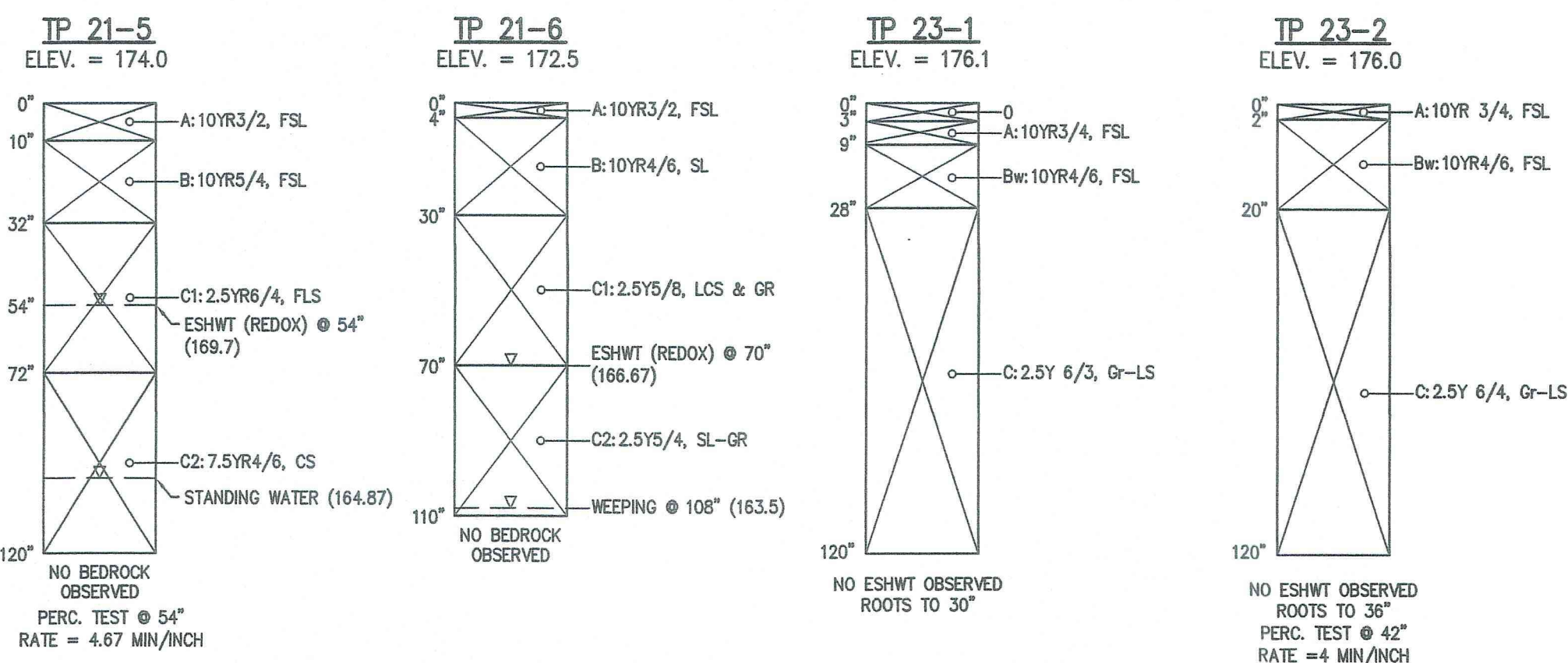


LOCUS MAP
SCALE: 1"=150'±

SOIL LOGS

DATE PERFORMED: 08/17/2021 & 08/15/2023
 PERFORMED BY: SCOTT P. CAMERON, SE #3024 & ERIC BROWN, SE #14653
 WITNESSED BY: MR. LEO CORMIER (TOWN OF LYNNFIELD WITNESS)



"I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310 CMR 15.100 THROUGH 15.107."

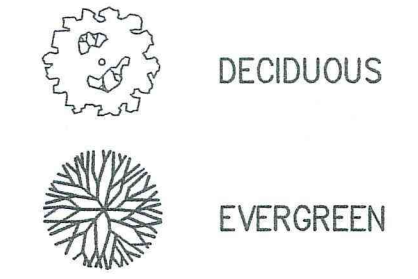
Eric Brown
 ERIC W. BROWN, SE #14653
 DATE 8/24/2023

Scott P. Cameron
 SCOTT P. CAMERON, SE #3024
 DATE 8/24/23

IMPERVIOUS AREAS CALCULATION

IMPERVIOUS AREAS	DRAIN OVERLAND TO WOODS
DRIVEWAY	3343
ROOF	2519
WALKWAY	400
TOTAL	6,262 S.F. (7.7%)

TREE KEY:



SEPTIC SYSTEM DESIGN DATA:

- BUILDING TYPE: SINGLE FAMILY DWELLING
- NO. OF BEDROOMS: 5 BEDROOM
- DESIGN FLOW (TITLE 5): 5 X 110 GPD/BEDROOM = 550 GPD
- DESIGN PERCOLATION RATE: CLASS I SOIL, 5 MPI, LTAR = 0.74 GPD/SF
- GARBAGE DISPOSAL: NOT PERMITTED
- SEPTIC TANK DESIGN REQUIREMENT: MIN. 200% DESIGN FLOW (USE 2 COMP. TANK)
 MIN. 200% DESIGN FLOW FOR FIRST COMPARTMENT = 2 X 550 GPD = 1,100 GAL
 MIN. 100% DESIGN FLOW FOR SECOND COMPARTMENT = 550 GAL
 TANK REQUIREMENT = 1,650 GAL MIN.
 USE 2,000 GAL 2-COMPARTMENT (MONOLITHIC) SEPTIC TANK
- LEACH AREA SIZE REQUIREMENT:
 $(550 \text{ GPD}) / (0.74 \text{ GPD/SF}) = 743 \text{ SF (MIN)}$
- LEACH BED CAPACITY:
 $USE 15' \times 50' = 750 \text{ SF} \times 0.74 \text{ GPD/SF} = 555 \text{ GPD (OK)}$

RESERVE AREA SIZING:

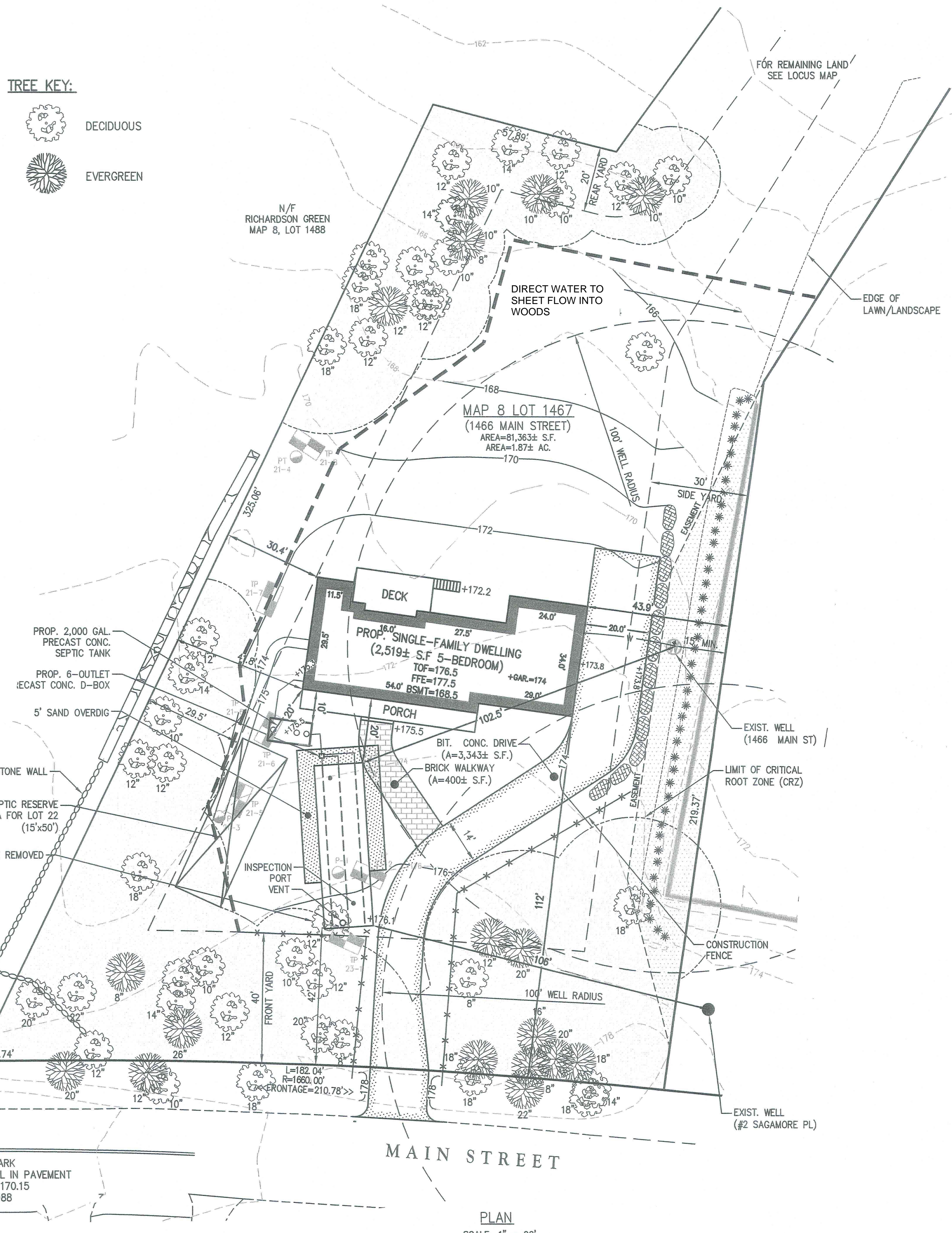
- DESIGN FLOW (TITLE 5): 5 X 110 GPD/BEDROOM = 550 GPD
- DESIGN PERCOLATION RATE: CLASS I SOIL, 4 MPI, LTAR = 0.74 GPD/SF
- LEACH AREA SIZE REQUIREMENT: $(550 \text{ GPD}) / (0.74 \text{ GPD/SF}) = 743 \text{ SF (MIN)}$
- LEACH BED CAPACITY: $USE 15' \times 50' = 750 \text{ SF} \times 0.60 \text{ GPD/SF} = 555 \text{ GPD (OK)}$

SITE NOTES:

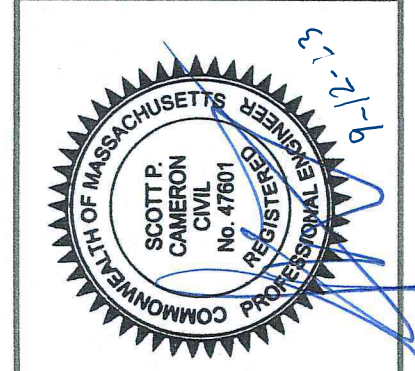
- RECORD OWNER: DELOURY CONSTRUCTION COMPANY, INC.
 100 BURTT ROAD
 ANDOVER, MA 01810
 DOC #612879
- RECORD PLANS: PROPERTY LINE INFORMATION FROM "PLAN OF LAND #2 & 6 SAGAMORE PL & #1466 MAIN ST LYNNFIELD, MASS." DATED NOVEMBER 13, 2020.
- WETLANDS: THERE ARE NO WETLANDS OR RIVERFRONT RESOURCE AREAS LOCATED ON THE PROPERTY.
- WATER SUPPLY: THIS PROPERTY IS LOCATED WITHIN THE DRINKING WATER SUPPLY ZONE II. THERE ARE NO KNOWN INTERIM WELLHEAD PROTECTION ZONES ON THE SUBJECT PARCEL BASED ON THE DEPARTMENT OF ENVIRONMENTAL PROTECTION MAPS AND THE PARCEL IS NOT LOCATED WITHIN A NITROGEN SENSITIVE AREA.
- FLOOD PLAIN: THE AREA OF WORK ON THE PROPERTY IS SITUATED IN A ZONE 'X' AS ILLUSTRATED ON THE MOST RECENT FLOOD INSURANCE RATE MAP PANEL 25009C-0383-F WITH EFFECTIVE DATE OF JULY 3, 2012.
- DATUM: ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ELEVATION BENCHMARKS SHALL BE SET WITHIN 75' OF THE PROPOSED LEACHING FACILITY PRIOR TO CONSTRUCTION.
- EXISTING CONDITIONS: EXISTING CONDITIONS INFORMATION SHOWN HEREON COMPILED FROM AN AERIAL SURVEY BY EASTERN TOPOGRAPHICS LOCATED IN WOLFBORO, NH. PHOTO DATE: DECEMBER 2, 2002. GROUND CONTROL BY THE MORIN-CAMERON GROUP, INC.
- ZONING DISTRICT: SINGLE RESIDENCE D (RD)

GENERAL NOTES:

- CONTRACTOR SHALL VERIFY THAT ALL PLUMBING, WITH THE EXCEPTION OF ANY FOUNDATION DRAINS OR WATER SOFTENERS, SHALL BE TIED INTO NEW SEPTIC SYSTEM.
- THIS PLAN IS TO SHOW THE DESIGN OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM ONLY. THE SYSTEM IS DESIGNED FOR FLOWS ESTIMATED UNDER DESIGN CRITERIA.
- SYSTEM IS DESIGNED ONLY TO ACCOMMODATE SANITARY SEWAGE ASSOCIATED WITH NORMAL DOMESTIC USAGE AND CONSISTING OF WATER-CARRIED PUTRESCIBLE WASTE.
- THE SYSTEM IS NOT DESIGNED FOR A GARBAGE GRINDER.
- THE PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON DATE OF THE TOPOGRAPHY.
- THE INSTALLER OF THIS SYSTEM MUST BE LICENSED BY THE LOCAL BOARD OF HEALTH FOR INSTALLATION OF THE LEACHING FACILITY.
- DISPOSAL SYSTEM AREAS ARE TO BE RAKED (SCARIFIED) BEFORE INSTALLATION OF STONE. ALL STONES EXCEEDING 2 INCHES IN EXCAVATION ARE TO BE REMOVED FROM THE LEACHING AREA BED.
- FINISHED SURFACE OF THE LEACHING AREA SHALL BE GRADED TO ASSURE WATER RUNOFF (2% MINIMUM SLOPE).
- ALL DISTURBED AREAS TO BE LOAMED, SEEDED, AND MAINTAINED TO PREVENT EROSION.
- THE SEPTIC TANK SHOULD BE PERIODICALLY INSPECTED AND MAINTAINED AND SHOULD BE PUMPED WHEN THE SLUDGE IN THE BOTTOM EXCEEDS 1/4 OF THE DEPTH.
- ALTERNATE MANUFACTURES FOR CONCRETE STRUCTURES AND EQUIPMENT SHOWN ON THESE PLANS MAY BE USED UPON THE WRITTEN APPROVAL OF THE DESIGN ENGINEER. ALTERNATE MANUFACTURES WILL NOT BE USED IF THE USE OF THEIR EQUIPMENT REQUIRES DESIGN CHANGES.
- NO CHANGES ARE TO BE MADE IN THE FIELD WITHOUT THE APPROVAL OF THE BOARD OF HEALTH OR ITS DESIGNEE AND THE DESIGN ENGINEER.
- ALL WORK IS TO COMPLY WITH THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION AGENCY STATE SANITARY CODE, TITLE 5 AND ANY LOCAL BOARD OF HEALTH SUPPLEMENTARY REGULATIONS.
- THE LOCAL BOARD OF HEALTH AGENT WILL CONDUCT PERIODIC INSPECTIONS AS NEEDED.
- THESE PLANS AND SPECIFICATIONS ARE INTENDED TO BE EXPLANATORY OF THE WORK TO BE DONE AND OF EACH OTHER, BUT SHOULD ANY OMISSION, ERRORS, OR DISCREPANCIES APPEAR, THEY SHALL BE SUBJECT TO CORRECTION AND INTERPRETATION BY THE DESIGN ENGINEER THEREBY DEFINING AND FULFILLING THE INTENT OF THE PLANS. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
- FILL REQUIREMENT: REMOVE TOPSOIL AND SUBSOIL FOR A DISTANCE OF 5 FEET BEYOND THE LEACHING FACILITY. REPLACE WITH FILL AS SPECIFIED IN 310 CMR 15.000, "TITLE 5" SECTION 15.255 (3). FOR THE BOUNDARY OF THE SAND FILL REQUIREMENT, SEE PLAN VIEW, CROSS-HATCHED AREA ON SYSTEM PROFILE. A SIEVE ANALYSIS SHALL BE PERFORMED ON THE FILL MATERIAL TO BE USED. A COPY OF THE SIEVE ANALYSIS RESULTS SHALL BE SUBMITTED TO THE BOARD OF HEALTH. ASTM C33 SAND IS SUITABLE ALTERNATE THAT COMPLIES WITH 15.255 (3).
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE IN ACCORDANCE WITH 310 CMR 15.221(11).
- UNDERGROUND UTILITY INFORMATION AND LOCATIONS WERE NOT AVAILABLE AT THE TIME OF SURVEY. LOCATIONS OF ALL UTILITIES SHOULD BE CONFIRMED WITH THE UTILITY PROVIDED PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- SOIL ABSORPTION SYSTEM (SAS) SHALL BE STAKED PRIOR TO AND DURING CONSTRUCTION TO PREVENT TRAFFIC/STAGING OVER SAS.



The Morin-Cameron GROUP, INC.
 CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
 LAND SURVEYORS | LAND USE PLANNERS
 25 RENZI AVENUE, HAVENHILL, MASSACHUSETTS 01830
 P: 978-932-6310 F: WWW.MORIN-CAMERON.COM



REVISIONS

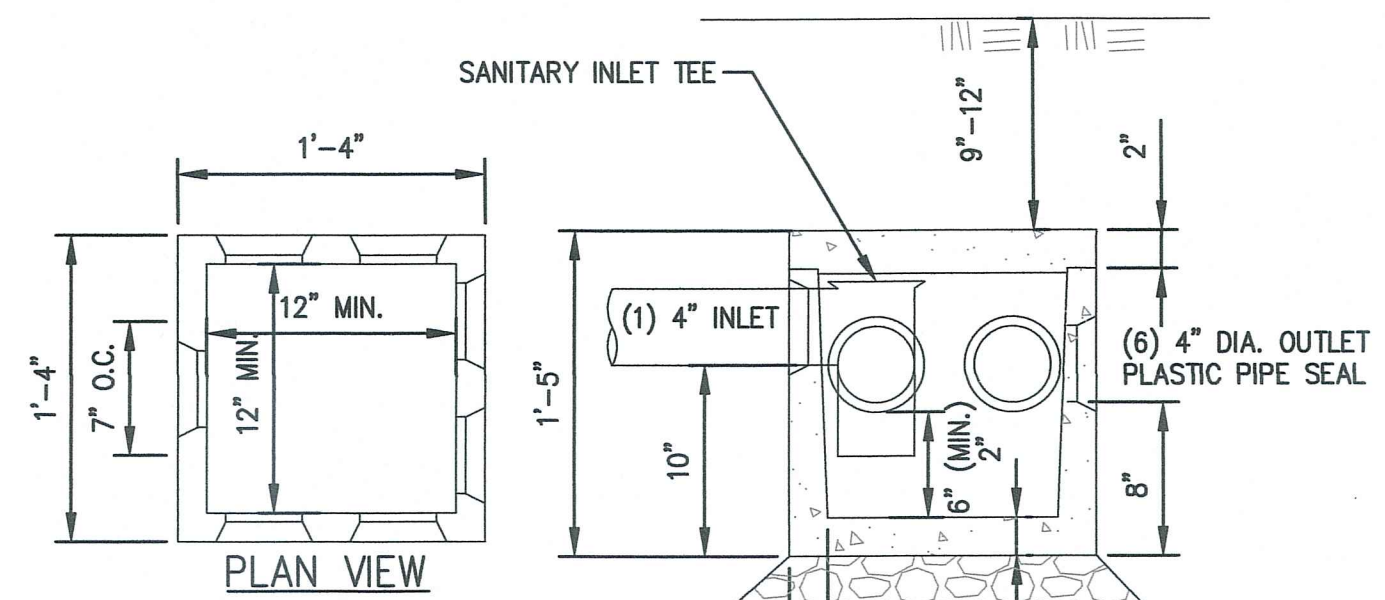
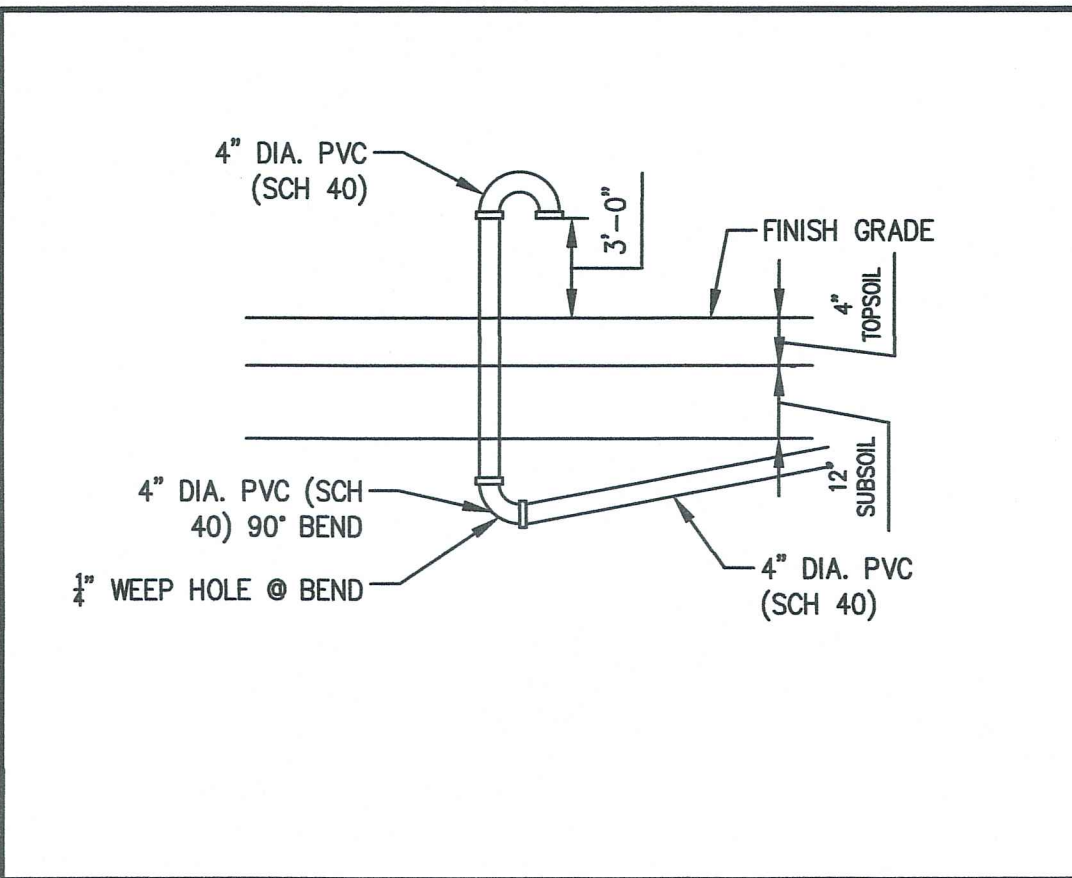
NO.	DESCRIPTION	DATE
1	ADDRESSED BOH COMMENTS	01/26/22
2	ADD NEW DWELLING	09/24/23
3	REVISE DRAINAGE NOTE	9/22/23

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDRESSED BOH COMMENTS	01/26/22
2	ADD NEW DWELLING	09/24/23
3	REVISE DRAINAGE NOTE	9/22/23

SEPTIC SYSTEM DESIGN
 IN
 LYNNFIELD, MASSACHUSETTS
 1466 MAIN STREET
 (ASSESSOR'S MAP 8 LOT 1467)
 PREPARED FOR:
 DELOURY CONSTRUCTION COMPANY, INC.

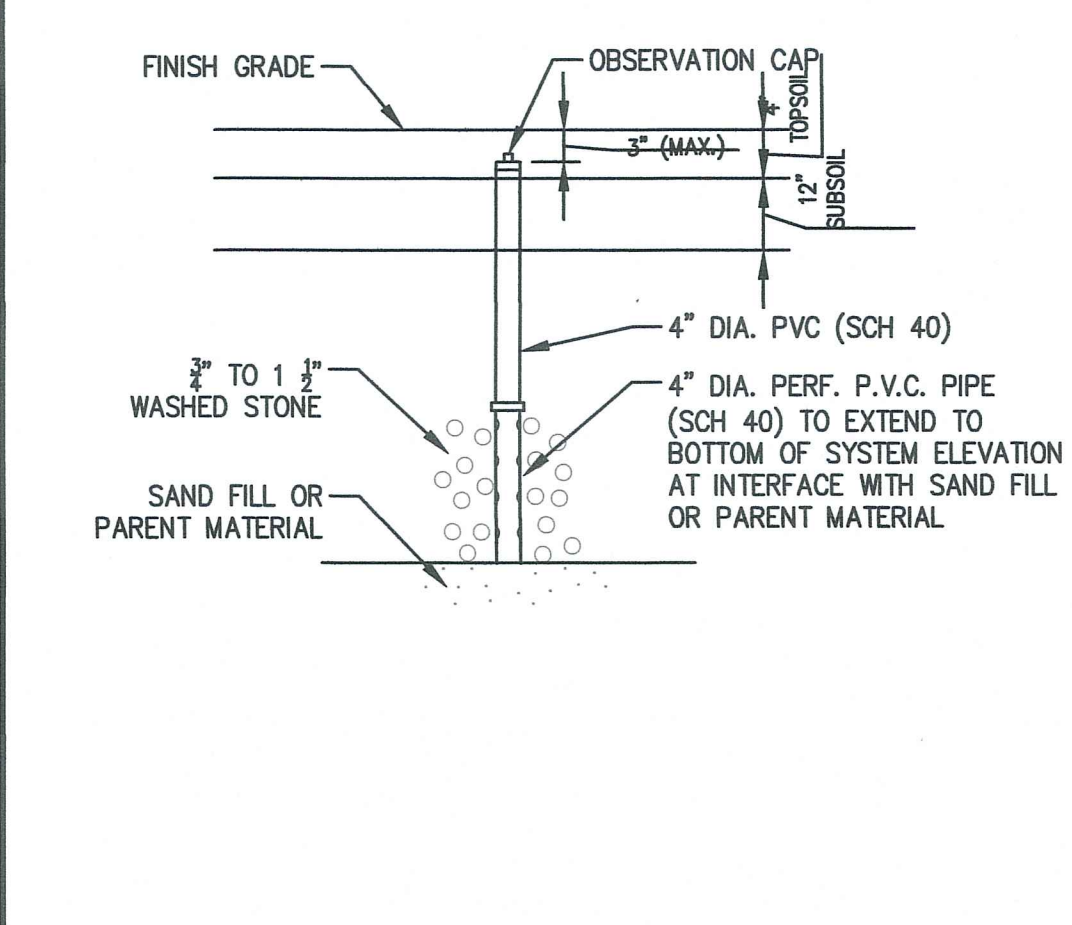
SSD
 DRAWING NO.
 1 OF 2



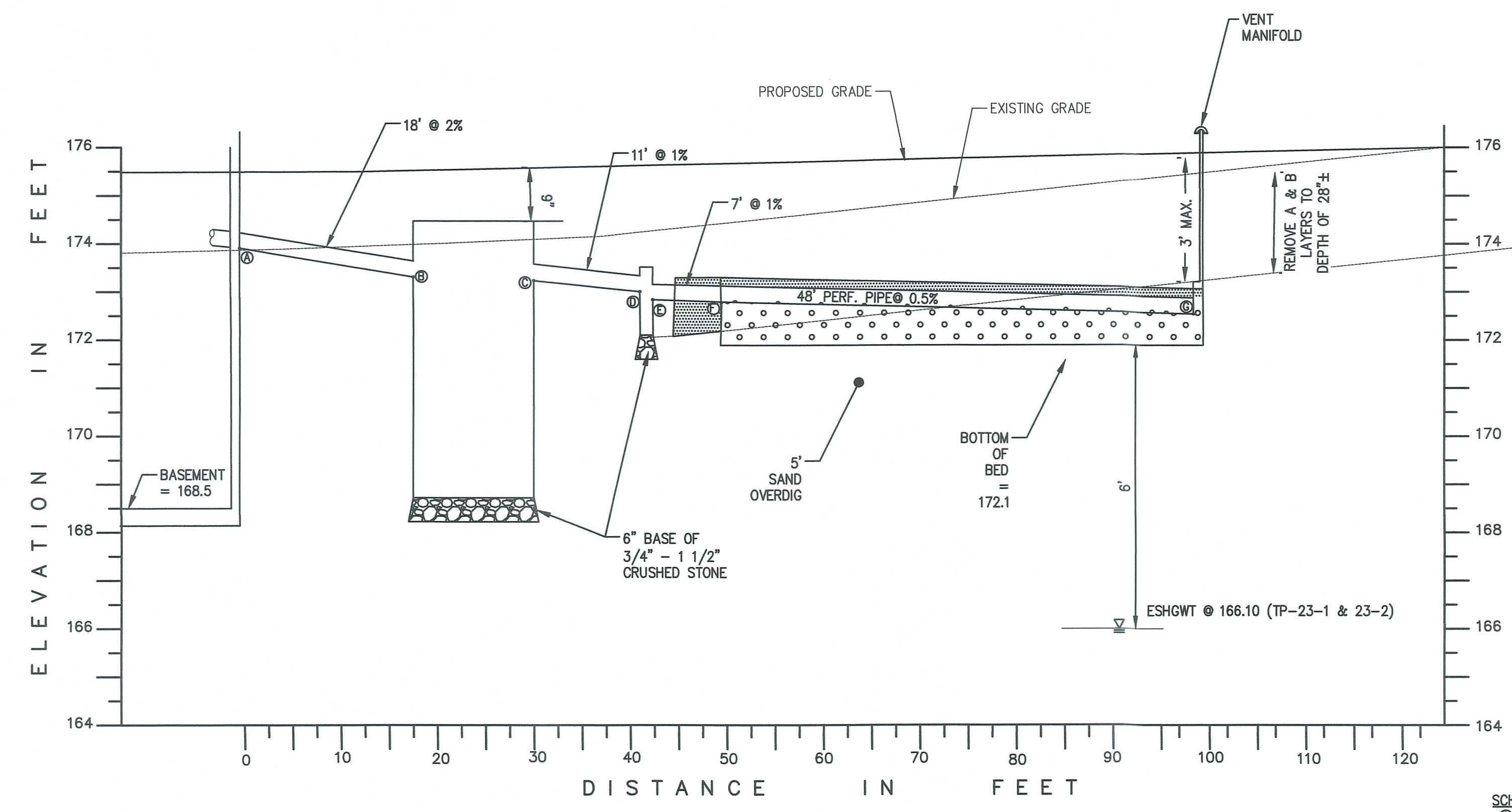
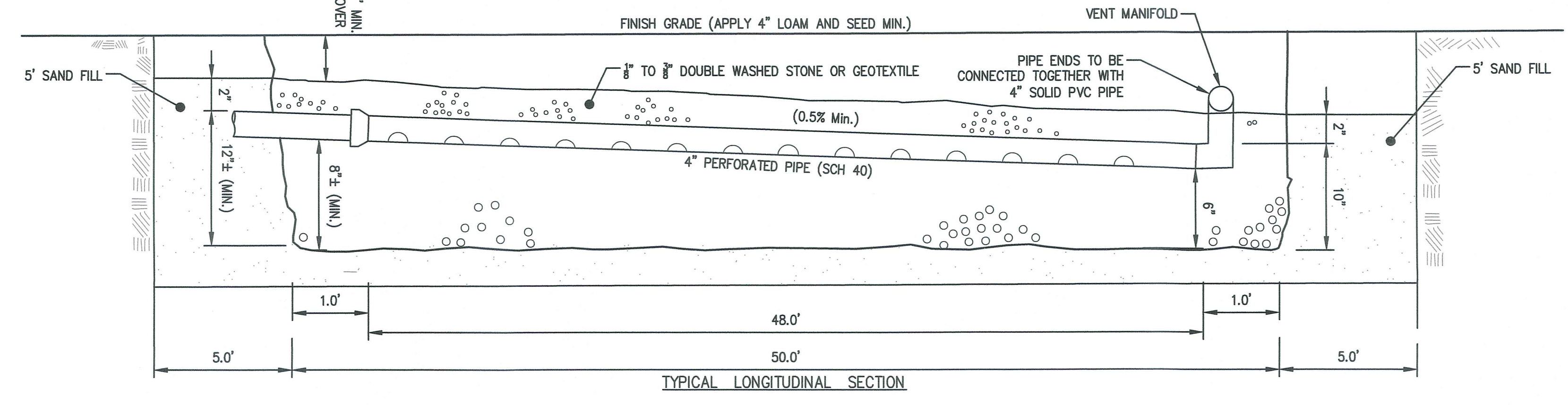
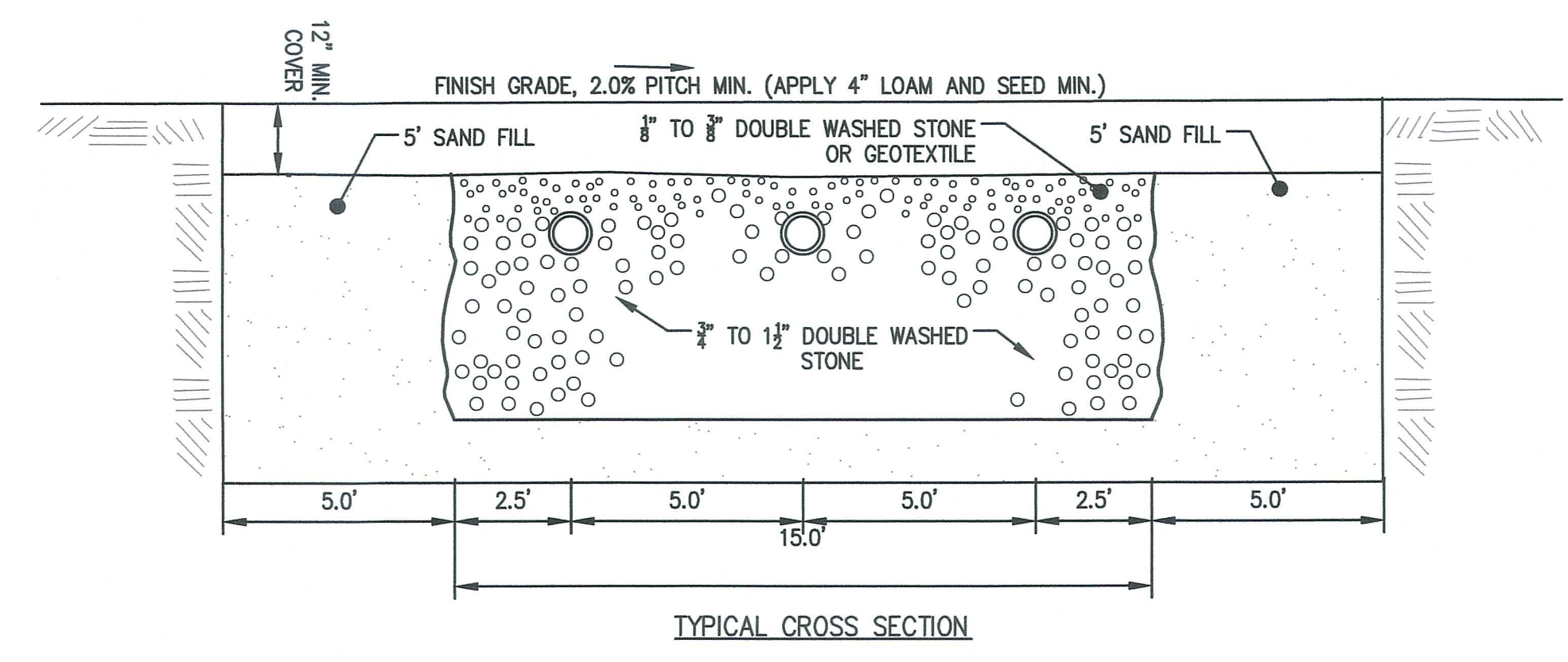
SHEA CONCRETE ITEM NO. (OR APPROVED EQUAL) WEIGHT

B-6DB W/COVER	226#
B-6DBC COVER ONLY	45#

NOTES:
 1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS. TITLE 5 REGS, FOR DISTRIBUTION BOXES.
 2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP



- NOTES:
 1. DOUBLE WASHED STONE SHALL BE FREE FROM IRONS, FINES & DUST IN PLACE.
 2. BOTTOM OF BED SHALL BE SCARIFIED TO A DEPTH OF 6" BEFORE STONE IS PLACED.
 3. ALL PIPING TO BE 4" PVC (SCH 40).

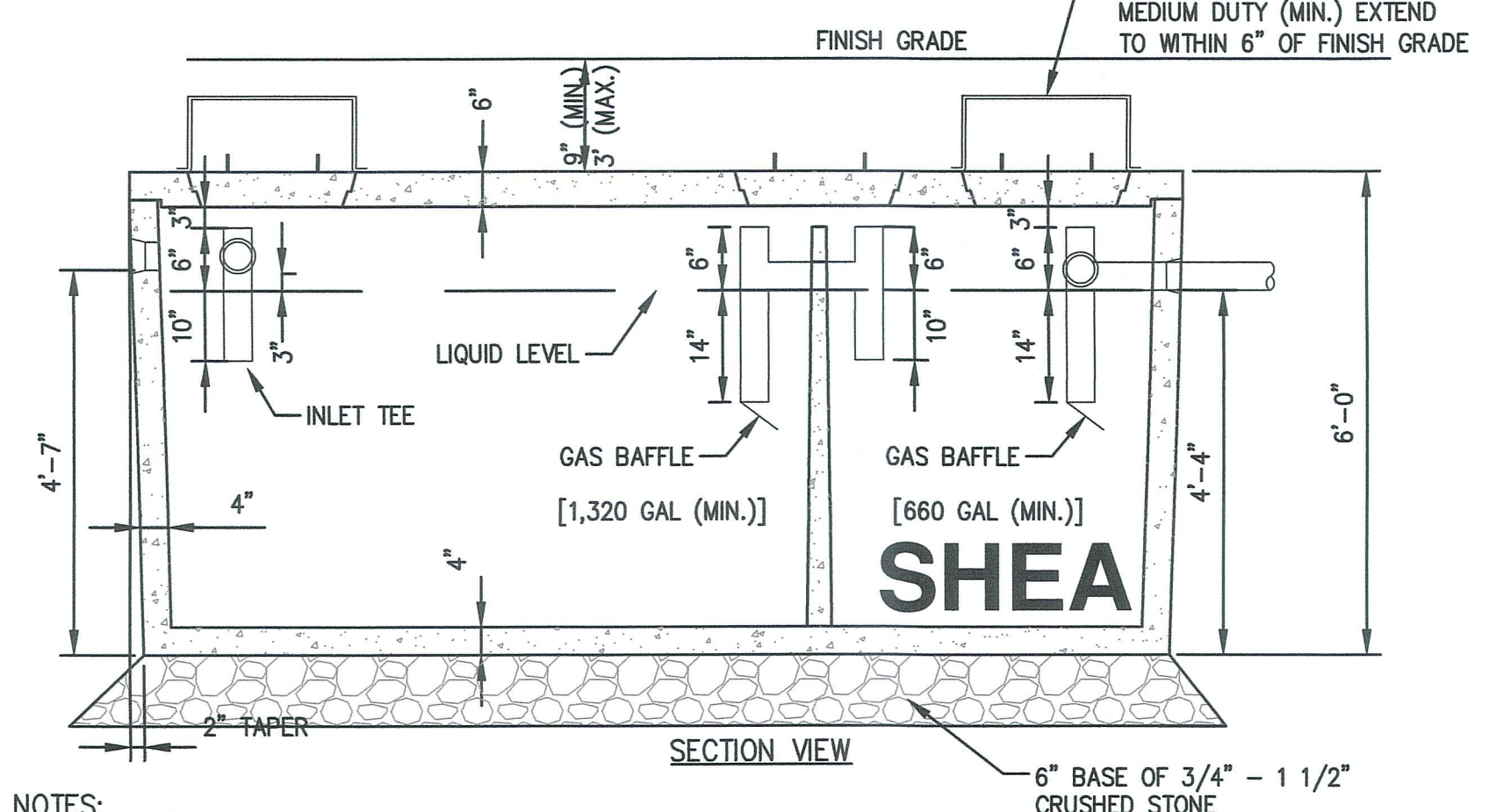
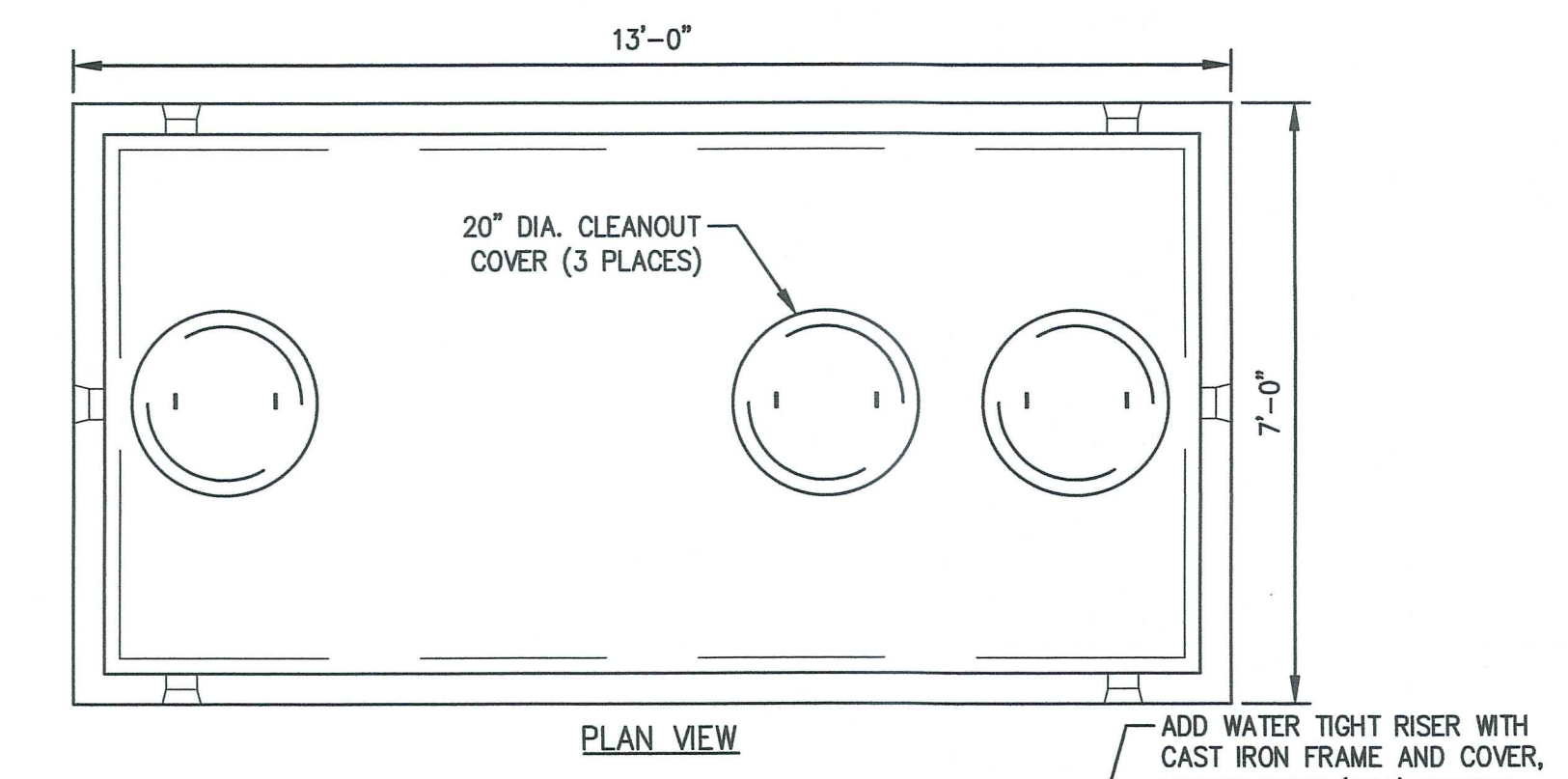


SYSTEM PROFILE ALONG FLOW PATH

[NOTE: ALL PIPE TO BE 4" P.V.C. (SCH. 40) UNLESS NOTED.]
 V: 1"=2'
 H: 1"=10'

SCHEDULE OF INVERTS

Ⓐ INV. @ FOUNDATION	= 173.75
Ⓑ TANK IN	= 173.39
Ⓒ TANK OUT	= 173.14
Ⓓ D-BOX IN	= 173.05
Ⓔ D-BOX OUT	= 172.88
Ⓚ LEACH PIPE START	= 172.74
Ⓛ LEACH PIPE END	= 172.6

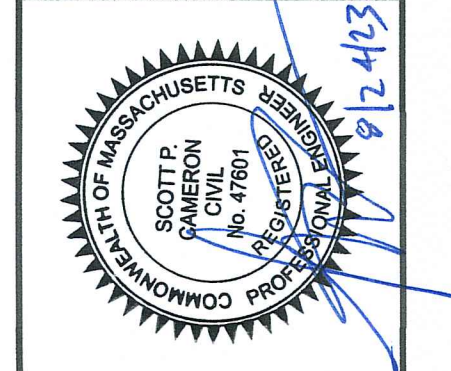


NOTES:
 1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
 3. ALL REINFORCEMENT PER ASTM C1227.
 4. TEES AND GAS BAFFLE SOLD SEPARATELY.
 5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
 6. ALSO AVAILABLE IN HS-20 LOADING.

ITEM NO.	WEIGHT
TK M20002C	19,150#
TK M20002CH	21,150#

2,000 GALLON (MONOLITHIC) TWO COMPARTMENT PRECAST CONCRETE SEPTIC TANK (NOT TO SCALE)

The Morin-Cameron GROUP, INC.
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 LAND SURVEYORS | LAND USE PLANNERS
 25 HENRIETTA STREET, SUITE 200, WILMINGTON, MASSACHUSETTS 01890
 TEL: 978.253.4133 FAX: 978.253.4133



REVISIONS

NO.	DESCRIPTION	DATE
1	ADDRESSED BOH COMMENTS	01/26/22
2	ADD NEW DWELLING	09/28/23

SURVEY BY: PM / SR
 DRAFTED BY: LNO
 CHECKED BY: SPC
 APPROVED BY: SPC
 SCALE: AS NOTED
 DATE: JANUARY 10, 2022

SEPTIC SYSTEM DESIGN IN LYNNFIELD, MASSACHUSETTS 1466 MAIN STREET (LOT 22) (ASSESSOR'S MAP 8 LOT 1467) PREPARED FOR: DELOURY CONSTRUCTION COMPANY, INC.

SSD
 DRAWING NO. 2 OF 2