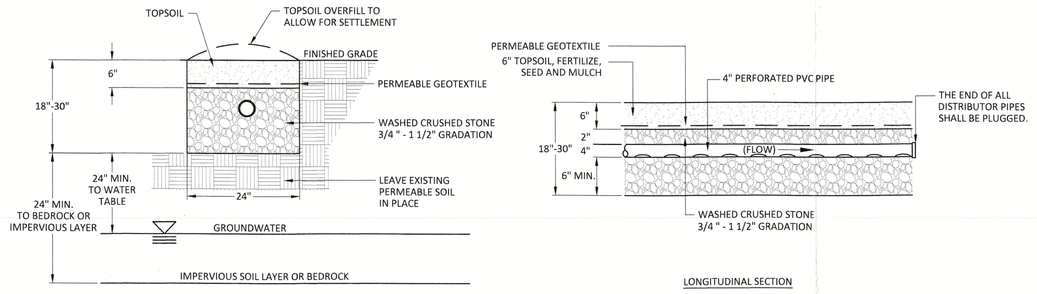
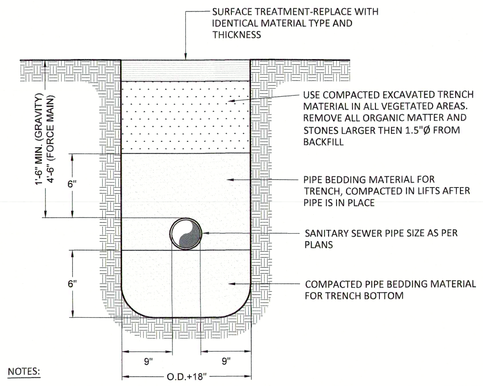


NOTES:

1. BOTTOM OF TRENCH TO BE LEVEL AND PARALLEL WITH CONTOURS.
2. PIPING SHALL BE LEVEL FOR PRESSURE DISTRIBUTION.
3. PIPING SHALL BE SLOPED AT 1/16 TO 1/32 INCH PER FOOT FOR GRAVITY DISTRIBUTION.
4. DO NOT INSTALL TRENCHES IN WET SOIL.
5. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING BACKFILL.
6. TRENCHES SHALL BE 6' ON CENTER.

1 / SA-1 **ABSORPTION TRENCH DETAIL**
SCALE: N.T.S.



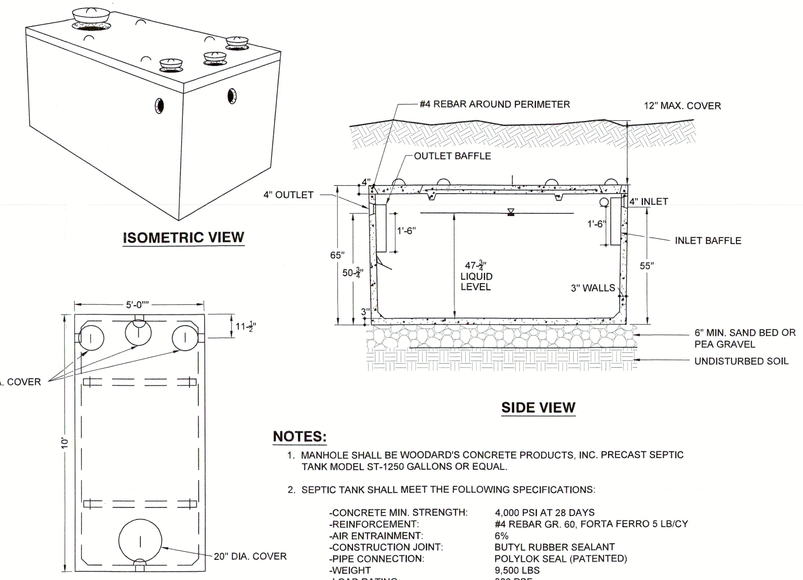
NOTES:

1. PIPE BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE, OR GRAVEL, FREE OF SOFT NONDURABLE PARTICLES, ORGANIC MATERIAL, AND THIN OR ELONGATED PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100
1"	80-100
1/4"	0-80
NO. 200	0-10

2. BEDDING MATERIAL SHALL BE STOCKPILED.
3. ALL TRENCH BACKFILL MATERIAL WILL BE WELL COMPACTED IN 6"-8" LIFTS, TO 95% STANDARD PROCTOR DENSITY.
4. BOTTOM OF TRENCH WILL BE FLAT AND LEVEL WITH NO LARGE STONES OR UNSTABLE SOILS PRESENT.
5. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
6. FOR FORCE MAIN, PROVIDE POSITIVE PITCH FROM FORCE MAIN OUTLET (DISTRIBUTION BOX) TO PUMP STATION.

2 / SA-1 **TYPICAL SANITARY SEWER TRENCH DETAIL**
SCALE: N.T.S.

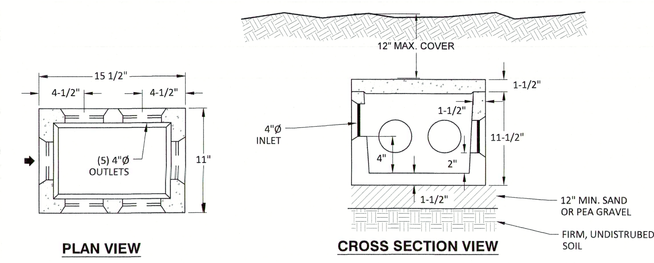


NOTES:

1. MANHOLE SHALL BE WOODARD'S CONCRETE PRODUCTS, INC. PRECAST SEPTIC TANK MODEL ST-1250 GALLONS OR EQUAL.
2. SEPTIC TANK SHALL MEET THE FOLLOWING SPECIFICATIONS:

-CONCRETE MIN. STRENGTH:	4,000 PSI AT 28 DAYS
-REINFORCEMENT:	#4 REBAR GR. 60, FORTA FERRO 5 LB/CY
-AIR ENTRAINMENT:	6%
-CONSTRUCTION JOINT:	BUTYL RUBBER SEALANT
-PIPE CONNECTION:	POLYLOK SEAL (PATENTED)
-WEIGHT	9,500 LBS
-LOAD RATING:	300 PSF

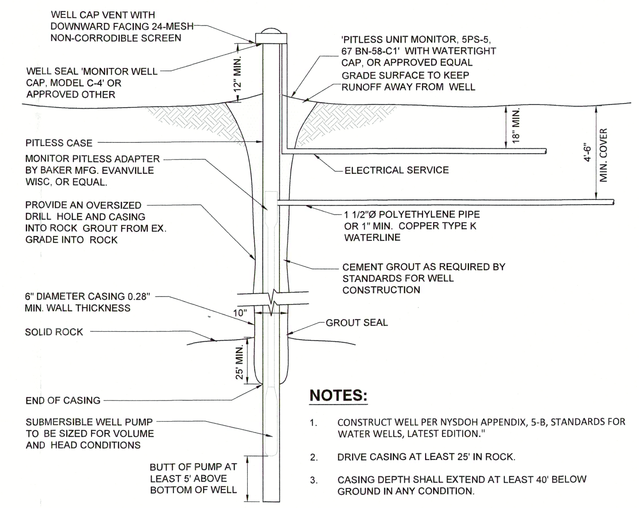
3 / SA-1 **PRECAST SEPTIC TANK DETAIL - MODEL ST-1250**
SCALE: N.T.S.



NOTES:

1. ALL PIPE JOINTS SHALL BE POLYLOK SEAL OR EQUAL.
2. FLOW EQUALIZERS ARE REQUIRED ON ALL OUTLETS.
3. DISTRIBUTION BOX SHALL BE WOODARD'S CONCRETE PRODUCTS, INC. PRECAST DISTRIBUTION BOX MODEL DB-6 OR EQUAL.

4 / SA-1 **PRECAST DISTRIBUTION BOX DETAIL - MODEL NO. DB-6**
SCALE: N.T.S.



NOTES:

1. CONSTRUCT WELL PER NYSDOH APPENDIX, S-8, STANDARDS FOR WATER WELLS, LATEST EDITION."
2. DRIVE CASING AT LEAST 25' IN ROCK.
3. CASING DEPTH SHALL EXTEND AT LEAST 40' BELOW GROUND IN ANY CONDITION.

5 / SA-1 **TYPICAL WELL DETAIL**
SCALE: N.T.S.

7 / SA-1 **PROPOSED WASTEWATER DISPOSAL PLAN**
SCALE: 1"=40'

EXISTING PROPERTY LINE	
EXISTING EDGE OF PAVEMENT	
EXISTING BUILDING SETBACK	
110	EXISTING MAJOR CONTOUR (LIDAR)
EXISTING MINOR CONTOUR (LIDAR)	
EXISTING INTERMITTENT STREAM	
PT-1	PERCOLATION TEST LOCATION
DT-2	DEEP TEST LOCATION
PROPOSED PROPERTY LINE	
PROPOSED HOME	
W	PROPOSED WELL
PROPOSED SETBACK FROM WELL	
SAN	PROPOSED 4" PVC SEWER LINE
ST	PROPOSED SEPTIC TANK
DB	PROPOSED DISTRIBUTION BOX
PROPOSED PRIMARY SANITARY DISPOSAL SYSTEM	
PROPOSED RESERVE SANITARY DISPOSAL	
CO	PROPOSED SANITARY SEWER CLEAN OUT

DEEP TEST RESULTS

TEST	ROCK DEPTH	WATER DEPTH	SOIL PROFILE
LOT 1			
DT-1 (L1)	--	--	0'-8" - TOPSOIL 8'-32' - GRAVELLY SILTY LOAM 32'-57" - GRAVELLY LOAM
DT-2 (L1)	--	--	0'-8" - TOPSOIL 8'-32" - GRAVELLY SILTY LOAM 32'-57" - GRAVELLY LOAM
DT-3 (L1)	--	--	0'-12' - TOPSOIL 12'-42" - SILTY LOAM 42'-48" - MOTTLED CLAY
LOT 2			
DT-1 (L2)	--	--	0'-8" - TOPSOIL 8'-26' - SILTY LOAM 26'-54" - GRAVELLY LOAM
DT-2 (L2)	--	--	0'-8" - TOPSOIL 8'-24' - SILTY LOAM 24'-40" - TIGHT SILTY LOAM

NOTE: DEEP TESTS WERE COMPLETED ON MAY 14, 2021 IN THE PRESENCE OF ULSTER COUNTY DEPARTMENT OF HEALTH REPRESENTATIVE CHRIS KRESSER.

PERCOLATION TEST RESULTS

TEST	HOLE DEPTH	STABILIZED RATE
LOT 1		
PT-1 (L1)	24"	29 M
PT-2 (L1)	24"	18 M
LOT 2		
PT-1 (L2)	12"	11 M
PT-2 (L2)	12"	7 M

NOTE: PERCOLATION TESTING WAS CONDUCTED BY WILLINGHAM ENGINEERING ON JUNE 20, 2021.

WASTEWATER SYSTEM DESIGN CALCULATIONS

PROPOSED WASTEWATER FLOW:

3-BEDROOM HOUSE @ 110 GALLONS PER BEDROOM = 330 GPD

SEPTIC TANK:

SEPTIC TANK SIZED AS PER APPENDIX 75-A - WASTEWATER TREATMENT STANDARDS:

3-BEDROOM HOUSE = 1,250 GALLON TANK PROPOSED

ABSORPTION FIELD:

PRIMARY AREA - IN-GROUND ABSORPTION TRENCH SYSTEM

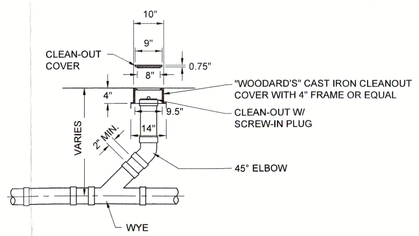
LENGTH OF ABSORPTION TRENCH REQUIRED=
(FLOW RATE (Q) ÷ APPLICATION RATE) ÷ 2 SQUARE FEET/FOOT OF TRENCH
= [330 GPD ÷ 0.7 GAL./DAY/SQ. FT.] ÷ 2 SQ. FT./FT.
= 236 LINEAL FEET OF ABSORPTION TRENCH REQUIRED

INSTALL 4 TRENCHES @ 59 LINEAL FEET
= 236 LINEAL FEET OF ABSORPTION TRENCH PROVIDED

RESERVE AREA - IN-GROUND ABSORPTION TRENCH SYSTEM

LENGTH OF ABSORPTION TRENCH REQUIRED=
(FLOW RATE (Q) ÷ APPLICATION RATE) ÷ 2 SQUARE FEET/FOOT OF TRENCH
= [330 GPD ÷ 0.6 GAL./DAY/SQ. FT.] ÷ 2 SQ. FT./FT.
= 275 LINEAL FEET OF ABSORPTION TRENCH REQUIRED

INSTALL 5 TRENCHES @ 55 LINEAL FEET
= 275 LINEAL FEET OF ABSORPTION TRENCH PROVIDED



NOTE:

1. SEWER PIPE FOR CLEANOUT SHALL BE THE SAME AS THE SEWER LATERAL.
2. FOR CLEAN OUTS IN PAVEMENT OR CONCRETE, USE "NEENAH" R-506 FLOOR BOX FRAME AND LID WITH LOCKING CAP, OR EQUAL.

6 / SA-1 **CLEANOUT DETAIL**
SCALE: NTS

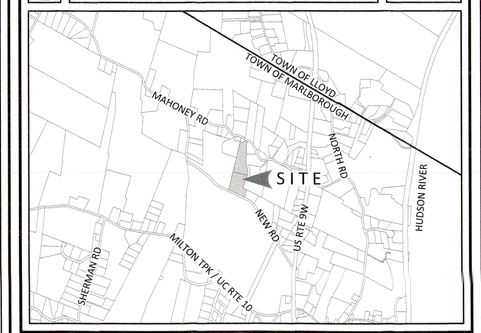
Received and approved 7/21/2021
for the Ulster County Health Department

By Carol M. Smith MD MPH 7/21/21
Public Health Director
Carol M. Smith, MD, MPH
Commissioner of Health

Recommended for Approval
Timothy Rose, PE

LOCATION MAP

SCALE: 1" = 2,000'



PROPERTY INFORMATION

BOOK AND PAGE:	L 2763 P 300
SECTION-BLOCK-LOT:	103.1-1-49.100
PARCEL AREA:	LOT 1 = 3.60 ACRES LOT 2 = 4.21 ACRES
OWNER:	ADAM DIVALENTINO 1035 DUTCHESS TURNPIKE POUGHKEEPSIE, NY 12603

ZONING INFORMATION

ZONE:	R-AG-1 (RURAL AGRICULTURAL)
CURRENT USE:	VACANT
PROPOSED USE:	RESIDENTIAL

ITEM	REQUIRED
MINIMUM LOT AREA	1 AC
MINIMUM LOT WIDTH	50'
MINIMUM LOT DEPTH	200'
MINIMUM FRONT YARD	50'
MINIMUM SIDE YARD (ONE / BOTH)	35' / 80'
MINIMUM REAR YARD	75'
MAXIMUM BUILDING STORIES	2½
MAXIMUM BUILDING HEIGHT	35'
MAXIMUM BUILDING COVERAGE	20%

GENERAL WASTEWATER SYSTEM NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF "APPENDIX 75 A OF PART 75 OF THE NYS HEALTH CODE," NEW YORK STATE DEPARTMENT OF HEALTH AND "THE NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS" LATEST EDITION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
2. NO PROPOSED WELLS WITHIN 100' OF A SEPTIC SYSTEM.
3. NO PROPOSED SEPTIC SYSTEMS WITHIN 100' OF A WELL.
4. ALL PIPE PENETRATIONS AND UNUSED OUTLETS IN THE SEPTIC TANK AND DISTRIBUTION BOX MUST BE SEALED WITH GROUT.
5. NO TRENCHES SHALL BE INSTALLED IN WET OR FROZEN SOIL.
6. PERFORATED PIPING IN THE ABSORPTION TRENCHES SHALL SLOPE PER DETAIL. THE ENDS OF ALL DISTRIBUTION LATERALS SHALL BE CAPPED.
7. ROOF AND FOOTING DRAIN PIPES MUST EXTEND TO DAYLIGHT AND NOT BE DIRECTED ONTO THE SEPTIC FIELD AREA.
8. LOW FLOW WATER SAVING FIXTURES SHALL BE USED. GARBAGE GRINDER DEVICES ARE NOT ALLOWED.
9. ALL TREES WITHIN 10 FEET OF THE SEPTIC FIELD AREA MUST BE REMOVED PRIOR TO THE INSTALLATION OF THE SEPTIC FIELD.
10. NO DRIVEWAYS, ROADWAYS, OR PARKING AREAS SHALL BE CONSTRUCTED OVER ANY PORTION OF THE WASTEWATER DISPOSAL SYSTEM.
11. HEAVY EQUIPMENT MUST BE KEPT AWAY FROM THE DRAINAGE FIELD. SINCE THE WEIGHT OF THE EQUIPMENT MAY PERMANENTLY ALTER SOIL CHARACTERISTICS DUE TO COMPACTION.
12. THERE SHALL BE NO BENDS IN THE RAW SEWER LINE.
13. OBJECTS AND STRUCTURES SUCH AS SWIMMING POOLS, SHEDS OR DECKS SHALL NOT BE CONSTRUCTED ABOVE SEPTIC TANKS, DISTRIBUTION BOXES, AND ABSORPTION AREAS.
14. THE OWTS IS NOT DESIGNED TO RECEIVE MACERATED WASTEWATER FROM GARBAGE GRINDERS OR INTERNAL SEWAGE PUMP STATIONS.

WASTEWATER APPLICATION RATES

PERCOLATION RATE (MINUTES/INCH)	APPLICATION RATE (GAL./DAY/SQ. FT.)
1 - 5	1.20
6 - 7	1.0
8 - 10	0.90
11 - 15	0.80
16 - 20	0.70
21 - 30	0.60
31 - 45	0.50
46 - 60	0.45

SURVEY NOTES

1. TOPOGRAPHY SHOWN IS LIDAR DERIVED, 2 FOOT INTERVAL CONTOURS AVAILABLE FROM ULSTER COUNTY. CONTOURS WERE PRODUCED FROM 2014 LIDAR DATASET AND 2015 TOPOGRAPHIC 1m DEM.
2. PROPERTY LINES, STRUCTURE LOCATIONS AND OTHER SITE FEATURES ADDED BY WILLINGHAM ENGINEERING PER AVAILABLE GIS MAPPING AND AERIAL IMAGES.
3. ADDITIONAL BOUNDARY INFORMATION TAKEN FROM MAP TITLED 'MINOR SUBDIVISION PARCEL #103.1-1-49.1' PREPARED BY CLARK PATTERSON LEE, DATED 7/14/2020.

0 1 2 3
ORIGINAL SIZE IN INCHES

STATE OF NEW YORK · ANDREW V. WILLINGHAM · 089984 · LICENSED PROFESSIONAL ENGINEER

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New Paltz, New York 12561
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www.willinghamengineering.com

REV	DATE	DESCRIPTION

SANITARY WASTEWATER DISPOSAL PLAN

DIVALENTINO RESIDENCE

MAHONEY ROAD

TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK

DRAWN BY	CHECKED BY
MLT	AVW
DATE	SCALE
07/01/21	AS NOTED
PROJECT NO.	
21036	
SHEET NO.	
SA-1	