PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

Owner:	IREDELL GROUP ATTENTION: ANTHONY ROBBINS
Address:	109-C Williamson Road, Mooresville, NC 28117
Phone:	704 663 4050
County:	Iredell
Location:	Walden Ridge Subdivision Lot #53
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	28.44

Design Specifications

Drainfield Size:	400
Loading Rate:	.3 gpd/ft²
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:	190
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	33.06
Dosing Volume:	182.84
Supply Manifold:	4 in. SCH 80 PVC
Supply Manifold Length:	4 ft. (minimum)
Supply Manifold Volume:	N/A
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	3.38
Elevation Head:	35.80
Total Dynamic Head:	47.36
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services.

WALDEN RIDGE SUBDIVISION LOT 53
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	480	
SOIL APPLICATION RATE:	.3 gpd/ft²	
TOTAL AREA TRENCH BOTTOM:	1200	
TOTAL LATERAL LENGTH:	400	
NUMBER OF FIELDS:	1	
LATERAL LENGTH REQUIRED PER FIELD:	400	
SUPPLY LINE LENGTH:	190	
TOTAL DYNAMIC HEAD:	47.36	
MANIFOLD SIZE:	4 in.SCH 80 PVC	
DOSING VOLUME:	182.84	
PUMP TANK DRAW DOWN*:	8.7	
SEPTIC TANK SIZE:		1000
PUMP TANK SIZE:		1000

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

WALDEN RIDGE LOT #53

Project #: 01-1069

LAYOUT FOR 4 BEDROOM HOME — January 11, 2006

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		0.3			100.00		
TANK		48.80	51.50				
HOUSE		27.20	73.10				
INSTR. 1			100.30				
1	ORANGE			12.00	88.30	60	60
2	PINK			14.00	86.30	86	86
3	BLUE			15.90	84.40	109	109
4	RED			17.90	82.40	139	139
5	***ORANGE***			***20.00***	***80.30***	***100***	***100***
6	***PINK***			***22.00***	***78.30***	***110***	***100***
7	***BLUE***			***24.20***	***76.10***	***104***	***100***
8	***RED***			***25.90***	***74.40***	***100***	***100***
					Total	**808**	**794**

	LINE LENGTH	LTAR GPD/FT²	SYSTEM TYPE	SOIL LTAR GPD/FT²	TRENCH SYSTEM	DISTRIBUTION
**** System***	***400***	***0.30***	***ACCEPT.***	***0.30***	***25% RED.***	**PRESSURE MANIFOLD**
Repair	394	0.30	*MOD.*	0.30	PPBPS	LOW PRESSURE

Notes:

** TBM located on angle point of lot 53/54 (see site plan)
**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

PRESSURE MANIFOLD TAPSHEET - WALDEN RIDGE LOT#53

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area
1	ORANGE	80.3	**100**	SCH 40 1/2	**7.11**	300
2	PINK	78.3	**100**	SCH 40 1/2	**7.11**	300
3	BLUE	76.1	**100**	SCH 40 1/2	**7.11**	300
4	RED	74.4	**100**	SCH 40 1/2	**7.11**	300
	total	**feet =**	**400**	**gal/min =**	**28.44**	
			Des. Flow	**480**		
			Pump Run=	**6.43**		
			soil LTAR	**0.3**		
			LTAR +5%	**0.315**		
			LTAR with ACCEPTED	**0.33075**		
			LTAR with ACCEPTED + 5%	**0.3472875**		