ROLLANS *Soil & Environmental Services, Inc.*

470 North Broad St., Suite D, Mooresville, NC 28115 *Phone: (704) 658-1723* *Fax: (704) 658-1724*

Ashley Rollans, NC Licensed Soil Scientist
Mobile: (704) 746-5046
E-mail: Rollansfortcj@aol.com

Brady Freeman, Registered Sanitarian
Mobile: (704) 746-6497
E-mail: bfree209@yahoo.com

Attached is a proposed design for a PPBPS Septic System with low pressure distribution for a 5 bedroom single family residence on Lot #108 in Anniston Subdivision, Iredell County, North Carolina.

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August 31, 2007
Project #: 01-1005
Design By: Rollans Soil & Environmental Services

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	Ridgeline Development
Address:	17824 Statesville Rd., Suite 112 Cornelius, NC 28031
Phone:	704 362 5007
County:	Iredell
Location:	Anniston Subdivision Lot #108
Source of Wastewater Flow:	5 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	600 gpd
System Flow:	36.9

Design Specifications

Drainfield Size:	390
Loading Rate:	0.275 gpd/ft²
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:	290
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	50.46
Dosing Volume:	226.80
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:	8.79
Elevation Head:	33.40
Total Dynamic Head:	50.82
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 Subdivision Lot #108
LP PPBPS

DESIGN FLOW:	600
SOIL APPLICATION RATE:	0.275 gpd/ft²
TOTAL AREA TRENCH BOTTOM:	1170
TOTAL LATERAL LENGTH:	390
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	363.6363636
SUPPLY LINE LENGTH:	290
TOTAL DYNAMIC HEAD:	50.82
MANIFOLD SIZE:	N/A
DOSING VOLUME:	226.80
PUMP TANK DRAW DOWN*:	7.3
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 PH3 Lot#108

Project #: 01-1005

LAYOUT FOR 5 BEDROOM HOME

August 31, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		0.2			100.00		
INSTR. 1			100.20				
HOUSE CNR				28.70	71.50		
P. TANK				31.80	68.40		
1	RED			1.80	98.40	65	65
2	ORANGE			2.30	97.90	85	85
3	BLUE			2.80	97.40	103	103
4	PINK			3.10	97.10	124	124
5	RED			3.40	96.80	65	65
5	***RED***			***3.40***	***96.80***	***65***	***65***
6	***ORANGE***			***4.00***	***96.20***	***60***	***60***
6	***ORANGE***			***4.00***	***96.20***	***60***	***60***
7	***BLUE***			***4.90***	***95.30***	***65***	***65***
8	***PINK***			***5.90***	***94.30***	***65***	***65***
9	***BLUE***			***6.90***	***93.30***	***75***	***75***
					Total	**832**	**832**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
****System***	***390***	***0.275***	***MOD.***	***0.275***	***PPBPS***	***LOW PRESSURE***
Repair	442	0.275	MOD.	0.275	PPBPS	LOW PRESSURE

Notes:
** TBM located top of ground at EIP at 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

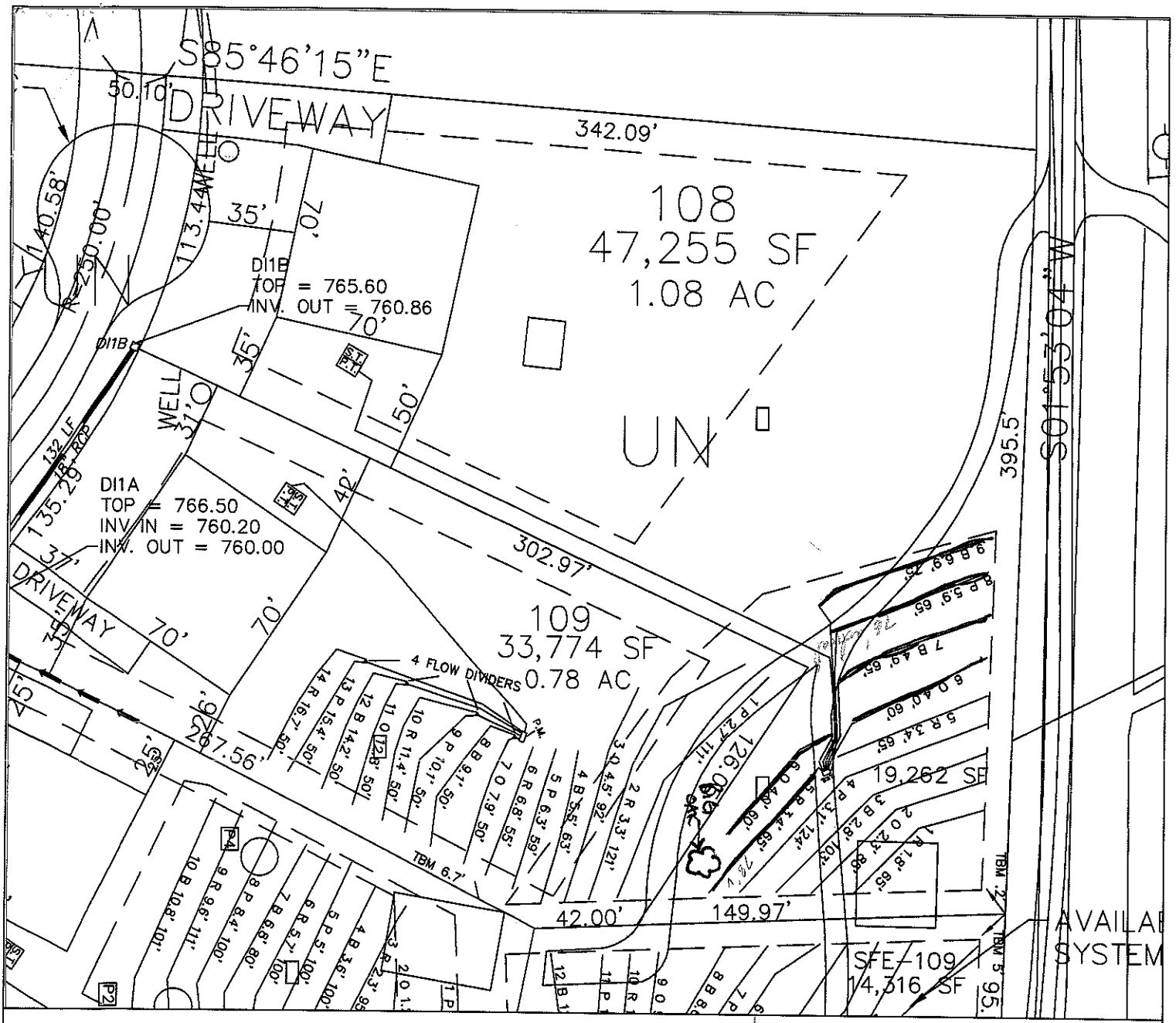
LP PPBPS TAPSHEET -Anniston LOT 108

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
5	***RED***	96.8	*65*	0.156	**0.41**	195	15
6	***ORANGE***	96.2	*60*	0.156	**0.41**	180	14
6	***ORANGE***	96.2	*60*	0.156	**0.41**	180	14
7	***BLUE***	95.3	*65*	0.156	**0.41**	195	15
8	***PINK***	94.3	*65*	0.156	**0.41**	195	15
9	***BLUE***	93.3	*75*	0.156	**0.41**	225	17
							90
	total	**feet =**	**390**	**gal/min =**	**36.9**		

Des. Flow	**600**
Pump Run=	**6.15**
soil LTAR	**0.275**
LTAR +5%	**0.28875**
LTAR with mod.	**0.55**
LTAR with mod.. + 5%	**0.5775**

.156 equals 5/32 inch hole



LEGEND

- Areas contain soils with 24 inches or more of useable material and have potential for conventional, modified conventional and low-pressure pipe (lpp) septic systems.
- House Footprint (All 70' x 70')
- System lines.
- Repair lines.
- Purposed Pit Location
- TBM.
- RS&ES Pit Location.
- Well Location.
- Health Dept. Pit Location.

Install Laterals @ 34" min to to get below compaction in SRIS

GRAPHIC SCALE
1" = 60'
60 0 60 120

FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE FINAL APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND COMPLEX TOPOGRAPHIC FEATURES. THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS.

PLEASE REFER TO ATTACHED SOIL REPORT FOR ADDITIONAL SITE SPECIFIC INFORMATION

ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704) 278 - 0989
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: ROLLANSFORTCJ@AOL.COM

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: ANNISTON, LLC. / ANNISTON PHASE II

LOCATION/DATE: SHEARER CHAPEL ROAD IREDELL COUNTY, NORTH CAROLINA JULY 2006

JOB # : 01-1005
FILE: C:\JOBS\01-1005
PROJECT MGR.: S.A.R.
FIELD WORK: S.A.R.
DRAWN BY: S.A.R.