April 6, 2015

Ralph Hager
365 Mistwater Trace
Alpharetta, Georgia 30022

Reference: **Technical Assistance with Fast Track Septic Permitting**
185 Gainswood Road
CL&T Section 6, Lot 506
Iredell County Parcel No. 4624-46-1326.000
0.96 Acre Tract
Iredell County, North Carolina
S&ME, Inc. Project No. 4358-15-032

Dear Mr. Hager:

S&ME, Inc. (S&ME) has provided technical assistance to obtain a possible four bedroom septic Improvement Permit from the Iredell County Health Department (ICHD) for the above referenced lot. The technical assistance was performed in general accordance with S&ME Proposal No. 43-1500252 dated March 2, 2015.

Attached is the Application for the Septic Improvement Permit and the ICHD Fast Track requirements presented to the ICHD on your behalf. The lot has an existing mobile home, a gravity bed septic system, and an existing well. The only permit information submitted to S&ME is a 1998 Improvement Permit Application that proposed to remove an older mobile home and replace it with the existing doublewide home. The attached record plat shows the lot was originally recorded in 1976. We understand you have the lot under contract and want to remove the existing mobile home and construct a new house. You are requesting a new four bedroom septic Improvement Permit with a larger house pad, a well permit, and future pool location.

The property corners, proposed house pad, and lake buffer were flagged by your surveyor. S&ME flagged the proposed primary and repair T&J Panel drainfield lines. These were located by your surveyor as shown on the attached site plan. Four hand auger borings were described at the locations shown on the attached site plan. Part of the existing drainfield was located with a tile probed as shown on the attached site plan. The existing septic tank was not located, and may be under the mobile home deck. The existing septic tank should be abandoned according to the ICHD policy.

Once the proposed 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 drainfield and no fill should be added over the system area. The depression noted on the site plan and the minor complex topography areas in the wooded area, adjacent to the drainfield should be filled and smoothed with clean Group II or Group III soil material.

No part of the septic system shall be closer than 50 foot to any well. The existing well on the site will need to be properly abandoned before the septic Construction Authorization can be issued. An application to abandon the existing well and drill the new well are attached.

S&ME appreciates the opportunity to provide these services to you. The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist you and the ICHD with the Fast Track site evaluation. The ICHD must approve each lot and only the ICHD can issue these permits. The attached plan is not intended to be a Professional Engineer plan. 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. The ICHD may make any changes they deem necessary (tank locations, distribution device, etc.) to the proposed system on the Improvement Permit or the attached information /site plan. 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,

S&ME, Inc.

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

Rob Willcox, L.S.S.
Senior Project Manager / Soil Scientist

Attachments:

1. ICHD Improvement Permit and Well Applications
2. Site Plan, System Specifications, and Soil Profile Descriptions
3. Existing System Information and Record Plat

Copy: ICHD

T:\Projects\2015\ENV\4358-15-032 Ralph Hager\185 Gainswood Summary Letter.doc

185 Gainswood Road Fast Track System Proposal (April 6, 2015)

Ralph Hager	
Number of Bedrooms	4
Basement or Crawl	**Basement**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	4 (See Table)
Total Linear Feet	280
Trench Width	2' min.
Trench Spacing	8' min.
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	approx. 140' of 2 " SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	31.5 gpm
Elevation head	*Approx. 17'
Pressure head	3.0'
Friction head	approx. 5'
20% Contingency	approx. 5'
Total Head	30'
Pump Requirements	31.5 gpm @ 30' of head* *To be verified by installer and ICHD prior to installaton
Maximum Dosing Volume	*226 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	**T&J Panel**
Repair LTAR	0.3
Total Lineal Feet	277 shown, 267 required

***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.**
Note: The ICHD has requested the valve box at the upper line on similar systems and endfed distribution.

185 Gainswood Road Fast Track System Proposal (April 6, 2015)

Ralph Hager

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Elev.* (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	orange	LPPPBPS	80	777.3	18	18	1 per panel	5/32"
2	System	blue	LPPPBPS	80	776.6	18	18	1 per panel	5/32"
3	System	white	LPPPBPS	70	776.1	16	16	1 per panel	5/32"
4	System	orange	LPPPBPS	50	775.3	11	11	1 per panel	5/32"
				Total System: 280'		Total: 63	Total:63 (1 in each panel turned up)		

Tank		1000 gal (2 compartment)	
Pump Tank		1000 gal.	769.0
House	RR		770.0

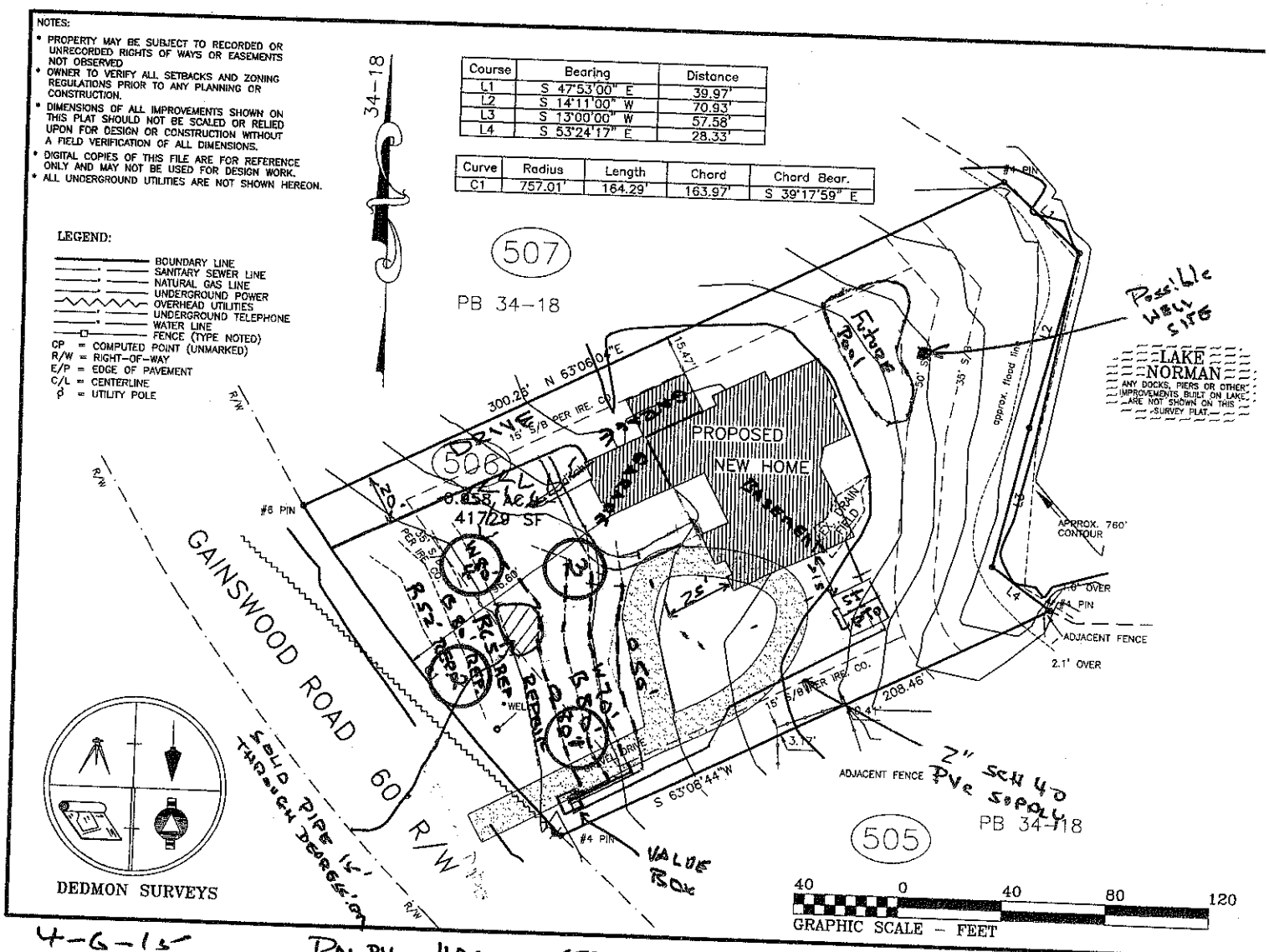
Note: **Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation.**

*Elevations from Dedom Survey map

System is to be installed according to any other ICHD requirements or policies.

These specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent an Engineered System Design.

Use trench depth on ICHD IP.



4-6-15 RALPH HAGAR SEPTIC SITES PLAN - SITE PROJECT 4

* SITE PLAN MUST ACCOMPANY WRITTEN REPORT

—○— = APPROX HAND AUG BORING

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

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

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

OWNER: Ralph Hager
ADDRESS: 165 Grandwood
PROPOSED FACILITY: House
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: _____
APPLICATION DATE: 4-6-15
DATE EVALUATED: March
PROPERTY SIZE: _____
PROPERTY RECORDED: 72

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	L 5-10	0-13	wsbk/sd	fr ss/sp	br				PS .3
		13-31	msbk/c	fr s/e	red				
		31-48	w-msbk/cl	fr ss/sp	yel/red	F SPR, wbH			
					(2)	48	(3)	(1)	
2	C 5	0-15	wsbk sl-sd	fr ss/sp	br				PS .3
		15-39	msbk c	fr s/p	red				
		39-48	wsbk c-d	fr ss/sp	red	C SPR, WbH, Manganese colors			
					(2)	48	(2)	(1)	
3	5-10	0-11	wsbk sd	fr ss/sp	br				PS .3
		11-28	msbk c	fr s/p	red	f-c	SPS		
		28-48	wsbk c-d	fr ss/sp	red				
					(1)	48	(2)	(1)	
4	25	0-18	wsbk sd	fr ss/sp	br				PS .3
		18-35	msbk c	fr s/p	red	F well C SPR, WbH, Manganese			
		35-48	wsbk d	fr ss/sp	red				
					(2)	48	(2)	(1)	

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	T.J	T.J
Site LTAR	.3	.3

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PGP
OTHER(S) PRESENT: must be requested by LHD

COMMENTS: _____