



GROVE

ENGINEERING, PLLC

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PROPOSED SHALLOW TRENCH SEPTIC SYSTEM

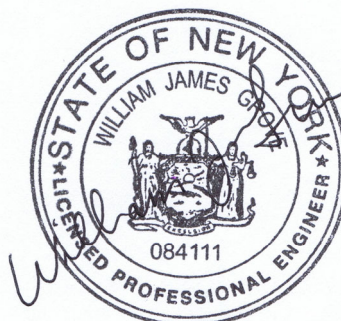
PROPOSED BROCKLEBANK PROPERTY

COOLEY ROAD
PORTION OF
T.M.# 69.00-1-41.100

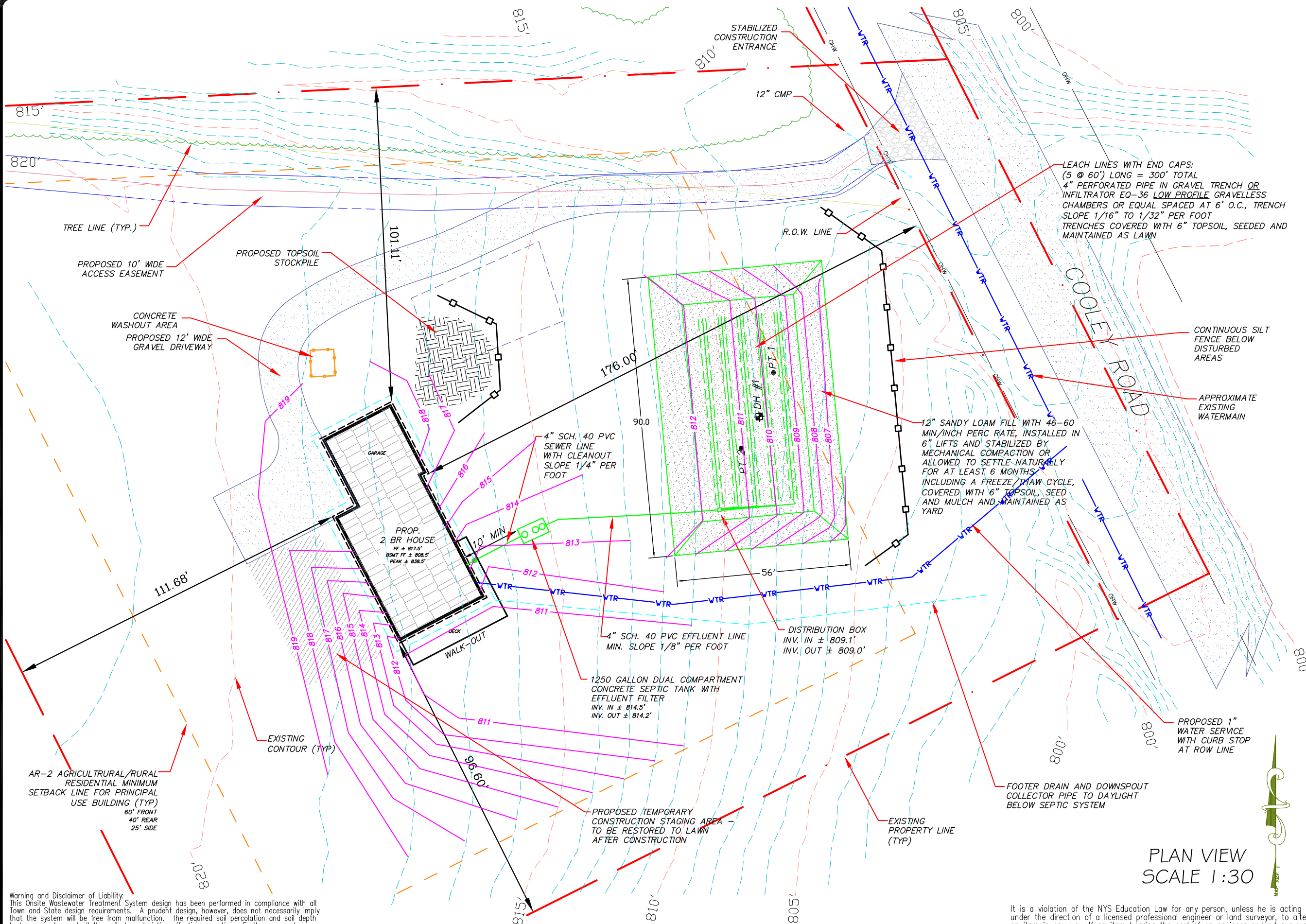
TOWN OF CANANDAIGUA
ONTARIO COUNTY
NEW YORK

MAY 10, 2021

SHEET 1 OF 5



WILLIAM J. GROVE, PE
NYS LICENSE #084111



PLAN VIEW
SCALE 1:30

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GENERAL NOTES:

1. SITE INVESTIGATION CONSISTING OF ONE (1) DEEP TEST PIT AND TWO (2) PERCOLATION (PERC) TESTS, WAS PERFORMED ON MARCH 17, 2021 BY WILLIAM J. GROVE, PE. SEE "SOILS INFORMATION" FOR SUMMARIZED SITE INVESTIGATION RESULTS. BASED ON THE RESULTS OF THE SITE INVESTIGATION, A CONVENTIONAL SHALLOW TRENCH SEPTIC SYSTEM IS PROPOSED.
2. LOCATIONS OF THE SYSTEM COMPONENTS ARE SHOWN IN THE PLAN VIEW AND COMPONENT DETAILS ARE SHOWN SEPARATELY.
3. THE SEPTIC SYSTEM IS DESIGNED TO TREAT AND DISPERSE 260 GALLONS PER DAY BASED ON THE PROPOSED 2 BEDROOM HOUSE, ITS PROPOSED USE AND THE DOH REGULATIONS.
4. WATER SUPPLY TO BE SERVICED BY THE TOWN OF CANANDAIGUA WATER SERVICE AS SHOWN ON PLAN.
5. THE BACKFILL IS TO BE GRADED TO ROUTE SURFACE WATER AWAY FROM THE ABSORPTION FIELD.
6. WATER TREATMENT SYSTEM WASTES (SUCH AS FROM A WATER SOFTENER) ARE TO BE EXCLUDED FROM THE SYSTEM.
7. NO "CLEAN" WATER IS TO ENTER THE SYSTEM VIA ROOF DRAINS, SUMP PUMPS, FOOTING DRAINS, ETC. THE SYSTEM IS A DISPOSAL UNIT FOR COMMON BATHROOM, LAUNDRY AND KITCHEN WASTES ONLY. GARBAGE GRINDERS AND LARGE CAPACITY TUBS (SPA TUBS) ARE NOT TO BE USED ON THIS SYSTEM.
8. IF THE HOUSE USES A WATER SOFTENER, THE WATER SOFTENER DISCHARGE SHALL NOT BE ROUTED TO THE WASTEWATER SYSTEM. THE WATER SOFTENER DISCHARGE SHOULD BE DIRECTED TO ITS OWN SUBSURFACE DISPOSAL SYSTEM LOCATED AWAY FROM THE PROPOSED LEACH AREA.
9. THE CONTRACTOR IS TO CONTACT DIG SAFELY NEW YORK AT 800-962-7962 TO VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO DOING ANY EXCAVATION WORK.
10. NO PART OF THE SYSTEM IS TO BE LOCATED UNDER DRIVEWAYS, BUILDINGS, SWIMMING POOLS OR OTHER AREAS SUBJECT TO HEAVY LOADING UNLESS DESIGNED FOR SUCH.
11. HEAVY CONSTRUCTION EQUIPMENT MUST NOT BE ALLOWED WITHIN THE AREA OF THE SYSTEM PRIOR TO CONSTRUCTION
12. ALL VEGETATION SHALL BE CUT AS CLOSE TO GRADE AS POSSIBLE AND REMOVED.
13. THE BOTTOM OF EACH TRENCH MUST NOT BE ABOVE THE ORIGINAL GROUND SURFACE.
14. FILL MATERIAL SHALL HAVE A PERCOLATION RATE OF APPROXIMATELY THE SAME RATE AS THE UNDERLYING PERMEABLE SOIL (BETWEEN 46 AND 15 MINUTES PER INCH ON THIS SITE).
15. FILL MATERIAL, INCLUDING THE TOPSOIL LAYER SHALL NOT BE MORE THAN 30 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
16. FILL MATERIAL SHALL BE PLACED PRIOR TO INSTALLATION OF ABSORPTION TRENCHES.
17. THE EDGE OF THE FILL MATERIAL SHALL BE TAPERED AT A SLOPE OF NO MORE THAN ONE VERTICAL TO THREE HORIZONTAL.
18. ONCE THE FILL MATERIAL HAS BEEN INSTALLED AND GRADED, THE ABSORPTION TRENCH SYSTEM CAN BE CONSTRUCTED IN THE FILL, EXTENDING INTO THE EXISTING NATURAL SOIL
19. THE TOPSOIL SURFACE SHALL BE GRADED TO ENHANCE RUNOFF OF PRECIPITATION.
20. TRENCHES SHALL BE COVERED WITH 6" TOPSOIL, SEEDED AND MULCHED AND MAINTAINED AS LAWN.
21. THE EARTH BACKFILL IS TO BE MOUNDED SLIGHTLY ABOVE THE ORIGINAL GROUND LEVEL (i.e., NOT COMPACTED) TO ALLOW FOR SETTLING. FOLLOWING SETTLEMENT, THE ENTIRE AREA SHOULD BE GRADED WITHOUT THE USE OF HEAVY EQUIPMENT AND SEEDED WITH GRASS. HEAVY EQUIPMENT SHALL NOT ENTER THE ABSORPTION FACILITY AREA OR THE PROPOSED EXPANSION AREA AFTER THE SUBSURFACE SEWAGE TREATMENT SYSTEM HAS BEEN CONSTRUCTED.
22. THE TOPSOIL SURFACE SHALL BE GRADED TO ENHANCE RUNOFF OF PRECIPITATION.
23. ON SLOPED SITES, A DIVERSION DITCH OR CURTAIN DRAIN SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.
24. DISTANCE BETWEEN TRENCHES ON THIS SITE TO BE 4 FEET MINIMUM EDGE-TO-EDGE (TYPICALLY 6' CENTER-TO-CENTER)
25. THE CONTRACTOR SHALL PROVIDE AN ACCURATE AS-BUILT MAP TO THE OWNER REFERENCING ALL SYSTEM COMPONENTS TO PERMANENT SITE FEATURES FOR LATER RECOVERY.
26. AFTER AN ENVIRONMENTAL ASSESSMENT, THE ENGINEER HAS DETERMINED THAT THE DEVELOPMENT OF THE SITE WITH THE PROPOSED SYSTEM IS CONSISTENT WITH THE OVERALL DEVELOPMENT OF THE AREA AND WILL CAUSE NO ADVERSE ENVIRONMENTAL IMPACTS.
27. THE PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM MUST BE DESIGNED AND THE INSTALLATION SUPERVISED AND CERTIFIED BY A DESIGN PROFESSIONAL.
28. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO CONTACT THE LOCAL CODE ENFORCEMENT OFFICER ABOUT ANY REQUIRED PERMITS OR FEES BEFORE STARTING WORK ON THE SYSTEM INSTALLATION.

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DESIGN CALCULATIONS:

DESIGN FLOW	EXISTING 2 BEDROOM HOUSE @ 130 GALLONS PER DAY (GPD)/BEDROOM = 260 GPD
SEPTIC TANK:	NEW 1000 GALLON SEPTIC TANK W/EFFLUENT FILTER
DESIGN PERC. RATE:	46-60 MINUTES/INCH
REQUIRED LENGTH OF ABSORPTION TRENCH	300 FEET 300 FEET PROPOSED

FIVE (5) 60 FOOT LONG TRENCHES ARE PROPOSED TOTAL 300 FEET.
TRENCHES TO BE SPACED AT 6 FT ON CENTER

CALCULATION REFERENCE BASED ON N.Y.S.D.O.H., "INDIVIDUAL RESIDENTIAL WASTEWATER TREATMENT SYSTEMS - DESIGN HANDBOOK", 2012, AND APPENDIX 75-A

PERCOLATION TEST RESULTS:

TESTS PERFORMED ON MARCH 17, 2021

TEST NUMBER	DEPTH	PERC RATES (MIN/INCH)	STABILIZED PERC RATE
PT -1	12"	44, 44, 45, 45	45 MIN/INCH
PT -2	12"	44, 45, 45, 45	45 MIN/INCH

SOILS INFORMATION:

DH - 1
0" - 10" DARK BROWN LOAMY TOPSOIL
10" - 48" DARK BROWN SITLY LOAM W/GRAVEL AND COBBLES
ROOTS TO 25"
NO MOTTLING

KEY:

- PT-1 PERC TEST LOCATION
- ⊕ DH-1 DEEP HOLE LOCATION
- CLEAN-OUT

PROPOSED
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SEPTIC SYSTEM

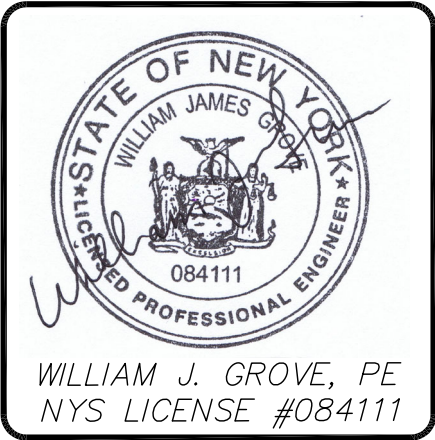
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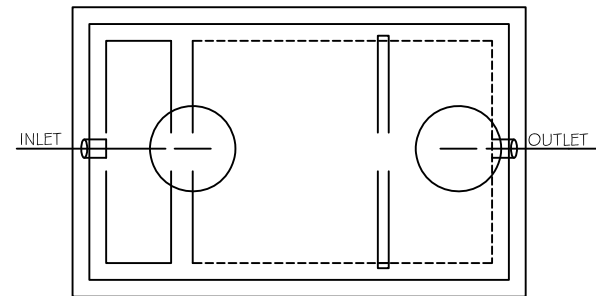
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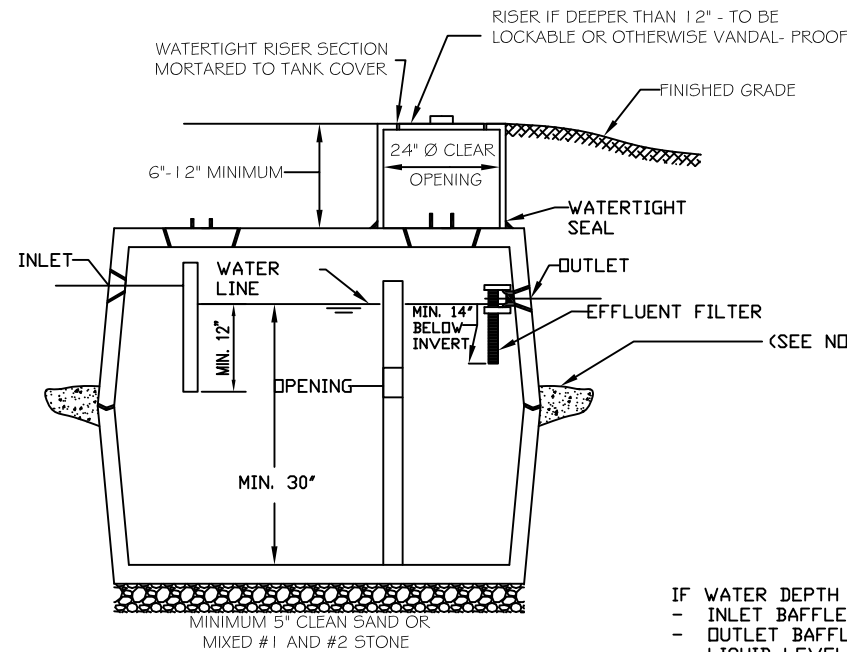
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SHEET 2 OF 5





