

PROJECT DESCRIPTION:

A GUEST HOUSE IS PROPOSED AND WILL REQUIRE THE INSTALLATION OF A SEPTIC SYSTEM. SEE SHEET SDS.1 FOR ADDITIONAL DETAILS ON THE MAIN HOUSE SEPTIC SYSTEM.

MAIN HOUSE SEPTIC DESIGN CRITERIA

- 2 NUMBER OF TOTAL BEDROOMS
- 10 PERCOLATION RATE (MINUTES PER INCH)
- 48 DEPTH TO RESTRICTIVE LAYER (INCHES)
- 62 AVERAGE DEPTH TO RESTRICTIVE LAYER (INCHES)
- 14.4 HYDRAULIC GRADIENT (%)

MLSS ANALYSIS:

- 16 HYDRAULIC FACTOR (HF)
- 1.0 FLOW FACTOR (FF)
- 1.0 PERCOLATION FACTOR (PF)
- MLSS = HF x FF x PF
- 16 LF LEACHING SYSTEM SPREAD REQUIRED
- 100% OF MINIMUM LEACHING SYSTEM SPREAD PROVIDED

PROPOSED SYSTEM DESIGN:

- 64 LINEAL FEET OF 4 FEET WIDE BY 1 FOOT HIGH CONCRETE OR PLASTIC GALLERIES. 1 FOOT OF STONE SHALL BE PLACED ON THE SIDES OF THE GALLERIES AND ON THE ENDS OF THE GALLERY ROWS.
- 375 EFFECTIVE LEACHING AREA REQUIRED (SQUARE FEET)
- 389 EFFECTIVE LEACHING AREA PROVIDED (SQUARE FEET)
- (66 LF x 5.9 SF/LF = 389.4 SF PROVIDED)

100% OF REQUIRED EFFECTIVE LEACHING AREA IS SUPPLIED

1,000 SEPTIC TANK VOLUME (GALLONS)

GENERAL NOTES:

1. GRASS, ORGANICS, FILL AND ALL TOPSOIL IN THE PRIMARY LEACHING AREA ARE TO BE REMOVED PRIOR TO PLACEMENT OF SELECT FILL. AREA IS TO BE SCARIFIED AFTER STRIPPING TOPSOIL. HEAVY EQUIPMENT IS TO BE KEPT OUT OF THE PROPOSED SANITARY DISPOSAL SYSTEM AREAS.
2. USE APPROVED 2 COMPARTMENT SEPTIC TANK PLACED LEVEL WITH A MINIMUM OF 6 INCHES OF COVER. (H-20 LOADING IF PLACED UNDER DRIVE OR PARKING AREA.) TANK COVERS ARE TO BE EXTENDED TO GRADE AS REQUIRED. ALL NEWLY INSTALLED TANKS SHALL HAVE AN APPROVED NON-BYPASS EFFLUENT FILTER AT THE OUTLET.
3. LARGE TUBS AND GARBAGE GRINDERS REQUIRE ADDITIONAL SEPTIC TANK LIQUID CAPACITY AND SHOULD BE SIZED ACCORDINGLY. GARBAGE GRINDERS ARE NOT RECOMMENDED.
4. SET ALL DISTRIBUTION BOXES ON MINIMUM 12 INCH TRENCH STONE BASE.
5. NO AIR CONDITIONING, REFRIGERATION, WATER SOFTENER RESIDUES, SURFACE OR SUBSURFACE DRAINS ARE TO BE CONNECTED TO THE SANITARY DISPOSAL SYSTEM.
6. FOOTING DRAINS AND OUTLETS ARE TO BE A MINIMUM OF 25' FROM THE SANITARY DISPOSAL SYSTEM.
7. IF CURTAIN DRAIN IS SPECIFIED, IT SHALL BE INSTALLED PER TYPICAL DETAIL AND DESIGN PLANS.
8. THERE ARE NO KNOWN OR PROPOSED WELLS WITHIN 75' OF THE PROPOSED SANITARY DISPOSAL SYSTEM LEACHING FIELDS.
9. SELECT FILL SHALL BE COMPRISED OF CLEAN SAND & GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING CONNECTICUT PUBLIC HEALTH CODE REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
 1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SIEVE.
 2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
 3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
 4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

10. 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. SELECT FILL SHALL EXTEND A MINIMUM OF FIVE (5) FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING SYSTEM.
11. THE INSTALLER SHALL PROVIDE A SIEVE ANALYSIS FOR ALL SELECT FILL USED ON SITE.
12. THE DEPTH OF FILL SHOWN ON THE PROFILE IS BASED UPON THE PROFILE SECTION LINE ONLY. MORE FILL MAY BE REQUIRED IN OTHER AREAS OF THE SEPTIC SYSTEM.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF PROPER SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PER THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
14. PRIOR TO THE START OF CONSTRUCTION THE PROJECT SURVEYOR IS TO SET A BENCHMARK IN THE SEPTIC AREA AND STAKE THE PROPOSED LEACHING FIELDS.
15. PERCOLATION TESTS HAVE BEEN CONDUCTED WITHIN 10 FEET OF THE CORRESPONDING DEEP TEST UNLESS OTHERWISE NOTED.
16. MODIFICATIONS TO THIS PLAN SHALL BE AUTHORIZED BY THE PROJECT ENGINEER AND APPROVED BY THE LOCAL DIRECTOR OF HEALTH.

- SPECIFIC NOTES:**
1. THE WASHINGTON HEALTH DEPARTMENT REQUIRES AN AS-BUILT BY THE DESIGN ENGINEER.
 2. THE SUBSURFACE SEWAGE DISPOSAL SYSTEM DESIGN SERVING THE GUEST HOUSE IS TO BE INSTALLED.

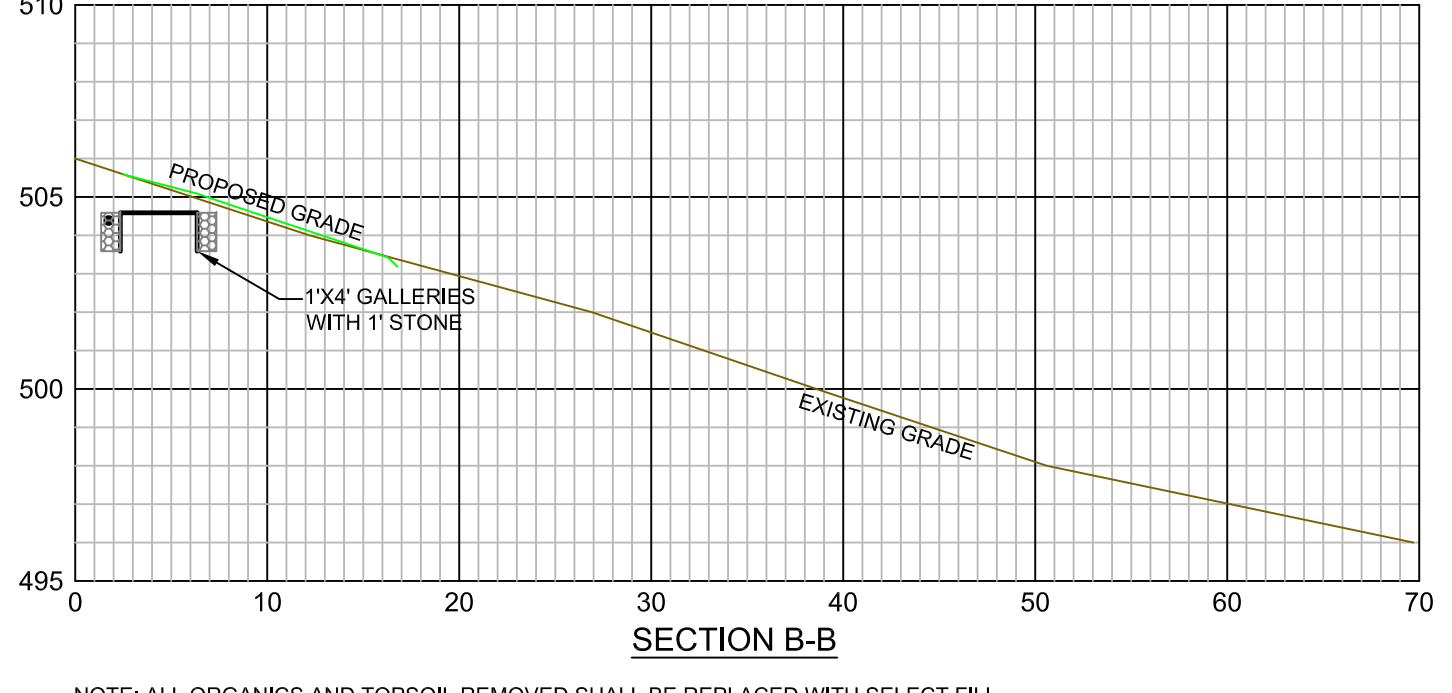
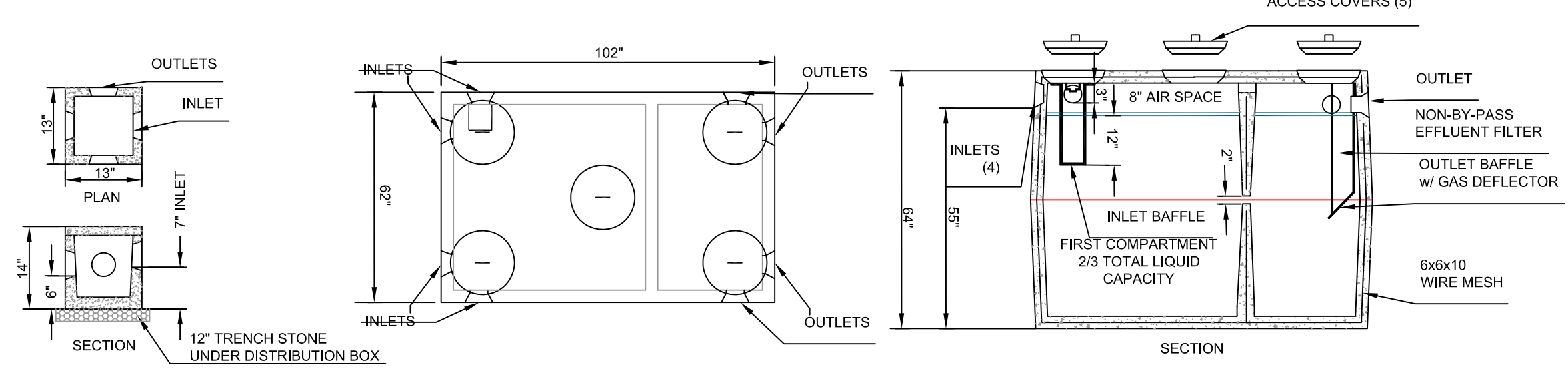
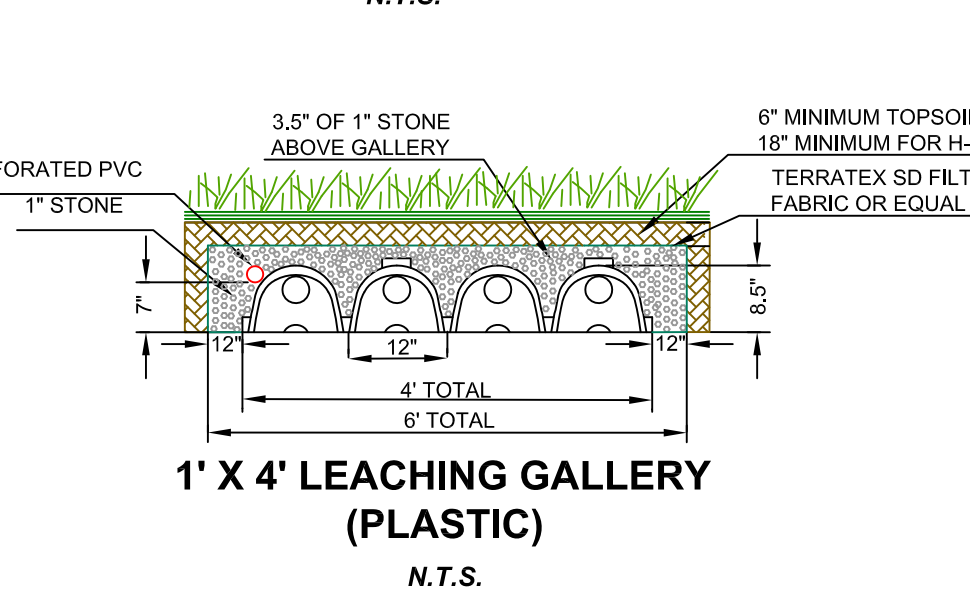
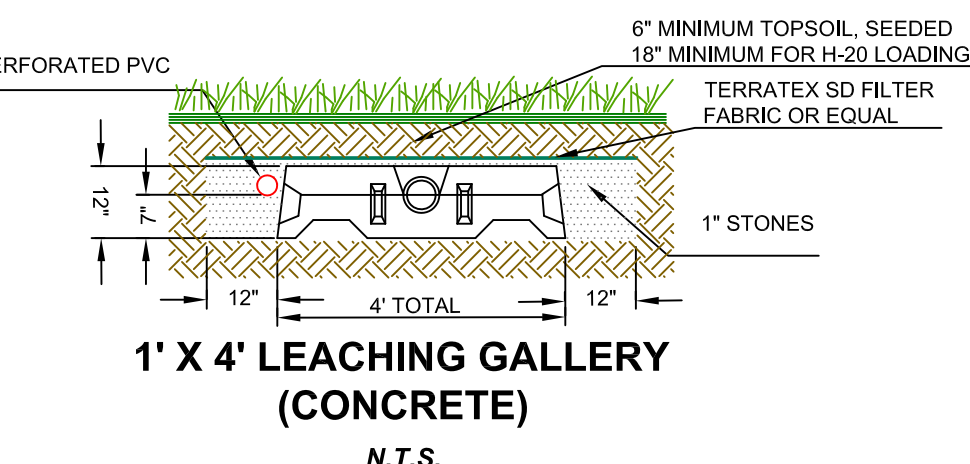
SOIL INSPECTION RESULTS

OBSERVATION PIT: NO. 4	
DATE:	9/20/2021
INSPECTED BY:	ARTHUR H. HOWLAND, P.C.
PERC HOLE #4	DEPTH: 22' DEPTH OF REF. MARK= 2'
	PRE-SOAK
	START TIME= 30 MINS.
	END TIME= 11:45
TIME(MINS.)	DEPTH(INCHES)
0	7
10	11.5
20	13.5
30	14.75
40	16
50	17
60	18
FINAL PERC. RATE=	10 MIN/INCH

OBSERVATION PIT: NO. 5	
DATE:	9/20/2021
INSPECTED BY:	ARTHUR H. HOWLAND, P.C.
PERC HOLE #5	DEPTH: 30' DEPTH OF REF. MARK= 18'
	PRE-SOAK
	START TIME= 30 MINS.
	END TIME= 11:46
TIME(MINS.)	DEPTH(INCHES)
0	0
10	5.25
20	8.75
30	10.25
40	DRY
FINAL PERC. RATE=	7 MIN/INCH

SEPTIC ELEVATION TABLE

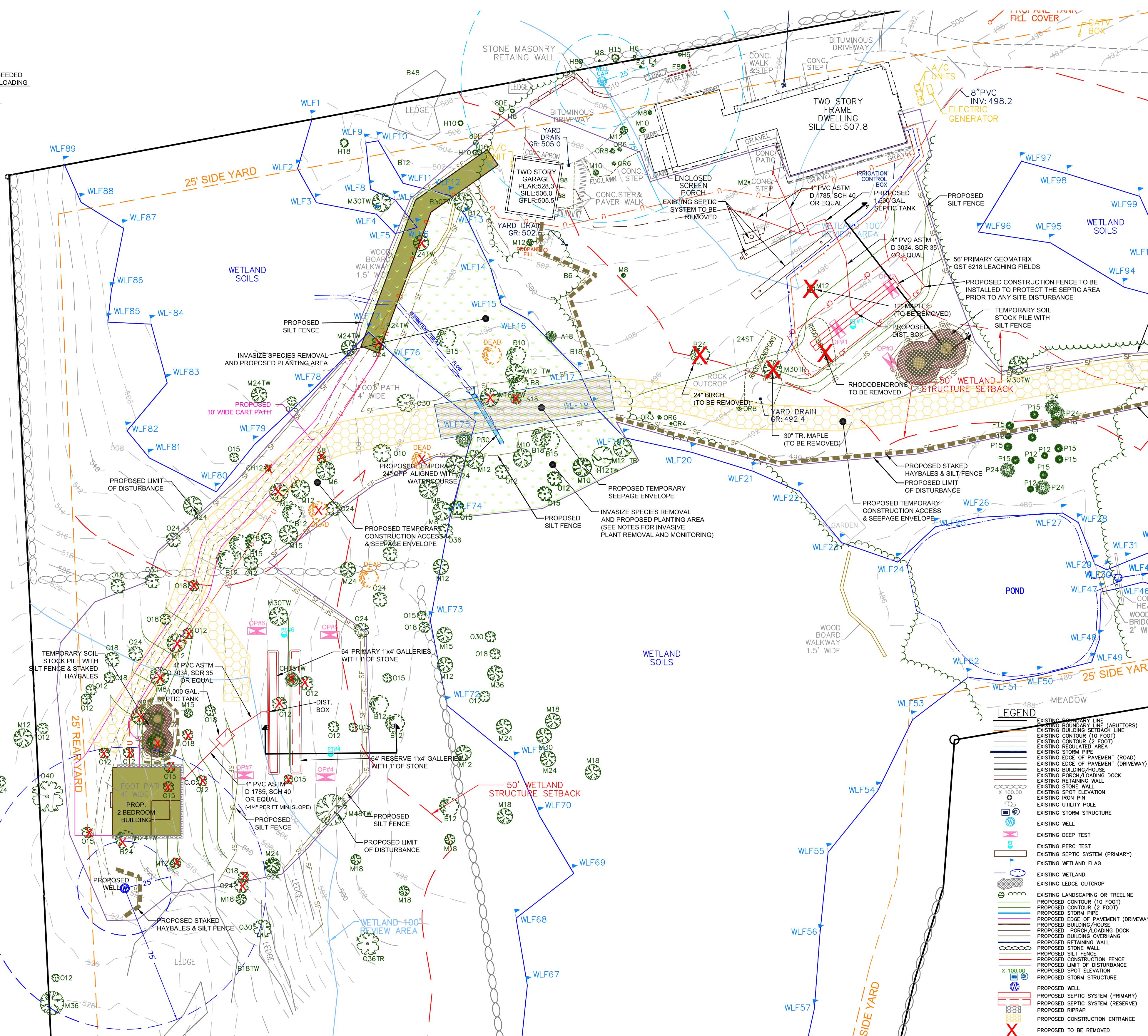
COMPONENT	MIN. INVERT ELEVATION (FT)
FLOW LINE AT NEW FOUNDATION	514.0
SEPTIC TANK INLET	508.75
SEPTIC TANK OUTLET	508.50
DISTRIBUTION BOX #1 INLET	504.3
DISTRIBUTION BOX #1 OUTLET	504.2
INVERT OF LEACHING FIELD	504.2
BOTTOM OF LEACHING FIELD	503.6



DISTRIBUTION BOX (CONCRETE)
N.T.S.

1,000 GALLON SEPTIC TANK (CONCRETE)
N.T.S.

NOTE: ALL ORGANICS AND TOPSOIL REMOVED SHALL BE REPLACED WITH SELECT FILL.



LEGEND

- EXISTING PROPERTY LINE (ABUTTERS)
- EXISTING BUILDING SETBACK LINE
- EXISTING CONTOUR (10 FOOT)
- EXISTING CONTOUR (2 FOOT)
- EXISTING EDGE OF PAVEMENT (ROAD)
- EXISTING EDGE OF PAVEMENT (DRIVEWAY)
- EXISTING BUILDING OVERHANG
- EXISTING PORCH/LOADING DOCK
- EXISTING RETAINING WALL
- EXISTING STONE WALL
- EXISTING SPOT ELEVATION
- EXISTING IRON PIN
- EXISTING UTILITY POLE
- EXISTING STORM STRUCTURE
- EXISTING WELL
- EXISTING DEEP TEST
- EXISTING PERC. TEST
- EXISTING SEPTIC SYSTEM (PRIMARY)
- EXISTING WETLAND FLAG
- EXISTING WETLAND
- EXISTING LEDGE OUTCROP
- EXISTING LANDSCAPING OR TREELINE
- PROPOSED CONTOUR (10 FOOT)
- PROPOSED CONTOUR (2 FOOT)
- PROPOSED STORM PIPE
- PROPOSED EDGE OF PAVEMENT (DRIVEWAY)
- PROPOSED BUILDING OVERHANG
- PROPOSED PORCH/LOADING DOCK
- PROPOSED STONE WALL
- PROPOSED RETAINING WALL
- PROPOSED STORM STRUCTURE
- PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED SPOT ELEVATION
- PROPOSED STORM STRUCTURE
- PROPOSED WELL
- PROPOSED SEPTIC SYSTEM (PRIMARY)
- PROPOSED SEPTIC SYSTEM (RESERVE)
- PROPOSED RIPRAP
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TO BE REMOVED

- 1) COPIES NOT BEARING THE EMBOSSED SEAL OF THE SURVEYOR OR ENGINEER SHALL BE RENDERED NULL AND VOID.
 - 2) REVISIONS TO THESE PLANS BY ANYONE OTHER THAN ARTHUR H. HOWLAND & ASSOC., P.C. SHALL MAKE THESE PLANS NULL AND VOID. ARTHUR H. HOWLAND & ASSOC., P.C. SHALL TAKE NO RESPONSIBILITY FOR SAID REVISIONS.
- REVISIONS:
- REVISED 11/5/2021 - PER WETLAND COMMENTS
 - REVISED 12/20/2021 - NEW GUEST HOUSE FOOTPRINT

Underground utility, structure and facility locations shown have been determined from record maps provided by utility companies, governmental agencies, testimony, field locations, and other sources. Other utilities may exist on file or in the area shown. The size, location, and existence of all underground features must be field verified by the appropriate providers prior to construction Call Before You Dig, 1-800-922-4455.

THIS MAP IS NOT AN A-2 SURVEY AND SHOULD NOT BE USED FOR ZONING COMPLIANCE. THIS PLAN IS TO BE USED TO DEMONSTRATE COMPLIANCE WITH THE STATE OF CONNECTICUT HEALTH CODE.

ARTHUR H. HOWLAND & ASSOCIATES, P.C.
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SOIL SCIENTISTS • LAND PLANNERS
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Proposed Guest House Sanitary Disposal System Plan

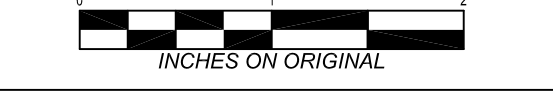
for
The Premier Trust Inc.

Tax Map 5 Block 10 Lot 20
Area = 402,644 S.F. / 9.243 Ac.

157 Calhoun Street
Town of Washington
County of Litchfield
State of Connecticut

DATE: **October 1, 2021**

SCALE: **1" = 30'**



SHEET: **SDS.2**