Med. 54-05 9:46

ROLLANS *SOIL & ENVIRONMENTAL SERVICES*

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Attached is a design proposal for a gravity 25% reduction Septic System for a 4 bedroom single family residence on lot 100 of the Harbor Watch Subdivision in Iredell County, North Carolina.

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LICENSED SOIL SCIENTIST
Samuel A. Rollans
1231
STATE OF NORTH CAROLINA

4/29/05

April 29, 2005
Project No. 01-1099
Design By: Samuel A. Rollans, LSS

GRAVITY 4-BEDROOM SYSTEM
FOR WASTEWATER TREATMENT

Owner:	Prestige Building Co., Inc.
	Attn: Steve Pelchat
Address:	107 Barkdale Road
	Troutman, NC 28166
Phone:	(704) 528 - 3999
County:	Iredell
Location:	Harbor Watch Lot #100

Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Daily Wastewater Production:	480 gpd
System Flow:	Gravity/On-Demand

Design Specifications

System Type:	25% Reduction
Drainfield Size:	400 Linear feet
Loading Rate:	0.3 gpd/ft.^{2}
Depth of Gravel in Trench:	NA
Gravel Size:	NA
Trench Depth:	24 in.
Trench Width:	36 in.
Septic Tank Size:	1200 min.
Pump Tank Size:	NA

Estimated Supply Line Length:	45
Supply Line Diameter:	4 in. SCH 40 PVC
Supply Line Volume:	NA
Dosing Volume:	NA
Supply Manifold:	NA
Supply Manifold Length:	NA
Supply Manifold Volume:	NA

Recommended Float Controls:	NA

Recommended Control Panel:

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

Recommended Pump:	NA

NA
NA

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

HARBOR WATCH LOT#100
DESIGN INFORMATION

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.3 gpd/ft.^{2}
TOTAL AREA TRENCH BOTTOM:	1200sf
TOTAL LATERAL LENGTH:	400
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	400
DISTRIBUTION METHOD	Distribution Box
SUPPLY LINE LENGTH:	45'
TOTAL DYNAMIC HEAD:	NA
MANIFOLD SIZE:	NA
DOSING VOLUME:	NA
PUMP TANK DRAW DOWN*:	NA
SEPTIC TANK SIZE:	1200min
PUMP TANK SIZE:	NA
RECOMMENDED PUMP:	NA

HARBOR WATCH / LOT #100

Project #: 01-1099

LAYOUT FOR 4 BEDROOM HOME

April 27, 2005

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		10.1			100.00		
INSTR. 1			110.10				
HOUSE CNR				10.50	99.60		
S. TANK				4.90	105.20		
1	ORANGE			2.30	107.80	80	67
2	WHITE			3.30	106.80	90	67
3	ORANGE			4.40	105.70	110	67
4	WHITE			5.40	104.70	120	67
5	*ORANGE*			*6.60*	*103.50*	*133*	*133*
6	*WHITE*			*8.20*	*101.90*	*143*	*133*
7	*ORANGE*			*10.40*	*99.70*	*156*	*133*
					Total	**832**	**667**

	LINE LENGTH	LTAR GPD/FT^2	SYSTEM TYPE	SOIL LTAR GPD/FT^2	INNOVATIVE SYSTEM	DISTRIBUTION
** System*	*400*	*0.30*	*INNOV.*	*0.30*	*25% RED.*	*GRAVITY*
Repair	267	0.30	MOD. ~~INNOV.~~	0.30	PPBPS	LOW PRESSURE

Notes:

** TBM located on nail in flagged oak (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

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

PROPERTY ID #: 01-1099
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Prestige Building Co., Inc. APPLICATION DATE
ADDRESS: 110 Northstone Drive DATE EVALUATED: 4/25/05
PROPOSED FACILITY: 4 – bedroom house PROPOSED DESIGN FLOW (.1949): 480GPD PROPERTY SIZE: 2.177 Ac.
LOCATION OF SITE: HWY 115N, L on Old Mountain Road, Lt on Buffalo Shoals, L on Laurel Cove, Rt on Harbor Gate, Lt on Harbor Watch Rt on High Lake Dr., 2nd lot on Rt.

WATER SUPPLY: ☐ Private ☐ Public ☒ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

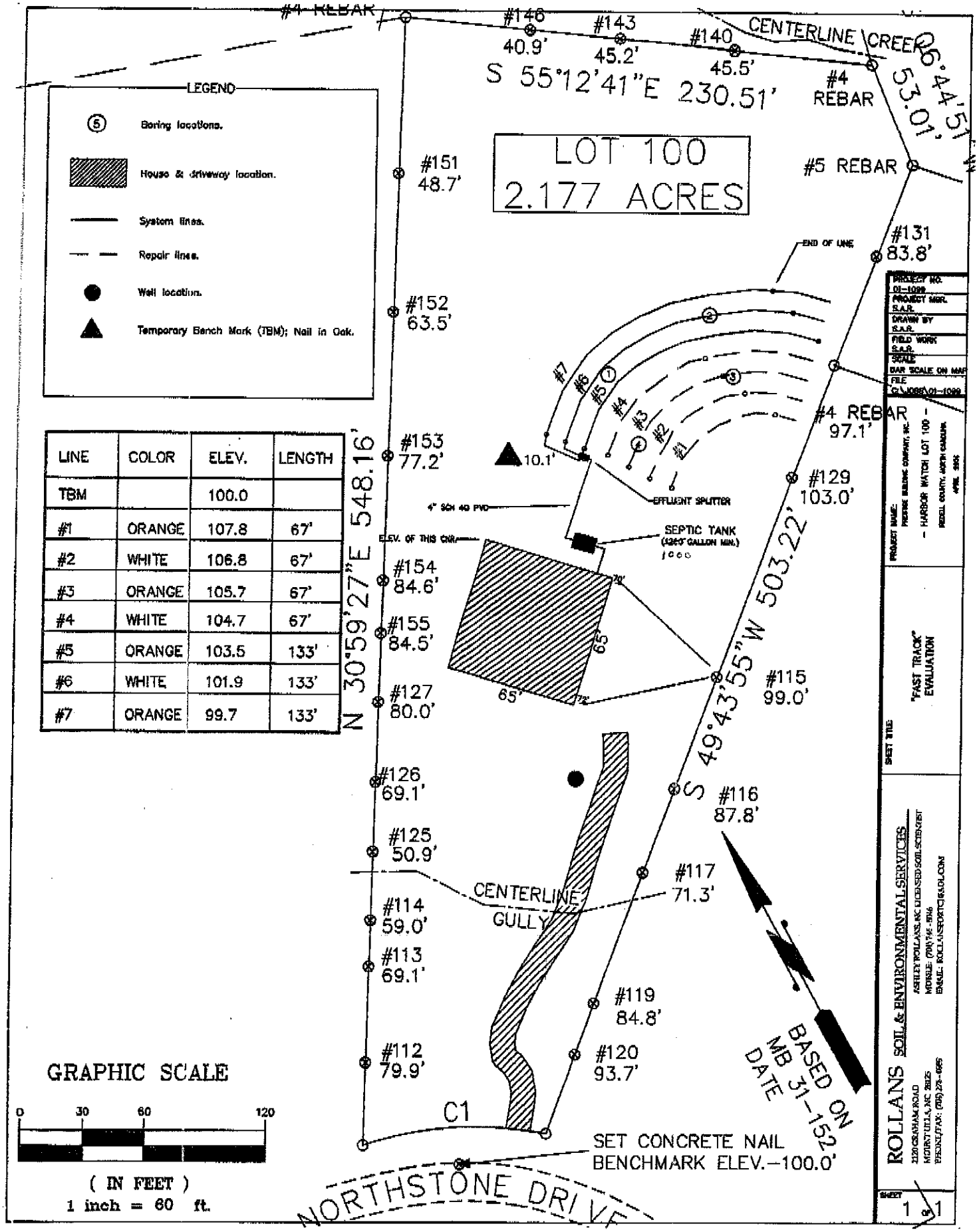
PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	L / 10-15%	0-6	FWSBK/SCL	FR/SS/SP / SEXP	>45"	45"	N/A	>45"	PS 0.3 GPD/FT2
		6-36	MSBK/C	FR/SS/SP / SEXP					
		36-45	FWSBK/SCL	FR/SS/SP / SEXP					
2	L / 10-15%	0-8	FWSBK/SCL	FR/SS/SP / SEXP	>45" YELLOW/ BLACK RELICT @ 36"	45"	N/A	>45"	PS 0.3 GPD/FT2
		8-36	MSBK/C	FR/SS/SP / SEXP					
		36-45	FWSBK/SCL	FR/SS/SP / SEXP					
3	L / 6-12%	0-3	GR/SL	FR/SS/NP / NEXP	>46"	46"	N/A	>46"	PS 0.3 GPD/FT2
		3-8	FWSBK/SCL	FR/SS/SP / SEXP					
		8-36	MSBK/C	FR/SS/SP / SEXP					
		36-46	FVWSBK/SCL	FR/SS/SP / SEXP					
4	L / 6-12%	0-10	FWSBK/SCL	FR/SS/SP / SEXP	>46" Rock Frags	46"	N/A	>46"	PS 0.3 GPD/FT2
		10-36	MSBK/C	FR/SS/SP / SEXP					
		36-46	FVWSBK/SCL	FR/SS/SP / SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	25% Reduction	PPBPS
Site LTAR	0.3gpd/ft2	0.3gpd/ft2

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): _PS (System)_PS (Repair)

EVALUATED BY: Samuel A. Rollans, LSS
OTHER(S) PRESENT:

COMMENTS:



LINE	COLOR	ELEV.	LENGTH
TBM		100.0	
#1	ORANGE	107.8	67'
#2	WHITE	106.8	67'
#3	ORANGE	105.7	67'
#4	WHITE	104.7	67'
#5	ORANGE	103.5	133'
#6	WHITE	101.9	133'
#7	ORANGE	99.7	133'