REQUIRED PER CODE: 495 S.F.
- MANTIS 536-B SELECTED FOR PRIMARY SYSTEM DESIGN. EFFECTIVE LEACHING AREA PROVIDED PER L.F. PER CODE: 11 S.F./L.F. MINIMUM LENGTH OF TRENCH REQUIRED: 495 S.F./11 S.F./L.F. = 45'
- EFFECTIVE LEACHING AREA PROVIDED: 1 - 45' LONG MANTIS 536-B 1 X 45' X 11 S.F./L.F. = 495 S.F.
- 100% RESERVE AREA REQUIRED AND PROVIDED 45 L.F. MANTIS 536-B.

SANITARY ELEVATION DATA:

- SANITARY INVERT AT FOUNDATION: 153.00
- 48"-4" DIA. SCHEDULE 40 ASTM D1785 OR EQUAL PIPE (MIN. SLOPE = 1/4" PER FT.)
- 1000 GALLON TWO COMPARTMENT SEPTIC TANK INVERT IN: 149.75 INVERT OUT: 149.50
- 51" - 4" DIA. SDR 35 PVC PIPE
- "D" BOX INVERT IN: 148.20 INVERT OUT: 148.00
- 45' LONG MANTIS 536-B BOTTOM TRENCH ELEV.: 147.00 TRENCH INV.: 148.00

DEEP TEST PIT DATA

WITNESSED AND RECORDED BY JOSEPH BLANCHARD REHS/RS, LEDGE LIGHT HEALTH DISTRICT ON APRIL 1, 2022.

TP 1
0-14" TOPSOIL
14-36" YELLOW BROWN FINE SANDY LOAM
36-64" YELLOW BROWN MEDIUM SAND
64-102" YELLOW BROWN COARSE SAND WITH GRAVEL AND COBBLES

MOTTLING @ 64"
NO WATER
NO LEDGE

TP 2
0-11" TOPSOIL
11-21" ORANGE BROWN FINE SANDY LOAM
21-71" YELLOW BROWN FINE SAND
71-102" LIGHT BROWN GRAY COARSE SAND WITH GRAVEL AND COBBLES

MOTTLING @ 71"
NO WATER
NO LEDGE

TP 3
0-11" TOPSOIL
11-22" ORANGE BROWN COARSE SAND WITH GRAVEL
22-45" YELLOW BROWN MEDIUM SAND WITH GRAVEL AND COBBLES
45-87" LIGHT BROWN GRAY FINE SAND

NO MOTTLING
NO WATER
NO LEDGE

TP 4
0-11" TOPSOIL
11-29" YELLOW BROWN COARSE SAND WITH GRAVEL AND COBBLES
29-63" YELLOW BROWN MEDIUM SAND AND GRAVEL
63-82" YELLOW BROWN FINE SAND

NO MOTTLING
NO WATER
NO LEDGE

TP 5
0-12" TOPSOIL
12-30" ORANGE BROWN FINE SANDY LOAM
30-67" GRAY FINE SAND
67-74" GRAY FINE SAND STAINED

MOTTLING @ 67"
NO WATER
NO LEDGE

GENERAL NOTES

- THIS LOT WAS TOPOED IN THE AREA OF THE HOUSE AND SEPTIC BY DIETER & GARDNER, INC. LAND SURVEYORS IN MARCH 2022.
- SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER.
- THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
- UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE. NOTE: THIS IS THE GRAVEL PORTION OF THE SAMPLE.
- THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
- THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50 *	10-75
#100	0-20	0-5
#200	0-5	0-2.5

* PERCENT PASSING THE #40 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%.

SELECT FILL THAT DOES NOT MEET THE DRY SIEVE GRADATION CRITERIA BUT MEETS THE WET SIEVE GRADATION CRITERIA IS ACCEPTABLE. SIEVE TESTING OF SELECT FILL IS REQUIRED FOR LARGE (2,000 GPD OR GREATER) SYSTEMS WHENEVER THE LEACHING SYSTEM IS LOCATED TOTALLY IN SELECT FILL. THE LOCAL DIRECTOR OF HEALTH MAY REQUIRE SIEVE TESTING OF SELECT FILL ON LESS THAN 2,000 GPD SEWAGE SYSTEMS IN ACCORDANCE WITH PHC SECTION 19-13-B103a (D) (6).

THE LICENSED INSTALLER IS RESPONSIBLE FOR PREPARING THE LEACHING AREA WITH NECESSARY SELECT FILL. THE TOPSOIL IN THE LEACHING SYSTEM AREA MUST BE REMOVED AND THE SUBSOIL SCARIFIED PRIOR TO SELECT FILL PLACEMENT UNLESS OTHERWISE DIRECTED BY THE DESIGN ENGINEER. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOIL FROM OVER COMPACTION OR DAMAGE. THE INSTALLER IS RESPONSIBLE FOR PROPERLY COMPACTING SELECT FILL TO FACILITATE CONSTRUCTION AND TO PREVENT SETTLING. SELECT FILL SHALL EXTEND A MINIMUM OF FIVE (5) FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING SYSTEM.

