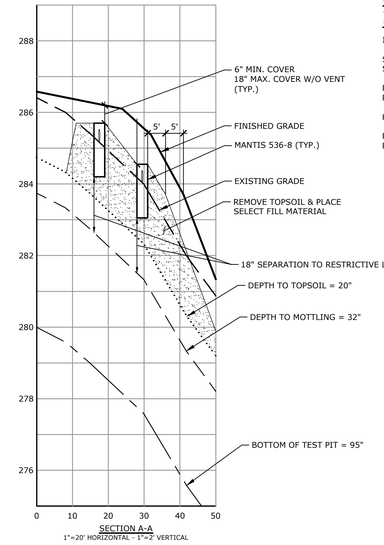
GENERAL NOTES:

1. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED UPON CLASS A-2 / T-2 PROPERTY / TOPOGRAPHIC SURVEY CONDUCTED BY MILONE AND MACBROOM INC. TITLED "PROPERTY SURVEY / PARTIAL TOPOGRAPHIC SURVEY, PREPARED FOR JOHN ROMANIK, SOUTH MERIDEN ROAD (ROUTE 70), CHESHIRE, CONNECTICUT." DATED JULY 13, 2020.
2. NORTH ARROW AND BEARINGS AND COORDINATES ARE BASED UPON THE CONNECTICUT COORDINATE SYSTEM (NAD 1983). ELEVATIONS, CONTOURS AND BENCHMARK ARE BASED UPON NAVD 1988.
3. MILONE & MACBROOM INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM 6" TOPSOIL AND BE SEEDED WITH GRASS.
5. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO THE EXECUTION OF THE WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
6. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF CHESHIRE REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 818 AND ADDENDUMS.
7. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY FOR DETERMINATION.
8. ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION, MEANS OF CONSTRUCTION, AND SIZE OF ELECTRIC, TELEPHONE, AND CABLE ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
9. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG" (800) 922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLAN SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
10. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION HAS BEEN ESTABLISHED.
11. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
12. A STABLE BENCH MARK SHALL BE SET BY THE ENGINEER PRIOR TO CONSTRUCTION OF THE PROPOSED LEACHING SYSTEM.
13. ADDITIONAL SOIL TESTING IS REQUIRED BY CHESPROCOTT FOR FINAL DESIGN. IN FINAL DESIGN FURTHER DESIGN CONSTRAINTS MAY BE IDENTIFIED THAT WILL DICTATE CHANGES TO THE PLAN.
14. NO EXISTING WELLS ARE LOCATED WITHIN 75' OF THE PROPOSED LEACHING SYSTEM.
15. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITEE.
16. FF=FINISH FLOOR ELEVATION, GF=GARAGE FLOOR ELEVATION, BF=BASEMENT FLOOR ELEVATION
17. TUBS ARE TO BE LESS THAN 100 GALLONS.
18. A DOT ENCROACHMENT PERMIT IS REQUIRED.
19. RAIN GARDEN PLANTINGS WILL BE SELECTED BY OWNER BASED ON THE DESIGN GUIDE PUBLICATION BY UCONN COLLEGE OF AGRICULTURE AND NATURAL RESOURCES TITLED "RAIN GARDENS - A DESIGN GUIDE FOR HOMEOWNERS."



SECTION A-A
1"=20' HORIZONTAL - 1"=2' VERTICAL

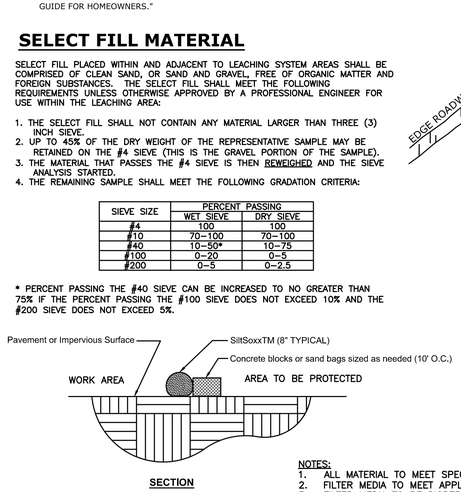
SELECT FILL MATERIAL

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE OF ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:

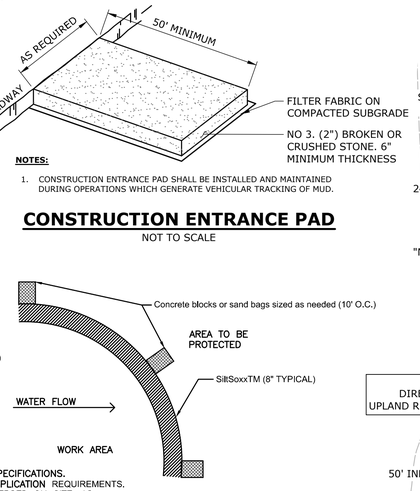
1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCH SIEVE.
2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA:

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%.



SECTION

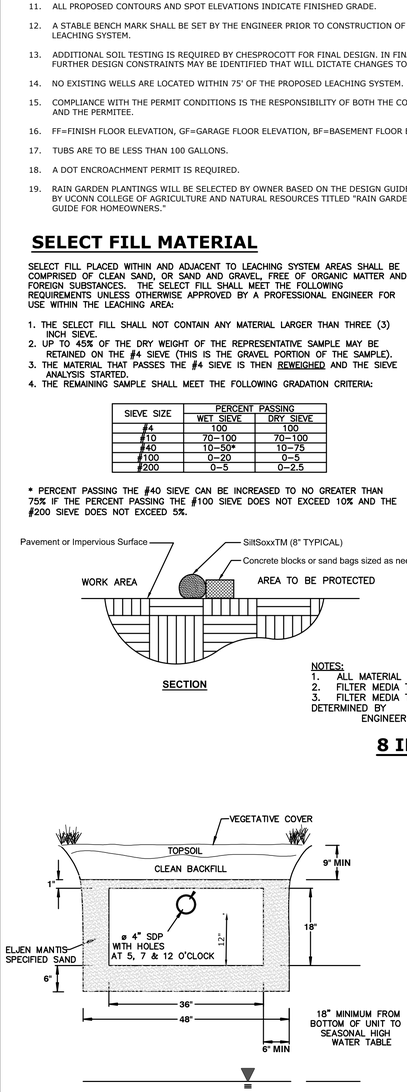


PLAN

NOTES:
1. ALL MATERIAL TO MEET SPECIFICATIONS.
2. FILTER MEDIA TO MEET APPLICATION REQUIREMENTS.
3. FILTER MEDIA TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

8 INCH SILTSOXX

NOT TO SCALE



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURED FROM THE TOP OF THE UNIT TO FINISHED GRADE

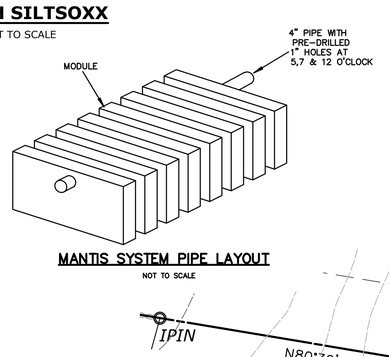
MANTIS SYSTEM SAND FILL CROSS SECTION

NOT TO SCALE

NOTES:
1. CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

CONSTRUCTION ENTRANCE PAD

NOT TO SCALE



MANTIS SYSTEM PIPE LAYOUT

NOT TO SCALE

SEPTIC SYSTEM INVERT ELEVATIONS

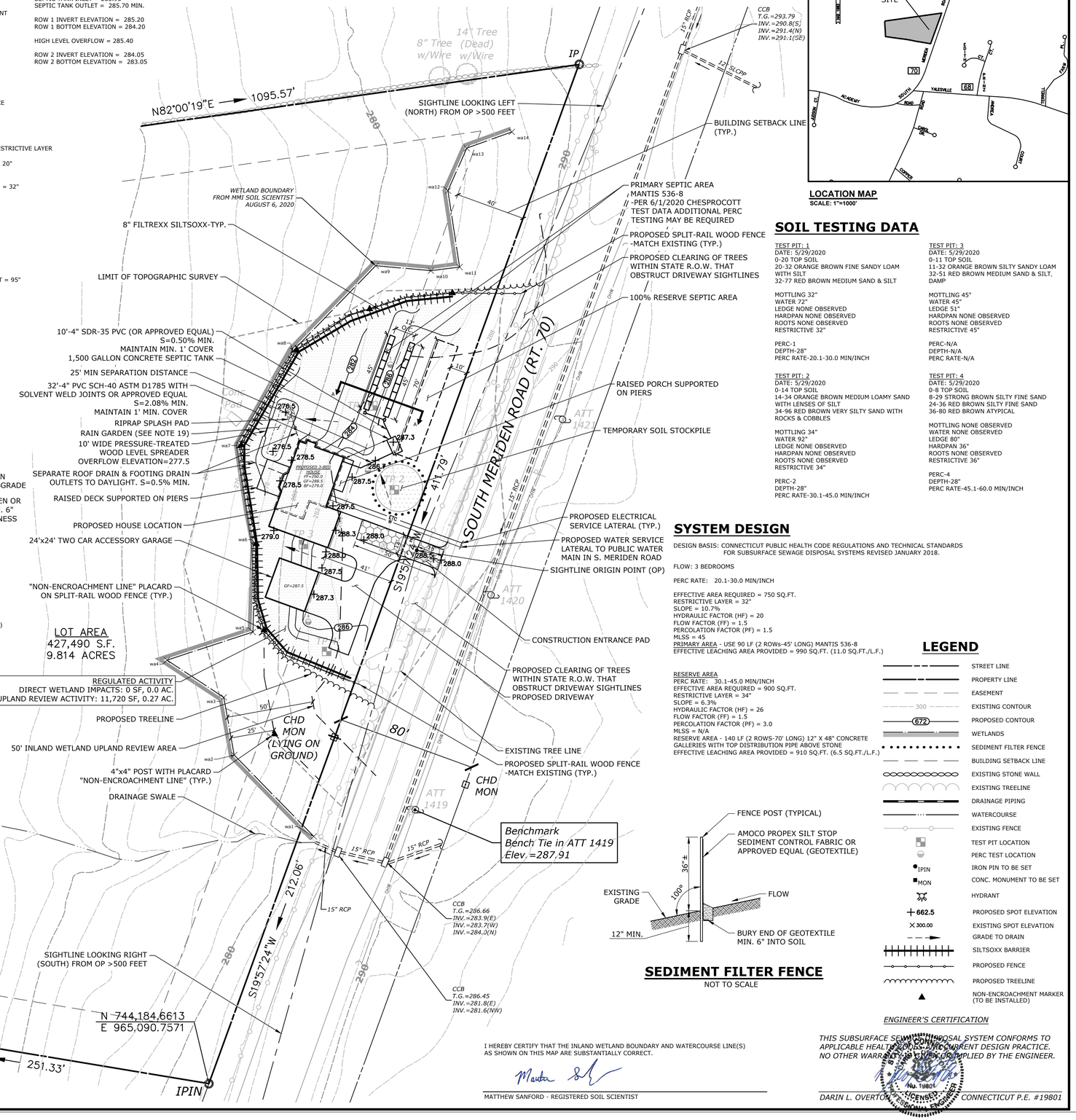
INVERT AT FOUNDATION WALL = 286.60 MIN.

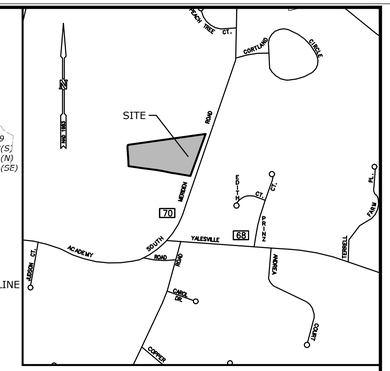
SEPTIC TANK INLET = 285.95
SEPTIC TANK OUTLET = 285.70 MIN.

ROW 1 INVERT ELEVATION = 285.20
ROW 1 BOTTOM ELEVATION = 284.20

HIGH LEVEL OVERFLOW = 285.40

ROW 2 INVERT ELEVATION = 284.05
ROW 2 BOTTOM ELEVATION = 283.05





LOCATION MAP
SCALE: 1"=1000'

SOIL TESTING DATA

TEST PIT: 1
DATE: 5/29/2020
0-20 TOP SOIL
20-32 ORANGE BROWN FINE SANDY LOAM WITH SILT
32-77 RED BROWN MEDIUM SAND & SILT

MOTTLING 32"
WATER 72"
LEDGE NONE OBSERVED
HARDPAN NONE OBSERVED
ROOTS NONE OBSERVED
RESTRICTIVE 32"

PERC-1
DEPTH-28"
PERC RATE-20.1-30.0 MIN/INCH

TEST PIT: 2
DATE: 5/29/2020
0-14 TOP SOIL
14-34 ORANGE BROWN MEDIUM LOAMY SAND WITH LENSES OF SILT
34-96 RED BROWN VERY SILTY SAND WITH ROCKS & COBBLES

MOTTLING 34"
WATER 92"
LEDGE NONE OBSERVED
HARDPAN NONE OBSERVED
ROOTS NONE OBSERVED
RESTRICTIVE 34"

PERC-2
DEPTH-28"
PERC RATE-30.1-45.0 MIN/INCH

TEST PIT: 3
DATE: 5/29/2020
0-11 TOP SOIL
11-32 ORANGE BROWN SILTY SANDY LOAM
32-51 RED BROWN MEDIUM SAND & SILT, DAMP

MOTTLING 45"
WATER 45"
LEDGE 51"
HARDPAN NONE OBSERVED
ROOTS NONE OBSERVED
RESTRICTIVE 45"

PERC-N/A
DEPTH-N/A
PERC RATE-N/A

TEST PIT: 4
DATE: 5/29/2020
0-8 TOP SOIL
8-29 STRONG BROWN SILTY FINE SAND
24-36 RED BROWN SILTY FINE SAND
36-80 RED BROWN ATYPICAL

MOTTLING NONE OBSERVED
WATER NONE OBSERVED
LEDGE 80"
HARDPAN 36"
ROOTS NONE OBSERVED
RESTRICTIVE 36"

PERC-4
DEPTH-28"
PERC RATE-45.1-60.0 MIN/INCH

SYSTEM DESIGN

DESIGN BASIS: CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS REVISED JANUARY 2018.

FLOW: 3 BEDROOMS

PERC RATE: 20.1-30.0 MIN/INCH

EFFECTIVE AREA REQUIRED = 750 SQ.FT.
RESTRICTIVE LAYER = 32"
SLOPE = 10.7%
HYDRAULIC FACTOR (HF) = 20
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.5
MLSS = 45
PRIMARY AREA - USE 90 LF (2 ROWs-45' LONG) MANTIS 536-8
EFFECTIVE LEACHING AREA PROVIDED = 990 SQ.FT. (11.0 SQ.FT./L.F.)

RESERVE AREA
PERC RATE: 30.1-45.0 MIN/INCH
EFFECTIVE AREA REQUIRED = 900 SQ.FT.
RESTRICTIVE LAYER = 34"
SLOPE = 6.3%
HYDRAULIC FACTOR (HF) = 26
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 3.0
MLSS = N/A
RESERVE AREA - 140 LF (2 ROWS-70' LONG) 12" X 48" CONCRETE GALLERIES WITH TOP DISTRIBUTION PIPE ABOVE STONE
EFFECTIVE LEACHING AREA PROVIDED = 910 SQ.FT. (6.5 SQ.FT./L.F.)

LEGEND

- STREET LINE
- PROPERTY LINE
- EASEMENT
- 300 EXISTING CONTOUR
- 672 PROPOSED CONTOUR
- WETLANDS
- SEDIMENT FILTER FENCE
- BUILDING SETBACK LINE
- EXISTING STONE WALL
- EXISTING TREELINE
- DRAINAGE PIPING
- WATERCOURSE
- EXISTING FENCE
- TEST PIT LOCATION
- PERC TEST LOCATION
- IPIN IRON PIN TO BE SET
- MON CONC. MONUMENT TO BE SET
- HYDRANT
- 662.5 PROPOSED SPOT ELEVATION
- 300.00 EXISTING SPOT ELEVATION
- GRADE TO DRAIN
- SILTSOXX BARRIER
- PROPOSED FENCE
- PROPOSED TREELINE
- NON-ENCROACHMENT MARKER (TO BE INSTALLED)

SEDIMENT FILTER FENCE

NOT TO SCALE

I HEREBY CERTIFY THAT THE INLAND WETLAND BOUNDARY AND WATERCOURSE LINE(S) AS SHOWN ON THIS MAP ARE SUBSTANTIALLY CORRECT.

MATTHEW SANFORD - REGISTERED SOIL SCIENTIST

ENGINEER'S CERTIFICATION

THIS SUBSURFACE SEWAGE DISPOSAL SYSTEM CONFORMS TO APPLICABLE HEALTH CODES AND CURRENT DESIGN PRACTICE. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED BY THE ENGINEER.

DARIN L. OVERTON - REGISTERED PROFESSIONAL ENGINEER - CONNECTICUT P.E. #19801

LICENSED PROFESSIONAL ENGINEER No. 19801

MILONE & MACBROOM
SLR
NOW PART OF
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY
ENGINEERING REVISIONS	02/19/2021	STN
ENGINEERING REVISIONS	02/24/2021	STN

SITE PLAN - SUBSURFACE SEWAGE DISPOSAL SYSTEM

SITE PLAN AND SEPTIC SYSTEM DESIGN
MBL 59-3
S MERIDEN ROAD
CHESHIRE, CONNECTICUT

STN	STN	DLO
DESIGNED	DRAWN	CHECKED

1"=30'
SCALE

JANUARY 27, 2021
DATE

5346-01
PROJECT NO.

SP
SHEET NAME

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