

NOTE:
ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
(310 CMR 15.221(12))

EXIST. TANK TO BE PUMPED,
COLLAPSED AND REMOVED, PROPOSE(COMBO TANK)
NEW 2000 GALLON TANK(1500 SEPTIC/500 PUMP) (MONOLITHIC) (H-20 LOAD)
W/ 6" STONE BENEATH TANKS SHALL HAVE A MIN. COVER
PROP. ACCESS MANHOLE TO BE EQUIPPED WITH RISERS ON ALL
FINISHED GRADE WITH TANK TOP OPENINGS.
WATERTIGHT JOINTS.
MANHOLES BROUGHT TO FINAL GRADE SHALL BE
SECURED TO PREVENT UNAUTHORIZED ACCESS.
(310 CMR 15.228(2))

PROPOSED D-BOX/INLET TEE (6 OUTLET)
W/ 6" STONE BENEATH OUTLET LINES SHALL BE LEVEL FOR A
3/4" - 1-1/2" MINIMUM OF THE FIRST TWO FEET OF
CRUSHED STONE.
PROVIDE 9" OF COVER OVER D-BOX COVER
IF EXCESS OF 9" THEN PROP A RISER TO WITHIN
6" OF FINISHED GRADE
(310CMR SEC 15.232(3)(F))
VENT LINE FROM THE D-BOX SHALL BE 2" MIN. ABOVE THE COVER
OF THE D-BOX AT THE BEND INVERT.

PROP. PRESBY ENVIRO-SEPTIC PIPES (5 CELLS)
(5 LINES - 40.0' - 12")
(110'L.F. PIPE REQUIRED - 200'L.F. PROVIDED)
(3.00' O.C. SPACING)
(BED SIZE 15.0'W x 42.0'L)
(600 S.F. REQUIRED - 630 S.F. PROVIDED)

PROP. 4"PVC PERF SCH40 INSPECTION PORT(3)
TO BOTTOM OF SYS. SAND AND THREADED CAP
WITHIN 3" OF FIN. GRADE. WRAP PIPE WITH PERMEABLE
GEOTEXTILE FABRIC.

PROP SYSTEM VENT/SCREENED(4"PVC SCH40)
LOW VENT - 3' MIN ABOVE FINAL GRADE.

NOTE:
1. PROPOSED SEPTIC TANK/PUMP CHAMBER SHALL BE MONOLITHIC AND
TESTED FOR WATER-TIGHTNESS PER BOARD OF HEALTH REGULATIONS.
2. PROPOSED SEPTIC TANK/PUMP CHAMBER SHALL BE VACUUM TESTED AND WATERPROOFED AS REQUIRED.

CONDITIONS APPLICABLE TO THE SYSTEM OWNER:

- THE SYSTEM IS APPROVED FOR THE TREATMENT AND DISPOSAL OF SANITARY SEWAGE ONLY.
ANY WASTES THAT ARE NON-SANITARY SEWAGE GENERATED OR USED AT THE FACILITY SERVED
BY THE SYSTEM SHALL NOT BE INTRODUCED INTO THE ON-SITE SEWAGE DISPOSAL SYSTEM AND
SHALL BE LAWFULLY DISPOSED OF.
- THE OWNER OF THE SYSTEM SHALL AT ALL TIMES PROPERLY OPERATE AND MAINTAIN THE
ON-SITE SEWAGE DISPOSAL SYSTEM.
- THE OWNER SHALL FURNISH THE DEPARTMENT ANY INFORMATION THAT THE DEPARTMENT
REQUESTS REGARDING THE OPERATION AND PERFORMANCE OF THE SYSTEM, WITHIN 21 DAYS OF
THE DATE OF RECEIPT OF THAT REQUEST.
- NO OWNER SHALL AUTHORIZE OR ALLOW THE INSTALLATION OF THE SYSTEM OTHER THAN BY A
PERSON TRAINED BY THE COMPANY TO INSTALL THE SYSTEM.

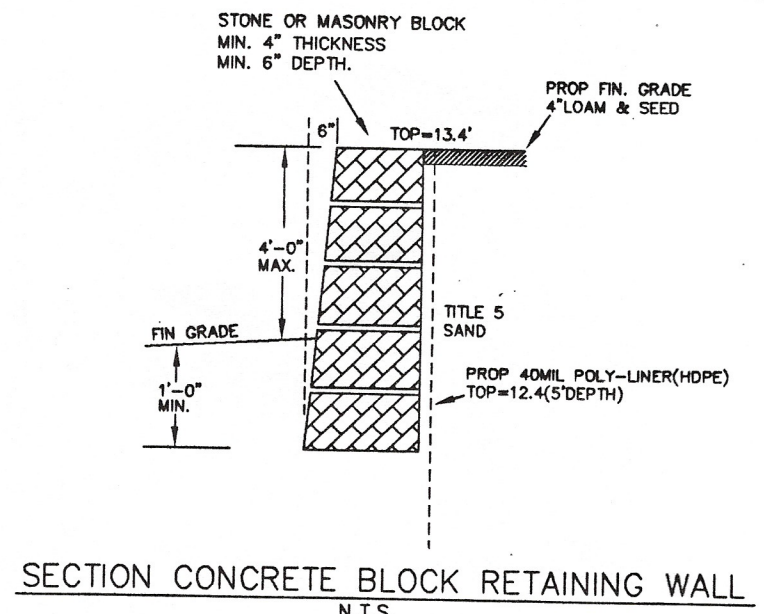
CERTIFICATIONS:

NO PART OF THIS SYSTEM IS WITHIN AN AREA NOTED BY
D.E.P. AS AN ESTIMATED SETBACK AREA FOR TITLE 5.
NO PART OF THIS SYSTEM IS WITHIN 400 FEET OF PUBLIC
AND SURFACE WATER SUPPLIES.
NO PART OF THIS SYSTEM IS WITHIN 200 FEET OF TRIBUTARIES
TO PUBLIC AND SURFACE WATER SUPPLIES.
NO PART OF THIS SYSTEM IS WITHIN 100 FEET TO A PRIVATE
WATER SUPPLY (WELL).
NO PART OF THIS SYSTEM IS WITHIN A NITROGEN SENSITIVE
AREA AS DELINEATED BY D.E.P..
THIS PROPOSED SYSTEM IS WITHIN 100' FEET OF A WETLAND
RESOURCE AREA AS DEFINED BY 310 CMR 10.0, THE WETLAND
PROTECTION ACT, AND CONFORM TO THE REQUIREMENTS OF
TITLE 5.

GENERAL NOTES

- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR HORIZONTAL AND VERTICAL
CONTROL OF ALL SYSTEM COMPONENTS.
- 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 TO ACCOMMODATE ONLY SANITARY SEWAGE ASSOCIATED
WITH NORMAL DOMESTIC USAGE AND CONSISTING OF WATER-CARRIED PUTRESCIBLE
WASTE.
- THIS SYSTEM IS NOT DESIGNED FOR GARBAGE GRINDERS.
- THE SYSTEM SHALL BE INSTALLED THROUGH BUILDING PLUMBING AS REQUIRED BY
BUILDING CODE.
- PROPERTY LINES AND BUILDING LOCATION ARE SHOWN ONLY. PROPERTY LINES
NOT HAVING BEEN VERIFIED, NO REPRESENTATION OR CERTIFICATION AS TO THE
ACCURACY OF THOSE SHOWN IS IMPLIED OR INTENDED. A BOUNDARY SURVEY
BY A PROF. LAND SURVEYOR TO ESTABLISH LOT LINES ON THE GROUND MAY BE
REQUIRED BY THE B.O.H. PRIOR TO CONSTRUCTION OF THE PROPOSED FACILITIES.
- PURSUANT TO LOCAL REGULATIONS, ALL PROPOSED
BUILDING LOTS, BUILDINGS OR ADDITIONS SHALL COMPLY WITH THE ZONING BYLAWS.
8. THE PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON
DATE OF TOPOGRAPHY AND THE ABSENCE OF SUBSURFACE STRUCTURES,
UTILITIES, ETC IS NOT INTENDED OR IMPLIED.
- THE INSTALLER OF THIS SYSTEM MUST BE LICENSED BY THE LOCAL BOARD OF
HEALTH.
- THERE ARE NO EXISTING WELLS WITHIN 100' OF THE PROPOSED SEWAGE
DISPOSAL SYSTEM. SYSTEM TO BE STAKED IF WELLS LESS THAN 125'.
11. DISPOSAL SYSTEM AREAS ARE TO BE RAKED (SCARIFIED) BEFORE INSTALLATION
OF STONE. ALL STONES EXCEEDING 2 INCHES IN DIAMETER, ALL LOAM, OR FOREIGN
MATERIAL ENCOUNTERED DURING EXCAVATION ARE TO BE REMOVED FROM THE
LEACHING AREA SURFACES.
- 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 SLUDGE IN THE BOTTOM OF THE TANK EXCEEDS 1/4
OF THE DEPTH.
- ALTERNATE MANUFACTURERS FOR CONCRETE STRUCTURES AND EQUIPMENT SHOWN
ON THESE PLANS MAY BE USED UPON THE WRITTEN APPROVAL OF THE DESIGN
ENGINEER. ALTERNATE MANUFACTURERS WILL NOT BE USED IF THE USE OF THEIR
EQUIPMENT REQUIRES DESIGN CHANGES.
- IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE DESIGN
ENGINEER AS WELL AS THE APPROVING AUTHORITIES SHALL BE NOTIFIED IN
WRITING BEFORE CONSTRUCTION.
- THE LOCAL BOARD OF HEALTH AGENT OR STATE INSPECTOR WILL CONDUCT PERIODIC
INSPECTIONS AS NEEDED.
- A RESIDENT INSPECTOR FROM E.L.S., LLC SHALL BE ON SITE TO
(A) INSPECT THE INSTALLATION OF ALL CONCRETE STRUCTURES PRIOR TO BEING
BACKFILLED, (B) INSPECT THE BOTTOM OF THE LEACH AREA AT THE TIME IT IS
SCARIFIED, AND (C) INSPECT THE LEACH AREA PRIOR TO BEING BACKFILLED.
E.L.S., LLC SHALL BE GIVEN AT LEAST 48 HOURS NOTICE BY
THE GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE ABOVE CON-
STRUCTION OPERATIONS.
- 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.
ALL UNSUITABLE MATERIAL UNDER AREA OF LEACHING SYSTEM AND 5' BEYOND SHALL
BE REMOVED AND REPLACED WITH CLEAN FILL MEETING THE SPECIFICATIONS OF
TITLE 5, 310 CMR 15.253(3).
19. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS IN THE FIELD. IF ANY
DISCREPANCIES ARE FOUND BETWEEN EXISTING DIMENSIONS AND PLAN DIMENSIONS,
CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH
ANY WORK.

TAX MAP 33 LOT 20
N/F THE FIRST CONGREGATIONAL CHURCH ROWLEY
BK 16581 PG 483
#645 MAIN STREET

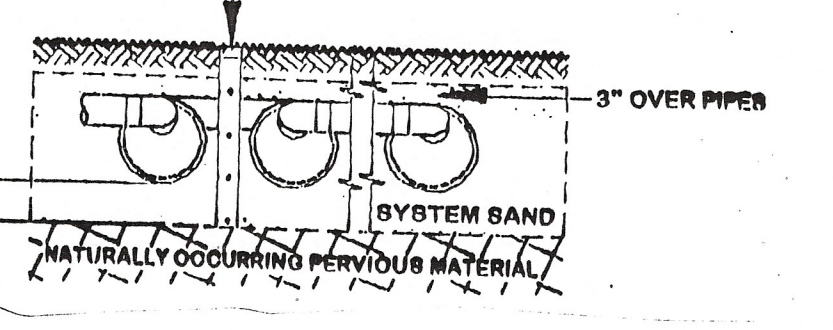


NOTE: 1 - WALL TO BE CONSTRUCTED OF
CONCRETE LANDSCAPING BLOCKS
DRY-SET FOR MANUFACTURER'S INSTRUCTIONS.
INSTALL 40ML POLY-LINER(H-20)
(TOP-12.4(5)DEPTH)
(135'L.F.)

SEPTIC TANK NOTE:
A GAS BAFFLE SHALL BE INSTALLED AT THE
FIRST TANK COMPARTMENT OUTLET TEE AND A
FILTER SHALL BE INSTALLED AT THE LAST TANK
COMPARTMENT OUTLET TEE.
ALL INLETS AND OUTLETS OF THE PROPOSED TANK SHALL
BE RUBBER BOOTED.
MIN SEPTIC TANK CAPACITY REQUIRED:
150 x 200% = 300 GALLONS
PROPOSE 2000 GALLON COMBO TANK(H-20)
(1500 GAL SEPTIC/500 GAL PUMP)
EXISTING SEPTIC SYSTEM NOTE:
EXISTING SEPTIC LEACH PIT(L.P.)SHALL BE PUMPED,
CRUSHED AND REMOVED/REPLACE WITH TITLE 5 SAND
WHERE REQUIRED.
EXISTING SEPTIC TANK(S.T.)
TO BE PUMPED, CRUSHED AND REMOVED.

DEED RESTRICTION NOTE:
MIN. 3 BEDROOM DESIGN REQUIRED
TO 1 BEDROOM DESIGN WITH DEED RESTRICTION.
(310 CMR 15.203)

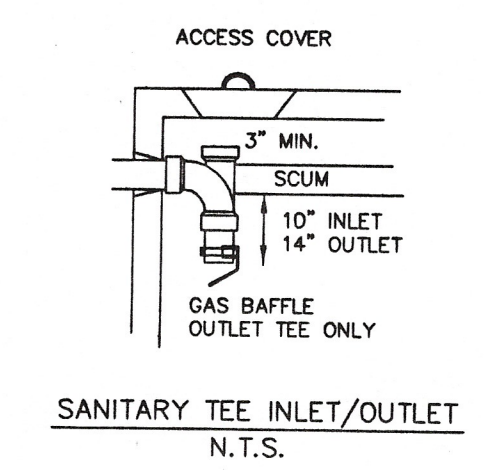
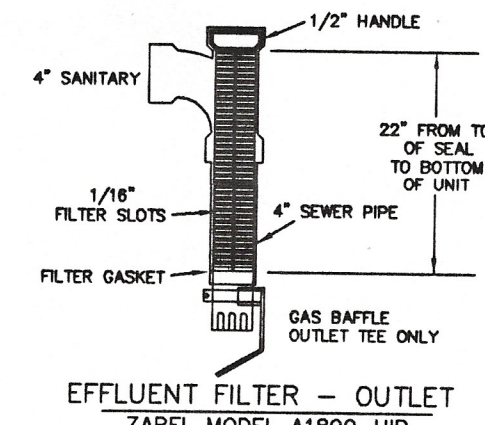
**4" PERFORATED INSPECTION PORT TO BOTTOM OF SYSTEM SAND
AND THREADED CAP WITHIN 3" OF FINAL GRADE. WRAP PIPE WITH
PERMEABLE GEOTEXTILE FABRIC TO ELIMINATE SAND INFILTRATION.**



THE INTENT OF THIS PLAN IS TO PROVIDE
FULL COMPLIANCE WITH TITLE 5 OF THE
STATE ENVIRONMENTAL CODE, AS AMENDED
BY THE BOARD OF HEALTH, EXCEPT WHERE
NOT POSSIBLE, AND NOTED IN THE FOLLOWING
VARIANCE REQUESTS TO ACHIEVE MAXIMUM
FEASIBLE COMPLIANCE.

VARIANCE REQUESTS:

- REDUCTION IN GROUNDWATER SEPARATION TO BOTTOM BED OF S.A.S.
FROM 4' REQUIRED TO 3' PROVIDED. (PRESBY ENVIRO SYSTEM)
(310 CMR 15.212 & 310 CMR 15.405(1)(H)-STATE)
- PERCOLATION TEST REQUIRED IN PROPOSED S.A.S.
AREA TO SOIL LAB ANALYSIS.
(310 CMR 15.104)(SOIL SATURATED)
- S.A.S. SETBACK TO PROPERTY LINES FROM 30' REQUIRED
TO 4' PROVIDED.
(310 CMR 15.211 & LOCAL)(PUBLIC HEARING REQUIRED)
- S.A.S. SETBACK TO WETLAND FROM 100' REQUIRED
TO 50' & 50' PROVIDED WITH POLY-LINER (MEETS TITLE 5).
(LOCAL)
- SEPTIC/PUMP TANK INVERT OUT PIPE ELEVATION ABOVE E.S.H.W.T.
FROM 12" REQUIRED TO 0.33' BELOW E.S.H.W.T. PROVIDED.
(310 CMR 15.227(5)) (RUBBER BOOTS TO BE INSTALLED)

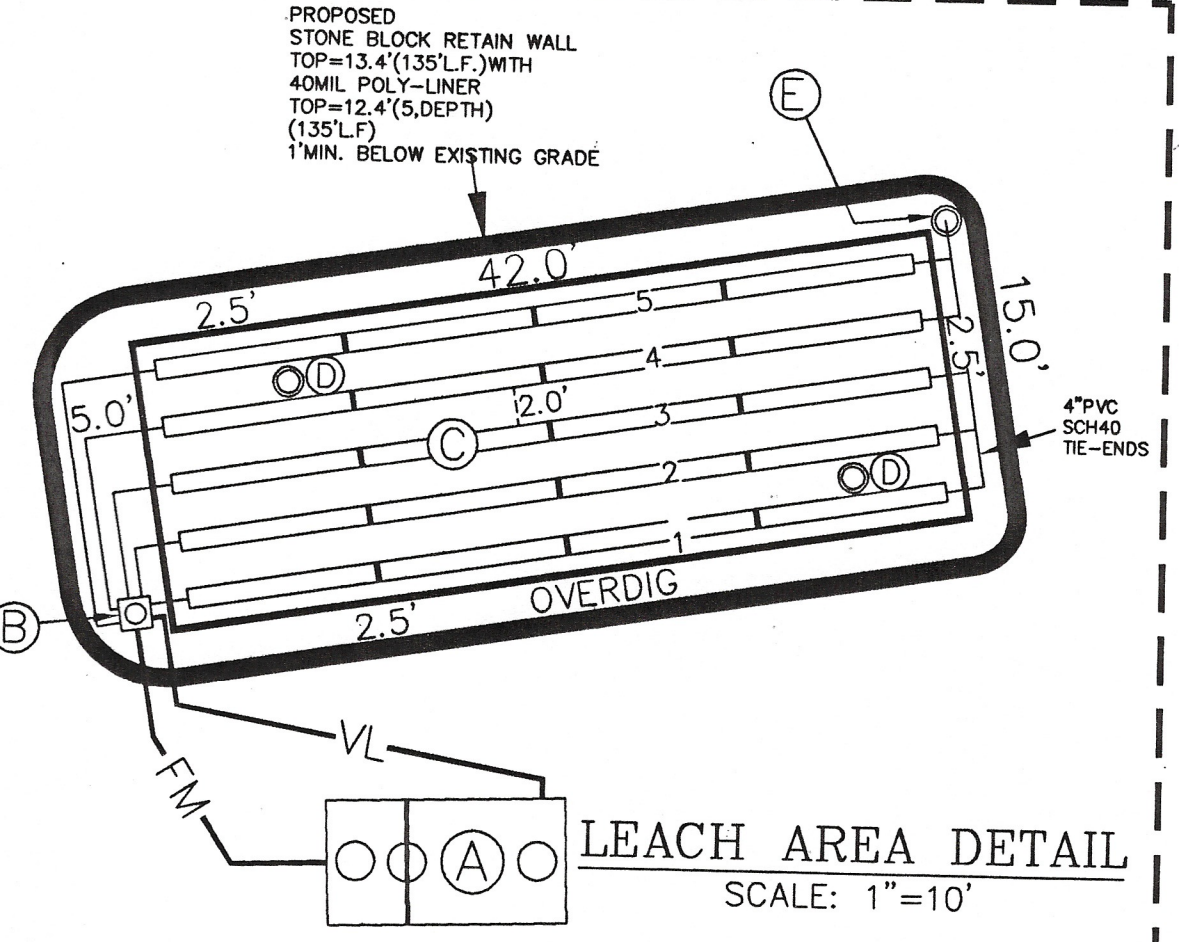
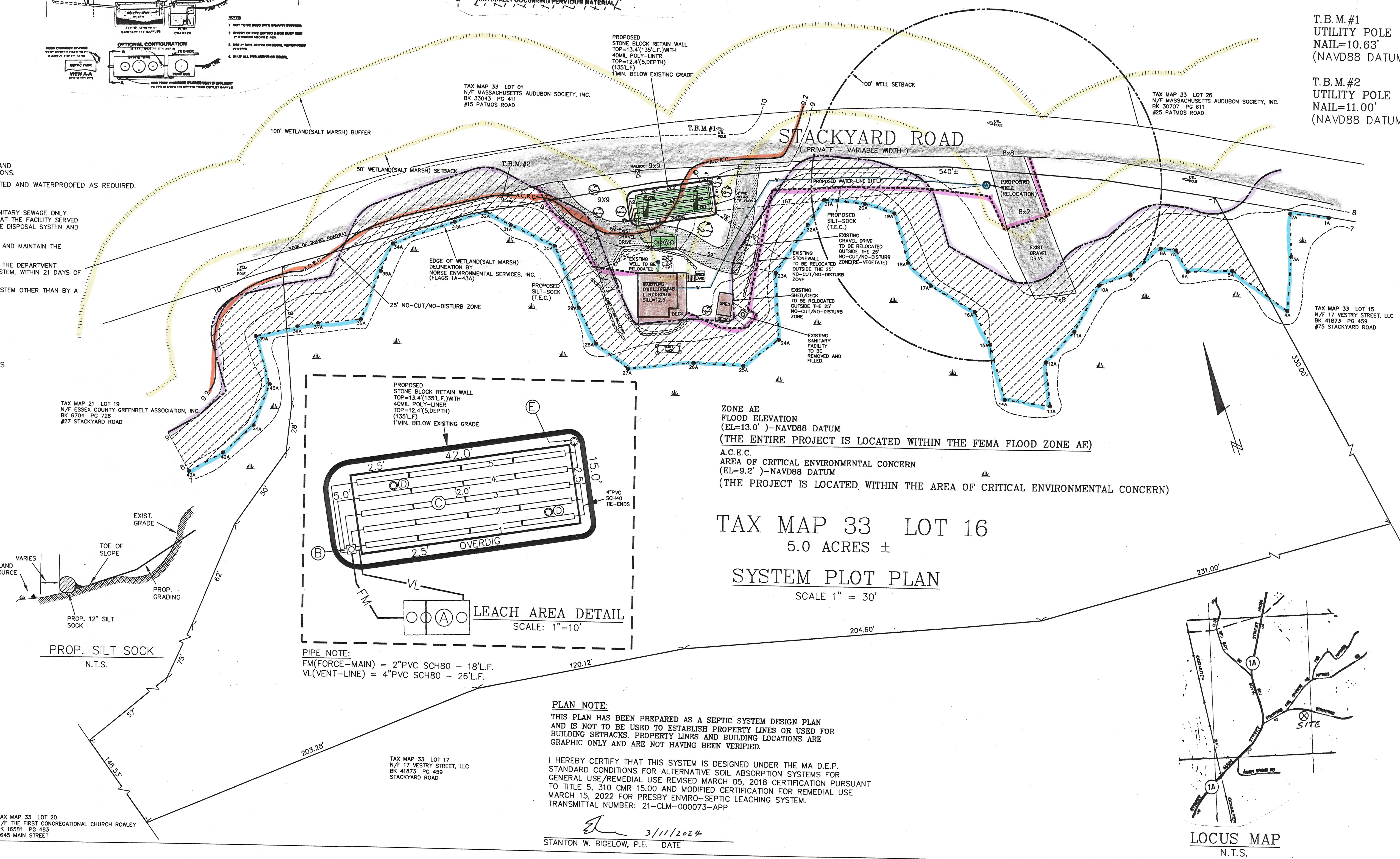


LEGEND:

- 100x0 SPOT ELEVATION
- EXIST. CONTOUR
- PROP. CONTOUR
- EXISTING SOIL TEST LOCATION
- EXISTING PERC. TEST LOCATION
- EXIST WATER-SERVICE
- EXIST SHRUB
- EXIST TREE
- PROP STAKED COMPOSTABLE FILTER SOCK(BARK MULCH)
- 100' WETLAND(SALT MARSH) BUFFER
- 50' WETLAND(SALT MARSH) SETBACK
- A.C.E.C.-AREA OF CRITICAL ENVIRONMENTAL CONCERN
- WETLAND(SALT MARSH)

T.B.M.#1
UTILITY POLE
NAIL=10.63'
(NAVD88 DATUM)

T.B.M.#2
UTILITY POLE
NAIL=11.00'
(NAVD88 DATUM)



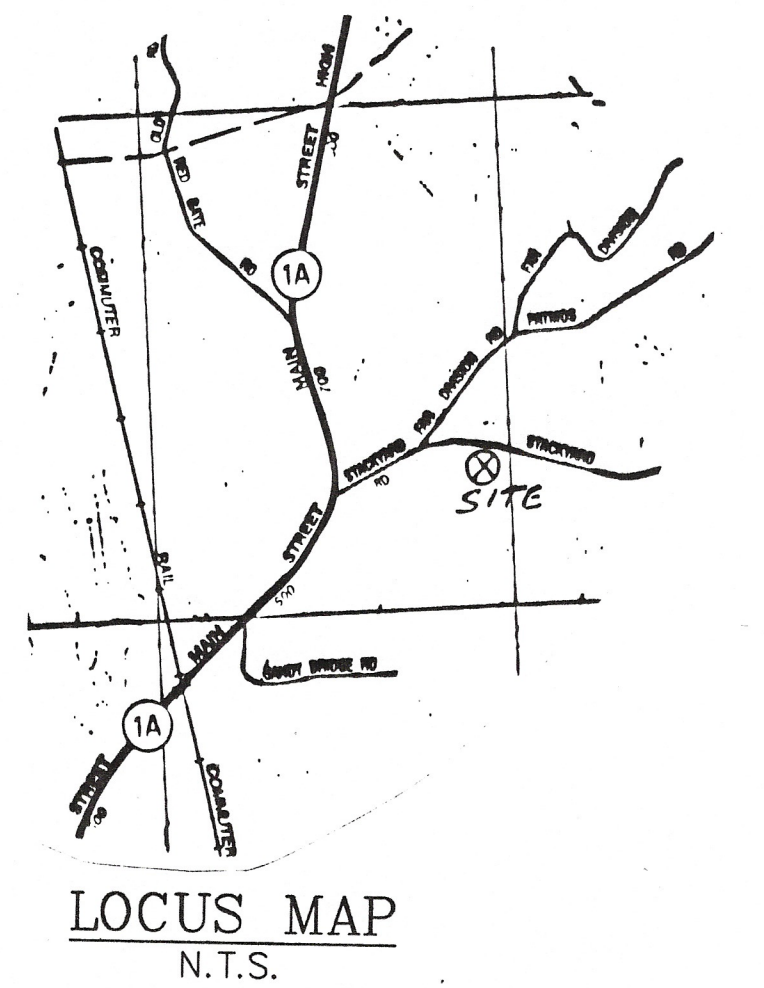
PIPE NOTE:
FM(FORCE-MAIN) = 2"PVC SCH80 - 18'L.F.
VL(VENT-LINE) = 4"PVC SCH80 - 26'L.F.

ZONE AE
FLOOD ELEVATION
(EL=13.0')-NAVD88 DATUM
(THE ENTIRE PROJECT IS LOCATED WITHIN THE FEMA FLOOD ZONE AE)
A.C.E.C.
AREA OF CRITICAL ENVIRONMENTAL CONCERN
(EL=9.2')-NAVD88 DATUM
(THE PROJECT IS LOCATED WITHIN THE AREA OF CRITICAL ENVIRONMENTAL CONCERN)

TAX MAP 33 LOT 16
5.0 ACRES ±
SYSTEM PLOT PLAN
SCALE 1" = 30'

PLAN NOTE:
THIS PLAN HAS BEEN PREPARED AS A SEPTIC SYSTEM DESIGN PLAN
AND IS NOT TO BE USED TO ESTABLISH PROPERTY LINES OR USED FOR
BUILDING SETBACKS, PROPERTY LINES AND BUILDING LOCATIONS ARE
GRAPHIC ONLY AND ARE NOT HAVING BEEN VERIFIED.
I HEREBY CERTIFY THAT THIS SYSTEM IS DESIGNED UNDER THE MA D.E.P.
STANDARD CONDITIONS FOR ALTERNATIVE SOIL ABSORPTION SYSTEMS FOR
GENERAL USE/REMEDIAL USE REVISED MARCH 05, 2018 CERTIFICATION PURSUANT
TO TITLE 5, 310 CMR 15.00 AND MODIFIED CERTIFICATION FOR REMEDIAL USE
MARCH 15, 2022 FOR PRESBY ENVIRO-SEPTIC LEACHING SYSTEM.
TRANSMITTAL NUMBER: 21-CLM-000073-APP

3/11/2024
STANTON W. BIGELOW, P.E. DATE



Engineering Land Services, LLC
P.O. BOX 41
WEST NEWBURY, MA 01985
TEL: 978-815-6744
EMAIL: MASSPLSRG@AOL.COM

OWNER: 17 VESTRY STREET, LLC
TAX MAP 33 LOT 16
LOCUS DEED: BK 41873 PG 459

LOCATION: 45 STACKYARD ROAD
ROWLEY, MA 01969

REVISIONS:
02-08-2024
02-16-2024
03-11-2024

DRAWN: RMG
CHECKED: SMB
SCALE: 1"=30'
DATE: 01-22-2024
DWG No. 21-CLM-000073-APP

STANTON W. BIGELOW, P.E. REGISTERED PROFESSIONAL ENGINEER
NO. 23881
3/11/2024
DATE

SHEET No. 1 OF 2