ICHD

Penninger Soil Consulting, PLLC
Ph: 704-996-6330 Email: pgpenninger@gmail.com

Call Paul for site visit

December 17, 2015

Whitley Construction
127 Hunters Pointe
Mooresville, North Carolina 28117

Attention: Mr. John Whitley

Reference: **Technical Assistance with Fast Track Septic Permitting**
Lot 623 Falls Cove
Timber Lake Drive
Iredell County, North Carolina
Project No. 15-147

Dear Mr. Whitley:

Penninger Soil Consulting, PLLC has provided technical assistance to obtain a possible new, 4-bedroom septic Construction Authorization Permit from the Iredell County Health Department (ICHD) for the referenced lot. The technical assistance was performed in general accordance with our written proposal dated December 16, 2015.

The waterfront lot located off Timber Lake Drive has an existing 4-bedroom Improvement Permit that was issued by the ICHD on June 8, 2007. This permit is still valid. Based on a conversation with Mr. Justin Henderson, the NCDHHS is requiring the ICHD to field review any lot with an Improvement Permit issued more than five years ago. Since you are ready to dig the home footings, you contracted Penninger Soil Consulting PLLC to assist you with this Fast Track Construction Authorization submittal. Your surveyor staked the proposed house pad and the lot lines for the permitting. Attached is the existing ICHD Improvement Permit and the soil profile descriptions for backhoe pits previously evaluated on the lot.

Mr. Paul Penninger visited the lot on December 16, 2015 to flag the proposed T&J Panel system and repair area and to place 4 hand auger borings in the proposed septic area as shown on the attached site plan. The proposed house and septic area are in similar locations as shown in the 2007 Improvement Permit. The soil pile from the basement excavation should be removed from the septic area during dry soil conditions.

Once the septic area is permitted, it should be fenced off for protection during home construction. Access to the lot should only be by the proposed drive. There shall not be cuts of 2 feet or greater within 15 feet of any part of the permitted septic system.

The attached information is not an Improvement Permit or Construction Authorization, and is only to assist you with the Fast Track site evaluation. The attached plan is not intended to be a Professional Engineer plan. The ICHD must approve each lot and only the ICHD can issue these permits. The ICHD should verify all soils and system specifications, required setbacks, and whether a professional engineer plan is required before permitting and/or septic system installation. Soil evaluations and system layouts are done based on interpretations of the rules governing wastewater treatment and disposal systems and are not guarantees for site approval or future septic system performance.

If you have any questions or require additional information please contact us at your convenience.

Sincerely,

Penninger Soil Consulting, PLLC

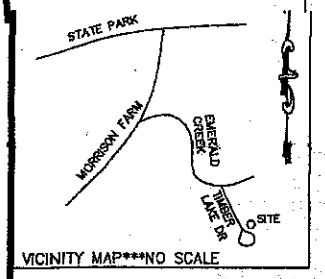


Paul G. Penninger, L.S.S.
Soil Scientist

Attachments:

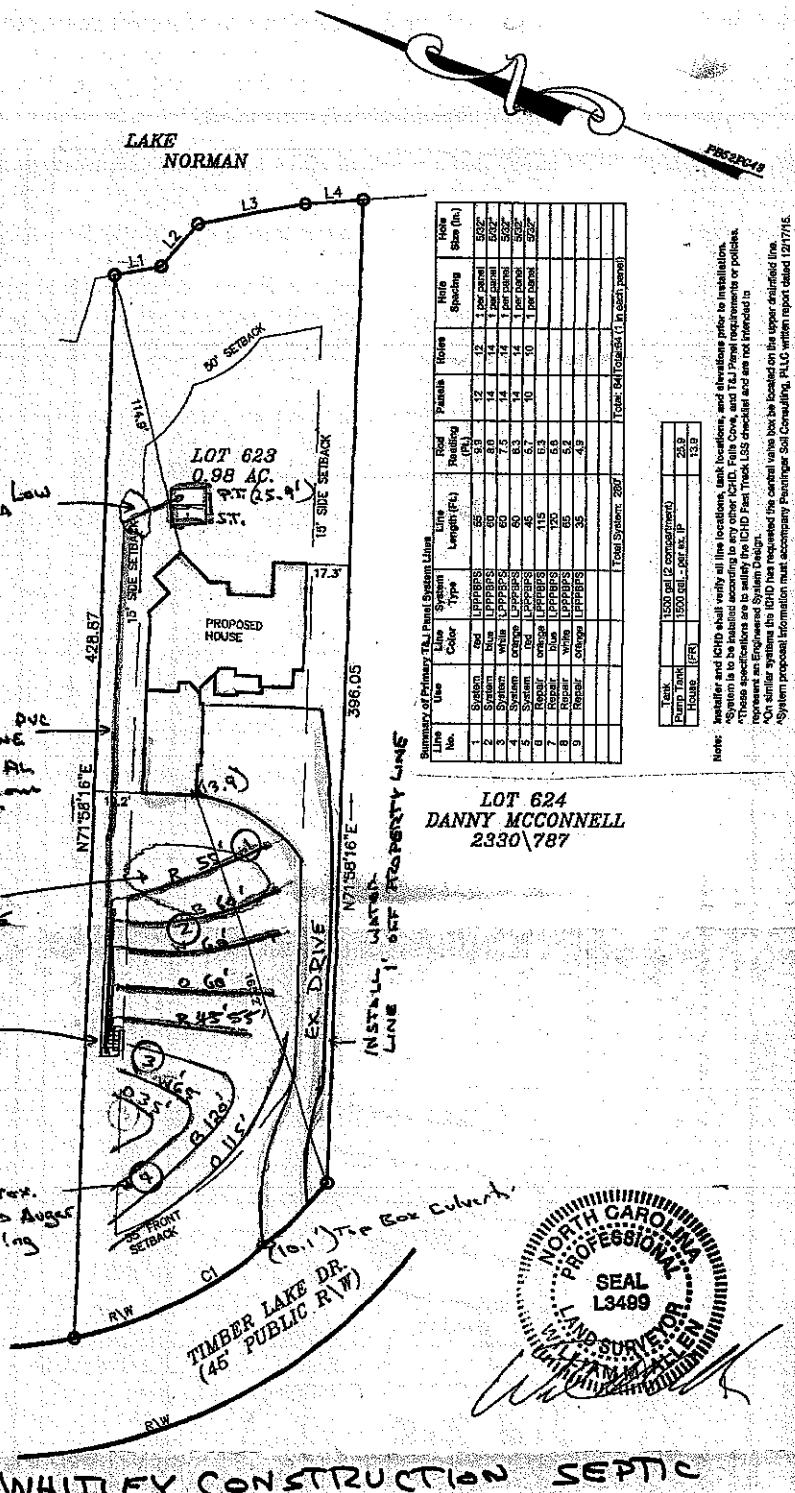
1. ICHD Construction Authorization Permit Application
2. Site Plan and System Specifications
3. Existing 2007 ICHD Permit and Soil Notes

C:\Users\Paul G. Penninger\Documents\2015 Projects\15-147 Whitley Construction - Lot 623 Falls Cove\15-147 Falls Cove Lot 623 Fast Track Summary Letter.doc



VICINITY MAP***NO SCALE

LEGEND
- P.P. = POWER POLE
- = POWER TRANS.
- E.I.P. = EXISTING IRON FOUND
- I.P.S. = #4 REBAR SET
- R/W = RIGHT-OF-WAY
- CP = COMPUTED POINT



Summary of Primary T&J Panel System Lines												
Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading (Ft.)	Panels	Holes	Hole Spacing	Hole Size (in.)			
1	System	Red	LPPPBPS	55'	9.3	12	12	1 per panel	5/32"			
2	System	Blue	LPPPBPS	65'	8.8	14	14	1 per panel	5/32"			
3	System	White	LPPPBPS	65'	7.5	14	14	1 per panel	5/32"			
4	System	Orange	LPPPBPS	60'	8.3	14	14	1 per panel	5/32"			
5	System	Red	LPPPBPS	45'	6.7	10	10	1 per panel	5/32"			
6	Repair	Orange	LPPPBPS	115'	6.3							
7	Repair	Blue	LPPPBPS	120'	6.6							
8	Repair	White	LPPPBPS	65'	6.2							
9	Repair	Orange	LPPPBPS	35'	4.9							
				Total System: 280'		Total: 84	Total: 84	Total: 84 (1 in each panel)				

Tank		1500 gal (2 compartment)	25.9
Pump Tank		1500 gal. - per mx. IP	13.9
House	(ER)		

Note: Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation.
*System is to be installed according to any other ICHD, Falls Cove, and T&J Panel requirements or policies.
*Those specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent a complete set of construction drawings.
*On similar systems this ICHD has required the central valve box be located on the upper drainfield line.
*System proposal information must accompany Pennington Soil Consulting, PLLC written report dated 12/17/15.

NOTES
1) THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHTS OF WAY OF RECORD.
2) ACREAGE COMPUTED BY THE COORDINATE METHOD.
3) UNDERGROUND POWER
4) NO GRID MONUMENT FOUND WITHIN 2000 FEET.
5) PARCEL # 4639299977
6) DEED REF. BOOK 2114 PAGE 937
7) PLAT BOOK 52 PAGE 43

LINE TABLE		
LINE	BEARING	LENGTH
L1	S 30°48'50" E	19.12'
L2	S 69°15'59" E	22.33'
L3	S 30°39'40" E	44.91'
L4	S 24°33'39" E	23.70'

CURVE TABLE				
CURVE	RADIUS	LENGTH	BEARING	CHORD
C1	177.50'	122.79'	S 51°50'37" E	120.36'

NORTH CAROLINA PROFESSIONAL SEAL L3499 LAND SURVEYOR WILLIAM ALLEN

*WHITLEY CONSTRUCTION SEPTIC SITE PLAN

PLOT PLAN SURVEY 12-17-15
OF

LOT 623 FALLS COVE PH. 6

FALLSTOWN TWSP., IREDELL CO., N.C.
DATE: OCT. 26, 2015

GRAPHIC SCALE

50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

DAS
DON ALLEN & ASSOCIATES P.A.
"Since 1971"
Commercial * Residential * Mortgage Surveys * Multi-Family
Construction Staking * Subdivision Design * Topographical
131 CROSSLAKE PARK DR. SUITE 102 Mooresville, N.C. 28117
(704) 664-7029 (704) 664-8041 Fax

FILE NAME: FALLS COVE 623.dwg

*SITE PLAN MUST ACCOMPANY PENNINGER SOIL CONSULTING WRITTEN REPORT DATED 12-17-15

Whitley Construction - Lot 623 Falls Cove Fast Track Proposal (pg 1 of 2)

December 17, 2015

Number of Bedrooms	4
Basement or Crawl	**basement/slab garage**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3 per ex. IP
Primary System Type	**LP PPBPS - T&J Panel Block**
No. Lines	5 (see attached site plan)
Total Linear Feet	280 shown (267 ft. required)
Trench Width	3' min. per ex. IP
Trench Spacing	9' min.
Trench Depth	36 inch max per ex. IP
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	approx. 230' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	32 gpm
Elevation head	approx. 28'
Pressure head	3.0'
Friction head	approx. 6.2'
20% Contingency	7.4'
Total Head	44.6'
Pump Requirements	32 gpm @ 44.6' of head (To be verified by installer and ICHD after final tank placement)
Maximum Dosing Volume	230 gallons max*
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 7.2 min.
Check Valve	yes
Siphon Break hole	no
Repair System -	**LP PPBPS - T&J Panel Block**
Total Linear Feet	335' shown - 267' required
Repair LTAR (gpd/sqft)	0.3 per ex. IP

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Whitley Construction - Lot 623 Falls Cove Fast Track Proposal (pg 2 of 2)
December 17, 2015

Summary of Primary T&J Panel System Lines

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	red	LPPPBPS	55	9.9	12	12	1 per panel	5/32"
2	System	blue	LPPPBPS	60	8.6	14	14	1 per panel	5/32"
3	System	white	LPPPBPS	60	7.5	14	14	1 per panel	5/32"
4	System	orange	LPPPBPS	60	6.3	14	14	1 per panel	5/32"
5	System	red	LPPPBPS	45	5.7	10	10	1 per panel	5/32"
6	Repair	orange	LPPPBPS	115	6.3				
7	Repair	blue	LPPPBPS	120	5.6				
8	Repair	white	LPPPBPS	65	5.2				
9	Repair	orange	LPPPBPS	35	4.9				
				Total System: 280'		Total: 64	Total:64 (1 in each panel)		

Tank		1500 gal (2 compartment)	
Pump Tank		1500 gal. - per ex. IP	25.9
House	(FR)		13.9

Note: **Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation.**
^System is to be installed according to any other ICHD, Falls Cove, and T&J Panel requirements or policies.
^These specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent an Engineered System Design.
^On similar systems the ICHD has requested the central valve box be located on the upper drainfield line.
^System proposal information must accompany Penninger Soil Consulting, PLLC written report dated 12/17/15.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

GIC YA

Sheet 1 of 1
PROPERTY ID #:
COUNTY:

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**
(Complete all fields in full)

OWNER: Whitley Ranch
ADDRESS: Lot 623 Falls Cove Timber Lakes NC
PROPOSED FACILITY: SFD
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: Lot 623 Falls Cove
WATER SUPPLY: ☐ Private ☒ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut

APPLICATION DATE
DATE EVALUATED: 12-15-15
PROPERTY SIZE: 0.98 ac
PROPERTY RECORDED: 2007

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	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L 10%	0-7	WSBK scl	fr ss/se	mlk A-B few c/d/a/rsty				PS .3
		7-24	mSBK scl	fr ss/sp	wl f SBP				
		24-46	WSBK scl	fr ss/sp	yl/wl c SBP, c qtz				
		46-48	mABK s/sap	fr ss/se	yl/rsh f qtz	46	PS	⊖	
					⊖				
2	L 12%	0-15	WSBK c/cl	fr s/p	br/red mix A-B				PS .3
		15-37	m SBK c	fr s/p	wl				
		37-49	WSBK cl	fr ss/se	yl/wl c SBP, f qtz				
					⊖	49	⊖	⊖	
3	5% 4/5	0-3	WSBK scl	fr ss/se	red br				PS .3
		3-18	m SBK/ABK c	fr s/p	red/br wr f SAP				
		18-45	m SBK cl	fr ss/se	yel wl c SBP, qtz, mi				
		45-48	WABK l	fr ss/se	rm c				
					⊖	48	(INC)	⊖	
4	L/N 5%	0-7	WSBK scl	fr ss/se	br				PS .3
		7-27	m SBK/ABK c	fr s/p	red wl f SAP wl				
		27-36	WSBK cl	fr ss/se	red yel c SBP				
		36-48	WSBK cl-scl	fr ss/se	red yel c SBP w qtz mi				
					⊖	48	⊖	⊖	

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	LP PP CSPS	LP PP CSPS
Site LTAR	-3	-3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PGP
OTHER(S) PRESENT: must be approved by ICHD

COMMENTS: VALID LP IN SEPTIC AREA Approved by DCH to ICHD

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

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

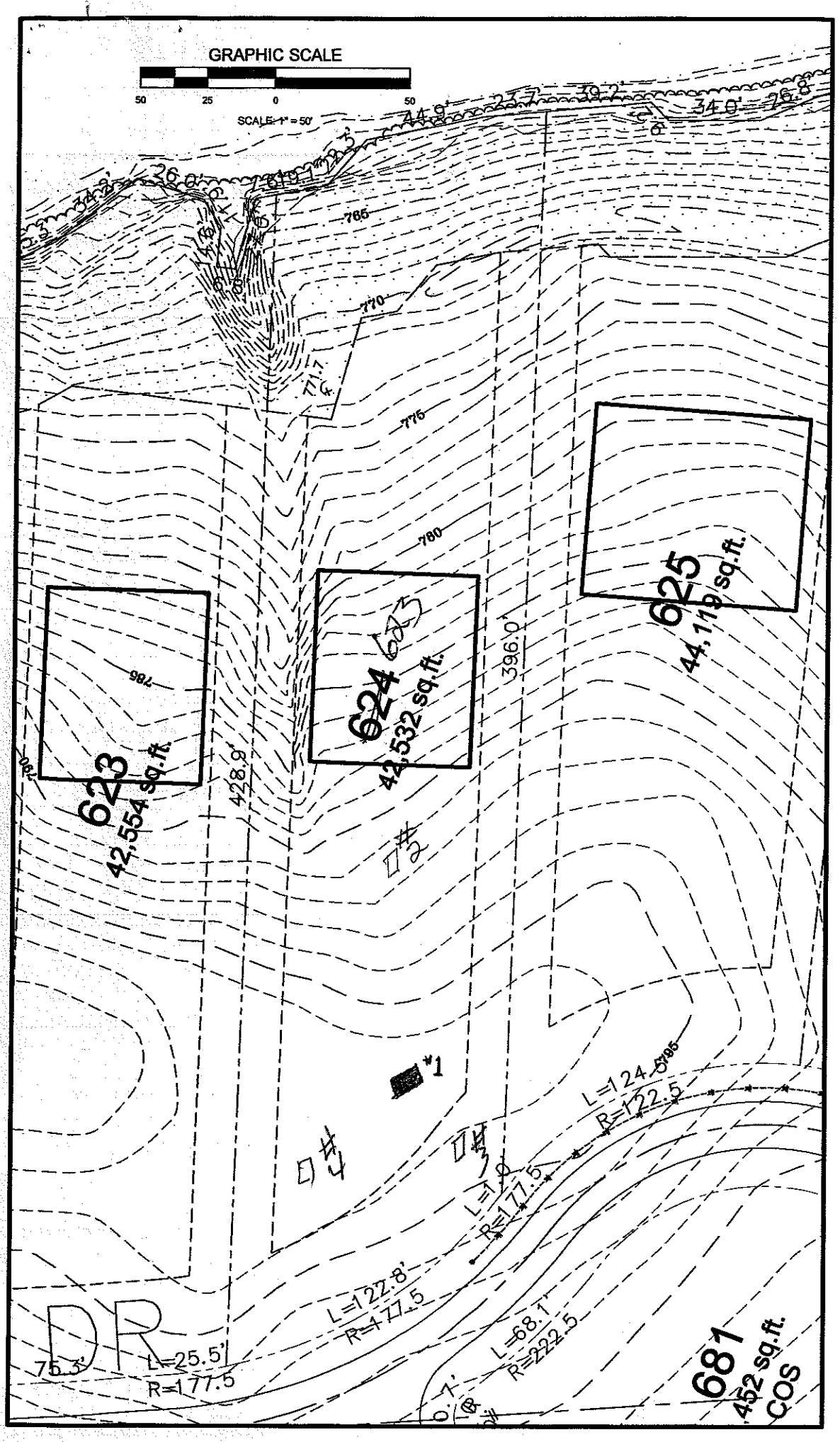
SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Falls Cove Dev. APPLICATION DATE ___
ADDRESS: ___ DATE EVALUATED: ___
PROPOSED FACILITY: SFD 623 PROPOSED DESIGN FLOW (.1949): 480 GPD PROPERTY SIZE: ___
LOCATION OF SITE: Lot # Parkwood SD OFF Mewborn Farm Rd, PROPERTY RECORDED: ___
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	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR. HORIZ.	PROFILE CLASS & LTAR
1 (C)	L/N 3-6%	0-3	Mo, Gr, SL	VFr, SS, NP (Brwn)					PS
		3-34	WK, sbk, C	Fr, SS, SP (Red)			(-M SAP Inclus.		0.30
		34-53	WK, sbk, CL	Fr, SS, SP (Red)					
		53-60	Mass., SL-SAP	VFr, NS, NP (Mott)					
2	12%	0-12	WK sbk cl	Fr SS SP Red					.3
		12-34	Mo sbk C	Fr SS SP Red	few/com sap				
		34-58	Mass L sap	Fr SS SP	few cl incl.				
3		0-16	Mo sbk/gbk C	fr SS SP	Red				.3- .325
		16-30	Mo sbk cl	fr SS SP	Red many sap				
		30-55	WK sbk cl	+ L sap					
4		0-17	Mo sbk/gbk C	fr SS SP	Red				.3- .325
		17-27	Mo sbk cl	fr SS SP	com-many sap Red				
		27-52	WK sbk cl	+ L sap fr SS SP	Red				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): ___
SITE CLASSIFICATION (.1948): ___
EVALUATED BY: ___
OTHER(S) PRESENT: ___
COMMENTS: ___


GRAPHIC SCALE
50 25 0 50
SCALE: 1" = 50'
785
770
775
780
623
42,554 sq.ft.
624
42,532 sq.ft.
625
44,119 sq.ft.
396.0'
428.9'
#1
L=124.5'
R=122.5
L=31.0'
R=177.5
L=122.8'
R=177.5
L=68.1'
R=222.5
DR
75.3'
L=25.5'
R=177.5
681
452 sq.ft.
COS