



**AOWE Design Packet**

**PIN:**

# **PAC-ONE, PLLC**

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## **AOWE Design Packet**

Date:

Proposed for a:  
-bedroom residential dwelling

Located at:

**DESIGNED BY:**

**Steve Bristow**

920 Garner Rd, Selma NC 27576

Email: [stevebristow57@gmail.com](mailto:stevebristow57@gmail.com)

Phone: (919)906-4737

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**North Carolina Onsite Wastewater Contractor Inspector Certification Board  
Authorized Onsite Wastewater Evaluator Permit Option for Non-Engineered Systems  
Notice of Intent (NOI) to Construct**

\_\_\_ New \_\_\_ Expansion \_\_\_ Repair \_\_\_ Relocation \_\_\_ Relocation of Repair Area

Owner or Legal Representative Information:  
 Name: \_\_\_\_\_  
 Mailing address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Authorized Onsite Wastewater Evaluator Information:  
 Name: \_\_\_\_\_ Certification #: \_\_\_\_\_  
 Mailing address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Email: \_\_\_\_\_



Site Location Information:  
 Site address: \_\_\_\_\_  
 Tax parcel identification number or subdivision lot, block number of property: \_\_\_\_\_  
 \_\_\_\_\_ County: \_\_\_\_\_

System Information:  
 Wastewater System Type: \_\_\_\_\_  
 Daily Design Flow: \_\_\_\_\_  
 Saprolite System: \_\_\_ Yes \_\_\_ No      Subsurface Operator Required: \_\_\_ Yes \_\_\_ No  
 Water Supply Type: \_\_\_ Private Well \_\_\_ Public Water Supply \_\_\_ Spring \_\_\_ Other: \_\_\_\_\_

Facility Type:  
 \_\_\_ Residential      # Bedrooms \_\_\_\_\_ Maximum # of Occupants \_\_\_\_\_  
 \_\_\_ Business      Type of Business and Basis for Flow: \_\_\_\_\_  
 \_\_\_ Public Assembly      Type of Public Assembly and Basis for Flow: \_\_\_\_\_

Required Attachments:  
 \_\_\_ Plat or Site Plan  
 \_\_\_ Evaluation of Soil and Site Features by Licensed Soil Scientist

Attest: On this the \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ by signature below I hereby attest that the information required to be included with this NOI to Construct is accurate and complete to the best of my knowledge. Furthermore, I hereby attest that I have adhered to the laws and rules governing onsite wastewater systems in the state of North Carolina.  
 This NOI shall expire on \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Signature of Authorized Onsite Wastewater Evaluator: \_\_\_\_\_ *Alan Patten*

Signature of Owner or Legal Representative: \_\_\_\_\_

Disclosure: The owner may apply for a building permit for the project upon submitting a complete NOI to Construct and the fee required (if any) to the local health department. An onsite wastewater system authorized by an authorized onsite wastewater evaluator shall be transferable to a new owner with the consent of the authorized onsite wastewater evaluator.

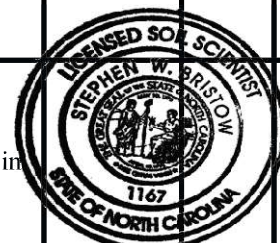
Local Health Department Receipt Acknowledgement:  
 Signature of Local Health Department Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**SOIL/SITE EVALUATION**  
**for ON-SITE WASTEWATER SYSTEM**

(Complete all fields in full)

OWNER: WATERMARK HOMES INC APPLICATION DATE: \_\_\_\_\_  
 ADDRESS: 196 ANNETTE DR BENSON, NC 27504-8040 DATE EVALUATED: 10/12/2023  
 PROPOSED FACILITY: DWELLING PROPOSED DESIGN FLOW(.1949): 360gpd PROPERTY SIZE: 0.57 Acres  
 PUMP TO SERIAL DISTRIBUTION: SUM OF TRENCHS IS TOTAL TRENCH LENGTH  
 LOCATION OF SITE: 140 HAZELWOOD RD LILLINGTON, NC 27546 PROPERTY RECORDED: \_\_\_\_\_  
 WATER SUPPLY: Public  
 EVALUATION METHOD: Auger Boring TYPE OF WASTEWATER: Sewage

P R O F I L E #	.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	Linear Slope  5%	12	GR/SL	FR/NS/NP/SEXP	10YR 4/6  7.5YR 4/6  7.5YR 4/6 w/ 10YR 4/2	48in			Provisionally Suitable  0.30  gpd/sqft
		38	SBK/SCL	FR/SS/SP/SEXP					
		48	SBK/SCL	FR/SS/SP/SEXP					
2	Linear Slope  5%	8	GR/SL	FR/NS/NP/SEXP	10YR 2/1  10YR 4/6  7.5YR 4/6  7.5YR 4/6 w/ 10YR 4/2	48in			Unsuitable  0.30  gpd/sqft
		16	GR/SL	FR/NS/NP/SEXP					
		32	SBK/SCL	FR/SS/SP/SEXP					
		48	SBK/SCL	FR/SS/SP/SEXP					
3	Linear Slope  5%	6	GR/SL	FR/NS/NP/SEXP	10YR 2/1  10YR 4/6  7.5YR 4/6  7.5YR 4/6 w/ 10YR 4/2	48in			Unsuitable  0.30  gpd/sqft
		16	GR/SL	FR/NS/NP/SEXP					
		34	SBK/SCL	FR/SS/SP/SEXP					
		48	SBK/SCL	FR/SS/SP/SEXP					
4	Linear Slope  5%	6	GR/SL	FR/NS/NP/SEXP	10YR 2/1  10YR 4/6  7.5YR 4/6  7.5YR 4/6 w/ 10YR 4/2	48in			Provisionally Suitable  0.30  gpd/sqft
		12	GR/SL	FR/NS/NP/SEXP					
		36	SBK/SCL	FR/SS/SP/SEXP					
		48	SBK/SCL	FR/SS/SP/SEXP					



DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946):
Available Space (.1945)	yes	yes	SITE CLASSIFICATION (.1948): Provisionally Suitable
System Type(s)	IIIb	IIIb	EVALUATED BY: Stephen W Bristow
Site LTAR (gpd/sqft)	0.30	0.30	OTHER(S) PRESENT:

COMMENTS: Profiles 2,3,5,6 Unsuitable reclassified to Provisionally Suitable using a Shallow Placed System. Profiles 6,2,3 observed lateral

water flow beginning at 26" below the surface. MTD shall be placed 12" above this interface. Fill material will be required based on trench product.

**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

Sheet 2 of 3  
 PROPERTY ID #: \_\_\_\_\_  
 COUNTY: HARNETT

P R O F I L E #	.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	
5	Linear Slope  5%	14	GR/SL	FR/NS/NP/SEXP	10YR 4/6	48in			Unsuitable  0.30 gpd/sqft
		35	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6				
		48	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6 w/ 10YR 4/2				
6	Linear Slope  5%	6	GR/SL	FR/NS/NP/SEXP	10YR 2/1	48in			Unsuitable  0.30 gpd/sqft
		20	GR/SL	FR/NS/NP/SEXP	10YR 4/6				
		34	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6				
		48	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6 w/ 10YR 4/2				
7			/	///					gpd/sqft
8			/	///					gpd/sqft
9			/	///					gpd/sqft

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# LEGEND

*use the following standard abbreviations*

<u>LANDSCAPE POSITION</u>	<u>GROUP</u>	<u>SOIL</u>	<u>CONVENTIONAL</u>	<u>LPP</u>	<u>MINERALOGY/</u>	<u>STRUCTURE</u>				
		<u>TEXTURE</u>	<u>.1955 LTAR*</u>	<u>.1957 LTAR*</u>	<u>CONSISTENCE</u>					
CC (Concave Slope)	I	S (Sand)	1.2 - 0.8	0.6 - 0.4	SEXP (Slightly Expansive)	G (Single Grain)				
CV (Convex Slope)		LS (Loamy Sand)			EXP (Expansive)	M (Massive)				
D (Drainage Way)	II	SL (Sandy Loam)	0.8 - 0.6	0.4 - 0.3		CR (Crumb)				
DS (Debris Slump)						L (Loam)	GR (Granular)			
FP (Flood Plain)		Si (Silt)				0.6 - 0.3	0.3 - 0.15		SBK (Subangular Blocky)	
FS (Foot Slope)									SiCL (Silty Clay Loam)	ABK (Angular Blocky)
H (Head Slope)	CL (Clay Loam)	PL (Platy)								
L (Linear Slope)	SCL (Sandy Clay Loam)	PR (Prismatic)								
N (Nose Slope)	III	SiL (Silt Loam)	None	None						
R (Ridge)		SC (Sandy Clay)					0.4 - 0.1	0.2 - 0.05		
S (Shoulder Slope)		SiC (Silty Clay)								
T (Terrace)		C (Clay)					EFI (Extremely Firm)			
		O (Organic)								

