HAL OWEN & ASSOCIATES, INC.
SOIL & ENVIRONMENTAL SCIENTISTS
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4 March 2004

Mr. Oliver Tolksdorf
Harnett County Environmental Health
307 West Cornelius Harnett Blvd.
Lillington, NC 27546

Reference: Septic System Design Revision
Randall Johnson Property

Dear Mr. Tolksdorf,

After our site meeting at the above referenced property, I have modified the septic system design to reflect a 0.6 gpd/sqft application rate as assigned by Dr. David McCloy, the regional soil scientist. Both the initial and repair septic systems are proposed utilizing 200-ft of conventional drainlines that will be fed via gravity and distributed serially on contour at an 18 inch trench depth. It was established at this meeting that an interceptor drain (blind ditch) will be required above the proposed septic systems and that it is to be installed prior to construction. Attached is the schematic showing both the proposed drainfields and the proposed location for the interceptor drain. The surface elevation from the top of the hill to the ditch along the property line is 5-ft. I understand that the interceptor drain must be at least 42 inches deep uphill from the septic system and gradually come to surface in the existing ditch below the house. The existing ditches will likely need improved to aid in proper disposal of the water from the interceptor drain to the final outlet at the large ditch along the property line. The interceptor drain is mapped in front of the proposed dwelling in order to maintain proper setbacks from the drainfield.

I trust that this report provides all the information that you require at this time. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Laura J. Fortner

Laura J. Fortner
Licensed Soil Scientist

q:\misca~1\rjohnson.pla 03-04-2004

Randall Johnson Prc ;rty - File No. 03-5-833

On-Site Wastewater Design Specifications

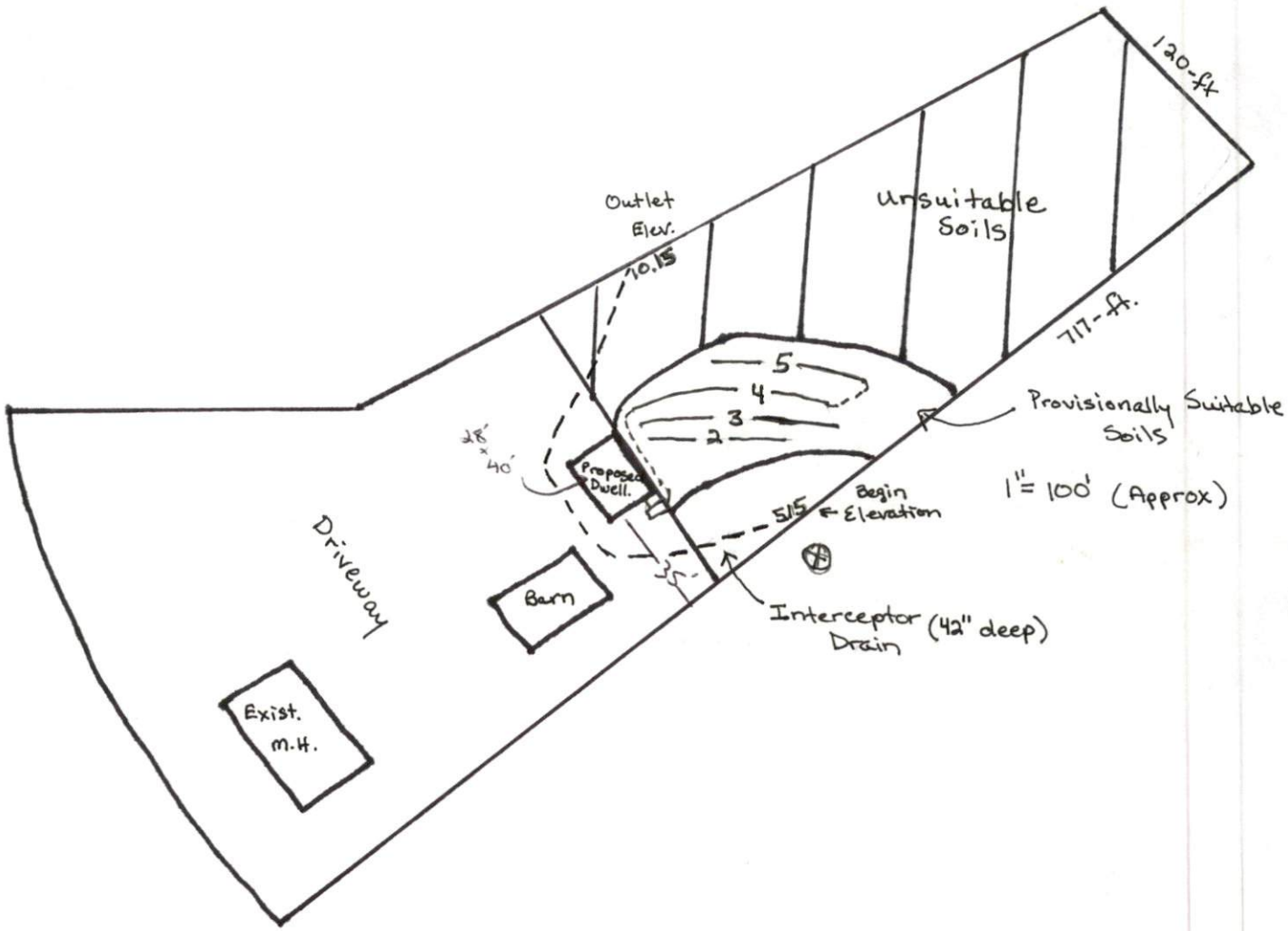
,ared By: LJF
Hal Owen & Associates, Inc.
Soil & Environmental Scientists
P.O. Box 400, 266 Old Coats Rd.
Lillington, NC 27546-0400
Phone: (910) 893-8743

House Footprint: 30 x 60 (No Foundation Drain)
Bedrooms: 3 (Daily Flow 360 gallons)

Initial System: Gravity Serial Distr. Conventional (200-ft)
on contour at: 18 inches
LTAR: 0.6 gpd/sqft
Repair System: Gravity Serial Distr. Conventional (200-ft)
on contour at: 18 inches
LTAR: 0.6 gpd/sqft

LEGEND

EIP	Septic Tank
Step-down	Pump Tank
Proposed Well	D-Box
Existing Well	Pressure Manifold



Lines flagged at site on 9-ft centers.

Initial/ Repair	Line #	Color	Drainline Length(ft)	Measured Field Line Length (ft)	Relative Elevation (ft)
N/A	1	B	0	32	101.88
Repair	2	R	85	86	101.57
Repair	3	W	115	116	101.07
Initial	4	B	110	134	100.56
Initial	5	Y	90	97	100.14
		Total:	**400**	**465**	**EIP=100**

Department of Environment, Health, and Natural Resources — Sheet:

Division of Environmental Health — Property ID:

On-site Wastewater Section — Lot #:

File #:

Code:

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: — Applicant:

Address: — Date Evaluated:

Proposed Facility: — Design Flow (.1949): — Property Size:

Location of Site: — Property Recorded:

Water Supply: [ ] Public [ ] Individual [ ] 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	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	12-20 nss 30-35	0-12	FILL M/SBK SCL/C	FR/F SS/SP → S/P					12" WAT SEPARATION
		12-38"	12" SL 1FGR	F SS/SP	GRAY @ 16" 12-20 GR2				
			SCL WF SBK	F S/P	STANDING H_2O @ 41"/34"				
2		0-12	FILL 1						
		12-17	FILL 2						
		17-22	NATURAL SL 1VF, FSBK	SS/SP VFR	2.5Y 4/2 @ 22"				5" SP
		22-40	SL 1VF, FSBK	SS/SP VFR	2.5Y 4/2 2.5Y3/2	5" SEPARATION			
					2.5Y6/3 STAND. H_2O @ 35" 2.5Y6/2				
		40"	SCL 1F, MSBK	FR SS/SP	2.5Y 6/2				
3		0-12	FILL						
		12-19	LS 1FGR	VFR SS/NP	2.5Y 2.5/1				
		19-35 Bw	SL+ 1F SBK	FR SS/SP	2.5Y 4/2 STANDING H_2O @ 33"				
		35-48"	SCL 1F, MSBK	FR SS/SP	2.5Y 7/1				
4		0-17	LS 1VF GR	VFR NS/NP	2.5Y 4/2 (SURFACE COLOR)				.6
		17-35	SL 1 VF SBK/GR	VFR SS/SP	STANDING H_2O @ 29"	35"			
		35"-48	SCL M/1M SBK	F S/P	MOTTLES (STEEL GRAY)				

Description	Initial System	Repair System
Available Space (.1945)		
System Type(s)		
Site LTAR		

Other Factors (.1946): _____

Site Classification (.1948):

Evaluated By:

Others Present:

0-34 LS 1FGR VFR SS/SP 34" .8

34-48 SCL/SC M/1M SBK FR/F SS/SP S/P 2.5Y 7/1

FILE #_____

COMMENTS:_____

_____

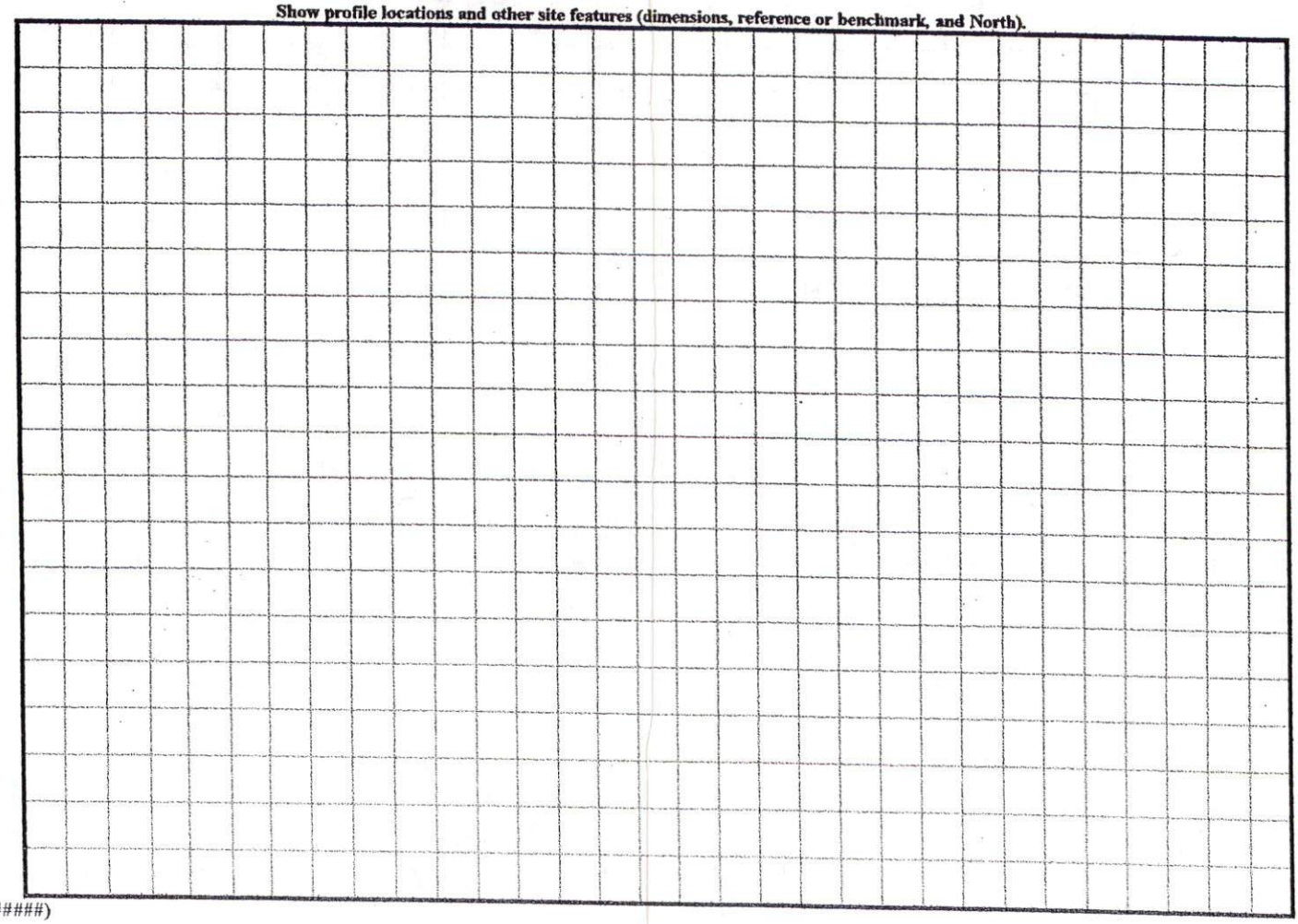
_____

_____

LANDSCAPE POSITIONS	GROUP	TEXTURES	.1955 LTAR	CONSISTENCE MOIST	WET
R-RIDGE	I	S-SAND	1.2 - 0.8		
S-SHOULDER SLOPE		LS-LOAMY SAND		VFR-VERY FRIABLE	NS-NON-STICKY
L-LINEAR SLOPE				FR-FRIABLE	SS-SLIGHTLY STICKY
FS-FOOT SLOPE	II	SL-SANDY LOAM	0.8 – 0.6	FI-FIRM	S-STICKY
N-NOSE SLOPE		L-LOAM		VFI-VERY FIRM	VS-VERY STICKY
H-HEAD SLOPE				EFI-EXTREMELY FIRM	NP-NON-PLASTIC
CC-CONCLAVE SLOPE	III	SI-SILT-	0.6 – 0.3		SP-SLIGHTLY STICKY
CV-CONVEX SLOPE		SIL-SILT LOAM			P-PLASTIC
T-TERRACE		CL-CLAY LOAM			VP-VERY PLASTIC
FP-FLOOD PLAN		SCL-SANDY CLAY LOAM			
		SICL-SILTY CLAY LOAM			
	IV	SIC-SILTY CLAY	0.4 – 0.1		
		C-CLAY			
		SC-SANDY CLAY			

STRUCTURE	MINERALOGY
SG-SINGLE GRAIN	SLIGHTLY EXPANSIVE
M-MASSIVE	
CR-CRUMB	EXPANSIVE
GR-GRANULAR	
SBK-SUBANGULAR BLOCKY	
ABK-ANGULAR BLOCKY	
PL-PLATY	
PR-PRISMATIC	

Show profile locations and other site features (dimensions, reference or benchmark, and North).



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