GRAVITY ACCEPTED SYSTEM FOR WASTEWATER TREATMENT

Owner/Applicant: Stephen Tennell

Address: 250 Queens Cove Road
Mooresville, NC 28117

Phone:
County: Iredell
Location: ANNISTON LOT 144

Source of Wastewater Flow: 5 Bedroom Single Family Residence
Estimated Gallons Per Day Flow: 600
System Flow: N/A

Design Specifications

Drainfield Size: 620
Loading Rate (gpd/ft.^{2}): 0.25
Depth of Gravel in Trench: N/a
Gravel Size: N/A
Trench Depth: 36 in.
Trench Width: 36 in.
Septic Tank Size: 1500

Estimated Supply Line Length: 15
Supply Line Diameter: 4 in. SCH 40 PVC
Supply Line Volume: 9.80
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

ANNISTON LOT 144

ACCEPTED SYSTEM

DESIGN FLOW (gpd):	600
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.25
TOTAL AREA TRENCH BOTTOM:	1860
TOTAL LATERAL LENGTH:	620
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	600
SUPPLY LINE LENGTH:	15
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1500

ANNISTON LOT 144

Project #: 01-1721

LAYOUT FOR 5 BEDROOM HOME

August 6, 2012

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		2.2			100.00		
INSTR. 1			102.20				
1	PINK			0.80	101.40	27	27
2	RED			1.90	100.30	45	45
3	ORANGE			3.50	98.70	57	57
4	BLUE			4.70	97.50	68	68
5	PINK			6.00	96.20	67	67
6	RED			7.40	94.80	71	71
7	ORANGE			9.00	93.20	78	78
8	BLUE			10.60	91.60	90	90
9	PINK			11.80	90.40	100	100
10	RED					138	138
11	***ORANGE***					***147***	***144***
12	***BLUE***					***143***	***140***
13	***PINK***					***142***	***140***
14	***RED***					***119***	***116***
15	***ORANGE***					***80***	***80***
16	BLUE					80	80
					Total	**1372**	**1361**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
****System***	***620***	***0.250***	***ACCEPT.***	***0.250***	***ACCEPT.***	***GRAVITY***
Repair	821	0.225	MOD.	0.225	PPBPS	LOW PRESSURE

Notes:
** 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

CALCULATIONS

Location ANNISTON PH IV

Project Number 01-1721

Lot No: Lot 144

No. of Bedrooms	5	
Design Flow	600	$^{gal}/_{day}$
LTAR	0.250	$^{gal}/_{ft^2 day}$
PPBPS? (YES OR NO)	NO	
Supply Line Length	15	ft.
Supply Line Volume	9.795	gal.
Required Feet of Line	600	ft.
Amount of Line from Layout	620	ft.
Gallons per Minute	N/A	$^{gal}/_{min}$
Required Septic Tank Capacity	1500	gal.
Septic Tank Size	1500	gal.
Panel Volume	N/A	gal.
# of Panels	N/A	
Dosing Volume	N/A	gal.

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

Tank Draw Down N/A

Pump Run Time

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.