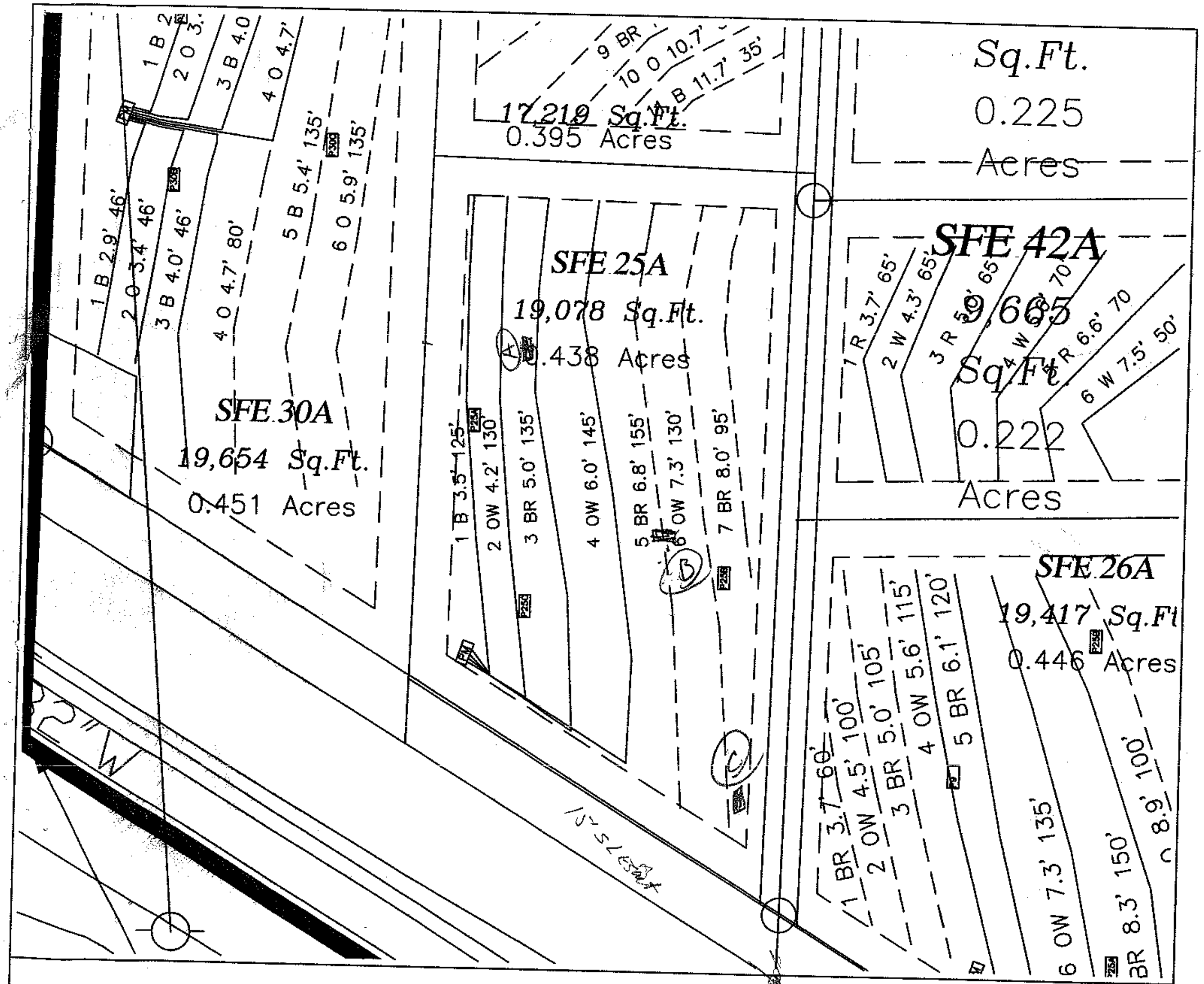


LEGEND

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.

Building Envelope (60' x 60')

System lines.

Repair lines.

Temporary Bench Mark (TBM)

Well Location.

GRAPHIC SCALE
1" = 40'

40 0 40 80

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: RIDGELINE DEVELOPMENT CORP. / ANNISTON PHASE II

LOCATION/DATE: SHEARER CHAPEL ROAD, IREDELL COUNTY, NORTH CAROLINA, AUGUST 2005

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

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

37.5 Gallons

Owner: ANNISTON, LLC

Address: 17824 Statesville Rd., Suite 112
Cornelius, NC 28031
Phone: 704 362 5007
County: Iredell
Location: Anniston Lot 25A

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 480 gpd
System Flow: 28.44

Design Specifications

Drainfield Size: 500
Loading Rate: 0.25 gpd/ft.^{2}
Depth of Gravel in Trench: NA (25% reduction)
Gravel Size: NA (25% reduction)
Trench Depth: See Installer Specifications
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: 1000

Estimated Supply Line Length: 1217
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 211.76
Dosing Volume: 228.55
Supply Manifold: 4 in. SCH 80 PVC
Supply Manifold Length: 4 ft. (minimum)
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: 21.66
Elevation Head: 49.00
Total Dynamic Head: 83.56

Threaded Union: In Tank
Gate Valves: 1 in Tank
1 at Pressure Manifold
Check Valves: In Tank
Anti-Siphon Hole: NA

Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services.

ANNISTON LOT 25A
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.25 gpd/ft.^{2}
TOTAL AREA TRENCH BOTTOM:	1500
TOTAL LATERAL LENGTH:	500
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	480
SUPPLY LINE LENGTH:	1217
TOTAL DYNAMIC HEAD:	83.56
MANIFOLD SIZE:	4 in.SCH 80 PVC
DOSING VOLUME:	228.55
PUMP TANK DRAW DOWN*:	11.6
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.*

ANNISTON LOT #25A

Project #: 01-1005

LAYOUT FOR 4 BEDROOM HOME

August 4, 2005

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		9.2			100.00		
INSTR. 1			109.20				
1	***BLUE***			***3.50***	***105.70***	***125***	***125***
2	*ORANGE/WHITE*			***4.20***	***105.00***	***130***	***125***
3	***BLUE/RED***			***5.00***	***104.20***	***135***	***125***
4	*ORANGE/WHITE*			***6.00***	***103.20***	***145***	***125***
5	BLUE/RED			6.80	102.40	155	155
6	ORANGE/WHITE			7.30	95.80	130	130
7	BLUE/RED			8.00	101.20	95	95
					Total	**915**	**880**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***500***	***0.25***	***INNOV.***	***0.25***	***25% RED.***	**PRESSURE**
Repair	***380***	0.25	*MOD.*	0.25	PPBPS	**MANIFOLD** LOW PRESSURE

Notes:

** TBM located on top of ground @eip Lots 31A/25A (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

PRESSURE MANIFOLD TAPSHEET - ANNISTON LOT 25A

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	BLUE	105.7	125	SCH 40 1/2	7.11	120.00	375	0.32
2	ORANGE-WHITE	105	125	SCH 40 1/2	7.11	120.00	375	0.32
3	BLUE-RED	104.2	125	SCH 40 1/2	7.11	120.00	375	0.32
4	ORANGE-WHITE	103.2	125	SCH 40 1/2	7.11	120.00	375	0.32
	total	**feet =**	**500**	**gal/min =**	**28.44**			
				Des. Flow	**480**			
				Estimated Daily Pump Run=	**16.88**			
				soil LTAR	**0.25**			
				LTAR +5%	**0.2625**			
				LTAR with INNOV.	**0.333333333**			
				LTAR with INNOV. + 5%	**0.35**			