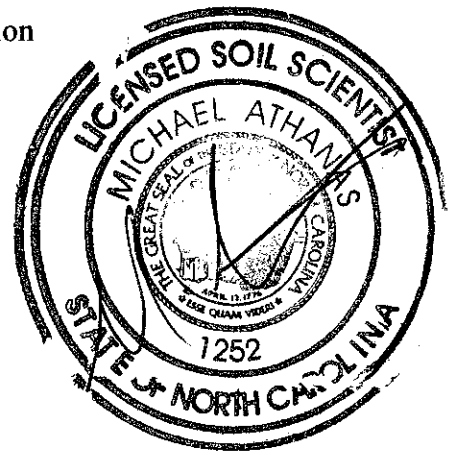


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MICHAEL ATHANAS & ASSOCIATES
LICENSED SOIL SCIENTIST
561 Ennis Rd.
Weddington, NC 28173
(704) 576-3887

Reference: Data Sheet for 234 Sink Farm Rd., Davidson Downs Lot 128
House Footprint: See attached plan
Building Setbacks: 35' front/rear, 15' side
Water Source: Community well
Number of Bedrooms: 4/480 GPD
Proposed LTAR: 0.3 GPD/FT2
Proposed System Type: Existing Conventional + 25 % Reduction
Proposed Repair System Type: 25% Reduction
Distribution: Pressure manifold
Flow per Tap: 4 @ 5.48 GPM, 2 @ 7.11 GPM
Tap Size and Material: 4 @ ½" SCH 80, 2 @ ½" SCH 40
System Flow: 36.1 GPM
Dosing Volume: 210 gallons
Pump Run Time: 5.8 minutes
Elevation Head: 8.7'
Friction Head: 1.5'
Pressure Head: 2'
Total Dynamic Head: 12.2'
Supply Line Length: 60'-2" PVC
Septic/Pump Tank Size: 1000/1000 gallons (existing)
Proposed Trench Bottom: 36" maximum



Line	Design Length	Actual Length	Elevation
Pink 1 Ex	**80' (Conv)**	**80'**	**2.7'**
Yellow 2 Ex	**80' (Conv)**	**80'**	**3.2'**
Orange 3 Ex	**80' (Conv)**	**80'**	**4.0'**
White 4 Ex	**77' (Conv)**	**77'**	**4.6'**
Orange 5		25'	4.2'
Blue 6		50'	4.9'
White 7		71'	5.6'
Yellow 8		92'	6.4'
Orange 9	**84' (25% Red)**	**102'**	**6.9'**
Blue 10	**84' (25% Red)**	**100'**	**7.5'**
Pink 11		60'	8.0'

Line	Design Length	Actual Length	Elevation
White 12		60'	8.7'
Orange 13		55'	9.2'

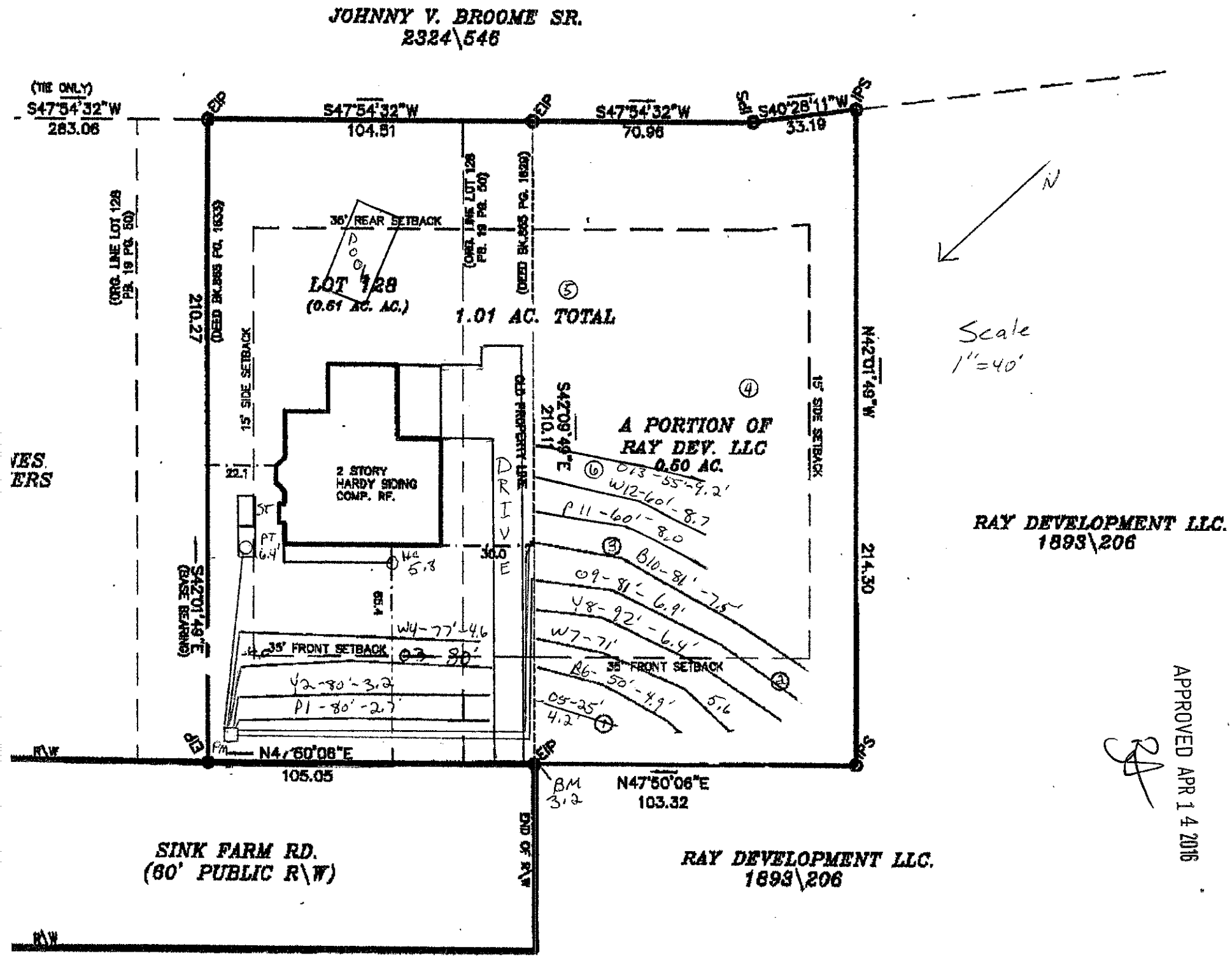
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Initial System: 318' existing conventional + 168' 25% Reduction addition
Repair System: 413
Pump Tank: 6.4' **House Corner:** 5.8' **Benchmark:** 3.2'

Comments:
MA&A evaluated this property because the repair area had been compromised due to an addition of a pool. The owners needed to find a new repair area in order to sell the property. An adjacent half acre was purchased to accommodate the new repair area. Once the property was surveyed, two lines of the existing system were found to in violation of the setback to the front property line. MA&A are proposing to abandon these two lines and add 25% reduction lines to the remaining existing conventional lines to bring the system to accommodate a four bedroom residence. Also, a small portion of Y2 and O3 appear to be too close to the side line. These lines must have the portions of the lines that are too close removed to bring the system into compliance. The remaining conventional line total is 318'. We need 215' of conventional or 162' of 25% reduction. The supply lines going to the new lines must be 30" below the driveway.

Tap calculations
77' X 65.3 Gallons/FT 4" pipe=50.3 gallons
50.3 gallons / 5.48 GPM (1/2" SCH 80)=9.2 minutes

81' 25% red / 75%=108' conventional
108' X 65.3=70.5 gallons
70.5 gallons / 7.11 GPM (1/2" SCH 40)=9.9 minutes


JOHNNY V. BROOME SR.
2324\546
(TIE ONLY)
S47°54'32"W
283.06
S47°54'32"W
104.51
S47°54'32"W
70.96
S40°28'11"W
33.19
N
Scale
1"=40'
(ORG. LINE LOT 128 PB. 19 PG. 50)
(DEED BK.895 PG. 1633)
210.27
36' REAR SETBACK
LOT 128
(0.61 AC. AC.)
1.01 AC. TOTAL
(ORIG. LINE LOT 128 PB. 19 PG. 50)
(DEED BK.895 PG. 1633)
15' SIDE SETBACK
2 STORY
HARDY SIDING
COMP. RF.
22.1
5F
PT
6.4'
HC
5.8
65.4
30.0
DRIVE
OLD PROPERTY LINE
S42°09'49"E
210.11
A PORTION OF
RAY DEV. LLC
0.50 AC.
W12-60'-8.7
P11-60'-8.0
B10-81'-7.5
09-81'-6.9'
Y8-92'-6.4'
W7-71'
B6-50'-4.9'
5.6
05-25'
4.2'
15' SIDE SETBACK
N42°01'49"W
214.30
RAY DEVELOPMENT LLC.
1893\206
S42°01'49"E
(BASE BEARING)
35' FRONT SETBACK
W4-77'-4.6
03-80'
Y2-80'-3.2'
P1-80'-2.7'
35' FRONT SETBACK
N47°50'06"E
105.05
BM
3.2
N47°50'06"E
103.32
END OF R\W
SINK FARM RD.
(60' PUBLIC R\W)
RAY DEVELOPMENT LLC.
1893\206
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DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: 4654862033
COUNTY: Iredell

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

APPROVED APR 14 2016
BA

OWNER: Momentum Capital Mgmt LLC
ADDRESS: 5157 6TH St. N, St. Petersburg, FL 33703
PROPOSED FACILITY: 4 bdrm PROPOSED DESIGN FLOW (.1949): 480 GPD
LOCATION OF SITE: 234 Sink Farm Rd., Davidson Downs Lot 128

APPLICATION DATE
DATE EVALUATED:
PROPERTY SIZE: 1.08 AC
PROPERTY RECORDED: 2016

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)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	LS 6%	0-26	R C SBK	FR SS SP SEXP	N/A	48"	N/A	N/A	PS 0.3
		26-48	R CL WSBK	FR SS SP SEXP					
2	LS 6%	0-12	Br CL WSBK	FR SS SP SEXP	N/A	48"	N/A	N/A	PS 0.3
		12-48	R C SBK	FR SS SP SEXP					
3	LS 6%	0-10	Br CL WSBK	FR SS SP SEXP	N/A	48"	N/A	N/A	PS 0.3
		10-48	R C SBK	FR SS SP SEXP					
4	LS 6%	0-6	Br CL WSBK	FR SS SP SEXP	N/A	48"	Few SAP	N/A	PS 0.3
		6-36	R C SBK	FR SS SP SEXP					
		36-48	R CL WSBK	FR SS SP SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	1440 FT2	1239 FT2
System Type(s)	CONV + 25%	25% Reduction
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: MA&A
OTHER(S) PRESENT:

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

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

APPROVED APR 14 2016 BA

PROPERTY ID #: 4654862033__
DATE OF EVALUATION: ____________
COUNTY: _IREDELL_____

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZ ON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 6%	0-10	Br CL WSBK	FR SS SP SEXP	N/A	48"		N/A	PS 0.3
		10-28	R C SBK	FR SS SP SEXP					
		28-48	R CL WSBK	FR SS SP SEXP			F-C SAP		
6	LS 6%	0-12	Br CL WSBK	FR SS SP SEXP	N/A	48"	N/A	N/A	PS 0.3
		12-48	R C SBK	FR SS SP SEXP					

COMMENTS: