

TEST HOLE DATA:
OBSERVED BY GLENN BAGDOIN ON 7-2-19

TEST HOLE 1
0-8" TOPSOIL
8-20" FINE SANDY LOAM
20-78" MOTTLED SANDY TILL
MOTTLING AT 20"
ROOT TO 20"
NO LEDGE
SEEPAGE AT 60"

TEST HOLE 2
0-8" TOPSOIL
8-18" FINE SANDY LOAM
19-60" SANDY LOAM, SILTY, DAMP, MOTTLED
MOTTLING AT 19"
NO LEDGE
SEEPAGE AT 52"

TEST HOLE 3
0-8" TOPSOIL
8-15" FINE SANDY LOAM
19-72" SANDY LOAM, MOTTLED, SANDY TILL
MOTTLING AT 19"
NO LEDGE

EXISTING UNDERGROUND UTILITIES ARE NOT FIELD LOCATED AND ALL EXISTING UNDERGROUND UTILITIES MAY NOT BE SHOWN. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL CALL "CALL BEFORE YOU DIG" (1-800-922-4455) AND HAVE ALL UNDERGROUND UTILITIES MARKED IN THE FIELD.

THERE ARE NO WELLS WITHIN 75 FEET OF THE PROPOSED PRIMARY OR RESERVE SEPTIC SYSTEMS

THERE ARE NO SEPTIC SYSTEMS WITHIN 75 FEET OF THE PROPOSED WELL.

NOTES:

- SEPTIC TANK SHALL BE A 1000 GALLON, TWO COMPARTMENT TANK. IT SHALL BE PROPERLY BATTLED AT THE INLET AND OUTLET AND SHALL BE WATER-TIGHT, JOINTS SEALED WITH ASPHALT CEMENT OR EQUAL. TANK OUTLET SHALL HAVE APPROVED NON-BYPASS EFFLUENT FILTER.
- THE PIPE BETWEEN BUILDING AND SEPTIC TANK SHALL BE A 4" EXTRA HEAVY CAST IRON, DUCTILE IRON, OR EXTRA STRENGTH PVC PRESSURE PIPE WITH RUBBER COMPRESSION GASKET JOINTS (AWWA C-900) OR EQUAL. PIPE SHALL HAVE MINIMUM PITCH OF 1/4" PER FOOT.
- SOLID DISTRIBUTION PIPE AFTER SEPTIC TANK SHALL BE 3" PVC MEETING ASTM D2729 OR 4" PVC MEETING ASTM D3034 OR EQUAL.
- BOTTOM OF ALL LEACHING GALLERIES SHALL BE LEVEL THROUGHOUT.
- ALL TOPSOIL IN THE AREA OF THE PROPOSED SYSTEM SHALL BE STRIPPED BEFORE FILLING.
- STRIPPED AREA MUST BE APPROVED BY THE SANITARIAN PRIOR TO FILLING, FILL MUST BE PLACED ON STRIPPED AREA THE SAME DAY AREA IS PREPARED.
- SANITARIAN SHALL INSPECT FILL PLACEMENT. ALL FILL MATERIAL MUST BE APPROVED PRIOR TO PLACEMENT IN SYSTEM AREA.
- FILL MATERIAL SHALL BE "SELECT FILL" COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES AND COMPACTED IN SIX (6) INCH LAYERS. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA.

COARSE SAND	#4	100%	100%
MEDIUM SAND	#10	70% - 100%	70% - 100%
FINE SANDS	#40	10% - 50%	10% - 75%
VERY FINE SANDS	#100	0% - 20%	0% - 5%
SILTS & CLAYS	#200	0% - 5%	0% - 2.5%

