

GENERAL NOTES

1. DEVIATION FROM THIS PLAN SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER AND MAY BE SUBJECT TO ADDITIONAL REGULATORY APPROVALS.
2. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM. RE-STABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICABLE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
4. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE AND WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. ADDITIONAL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED.
5. THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION CONTROL AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE LAND USE AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE EROSION & SEDIMENT CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
6. GRADING IS TO BE ACCORDING TO ALL APPLICABLE REGULATIONS AND NORMAL STANDARDS OF GOOD PRACTICE.
7. PROPERTY LINES AND TOPOGRAPHY BASED UPON EXISTING CONDITIONS PLAN, TOPOGRAPHIC SURVEY OF PROPERTY LOCATED AT 398 JUDD ROAD, EASTON, CONNECTICUT, PREPARED FOR JANS LAND DEVELOPMENT, LLC BY LEWIS ASSOCIATES, MONROE, CT. CERTIFIED CLASS A-2 HORIZONTALLY AND CLASS T-2 FOR 2' CONTOURS.
8. EXISTING GRADES HEREON ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ON-SITE AND OFF-SITE FIELD CONDITIONS AND ESTABLISH THAT NO CHANGES HAVE OCCURRED SINCE THE ISSUANCE OF THIS PLAN. THE DESIGN ENGINEER IS TO BE NOTIFIED OF ANY FIELD CONDITIONS WHICH CONFLICT WITH THIS PLAN.
10. THE HOUSE IS TO BE SERVED BY A PRIVATE WELL AND A PRIVATE SUBSURFACE SEWAGE DISPOSAL SYSTEM.
11. ROOF DRAINS TO BE CONNECTED TO THE GROUNDWATER RECHARGE SYSTEM (RAIN GARDEN).
12. ALL CONSTRUCTION METHODS, MATERIALS, AND SYSTEM INSTALLATIONS ARE TO CONFORM TO ALL APPLICABLE LOCAL AND STATE REGULATIONS.
13. THE LOCATION OF UNDERGROUND UTILITIES, IF ANY, IS UNKNOWN. CALL BEFORE YOU DIG 1-800-922-4455.
14. STOCKPILING WITHIN THE PROPOSED SEPTIC SYSTEM AREA IS PROHIBITED.

STORMWATER POLLUTION CONTROL PLAN

1. LAND DISTURBANCE IS TO BE KEPT TO A MINIMUM. THERE SHALL BE NO CLEAR CUTTING OF THE SITE.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL."
3. THE STORMWATER POLLUTION CONTROL PLAN SHALL INCLUDE ALL EROSION AND SEDIMENTATION CONTROL SHOWN ON THE APPROVED MAPS AND DETAIL SHEETS. THESE CONTROLS ARE ASSUMED TO BE THE MINIMUM REQUIRED, AND THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL MEASURES AS SITE CONDITIONS AND WEATHER WARRANT.
4. ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING OPERATIONS AND EXCAVATION WORK. ALL THE DEVICES WILL BE MAINTAINED AS SPECIFIED IN THIS DOCUMENT UNTIL THE DISTURBED EARTH HAS BEEN PAVED OR VEGETATED, AT WHICH TIME THE DEVICES WILL BE REMOVED.
5. ALL CONSTRUCTION METHODS, MATERIALS AND SYSTEM INSTALLATIONS ARE TO CONFORM TO ALL APPLICABLE LOCAL AND STATE REGULATIONS.
6. GRADING TO BE ACCORDING TO ALL APPLICABLE REGULATIONS AND NORMAL STANDARDS OF GOOD PRACTICE.
7. STOCKPILES OF TOPSOIL AND COMMON FILL SHALL BE SURROUNDED WITH SILT FENCE AND TEMPORARILY STABILIZED BY SEEDING WITH A 50-50 MIX OF ANNUAL AND PERENNIAL RYE GRASS AT THE RATE OF ONE POUND PER 1,000 SQUARE FEET OF SURFACE AREA SHALL BE EMPLOYED BETWEEN MARCH 15 AND JUNE 15 OR AUGUST 1 AND OCTOBER 1. MULCH WITH STRAW OR HAY AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET UNTIL STABILIZED.
8. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD UNTIL THE AREA IS STABILIZED.
9. MAINTENANCE OF THE EROSION CONTROLS SHALL CONSIST OF INSPECTION AT THE START OF EACH WORK DAY WITH SPECIAL ATTENTION AFFORDED FOLLOWING STORM EVENTS. NOTED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE EROSION CONTROL DEVICE AND DISPERSED TEMPORARILY ON THE UPLAND PORTION OF THE DISTURBED AREA. ADDITIONAL SEEDING OR MULCHING SHALL BE EMPLOYED AS REQUIRED.
10. WHERE RIPRAP IS SPECIFIED ON THE PLAN, IT SHALL BE MODIFIED RIPRAP CONFORMING TO THE GUIDELINES UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR IS TO INSPECT THE SITE DAILY DURING CONSTRUCTION TO INSURE THE INTEGRITY OF THE EROSION CONTROLS.
12. THE CONTRACTOR IS TO HAVE AVAILABLE AT ALL TIMES EXTRA SILT FENCE, HAY BALE MULCH, GRASS SEED AND RIPRAP TO IMPLEMENT ADDITIONAL EROSION CONTROL MEASURES NOT FORESEEN IN THIS PLAN.
13. PRIOR TO CLOSING THE SITE DOWN FOR WINTER, IF REQUIRED, THE CONTRACTOR SHALL SCHEDULE A MEETING WITH THE PROJECT ENGINEER TO REVIEW SITE CONDITIONS AND MAKE RECOMMENDATIONS TO MINIMIZE EROSION DURING THE WINTER. THE MEETING IS TO BE HELD NO LATER THAN OCTOBER 1, OF ANY GIVEN YEAR.
14. ACCUMULATED SEDIMENT IS TO BE DISPOSED OF IN AN AREA APPROVED BY THE DESIGN ENGINEER.
15. THIS PLAN AND REPORT MAY BE MODIFIED BY THE ENGINEER BASED UPON FIELD CONDITIONS.
16. WATER BREAKS, SILT FENCE, HAYBALES AND OTHER MEASURES ARE TO BE MAINTAINED UNTIL DRAINAGE IS COMPLETE AND SITE IS STABILIZED WITH VEGETATIVE COVER.
17. PLUNGE POOLS AND/OR RIPRAP APRONS ARE TO BE CONSTRUCTED AT THE OUTLETS OF ALL MAJOR DRAINAGE SYSTEMS.
18. DISTURBANCE FOR INDIVIDUAL LOT DEVELOPMENT WILL BE THE RESPONSIBILITY OF THE LOT OWNER.
19. STABILIZATION PRACTICES MAY INCLUDE SILT FENCE, TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SOIL STABILIZATION, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION AND OTHER VEGETATIVE AND NON-STRUCTURAL MEASURES AS IDENTIFIED IN THE GUIDELINES. WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE TEMPORARILY BEEN SUSPENDED FOR MORE THAN SEVEN DAYS OR WHEN FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE, STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN THREE DAYS. AREAS WHICH REMAIN DISTURBED BUT INACTIVE FOR AT LEAST THIRTY DAYS SHALL RECEIVE TEMPORARY SEEDING AND/OR MULCHING IN ACCORDANCE WITH THE GUIDELINES. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON, SHALL RECEIVE LONG-TERM, NON-VEGETATIVE STABILIZATION SUFFICIENT TO PROTECT THE SITE THROUGH THE WINTER. AREAS TO BE GRADED WITH SLOPES STEEPER THAN 3:1 (HORIZONTAL:VERTICAL) AND HIGHER THAN FIFTEEN FEET SHALL BE GRADED WITH APPROPRIATE SLOPE BENCHES IN ACCORDANCE WITH THE GUIDELINES.
20. STRUCTURAL PRACTICES INCLUDE BUT ARE NOT LIMITED TO EARTH DIKES (DIVERSIONS), DRAINAGE SWALES, SEDIMENT TRAPS, CHECK DAMS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, OUTLET PROTECTION, REINFORCED SOIL RETAINED SYSTEMS, GABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS AND CHAMBERS. UNLESS SPECIFICALLY APPROVED IN WRITING, STRUCTURAL MEASURES SHALL BE INSTALLED IN UPLAND SOILS.
21. DISTURBANCE FOR INDIVIDUAL LOT DEVELOPMENT WILL BE LIMITED TO 1 ACRE AT ANY ONE

TIME. OVERLAND DRAINAGE FROM UPHILL SOURCES WILL BE DIVERTED AROUND THE DISTURBED PORTIONS OF THE LOT UNTIL THOSE DISTURBED AREAS HAVE BEEN STABILIZED. IF MORE THAN 1 ACRE IS TO BE DISTURBED AT ONE TIME, SEDIMENT BASINS MUST BE PROVIDED. THESE SEDIMENT BASINS SHALL HAVE A STORAGE CAPACITY OF 134 CUBIC YARDS PER ACRE OF TRIBUTARY AREA. THE DETENTION BASIN REQUIRED BY THE STORMWATER POLLUTION CONTROL PLAN MAY BE USED DURING CONSTRUCTION AS TEMPORARY SEDIMENT BASIN. OUTLET STRUCTURES FROM SEDIMENT BASINS SHALL NOT ENCROUGH UPON A WETLAND.

22. DE-WATERING WASTE WATERS MIGHT BE GENERATED DURING THE CONSTRUCTION OF THE UNDERGROUND UTILITIES AND THE EXCAVATION FOR BASEMENTS. CONTRACTORS SHALL ARRANGE FOR THE PUMPING OF WATER IN EXCAVATIONS TO OCCUR IN SUMPS CREATED IN THE EXCAVATION AND WILL DISCHARGE THE PUMPED WATERS TO TEMPORARY SEDIMENT BASINS.
23. ALL CONTRACTORS AND SUBCONTRACTORS WORKING ON SITE WILL ENSURE THAT NO LITTER, DEBRIS, BUILDING MATERIAL OR SIMILAR MATERIAL IS DISCHARGED TO THE WATERS OF THE STATE.
24. CONTRACTORS WILL IMPLEMENT TECHNIQUES TO CONTROL THE GENERATION OF DUST.
25. INDIVIDUAL LOTS WILL HAVE THEIR ANTI-TRACKING PADS INSTALLED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC EXITS THE LOT TO PAVED SURFACES AND SILT FENCE INSTALLED AS SHOWN ON THE PLANS OR AS REQUIRED DOWNHILL OF AREAS OF DISTURBED EARTH. REFER TO THE DETAIL DRAWINGS FOR SPECIFICS ON PROPOSED MEASURES.

