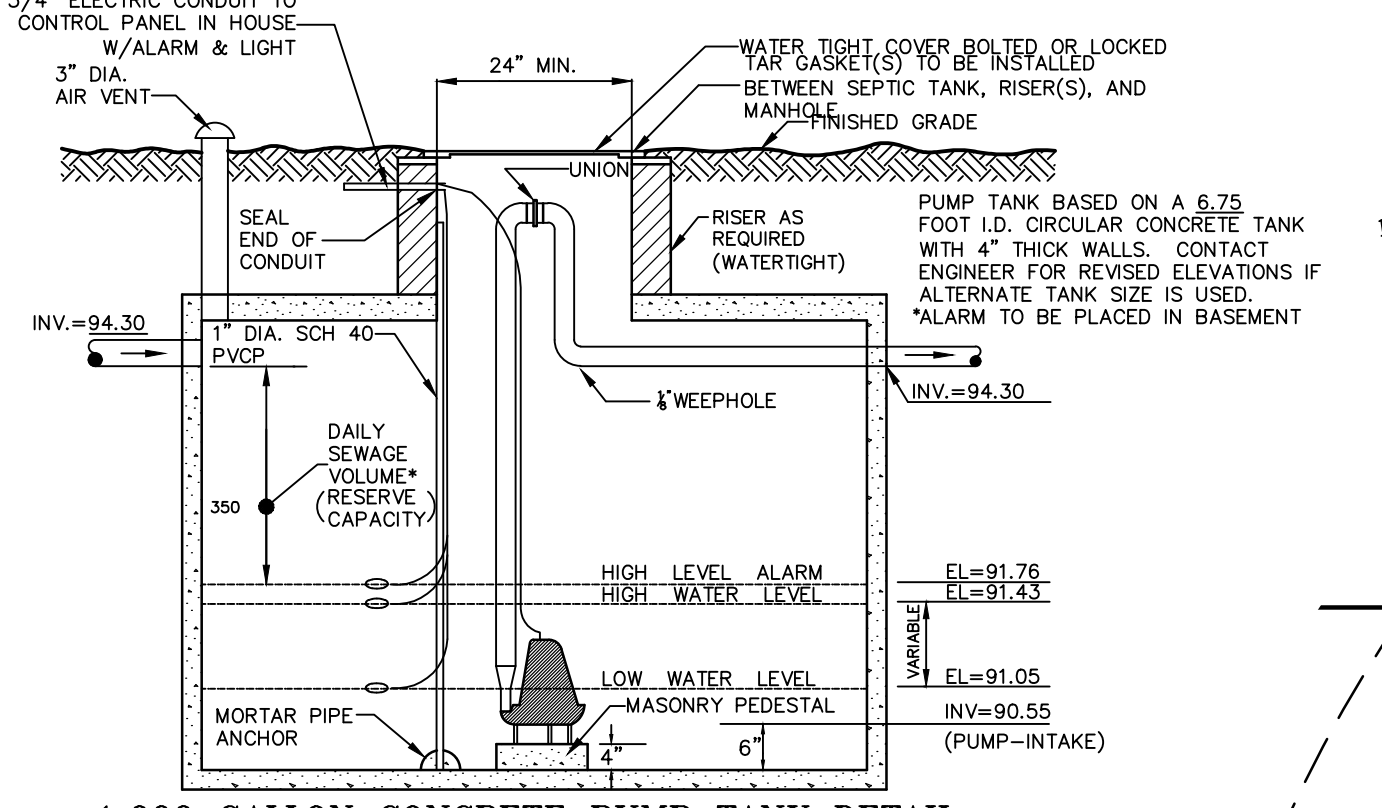
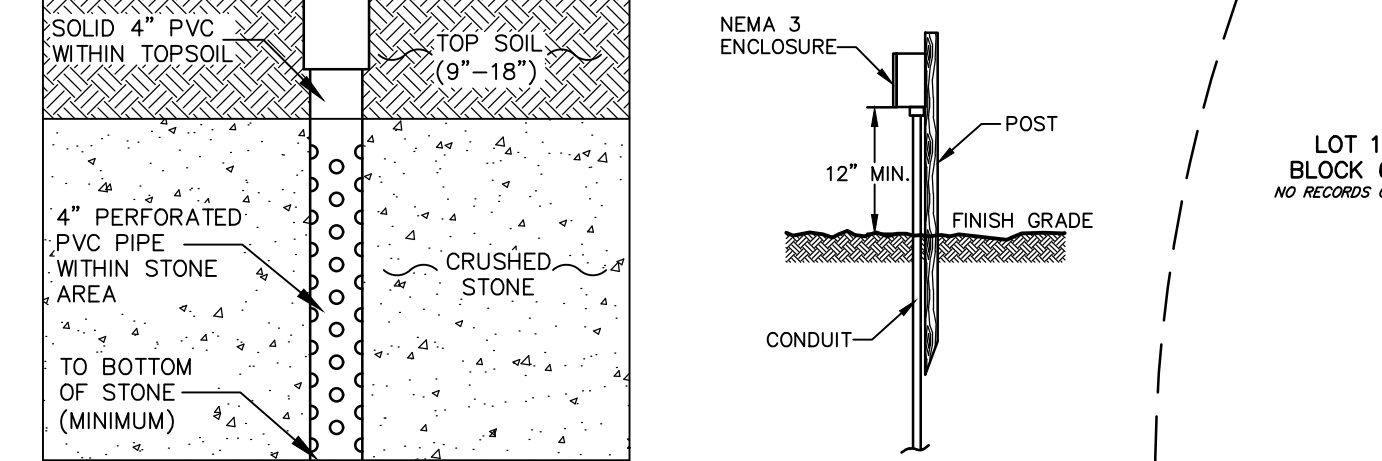


**1,500 GALLON 2-COMPARTMENT CONCRETE SEPTIC TANK DETAIL**  
(N.T.S.)

**TANK NOTES:**  
 1) ALL TANKS, INCLUDING RISERS AND INSPECTION PORTS TO THE HIGHEST JOINT, SHALL BE TESTED FOR WATER TIGHTNESS AFTER INSTALLATION (AND BEFORE BACKFILLING) USING HYDROSTATIC OR VACUUM TESTS.  
 2) A SEPTIC SOLIDS RETAINER OR EFFLUENT FILTER SHALL BE INSTALLED AND MAINTAINED IN CONJUNCTION WITH THE TANK PRIOR TO THE DISTRIBUTION NETWORK. THE SOLIDS RETAINER OR EFFLUENT FILTER MUST BEAR THE MARK OF NSF INTERNATIONAL UNDER NSF STANDARD 46.  
 3) FILTER & HOUSING SHOWN MEETS NJAC 7:9A-8.2(1) & NSF REQUIREMENTS. ANY FILTER MAY BE SUBSTITUTED FOR IN LIEU OF THE PL-68 MODEL, AS LONG AS IT MEETS THESE REQUIREMENTS.



**1,000 GALLON CONCRETE PUMP TANK DETAIL**  
(N.T.S.)



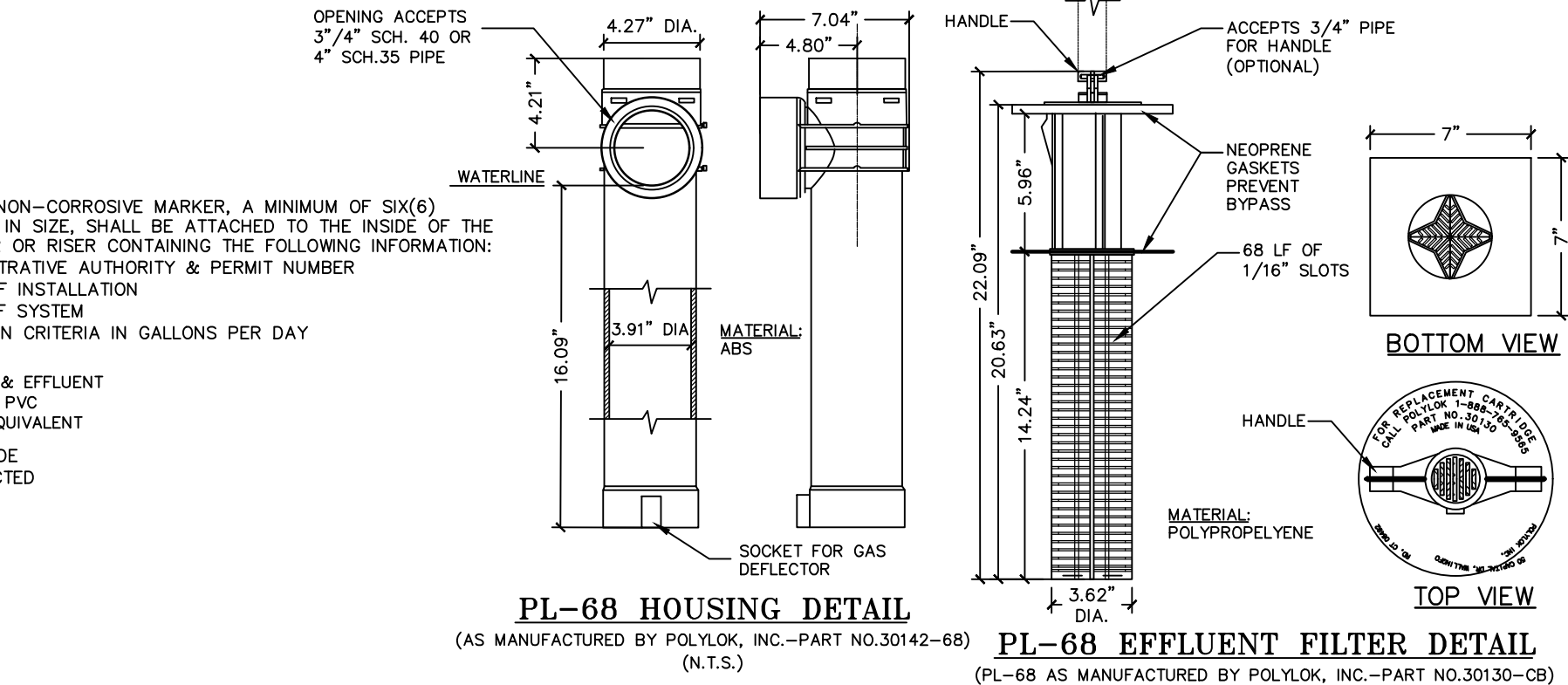
**PUMP TANK ELECTRICAL JUNCTION BOX DETAIL**  
(N.T.S.)

**INSTALLATION NOTES**

- 1) ALL EQUIPMENT MATERIAL AND INSTALLATION PROCEDURES TO CONFORM TO CURRENT NJAC 7:9A-8.2(1) ET SEQ. FOR STANDARDS FOR INDIVIDUAL SUBSURFACE DISPOSAL SYSTEMS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL EQUIPMENT, MATERIAL, AND INSTALLATION PROCEDURES CONFORM TO APPLICABLE STATE AND LOCAL STANDARDS PRIOR TO INSTALLATION OF SYSTEM.
- 2) ANY FIELD CHANGE IN PIPE OR EQUIPMENT DIMENSIONS, EQUIPMENT SIZING, OR ELEVATIONS TO BE APPROVED BY ENGINEER AND LOCAL BOARD OF HEALTH. CONTRACTOR IS TO INFORM ENGINEER OF ANY CHANGES PRIOR TO INSTALLATION OF ANY SYSTEM COMPONENTS OR MATERIALS.
- 3) CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING DISPOSAL FIELD FROM CONSTRUCTION VEHICLE TRAFFIC AND PROTECTION FROM THE ELEMENTS DURING INSTALLATION. NO DISPOSAL FIELD EXCAVATION SHALL BE PERMITTED DURING RAIN. IF THE OPEN DISPOSAL FIELD IS EXPOSED TO RAIN, ALL SURFACES SHALL BE REMOVED PRIOR TO PROCEEDING, AND ANY SILT DEPOSITS SHALL BE REMOVED FROM THE EXCAVATION.
- 4) ELECTRICAL WIRING TO BE INSTALLED UNDER DIRECT SUPERVISION OF A LICENSED ELECTRICAL CONTRACTOR ACCORDING TO CURRENT NEC, STATE, AND LOCAL ELECTRICAL CODES, AS APPLICABLE. DELIVERY AND ALL PIPE NETWORKS FOR PRESSURE DOSING SYSTEMS TO BE PVC SCHEDULE 40 WITH WATER TIGHT SOLVENT MELLOW JOINTS. THE ENDS OF EACH LATERAL SHALL BE CAPPED AND DRILLED WITH A HORIZONTAL 1/8\"
- 5) SEPTIC PUMP TO BE GOULDS MODEL NO. 38878E 1/2HP SUBMERSIBLE SEWAGE PUMP, OR EQUAL, RATED FOR 300 GPM AT 12.6 FEET OF WATER HEAD. ELECTRICAL CONTROL BOX TO BE GOULDS MODEL A3-2012 OR EQUAL, FURNISHED WITH SEPARATE FLOAT CONTROLS (TWO GOULDS MODEL A2-3 FLOATS) FOR PUMP ON-PUMP OFF, AND A HAND-OFF-AUTOMATIC SWITCH. A SOLIDS 14-2 HIGH LEVEL ALARM FLOAT AND MANUATOR PANEL WITH LIGHT AND HORN, TO BE FURNISHED AND INSTALLED ON A SEPARATE BREAKER THAN PUMP CONTROL PANEL BREAKER, PER ALL APPLICABLE NJAC 7:9A-8.2(1) ET SEQ. AND LOCAL REQUIREMENTS.
- 6) CONTRACTOR TO INSTALL ALL CONCRETE TANKS ON A UNIFORMLY FIRM AND STABLE COMPACTED GROUND TO PREVENT DAMAGE TO TANK AND TO PREVENT SETTLEMENT. A GROUDED STONE BEDDING IS RECOMMENDED TO PROVIDE UNIFORM SUPPORT TO BOTTOM OF TANK. ALL BACKFILL AROUND TANKS TO BE FREE OF LARGE STONES, ROOTS, OR ORGANIC MATERIAL, AND TO BE PLACED AND COMPACTED IN A MANNER WHICH WILL PREVENT UNEVEN SETTLEMENT OR DAMAGE TO THE TANK. PER STATE AND LOCAL REQUIREMENTS, ELEVATIONS FROM ALL CONNECTING PIPES, AND TANK INSTALLATION ELEVATIONS TO BE CHECKED AND VERIFIED PRIOR TO SETTING TANK IN GROUND.
- 7) SEPTIC TANK(S) AND PUMP TANK(S) TO BE WATER TIGHT, AND COATED WITH 2 COATS OF ACCEPTABLE MATERIAL, OF SECTION NJAC 7:9A-8.2 AND NJAC 7:9A-8.2 AS APPLICABLE.
- 8) CERTIFIED SUITABLE FILL MATERIAL, AS NOTED ON THE PLAN, TO BE SUPPLIED WITH WRITTEN CERTIFICATION OF CONFORMANCE TO NJAC 7:9A-10.1 (1)A, AND (1)S REQUIREMENTS OF SUBCHAPTER 10, AND TO THE SATISFACTION OF THE LOCAL BOARD OF HEALTH AND THE ENGINEER.
- 9) CONTRACTOR TO VERIFY LOCAL BOARD OF HEALTH INSPECTION SCHEDULES AND REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION. NO WORK IS TO BE BACKFILLED UNTIL NECESSARY BOARD OF HEALTH AND ENGINEER INSPECTIONS AND APPROVALS HAVE BEEN OBTAINED.
- 10) ANY DISCREPANCIES BETWEEN THE SITE INFORMATION PROVIDED ON THE PLAN, AND THOSE FOUND AT THE SITE BY THE SYSTEM INSTALLER SHALL BE REPORTED TO THE DESIGN ENGINEER AT ONCE. FIELD CHANGES ARE NOT PERMITTED. ANY DEVIATION TO THE APPROVED PLAN SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER AND HEALTH DEPARTMENT.
- 11) ANY SMOOLED OR COMPACTED SOIL SURFACE WITHIN THE BED EXCAVATION WALLS OR BOTTOM SHALL BE SCARIFIED OR REMOVED TO EXPOSE A FRESH SOIL SURFACE WHICH IS ROUGH AND UNWEEN.
- 12) DISPOSAL SYSTEM INSTALLER SHALL LOCATE ALL BURIED UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES. CALL NEW JERSEY ONE CALL (800) 272-1000 FOUR (4) WORKING DAYS BEFORE EXCAVATION.
- 13) ANY AREA ON UP HILL SIDE OF DISPOSAL BED TO BE GRADED TO DIVERT SURFACE WATER RUNOFF AWAY FROM DISPOSAL BED.

**SOIL EROSION AND CONTROL NOTES**

- 1) ALL SOIL EROSION AND CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH NJ, COUNTY, AND LOCAL STANDARDS, AND MAINTAINED UNTIL PERMANENT PAVING IS COMPLETED.
- 2) STABILIZE PER FOLLOWING SPECIFICATIONS:  
 TIME: 90 LB/1000 SQ. FT.  
 FERTILIZER: 10-20-10 (OR EQUIVALENT)  
 SEED MIX: ANNUAL RYEGRASS MIXED WITH SEED TO MATCH ANY LOCAL OR EXISTING CONDITIONS  
 MULCH: SALT HAY OR SMALL GRAIN HAY, INSTALLED PER NJ STANDARDS AND SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, LIQUID MULCH BLENDERS)
- 3) TEMPORARY BERMS TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS PER NJ STANDARDS.
- 4) SITE GRADING TO BE AT ALL TIMES MAINTAINED TO CONTROL STORM WATER RUNOFF TO APPROVED SOIL EROSION AND CONTROL FACILITIES.
- 5) STOCKPILES TO BE PROTECTED WITH HAY BALE BARRIERS, OR SEDIMENT FENCE, AND LOCATED OVER 50' FROM FLOOD PLANS.
- 6) ANY PAVED ROADWAYS TO BE KEPT CLEAN AT ALL TIMES.
- 7) THE LOCAL COUNTY SOIL CONSERVATION DISTRICT MAY REQUIRE ADDITIONAL MEASURES TO MINIMIZE SOIL EROSION DAMAGE, AND ANY ADDITIONAL MEASURES TO BE FOLLOWED PRIOR TO ANY CONSTRUCTION.

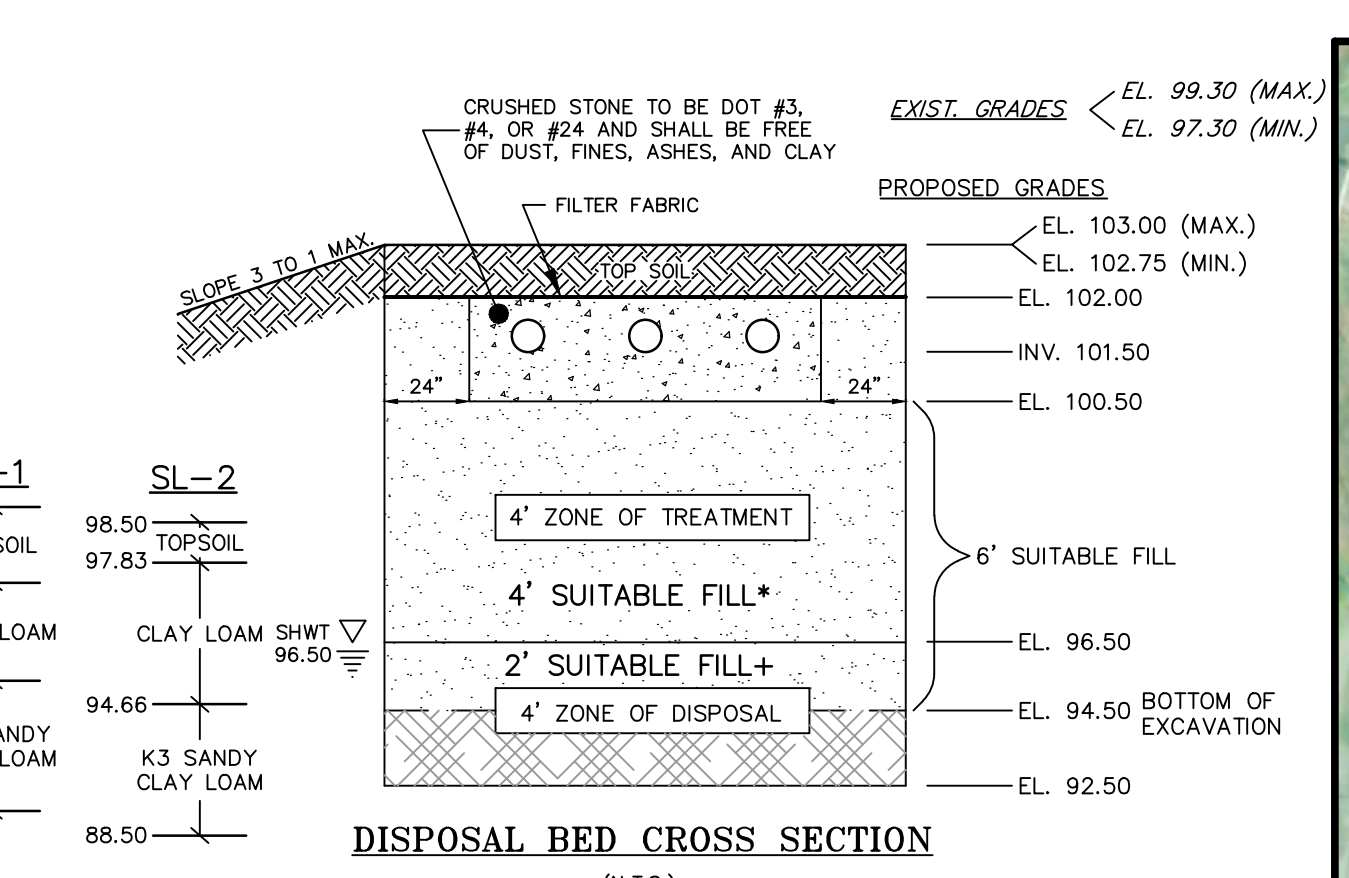


**PL-68 HOUSING DETAIL**  
(AS MANUFACTURED BY POLYLOK, INC.-PART NO.30142-68)  
(N.T.S.)

**PL-68 EFFLUENT FILTER DETAIL**  
(PL-68 AS MANUFACTURED BY POLYLOK, INC.-PART NO.30130-68)  
(N.T.S.)

**SOIL LOGS:**

SOIL LOG	PERFORMED	DATE	DEPTH	DESCRIPTION
SL-1	PERFORMED APRIL 27, 2020	0\"/>		

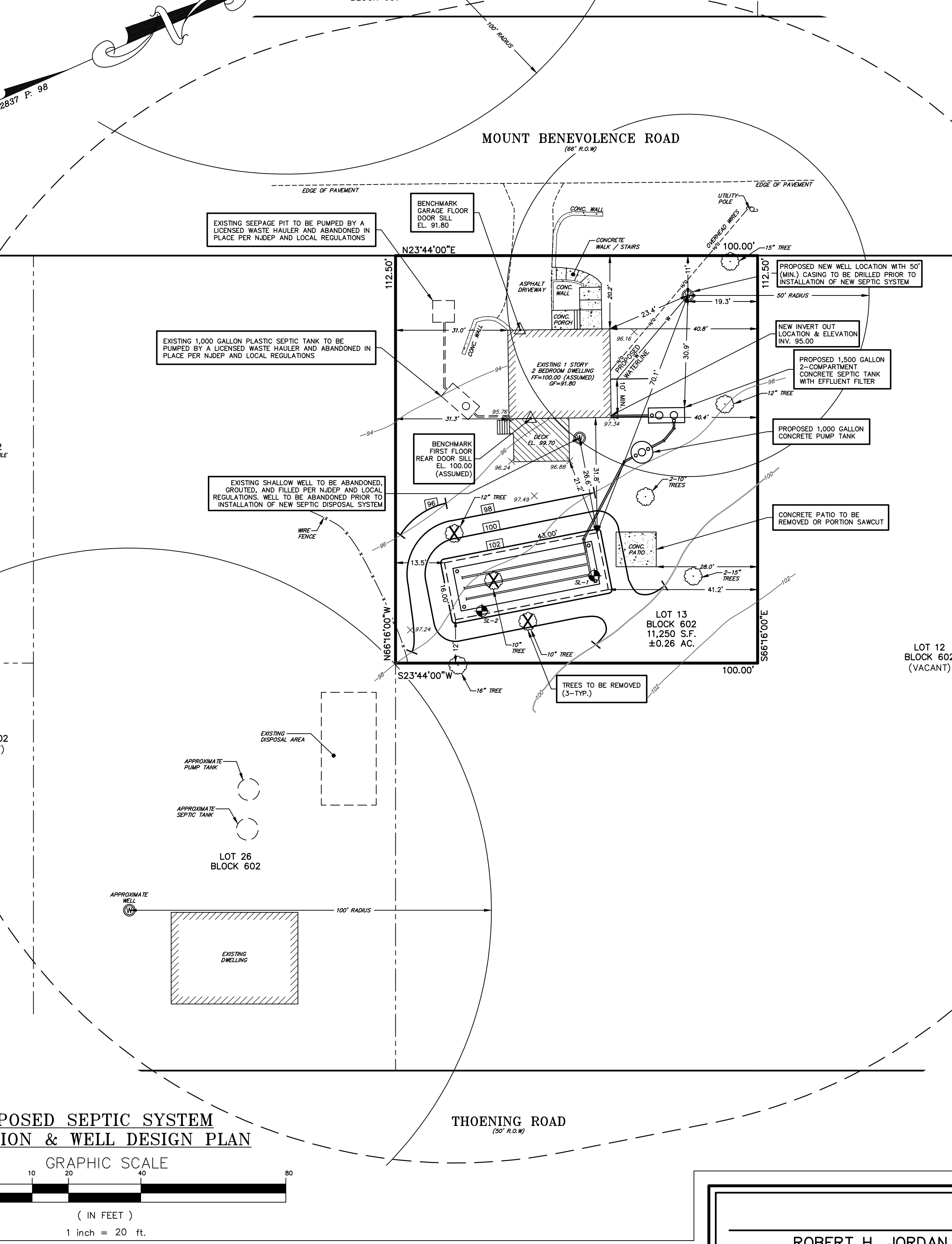


- \* SUITABLE FILL MATERIAL** THAT IS UTILIZED WITHIN THE ZONE OF TREATMENT SHALL MEET THE FOLLOWING REQUIREMENTS:
- COARSE FRAGMENT CONTENT (GREATER THAN A No. 8 SIEVE) LESS THAN 10% BY VOLUME OR LESS THAN 20% BY WEIGHT
  - TEXTURAL ANALYSIS (COMPOSITION BY WEIGHT, OF SIZE FRACTION PASSING THE PARTICULAR SIEVE AS STATED BELOW) BETWEEN 80 TO 100 PERCENT MUST PASS A No. 8 SIEVE (2.5mm); BETWEEN 50 AND 85 PERCENT MUST PASS A No. 16 SIEVE (1.18mm); BETWEEN 25 AND 60 PERCENT MUST PASS A No. 30 SIEVE (0.6mm); BETWEEN 10 AND 30 PERCENT MUST PASS A No. 50 SIEVE (0.3mm); AND BETWEEN 2 AND 10 PERCENT MUST PASS A No. 100 SIEVE (0.15 mm) AND
  - PERMEABILITY FOR THIS MATERIAL IS ESTABLISHED AT THE RANGE OF 6 TO 20 INCHES PER HOUR FOR DESIGN PURPOSES.
- \* SUITABLE FILL MATERIAL** THAT IS UTILIZED WITHIN THE ZONE OF DISPOSAL SHALL MEET THE ABOVE REQUIREMENTS OR THE FOLLOWING REQUIREMENTS:
- COARSE FRAGMENT CONTENT LESS THAN 15 PERCENT BY VOLUME OR LESS THAN 25 PERCENT BY WEIGHT
  - TEXTURAL ANALYSIS (COMPOSITION BY WEIGHT, OF SIZE FRACTION PASSING THE TWO MILLIMETER SIEVE) 85 PERCENT OR MORE SAND; AND PERMEABILITY GREATER THAN TWO INCHES PER HOUR; OR PERCOLATION RATE FASTER THAN 30 MINUTES PER INCH.

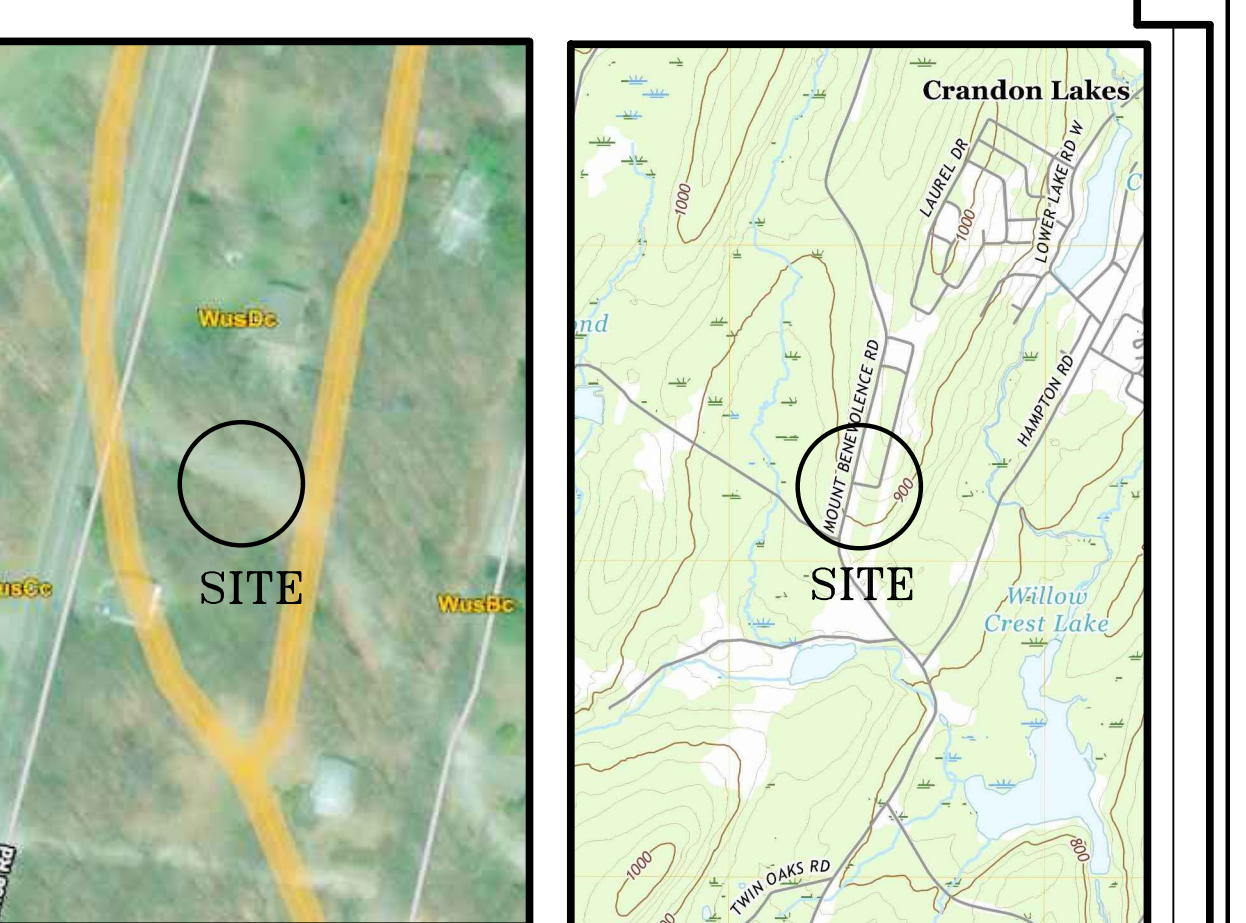
**DESIGN DATA**

NUMBER OF BEDROOMS: 2  
 ASSUMED GALLONS PER DAY: 350  
 SOIL PERMEABILITY: K4 SUITABLE FILL  
 SOIL SUITABILITY CLASSIFICATION: IIIW  
 BED AREA REQUIRED = 465.50 S.F.  
 (350 (G.P.D.) X 1.33 (FT /G.P.D.))  
 AREA PROVIDED = 468.00 S.F.  
 (12.00' X 39.00')

PLUMBING WITHIN DWELLING TO BE MODIFIED TO OUTLET AT NEW LOCATION AND ELEVATION



**PROPOSED SEPTIC SYSTEM ALTERATION & WELL DESIGN PLAN**



**LOCATION PLAN SOIL SURVEY** SCALE: N.T.S.  
**LOCATION PLAN FROM U.S.G.S.** SCALE: (1"=2000')

**INSPECTION NOTES**

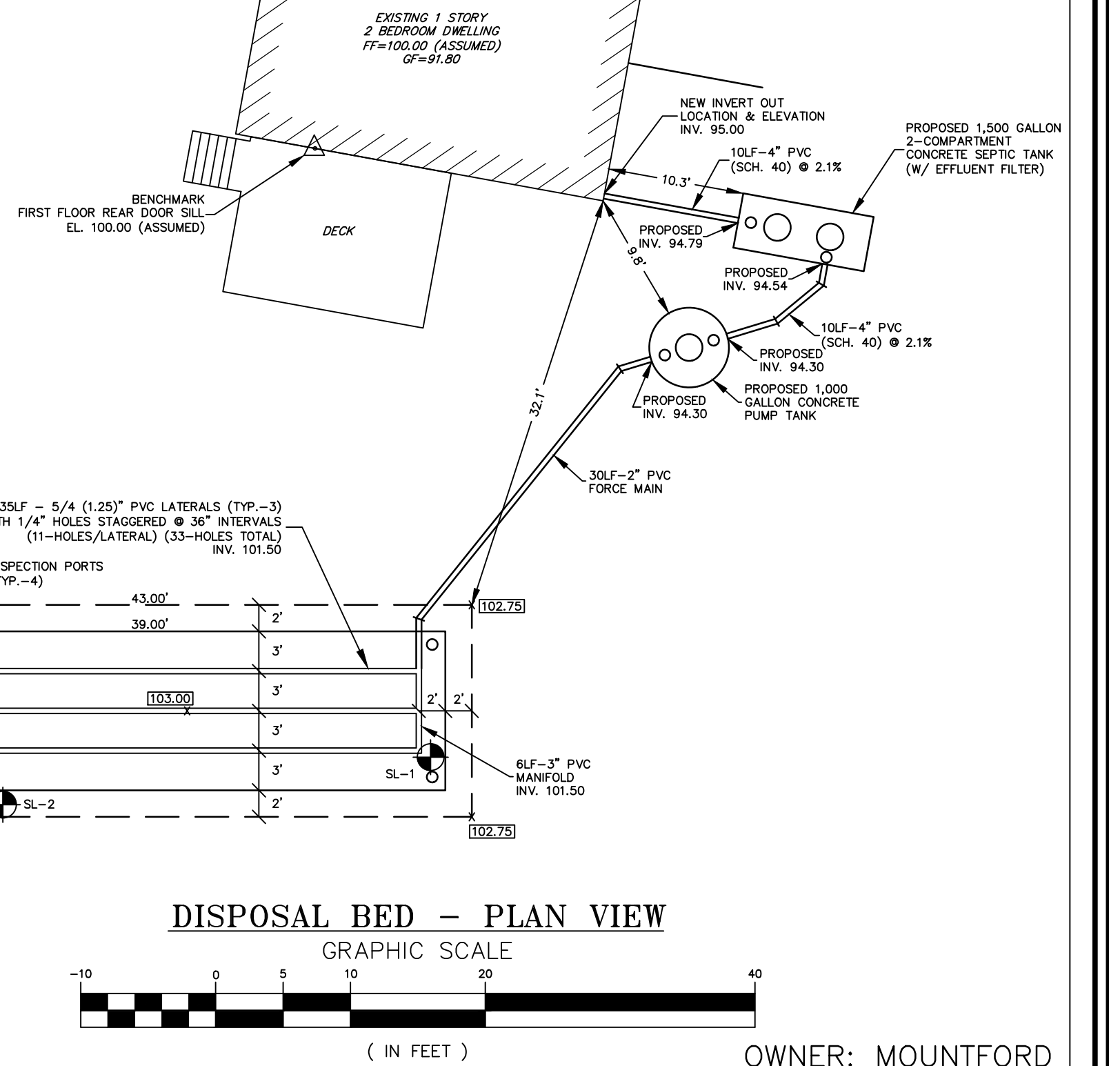
- 1) THE INSTALLATION MUST BE INSPECTED BY THE DESIGN ENGINEER AND HEALTH DEPARTMENT PER APPLICABLE STATE AND LOCAL REQUIREMENTS.
- 2) THE CONTRACTOR TO VERIFY ENGINEERING INSPECTION REQUIREMENTS, INSPECTION FEES, AS-BUILT DRAWING REQUIREMENTS, AND LABORATORY INSPECTION FEES WITH DESIGN ENGINEER PRIOR TO CONSTRUCTION.
- 3) PRIOR TO THE START OF CONSTRUCTION, SEPTIC INSTALLER TO SUPPLY SUITABLE FILL TO ENGINEER FOR LABORATORY TESTING. NO FILL MATERIAL TO BE INSTALLED UNTIL ACCEPTABLE TEST RESULTS ARE RECEIVED.
- 4) CONTRACTOR TO VERIFY LOCAL BOARD OF HEALTH INSPECTION SCHEDULES AND REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION. NO WORK IS TO BE BACKFILLED UNTIL NECESSARY BOARD OF HEALTH AND ENGINEER INSPECTIONS AND APPROVALS HAVE BEEN OBTAINED.
- 5) MINIMUM 72 HOUR NOTICE MUST BE GIVEN TO ENGINEER PRIOR TO INITIAL (BOTTOM OF BED) INSPECTIONS. MINIMUM 24 HOUR NOTICE MUST BE GIVEN TO ENGINEER FOR ALL OTHER INSPECTIONS INCLUDING, BUT NOT LIMITED TO, TOP OF SUITABLE FILL, PIPING INSTALLATION & FINAL GRADING.
- 6) IT IS THE INSTALLER'S RESPONSIBILITY TO CONTACT THE DESIGN ENGINEER FOR ALL OF THE INSPECTIONS. THE ENGINEER RESERVES THE RIGHT TO HAVE WORK UNCOVERED FOR PROPER INSPECTION IF NOT CONTACTED. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR LONG TIME OR ADDITIONAL EXPENSE DUE TO THE INSTALLER'S FAILURE TO CONTACT ENGINEER FOR INSPECTIONS.
- 7) UNACCEPTABLE LABORATORY TEST OR INSPECTIONS WILL RESULT IN ADDITIONAL ENGINEERING INSPECTION FEES, IF APPLICABLE.
- 8) IF DESIGN ENGINEER IS NOT NOTIFIED OF INSPECTIONS AS STATED ABOVE, NO SIGN OFF WILL BE GIVEN.

**SEPTIC NOTES**

- 1) CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE SAFETY CODES. APPLICABLE SAFETY CODES SHALL MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS, AND ADDITIONS THERETO OF THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S "OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA)"; "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION" OF THE STATE OF NEW JERSEY, DEPARTMENT OF LABOR AND INDUSTRY; BUREAU OF ENGINEERING SAFETY, "CONSTRUCTION SAFETY CODE"; AND "MAINTENANCE", "CONSTRUCTION AND DEMOLITION", AND "BUILDING CODES".
- 2) ANY DISCREPANCIES BETWEEN THE SITE INFORMATION PROVIDED ON THE PLAN, AND THOSE FOUND AT THE SITE BY THE SYSTEM INSTALLER SHALL BE REPORTED TO THE DESIGN ENGINEER AT ONCE.
- 3) FIELD CHANGES ARE NOT PERMITTED. ANY DEVIATION TO THE APPROVED PLAN SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER AND HEALTH DEPARTMENT.
- 4) ANY SMOOLED OR COMPACTED SOIL SURFACE WITHIN THE BED EXCAVATION WALLS OR BOTTOM SHALL BE SCARIFIED OR REMOVED TO EXPOSE A FRESH SOIL SURFACE WHICH IS ROUGH AND UNWEEN.
- 5) SEPTIC SYSTEM INSTALLATION CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY IS TO BE REPORTED TO THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION. ENGINEER IS NOT RESPONSIBLE FOR ANY ITEMS NOT MARKED OUT OR INCORRECTLY MARKED OUT OR INCORRECTLY SHOWN ON TOWNSHIP OR COUNTY RECORDS. CALL NJ ONE CALL (800)-272-1000 OR APPROPRIATE UTILITY COMPANY.
- 6) ANY AREA ON UP HILL SIDE OF DISPOSAL BED TO BE GRADED TO DIVERT SURFACE WATER RUNOFF AWAY FROM DISPOSAL BED.

**DISPOSAL FIELD NOTES**

- 1) NO GARBAGE DISPOSAL OR WATER SOFTENERS UNITS ARE PERMITTED TO BE TIED TO THE SEPTIC SYSTEM.
- 2) ANY WORK TO BE DONE TO A EXISTING SEWER LINE MUST BE REVIEWED, APPROVED AND INSPECTED BY THE BUILDING DEPARTMENT.
- 3) THERE ARE NO WELLS WITHIN 100' OF THE PROPOSED DISPOSAL AREA AND NO EXISTING DISPOSAL FIELDS WITHIN 50' OF THE PROPOSED DISPOSAL AREA.
- 4) THERE ARE NO EXISTING UNDERGROUND UTILITIES IN THE AREA OF THE PROPOSED DISPOSAL FIELD.
- 5) ALL TREES WITHIN 10' OF THE PROPOSED SEPTIC MUST BE REMOVED.
- 6) FILL MATERIAL SHALL BE SPREAD AND COMPACTED IN LAYERS ONE FOOT OR LESS IN THICKNESS.
- 7) COMPACTOR MAY BE ACCOMPLISHED MANUALLY OR MECHANICALLY, BY TAMPING OR ROLLING, OR BY DRIVING OVER THE FILLED AREA IN A CONTROLLED PATTERN USING TRACKED OR RUBBER-TIRED VEHICLES. COMPACTOR MAY ALSO BE ACCOMPLISHED BY PULLING.
- 8) SEPTIC TANK(S) TO BE PUMPED OUT ON A REGULAR BASIS.
- 9) NO ADDITIONAL BEDROOMS CAN BE ADDED TO THE DWELLING.
- 10) THERE ARE NO WETLANDS WITHIN 100' OF THE PROPOSED SEPTIC DISPOSAL AREA PER NJ-GEOWM.
- 11) THERE ARE NO CT WATERWAYS WITHIN 300' OF THE PROPOSED SEPTIC DISPOSAL AREA PER NJ-GEOWM.



**DISPOSAL BED - PLAN VIEW**  
GRAPHIC SCALE (IN FEET) 1 inch = 10 ft.

- GENERAL NOTES**
- 1) LOT DIMENSIONS (METES AND BOUNDS) AND DWELLING LOCATION PER PROPERTY SURVEY PREPARED BY LAKELAND SURVEYING, JEFFREY S. GRUHN, N.J.L.S. NO. 43399 DATED 04/22/20.
  - 2) SOIL LOGS PERFORMED BY CIVIL ENGINEERING INC., JAMES G. GLASSON, N.J.P.E. NO. 37703 ON 04/27/20.
  - 3) TOPOGRAPHY AND LOCATIONS BY CIVIL ENGINEERING INC., ROBERT H. JORDAN, JR., N.J.P.L.S. NO. 34485 ON 04/27/20. VERTICAL DATUM ESTABLISHED FROM FIRST FLOOR REAR DOOR SILL EL. 100.00 (ASSUMED).

Rev. No.	Description	By	Date

**CIVIL ENGINEERING, INC.**

1 COVE STREET  
 BUDD LAKE, N.J. 07828  
 Telephone: (973) 426-1776  
 Fax: (973) 426-0716  
 N.J. - C of A #24GA27922000

**LOT 13 BLOCK 602 '1008 MT. BENEVOLENCE ROAD'**

TOWNSHIP OF STILLWATER  
 SUSSEX COUNTY, NEW JERSEY

Checked By: JG Date: 04/30/20  
 Drawn By: DH Project No: 6522

ROBERT H. JORDAN, Jr.  
PROFESSIONAL LAND SURVEYOR, N.J. LIC. NO. 34485

JAMES G. GLASSON  
PROFESSIONAL ENGINEER, N.J. LIC. NO. 37703