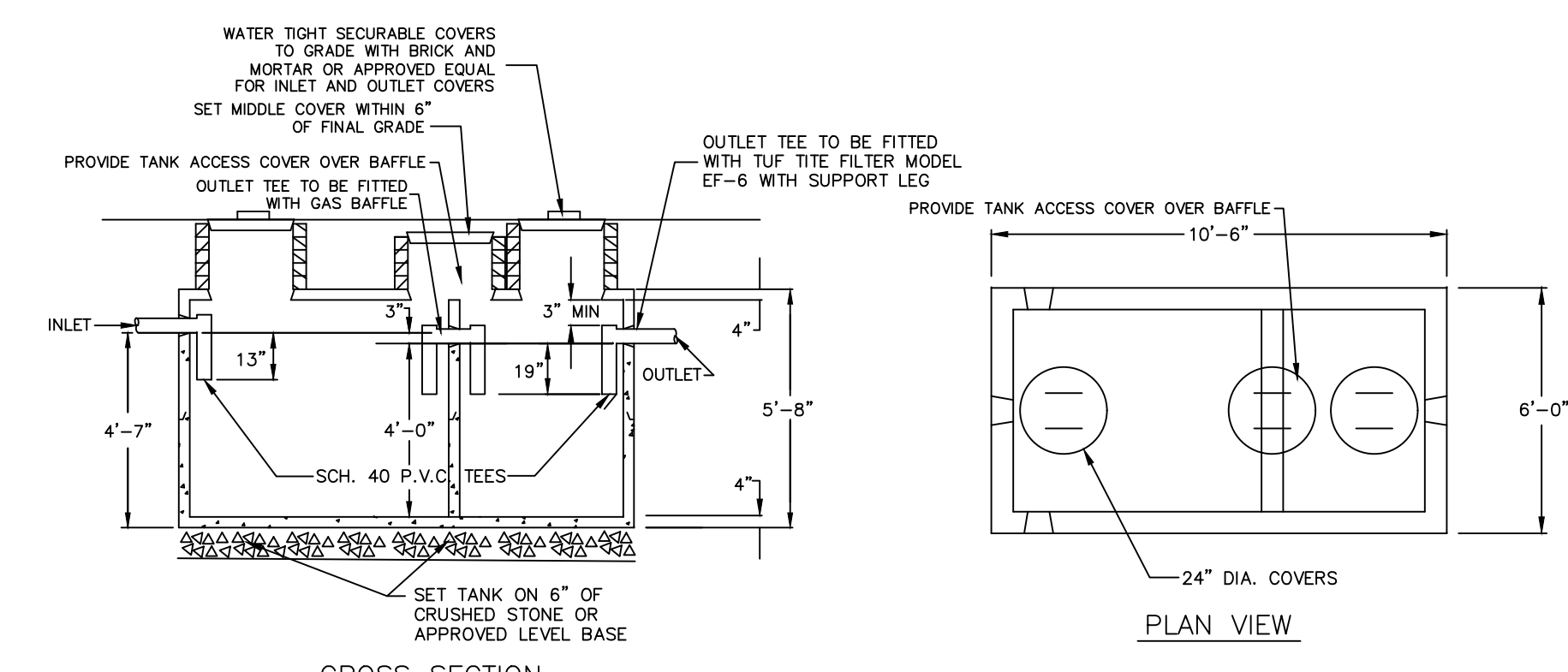
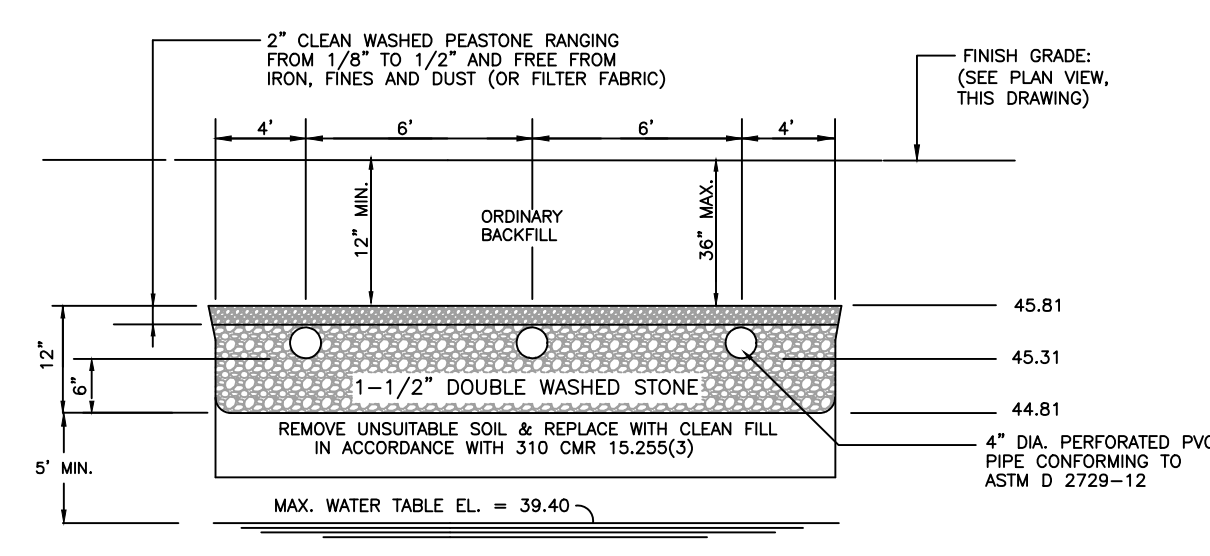
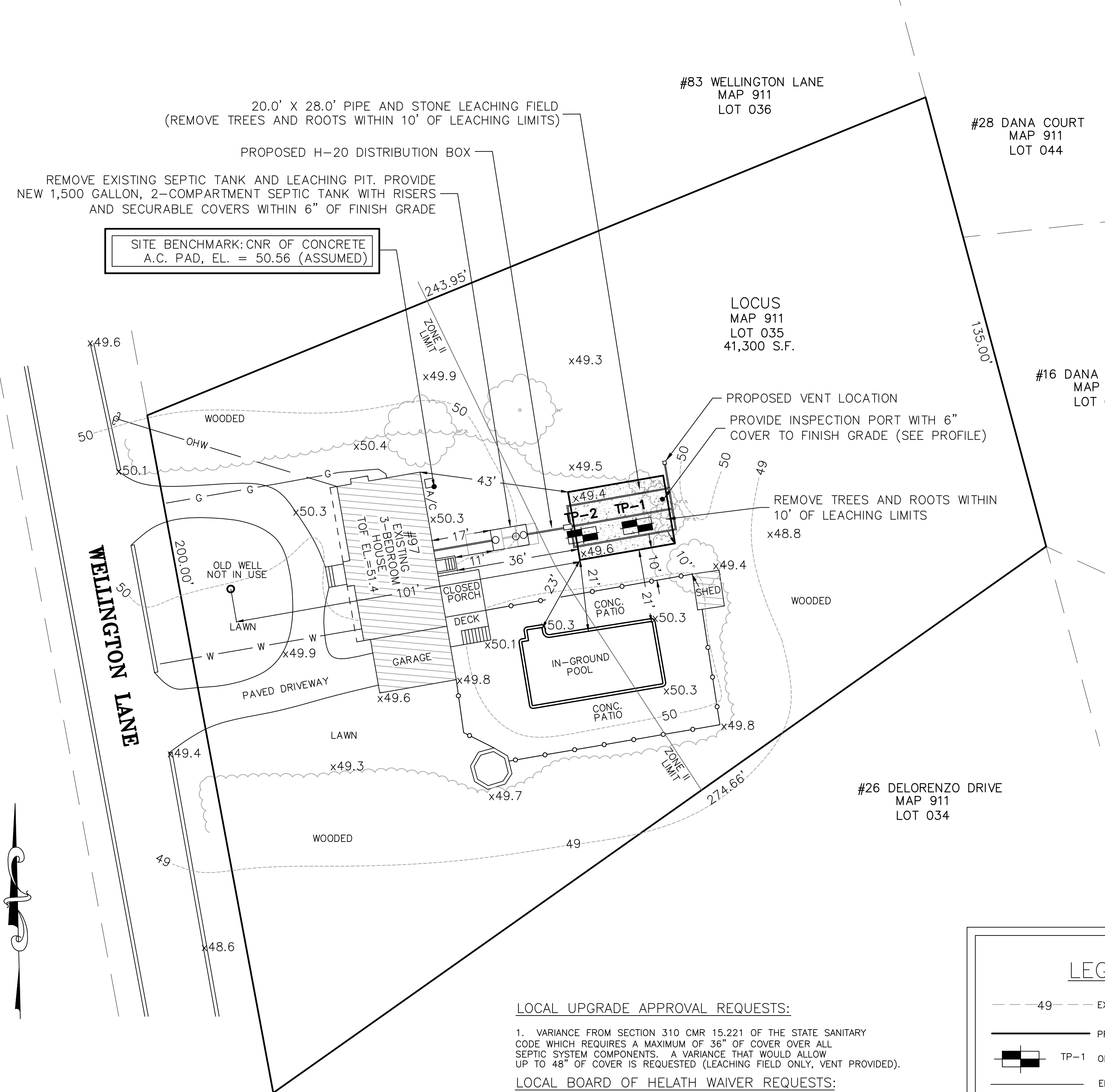


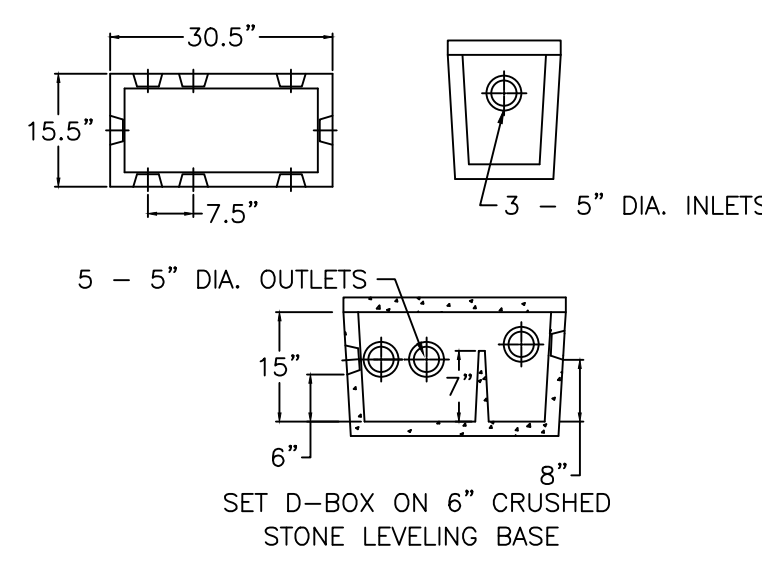
ELEVATION SCHEDULE:

| DESCRIPTION | ELEVATION |
|---------------------------------|-----------|
| 4" INV. AT BUILDING (ESTIMATED) | 46.60 |
| 4" INV. AT SEPTIC TANK (IN) | 46.15 |
| 4" INV. AT SEPTIC TANK (OUT) | 45.90 |
| 4" INV. AT DIST. BOX (IN) | 45.75 |
| 4" INV. AT DIST. BOX (OUT) | 45.58 |
| 4" INV. AT BEGINNING OF SAS | 45.50 |
| 4" INV. AT END OF SAS | 45.31 |
| ELEVATION AT BOTTOM OF SAS | 44.85 |
| GROUNDWATER ELEVATION | 39.40 |

LOCUS PLAN



1,500 GALLON 2-COMPARTMENT PRECAST SEPTIC TANK
SEALCOATED
NOT TO SCALE



DISTRIBUTION BOX (H-20)
NOT TO SCALE

NOTES:

- THE CONTRACTOR SHALL NOTIFY THE LOCAL BOARD OF HEALTH AND COLLINS ENGINEERING GROUP AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTIONS.
- SITE BENCHMARK IS THE TOP CORNER OF CONCRETE AIR CONDITIONER (A/C) PAD, AS INDICATED ON THIS PLAN, EL. = 50.56 (ASSUMED DATUM).
- HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE LIMITS OF THE SEWAGE DISPOSAL FIELD DURING THE COURSE OF CONSTRUCTION OF THE SYSTEM.
- NO FIELD MODIFICATIONS TO THE SEWAGE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE LOCAL BOARD OF HEALTH.
- UNLESS OTHERWISE NOTED ALL SYSTEM COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH TITLE V OF THE STATE ENVIRONMENTAL CODE DATED JANUARY 2014 AND ANY APPLICABLE LOCAL RULES.
- DISTRIBUTION BOX SHALL BE MANUFACTURED BY J&R PRECAST, INC. OR APPROVED EQUAL.
- GROUT TO BE USED AT ALL POINTS WHERE PIPES ENTER OR LEAVE ALL CONCRETE STRUCTURES IN ORDER TO PROVIDE A WATERTIGHT SEAL.
- THE FIRST TWO FEET OF EACH LINE EXITING THE DISTRIBUTION BOX SHALL BE LEVEL.
- THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE GRINDER OR WATER FILTRATION SYSTEM BACKWASH.
- SYSTEM COMPONENTS TO WITHSTAND H-10 LOADING CRITERIA.
- PROPERTY LINE SHOWN IS APPROXIMATE ONLY AND IS NOT A RESULT OF A PROPERTY LINE SURVEY.
- THE CONTRACTOR SHALL DECOMMISSION (PUMP & FILL OR REMOVE) THE EXISTING SEPTIC SYSTEM AND ALL ASSOCIATED PIPING IN ACCORDANCE WITH 310 CMR 15.354.
- THERE ARE NO KNOWN SURFACE WATER SUPPLIES OR GRAVEL PACKED PUBLIC WELLS WITHIN 400 FEET, TUBULAR PUBLIC WELLS WITHIN 250 FEET, OR PRIVATE WELLS WITHIN 150 FEET OF THE PROPOSED SEPTIC SYSTEM.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED (LOAM AND SEED) TO INCLUDE HISTORIC TEST PITS OUTSIDE CONSTRUCTION LIMITS.
- CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY APPLICABLE PERMITS.
- CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING DIG SAFE (888-DIGSAFE) AND ANY OTHER APPLICABLE UTILITY COMPANIES PRIOR TO STARTING WORK.
- UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY.
- CONTRACTOR WILL BE RESPONSIBLE FOR COMBINING LAUNDRY FLOW WITH SYSTEM.
- CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL O.S.H.A. PROCEDURES TO INCLUDE BUT NOT LIMITED TO CONFINED SPACE ENTRY PROCEDURES.
- CONTRACTOR RESPONSIBLE FOR CONFIRMING LOCATION OF EXISTING LEACHING FACILITY.
- CONTRACTOR TO CONFIRM EXISTING PLUMBING, BENCHMARK, AND SILL ELEVATIONS PRIOR TO CONSTRUCTION.
- MAGNETIC LOCATOR TAPE TO BE PLACED ON ALL SEPTIC SYSTEM COMPONENTS.
- USE APPROVED PLAN STAMPED BY BOARD OF HEALTH FOR CONSTRUCTION.
- PROPERTY LINE DATA BASED ON BRISTOL COUNTY NORTH REGISTRY OF DEEDS BOOK 50845, PAGE 0269.

DESIGN DATA:

DESIGN FLOW:
3 BEDROOMS x 110 GPD/BEDROOM = 330 GPD

SEPTIC TANK:
330 GPD x 2.0 = 660 GALLONS
USE NEW 1,500 GALLON, 2-COMPARTMENT SEPTIC TANK

SOIL ABSORPTION SYSTEM:
PERCOLATION RATE = <2 MIN./INCH (CLASS 1 SOIL)
DESIGN LOADING RATE = 0.74 GPD/SF
LEACHING AREA REQ'D = (330 GPD) / 0.74 GPD/SF = 446 SF
USE: 20' x 28' PIPE AND STONE LEACHING FIELD CONFIGURATION

LEACHING AREA PROVIDED:
20' x 28' = 560 SF > 446 REQUIRED

DAILY FLOW CAPACITY:
560 SF x 0.74 GPD/SF = 414 GPD > 330 GPD REQ'D

SOIL DATA:

DATE: NOVEMBER 14, 2023
PERFORMED BY: GEORGE R. COLLINS, P.E., COLLINS CIVIL ENGINEERING GROUP, INC.
WITNESSED BY: TRACY MAYO, DUXBURY BOH

| SOIL HORIZ. | SOIL COLOR | TP-1 | DEPTH | ELEV. | SOIL HORIZ. | SOIL COLOR | TP-2 | DEPTH | ELEV. |
|-------------|------------|-------------------------|-------|-------|-------------|------------|---------------|-------|-------|
| | | FILL/A | 0 | 49.40 | | | FILL/A | 0 | 50.40 |
| Bw | 10YR 5/6 | LOAMY F. SAND | 6" | | Bw | 10YR 5/6 | LOAMY F. SAND | 8" | |
| | | | 24" | | | | | 40" | |
| | | 42" BOTTOM OF PERC HOLE | | | | | | | |
| C | 2.5Y 6/3 | M-C SAND | | | C | 2.5Y 6/3 | M-C SAND | | |
| | | | 120" | 39.40 | | | | 124" | 39.27 |
| | | | 140" | 37.73 | | | | 140" | 37.93 |

EST. SEASONAL HIGH GROUNDWATER ELEV. = 39.40 (FROM TP-1)
DESIGN PERC RATE = <2 MIN. PER INCH

NOTE: LAYERS FILL/A, B, AND C TO BE REMOVED TO A DEPTH OF 60" BELOW GRADE AND REPLACED WITH CLEAN FILL IN ACCORDANCE WITH

LOCAL UPGRADE APPROVAL REQUESTS:

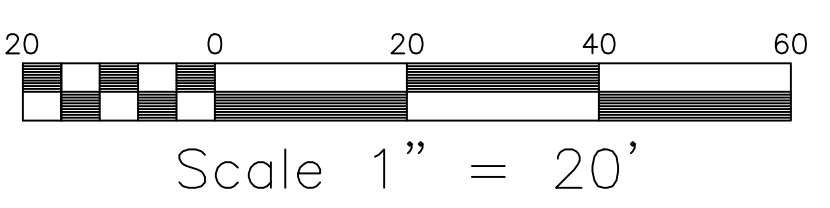
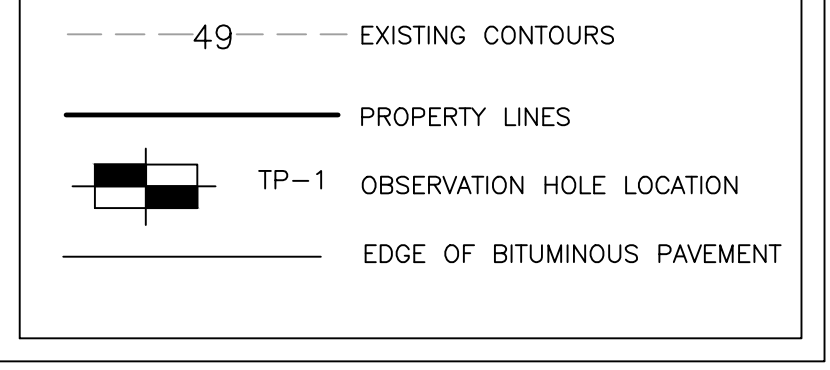
- VARIANCE FROM SECTION 310 CMR 15.221 OF THE STATE SANITARY CODE WHICH REQUIRES A MAXIMUM OF 36" OF COVER OVER ALL SEPTIC SYSTEM COMPONENTS. A VARIANCE THAT WOULD ALLOW UP TO 48" OF COVER IS REQUESTED (LEACHING FIELD ONLY, VENT PROVIDED).

LOCAL BOARD OF HEALTH WAIVER REQUESTS:

- WAIVER FROM SECTION 1.11 OF THE TOWN OF DUXBURY SUPPLEMENTAL RULES AND REGULATIONS WHICH REQUIRES A 6 FOOT WATER TABLE SEPARATION FOR A PERCOLATION RATE OF 2 MINUTES PER INCH OR LESS. A WAIVER ALLOWING A REDUCTION FROM 6 FEET TO 5.6 FEET IS REQUESTED. (SAS IS NOT IN A ZONE II).

NOTE: TITLE 5 REQUIREMENTS ARE MET. REQUEST WILL ELIMINATE A PUMP.

LEGEND



| | | | | | | | |
|--|---------|--------------------------------------|-------------|----------------------------|-----|--------------------|---------------------|
| DRAWING TITLE PLAN AND DETAILS SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE | | SCALE: AS SHOWN | | | | | |
| PROJECT 97 WELLINGTON LANE DUXBURY, MA | | DATE: 12-6-23 | | | | | |
| CLIENT DAVID MARSOCCI 617-304-2418 23 EDWARD DRIVE, PEMBROKE, MA 02359 | | DRAWN BY: P.J.L. | DRAWING NO. | | | | |
| COLLINS CIVIL ENGINEERING GROUP, INC. BRAintree - FALMOUTH - WEST BRIDGEWATER CIVIL ENGINEERING - LAND SURVEY - L.S.P. SERVICES 225 SOUTH MAIN STREET, WEST BRIDGEWATER, MA 02379 TEL: 508-580-2332 MOBILE: 617-347-1363 E-MAIL: GRCP@aol.com | | DESIGNED BY: P.J.L. | | PROJECT NO. 23-219-3856 | | | |
| 1 | 1-10-24 | 6 TO 5 WAIVER REQUEST, WELL, ZONE II | GRC | | GRC | CHECKED BY: GRC | APPROVED BY: GRC |
| REV. | DATE | DESCRIPTION | BY | APP. | | | |