DEEP TEST HOLE RESULTS

DEEP TEST PITS WERE WITNESSED BY ALBERT G. GOSSELIN, JR., R.S. OF THE UNCAS HEALTH DISTRICT AND JOHN U. FAULISE, JR., L.S. OF BOUNDARIES, LLC ON JULY 21, 2011.

TP#1
0"– 4" SANDY FILL
4"– 35" TAN MEDIUM SILTY SAND
35"– 84" COARSE GRAY MEDIUM SILTY SAND
GROUNDWATER @ 65", MOTTLING @ 42", LEDGE @ 84"

TP#2
0"– 6" TOPSOIL
6"– 32" TAN MEDIUM SILTY SAND
32"– 62" COARSE GRAY MEDIUM SILTY SAND
NO WATER, MOTTLING @ 49", LEDGE @ 62"

TP#3
0"– 8" TOPSOIL
8"– 34" SANDY FILL
34"– 52" TAN MEDIUM SANDY LOAM
52"– 72" COARSE GRAY MEDIUM SILTY SAND
NO GROUNDWATER, MOTTLING @ 48", LEDGE @ 72"

TP#4W
0"– 11" SANDY FILL
11"– 14" TOPSOIL
14"– 32" BROWN MEDIUM SANDY LOAM
NO GROUNDWATER, NO MOTTLING, REFUSAL @ 32"

TP#4E
0"– 6" TOPSOIL
6"– 33" TAN MEDIUM SANDY LOAM
33"– 64" FIRM GRAY MEDIUM SILTY SAND
NO GROUNDWATER, MOTTLING @ 45", REFUSAL @ 64"

PERCOLATION TEST RESULTS

PERCOLATION TEST WAS PERFORMED ON JULY 27, 2011 BY BOUNDARIES, LLC.

P–1
DEPTH = 31"
PRESOAK @ 1:45

TIME	READING
2:45	1–1/2"
2:50	7–1/4"
2:55	10–1/2"
3:00	13–1/2"
3:05	15–1/2"
3:10	17"
3:15	18–1/4"
3:20	19–1/2"
3:25	20–5/8"
3:30	**21–3/4"**
3:35	**22–3/4"**
3:40	**23–3/4"**
3:45	DRY

PERCOLATION RATE AT 31" DEPTH = 5.0 MINUTES/INCH

SANITARY DESIGN CRITERIA - CATEGORY 2 MLSS COMPLIANT REPAIR

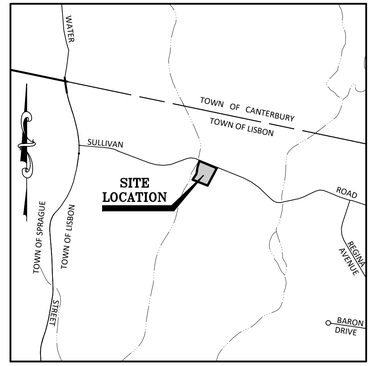
PROPOSED 3–BEDROOM HOUSE
DESIGN PERCOLATION RATE = 5.0 MINUTES/INCH
LEACHING AREA REQUIRED = 495 SF EFFECTIVE
DESIGN: 1,000 GALLON SEPTIC TANK AND 1 ROW OF 45' OF ELJEN MANTIS DOUBLE–WIDE 58 LEACHING MEDIA INSTALLED PER MANUFACTURER'S REQUIREMENTS
LEACHING AREA PROVIDED = 522 SF EFFECTIVE (45 LF X 11.6 SF/LF)

MINIMUM LEACHING SYSTEM SPREAD (MLSS) CALCULATION

HYDRAULIC GRADIENT CALCULATION	
ELEVATION OF MOTTLING IN TP#2 PER REF. MAP 3	*= 287.28*
ELEVATION OF MOTTLING IN TP#1 PER REF. MAP 3	*= 286.79*
HYDRAULIC GRADIENT = (287.28–286.79)/12	*= 4.0%*
RECEIVING SOIL (PER TP#1)	*= 42"*
HYDRAULIC FACTOR	*= 28*
FLOW FACTOR FOR 3 BEDROOMS	*= 1.5*
PERCOLATION FACTOR FOR UP TO 10.0 MIN/INCH	*= 1.0*
MLSS REQUIRED	*= 42'*
MLSS PROVIDED	*= 45'*

ZONING TABLE: RESIDENTIAL R–60

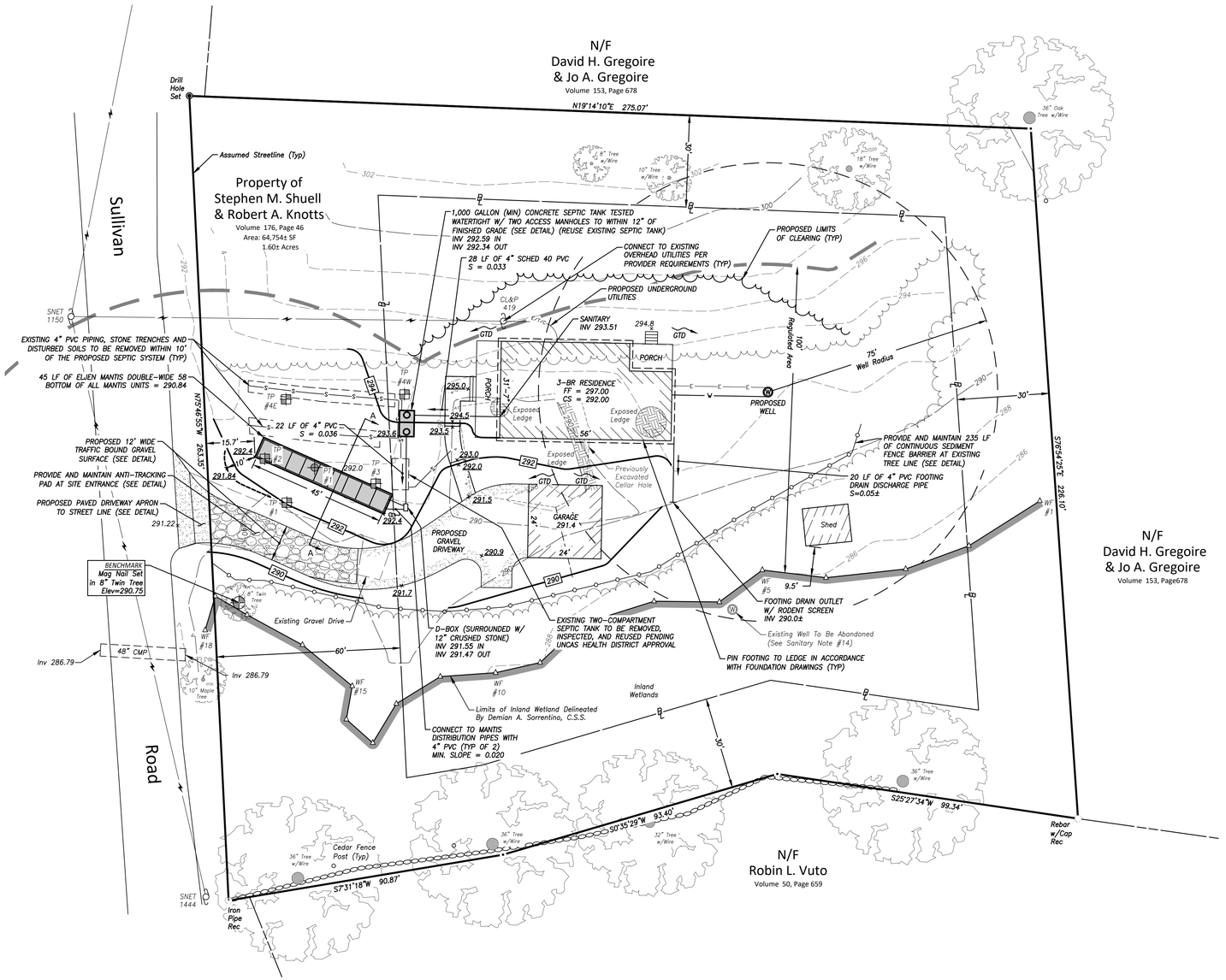
ITEM	REQUIRED	PROVIDED
MINIMUM LOT AREA	60,000 SF	64,754 SF
MINIMUM LOT FRONTAGE	175 FT	263.35 FT
MINIMUM FRONT YARD	60 FT	95.9± FT (GARAGE)
MINIMUM SIDE YARD	30 FT	70.8± FT (STEPS)
MINIMUM REAR YARD	30 FT	105.2± FT (PORCH)
MAXIMUM BUILDING HEIGHT	35 FT	<35 FT
MAXIMUM BUILDING COVERAGE	15%	4.1%
MAXIMUM IMPERVIOUS COVERAGE	30%	7.4%
WATER SUPPLY	PRIVATE WELL	
SANITARY	SEPTIC	



LOCATION MAP
SCALE: 1"=1000'

