WASTEWATER SECTION

PROPERTY ID #: 4629844046

COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Jim and Becky Karr — APPLICATION DATE: 3-12

ADDRESS: 5517 Long Walk Dr Kernersville NC — DATE EVALUATED: 2-12

PROPOSED FACILITY: System Expansion — PROPOSED DESIGN FLOW (.1949): 360gpd total — PROPERTY SIZE: 0.77 ac

LOCATION OF SITE: 637 Stillwater Rd Lot 49 — PROPERTY RECORDED: Yes

WATER SUPPLY: [X] Private [ ] Public [X] Well [ ] Spring [ ] Other

EVALUATION METHOD: [X] Auger Boring [ ] Pit [ ] Cut — TYPE OF WASTEWATER: [X] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 1	SS 15%	0-12	F'll			48"	-	-	PS .3
		12-25	B SL Gr	SS SP, Fr SEXP	-				
		25-44	R C WFSBk	SS SP, Fr SEXP	few mica few sap >30"				
		44-48	R CL WFSBk	SS SP, Fr SEXP	com sap				
B 2	SS 15%	0-11	F'll		-	48"	-	-	PS .3
		11-14	B SL Gr	SS SP, Fr SEXP					
		14-25	R C WFSBk	SS SP, Fr SEXP	few iron mica few sap				
		25-48	R CL WFSBk	SS SP, Fr SEXP	many sap				
B 3	SS 18%	0-10	F'll		-	48"	-	-	PS .3
		10-16	B SL Gr	SS SP, Fr SEXP					
		16-48	R C WFSBk	SS SP, Fr SEXP	few sap >40"				
B 4	SS 20%	0-3	F'll		-	48"	-	-	PS .3
		3-14	LB SL Gr	SS SP, Fr SEXP					
		14-39	R C WFSBk	SS SP, Fr SEXP					
		39-48	R CL WFSBk	SS SP, Fr SEXP	com sap				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	25% Red. Exp.	Perfect LPP RBPS
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): None

SITE CLASSIFICATION (.1948): PS

EVALUATED BY: Adrian L. Pruett LSS

OTHER(S) PRESENT: None

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 462944046
DATE OF EVALUATION: 2-12
COUNTY: Iredell

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
B	SS	0-8	F; 1		-	48"	—	—	PS
5	25%	8-10	B SL Gr	SS SP, Fr SEXP					
		10-29	R C MF SBK	SS, SP, Fr SEXP	com mica				.3
		25-48	R CL LFSBK	SS, SP, Fr SEXP	fri sap, com sap > 48" com mica				
B	SS	0-4	F; 1		-	48"	—	—	PS
6	20%	4-17	B SL Gr	SS SP, Fr SEXP					
		17-38	R C MF/MFSBK	SS, SP, Fr SEXP	fri sap				.3
		38-48	R CL MFSBK	SS, SP, Fr SEXP	com sap				

COMMENTS: _____

Adrian L. Pruett

162 West B St Kannapolis, NC 28081

(704) 202-5791

NC Licensed Soil Scientist, SC Professional Soil Classifier,
Certified Septic System Operator, Licensed Septic Installer,
Certified Septic Inspector

Proposed design for an EXPANSION of a Septic System using Gravity distribution from a 2 bedroom single family residence to a 3 bedroom single family residence at 637 Stillwater Rd, Troutman Iredell County, North Carolina.

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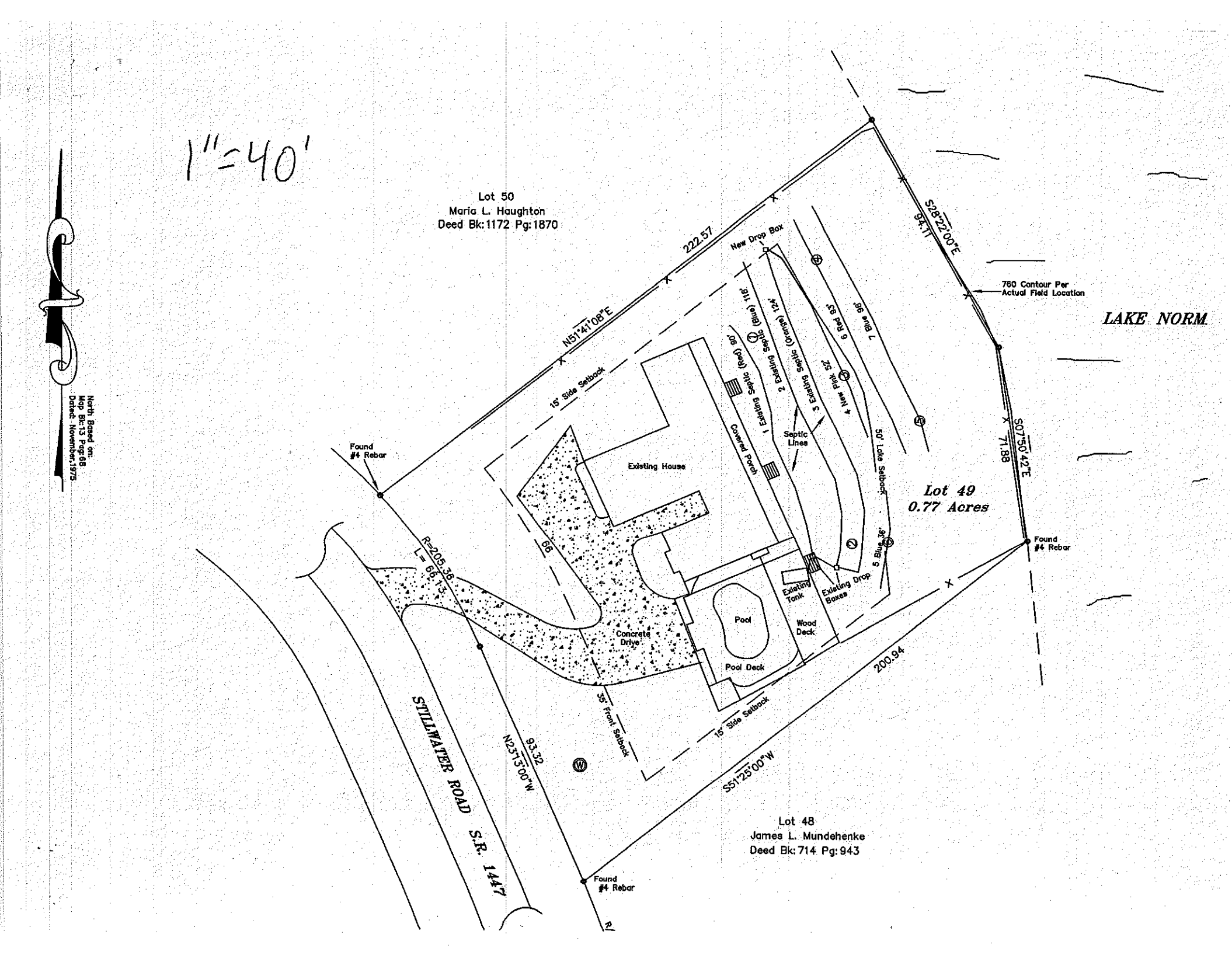
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February 29, 2012
Design By: Adrian L. Pruett

INFORMATION FOR INSTALLER:

- The permit should be read very carefully prior to submitting bid. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by NC DENR, and certification supplied by the manufacturer.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- The installer is responsible for final grades and returning that grade to original, with exception of added structural features.
- The supply trench shall be compacted to eliminate any cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom has no more than 1/4"fall in 10 feet with no high or low areas within. If high or low areas do exist after trench excavation, high areas should be removed rather than filling in low areas. Do not over excavate trenches! Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pin flag locations should be checked by the installer prior to beginning trenches to insure accuracy.
- Pump tank riser should be 6" above grade, control panel should be 12" above grade.
- If septic tank riser is used it should be a minimum of 6" above finished grade.
- Design precludes use of foundation drains on the residence.
- System is specified as an Accepted 25% reduction gravity **EXPANSION** installation.
- Repair is specified as a Pretreated PPBPS low pressure installation.
- Trench walls should be raked, limed and installed at the depth specified by this design.
- **Existing septic tank needs to be up graded to today's standards with a effluent filter on outlet end.**
- **Decking that covers existing tank will need to be removed.**
- **UPON INSTALLATION BE EXTREMELY CAREFUL NOT TO DAMAGE ANY EXISTING SEPTIC COMPONENTS.**


1"=40'
North Based on:
Map Bk:13 Pg:68
Dated: November,1975
Lot 50
Maria L. Haughton
Deed Bk:1172 Pg:1870
222.57
N51°41'08"E
15' Side Setback
Found
#4 Rebar
S28°22'00"E
54.11
760 Contour Per
Actual Field Location
LAKE NORM
S07°50'42"E
71.88
Found
#4 Rebar
New Drop Box
1 Existing Septic (Blue) 118'
2 Existing Septic (Orange) 124'
3 Existing Septic (Red) 98'
4 New Pipe 92'
5 Blue 96'
6 Red 93'
7 Blue 96'
Septic Lines
Covered Porch
Existing House
50' Lake Setback
Lot 49
0.77 Acres
Existing Tank
Existing Drop Boxes
Pool
Wood Deck
Pool Deck
Concrete Drive
R=205.36'
L=66.13'
66
35' Front Setback
15' Side Setback
200.94
S51°25'00"W
N23°13'00"W
93.32
STILLWATER ROAD S.R. 1447
Found
#4 Rebar
Lot 48
James L. Mundehenke
Deed Bk: 714 Pg: 943

OWNER INFORMATION

Owner:	Jim and Becky Karr
Address:	5517 Long Walk Dr Kernersville, NC 27284
Phone:	336-817-8903
County:	Iredell
Location:	637 STILLWATER RD, LOT 49
Source of Wastewater Flow:	3 Bedroom Single Family Residence Expansion
Estimated Gallons Per Day Flow:	360
System Flow:	NA

25% GRAVITY DESIGN EXPANSION INFORMATION

Drainfield Design Flow (gpd):	52
Loading/Soil Application Rate (gpd/ft.^{2}):	0.30
Depth of Gravel in Trench:	NA (25% reduction)
Gravel Size:	NA (25% reduction)
Total Lateral Length From Layout:	52
Total Lateral Length Required:	52
Trench Depth:	36 in.
Trench Width:	36 in.
TOTAL AREA TRENCH BOTTOM:	156
Septic Tank Size:	Existing
Estimated Supply Line Length:	Existing
Added Supply Line Length From New Drop Box	26
Supply Line Diameter:	3 in. SCH 40 PVC
Supply Line Volume:	Not Known
Dosing Volume:	NA
Supply Manifold:	DROP BOX
Additional Comments:	Soil suitability was performed by Adrian L. Pruett LSS Permit on file with Iredell County Env. Health Dept. does not have an LTAR listed.

637 STILLWATER RD, LOT 49
FIELD LAYOUT SPECIFICATIONS

LAYOUT FOR 3 BEDROOM HOME EXPANSION — February 29, 2012

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	*EXISTING (RED)*			*NA*	*NA*	*90*	*90*
2	*EXISTING (BLUE)*			*NA*	*NA*	*118*	*118*
3	*EXISTING (ORANGE)*			*NA*	*NA*	*124*	*124*
4	*PINK (25% RED.)*			*NA*	*NA*	*54*	*52*
5	BLUE			NA	NA	36	36
6	RED			NA	NA	93	93
7	BLUE			NA	NA	98	98
					Total	**613**	**611**

	LINE LENGTH	LTAR GPD/FT²	SYSTEM TYPE	SOIL LTAR GPD/FT²	TRENCH SYSTEM	DISTRIBUTION
** New System*	*52*	*0.30*	*ACCEPT.*	*0.30*	*25% RED.*	*GRAVITY DISTRIBUTION*
Existing Sys.	*332*	*0.30*	*CONV.*	*0.30*	*CONV.*	*GRAVITY DISTRIBUTION*
Total:	*384*					
Repair	227	0.30	*MOD.*	0.30	PPBPS	PRETREATED LOW PRESSURE

Notes:
** TBM Is Not Required.
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags

DOSING CALCULATIONS

Location 637 Stillwater Rd

Lot No: Lot 49

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.30	$^{gal}/_{ft^2 day}$
25% RED. Expansion? (YES OR NO)	YES	
Supply Line Length	Existing	ft.
Added Supply line lengh from New Drop Box	26	ft.
Supply Line Volume	Not Known	gal.
Required Feet of 25% RED. Line	52	ft.
Amount of Line from Layout	52	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	Existing	
Lateral Line Volume	33.956	gal.