LOT DEVELOPMENT SEQUENCE

1. INSTALL ANTI-TRACKING APRON AS SHOWN WHERE CONSTRUCTION TRAFFIC ENTERS A PUBLIC RIGHT-OF-WAY.
2. INSTALL SILT FENCING. LOCATION SHOWN ON PLAN MAY BE REVISED AS CONSTRUCTION WARRANTS. INSTALL WIRE AND STRAW SEDIMENTATION FILTERS AT WETLAND CROSSING AREA.
3. LAND DISTURBANCE IS TO BE KEPT TO A MINIMUM. CLEAR AND STUMP PROPOSED CONSTRUCTION AREAS.
4. NO BURYING OF STUMPS, SLASH AND GRUBBING MATERIAL IS ALLOWED ON ANY SITE. MATERIALS MUST BE CHIPPED OR REMOVED FROM THE SITE.
5. ROUGH GRADE DRIVEWAY UNTIL WETLAND CROSSING AREA IS REACHED.
6. THE FOLLOWING SEQUENCE IS TO BE PERFORMED DURING LOW FLOW PERIOD (DRY SEASON):
  - a. REMOVE EXISTING CULVERT.
  - b. PLACE 6" DEEP BED OF 1 1/4" STONE IN LOCATION OF FUTURE PIPING.
  - c. INSTALL NEW PIPES AND FLARED ENDS.
  - d. BACKFILL WITH APPROPRIATE MATERIAL AND APPLY COMPACTION.
7. ROUGH GRADE REMAINDER OF DRIVEWAY TO HOUSE SITE.
8. SCRAPE AND STOCKPILE LOAM IN CONSTRUCTION AREAS SHOWN ON THE SITE PLAN.
9. SURROUND LOAM STOCKPILE WITH SILT FENCE, SEED PILES FOR DUST CONTROL OR TREAT WITH CALCIUM CHLORIDE.
10. INSTALL FOOTINGS AND FOLLOW WITH FOUNDATION. BACKFILL WITH APPROPRIATE MATERIAL.
11. CONSTRUCT SEPTIC FACILITIES.
12. INSTALL REMAINING UNDERGROUND UTILITIES.
13. LOAM, SEED, AND MULCH DISTURBED EARTH ABOVE PIPES AND IN AREAS THAT WILL NOT BE PAVED.
14. FINE GRADE PROPOSED PAVED AREAS AND REMOVE WATER BREAKS.
15. REMOVE EROSION CONTROLS WHEN UPHILL AREAS ARE STABILIZED.

SOILS TESTING RESULTS

DEEP TESTS:

TESTING PERFORMED: 2/10/21 – TMR, M. CZESNOWSKI, E. CEVLAN

#TH-1

0"	-	6"	TOP SOIL
6"	-	17"	ORANGE BROWN SANDY LOAM
17"	-	72"	COMPACT OLIVE BROWN SILTY SAND, COBBLES

LEDGE AT 72" NO WATER NO REDOXIMORPHIC FEATURE

#TH-2

0"	-	11"	TOP SOIL
11"	-	24"	ORANGE BROWN SANDY LOAM
24"	-	84"	COMPACT OLIVE BROWN SILTY SAND, COBBLES

LEDGE AT 84" NO WATER NO REDOXIMORPHIC FEATURE

#TH-3

0"	-	8"	TOP SOIL
8"	-	20"	ORANGE BROWN SANDY LOAM
20"	-	86"	MODERATELY OLIVE BROWN SILTY SAND

LEDGE AT 86" NO WATER NO REDOXIMORPHIC FEATURE

#TH-4

0"	-	8"	TOP SOIL
8"	-	30"	ORANGE BROWN SANDY LOAM
30"	-	72"	MODERATELY OLIVE BROWN SILTY SAND

LEDGE AT 72" NO WATER NO REDOXIMORPHIC FEATURE

#TH-5

0"	-	5"	TOP SOIL
5"	-	34"	ORANGE BROWN SANDY LOAM
34"	-	90"	MODERATELY OLIVE BROWN SILTY SAND

LEDGE AT 90" NO WATER NO REDOXIMORPHIC FEATURE

#TH-6

0"	-	5"	TOP SOIL
5"	-	33"	ORANGE BROWN SANDY LOAM
33"	-	84"	MODERATELY OLIVE BROWN SILTY SAND

LEDGE AT 84" NO WATER NO REDOXIMORPHIC FEATURE

#TH-10 (STORMWATER)

0"	-	12"	TOP SOIL
12"	-	42"	ORANGE BROWN SANDY LOAM
42"	-	76"	OLIVE BROWN SILTY SAND, COBBLES

LEDGE AT 76" NO WATER NO REDOXIMORPHIC FEATURE

PERCOLATION TESTS:

TESTING PERFORMED: 2/11/21 TMR

P-1

DEPTH:	21"	P-2	*DEPTH: 14"
DIAMETER: 8"		DIAMETER: 8"	
12:06	PRESOAK	12:06PRESOAK	
2:08	3-1/4"	2:07	1-3/4"
2:18	6-1/4"	2:17	3"
2:28	8-3/4"	2:27	4-1/2"
2:38	10"	2:37	5"
2:48	11"	2:47	5-1/4"
2:58	12"	2:57	5-1/2"
3:08	13"	2:07	5-3/4"

RATE: 1" = 10 MINUTES RATE: 1" = 40 MINUTES \*TOP HOLE 26" BELOW GRADE

P-3

DEPTH:	18"	*DEPTH: 16"	
DIAMETER: 8"			
12:05	PRESOAK	12:05PRESOAK	
2:08	4-1/2"	2:07	7-1/2"
2:18	7-1/4"	2:17	8-1/2"
2:28	9-1/4"	2:27	9"
2:38	10-1/2"	2:37	9-1/4"
2:48	11-1/2"	2:47	9-1/2"
2:58	12-1/2"	2:57	9-3/4"
3:08	13-1/2"	2:07	10"

RATE: 1" = 10 MINUTES RATE: 1" = 40 MINUTES \*TOP HOLE 21" BELOW GRADE

SEPTIC SYSTEM NOTES

1. DEVIATION FROM THESE PLANS MAY REQUIRE ADDITIONAL APPROVALS FROM REGULATING AUTHORITIES.
2. CARE SHOULD BE TAKEN DURING SITE DEVELOPMENT TO PROTECT THE PROPOSED SEPTIC SYSTEM AREA FROM UNNECESSARY DISTURBANCE. IF CARE IS NOT TAKEN AND THE AREA IS NOT PREPARED AS NOTED ON THIS PLAN, PREMATURE FAILURE OF THE SYSTEM MAY RESULT.
3. THE TEST RESULTS AND SOIL TYPES SHOWN APPLY ONLY TO THE TEST HOLE SHOWN AND MAY OR MAY NOT APPLY TO OTHER AREAS ON THE SITE. THE SOIL TYPES SHOWN AND EXISTING GRADES ARE TO BE VERIFIED OVER THE ENTIRE SEPTIC AREA PRIOR TO CONSTRUCTION.
4. THE PURPOSE OF THE PROPOSED SEPTIC SYSTEM IS TO DISPOSE OF DOMESTIC SEWAGE CONSISTING OF WATER AND HUMAN EXCRETIONS OR OTHER WATERBORNE WASTES INCIDENTAL TO THE OCCUPANCY OF THE PROPOSED USE AND NOT TO BE USED FOR WASTE WATER FROM WATER SOFTENING EQUIPMENT, WATER FROM FLOOR DRAINS OR SURFACE WATER FROM ROOFS, PAVED SURFACES OR YARD DRAINS.
5. THE SEPTIC TANK AND GALLERIES SHALL BE CAPABLE OF SUPPORTING THE SUPERIMPOSED LOADS INDICATED ON THE PLANS. THE SUPERIMPOSED LOADS SHALL CONSIST OF THE EARTH LOAD AND THE LIVE LOAD. THE EARTH LOAD SHALL BE COMPUTED FROM THE DEPTH OF SOIL COVER SHOWN ON THE PLANS. THE MINIMUM EARTH LOAD SHALL BE FOR SOIL COVER OF EIGHTEEN INCHES. THE MINIMUM LIVE LOAD FOR THE TANK AND GALLERIES SHALL BE H-20.
6. THERE ARE NO WELLS WITHIN SEVENTY FIVE FEET OF THE PROPOSED SEPTIC SYSTEM.
7. THE BENCHMARK SHOWN ON THIS PLAN IS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY INCONSISTENCIES.
8. THE TEST RESULTS AND SOIL TYPES SHOWN APPLY ONLY TO THE TEST HOLE SHOWN AND MAY OR MAY NOT APPLY TO OTHER AREAS ON THE SITE. THE SOIL TYPES SHOWN AND EXISTING GRADES ARE TO BE VERIFIED OVER THE ENTIRE SEPTIC AREA PRIOR TO CONSTRUCTION.
9. NO LOOSE OR OPEN JOINTED, PERFORATED, SLOTTED OR PERVIOUS PIPE DRAIN IS TO BE LOCATED WITHIN 50" DOWN GRADIENT OF ANY SYSTEM AREA.
10. THERE ARE NO FOOTING DRAINS PROPOSED WITHIN 25 FEET OF THE SEPTIC SYSTEM.
11. IF SELECT FILL IS REQUIRED, THE EASTON HEALTH DEPARTMENT MAY REQUIRE A SIEVE SAMPLE OF ALL SELECT FILL. THIS FILL SHALL CONTAIN NO MATERIAL LARGER THAN 3". GRADATION REQUIREMENTS ARE AS FOLLOWS, UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER: 100% PASSING #4, 70-100% PASSING A #10, 10-75% PASSING #40, 0-5% PASSING #100, 0-2.5% PASSING #200. THESE PERCENTAGES REFER TO 55% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE RETAINED BY THE #4 SIEVE, FILL SHALL YIELD A PERCOLATION RATE OF 1" IN 10 MIN. OR LESS IN PLACE.
12. THE PROPOSED SEPTIC SYSTEM SHALL BE STAKED OUT, OFFSET AND ELEVATED FOR CONSTRUCTION BY A QUALIFIED SURVEYOR.
13. AN AS-BUILT PLAN SHALL BE PREPARED BY A QUALIFIED SURVEYOR AND SUBMITTED TO THE APPLICABLE AGENCIES FOR APPROVAL.
14. ALL PROPOSED SANITARY STRUCTURES AND INSTALLATION SHALL CONFORM TO THE CURRENT CONNECTICUT PUBLIC HEALTH CODE.
15. THE INSTALLATION OF A HIGH CAPACITY DISCHARGE TUB (100 GALLONS OR MORE) OR A GARBAGE GRINDER WOULD REQUIRE THE ENLARGEMENT OF THE PROPOSED SEPTIC TANK SHOWN HEREON IN ACCORDANCE WITH SECTION V OF THE CONNECTICUT TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS.
16. OIL TANK IS TO BE LOCATED INSIDE THE STRUCTURE.

SEPTIC SYSTEM DESIGN BASIS

RESIDENTIAL DWELLING:  
NUMBER OF BEDROOMS: 4  
PERCOLATION RATE: 1" IN 10 MINUTES  
EFFECTIVE LEACHING AREA (ELA) REQUIRED: 495 + 82.5= 577.5 SF

DUE TO THE ABSENCE OF A RESTRICTIVE LAYER IN THE PRIMARY AREA MLSS IS NOT A CONSIDERATION.

PROPOSED LEACHING SYSTEM

USING 12" X 48" CONCRETE GALLERIES @ 5.9 SF/LF:  
577.5 SF/5.9 SF/LF= 97.88 LIN.FT. REQ'D.  
INSTALL 104 LF OF TRENCH PROVIDING 613.6 SF ELA

PROPOSED SEPTIC TANK

1250 GALLON MINIMUM CAPACITY WITH OUTLET EFFLUENT FILTER  
THE MINIMUM CAPACITY SHALL BE INCREASED IF THE BUILDING CONTAINS A GARBAGE GRINDER OR LARGE CAPACITY BATHTUB

APPROXIMATE PROPOSED ELEVATIONS:

EFFLUENT LINE AT BUILDING : 478.0  
SEPTIC TANK INLET: 469.25; OUTLET ELEVATION 2"-4" LOWER  
PUMP CHAMBER INLET: 476.50  
DB1 INV OUT= 480.8

SEWAGE PUMP AND APPURTENANT EQUIPMENT

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF A COMPLETE SEWAGE PUMP STATION. THE STATION SHALL INCLUDE THE PUMP AND ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE PROPER INSTALLATION OF THE PUMP, INCLUDING THE CONTROL PANEL, SEPTIC TANKS MODIFIED TO BE PUMP CHAMBERS, ASSOCIATED PIPING AND PLUMBING AND CONNECTIONS, VALVES, ETC.
2. DESIGN CRITERIA FOR THE STATIONS ARE:  
A. PUMP SHALL CYCLE NO MORE THAN 12 TIMES/HOUR DURING PEAK FLOW CONDITIONS.  
B. PUMP SHALL BE SUITABLE FOR PUMPING SEPTIC EFFLUENT.  
C. THE MINIMUM FORCE MAIN VELOCITY SHALL BE 2 FEET/SECOND.  
D. THE MAXIMUM FORCE MAIN VELOCITY SHALL BE 12 FEET/SECOND

PUMP

3. EACH PUMP SHALL BE "EFFLUENT" SUBMERSIBLE NON-CLOG PUMPS CAPABLE OF PUMPING 43 GALLONS PER MINUTE AT A TOTAL HEAD OF 12 FEET. THE PUMP SHALL BE STANCOR PUMP MODEL SE-40, 0.4 HP, 1 PHASE, 115 VOLT.
4. OTHER PUMPS TO BE CONSIDERED MUST BE REVIEWED BY AND APPROVED IN WRITING BY THE DESIGN ENGINEER.
5. THE PUMP SHALL BE CAPABLE OF HANDLING SETTLED EFFLUENT. EACH SHALL BE FITTED WITH AN AISI TYPE 304 STAINLESS STEEL STAINLESS STEEL CABLE OR CHAIN OF ADEQUATE STRENGTH AND LENGTH TO PERMIT RAISING AND LOWERING THE PUMP FOR INSPECTION OR REMOVAL. THE PUMP, WITH ITS APPURTENANCES AND CABLES, SHALL BE CAPABLE OF CONTINUOUS SUBMERGENCE UNDERWATER WITHOUT LOSS OF WATERTIGHT INTEGRITY TO A DEPTH

OF 65 FEET.

6. ALL ANCHOR BOLTS, BOLTS, SCREWS, PULL CHAINS AND OTHER ACCESSORIES SHALL BE AISI TYPE 304 STAINLESS STEEL.
7. PUMP SHALL BE PROTECTED AGAINST THERMAL OVERLOAD. THE MOTOR, MOTOR CABLES AND ALL ELECTRICAL CONNECTIONS IN THE WET WELL SHALL BE SUITABLE FOR SUBMERSIBLE PUMP APPLICATIONS.
8. THE PUMP MANUFACTURER SHALL WARRANT THE UNITS BEING SUPPLIED TO THE OWNER AGAINST ANY DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR UNDER NORMAL USE, OPERATION AND SERVICE. THE WARRANTY SHALL BE IN PRINTED FORM AND APPLY TO ALL SIMILAR UNITS.

CONTROLS

9. THE PUMP SHALL HAVE AUTOMATIC CONTROLS. IT SHALL BE FULLY FIELD SERVICEABLE AND EASY TO DISCONNECT.

THE ELECTRICAL SYSTEM SHALL PROVIDE FOR EACH PUMP THE FOLLOWING:

10. A SEPARATE CIRCUIT BREAKER, A MAGNETIC STARTER, H-0-A SWITCHES AND RUN LIGHTS. ALL ELECTRICAL WORK MUST BE IN CONFORMANCE WITH LOCAL AND STATE CODES. ALL PUMPS SHALL BE EQUIPPED WITH RUNNING TIME METERS LOCATED IN THE PUMP CONTROL PANEL. THE CONTROL PANEL FOR PUMP STATION SHALL BE LOCATED IN THE HOUSE.

FLOAT SYSTEM

11. SEALED FLOAT TYPE SWITCHES SHALL BE SUPPLIED TO CONTROL PUMP LEVELS AND ALARM SIGNAL. THREE FLOAT SWITCHES SHALL BE USED TO CONTROL LEVELS. ONE FOR ALL PUMP TURN-OFF, ONE FOR LEAD PUMP TURN-ON AND ONE FOR LAG (BOTH) PUMPS TURN-ON. A FOURTH SWITCH SHALL PROVIDE HIGH LEVEL AND LOSS OF POWER ALARM. THE HIGH LEVEL ALARM SHALL ACTIVATE THE ALARM SYSTEM AS DESCRIBED BELOW. A LOW LEVEL ALARM SHALL BE PROVIDED FOR PUMPS THAT ARE NOT ABLE TO RUN DRY FOR AN EXTENDED PERIOD OF TIME. ALL SWITCHES SHALL BE FIELD TESTED TO INSURE THEIR OPERATIONS AT CORRECT LEVELS.
12. A TRANSDUCER SENSING PROBE PROVIDING THE SAME FUNCTIONS AS THE FLOAT SYSTEM MAY BE USED.
13. THE CABLE SUPPORT BRACKET FOR THE FLOAT SWITCHES OR TRANSDUCER SHALL BE POSITIONED AS TO ELIMINATE THE NEED TO ENTER THE WET WELL IN ORDER TO SERVICE OR ADJUST THE SWITCHES AND CABLES. THE SUPPORT BRACKET SHALL BE AISI TYPE 304 STAINLESS STEEL. THE ACCESS HATCH SHALL PROVIDE CONVENIENT ACCESS TO ATTACH THE SUPPORT BRACKET.
14. LEVEL SENSING DEVICES SHALL BE LOCATED SO AS NOT TO BE UNDULY AFFECTED BY FLOWS ENTERING THE WET WELL OR BY THE SUCTION OF THE PUMPS.
16. THERE SHALL BE A GATE VALVE AND A CHECK VALVE ON THE DISCHARGE SIDE OF EACH PUMP. THE GATE VALVE SHALL BE LOCATED ON THE DISCHARGE PIPE WITHIN 4 FEET OF THE CHECK VALVE. CHECK VALVES SHALL BE LOCATED ON A HORIZONTAL SECTION OF THE DISCHARGE PIPE. THERE SHALL BE AT LEAST 2 FEET OF HORIZONTAL PIPE ON THE DISCHARGE SIDE OF THE VALVE.
17. THE MANUFACTURER SHALL PROVIDE THREE SETS OF COMPLETE AND DETAILED INSTALLATION, OPERATION AND MAINTENANCE MANUAL. THESE MANUALS SHALL COVER, IN ADDITION TO INSTALLATION AND GENERAL OPERATING PROCEDURES, THE OPERATION, MAINTENANCE, AND SERVICING PROCEDURES OF THE MAJOR INDIVIDUAL COMPONENTS PROVIDED WITH THE PUMP STATION.

PUMP CHAMBER

18. THE PUMP CHAMBER SHALL BE A MODIFIED 1000 GALLON SEPTIC TANK. THE TANK SHALL BE CAPABLE OF SUPPORTING THE SUPERIMPOSED LOADS AS SHOWN ON THE CONSTRUCTION PLANS. THE SUPERIMPOSED LOADS SHALL CONSIST OF THE EARTH LOAD AND THE LIVE LOAD. THE EARTH LOAD SHALL BE COMPUTED FROM THE DEPTH OF SOIL COVER SHOWN ON THE PLANS. THE MINIMUM EARTH LOAD SHALL BE FOR SOIL COVER OF EIGHTEEN INCHES. THE MINIMUM LIVE LOAD SHALL BE AN H-20 LOADING.
19. THE PUMP CHAMBER SHALL HAVE AN ACCESSWAY TO FINISHED GRADE. THE ACCESS COVER SHALL HAVE AN H-20 LOAD RATING, IF LOCATED IN A PAVED AREA.
20. THE PUMP CHAMBER SHALL BE PROTECTED FROM FLOATAION WITH A WATER TABLE AT THE FINISHED GRADE.

ALARM SYSTEM

21. AN ALARM SYSTEM WHICH MONITORS THE FUNCTIONS DESCRIBED BELOW SHALL BE INSTALLED. THE SYSTEMS SHALL INITIATE ALARMS AT THE CONTROL PANELS.
22. THE ALARM SYSTEM SHALL ACTIVATE UNDER THE FOLLOWING CONDITIONS:  
A. HIGH WATER LEVEL IN PUMP CHAMBER,  
B. LOW WATER LEVEL IN PUMP CHAMBER FOR PUMPS THAT CANNOT RUN DRY FOR EXTENDED PERIODS  
C. FAILURE OF EITHER LEAD OR LAG PUMP,  
D. NORMAL POWER SUPPLY FAILURE,
23. THE ALARM FOR THE PUMP STATION SHALL CONSIST OF AUDIBLE ALARM AND A VISIBLE ALARM LOCATED ON THE CONTROL PANEL. THE VISIBLE ALARM SHALL CONSIST OF A STROBE LIGHT, FIELD-ADJUSTABLE DIM GLOW WARNING LAMPS AND SILENCE PUSH-BUTTON. THE LIGHT SHALL BE IN A CONSPICUOUS LOCATION. THE STATION SHALL REMAIN IN ALERT CONDITION UNTIL THE SILENCE BUTTON IS ACTIVATED. THE STROBE LIGHT SHALL BE DE-ENERGIZED WITH ACTIVATION OF THE SILENCE BUTTON. THE WARNING LAMPS SHALL REMAIN AT FULL STEADY BRILLIANCE UNTIL THE ALARM CONDITION HAS BEEN CORRECTED. THE STATION MAY THEN RETURN TO A NORMAL CONDITION.
24. THE ALARM STATION SHALL OPERATE ON 120 VOLT AC POWER WITH A BATTERY BACKUP.
25. FOR USE DURING MAINTENANCE AND REPAIR PERIODS, THE ALARM SHALL HAVE AN "ALARM DISCONNECTED SWITCH," WHICH SHALL LIGHT A VISIBLE ALARM WARNING LAMP IN THE LOCAL PANEL WHEN ENGAGED AND SHALL NOT ACTIVATE THE STROBE LIGHT.

FORCE MAIN

26. SEWER FORCE MAIN SHALL BE PVC PLASTIC RIGID PRESSURE PIPE CONFORMING TO SCHEDULE 40 ASTM D1785 WITH SOLVENT WELDED, THREADED JOINTS OR GASKETED COUPLINGS OR PE PIPE CONFORMING TO ASTM D 2239 OR 2737 OR PE PIPE CONFORMING TO ASTM D 3035 SDR 11 OR LOWER WITH HEAT BUTT FUSED CONNECTIONS.
27. IF RIGID FORCE MAIN PIPING IS UTILIZED PIPING SHALL HAVE CONCRETE THRUSH BLOCKS OR RETAINING GLANDS AT ALL POINTS WHERE THE FORCE MAIN CHANGES DIRECTIONS AT HORIZONTAL OR VERTICAL BENDS GREATER THAN 22 DEGREES. THE CONCRETE THRUSH BLOCK SHALL BE CONSTRUCTED AT THE OUTSIDE OF THE BEND BETWEEN THE UNDISTURBED SOIL AT THE WALL OF THE TRENCH AND THE FITTING AND SHALL HAVE A MINIMUM BEARING AREA OF ONE SQUARE FOOT OR AS DIRECTED BY THE ENGINEER.
28. THE FORCE MAIN SHOULD NOT HAVE ANY HIGH POINTS ALONG ITS PROFILE UNLESS AN AIR RELEASE VALVE IS USED OR AN ENGINEERED DESIGN IS SUBMITTED.
29. THE FORCE MAIN SHALL BE AT LEAST FOUR FEET BELOW FINISHED GRADE ALONG ITS ENTIRE LENGTH, EXCEPT FOR THE LAST THREE FEET AS IT ENTERS THE TERMINATION STRUCTURE. THE DESIGN ENGINEER SHALL BE NOTIFIED OF THE INSTALLATION AND SHALL INSPECT THE FORCE MAIN FOR PROPER DEPTH. AN AS-BUILT DRAWING OF THE SEPTIC SYSTEM INCLUDING THE FORCE MAIN SHALL BE PREPARED.
30. THE FORCE MAIN SHALL BE PLACED ON A 6 INCH BEDDING OF SAND AND HAVE A GRAVEL BACKFILL EXTENDING 6 INCHES ABOVE THE PIPE OR AS DIRECTED BY THE ENGINEER.
31. ALL GRAVITY AND FORCE MAINS ARE TO BE ENCASED IN 6 INCHES OF CONCRETE WHEN CROSSING WITHIN 18 INCHES OF A DRAINAGE PIPE OR WATER MAIN. THE CONCRETE ENCASEMENT SHALL EXTEND TEN FEET FROM EITHER SIDE OF THE CROSSING.
32. AFTER THE FORCE MAIN IS INSTALLED FROM THE PUMP STATION TO THE FIRST DISTRIBUTION BOX, THE FORCE MAIN SHALL BE TESTED AS DESCRIBED BELOW. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT. THE ENGINEER SHALL WITNESS THE TEST AND APPROVE THE SYSTEM.

FORCE MAIN PRESSURE TEST

33. THE FORCE MAIN SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE AND LEAKAGE TEST. THESE TESTS SHALL BE MADE AFTER THE PIPE AND APPURTENANCES HAVE BEEN INSTALLED AND THE TRENCH HAS BEEN PARTIALLY BACKFILLED, EXCEPT AT THE JOINTS AND A SECOND TIME AFTER THE TRENCH HAS BEEN COMPLETELY BACKFILLED. THE DURATION OF THE PRESSURE AND LEAKAGE TESTS SHALL BE AS DIRECTED BY THE ENGINEER.
34. THE PRESSURE TEST SHALL BE CONDUCTED PRIOR TO THE LEAKAGE TEST. EACH SECTION OF PIPE TO BE TESTED SHALL BE SLOWLY FILLED WITH WATER AND A TEST PRESSURE BY MEANS OF A PUMP CONNECTED TO THE PIPE IN A MANNER SATISFACTORY TO THE ENGINEER. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. THE TEST SHALL BE AT A PRESSURE EQUAL TO FOUR TIMES THE WORKING PRESSURE OF THE SYSTEM.
35. ALL EXPOSED PIPES, FITTINGS AND JOINTS WILL BE CAREFULLY EXAMINED DURING THE OPEN TRENCH TEST. ALL JOINTS SHOWING VISIBLE LEAKS SHALL BE REPAIRED AND MADE TIGHT. ANY CRACKED OR DEFECTIVE PIPES OR FITTINGS DISCOVERED IN CONSEQUENCE OF THE PRESSURE TESTS SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR WITH NEW SOUND MATERIAL IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND THE HYDROSTATIC PRESSURE TEST SHALL BE REPEATED UNTIL SATISFACTORY TO THE ENGINEER.
36. THE LEAKAGE TESTS SHALL BE CONDUCTED AFTER THE PRESSURE TESTS HAVE BEEN SATISFACTORILY COMPLETED. LEAKAGE IS DEFINED AS THE QUANTITY OF WATER TO BE SUPPLIED INTO THE SECTION OF PIPE BEING TESTED NECESSARY TO MAINTAIN THE SPECIFIED LEAKAGE TEST PRESSURE AFTER THE PIPE HAS BEEN FILLED WITH WATER AND THE AIR EXPELLED. THE ADDITIONAL WATER NEEDED TO MAINTAIN THE REQUIRED PRESSURES SHALL BE ACCURATELY MEASURED IN A MANNER APPROVED BY THE ENGINEER. THE RATE OF LEAKAGE SHALL NOT EXCEED 25 GALLONS PER MILE OF FORCE MAIN PER 24 HOURS PER INCH OF PIPE DIAMETER. THE FORCE MAIN SHALL BE REPAIRED BY THE CONTRACTOR TO REDUCE THE LEAKAGE TO THE RATE STATED HEREIN, AND ADDITIONAL TESTS SHALL BE MADE.
37. LEAKAGE TEST PRESSURE SHALL BE EQUAL TO THREE TIMES THE WORKING PRESSURE OF THE SYSTEM.
38. THE TESTS SHALL BE MADE WHERE AND AS REQUIRED BY THE ENGINEER. THE ENDS OF THE SECTIONS BEING TESTED SHALL BE TIGHTLY CLOSED BY BLANK FLANGES, GATES, OR OTHERWISE. FOR THE DURATION OF EACH TEST, THE CONTRACTOR SHALL FURNISH AT HIS EXPENSE ALL SUCH MATERIAL, SUPPLIES, APPARATUS, LABOR AND EQUIPMENT AS NECESSARY FOR CARRYING OUT THE TESTS AND SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR SECURING AND FURNISHING WATER FOR TEST PURPOSES AND SHALL STAND THE EXPENSE OF THESE ARRANGEMENTS.

GROUNDWATER RECHARGE SYSTEM DESIGN (RAIN GARDEN)

DESIGN BASIS IS 1 INCH STORM:  
ROOF AREA = 3150 SF

THEREFORE 3150 SF X 1"/12"/FT= 262.5 FT3 STORAGE REQUIRED.

RAIN GARDEN IS 1 FOOT IN DEPTH AND ELLIPTICAL IN SHAPE PROVIDING 282.3 FT3 OF STORAGE.

DETAILS  
398 JUDD ROAD  
EASTON, CONNECTICUT  
PREPARED FOR  
JANS LAND DEVELOPMENT, LLC

DATE:	3-11-2021	SCALE:	N.T.S	DRAFTER:	TMR	JOB NO:	121	FILE NUMBER:	
NO.	DATE	DESTINATION							
1	4-6-21	WETLANDS							
SUBMITTALS									

DAVID S. BJORKLUND JR. CT P.E. 11361

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