LEGEND & ABBREVIATIONS

±	MORE OR LESS
N/F	NOW OR FORMERLY
TYP	TYPICAL
W/	WITH
TBR	TO BE REMOVED
SF	SQUARE FEET
LF	LINEAR FEET
BR	BEDROOM
FF	FINISHED FLOOR
CS	CRAWL SPACE
ELEV	ELEVATION
INV	INVERT
S	SLOPE
GTD	GRADE TO DRAIN
CMP	CORRUGATED METAL PIPE
PVC	POLYVINYL CHLORIDE
SCHED	SCHEDULE
REC	RECOVERED
WF	WETLAND FLAG
SNET	SOUTHERN NEW ENGLAND TELEPHONE
CL&P	CONNECTICUT LIGHT & POWER
x 292.0	EXISTING SPOT ELEVATION
x 292.0	PROPOSED SPOT ELEVATION
292	EXISTING CONTOUR
292	PROPOSED CONTOUR
	BUILDING SETBACK LINE
	EXISTING TREE LINE
	PROPOSED TREE LINE
	STONE WALL
E/T/C	OVERHEAD WIRES
E	UNDERGROUND ELEC, TELE, & COMM
	UNDERGROUND ELECTRIC
W	WATER LINE
S	SEWER LINE
	ANGLE POINT
	REBAR OR IRON PIPE
	DRILL HOLE
	FENCE POST
	UTILITY POLE
	BENCHMARK
	DEEP TEST PIT
	PERCOLATION TEST HOLE
	WETLAND FLAG
W	WELL



SURVEY NOTES

1. *THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300B–1 THROUGH 20–300B–20 AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 29, 2019. IT IS AN IMPROVEMENT LOCATION AND TOPOGRAPHIC SURVEY BASED ON RESURVEY AND CONFORMS TO HORIZONTAL CLASS A–2 AND TOPOGRAPHIC CLASS T–2 ACCURACY STANDARDS. IT IS INTENDED TO BE USED FOR MUNICIPAL PERMITTING AND CONSTRUCTION.*
2. *NORTH ORIENTATION DEPICTED HEREON IS BASED UPON REFERENCE MAP 1.*
3. *VERTICAL DATUM DEPICTED HEREON IS ASSUMED.*
4. *THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON THE LOCATION OF ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED BY OTHERS. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. ALL SUBTERRANEAN FEATURES AND IMPROVEMENTS MAY NOT BE DEPICTED OR NOTED HEREON. THE LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. CONTACT "CALL BEFORE YOU DIG" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OPERATIONS.*
5. *THE FIELD SURVEY WAS COMPLETED ON OCTOBER 6, 2020. LAND RECORD AND RELATED RESEARCH WAS COMPLETED ON OCTOBER 30, 2020.*
6. *RECORD TITLE TO THE SUBJECT PROPERTY MAY BE REFERENCED TO A WARRANTY DEED WITH SURVIVORSHIP FROM ANDREW VASQUEZ AKA ANDREW VASQUES TO STEPHEN M. SHUELL AND ROBERT A. KNOTTS, RECORDED ON AUGUST 26, 2020 IN THE TOWN OF LISBON LAND RECORDS VOLUME 176, PAGE 49.*

REFERENCE MAPS

1. *LOT LAYOUT PREPARED FOR GAVIN ESTATES, 65 SULLIVAN ROAD, LISBON, CONNECTICUT, SCALE: 1"–100', PROJ CLA–7600, 2/23/10, SHEET 2, REVISED UP TO 6/28/10, PREPARED BY CLA ENGINEERS INC.*
2. *SUBDIVISION PLAN PROPERTY OF WILLIAM H. HERNSTADT, TO BE DEVELOPED BY RAYMOND ARMSTRONG, WESTMINSTER ROAD & SULLIVAN ROAD, LISBON, CONNECTICUT, SCALE 1"=100', MARCH 1985, JOB IDENT. NO. 84–462, PREPARED BY ROLAND J. HARRIS & ASSOC..*
3. *IMPROVEMENT LOCATION AND TOPOGRAPHIC SURVEY, PREPARED FOR CYR CONSTRUCTION, INC. 71 SULLIVAN ROAD, LISBON CONNECTICUT, SCALE: 1"=20', DATED: SEPTEMBER 2011, LAST REVISED: OCTOBER 18, 2011, PREPARED BY: BOUNDARIES LLC.*

WETLAND CONSERVATION NOTE

THIS PROPERTY HAS WETLAND, WATERCOURSE, SWAMP, MARSH OR BOG CHARACTERISTICS, WHICH HAVE BEEN DEFINED BY THIS DOCUMENT BEFORE THE INLAND WETLAND AND CONSERVATION COMMISSION OF THE TOWN OF LISBON, CONNECTICUT. PURCHASE OF THIS PROPERTY CONVEYS THE RESPONSIBILITY OF ABIDING BY ALL FEDERAL, STATE AND MUNICIPAL REGULATIONS FOR THE PRESERVATION AND PROTECTION OF THESE "REGULATED AREAS". SEE THE "INLAND WETLANDS AND WATERCOURSES REGULATIONS OF THE TOWN OF LISBON" FOR PERMITTED AND REGULATED USES OF THESE AREAS. ANY SUBSEQUENT CHANGES TO THESE PLANS WILL REQUIRE APPROVAL OF THE INLAND WETLAND AND CONSERVATION COMMISSION OF THE TOWN OF LISBON.

GRAPHIC SCALE
40 20 10 0 20
(IN FEET)
1 inch = 20 ft.

Know what's below. Call before you dig.

I HAVE CONDUCTED AN ON–SITE SOIL INVESTIGATION OF THE PARCEL OF LAND DEPICTED HEREON. THE INTERMITTENT WATERCOURSES AND INLAND WETLAND BOUNDARIES AS PORTRAYED ARE AN ACCURATE REPRESENTATION OF THE DELINEATION PERFORMED IN THE FIELD.

DEMIAN A. SORRENTINO, C.S.S. *DATE*

"TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

29102
DAVID C. MCKAY, P.E. *LICENSE NO.* *DATE*

70016
JOHN U. FAULISE JR. L.S. *LICENSE NO.* *DATE*

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THIS DRAWING IS THE PROPERTY OF BOUNDARIES LLC AND HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER OF THIS PROJECT, AT THIS SITE, AND IS NOT TO BE DUPLICATED OR USED IN PART OR WHOLE FOR ANY OTHER PURPOSE, PROJECT, LOCATION OR OWNER WITHOUT THE EXPRESSED WRITTEN CONSENT OF BOUNDARIES LLC.

CIVIL ENGINEERING LAND SURVEYING LAND DEVELOPMENT SOIL SCIENCE
BOUNDARIES
Boundaries LLC
179 Pachaug River Drive, Gilman, CT 06351
T 860.376.2006 | www.boundariesllc.net

Improvement Location & Topographic Survey "Subsurface Sewage Disposal System (SSDS) Plan"

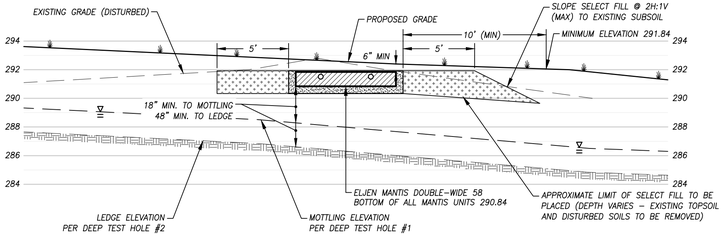
Prepared for
Stephen M. Shuell & Robert A. Knotts
71 Sullivan Road - Lisbon, Connecticut

SCALE: 1" = 20'
DATE: November 2020
JOB I.D. NO. 20-2897

Revisions
Rev 1, April 5, 2021, Addition of Shed

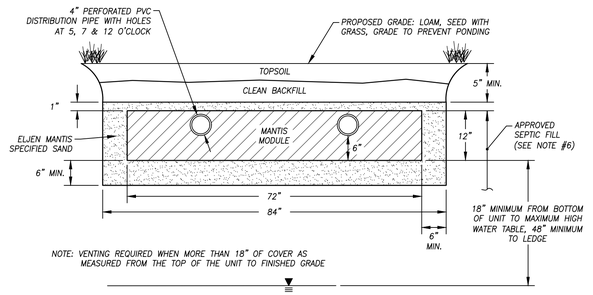
SHEET NO.
1
2

\\192.168.2.3\PROJECTS\CIVIL 3D PROJECTS\2020\20-2897 SHUELL\DWG\DESIGN\SHUELL-SITE PLAN.DWG



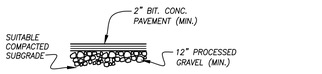
LEACHING SYSTEM CROSS SECTION A-A

SCALE: 1"=5' (HORIZONTAL & VERTICAL)



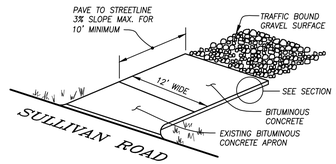
MANTIS DOUBLE-WIDE 58: CROSS SECTION

NOT TO SCALE



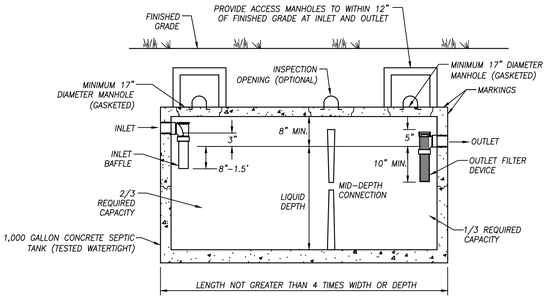
SECTION VIEW

NOT TO SCALE



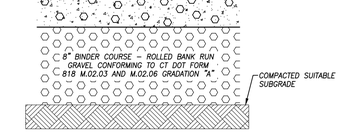
TYPICAL DRIVEWAY APRON

NOT TO SCALE



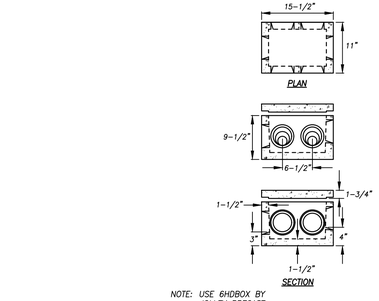
SEPTIC TANK DETAIL

NOT TO SCALE



TRAFFIC BOUND GRAVEL SURFACE

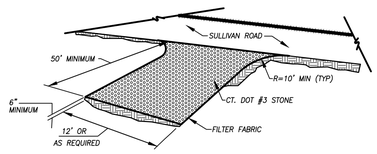
NOT TO SCALE



NOTE: USE 6HDBOX BY JOLLEY PRECAST, INC. OR APPROVED EQUAL

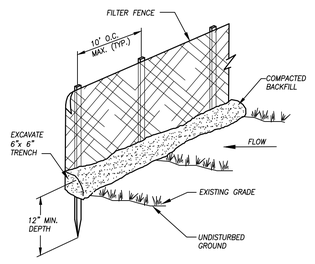
D-BOX DETAIL

NOT TO SCALE



ANTI-TRACKING PAD

NOT TO SCALE



SEDIMENT FENCE DETAIL

NOT TO SCALE

SANITARY NOTES

1. *THIS SEPTIC SYSTEM INSTALLATION INCLUDING ALL MATERIALS (PIPING, SEPTIC TANK, STONE, FILL, ETC.) USED FOR THIS SEPTIC SYSTEM SHALL CONFORM TO THE CURRENT EDITION/REVISION OF THE "TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS" REVISED JANUARY 1, 2018 OF THE CONNECTICUT PUBLIC HEALTH CODE BY THE STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH.*
2. *THE PROPOSED BUILDING SEWER FROM THE BUILDING TO THE SEPTIC TANK SHALL BE SCHEDULE 40 PVC ASTM D 1785/ASTM D 2665 OR APPROVED EQUAL AND INDICATED IN TABLE NO. 2 OF "TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS". ALL OTHER GRAVITY SEWER PIPE FOR THIS SEPTIC SYSTEM SHALL BE 4" PVC ASTM D3034, SDR 35 WITH RUBBER COMPRESSION GASKET OR BELL AND SPIGOT OR APPROVED EQUAL.*
3. *THERE ARE NO WELLS (POTABLE, GEOTHERMAL, OR IRRIGATION) WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM. THERE ARE NO SEPTIC SYSTEMS WITHIN 75' OF THE PROPOSED WELL.*
4. *THERE SHALL BE NO STUMPS BURIED ON SITE OR BOULDERS BURIED WITHIN 50' DOWN GRADIENT OF THE SEPTIC SYSTEM. SHOULD ANY SIGNIFICANT VARIATIONS FROM THE TEST HOLE DATA BE ENCOUNTERED DURING EXCAVATIONS (LEDGE, GROUNDWATER, MOTTLING, SOIL TYPE, ETC.), THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF THE SEPTIC SYSTEM.*
5. *ALL EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.*
6. *THE PROPOSED SELECT FILL FOR THIS SEPTIC SYSTEM SHALL MEET THE FOLLOWING SPECIFICATIONS:*
   - *A. 100% OF FILL SHALL PASS THROUGH A 3" SIEVE.*
   - *B. MAXIMUM % OF GRAVEL (BETWEEN #4 & 3" SIEVE) = 45%.*
   - *C. GRADATION OF FILL WITHOUT THE GRAVEL SHALL MEET THE FOLLOWING CRITERIA:*

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

   - *D. * PERCENT PASSING THE #40 WET 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%.*
   - *E. PERCOLATION RATE AFTER PLACEMENT AND COMPACTION SHALL BE FASTER THAN OR EQUAL TO 10.0 MINUTES/INCH.*
   - *A WET OR DRY SIEVE ANALYSIS MAY BE REQUIRED PRIOR TO FILL PLACEMENT TO VERIFY THAT IT MEETS THESE SPECIFICATIONS. THE FILL SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT/DISTRICT OR DESIGN ENGINEER PRIOR TO ITS PLACEMENT ON SITE.*
7. *ELJEN MANTIS SPECIFIED SAND SHALL CONFORM TO ASTM C33 SAND WITH LESS THAN 10% PASSING #100 SIEVE AND LESS THAN 5% PASSING #200 SIEVE BASED ON A WET SIEVE ANALYSIS.*
8. *NO DEVIATION FROM THE APPROVED DESIGN PLAN SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE LOCAL HEALTH DEPARTMENT/DISTRICT AND THE DESIGN ENGINEER.*
9. *THE SEPTIC TANK SHALL BE PRECAST CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE DESIGN ENGINEER. THE SEPTIC TANK SHALL BE WATERTIGHT AS VERIFIED BY THE LOCAL HEALTH DEPARTMENT/DISTRICT (VACUUM TEST OR WATER PRESSURE TEST) IN ACCORDANCE WITH SECTION V.A.6. OF THE "TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS" REVISED JANUARY 1, 2018 OF THE CONNECTICUT PUBLIC HEALTH CODE BY THE STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH. IF RISER ASSEMBLIES ARE UTILIZED OVER CLEANOUT OPENINGS, THE COVERS SHALL BE LEFT ON THE TANK. RISER COVERS SHALL WEIGH AT LEAST 59 POUNDS AND A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED INSIDE THE RISER. NO GARBAGE GRINDERS, WATER TREATMENT WASTEWATER OR TUBS 100 GALLONS OR LARGER SHALL DISCHARGE TO THE SEPTIC SYSTEM.*
10. *SITE PREPARATION PROCEDURE. FOR THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM:*
    - *A. SYSTEM TO BE FIELD STAKED BY A LICENSED LAND SURVEYOR.*
    - *B. PREPARE SITE AND REMOVE ANY TREES WITH A DRIP LINE WITHIN 10 FEET OF THE LEACHING SYSTEM.*
    - *C. STRIP ALL TOPSOIL, VEGETATION, ORGANIC MATERIAL, PREVIOUSLY PLACED FILL AND DISTURBED MATERIALS IN THE AREA OF AND 5' SURROUNDING THE PRIMARY LEACHING TRENCH.*
    - *D. USING A HEAVY RAKE OR EQUAL, THOROUGHLY SCARIFY AND ROUGHEN UP THE EXPOSED SUBSOIL. PREVENT ANY VEHICULAR TRAFFIC, BACKHOE, TRUCKS, ETC. FROM SMOOTHING/COMPACTING THIS EXPOSED SUBSOIL.*
    - *E. PLACE AND COMPACT SELECT FILL MATERIAL MEETING SPECIFICATIONS INDICATED ABOVE (NOTE #6) IN LIFTS NO GREATER THAN 12-INCHES IN THE AREA OF THE PROPOSED LEACHING TRENCHES UP TO AT LEAST THE ELEVATION OF THE TOP OF THE MANTIS MODULES (SEE DETAIL).*
    - *F. PERFORM AT LEAST 1 PERCOLATION TEST ON PLACED FILL. FILL MUST HAVE A PERCOLATION RATE EQUAL TO OR FASTER THAN THAT AS INDICATED IN NOTE #6.E. IF PERCOLATION RATE IS SLOWER THAN THAT RATE, ALL FILL SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE FILL MEETING PROPER SPECIFICATIONS.*
    - *G. INSTALL SEPTIC SYSTEM PER MANUFACTURER'S SPECIFICATIONS (SEE WWW.ELJEN.COM OR CONTACT 1-800-444-1359) AS SHOWN ON THIS PLAN USING APPROVED MATERIALS (SAND, PIPE, ETC.). NOTE: THE MANTIS UNITS ARE NOT APPROVED FOR AND SHALL NOT BE INSTALLED UNDER TRAVELLED/PARKING AREAS.*
    - *H. AFTER SETTLING, THE COVER OVER THE SYSTEM SHALL BE A MINIMUM OF 6" AND A MAXIMUM OF 18" OF MATERIAL MEASURED FROM THE TOP OF THE UNIT TO THE FINISHED GRADE IN LAWN AREAS. GRADE TO PREVENT PONDING AND SEED WITH GRASS TO STABILIZE. THE FINISHED GRADE 10' FROM ANY PART OF THE PROPOSED MANTIS UNITS SHALL BE AT LEAST THE SAME ELEVATION AS THE TOP OF THE MANTIS UNITS. DO NOT DRIVE OR PAVE OVER SYSTEM.*
    - *I. CLEANOUT MANHOLES AT THE INLET BAFFLE AND AT THE OUTLET FILTER OF THE SEPTIC TANK OR ASSOCIATED RISERS AT THESE LOCATIONS IF REQUIRED SHALL BE LOCATED AT A DEPTH NOT GREATER THAN 12" BELOW FINAL GRADE.*
11. *FOR EXACT HOUSE DIMENSIONS, SEE BUILDING PLANS.*
12. *BENCHMARK TO BE LOCATED IN THE AREA OF DEVELOPMENT PRIOR TO THE START OF CONSTRUCTION.*
13. *PRIOR TO CONSTRUCTION, THE HOUSE, WELL, AND SEPTIC SYSTEM SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR.*
14. *THE EXISTING WELL SHALL BE ABANDONED IN ACCORDANCE WITH THE "STATE OF CONNECTICUT WELL DRILLER'S REGULATIONS", LATEST REVISION AND BE VERIFIED BY THE UNCAS HEALTH DISTRICT.*

CONSTRUCTION SEQUENCE

1. *SECURE ALL NECESSARY LOCAL, STATE AND FEDERAL PERMITS.*
2. *INSTALL SEDIMENT FENCE IN SPECIFIED LOCATIONS AS SHOWN DOWNGRADIENT OF PROPOSED DEVELOPMENT AREA. STRIP TOPSOIL FROM DEVELOPMENT AREA AND STOCKPILE AT AN APPROVED LOCATION FOR LATER REUSE. SEED TOPSOIL STOCKPILE WITH RYEGRASS FOR TEMPORARY STABILIZATION.*
3. *ABANDON EXISTING WELL. REMOVE EXISTING LEACHING TRENCH MATERIALS, DISTRIBUTION BOXES AND PIPING. RELOCATE EXISTING 1,000 GALLON SEPTIC TANK TO LOCATION SHOWN ON PLANS. SEPTIC TANK SHALL BE INSPECTED PRIOR TO INSTALLATION BY THE UNCAS HEALTH DISTRICT.*
4. *PERFORM ALL NECESSARY GRADING FOR BUILDING AND SUBSURFACE SANITARY DISPOSAL SYSTEM.*
5. *INSTALL UTILITY CONDUIT. CONSTRUCT HOUSE. INSTALL SUBSURFACE SEWAGE DISPOSAL SYSTEM AND WATER SUPPLY WELL. PERFORM FINAL SITE GRADING.*
6. *AT COMPLETION OF CONSTRUCTION, LOAM ALL DISTURBED AREAS (4" MINIMUM), SEED WITH GRASS AND MULCH. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE EROSION CONTROL MEASURES.*

29102

DAVID C. MCKAY, P.E. LICENSE NO. DATE

OPERATION & MAINTENANCE OF EROSION CONTROLS

NO CONSTRUCTION SHALL PROCEED UNTIL PROPER SEDIMENTATION AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS THE SEQUENCE OF CONSTRUCTION NECESSITATES.

ALL TEMPORARY FILL, STORAGE OR STOCKPILE AREAS SHALL BE PROPERLY STABILIZED TO PREVENT EROSION AND SUITABLY CONTAINED TO PREVENT TURBID RUNOFF. ALL AREAS AFFECTED BY TEMPORARY FILLS MUST BE RESTORED TO THEIR ORIGINAL CONTOURS AND REVEGETATED WITH SUITABLE VEGETATION. THE USE OF TEMPORARY FILL AND/OR EXCAVATION SHALL BE MINIMIZED TO ONLY THAT AREA REQUIRED TO PERFORM THE WORK.

DUMPING OF OIL OR OTHER DELETERIOUS MATERIALS ON THE GROUND IS FORBIDDEN. THE DEVELOPER OR CONTRACTOR SHALL PROVIDE A MEANS OF CATCHING, RETAINING AND PROPERLY DISPOSING OF DRAINED OIL, REMOVED OIL FILTERS, OR OTHER DELETERIOUS MATERIAL FROM EQUIPMENT USED ON SITE. VEHICLE MAINTENANCE SHALL BE COMPLETED OFF SITE. ALL OIL SPILLS SHALL BE IMMEDIATELY REPORTED TO THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION/HAZARDOUS MATERIALS OFFICE. FAILURE TO DO SO MAY RESULT IN THE IMPOSITION OF FINES UNDER THE APPLICABLE CONNECTICUT GENERAL STATUTES.

EVERY PRECAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT AND MINIMIZE THE DEGRADATION OF THE EXISTING WATER QUALITY. ALL ACTIVITIES SHALL BE IN CONFORMANCE TO AND CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES AS SET FORTH BY LOCAL, STATE AND FEDERAL AGENCIES.

DURING THE PERIOD OF CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL MEASURES. SAID MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINSTORM. ACCUMULATED DEPOSITS OF SEDIMENT AND SILT SHALL BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION AND SEDIMENT CONTROL BARRIERS, AND UPON ESTABLISHMENT OF PERMANENT VEGETATIVE COVER. SUCH MATERIALS REMOVED SHALL BE SPREAD AND STABILIZED IN NON-WETLAND AREAS WHICH ARE NOT SUBJECT TO EROSION, OR WHICH ARE NOT TO BE PAVED OR BUILT UPON.

WOOD CHIP BERMS, SEDIMENT FENCE AND OTHER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED, CLEANED AND/OR REPLACED AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD IN ORDER TO MAINTAIN COMPLETE AND INTEGRAL EROSION AND SEDIMENT CONTROL PROTECTION. ONCE IN PLACE, ALL EROSION AND SEDIMENT CONTROL FACILITIES AND MEASURES ARE TO REMAIN IN PLACE AND IN PROPER CONDITION AND BE CONTINUOUSLY MAINTAINED UNTIL FINAL GRADING HAS BEEN COMPLETED, ALL DISTURBED AREAS UPGRADIENT OF SAID FACILITIES HAVE BEEN PERMANENTLY STABILIZED, AND ALL NEWLY GRASSED AREAS HAVE HAD AT LEAST TWO MOWINGS. FOLLOWING SUCH PERMANENT STABILIZATION, THE FACILITIES SHALL BE DISMANTLED, REMOVED, AND DISPOSED OF IN AN APPROVED MANNER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES BEYOND THOSE SHOWN ON THE PLANS OR PRESCRIBED HEREIN SHALL BE PUT IN PLACE, WHENEVER NECESSARY, TO ADDRESS FIELD CONDITIONS AND/OR AS ORDERED BY THE TOWN STAFF OR THEIR DESIGNATED AGENT.

DISTURBANCE OF THE LAND SHALL BE LIMITED TO THE MINIMUM EXTENT NECESSARY TO COMPLETE THE PROPOSED DEVELOPMENT. ALL EXISTING TREES AND SHRUBS SHALL BE CONSERVED WHERE POSSIBLE, EXCEPT THOSE WHOSE REMOVAL IS REQUIRED TO PERFORM THE WORK. THE LIMITS OF DISTURBANCE SHALL BE ESTABLISHED IN THE FIELD PRIOR TO STARTING ANY ACTUAL CONSTRUCTION ACTIVITIES AND SHALL BE GENERALLY AS DEPICTED ON THIS PLAN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE IN ACCORDANCE WITH THE PROCEDURES AS OUTLINED IN THE "GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS FROM CONSTRUCTION ACTIVITIES" AS ADOPTED BY THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, EFFECTIVE ON OCTOBER 1, 2013.

THE CONTRACTOR SHALL INSPECT ALL DISTURBED AREAS OF CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF ALL RAIN EVENTS. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE CONSECUTIVE MONTHS.

DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE INSPECTION AND MAINTENANCE TO ASSURE PROPER PERFORMANCE OF THE SEDIMENTATION AND EROSION CONTROL SYSTEM. INSPECTING AND MAINTAINING SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

- ** INSPECTION OF ALL SEDIMENT FENCE, REMOVE ACCUMULATED SEDIMENT IF REQUIRED (GREATER THAN 4" DEPTH)*
- ** INSPECTION OF ANTI-TRACKING PAD, REMOVE, DISPOSE AND REPLACE IF PAD IS NO LONGER FUNCTIONAL IN THE COLLECTION OF SEDIMENTS FROM VEHICULAR/TRUCK TRAFFIC.*
- ** INSPECTION OF ALL DRIVEWAY AND PARKING AREAS AFTER PAVING, REMOVE ACCUMULATED SEDIMENT AND ANY LITTER/DEBRIS.*

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE INSPECTED TO INSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO DOWNSTREAM WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

THE CONTRACTOR SHALL APPOINT AN AGENT WHO SHALL BE PERSONALLY RESPONSIBLE FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN AND ENFORCING THE PRESCRIBED SAFEGUARDS DURING THE CONSTRUCTION PERIOD.

THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PROPER TOWN AGENCIES AND OFFICIALS OF ANY TRANSFER OF THIS RESPONSIBILITY, AND CONVEYING A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE OF THE LAND IS TRANSFERRED TO A THIRD PARTY.

EROSION CONTROL NOTES

1. *ALL UTILITIES ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.*
2. *THE RESPONSIBLE PARTY FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES IS THE SITE CONTRACTOR.*
3. *THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, CT DEEP BULLETIN 34, SHALL BE USED FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES. THE PROPERTY OWNER SHALL INSTALL ADDITIONAL MEASURES AS NECESSARY IF DIRECTED BY THE ENGINEER OR TOWN STAFF.*
4. *SEEDING FOR PERMANENT STABILIZATION SHALL BE COMPLETED BETWEEN APRIL 15 THROUGH JUNE 15 OR BETWEEN AUGUST 15 THROUGH SEPTEMBER 15. IF SEEDING CANNOT BE COMPLETED WITHIN THESE TIMES, APPLICATION OF TEMPORARY MULCH WILL BE CONDUCTED UNTIL THE NEXT SEEDING PERIOD. SEED MIXTURE SHALL BE AS FOLLOWS:*

KENTUCKY BLUEGRASS	20 LBS/ACRE	OR	0.45 LBS/1,000 S.F.
CREEPING RED FESCUE	20 LBS/ACRE	OR	0.45 LBS/1,000 S.F.
PERENNIAL RYEGRASS	5 LBS/ACRE	OR	0.10 LBS/1,000 S.F.

5. *MULCH SHALL BE A GOOD QUALITY HAY OR STRAW AND SHALL BE APPLIED AT A RATE OF APPROXIMATELY 2-3 BALES/1,000 SF.*
6. *ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WITHIN 24 HOURS AFTER RAIN EVENTS WITH GREATER THAN 0.5" OF RAINFALL IN A 24-HOUR PERIOD, AND REPAIRED OR REPLACED AS NECESSARY TO INSURE COMPLIANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.*

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CIVIL ENGINEERING LAND SURVEYING LAND DEVELOPMENT SOIL SCIENCE
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Improvement Location & Topographic Survey
"Notes & Details"
Prepared for
Steven M. Shuell & Robert A. Knotts
71 Sullivan Road - Lisbon, Connecticut

SCALE: As Noted
DATE: November 2020
JOB I.D. NO. 20-2897

Revisions
Rev 1, April 5, 2021, Addition of Shed

SHEET NO. 2 / 2