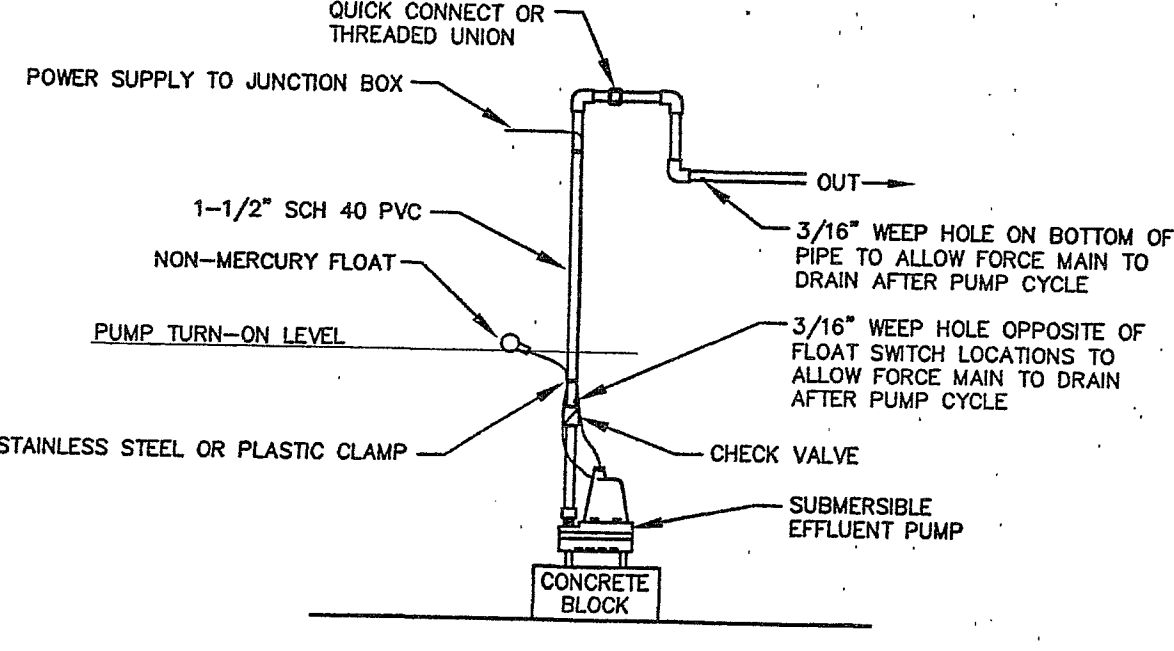
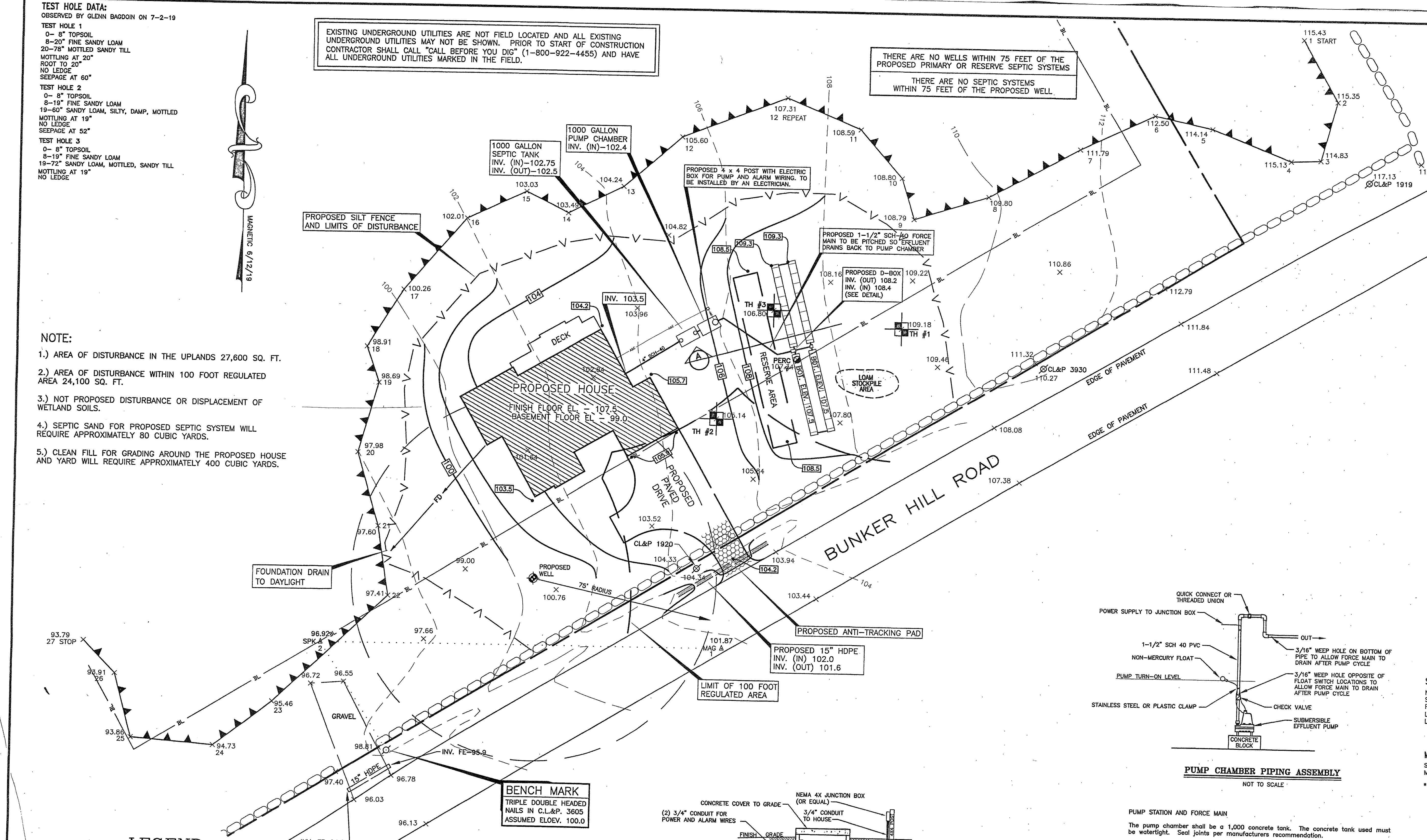
NOTE: * PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.

THE RESPONSIBILITY FOR THE PREPARATION OF THE LEACHING AREA UTILIZING "SELECT MATERIAL" IS THAT OF THE LICENSED INSTALLER. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVERCOMPACTION AND SILTATION ONCE EXPOSED.

- ONE PERCOLATION TEST IN THE FILL MATERIAL IS REQUIRED AT TIME SANITARIAN INSPECTS FILL PLACEMENT. EXCAVATE PERC HOLE TO 12" AND PRE-SOAK 1 HOUR PRIOR TO APPROVED TIME.
- ALL SYSTEMS REQUIRE PROTECTION FROM SURFACE WATER FLOW.
- ALL DISTRIBUTION BOXES SHALL BE PLACED ON A 6 INCH COMPACTED GRAVEL BASE TO PREVENT HEAVING AND SETTLING.
- INLETS AND OUTLETS OF THE SEPTIC TANK, PUMP CHAMBER AND DISTRIBUTION BOXES SHALL BE SEALED WITH A POLYETHYLENE GASKET, "POLYOK" OR EQUAL.
- IF TOP OF SEPTIC TANK IS GREATER THAN 12" BELOW GRADE, RISERS SHALL BE INSTALLED OVER EACH MANHOLE OPENING TO WITHIN 12" OF THE FINISH GRADE. FOR DEPTHS LESS THAN 24" USE 1 1/2" INSIDE DIAMETER RISERS, FOR DEPTHS GREATER THAN 24" USE 24" INSIDE DIAMETER RISERS.
- OPEN ENDS OF PERFORATED PIPE IN TRENCHES SHALL BE PLUGGED OR CAPPED.
- BOTTOM OF GALLERIES TO BE NO LOWER THAN 1" INTO EXISTING GROUND.
- NO PARKING, DRIVING OVER, STOCKPILING OR OTHER ACTIVITY IN THE SEPTIC AREA THAT WOULD COMPACT OR DISTURB THE SOIL.
- LEACHING GALLERIES WITH BOTTOM ELEVATIONS SHOWN SHALL BE FIELD STAKED BY DESIGN ENGINEER. ENGINEER SHALL SET A PERMANENT BENCHMARK IN THE IMMEDIATE VICINITY OF THE PROPOSED LEACHING SYSTEM AT THIS TIME.
- CONTRACTOR SHALL CHECK AND VERIFY BENCH MARK PRIOR TO INSTALLATION OF SEPTIC SYSTEM.
- THE WORK SHALL INCLUDE THE FURNISHING OF ALL LABOR, MATERIAL, EQUIPMENT AND OTHER INCIDENTALS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ENGINEER AND/OR OWNER AWARE OF ANY ERRORS OR OMISSIONS FROM THE PLAN PRIOR TO EXECUTION OF WORK.
- NO WORK TO BE STARTED ON SEPTIC SYSTEM PRIOR TO MEETING WITH THE SANITARIAN. FINAL INSTALLATION INSPECTION BY THE SANITARIAN IS REQUIRED.
- LEACHING GALLERIES REQUIRE A MINIMUM OF 9" OF COVER, 4" OF WHICH MUST BE TOPSOIL.
- ALL SYSTEMS MUST BE MULCHED AND SEEDDED IMMEDIATELY AFTER COMPLETION.
- PUMP CHAMBER SHALL HAVE A MINIMUM CAPACITY OF 1000 GALLONS. IT SHALL BE FACTORY SEALED AND ALL JOINTS AND SEALS SHALL BE TESTED TO INSURE IT IS WATER-TIGHT.
- PUMP CHAMBER TO BE PROVIDED WITH MANHOLE TO GRADE FOR ACCESS TO PUMP AND CONTROLS.

NOTE:

- 1.) AREA OF DISTURBANCE IN THE UPLANDS 27,600 SQ. FT.
- 2.) AREA OF DISTURBANCE WITHIN 100 FOOT REGULATED AREA 24,100 SQ. FT.
- 3.) NOT PROPOSED DISTURBANCE OR DISPLACEMENT OF WETLAND SOILS.
- 4.) SEPTIC SAND FOR PROPOSED SEPTIC SYSTEM WILL REQUIRE APPROXIMATELY 80 CUBIC YARDS.
- 5.) CLEAN FILL FOR GRADING AROUND THE PROPOSED HOUSE AND YARD WILL REQUIRE APPROXIMATELY 400 CUBIC YARDS.



PUMP STATION AND FORCE MAIN

The pump chamber shall be a 1,000 concrete tank. The concrete tank used must be watertight. Seal joints per manufacturers recommendation.

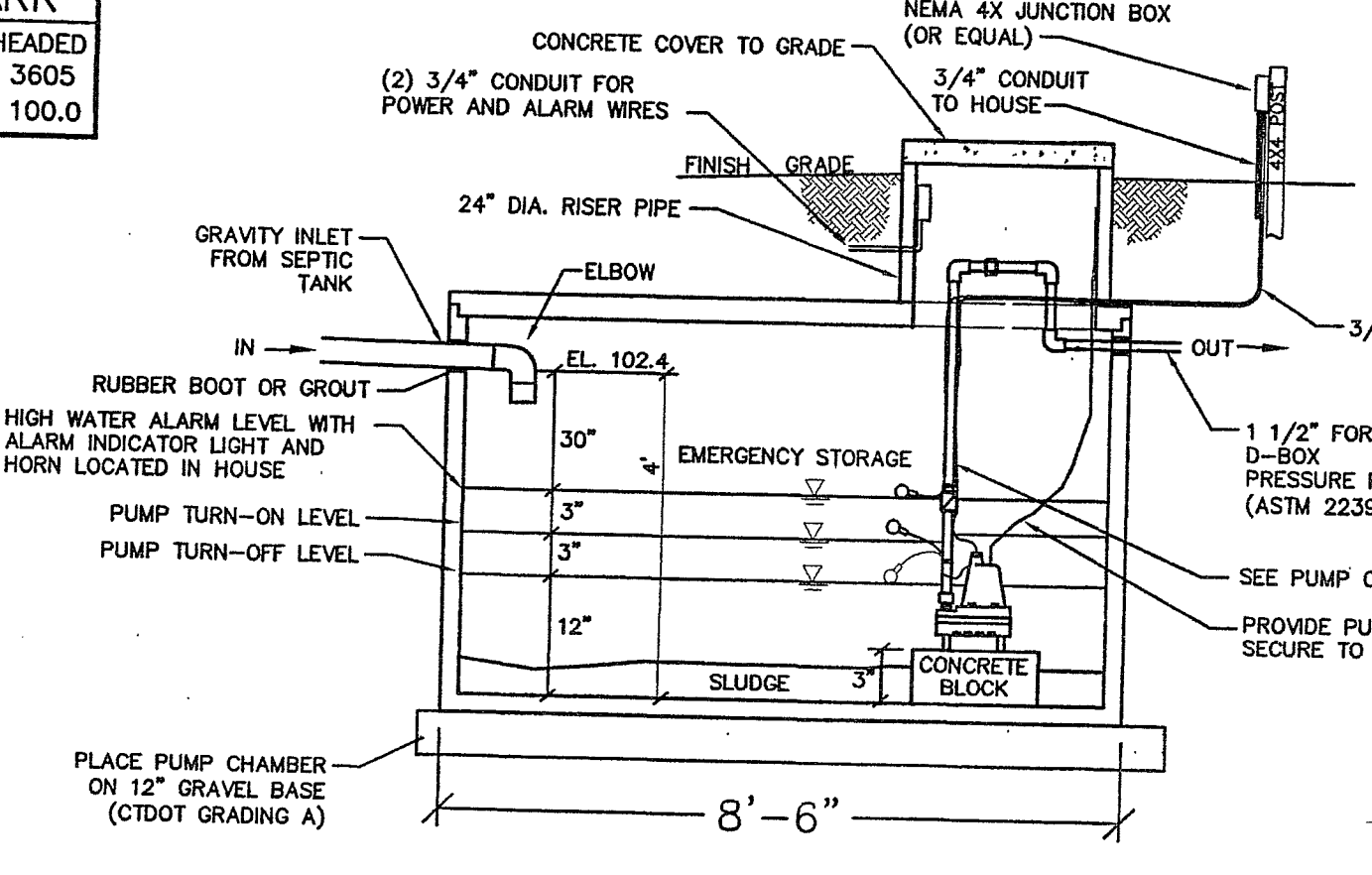
Pump shall be Liberty Pump 1/2 HP Model FL251 (or equal) submersible sewage pump or equal, maximum capacity of the pump shall be 25 GPM @ 15 feet total dynamic head.

Pump turn-on and turn-off level shall be adjusted by Contractor so that 60 gallons are pumped during one complete cycle.

Pump shall be wired so that alarm is on a separate circuit.

Since this is a pumped system, either a baffle or a downward pointing elbow on the force main discharge shall be installed in the distribution box at the end of the force main.

The force main shall be 1-1/2" diameter polyethylene plastic flexible pressure pipe (180 psi minimum), meeting ASTM 2239, as specified in the State Health Code. No joints are allowed within 75 feet of a well or within 25 feet of an open water course or ground or surface water drains.

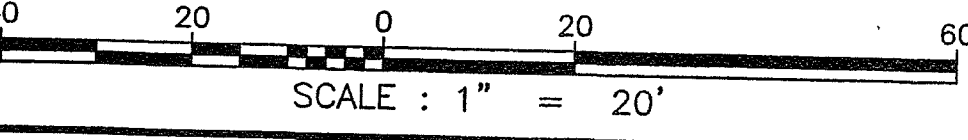


THE WETLAND SOILS ON THIS SITE WERE IDENTIFIED IN THE FIELD USING THE CRITERIA REQUIRED BY CONNECTICUT P.A. 72-155 AS AMENDED BY CONN. P.A. 73-571, CONN. P.A. 87-338 AND P.A. 87-533. THE BOUNDARIES OF THESE SOILS AND OF IDENTIFIED WATERCOURSES ARE ACCURATELY REPRESENTED ON THIS PLAN.

JOHN P. IANNI DATE

PROFESSIONAL ENGINEER AS LICENSED BY THE STATE OF CONNECTICUT DEPARTMENT OF CONSUMER PROTECTION.

GERALD HARDISTY, P.E. #15974



SEPTIC SYSTEM CRITERIA:

NUMBER OF BEDROOMS	THREE (NO TUB EXCEEDING 100 GALLON CAPACITY)
SIZE OF SEPTIC TANK	1000 GALLON
PERCOLATION RATE	10 MIN/IN
LEACHING AREA REQUIRED	495 SQ.FT.
LEACHING AREA PROVIDED	QUICK4 STANDARD LEACHING CHAMBERS (16 UNITS/ROW x 4 FT/UNIT) + (4 END CAPS x 1.2 FT/UNIT) = 88.8 L.F./ROW (88.8 L.F./ROW x 2 ROWS) x 3.6 S.F./L.F. = 495.4 S.F.

MINIMUM LEACHING SYSTEM SPREAD (MLSS) *

SLOPE=5% RESTRICTIVE LAYER @ 19"

M.L.S.S. = (H.F.) x (F.F.) x (P.F.) = (42) x (1.5) x (1.0) = 63 L.F.

* SEE CONNECTICUT PUBLIC HEALTH CODE, APPENDIX A

SUBSURFACE SEWAGE DISPOSAL DESIGN

PREPARED FOR

KAPP MAHAPOT

BUNKER HILL ROAD
COVENTRY, CONNECTICUT

SCALE: 1" = 20' DATE: JULY 15, 2020

SHEET 1 OF 2

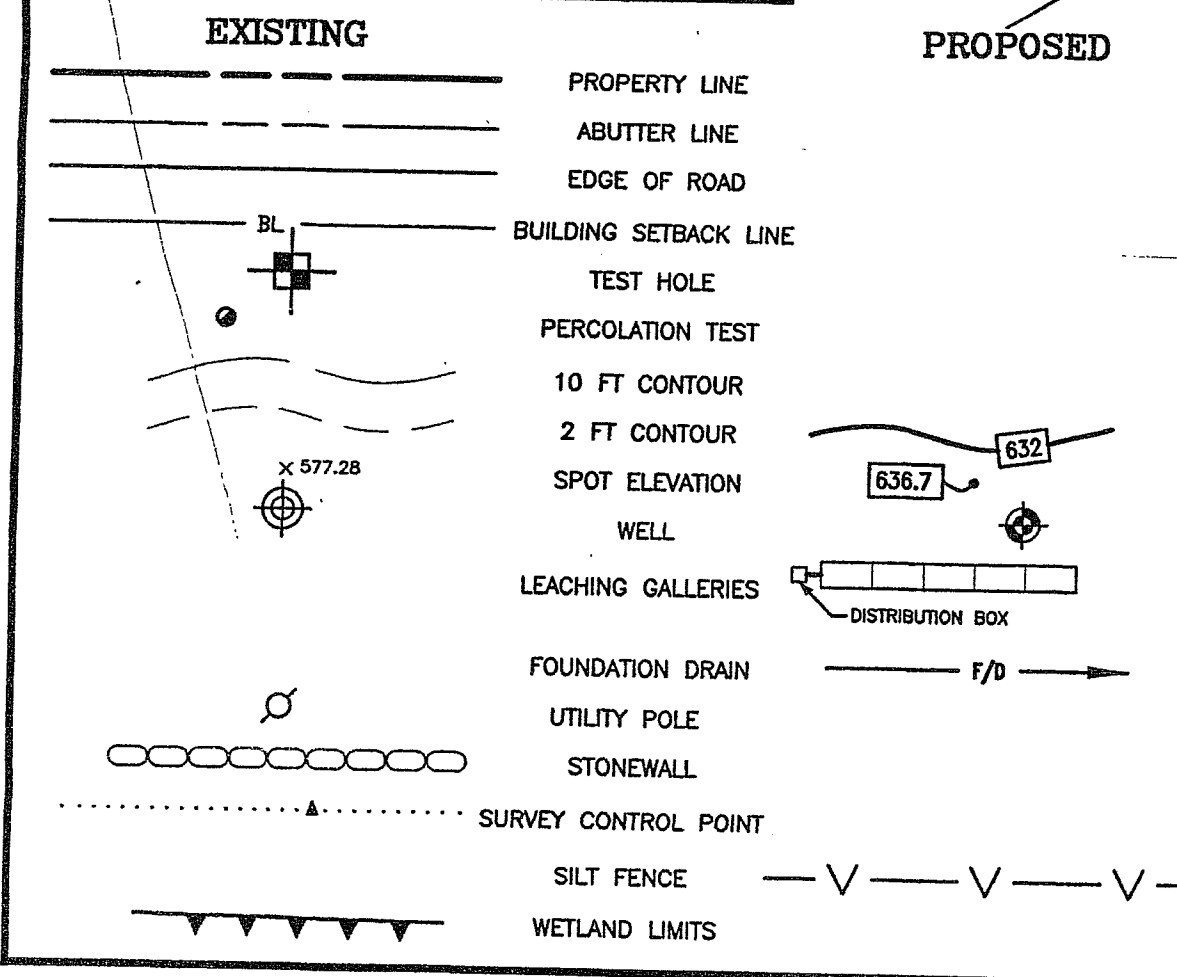
DATUM ENGINEERING & SURVEYING, LLC

132 CONANTVILLE ROAD
MANSFIELD CENTER, CT 06250
TEL (860)456-1357 FAX (860)456-1840

JOB NO. 220018

CHECKED BY: _____ CORRECTIONS BY: _____

LEGEND



PERCOLATION TEST

CONDUCTED BY DATUM ENGINEERING & SURVEYING, LLC. ON JULY 2, 2019

PRESOAKED AT 9:45 AM

TIME	READING
10:15	10"
10:20	11.5"
10:25	13"
10:30	14"
10:35	14.5"
10:40	15"
10:45	15.5"
10:50	16"
10:55	16.5"
11:00	REFILL
11:05	10"
11:10	10.5"
11:15	11"

CALCULATED PERCOLATION RATE: 10 MIN/IN

--- HOUSE SITE DEVELOPMENT ---

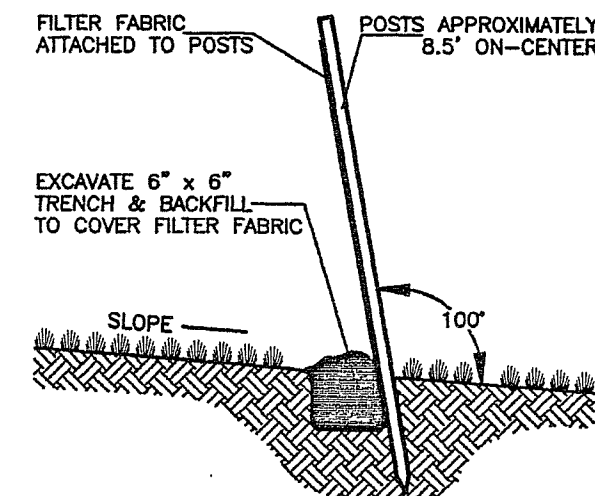
- THE FOLLOWING PROCEDURES FOR THE DEVELOPMENT OF THESE LOTS ARE RECOMMENDED:
- THE LIMITS OF DISTURBANCE SHALL BE ESTABLISHED IN THE FIELD FOR THE PROPOSED RESIDENTIAL STRUCTURE. DISTURBANCE LIMITS OF 25-35 FEET BEYOND THE PHYSICAL DIMENSIONS OF THE STRUCTURE AND RELATED APPURTENANCES IS RECOMMENDED.
 - DRIVEWAY SHOULDERS SHOULD BE STABILIZED IMMEDIATELY UPON COMPLETION OF ROUGH GRADING. SHOULDER SEED BED PREPARATION SHOULD BE USED TO ENTRAP ANY SEDIMENT GENERATED FROM EXPOSED SOIL SURFACES. DRIVEWAY ROADBEDS SHALL BE STABILIZED WITH COMPACTED ROAD AGGREGATES AS SOON AS POSSIBLE.
 - TOPSOIL AND EXCAVATED SUBSOIL FROM THE FOUNDATION AREA SHOULD BE STOCKPILED WITHIN THE AREA OF DISTURBANCE IF NOT USED FOR ONSITE REGRADING. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENT CONTROL MATERIALS (i.e., HAY-BALES AND/OR SILT FENCE).
 - ANY ADDITIONAL STOCKPILING OF LUMBER AND BUILDING MATERIALS SHOULD ALSO BE CONFINED TO THE AREA OF DISTURBANCE. SIMILARLY, VEHICULAR MOVEMENT SHALL BE DIRECTED TO ESTABLISHED PARKING AREAS. DEVELOPMENT OF SEWAGE DISPOSAL LEACHING AREAS SHOULD BE STAGED TO FOLLOW HOUSE SITE PREPARATION. ONLY THE PRIMARY LEACHING SYSTEM NEED BE CLEARED OF EXISTING VEGETATION IN COORDINATION WITH THE APPROVED SEPTIC SYSTEM DESIGN. RESERVE AREA SHALL REMAIN UNDISTURBED IF SITE CONDITIONS PERMIT.
 - ONCE THE PROPOSED STRUCTURE IS ENCLOSED, ALL EFFORTS SHOULD BE MADE TO COMPLETE ON SITE IMPROVEMENTS SUCH AS WELL, FOOTING DRAIN, SEPTIC SYSTEM, DRIVEWAY, ETC.. THEREAFTER, ALL RAW SOIL AREAS SURROUNDING THE HOME SITE SHALL BE FINE GRADED AND MULCHED.

TEMPORARY SEEDING SCHEDULE:

SPECIES	LBS./ACRE	LBS./1000 S.F.	SEEDING DATES
ANNUAL RYE GRASS	40	0.9	3/1 - 6/15, 8/1 - 10/1
WINTER RYE	40	0.9	4/15 - 6/15, 8/15 - 10/1
SUDAN GRASS	11	0.25	5/15 - 8/15

TEMPORARY SEEDING IS NOT LIMITED TO THE SPECIES SHOWN, OTHER SPECIES RECOMMENDED BY THE SCS OR AS DICTATED BY SITE CONDITIONS MAY BE USED.

STRAW MULCH IS TO BE APPLIED TO SEEDED AREA AT THE RATE OF 1-1/2 TO 2 TONS PER



SILT FENCE DETAIL
NOT TO SCALE

--- GENERAL NOTES ---

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EXCAVATION OR DISTURBANCE OF EXISTING GROUND.

EXCAVATIONS WHICH MUST BE DEWATERED WILL BE PUMPED INTO AN EXCAVATED STILLING BASIN SURROUNDED WITH SILT FENCING.

DEBRIS AND OTHER WASTE GENERATED FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION WILL NOT BE DISCARDED ON THE SITE.

IN THE EVENT OF CONFLICT BETWEEN THESE PLANS AND OTHER REGULATIONS, THE MORE STRINGENT SHALL APPLY.

A. SEED-BED PREPARATION: FINE GRADE AND RAKE SOIL SURFACE TO REMOVE STONES LARGER THAN 2" DIAMETER. INSTALL NEEDED EROSION CONTROL DEVICES SUCH AS SURFACE WATER DIVERSIONS. APPLY LIMESTONE AT A MINIMUM RATE OF 2 TONS PER ACRE OR 90 LBS PER 1000 SQUARE FEET. FERTILIZE WITH 10-10-10 AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 SQUARE FEET. WORK LIME AND FERTILIZER INTO SOIL UNIFORMLY TO A DEPTH OF 4" WITH A WISK, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT FOLLOWING THE CONTOUR LINES.

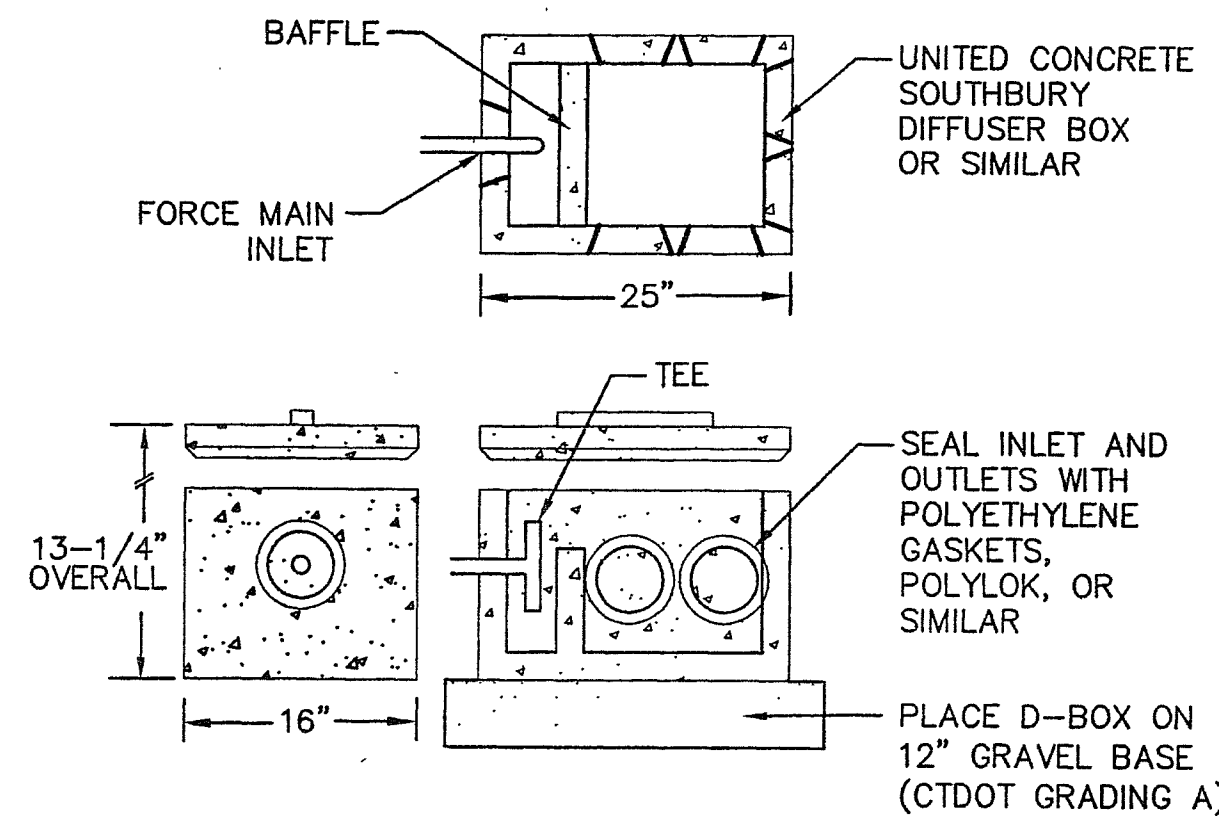
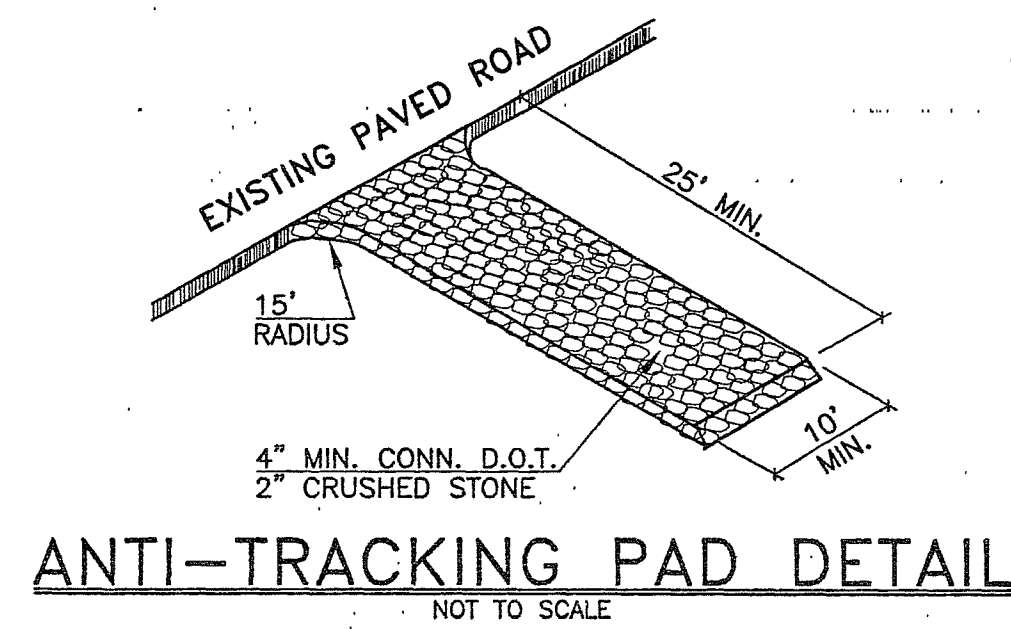
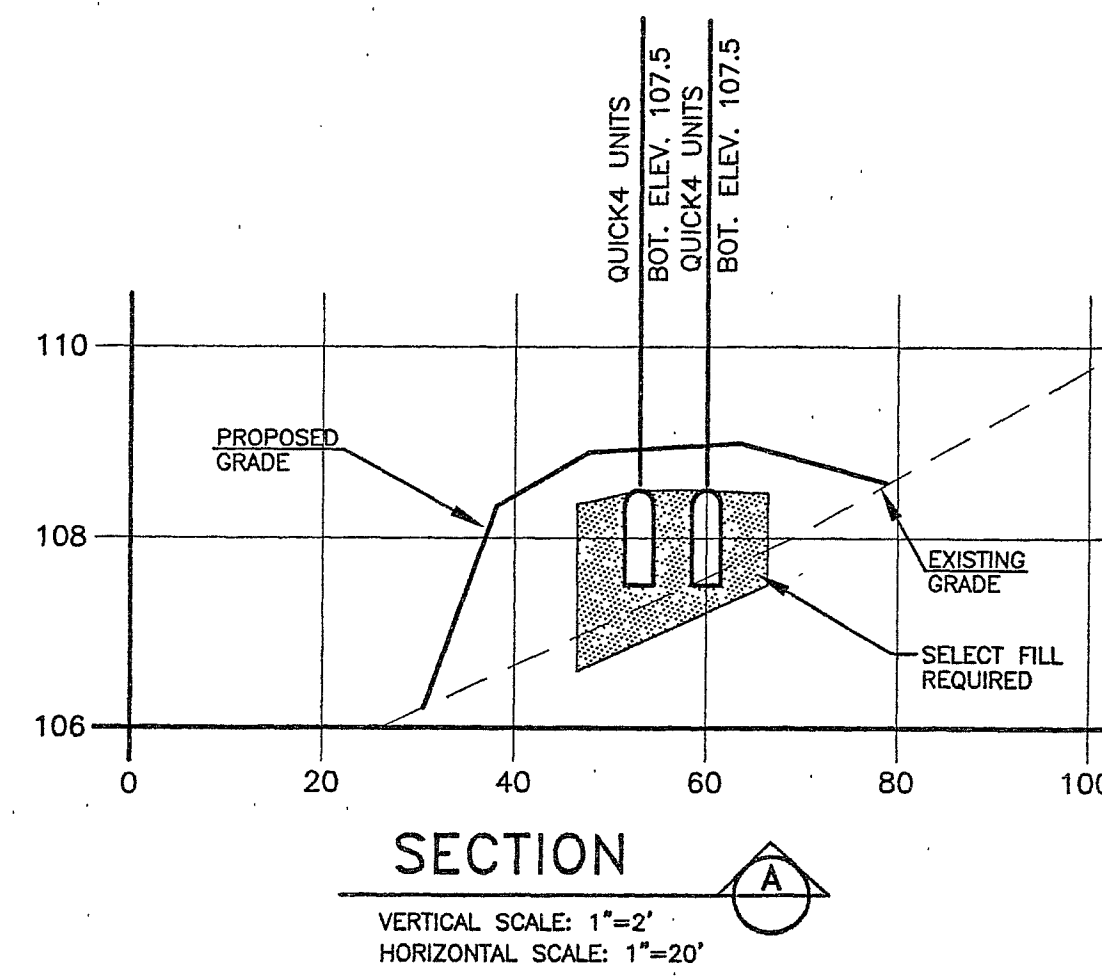
B. SEED APPLICATION: APPLY GRASS SEED MIXTURE BY HAND, CYCLONE SEEDER OR HYDROSEEDER. INCREASE SEED MIXTURE BY 10 PERCENT IF HYDROSEEDING. LIGHTLY DRAG OR ROLL THE SEEDED SURFACE TO COVER SEED. SEED SHALL CONSIST OF A MIXTURE OF KENTUCKY BLUEGRASS (0.45 LBS./1000 SQ.FT.), CREEPING RED FESCUE (0.45 LBS./1000 SQ.FT.), AND PERENNIAL RYEGRASS (0.10 LBS./1000 SQ.FT.). SEEDING OF PERMANENT GRASS SEED SHALL BE DONE BETWEEN APRIL 15 THROUGH JUNE 15 AND AUGUST 15 THROUGH SEPTEMBER 15. IN THE EVENT SEEDING CANNOT BE COMPLETED DURING THE ABOVE DATES, A TEMPORARY GRASS SEED CONSISTING OF 1.0 LBS./1000 SQ.FT. OF ANNUAL RYE GRASS SHALL BE APPLIED. MOISTURE CONDITIONS SHALL BE SUPPLEMENTED FOR TEMPORARY SEEDING BETWEEN JUNE 15 AND AUGUST 15.

C. MULCHING: IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEEDED SURFACE, WITH STRAW OR HAY AT A RATE OF 1.5 TO 2 TONS PER ACRE WHERE SLOPES EXCEED 10 PERCENT. SPREAD MULCH BY HAND OR MULCH BLOWER. PUNCH MULCH INTO SOIL SURFACE WITH TRACK MACHINE OR DISH HARROW SET STRAIGHT UP. MULCH MATERIAL SHOULD BE "SET" INTO SOIL SURFACE APPROXIMATELY 2-3 INCHES.

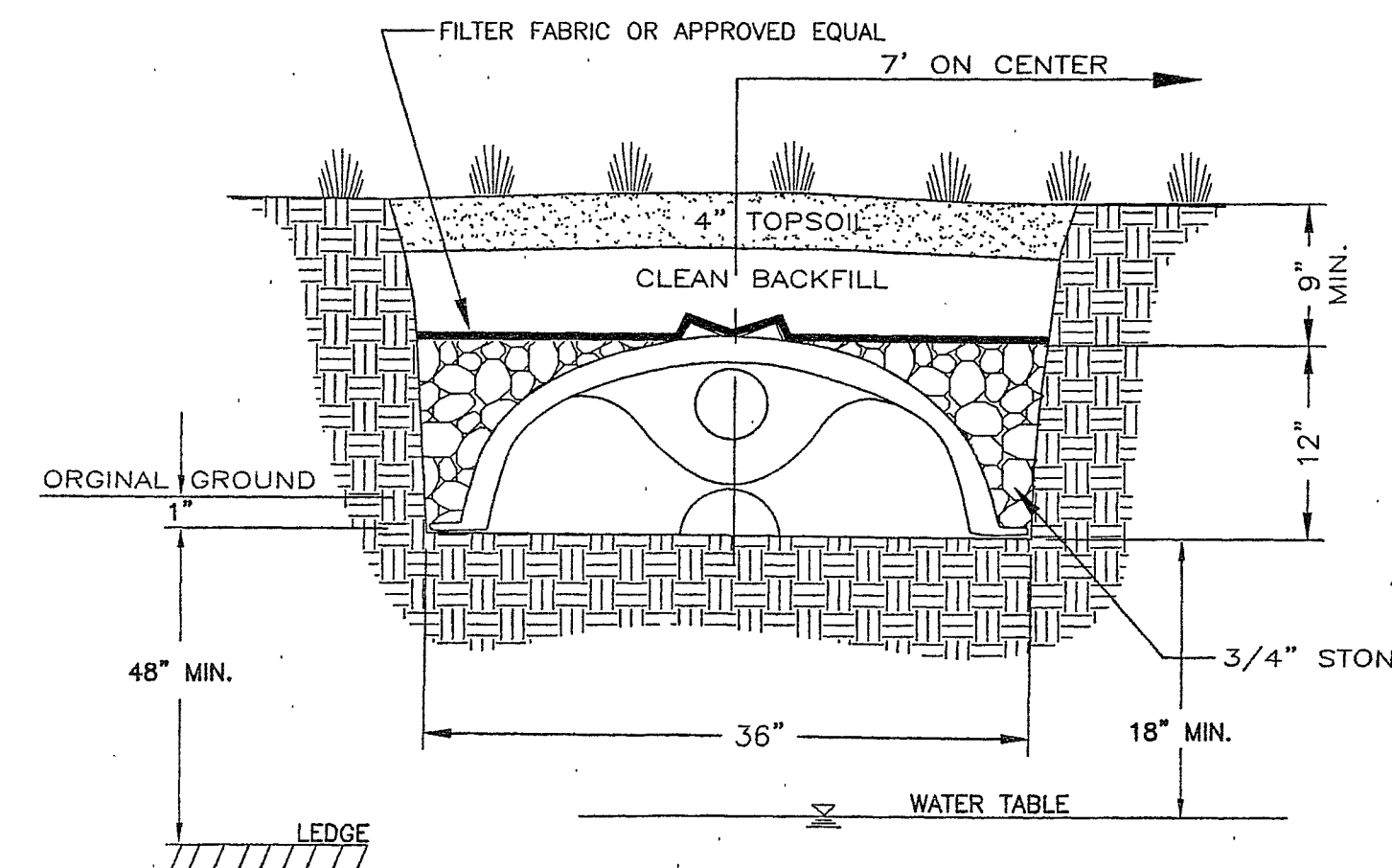
--- PLAN IMPLEMENTATION ---

DURING CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF KAPP MAHAPOT (860-604-2589) TO INSURE THE IMPLEMENTATION OF THIS EROSION AND SEDIMENTATION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE SITE OF THE REQUIREMENTS AND OBJECTIVES OF THIS PLAN, AND NOTIFYING THE WETLAND AGENT OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT PLAN IF AND WHEN TITLE OF THE LAND IS TRANSFERRED.

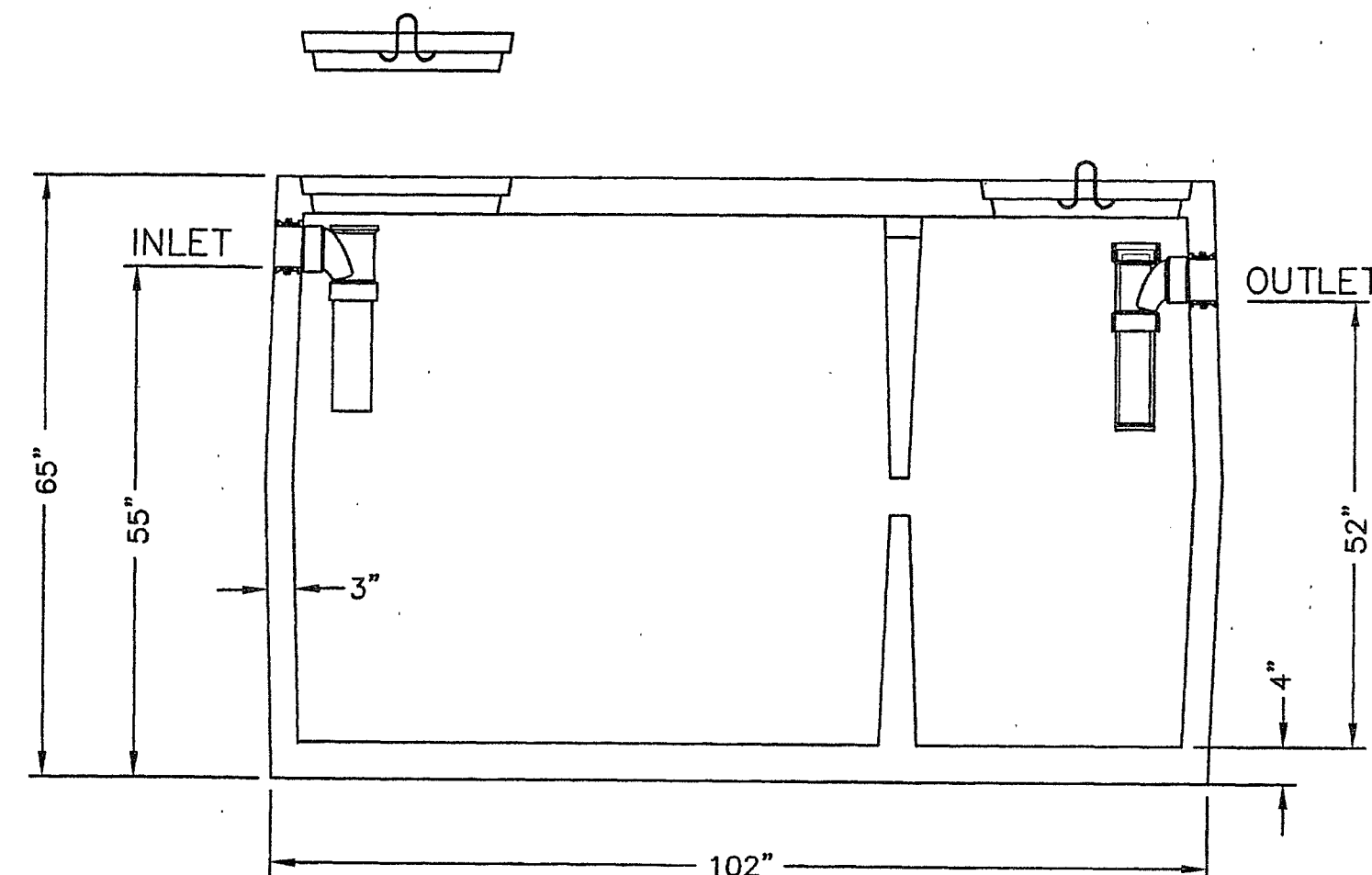
EDWARD PELETIER, RLS 14023



DISTRIBUTION BOX-1
NOT TO SCALE



QUICK4 INFILTRATOR - LEACHING CHAMBER
NO SCALE



1,000-GALLON SEPTIC TANK

DIMENSIONS - 102" LONG x 57" WIDE x 65" HIGH
MANUFACTURED BY CONCRETE PRODUCTS OF CONN.
NOT TO SCALE

**SUBSURFACE SEWAGE
DISPOSAL DESIGN**

PREPARED FOR

KAPP MAHAPOT

BUNKER HILL ROAD
COVENTRY, CONNECTICUT

SCALE AS NOTED

DATE: JULY 15, 2020

SHEET 2 OF 2

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ENGINEERING & SURVEYING, LLC

132 CONANTVILLE ROAD
MANSFIELD CENTER, CT 06250
TEL (860)456-1357 FAX (860)456-1840
JOB NO. 220018

PROFESSIONAL ENGINEER AS LICENSED BY THE STATE OF CONNECTICUT
DEPARTMENT OF CONSUMER PROTECTION.

GERALD HARDISTY, P.E. #15974

CHECKED BY: CORRECTIONS BY: