

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

Reference: Data Sheet for 139 Patternote Rd., CL&T Sec 9 Lot 154
House Footprint: 65' x 75'
Building Setbacks: 93' front, 15' side, 50' lake
Water Source: Private well
Number of Bedrooms: 4/480 GPD
Proposed LTAR: 0.3 GPD/FT2 (initial), 0.15 GPD/FT2 (repair)
Proposed System Type: Ex. Bed + PPBPS
Proposed Repair System Type: TS II, Pre-Treatment (American Perc Rite, Sect. J)
Distribution: Pressure manifold
Flow per Tap: 3 @ 5.48 GPM, 1 @ 16.8 GPM
Tap Size: 3 @ ½" SCH 80, 1 @ 1" SCH 80
System Flow: 33.2 GPM
Dosing Volume: 216 gallons
Pump Run Time: 6.5 minutes
Elevation Head: 19.1'
Friction Head: 4.8'
Pressure Head: 2'
Total Dynamic Head: 25.9'
Supply Line Length: 195'
Septic/Pump Tank Size: 1000/1000 gallons
Proposed Trench Bottom: 36"

Line	Design Length	Actual Length	Elevation
Blue 1	45' (10 panels)	45'	2.0'
Yellow 2	45'	45'	3.1'
Blue 3	45'	45'	4.4'
Bed			6.1'

Initial System: Bed + 135' **Repair System:** Approx. 1900+FT2 (Need 1600 ft2)
Pump Tank: 16.1' **House Corner:** 16.8' **Benchmark:** 24.3'

APPROVED FEB 25 2016

Amended 2-24-16

Comments:
The property has an existing bed. Michael Athanas & Associates are proposing to add 2 bedrooms of PPBPS to the existing bed to bring the total number of bedrooms supported to 4. We will feed the system using a pressure manifold. Each of the panel lines will use a ½" SCH 80 tap and the bed will use a 1" SCH 80 tap. The existing well must be abandoned and a new well installed. The old septic tank should be pumped, crushed, and filled. The fill in the repair area should be removed at the time the repair is needed.

2-4-16
***Addendum:** The current owners of this lot now wish to have a pool located between the house and the 50' buffer, currently due to the partial repair located in the buffer this is not possible. Therefore MA&A is proposing to locate all of the repair above the house (currently permitted area) and use American Perc Rite pre-treated drip system at an increased application rate of .15 gal/d/ft2 instead of the previously permitted .1 gal/d/ft2. Please note this area has been previously permitted, although MA&A has performed two additional soil observation to confirm all past results. Please note there are no changes to the proposed initial system, only the repair.

2-22-16 Upon further inspection it was confirmed that there is approximately 4-30"+ of fill material deposited on portions of the repair area. **This fill must be removed in a manner in which the surface of the original soil is not compromised, this would entail the removal of the fill by light weight equipment, preferably with tracks. MA&A will need to be there in order to ensure proper removal of the fill and that the repair area is not compromised in any way. If there are any questions or additional comments, please feel free to contact us.**

APPROVED FEB 25 2016

Amended 2-24-16

PATTERSON LAND SURVEYING, P.A

P.O. Box 5010, Mooresville, NC 28117 O-(704) 663-0110 M-(704) 361

I Joel H. Patterson III, certify that this plat was drawn under my sup
from an actual survey made under my supervision (deed description c
Map Book 944, Page 1077. That the boundaries not surveyed
indicated as drawn from information as shown on survey; that the ra
of precision as calculated is 1: 10,000+ that this plat was prepared
accordance with G.S. 89-C as amended. Witness my original signature
registration number and seal this 2nd day of MARCH, A.D. 2(

Added septic lines: April 23, 2015
Revised house plan: May 11, 2015
Revised Drive layout : July 10, 2015

1"=50'

LAKE NORMAN

PRELIMINA

JOEL H. PATTER
LICENSE NUMBE

APPROVED FEB 25 2016

760 Contour Per Actual Field Location

Found #5 Rebar

BM 24.3'

88.81'
N84°03'38"E

93.78'
S80°50'00"E

Found #4 Rebar on Line

Lot 154
0.84 Acres

50' Setback from 760 Contour

15' offset to septic

Proposed House

N07°23'15"W 292.21'

S16°34'00"W 334.05' Total

Lot 153

Lot 155

STEP Downs

Orange

Blue 3

Yellow 2

Blue 1

Bore #8

Bore #10

Old ST

Well

Proposed Well

35' Zoning Setback

50' DIA

R/W

Found Axle

N83°04'31"W Chord 60.18' Leng 60.50' Rad 64.69'

VICINITY MAP NOT TO SCALE

Patternote Rd.

Quipoise Rd.

Blume Rd.

SITE

Beaten Path Rd.

Brawley School Rd.

GRAPHI

50

(IN

1 inch =

50'

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

PROPERTY ID #: 4637138336
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

APPROVED FEB 25 2016

OWNER: Danny Presson APPLICATION DATE
ADDRESS: 211 Chaney Rd., Monroe, NC DATE EVALUATED:
PROPOSED FACILITY: 4 bdrm PROPOSED DESIGN FLOW (.1949): 480 GPD PROPERTY SIZE: 0.84 AC
LOCATION OF SITE: 139 Patternote, CL&T sec 9 lot 154 PROPERTY RECORDED: 5/9/1977
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	
PIT 1	LS 10%	8"	ROCK						US IN HOUSE BOX
PIT 2	LS 12%	HALF OF	THE PIT IS FILL						IN HOUSE BOX
		HALF IS 0.3							
PIT 3	LS 12%	36"	FILL						US IN HOUSE BOX
PIT 4	LS 12%	0-14	FILL		N/A	48"	Few SAP	N/A	PS 0.3+
		14-48	R CL WSBK	FR SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	270 FT2 + BED	2400+ FT2
System Type(s)	0.3	0.1
Site LTAR	PPBPS	DRIP

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

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4637138336
DATE OF EVALUATION: _____
COUNTY: IREDELL

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
PIT 5	LS 10%	0-13	FILL		N/A	19"	Few SAP PS	N/A	PS 0.3-0.5
		13-19	R C SBK	FR SS SP					
		19-40	VER L SAP M	VFR SS SP					
		40-63	VER SL SAP M	VFR SS SP					
PIT 6	LS 8% STUMP HOLE	0-12	FILL		N/A	48"	F-C SAP	N/A	PS 0.3
		12-34	R C SBK	FR SS SP					
		34-48	R CL WSBK	FR SS SP					
PIT 7	LS 8%	0-13	FILL		N/A	37"	F-C SAP	N/A	PS 0.3
		13-37	R CL WSBK	FR SS SP					
		37-48	VER L SAP M	VFR SS SP					
AB 1	LS 8%	0-8	Br CL WSBK	FR SS SP	N/A	36"	F-C SAP	N/A	PS 0.3
		8-22	R C SBK	FR SS SP					
		22-36	R CL WSBK	FR SS SP					
AB 2	LS 8%	0-3	Br CL WSBK	FR SS SP	N/A	29"	F-C SAP	N/A	PS 0.3
		3-20	R C SBK	FR SS SP					
		20-29	R CL WSBK	FR SS SP					
		29	AR						

COMMENTS: _____

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4637138336
DATE OF EVALUATION: _____
COUNTY: IREDELL

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	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
AB 3	LS 8%	0-23	R C SBK	FR SS SP	N/A	36"	F-C SAP	N/A	PS 0.3
		23-36	R CL WSBK	FR SS SP					
AB 4	LS 8%		FILL						US
AB 5	LS 8%		FILL						US
AB 6	LS 12%	30"	FILL						US
AB 7	LS 10%	0-3	Br CL WSBK	FR SS SP	N/A	44"	F SAP C SAP PS	N/A	PS 0.3 IN HOUSE BOX
		3-22	R C SBK	FR SS SP					
		22-36	R CL WSBK	FR SS SP					
		36-44	R SCL WSBK	VFR SS SP					
		44-48	VER SL SAP M	VFR SS SP					

COMMENTS: _____

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4637138336
DATE OF EVALUATION:
COUNTY: IREDELL

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
AB 8	LS 18%	0-4	Br CL WSBK	FR SS SP	N/A	21"	F-C SAP PS	N/A	0.5-0.6
		4-12	R C SBK	FR SS SP					
		12-21	R CL WSBK	FR SS SP					
		21-40	VER L SAP M	VFR SS SP					
		40-60	VER SL SAP M	VFR SS SP					
AB 9	LS 12%	0-8	Br CL WSBK	FR SS SP	N/A	46"	F-C SAP PS	N/A	PS 0.3
		8-32	R C SBK	FR SS SP					
		32-46	R CL WSBK	FR SS SP					
		46-48	VER L SAP M	VFR SS SP					
AB 10	LS 8%	0-3	Br CL WSBK	FR SS SP	N/A		F-C SAP	N/A	PS 0.3
		3-16	R SCL WSBK	FR SS SP					
		16-24	R C SBK	FR SS SP					
		24-40	R CL WSBK	FR SS SP					
		40	SAP						
AB 11	LS 5-7%	0-4	R C SBK	FR SS/SP SEXP	N/A		F-C SAP PS	N/A	PS .15 Drip
		4-32	R CL WSBK	FR SS/SP SEXP					
		@32"	L SAP MASS	VFR SS/SP SEXP					
AB 12	LS 5-7%	0-2	Fill		N/A	28"	F-C SAP PS	N/A	PS .15 Drip
		2-7	Br. SCL WSBK	FR SS/SP SEXP					
		7-10	R C SBK	FR SS/SP SEXP					
		10-28	R CL WSBK	FR SS/SP SEXP					
		@28"	L SAP MASS	FR SS/SP SEXP					

LICENSED SOIL SCIENTIST MICHAEL ATK... 1252 STATE OF NORTH CAROLINA

COMMENTS:

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: _____ APPLICATION DATE _____
ADDRESS: _____ DATE EVALUATED: _____
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
LOCATION OF SITE: _____ 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)		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	0-9 25' from well repair	0-9	F.11						
2	0-30" 31'	0-30	F.11						
3									
4									

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: _____

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4637138336
DATE OF EVALUATION:
COUNTY: IREDELL

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
AB 8	LS 18%	0-4	Br CL WSBK	FR SS SP	N/A	21"	F-C SAP PS	N/A	0.5-0.6
		4-12	R C SBK	FR SS SP					
		12-21	R CL WSBK	FR SS SP					
		21-40	VER L SAP M	VFR SS SP					
		40-60	VER SL SAP M	VFR SS SP					
AB 9	LS 12%	0-8	Br CL WSBK	FR SS SP	N/A	46"	F-C SAP PS	N/A	PS 0.3
		8-32	R C SBK	FR SS SP					
		32-46	R CL WSBK	FR SS SP					
		46-48	VER L SAP M	VFR SS SP					
AB 10	LS 8%	0-3	Br CL WSBK	FR SS SP	N/A	40"	F-C SAP	N/A	PS 0.3
		3-16	R SCL WSBK	FR SS SP					
		16-24	R C SBK	FR SS SP					
		24-40	R CL WSBK	FR SS SP					
		40	SAP						

COMMENTS: