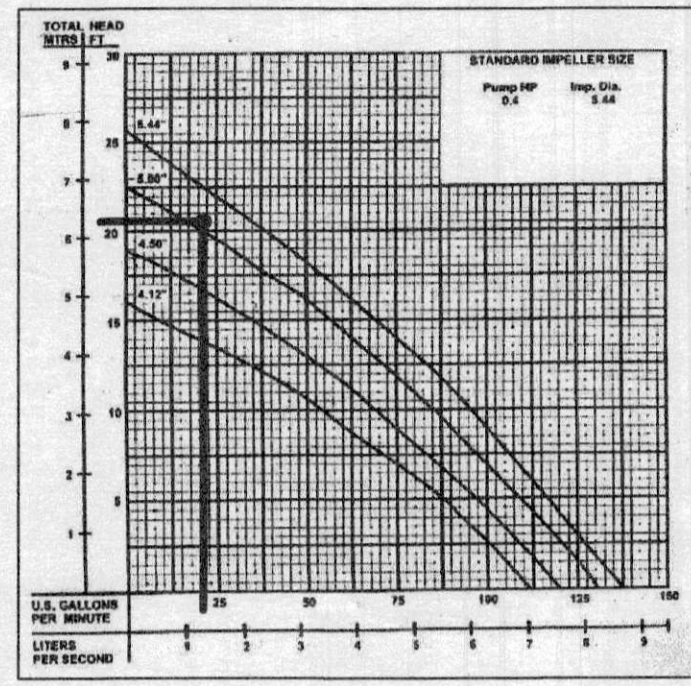
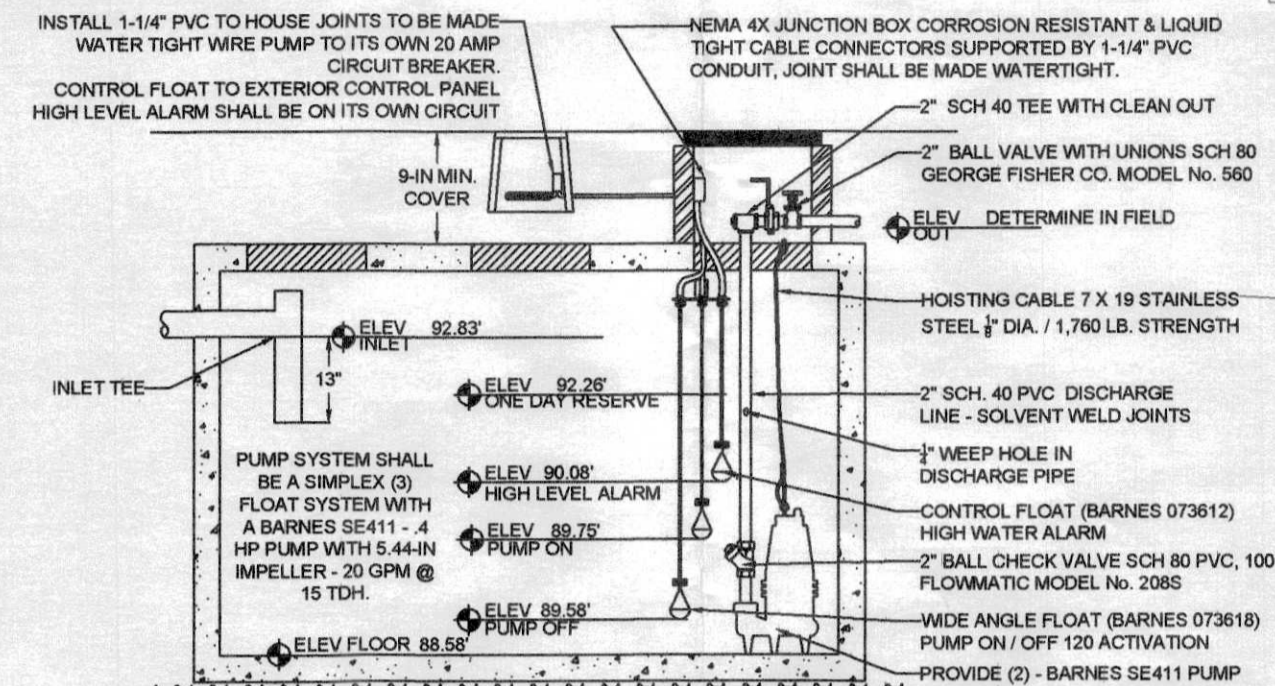


**PROPOSED CHAMBER CONFIGURATION**

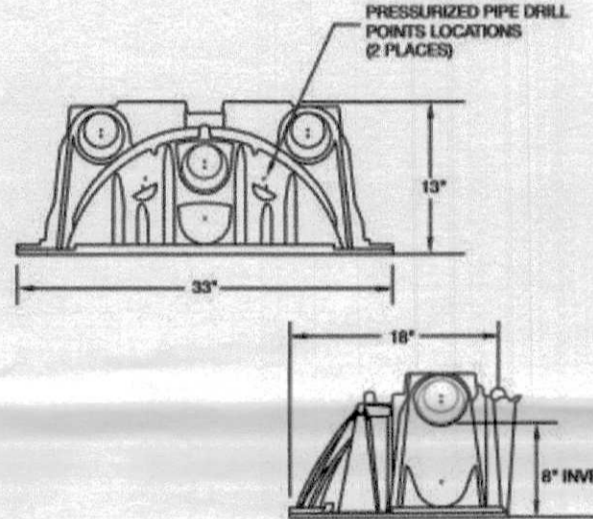
NOT TO SCALE



**PUMP CURVE**  
NOT TO SCALE



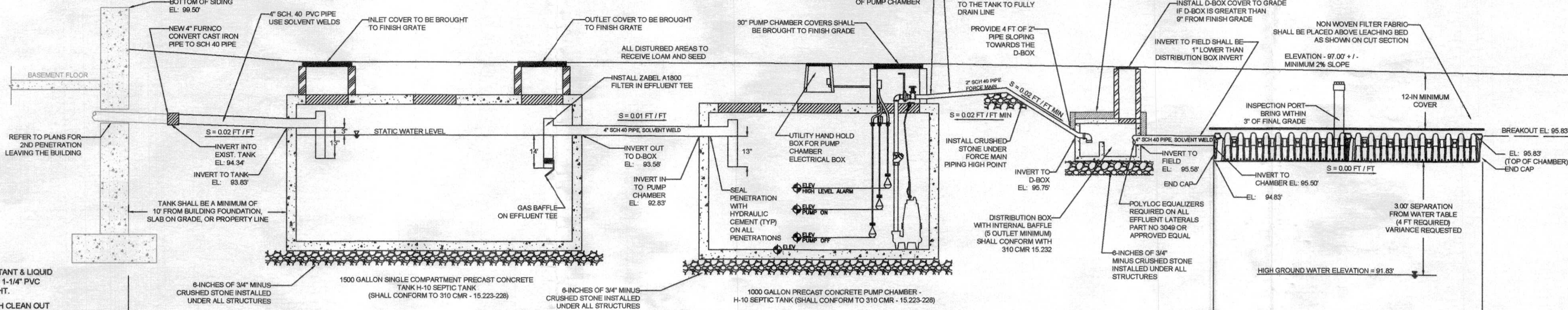
**PUMP CHAMBER**  
NOT TO SCALE



**PROPOSED CHAMBERS**

NOT TO SCALE

**GENERAL NOTES:**  
 1. INVERT OUT OF THE EXISTING FOUNDATION SHALL BE VERIFIED FROM THE CONTRACTOR PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IF ANY DISCREPANCIES ARE FOUND ON THE CONTRACT PLANS.  
 2. ALL COVERS SHALL BE WATER TIGHT, AND SECURABLE PER TITLE 5 REQUIREMENTS.  
 3. ALL PIPE SHALL BE BEDDED WITH APPROPRIATE BEDDING MATERIAL, FREE FROM ROCKS AND COBBLES EXCEEDING 2" IN SIZE.  
 4. SPECIAL ATTENTION SHALL BE PAID TO BE CAREFUL NOT TO DRIVE ON THE TANK OR APPLY BURCHARGE LOADS ON THE EDGES OF THE TANK.  
 5. CONTRACTOR SHALL NOT DRIVE ANY EQUIPMENT OR VEHICULAR TRAFFIC OVER THE SYSTEM.

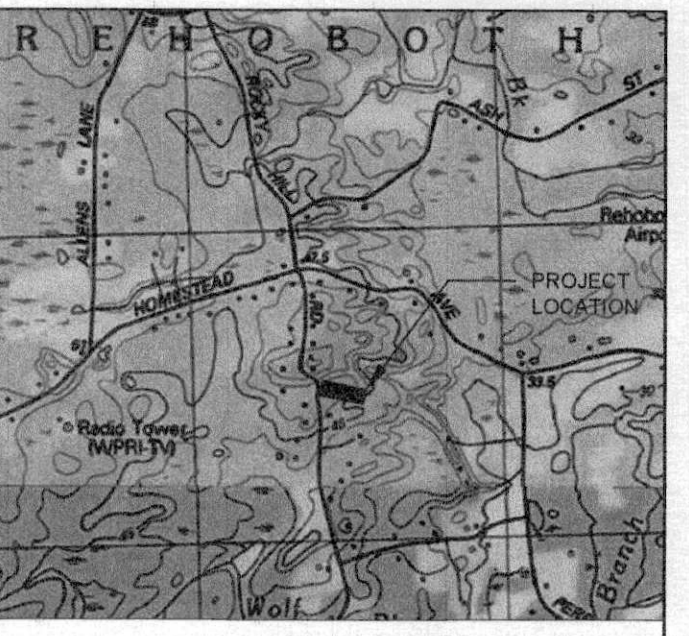


**PROPOSED SEPTIC SYSTEM PROFILE AND NOTES**

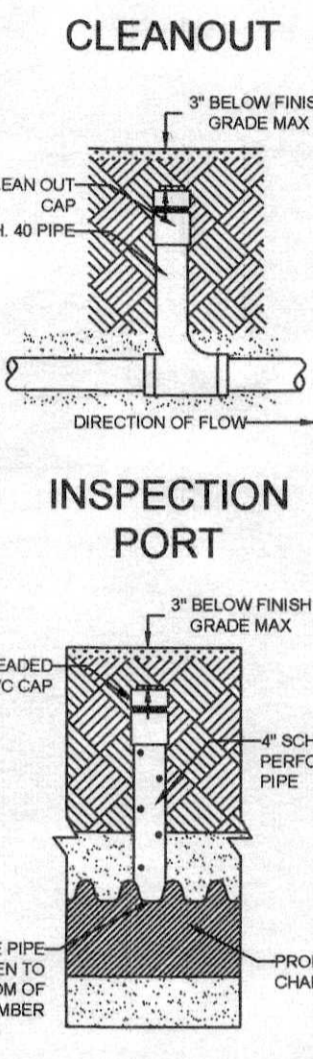
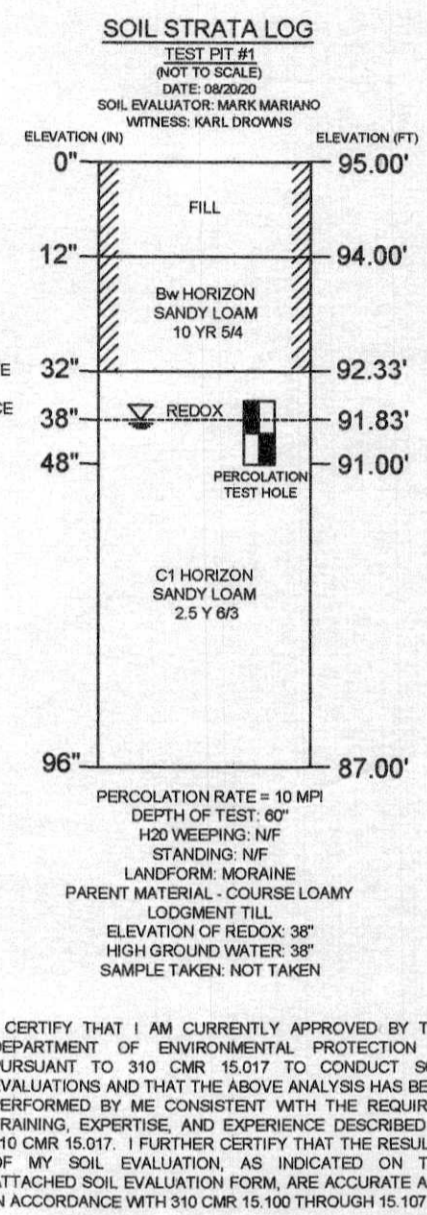
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**DESIGN CALCULATIONS / DESIGN PARAMETERS:**

- ESTIMATED DESIGN FLOW:  
 5 BEDROOMS X 110 GPD / BEDROOM = 550 GPD  
 REHOBOTH REQUIREMENT 120% MA DEF MINIMUM BEDROOM SIZE: 550 GPD X 1.25 = 688 GPD
- SEPTIC TANK REQUIRED CAPACITY = 1500 GALLONS  
 688 GPD X 200' = 137,600 GALLONS REQUIRED  
 SINGLE FAMILY HOUSE - TWO COMPARTMENT 1500 GALLON TANK PROVIDED
- LEACHING AREA REQUIREMENTS: USE 10 M.P.I. - 4 FT SEPARATION REQUIRED  
 EFFLUENT LOADING RATING = 0.60 GPD/S.F. (CLASS II)  
 WITH A LEACHING FIELD AREA REQUIRED:  
 688 GPD / 0.60 GPD / S.F. = 1,147 S.F.
- LEACHING AREA PROVIDED:  
 INFILTRATOR QUICK 4 PLUS STANDARD CAPACITY = 4.72 S.F. / L.F.  
 CAPACITY REQUIRED = 1,147 S.F. / 4.72 S.F. / L.F. = 243 L.F.  
 USE 5 ROWS: 243 L.F. / 5 ROWS = 48.6 L.F. / ROW  
 USE (13) - 4' CHAMBERS / ROW = 52 L.F. PER ROW  
 SYSTEM SHALL HAVE 85 CHAMBERS IN TOTAL  
 END CAPS - 10 CHAMBERS X 1.1 L.F. / CHAMBER = 11 L.F.  
 CAPACITY PROVIDED: (85) CHAMBERS X 4 FT / CHAMBER = 340 L.F.  
 TOTAL LENGTH OF CHAMBERS: 260 L.F. + 11 L.F. = 271 L.F.  
 271 L.F. X 4.72 S.F. / L.F. = 1,279 S.F.  
 PROPOSED LEACHING FIELD: 12' X 14.17' W X 54.17' L  
 DESIGN CAPACITY 1,279 S.F. X 0.60 GPD / S.F. = 767 GPD > REQUIRED CAPACITY 688 GPD.
- PUMPING CHAMBER:  
 CHAMBER CAPACITY: 1000 GALLONS  
 USE 20 GAL TOTAL DOSE  
 DEPTH OF DOSE = 0.17  
 RESERVE VOLUME REQUIRED = 550 GALLONS  
 RESERVE PROVIDED = (7.33 X 4.25 X 2.83 X 7.481 FT<sup>3</sup>/GAL) = 745 GALLONS > 550 GALLONS



**PROJECT LOCUS**



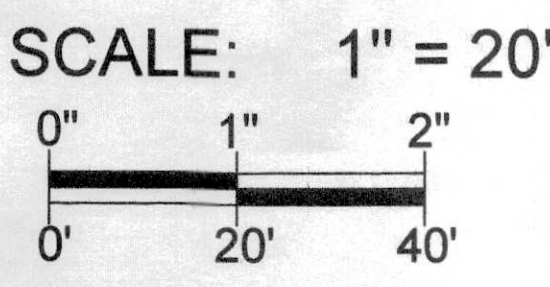
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**CONTRACTOR NOTES / GENERAL NOTES:**

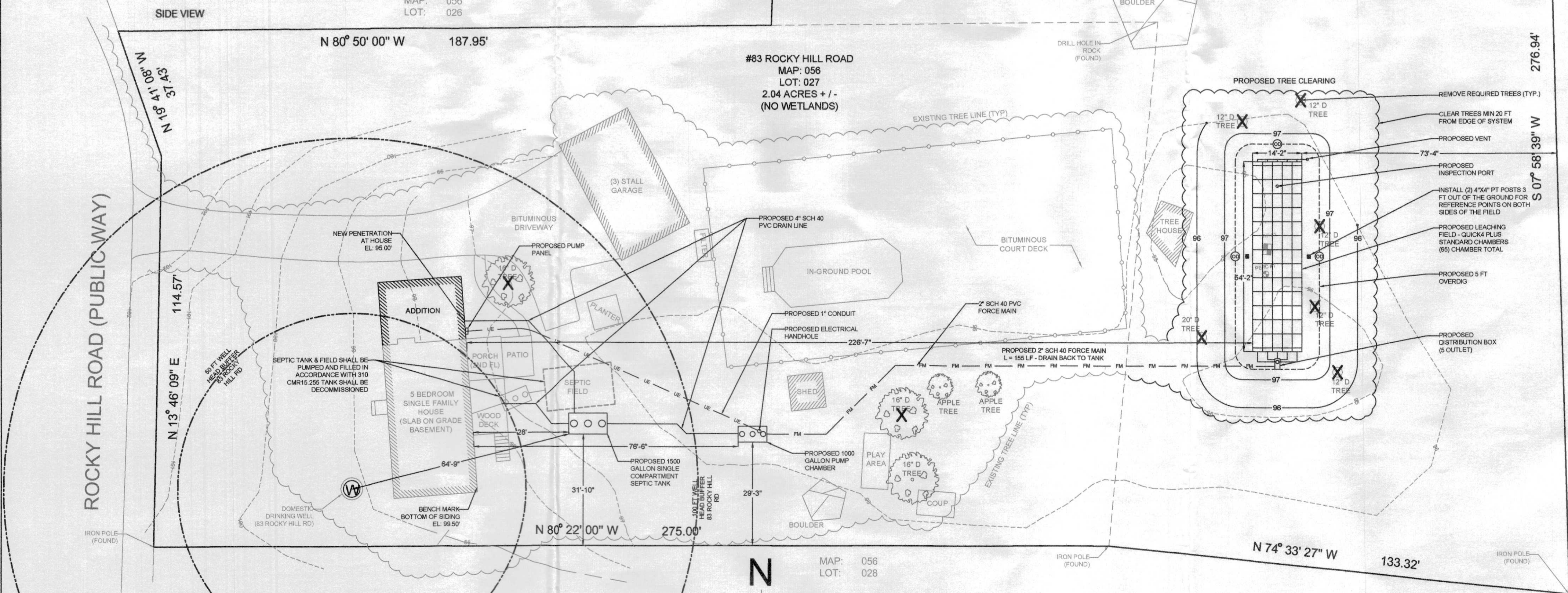
- ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SANITARY CODE, TITLE 5, AND LOCAL MUNICIPAL BOARD OF HEALTH CODES AND REGULATIONS.
  - THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE BOARD OF HEALTH AGENT AND THE DESIGN ENGINEER WITHIN A TIMELY MANNER TO ALLOW FOR INSPECTIONS OF ALL CONSTRUCTION PHASES, INCLUDING BUT NOT LIMITED TO, OBSERVATION OF THE OPEN HOLE PRIOR TO THE PLACEMENT OF FILL MATERIAL AND THE COMPLETION OF THE SYSTEM PRIOR TO FINAL COVER.
  - THERE ARE NO KNOWN WELLS WITHIN 100 FEET OF THE PROPOSED LEACHING FIELD.
  - SEPTIC TANK SHALL BE H-10 DESIGN WITH A MINIMUM CAPACITY OF 1500 GALLONS. SINGLE COMPARTMENT TANK IF VEHICULAR TRAFFIC IS PRESENT USE H-20 LOADED CAPACITY TANK.
  - USE OF A DOMESTIC GARBAGE GRINDER IS PROHIBITED WITH THIS DESIGN.
  - DISTRIBUTION BOX TO BE H-10 DESIGN, IF VEHICULAR TRAFFIC IS PRESENT, USE H-20 LOADING CAPACITY TANK.
  - ALL DESIGN COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR APPROVED EQUAL PER 310 CMR 15.221 (12).
  - PER 310 CMR 15.246(2), FROM THE DATE OF INSTALLATION OF THE SOIL ABSORPTION SYSTEM UNTIL RECEIPT OF A CERTIFICATE OF COMPLIANCE FROM THE APPROVING AUTHORITY IN ACCORDANCE WITH 310 CMR 15.021, THE PERIMETER OF THE SOIL ABSORPTION SYSTEM SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF SUCH AREA FOR ALL ACTIVITIES WHICH MIGHT DAMAGE THE SOIL ABSORPTION SYSTEM. SUCH FLAGGING IS INTENDED TO PREVENT HEAVY EQUIPMENT FROM COMPROMISING THE SYSTEM.
  - LOCATION OF UTILITIES IS APPROXIMATE AND CONTRACTORS SHALL NOTIFY DIGSAFE, (811) AT LEAST 72 HOURS PRIOR TO THE ONSET OF CONSTRUCTION TO HAVE ALL EXISTING UTILITIES LOCATED AND CLEARLY MARKED.
  - UNSATURABLE SOIL AS INDICATED ON THE CONTRACT PLANS, SUCH AS TOPSOIL, SUBSOIL, AND OTHER IMPERVIOUS MATERIALS SHALL BE REMOVED AND REPLACED WITH CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES GRAD AS FOLLOWS:  
 10.1. NO MATERIAL LARGER THAN 2 INCHES.  
 10.2. UP TO 45% BY WEIGHT MAY BE RETAINED ON A #4 SIEVE.  
 10.3. OF THE FRACTION PASSING THE #4 SIEVE, THE FOLLOWING CRITERIA APPLY:
- | SIEVE SIZE | EFFECTIVE PARTICLE SIZE | % THAT MUST PASS SIEVE |
|------------|-------------------------|------------------------|
| #4         | 4.75 mm                 | 100%                   |
| #50        | 0.30 mm                 | 10% - 100%             |
| #100       | 0.15 mm                 | 0% - 20%               |
| #200       | 0.075 mm                | 0% - 5%                |
- A SIEVE ANALYSIS OF THE MATERIAL SHALL BE PERFORMED TO DETERMINE THAT IT MEETS THE GRADATION REQUIREMENTS NOTED ABOVE. THE INSTALLER SHALL PROVIDE A COPY OF THE SIEVE ANALYSIS RESULTS TO THE DESIGN ENGINEER.
  - ALL PIPING COMPONENTS IN THIS PROPOSED SYSTEM SHALL BE SOLID SCHEDULE 40 PVC, PIPE SIZE INSTALLED IN ACCORDANCE WITH PLANS. PIPING SHALL BE SOLVENT WELDED WITH APPROPRIATE GLE.
  - SEPTIC SYSTEM OWNER SHALL HAVE THE SEPTIC TANK AND OUTLET FILTER INSPECTED ANNUALLY AND CLEANED AND PUMPED AS NECESSARY.
  - DESIGN ENGINEER ASSUMES NO LIABILITY FOR DAMAGES AS A RESULT OF FAULTY CONSTRUCTION OR ANY DEVIATION OF ALIGNMENT AND GRADE SPECIFIED HEREIN WITHOUT PRIOR WRITTEN NOTIFICATION AND WRITTEN APPROVAL FROM THE DESIGN ENGINEER.
  - OPERATION AND PERFORMANCE OF THE SYSTEM FALLS TO THE QUALITY OF CONSTRUCTION BY THE SELECTED CONTRACTOR.
  - SEPTIC TANK SHALL HAVE A ZABEL A1800 FILTER OR APPROVED EQUIVALENT INSTALLED IN OUTLET TEE.
  - TOPOGRAPHIC INFORMATION TAKEN FROM FIELD SURVEY BY OAKHILL ENGINEERING ON AUGUST 2020. THIS IS AN EXISTING CONDITIONS SURVEY AND DOES NOT CONSTITUTE AS A PROPERTY BOUNDARY SURVEY.
  - CONTRACTOR TO PERFORM DUE DILIGENCE ON LOCATING BURIED UTILITIES, BURIED STRUCTURES, OVERHEAD WIRES, AND OBSTRUCTIONS. CONTRACTOR SHALL FOLLOW ALL OSHA, LOCAL, AND STATE REGULATIONS.
  - CONTRACTOR SHALL PROPERLY GRADE SITE TO PREVENT WATER SHEDDING FROM SEPTIC FIELD, STRUCTURES, AND NEIGHBORING PROPERTIES.
  - NO WELLS FOUND WITHIN 100 FT OF ANY GROUND DISTURBANCE.
  - NO HAZARDOUS OR CONSTRUCTION EQUIPMENT SHALL PASS OVER THE TOP OF THE SYSTEM.

**LOCAL UPGRADE APPROVALS REQUIRED**

- 310 CMR 15.405(1)(h) - REDUCTION OF THE FOUR FOOT MINIMUM DEPTH TO GROUNDWATER, 3.00 FT SEPARATION (1 FT REDUCTION).



**PROPOSED SEPTIC SYSTEM SITE PLAN**  
SCALE: 1" = 20'



**NOTE:**  
 1. THERE ARE NO PUBLIC WELLS WITHIN 500 FEET; PRIVATE WELLS WITHIN 100 FEET; SURFACE WATER WITHIN 150 FEET; SURFACE DRAINS WITHIN 50 FEET; OPEN, SURFACE, SUBSURFACE OR FOUNDATION DRAINS WHICH INTERCEPT HIGH GROUND WATER WITHIN 50 FEET; VERNAL POOLS WITHIN 100 FEET; STORM DRAINAGE LEACHING CATCH BASINS OR DRY WELLS WITHIN 50 FEET, AND ANY BOUNDARY OF A REGULATORY FLOODWAY OR 100 YEAR FLOOD WITHIN 150 FEET UNLESS AS SHOWN ON THIS PLAN.  
 2. I CERTIFY THAT THE CURRENT HOUSE IS ON A DOMESTIC WELL AND TO THE BEST OF OUR KNOWLEDGE IS CORRECTLY SHOWN.  
 3. CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SIEVE ANALYSIS ON THE PROPOSED SEPTIC SAND TO BE USED ON THIS PROJECT.

**LEGEND**

- ADJUSTED WATER TABLE
- OBSERVED WATER TABLE
- TEST PIT
- EXISTING GRADE
- PROPOSED GRADE
- WATER LINE
- FENCE LINE
- UNDERGROUND ELECTRIC
- UNDERGROUND TELECOM
- OVERHEAD ELECTRICAL
- UTILITY POLE
- HYDRANT
- BURIED VALVE

**APPLICANT:**  
LUKE BONIN  
83 ROCKY HILL ROAD  
REHOBOTH, MA 02769

**OWNER:**  
LUKE BONIN  
83 ROCKY HILL ROAD  
REHOBOTH, MA 02769

**REPAIR OF SUBSURFACE SANITARY SEWERAGE DISPOSAL SYSTEM**

83 ROCKY HILL ROAD  
REHOBOTH, MA 02769  
Map: 056  
Lot: 027

**OAKHILL ENGINEERING LLC**  
75 OAK HILL AVE, 2ND FL  
SEEKONK, MA 02771  
401-574-0871  
MARK4026@GMAIL.COM

SHEET NUMBER: C-1  
SCALE = 1" = 20'  
DATE: 09/25/20

DRAWN BY: MPM  
CHECKED BY: MPM

ENGINEER STAMP: