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Attached is a proposed design for an Accepted (25% reduction) Septic System with Gravity distribution for a 4 bedroom single family residence on Lot # 52 WATERTREE LANDING Subdivision, Iredell County, North Carolina.

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January 4, 2009
Project #: 01-1430
Design By: Rollans Soil and Environmental Services

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner:	MID-ATLANTIC CUSTOM BUILDERS
Address:	P.O. BOX 3792 Mooresville, NC 28117
Phone:	704-202-5568
County:	Iredell
Location:	WATERTREE LANDING LOT 52
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	N/A

Design Specifications

Drainfield Size:	420
Loading Rate (gpd/ft.^{2}):	0.3
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Trench Depth:	36 in.
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	5
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	0.87
Dosing Volume:	N/A
Supply Manifold:	N/A
Supply Manifold Length:	N/A
Supply Manifold Volume:	N/A
Recommended Float Controls:	N/A
Recommended Control Panel:	N/A
Pressure Head:	N/A
Friction Head:	N/A
Elevation Head:	N/A
Total Dynamic Head:	N/A
Threaded Union:	N/A
Gate Valves:	N/A
Check Valves:	N/A
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services.

WATERTREE LANDING LOT 52
PRESSURE MANIFOLD DESIGN

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	1260
TOTAL LATERAL LENGTH:	420
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	400
SUPPLY LINE LENGTH:	5
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

WATERTREE LANDING LOT 52

Project #: 01-1430

LAYOUT FOR 4 BEDROOM HOME

January 4, 2009

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		4.1			100.00		
INSTR. 1			104.10				
HOUSE			97.80	6.30			
TANK			98.10	6.00			
1	RED			1.10	103.00	81	81
2	BLUE			2.00	102.10	115	115
3	*PINK*			*3.20*	*100.90*	*70*	*70*
4	*RED*			*3.80*	*100.30*	*70*	*70*
5	*ORANGE*			*4.20*	*99.90*	*70*	*70*
6	*BLUE*			*4.80*	*99.30*	*70*	*70*
7	*PINK*			*5.60*	*98.50*	*70*	*70*
8	*RED*			*6.80*	*97.30*	*70*	*70*
9	BLUE			7.90	96.20	86	86
10	RED			10.40	93.70	51	51
					Total	**753**	**753**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	*420*	*0.3*	*ACCEPT.*	*0.3*	*25% RED.*	**GRAVITY**
Repair	333	0.3	MOD.	0.3	PPBPS	**DISTRIBUTION** LOW PRESSURE

Notes:

** TBM NOT REQUIRED
**TBM is assumed to be 100'
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**BS, HI, and FS indicate rod readings