Gravity 25% Reduction
FOR WASTEWATER TREATMENT

Owner: IREDELL GROUP
Attention: Thomas Murphy
Address: 109-C Williamson Road
Mooresville, NC 28115
Phone: 704-663-4050
County: Iredell
Location: Walden Ridge Subdivision Lot #34

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

Design Specifications

Drainfield Size: 500
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: 140
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 24.36
Dosing Volume: NA
Supply Manifold: D-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.

WALDEN RIDGE SUBDIVISION LOT 34

DESIGN FLOW:	480
SOIL APPLICATION RATE:	~.25GPD/FTSQ
TOTAL AREA TRENCH BOTTOM:	1500
TOTAL LATERAL LENGTH:	500
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	480
SUPPLY LINE LENGTH:	140
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

WALDEN RIDGE LOT #34

Project #: 01-1069

LAYOUT FOR 4 BEDROOM HOME

December 9, 2005

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		0.0			100.00		
TANK		6.40	93.60				
HOUSE		6.70	93.30				
INSTR. 1			100.00				
1	RED			4.00	96.00	70	70
2	PINK			4.70	95.30	70	70
3	***BLUE***			***5.40***	***94.60***	***125***	***125***
4	***BLUE***			***5.40***	***94.60***	***125***	***125***
5	***RED***			***6.20***	***93.80***	***125***	***125***
6	***RED***			***6.20***	***93.80***	***125***	***125***
7	PINK			7.40	92.60	150	150
8	BLUE			8.20	91.80	130	130
9	RED			8.80	91.20	60	60
					Total	**980**	**980**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***500***	***0.25***	***ACCEPT.***	***0.25***	***25% RED.***	**GRAVITY DISTRIBUTION**
Repair	480	0.25	*MOD.*	0.25	PPBPS	LOW PRESSURE

Notes:

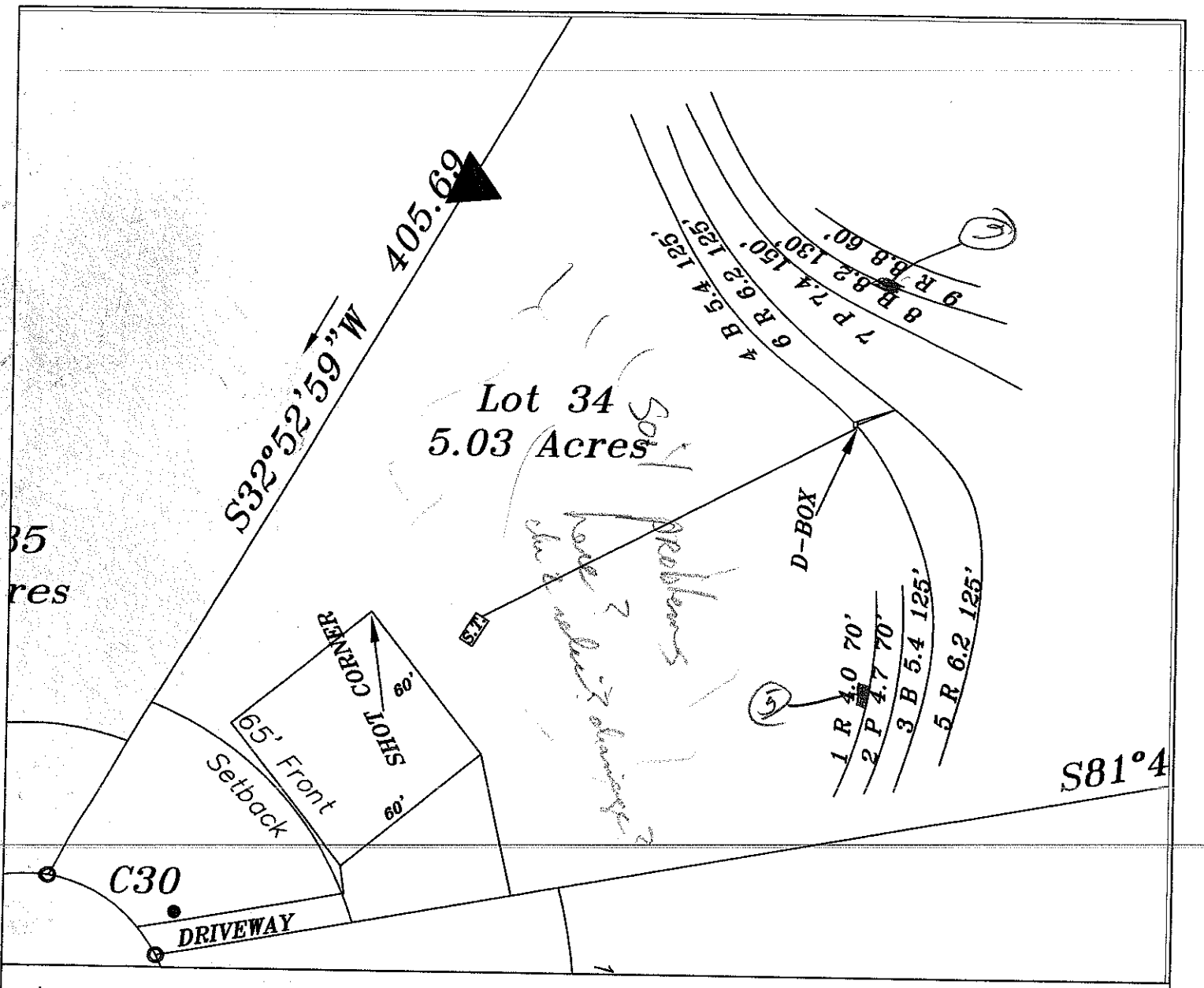
** TBM located AT STAKE ON PROPERTY LINE (see site plan)

**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



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.
- Unsuitable areas.
- System lines.
- Repair lines.
- Temporary Bench Mark (TBM)
- Well Location.

GRAPHIC SCALE
1" = 50'

50 0 50 100

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

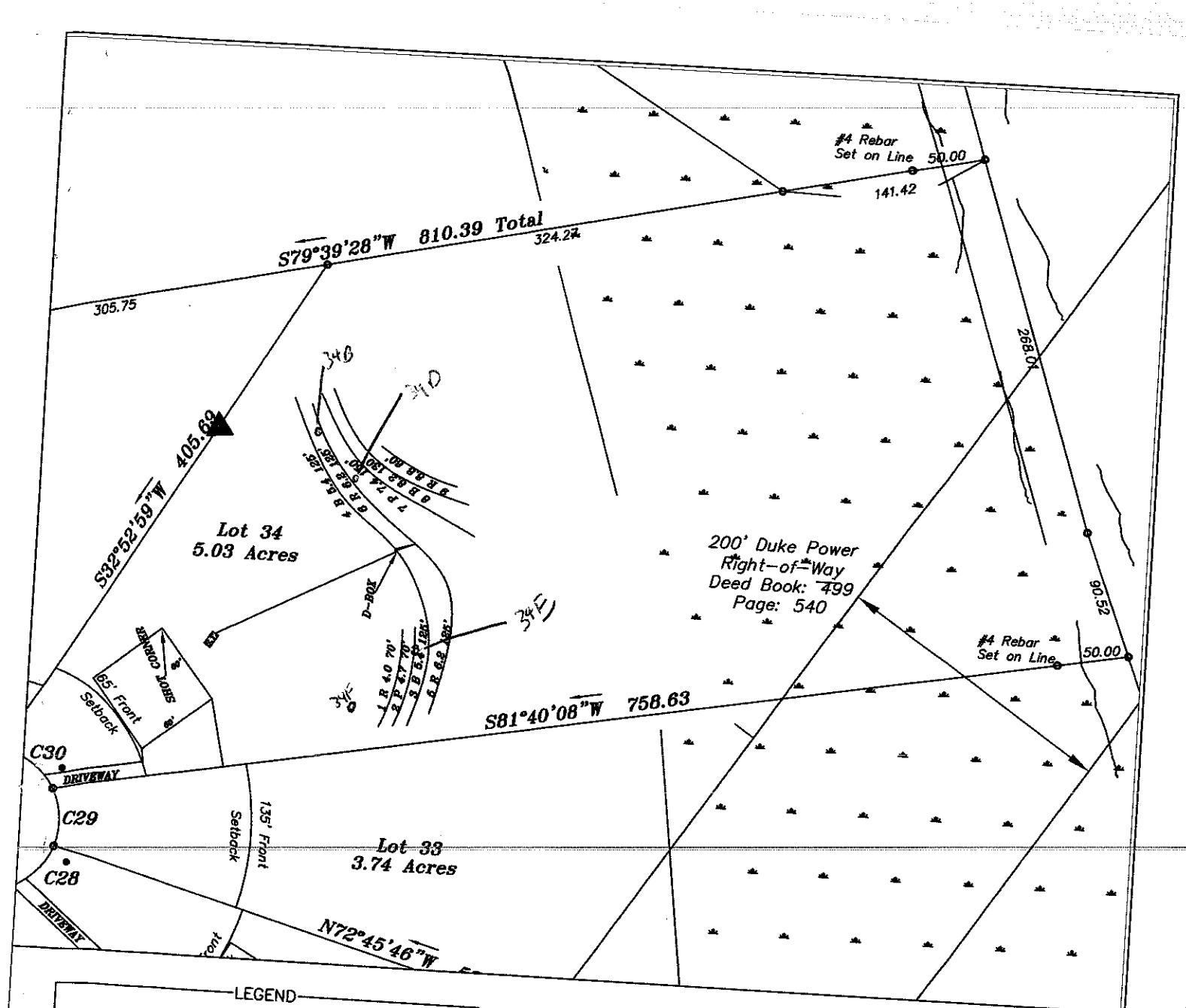
ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704) 278-0889
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746-5046
EMAIL: ROLLANSFORTC@AOL.COM

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: IREDELL GROUP LLC/WALDEN RIDGE SUBDIVISION

LOCATION/DATE: TEETER ROAD IREDELL COUNTY, NORTH CAROLINA DECEMBER 2005

JOB # : 01-1069
FILE: C:\JOBS\01-1069
PROJECT MGR.: CBF
FIELD WORK: CBF AND AP
DRAWN BY: CBP AND AP



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GRAPHIC SCALE
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100 0 100 200

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JOB # :	01-1069
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PROJECT MGR.:	CBF
FIELD WORK:	CBF AND AP
DRAWN BY:	CBF AND AP

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: IREDELL GROUP
ADDRESS: 109-C WILLIAMSON ROAD MOORESVILLE
PROPOSED FACILITY: RES
LOCATION OF SITE: LOT 34 WALDEN RIDGE
PROPOSED DESIGN FLOW (.1949): 480
APPLICATION DATE 12/05
DATE EVALUATED: 12/05
PROPERTY SIZE: 5.16AC
PROPERTY RECORDED: Y
WATER SUPPLY: ☒ Private ☒ Public ☒ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
34 B 1	LINEAR 5-10%	0-8	BSCL GR	FRI SS SP SEXP	N/A	48	PS	N/A	PS .25-.3 GPD/FTSQ
		8-28	RC SBK	FRI SS SP SEXP					
		28-48	RCL WSBK	FRI SS SP SEXP					
		48-58	SL SAP M	FRI SS SP SEXP					
34 D 2	LINEAR 5-10%	0-16	BSCL GR	FRI SS SP SEXP	N/A	59	PS	N/A	PS .3 GPD/FTSQ
		16-40	BSCL WSBK	FRI SS SP SEXP					
		40-59	RBSC/C WSBK	FRI SS SP SEXP					
IE	LINEAR 5-10%	0-8	BSCL GR	FRI SS SP SEXP	N/A	50	PS	N/A	PS .25 GPD/FTSQ
		8-32	RC SBK	FI SP SEXP					
		32-50	RCL WSBK	FRI SS SP SEXP					
		50-54	L SAP MASS	FRI SS SP SEXP					
	LINEAR 5-10%	0-8	BSCL GR	FRI SS SP SEXP	N/A	38	PS	38"	PS .25 GPD/FTSQ
		8-18	RC WABK	FI SP SEXP					
		18-38	RCL WSBK	FRI SS SP SEXP					
		38-50	CL SAP	FRI SS SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
able Space (.1945)	1500 SQFT	1440 SQFT
n Type(s)	ACCEPT	ACCEPT
AR	.25 GPD/FTSQ	.25 GPD/FTSQ

NTS:

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: ROLLANS SOIL & ENVIRONMENTAL SERVICES
OTHER(S) PRESENT: