

PLAN VIEW SCALE 1:40

PROPOSED SETBACK
DISTANCE TO
PROPERTY LINE (TYP)

APPROXIMATE ABSORPTION FIELD AREA THAT
WAS MODIFIED BY FILLING WITH 28" LEACHING
SAND FILL (ASSUMED PERC RATE 16-20 MPI)
IN FALL OF 2017 (STABILIZED MIN. 6 MONTHS
WITH FREEZE/THAW CYCLES AS REQUIRED).
65' x 43' BASAL AREA
PLUS ± 15' TAPERS ON ALL SIDES

50% FUTURE
EXPANSION AREA

LEACHATE LINES WITH END CAPS: (5) @ 60' LONG = 300' TOTAL
INFILTRATOR QUICK4 PLUS EQ-36
LOW PROFILE GRAVELLESS TRENCH SYSTEM OR EQUAL
TRENCH SLOPE 1/16" TO 1/32" PER FOOT
TRENCHES COVERED WITH MINIMUM 6" TOPSOIL,
SEEDED AND MAINTAINED AS LAWN

APPROXIMATE
EXISTING PROPERTY LINE

CONCRETE DISTRIBUTION
BOX (TYP)
INV. IN ± 1560.2'
INV. OUT ± 1560.1'

100' SETBACK FROM
EXISTING WELL

EXISTING WELL
APPROXIMATE
EXISTING TREE LINE (TYP)

TOPSOIL STOCKPILE WITH
CONTINUOUS SILT FENCE
ON LOWER SIDE

PROPOSED ELECTRIC
SERVICE - FINAL
LOCATION TBD BY
UTILITY COMPANY

PROPOSED GRAVEL DRIVEWAY
15% MAX SLOPE

EXISTING GRAVEL DRIVEWAY
15% MAX SLOPE

EXISTING BARN
24.3'
32.2'



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CONVENTIONAL SEPTIC SYSTEM DESIGN

PROPOSED
SMITH RESIDENCE

6050 GOFF RD
TM# 139.00-1-34.210

TOWN OF
CANANDAIGUA
ONTARIO COUNTY
NEW YORK

JULY 16, 2018

SHEET 1 OF 4

Warning and Disclaimer of Liability:
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that the system will be free from malfunction. The required soil percolation and soil depth
tests may not reveal all the soil characteristics affecting operation. Further, unusual
precipitation, disposal of some household and other chemicals and failure to pump out septic
tanks as often as required are beyond the control and the responsibility of the designer.
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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 JUNE 13, 2018 BY WILLIAM J. GROVE, PE. SEE "SOILS INFORMATION" FOR SUMMARIZED SITE INVESTIGATION RESULTS. BASED ON THE RESULTS OF THE SITE INVESTIGATION, A CONVENTIONAL SEPTIC SYSTEM ON A MODIFIED SITE 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 520 GALLONS PER DAY BASED ON THE PROPOSED 4 BEDROOM RESIDENCE, THE PROPOSED USE AND THE DOH REGULATIONS.
4. WATER SUPPLY TO BE SERVICED BY A PROPOSED WELL TO BE LOCATED NORTH OF THE PROPOSED HOUSE, A MINIMUM OF 100' FROM AND UPGRADE OF THE PROPOSED SEPTIC SYSTEM. THE PROPOSED WATER SERVICE WILL ENTER THE HOUSE ON THE WEST SIDE.
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. 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.
8. 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 ARE NOT TO BE USED ON THIS SYSTEM.
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.
11. TRENCH DEPTH SHALL BE ±14". TRENCHES SHALL BE EXCAVATED TO DESIGN DEPTH WITH BOTTOMS PRACTICALLY LEVEL
12. FOLLOWING EXCAVATION, THE TRENCH BOTTOMS SHOULD BE GRADED BY HAND.
13. TRENCH BOTTOMS AND SIDES SHALL BE IMMEDIATELY RAKED AFTER FINAL GRADING.
14. INFILTRATOR QUICK 4 PLUS EQ-36 LOW PROFILE GRAVELLESS DISTRIBUTOR CHAMBERS SHALL BE INSTALLED IN THE TRENCHES AT A SLOPE OF 1/32" PER FOOT.
15. TRENCHES SHALL BE BACKFILLED WITH THE NATIVE SOIL EXCAVATED FROM THE TRENCHES.
16. TRENCHES SHALL BE COVERED WITH 6" TOPSOIL, SEEDED AND MULCHED AND MAINTAINED AS LAWN.
17. 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.
18. HEAVY CONSTRUCTION EQUIPMENT MUST NOT BE ALLOWED WITHIN THE AREA OF THE SYSTEM PRIOR TO CONSTRUCTION
19. THE TOPSOIL SURFACE SHALL BE GRADED TO ENHANCE RUNOFF OF PRECIPITATION.
20. ON SLOPED SITES, A DIVERSION DITCH OR CURTAIN DRAIN SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.
21. DISTANCE BETWEEN TRENCHES TO BE 4 FEET MINIMUM EDGE-TO-EDGE (TYPICALLY 6' CENTER-TO-CENTER).
22. THE CONTRACTOR SHALL PROVIDE AN ACCURATE AS-BUILT MAP TO THE OWNER REFERENCING ALL SYSTEM COMPONENTS TO PERMANENT SITE FEATURES FOR LATER RECOVERY.
23. 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.
24. THE PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM MUST BE DESIGNED AND THE INSTALLATION SUPERVISED AND CERTIFIED BY A DESIGN PROFESSIONAL.
25. 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	4 BEDROOM HOME @ 130 GALLONS PER DAY (GPD)/BEDROOM = 520 GALLONS TOTAL
SEPTIC TANK:	1500 DUAL COMPARTMENT
DESIGN PERC. RATE:	8-10 MINUTES/INCH
REQUIRED LENGTH OF ABSORPTION TRENCH	290 FEET REQUIRED 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 JUNE 13, 2018

TEST NUMBER	DEPTH	PERC RATES (MIN/INCH)	STABILIZED PERC RATE
PT -1	18"	3, 4, 4, 4	4 MIN/INCH
PT -2	18"	4, 4, 5, 5	5 MIN/INCH

SOILS INFORMATION:

DH - 1	
0" - 28"	SANDY LOAM WITH GRAVEL (MODIFIED SITE INSTALLED 2017)
28" - 38"	DARK BROWN LOAMY TOPSOIL
38" - 47"	LIGHT BROWN SILTY LOAM WITH GRAVEL
47" - 76"	GRAY SILTY CLAY WITH SHALE
MOTTLING @ 48"	

KEY:

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

CONVENTIONAL
SEPTIC SYSTEM
DESIGN

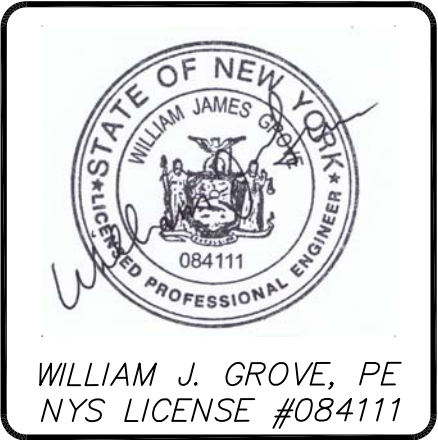
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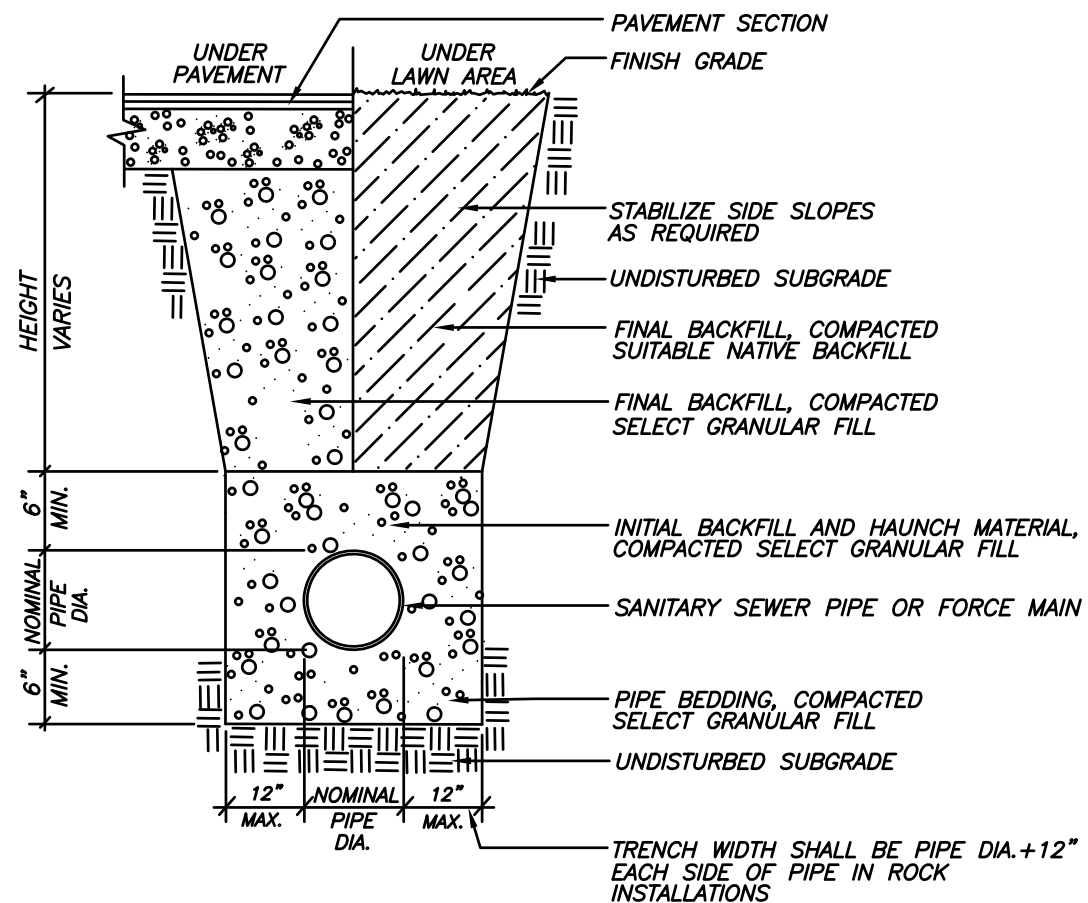




SEPTIC TANK

NOT TO SCALE

- ### 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.



SANITARY SEWER PIPE TRENCH

NOT TO SCALE

CONVENTIONAL SEPTIC SYSTEM DESIGN

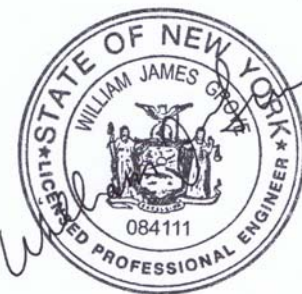
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SHEET 3 OF 4



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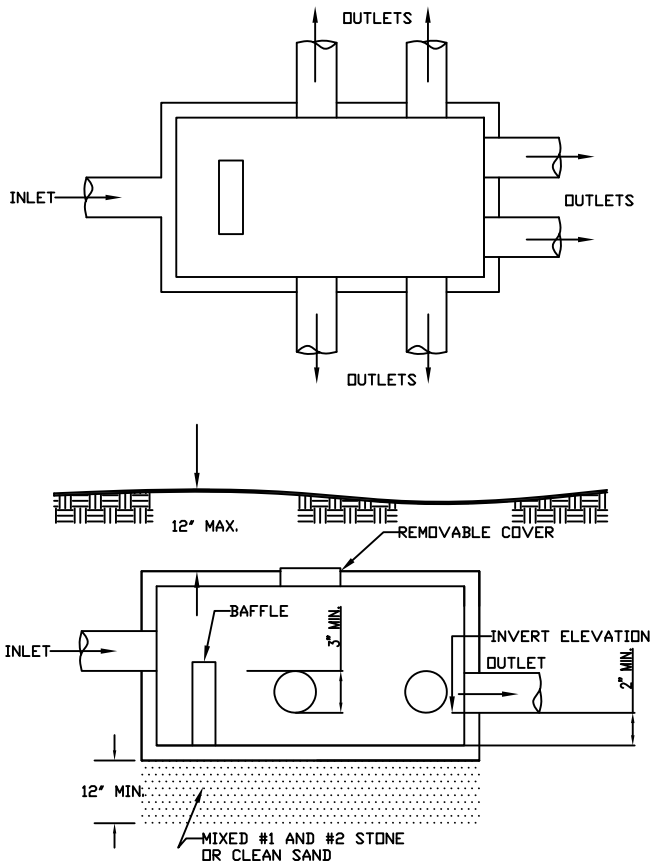
