LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	ABMS Development, Inc
Address:	111-B Raceway Drive Mooresville, NC 28117
Phone:	704-664-7029
County:	Iredell
Location:	Northlake LOT #72
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	43.07

Design Specifications

Drainfield Size:	320
Loading Rate (gpd/ft.^{2}):	0.25
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:	1000
Estimated Supply Line Length:	141
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	24.53
Dosing Volume:	223.38
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:	3.34
Elevation Head:	10.10
Total Dynamic Head:	17.76
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

Northlake LOT #72

LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.25
TOTAL AREA TRENCH BOTTOM:	960
TOTAL LATERAL LENGTH:	320
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	320
SUPPLY LINE LENGTH:	141
TOTAL DYNAMIC HEAD:	17.76
MANIFOLD SIZE:	N/A
DOSING VOLUME:	223.38
PUMP TANK DRAW DOWN*:	10.6
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.*

LP PPBPS TAPSHEET -NORTHLAKE LOT#72

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
2	***BLUE***	***106.00***	***50***	0.188	**0.59**	150	11.5
3	***ORANGE***	***105.00***	***60***	0.188	**0.59**	180	13.8
4	***BLUE***	***104.00***	***70***	0.188	**0.59**	210	16.2
5	***PINK***	***103.00***	***70***	0.188	**0.59**	210	16.2
6	***BLUE***	***102.30***	***70***	0.188	**0.59**	210	16.2
							73
	total	**feet =**	**320**	**gal/min =**	**43.07**		

Des. Flow	**480**
Pump Run=	**5.19**
soil LTAR	**0.25**
LTAR +5%	**0.2625**
LTAR with mod.	**0.5**
LTAR with mod.. + 5%	**0.525**

.1875 equals 3/16 inch hole

CALCULATIONS

Location Northlake

Project Number 01-1391

Lot No: Lot 72

No. of Bedrooms	4
Design Flow	480 $^{gal}/_{day}$
LTAR	0.250 $^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES
Supply Line Length	141 ft.
Supply Line Volume	24.534 gal.
Required Feet of Line	320 ft.
Amount of Line from Layout	320 ft.
Gallons per Minute	43.07 $^{gal}/_{min}$
Required Septic Tank Capacity	1000 gal.
Minimum Standard Tank Size	1000
Panel Volume	3.6 gal.
# of Panels	73
Dosing Volume	223.38 gal.

Note: Dosing Volume based on 85% of # of panels times 3.6 gal/panel

Tank Draw Down	10.6 *Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.19 minutes
Elevation Head	10.10 ft.
Pressure Head	2 ft.
Friction Factor	2.37 ft./100 ft. *(From the interpolater.)*
Friction Head	3.34 ft.
Total Dynamic Head (+15%)	17.76 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