THE COMMISSIONER OF PUBLIC HEALTH MUST APPROVE MANUFACTURED FILL. ROCK USED TO PRODUCE MANUFACTURED FILL MUST HAVE A LOSS OF ABRASION OF NOT MORE THAN 50% USING AASHTO METHOD T-96, AND WHEN TESTED FOR SOUNDNESS USING AASHTO METHOD T104 NOT HAVE A LOSS OF MORE THAN 15% AT THE END OF 5 CYCLES. SUPPLIERS OF MANUFACTURED FILL MUST MAKE APPLICATION FOR APPROVAL TO THE COMMISSIONER OF PUBLIC HEALTH. DOCUMENTATION MUST BE SUBMITTED ON THE QUARRY OPERATION AND PRODUCTION PROCESS. FILL SPECIFICATIONS (GRADATION, PERMEABILITY, ETC) AND A NARRATIVE OF THE QUALITY CONTROL/QUALITY ASSURANCE PROGRAM MUST ALSO BE INCLUDED FOR ALL ACTIVE QUARRIES. THE MANUFACTURED FILL PRODUCERS MUST PROVIDE ANNUAL PRODUCT REGISTRATIONS TO THE COMMISSIONER OF PUBLIC HEALTH BY JULY 1ST OF EACH YEAR.

3. APPLICANT: PETER C. GARDNER
P. O. BOX 335 GALES FERRY CT. 06335
860-464-7455
DIETER.GARDNER@YAHOO.COM

4. THE FOUNDATION AND SEPTIC SYSTEM SHALL BE STAKED OUT AND A BENCHMARK SET, GRADES ESTABLISHED BY A LICENSED LAND SURVEYOR.

5. AT THE TIME OF THIS DESIGN THERE WERE NO EXISTING WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM. NO SEPTICS SYSTEMS WITHIN 75' OF PROPOSED WELL.

PERCOLATION TEST P1
PERFORMED BY JOE BLANCHARD REHS/RS,
LEDGE LIGHT HEALTH DISTRICT ON
APRIL 7, 2022
DEPTH 25.3"
PRESOAK 30 MINS.

TIME	READING
9:57	16"
9:58	18"
9:59	19"
10:01	21.5"
10:03	22.5"
10:05	23.5"
10:07	24.5"
10:09	EMPTY

PERCOLATION TEST P2
PERFORMED BY JOE BLANCHARD REHS/RS,
LEDGE LIGHT HEALTH DISTRICT ON
APRIL 7, 2022
DEPTH 18"
PRESOAK 30 MINS.

TIME	READING
10:00	6"
10:01	8"
10:02	9"
10:04	10"
10:06	11"
10:08	12"
10:10	13"
10:12	14"
10:14	14.75"
10:16	15.5"
10:18	16.25"

ZONING COMPLIANCE TABLE R-60 ZONE
894R IN AN INTERIOR LOT

ITEM	REQUIRED/ALLOWED	PROVIDED
MIN. LOT AREA	90,000 Sq. Ft.	1,219,700± Sq. Ft.
MIN. FRONT YARD	50'	1630'±
MIN. SIDE YARD	60'	51.0'
MIN. REAR YARD	40'	619.1'
BUILDING HEIGHT	35'	28±'

**PLAN SHOWING
PROPOSED HOUSE, WELL, DRIVE
AND SEPTIC SYSTEM
PROPERTY OF
JACOB E. FEDORS
&
MARY E. MALERBA
894R COLONEL LEDYARD HIGHWAY
LEDYARD, CONNECTICUT
SCALES AS SHOWN**

APRIL 2022
REVISED: JUNE 15, 2022
REVISED: JULY 12, 2022

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 AN IMPROVEMENT LOCATION SURVEY BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS "D" & A TOPOGRAPHIC SURVEY BASED ON TOPOGRAPHIC ACCURACY 1-2. TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

TITLE: LAND SURVEYOR CT No. 14208
DATE: APRIL 18, 2022

I HAVE REVIEWED THE INLAND WETLAND BOUNDARY I DELINEATED AND I AM OF THE OPINION THAT THE WETLAND BOUNDARY IS SHOWN CORRECTLY ON THIS MAP.

Ian Cole
IAN COLE
SOIL SCIENTIST

THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF THE PROFESSIONAL OPINION BY THE LAND SURVEYOR WHICH IS BASED ON HIS OR HER BEST KNOWLEDGE, INFORMATION AND BELIEF. AS SUCH IT CONSTITUTES NEITHER GUARANTEE OR WARRANTY.

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JOB# 21-042.DWG FBK#317

THE STONE WALLS AND/OR FENCES SHOWN AS BOUNDARIES MAY HAVE IRREGULARITIES OF COURSE BETWEEN PRINCIPAL POINTS OF COURSE INDICATED.