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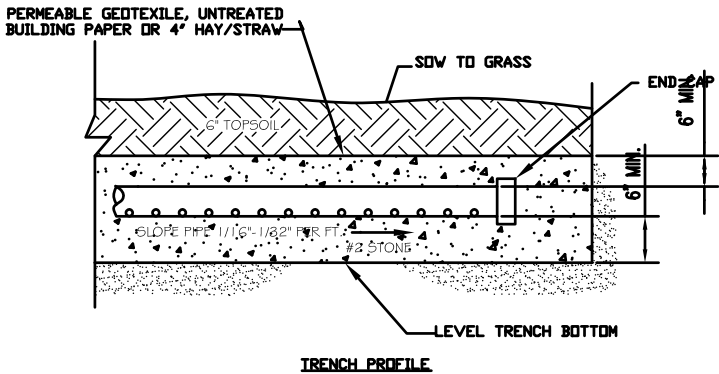
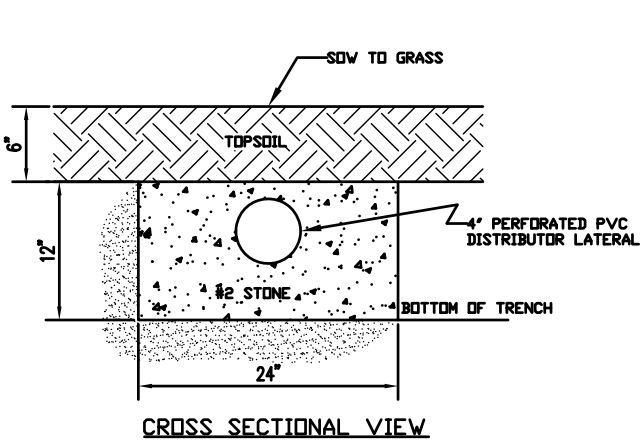
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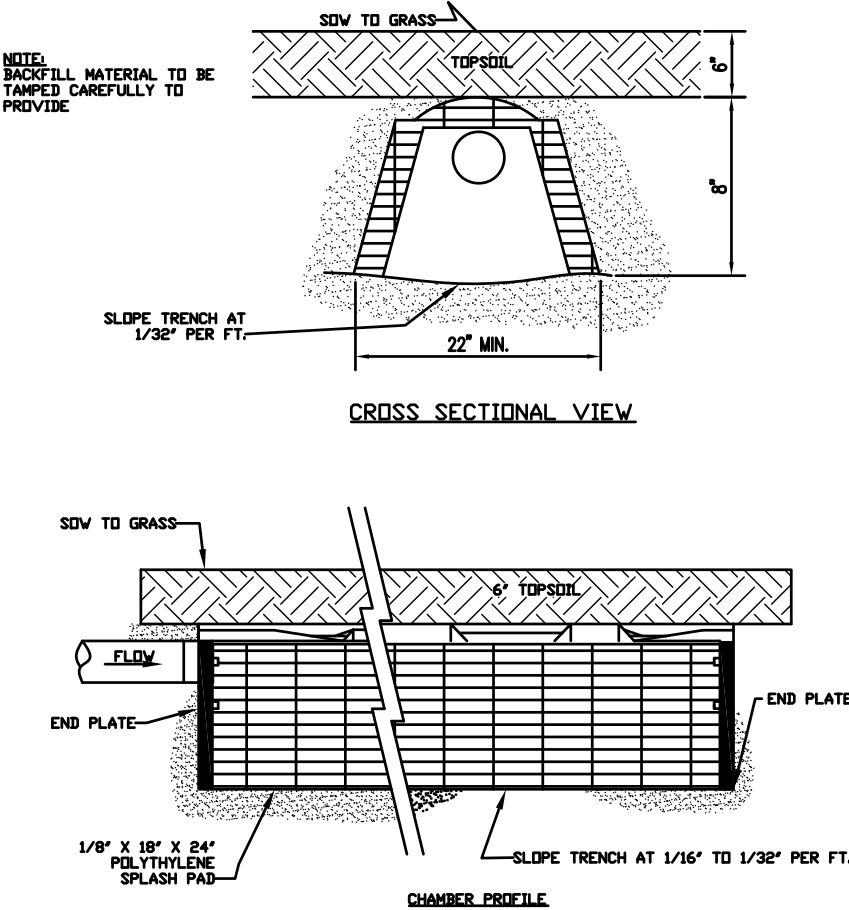
DISTRIBUTION BOX DETAILS
NOT TO SCALE

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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