TOP VIEW



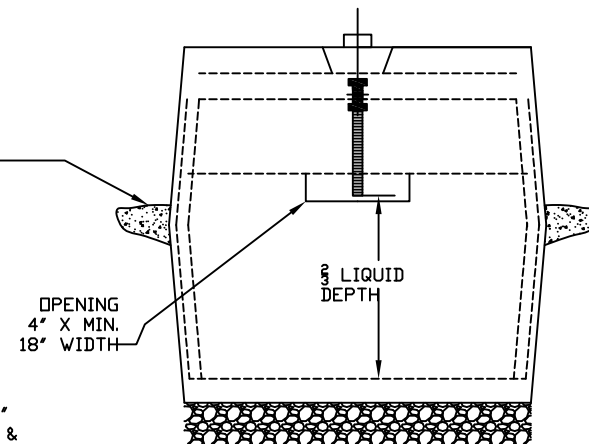
SECTION VIEW

SEPTIC TANK

- IF WATER DEPTH OVER 40'
- INLET BAFFLE MIN 16" &
 - OUTLET BAFFLE MIN 18" BELOW LIQUID LEVEL

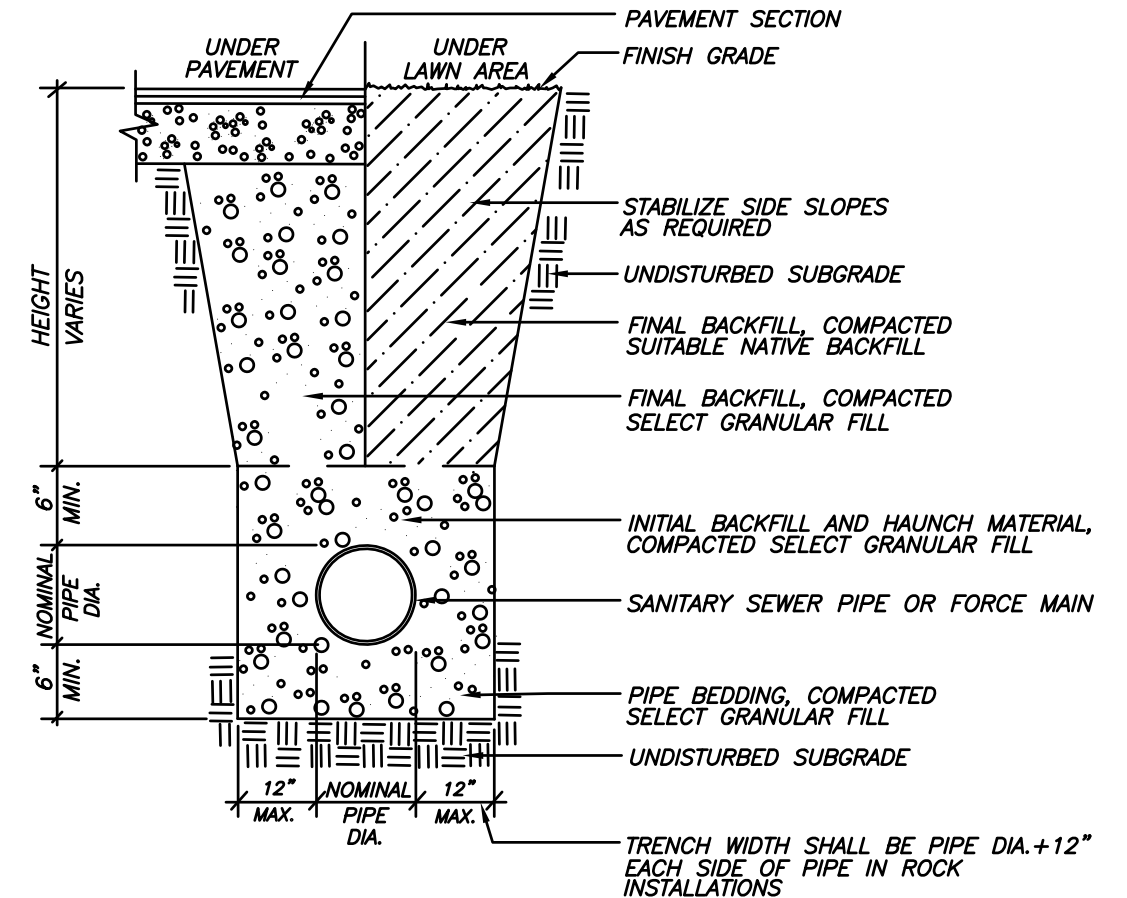
SEPTIC TANK NOTES:

1. ALL PIPE CONNECTION SHALL BE WATERTIGHT.
2. BAFFLES SHALL BE PROVIDED AT INLET AND OUTLET OF SEPTIC TANK (WITH OUTLET FILTER)
3. A 2" MINIMUM DROP FROM INLET TO OUTLET
4. SEPTIC TANK SHALL BE PRECAST CONCRETE WITH WIRE MESH REINFORCING, OR POLYETHYLENE MINIMUM AS SHOWN ON THE SITE PLAN, DUAL-CHAMBER REQUIRED.
5. INSPECTION PORTS TO BE OF ADEQUATE DIAMETER, ONE TO BE LOCATED OVER BAFFLE TO ACCESS FILTER/BAFFLE.
6. TANK INSTALLATION IN AREA OF HIGH GROUNDWATER SHALL BE INSTALLED WITH ANTI-FLOATING DEVICE AS PER TANK MANUFACTURER.
7. TANK SPECIFICATIONS SHALL CONFORM TO NYS APPENDIX 75- A OR CURRENT STANDARDS.



END VIEW

NOT TO SCALE



SANITARY SEWER PIPE TRENCH

NOT TO SCALE

PROPOSED
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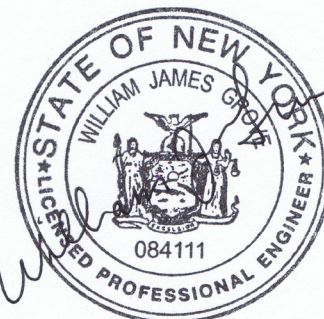
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SHEET 3 OF 5



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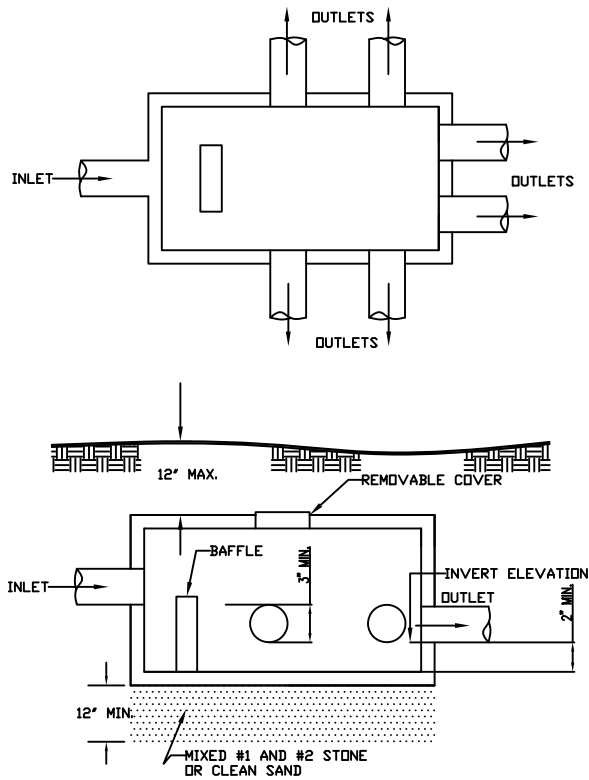
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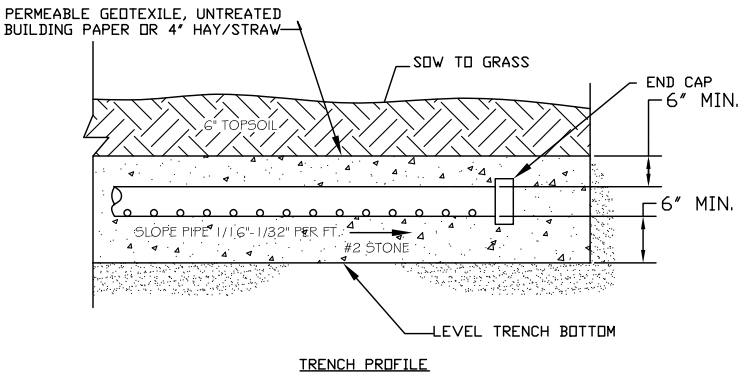
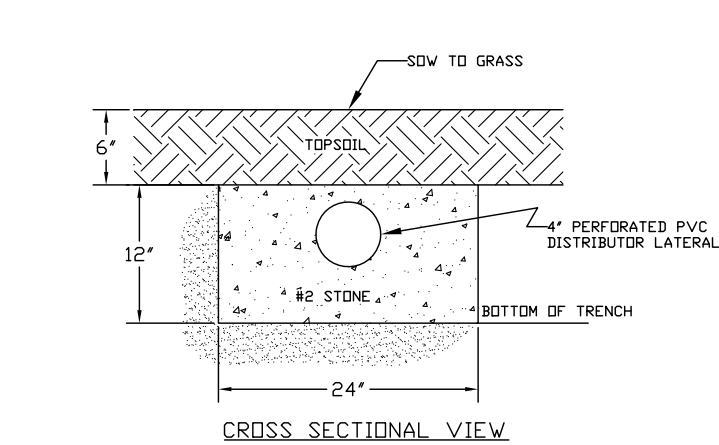
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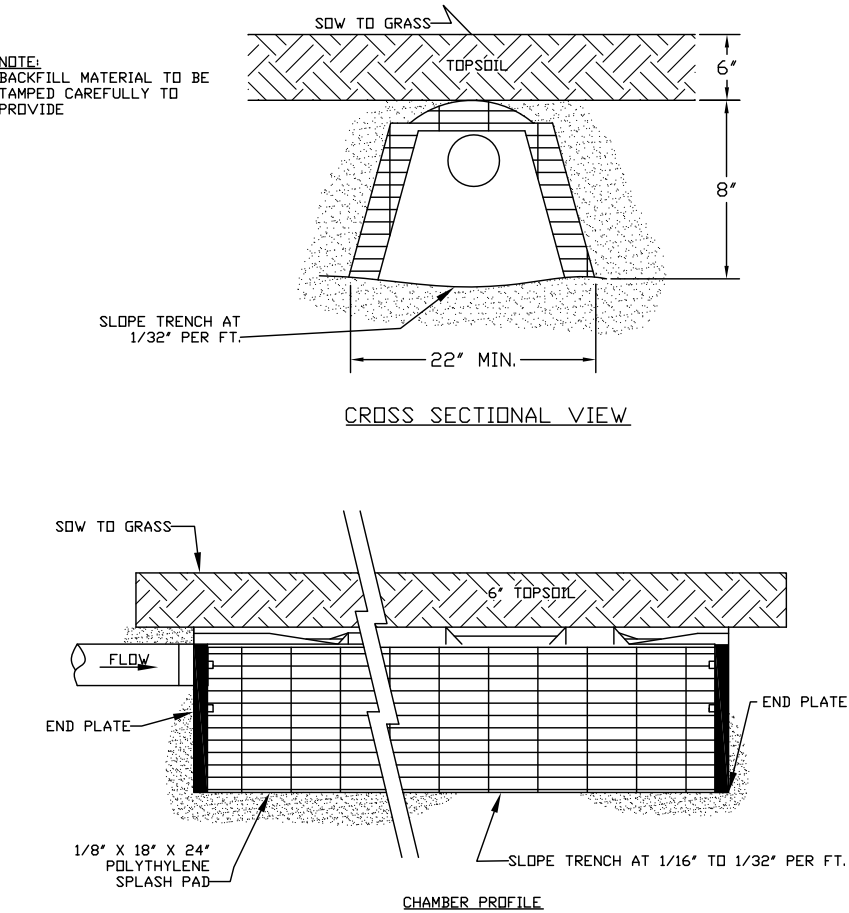
DISTRIBUTION BOX DETAILS
NOT TO SCALE

DISTRIBUTION & DROP BOX NOTES:

1. DISTRIBUTION BOX OR DROP BOXES USED MUST BE ACCEPTABLE TO THE WATERSHED INSPECTOR. (SEE "SYSTEM PLAN SKETCH " ON SHEET 1 OF 2 FOR LOCATION AND NUMBER OF LINES; DISTRIBUTION BOX OR DROP BOX TO HAVE AT LEAST ONE EXTRA PLUGGED OUTLET).
2. PIPE JOINTS TO BE WATERTIGHT
3. INVERT ELEVATIONS OF ALL OUTLET PIPES FROM THE DISTRIBUTION BOX MUST BE EQUAL. USE OF FLOW ADJUSTABLE LEVELING DEVICES IS REQUIRED ON EACH OUTLET.
4. INVERT ELEVATIONS OF ALL OUTLET TRENCHLINE PIPES FROM DROP BOXES MUST BE EQUAL. USE OF FLOW ADJUSTABLE LEVELING DEVICES IS REQUIRED ON EACH TRENCHLINE OUTLET.
5. THE SLOPE OF OUTLET PIPES BETWEEN THE DISTRIBUTION BOX OR DROP BOX AND DISTRIBUTOR LATERALS TO BE AT LEAST $\frac{1}{32}$ " PER FOOT.
6. BAFFLES ARE REQUIRED. INLET PIPE SLOPE SHALL BE AT LEAST $\frac{1}{8}$ "
7. A MINIMUM OF 2 FEET OF SOLID PIPE SHALL EXTEND LEVEL OUT OF DISTRIBUTION BOX OR DROP BOX FROM ALL OUTLETS.



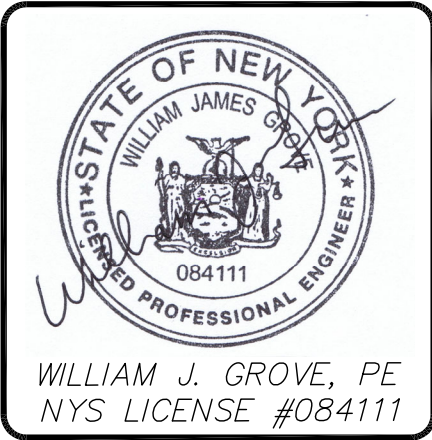
STANDARD ABSORPTION TRENCH
4" PERFORATED PIPE IN STONE TRENCH



GRAVELLESS CHAMBER ABSORPTION TRENCH
INFILTRATOR QUICK4 EQ-36 LOW PROFILE OR EQUAL

DISPERSAL TRENCH DETAILS
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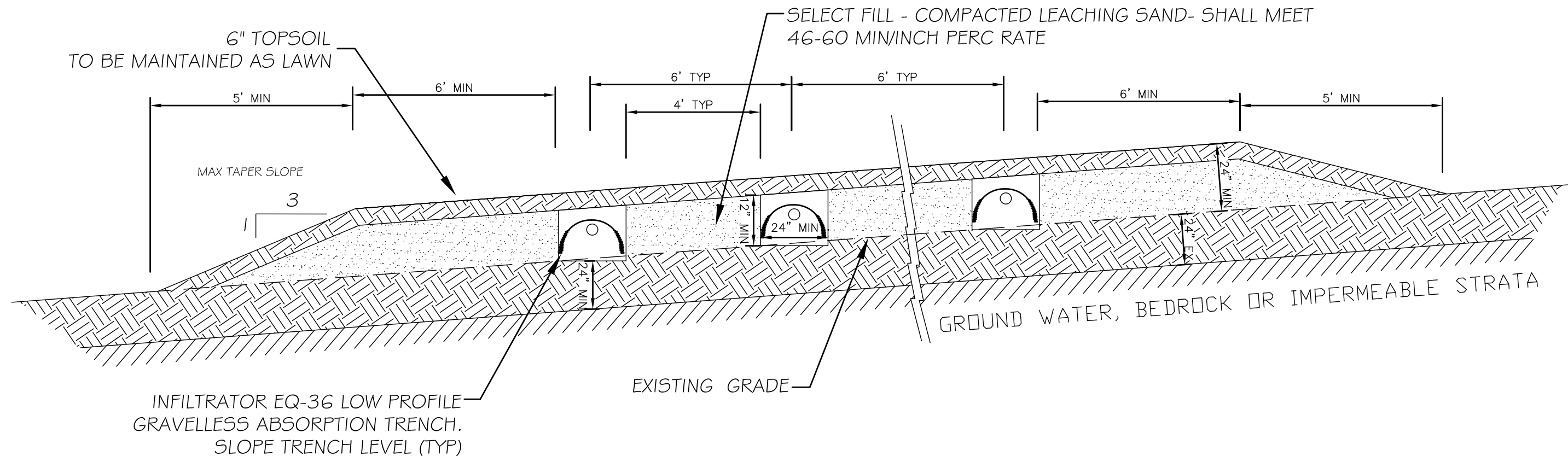
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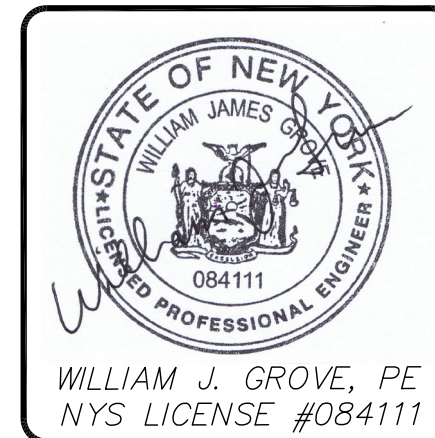
NOTES:

1. BOTTOM OF ALL TRENCHES SHALL NOT BE ABOVE ORIGINAL USABLE SOIL AND TRENCHES SHOULD PREFERABLY BE AT LEAST 6" BELOW ORIGINAL GRADE.
2. USABLE FILL SHOULD HAVE A PERCOLATION RATE SIMILAR TO BUT NOT FASTER THAN THE USABLE SOIL PERCOLATION RATE.
3. MAXIMUM DEPTH OF USABLE FILL PLUS SIX INCHES OF TOPSOIL SHALL NOT EXCEED 30 INCHES.
4. TRENCH BOTTOMS SHALL BE LEVEL. TRENCHES SHALL BE PARALLEL TO GROUND CONTOURS.
5. ON SLOPED SITES, A DIVERSION DITCH SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.
6. FILL SHALL EXTEND AT LEAST SIX FEET BEYOND ENDS OF TRENCHES BEFORE STARTING 1 ON 3 EDGES OF FILL.

SHALLOW TRENCH SYSTEM ON SLOPE

CROSS SECTION - NOT TO SCALE

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