GRAVITY PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	Steve Martin
Address:	3701 Stateline Rd Kansas City, MO 64111
Phone:	704-682-3963
County:	Iredell
Location:	112 MainView Dr. Lot # 237
Source of Wastewater Flow:	3 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	360 gpd
System Flow:	N/A

Design Specifications

Drainfield Size:	68
Loading Rate:	0.3
Depth of Gravel in Trench:	NA (PPBPS)
Gravel Size:	NA (PPBPS)
Trench Depth:	36 in.
Trench Width:	24 in.
Septic Tank Size:	1000
Pump Tank Size:	
Estimated Supply Line Length:	5
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	1.90
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:	N/A
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services

112 MainView Dr. Lot # 237
GRAVITY PPBPS

DESIGN FLOW:	360
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	136
TOTAL LATERAL LENGTH:	68
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	66.67
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:	

112 MainView Dr. Lot # 237

Project #:01-1708

LAYOUT FOR 3 BEDROOM HOME

June 18, 2012

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1							
HOUSE CNR							
P. TANK							
1	*ORANGE(Exist)*					*67*	*67*
2	*ORANGE(Exist)*					*67*	*67*
3	*ORANGE(Exist)*					*67*	*67*
4	*ORANGE(Exist)*					*67*	*67*
5A	*BLUE*					*34*	*34*
5B	*BLUE*					*34*	*34*
5C	BLUE					34	34
6	RED					33	33
					Total	403	403

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
** System (1BR)*	*68*	*0.3*	MOD.	*0.300*	*PPBPS*	*GRAVITY*
Exist. System (2 BR)	*268*	*0.30*	*CONV.*	*0.300*	*CONV.*	*GRAVITY*
Repair (1BR)	67	0.3	MOD.	0.300	PPBPS	LOW PRESSURE
Repair(Extra)	Additional in front	0.3	MOD.	0.300	PPBPS	LOW PRESSURE

Notes: **Lot recorded prior to January 1, 1983. Exempt from Repair Requirement

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

GRAVITY PPBPS SPECIFICATIONS - 112 MainView Dr.

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	# of Panels
5A	*BLUE*	*N/A*	*34*	*N/A*	*N/A*	68	7
5B	*BLUE*	*N/A*	*34*	*N/A*	*N/A*	68	7
						136	14

total	**feet =**	**68**	**gal/min =**	**N/A**
		Des. Flow	**120**	
		Pump Run=	**N/A**	
		soil LTAR	**0.3**	
		LTAR +5%	**0.315**	
		LTAR with mod.	**0.6**	
		LTAR with mod.. + 5%	**0.63**	

CALCULATIONS

Location 112 MainView Dr.

Project Number 01-1708

Lot No: 237

No. of Bedrooms 1 Upgrade (Total of 3BR)

Design Flow	360 $^{gal}/_{day}$	Total
	120 $^{gal}/_{day}$	Additional BR
LTAR	0.3 $^{gal}/_{ft^2\ day}$	

PPBPS? (YES OR NO) YES

Supply Line Length 5 ft.

Supply Line Volume 1.9 gal.

Required Feet of Line 66.67 ft.
Amount of Line from Layout 68 ft.

Gallons per Minute N/A $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Minimum Standard Tank Size 1000

Panel Volume 3.6 gal.
# of Panels 14
Dosing Volume N/A gal.

Tank Draw Down N/A

Pump Run Time N/A minutes

Elevation Head N/A ft.
Pressure Head N/A ft.
Friction Factor N/A ft./100 ft. *(From the interpolater.)*
Friction Head N/A ft.

Total Dynamic Head (+15%) N/A ft.

FRICTION FACTOR
INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42