February 9, 2015

Clayton Homes #072
2026 Northside Drive
Statesville, North Carolina 28625

Attention: Ms. Deena Abee

Reference: **Technical Assistance with Septic Permitting**
Iredell County Parcel Number 4712449628.000
10.0 Acre Parcel
205 Low Lane - Proposed Singlewide Site
Iredell County, North Carolina
S&ME, Inc. Project No. 4358-14-101, Phase 04

Dear Ms. Abee:

S&ME, Inc (S&ME) has provided technical assistance to obtain a possible new, three bedroom septic system permit on the above referenced parcel from the Iredell County Health Department (ICHD). The technical assistance was performed in general accordance with S&ME Proposal No. 43-1500104 dated January 26, 2015.

Attached is the Application for the Septic Improvement Permit, the Zoning Permit, and the ICHD Fast Track requirements presented to the ICHD on your behalf. You are requesting a three bedroom Improvement Permit for a new mobile home. We understand Ms. Judy Overcash is purchasing the property for a single wide mobile home for herself and will then deed an approximate one acre tract for her daughter to place a three bedroom double wide mobile home. This report discusses the Septic Improvement Application for the proposed single wide mobile home.

Mr. Paul Penninger with S&ME has provided soil science consulting services to evaluate the proposed site and flag the proposed septic system. The Overcash family approved the proposed home and septic system location. A survey site plan showing the location of the proposed home, backhoe pits, and flagged septic system must be provided to the ICHD prior to a Construction Authorization being issued.

Seven backhoe pits were dug by your backhoe in the proposed septic area and the proposed septic lines were flagged with a laser level and wire pin flags by S&ME. The surveyor located the parcel corners. The proposed house, backhoe pits, and primary septic lines were approximately sketched on the attached site plan by S&ME. The proposed primary septic

system and the required 100 Percent Repair Area are pressure manifold 25 Percent Reduction Systems.

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 and stormwater should be diverted from the drainfield. No fill material shall be placed over the drainfield. Install the system under dry soil conditions.

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 may show any changes or modifications they want to the proposed system on the report or attached site 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,

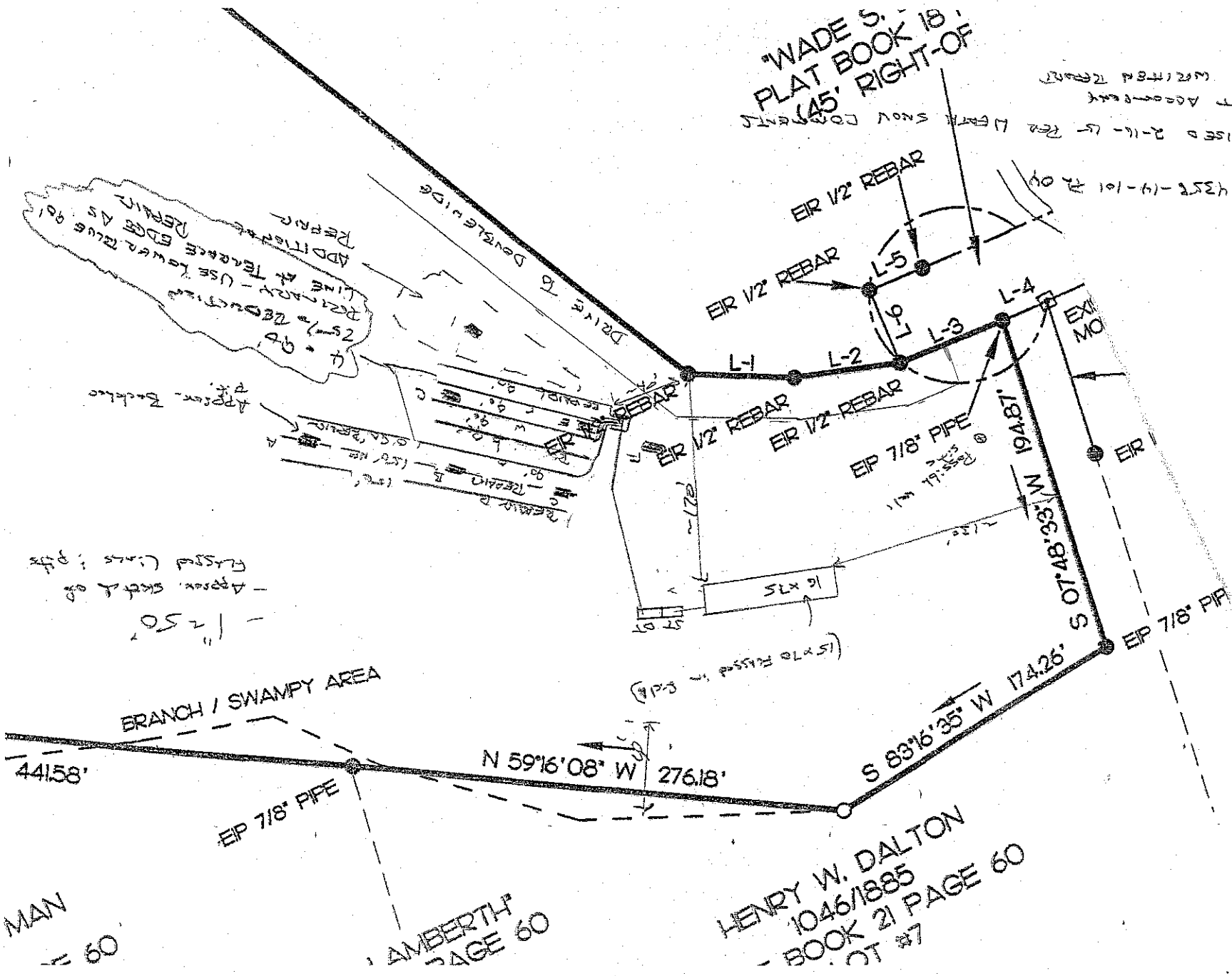
S&ME, Inc.

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

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

Attachments:

1. ICHD Improvement Permit Application and Zoning Permit
2. Proposed Site Plan, System Information, Floor Plan, and Soil Profile Descriptions


"WADE S.
PLAT BOOK 18,
45' RIGHT-OF
EIR 1/2" REBAR
EIR 1/2" REBAR
L-5
L-6
L-4
L-3
L-2
L-1
EXI
MO
EIR 1/2" REBAR
EIR 1/2" REBAR
EIP 7/8" PIPE
EIR
194.87'
S 07°48'33" W
EIP 7/8" PIP
~172'
S 83°16'35" W 174.26'
N 59°16'08" W 276.18'
EIP 7/8" PIPE
BRANCH / SWAMPY AREA
44158'
HENRY W. DALTON
1046/1885
BOOK 21 PAGE 60
MAN
60
AMBERTH"
PAGE 60

Clayton Homes #072 - 205 Low Lane Fast Track Summary

S&ME Project No. 4358-14-101 Phase 04 (February 9, 2015)

Number of Bedrooms	**3**
Basement or Crawl	**Crawl**
Design Flow (gpd)	**360**
Primary System LTAR (gpd/ft2)	**0.25**
Primary System Type	**25% Reduction**
No. Lines	4 @ 90 ft.
Total Linear Feet	360
Trench Width	3' min.
Trench Spacing	9' min.
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	~100' of 2" SCH 40 PVC
Flow Rate through the system	22 gpm
Elevation head	*Approx. 18'
Pressure head	2.0'
Friction head	Approx. 2'
20% Contingency	4.4'
Total Head	26.4'
Pump Requirements	22 gpm @ 26.4' of head ***To be designed by installer.**
Maximum Dosing Volume	180 gal - 2.0 doses/day @ design flow
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. 8.2 min.
Check Valve	Yes
Siphon Break hole	No
Repair System	**25 Percent Reduction**
Total Linear Feet	450
Repair Loading Rate	0.2

24-36" Trench Bottom TBP 2-11-15

Clayton Homes #072 - 205 Low Lane Fast Track Summary

S&ME Project No. 4358-14-101 Phase 04

(February 9, 2015 - Revised 2-16-15 per Heath Snow comments)

Table: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	*Elevation (rod reading - ft.)
1	~~System~~	Blue	25% Reduction	90	4.3
2	System	White	25% Reduction	90	5.8
3	System	Red	25% Reduction	90	6.7
4	~~System~~ Repair	Blue	25% Reduction	90	8.0
5a	System	Orange	25% Reduction	90	10.8
5b	Repair	Orange	25% Reduction	60	
6	Repair	NF	25% Reduction	150	
7	Repair	Red	25% Reduction	150	
				Total System: 360'	
				Total Repair: 450'	

Tank		1000 gal (2 compartment)	
Pump Tank		1000 gal.	12.5
House		Rear, Right Corner	13.5

Manifold Information	
Tap Size (In.)	1/2
Tap Material	SCH 80 PVC
No. Taps	5
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	5.5

NOTES:

*** elevations must be verified by installer at installation and final tank placement.**

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

Sheet 1 of 2
PROPERTY ID #: _____
COUNTY: _____

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

OWNER: Clayton Homes #072 APPLICATION DATE: February 9, 2015
ADDRESS: 2026 Northside Drive, Statesville, NC DATE EVALUATED: 2-3-15
PROPOSED FACILITY: 3 bdr mobile home PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: 10 acre total parcel
LOCATION OF SITE: 205 Low Lane, Statesville, NC PROPERTY RECORDED: _____
WATER SUPPLY: (Private) Public Shared Well Spring Other _____
EVALUATION METHOD: 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
1	L-garden ~12%	0-2	wsbk/cl	fr ss/sp	br				PS .3
		2-25	sbk/sbk c	fr s/p	red				
		25-48	sbk/c	fr s/p	red	≥ 48"	in		
A	L-terrace ~12%	0-11	wsbk/cl	fr ss/sp	br				PS .2-.25
		11-36	wsbk/c	fr s/p	reddish-yellow with yellowish red				
		36-48	wabk/sbk c	fr s/p		48			
B	L ~12%	0-7	wsbk-cl	fr ss/sp	br				PS .2-.25
		7-32	sbk/abk c	fr s/p	red & quartz				
		32-48	wabk c	fr s/p	yellow/red mottles	48			
C	L-terrace ~12%	0-5	wsbk/cl	fr ss/sp	br				PS .3
		5-27	msbk/c	fr ss/po	red				
		27-48	wabk/cl	fr ss/sp	yellow	≥ 50"	stn		

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	2SC	2SC
Site LTAR	.2	.2

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: PCP
OTHER(S) PRESENT: x must be approved by LCHD

COMMENTS: _____

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

PROPERTY ID #: _____
COUNTY: _____

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

HS

OWNER: Clayton Homes #072 APPLICATION DATE: February 9, 2015
ADDRESS: 2026 Northside Drive, Statesville, NC
PROPOSED FACILITY: 3 bdr mobile home PROPOSED DESIGN FLOW (.1949): _____
LOCATION OF SITE: 205 Low Lane, Statesville, NC

DATE EVALUATED: 2-3-15
PROPERTY SIZE: 10 acre total parcel
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	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
D	L ~12%	0-9	wsbk-sl	fr ss/sp	brn				PS .3
		9-33	mfsbk-c	fr ss/sp	red				
		33-50	wsbk-cl	fr ss/sp	yel brn		f-c	sap sl	
					(2)	50"	(1)	(1)	
E	L ~18%	0-4	wsbk cl	fr ss/sp	mot brn				PS .2
		4-35	mfsbk c	fr ss/sp	red				
		35-48	wsbk cl	fr ss/sp	yel brn		f-c	sap sl	
					(2)	48"	(1)	(1)	
F	L ~15%	0-21	wsbk cl	fr ss/sp	brn				PS .25
		21-48	msbk-c	fr ss/sp	red f	yel brn	m		
					(2)	48	(1)	(1)	

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

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: RED
OTHER(S) PRESENT: ~~must be approved~~ by ICMO

COMMENTS: _____