PRESSURE MANIFOLD SYSTEM FOR WASTEWATER TREATMENT

Owner: T & E DEVELOPERS

Address: 112 VISTA BLUFF LN.
MOORESVILLE, NC 28117
Phone: 704-202-9595
County: Iredell
Location: KERRI SUBDIVISION Lot #2

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 480 gpd
System Flow: 21.33

Design Specifications

Drainfield Size: 435
Loading Rate: 0.275
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: 128
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 22.27
Dosing Volume: 198.84
Supply Manifold: 4 in. SCH 80 PVC
Supply Manifold Length: 4 ft. (minimum)
Supply Manifold Volume: N/A

4.5" TETHER

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: 1.63
Elevation Head: 11.10
Total Dynamic Head: 16.93

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.

KERRI SUBDIVISION Lot #2
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.275
TOTAL AREA TRENCH BOTTOM:	1305
TOTAL LATERAL LENGTH:	435
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	436.3636364
SUPPLY LINE LENGTH:	128
TOTAL DYNAMIC HEAD:	16.93
MANIFOLD SIZE:	4 in.SCH 80 PVC
DOSING VOLUME:	198.84
PUMP TANK DRAW DOWN*:	9.5
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.*

KERRI SUBDIVISION LOT 2

Project #: 01-1220

LAYOUT FOR 4 BEDROOM HOME

February 21, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		1.1			100.00		
TANK		12.30	88.80				
HOUSE		10.90	90.20				
INSTR. 1			101.10				
1	DARK PINK			3.30	97.80	70	70
2	BLUE			4.00	97.10	87	87
3	PINK			4.90	96.20	102	102
4	ORANGE			5.40	95.70	118	118
5	***DARK PINK***			***6.20***	***94.90***	***145***	***145***
6	***BLUE***			***6.70***	***94.40***	***145***	***145***
7	***PINK***			***7.20***	***93.90***	***145***	***145***
					Total	**812**	**812**

	LINE LENGTH	LTAR GPD/FT²	SYSTEM TYPE	SOIL LTAR GPD/FT²	TRENCH SYSTEM	DISTRIBUTION
**** System***	***435***	***0.275***	***ACCEPT.***	***0.275***	***25% RED.***	**PRESSURE**
Repair	377	***0.275***	*MOD.*	***0.275***	PPBPS	**MANIFOLD** LOW PRESSURE

min 290

87' extra Repair

Notes:

** TBM located on corner of lot (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 - KERRI LOT 2

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	Trench Area
5	DARK PINK	94.9	145	SCH 40 1/2	7.11	435
6	BLUE	94.4	145	SCH 40 1/2	7.11	435
7	PINK	93.9	145	SCH 40 1/2	7.11	435
	total	feet =	435	gal/min =	21.33	
			Des. Flow	480		
			Pump Run=	9.32		
			soil LTAR	0.3		
			LTAR +5%	0.315		
			LTAR with ACCEPTED	0.33075		
			LTAR with ACCEPTED + 5%	0.3472875		