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By

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Attached is a proposed design for a PPBPS Septic System with low pressure distribution for a 5 bedroom single family residence on Lot 69 in Anniston Subdivision Iredell County, North Carolina.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Site Plan/System Plan	6
Calculations	7
Profile Descriptions	8

June 27, 2007
Project No.01-1005
Design By: Rollans Soil & Environmental Services

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: Anniston, LLC

Address: 17824 Statesville Rd., Suite 112
Cornelius, NC 28031
Phone: (704) 362-5007
County: Iredell
Location: Anniston Lot 69

Source of Wastewater Flow: 5 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 600 gpd
System Flow: 34.44

Design Specifications

Drainfield Size: 360
Loading Rate: 0.3
Depth of Gravel in Trench: NA (PPBPS)
Gravel Size: NA (PPBPS)
Trench Depth: 36 in.
Trench Width: 36 in.
Septic Tank Size: 1500 gal.
Pump Tank Size: 1500 gal.

Estimated Supply Line Length: 752
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 130.85
Dosing Volume: 202.61
Supply Manifold: N/A
Supply Manifold Length: N/A
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: 17.82
Elevation Head: 63.00
Total Dynamic Head: 95.25

Threaded Union: In Tank
Gate Valves: 1 in Tank
1 per lateral
Check Valves: In Tank
Anti-Siphon Hole: NA
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

Anniston Lot 69
LP PPBPS

DESIGN FLOW:	600
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	1080
TOTAL LATERAL LENGTH:	360
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	333.33
SUPPLY LINE LENGTH:	752
TOTAL DYNAMIC HEAD:	95.25
MANIFOLD SIZE:	N/A
DOSING VOLUME:	202.61
PUMP TANK DRAW DOWN*:	6.5
SEPTIC TANK SIZE:	1500 gal.
PUMP TANK SIZE:	1500 gal.

**Pump tank draw down based on a volume basis of 31 gallons per inch. Draw down may vary among pump tank manufacturers.*

Anniston Lot 69

Project #:01-1005

LAYOUT FOR 5 BEDROOM HOME

June 27, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		15.4			100.00		
INSTR. 1			115.40				
HOUSE CNR					53.00		
P. TANK					54.60		
1	ORANGE			5.30	110.10	93	93
2	DARK PINK			4.10	111.30	97	97
3	BLUE			2.60	112.80	90	90
4	PINK			1.50	113.90	87	87
5	***BLUE***			***2.60***	***112.80***	***90***	***85***
6	***DARK PINK***			***4.00***	***111.40***	***102***	***85***
7	***ORANGE***			***6.10***	***109.30***	***99***	***85***
8	***PINK***			***8.40***	***107.00***	***68***	***65***
9	***BLUE***			***9.90***	***105.50***	***41***	***40***
					Total	767	727

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
** System*	*360*	*0.3*	*MOD.*	*0.3*	*PPBPS*	*LOW PRESSURE*
Repair	367	0.3	MOD.	0.3	PPBPS	LOW PRESSURE

Notes:

** Elevations for pump tank and house corner obtained from county topography.
** TBM located top of ground (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

LP PPBPS TAPSHEET - Anniston Lot 69

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
5	BLUE	112.80	85	0.156	0.41	255	20
6	DARK PINK	111.40	85	0.156	0.41	255	20
7	ORANGE	109.30	85	0.156	0.41	255	20
8	PINK	107.00	65	0.156	0.41	195	15
9	BLUE	105.50	40	0.156	0.41	120	9
	total	feet =	360	gal/min =	34.44		84

Des. Flow	600
Pump Run=	5.88
soil LTAR	0.3
LTAR +5%	0.315
LTAR with mod.	0.6
LTAR with mod.. + 5%	0.63

.156 equals 5/32 inch hole