Gravity 25% Reduction
FOR WASTEWATER TREATMENT

Owner:	Annistion LLC
Address:	17824 Statesville Rd STE 112 Conover, NC 28031
Phone:	
County:	Iredell
Location:	Anniston Subdivision Lot 102
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	NA

Design Specifications

Drainfield Size:	525
Loading Rate:	.25GPD/FTSQ
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:	29
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	5.05
Dosing Volume:	NA
Supply Manifold:	DROP-BOX
Supply Manifold Length:	NA
Supply Manifold Volume:	N/A
Recommended Float Controls:	NA
Recommended Control Panel:	NA
Pressure Head:	NA
Friction Head:	NA
Elevation Head:	NA
Total Dynamic Head:	NA
Threaded Union:	NA
Gate Valves:	NA NA
Check Valves:	NA
Anti-Siphon Hole:	NA
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services.

Anniston Subdivision Lot 102

DESIGN FLOW:	480
SOIL APPLICATION RATE:	.25GPD/FTSQ
TOTAL AREA TRENCH BOTTOM:	1575
TOTAL LATERAL LENGTH:	525
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	480
SUPPLY LINE LENGTH:	29
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	NA

ANNISTON LOT 102

Project #: 01-1005

LAYOUT FOR 4 BEDROOM HOME

December 27, 2006

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		NA			NA		
INSTR. 1			NA				
HOUSE CRN				NA	NA		
P. TANK				NA	NA		
1	***ORANGE***			***NA***	***NA***	***133***	***105***
2	***BLUE***			***NA***	***NA***	***124***	***105***
3	***PINK***			***NA***	***NA***	***115***	***105***
4	***DARK PINK***			***NA***	***NA***	***111***	***105***
5	***ORANGE***			***NA***	***NA***	***105***	***105***
6	BLUE			NA	NA	97	97
7	PINK			NA	NA	91	91
8	DARK PINK			NA	NA	84	84
9	ORANGE			NA	NA	76	76
10	BLUE			NA	NA	71	71
					Total	**1007**	**873**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
** System*	*525*	*0.25*	*ACCEPT.*	.25	*25% RED.*	**GRAVITY**
Repair	419	0.25	*MOD.*	.25	PPBPS	**DISTRIBUTION** LOW PRESSURE

Notes:

** TBM not required.

**All measures in feet

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

**BS, HI, and FS indicate rod readings

CALCULATIONS

Location ANNISTON

Project Number 01-1005

Lot No: Lot 102

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.25	$^{gal}/_{ft^2\ day}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	29	ft.
Supply Line Volume	5.046	gal.
Required Feet of Line	480	ft.
Amount of Line from Layout	525	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Lateral Line Volume	342.825	gal.
Dosing Volume	NA	gal.

Note: Dosing Volume based on70% of lateral line volume

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