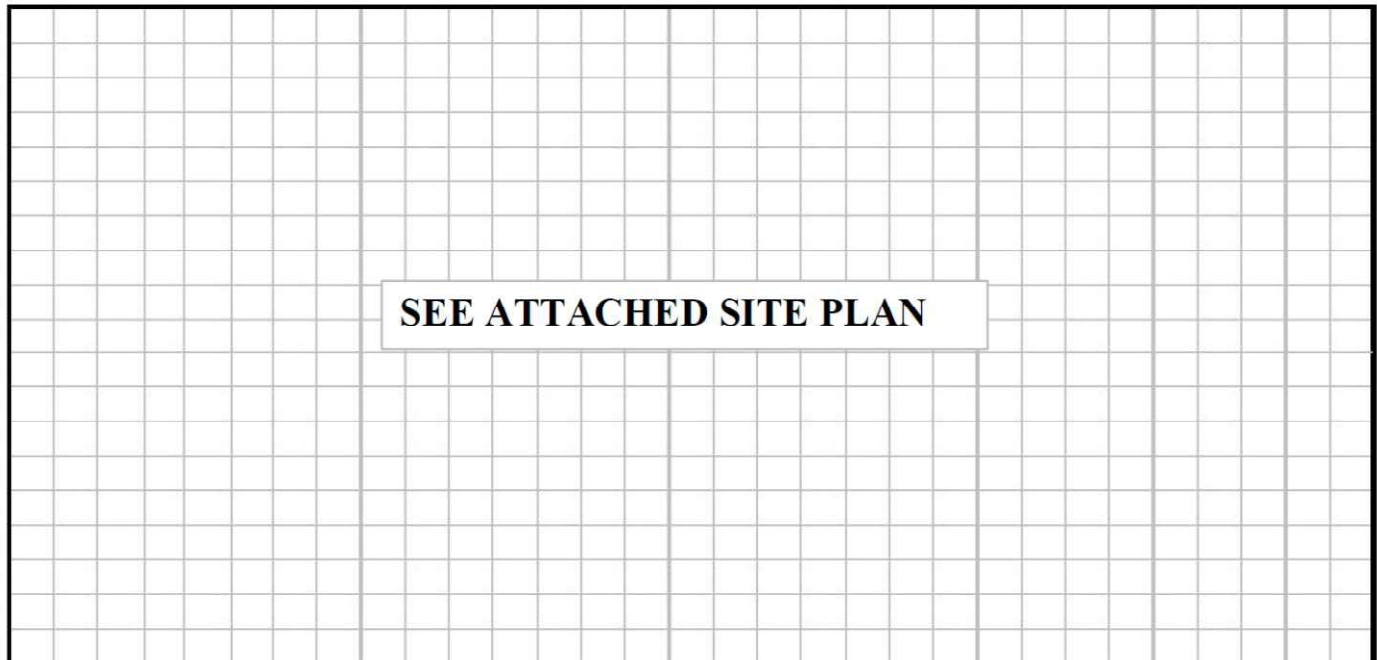
\*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

**NOTES**

- HORIZON DEPTH*                    In inches below natural soil surface
- DEPTH OF FILL*                    In inches from land surface
- RESTRICTIVE HORIZON*            Thickness and depth from land surface
- SAPROLITE*                         S(suitable) or U(unsuitable)
- SOIL WETNESS*                    Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
- CLASSIFICATION*                 S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.  
 Long-term Acceptance Rate (LTAR): gal/day/ft<sup>2</sup>

Show profile locations and other site features (dimensions, reference or benchmark, and North).



# 140 Hazelwood Rd :: Septic Layout Detail

ZONING: R-30

PB 2023 PG 65

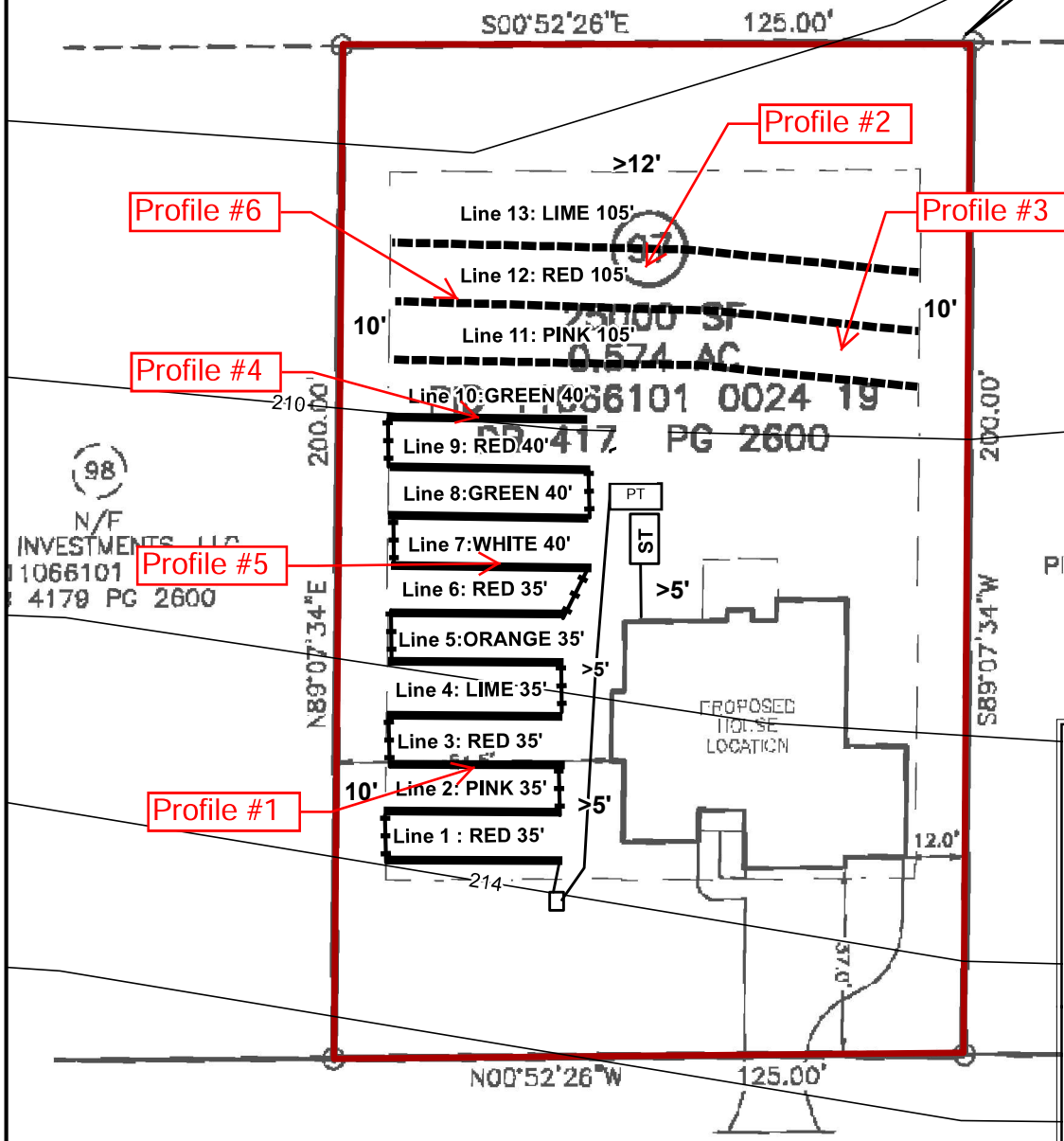
NT.....35'  
 .....10'  
 NER SIDE.....20'  
 .....25'

**NOTE**

-----

The REPAIR SYSTEM requires suitable fill material to meet minimum separation requirement. See design information for details.

Benchmark = 100'



Elevation Table	
Benchmark = 100'	
Line 1 = 105.7'	
Line 2 = 105.1'	
Line 3 = 104.6'	
Line 4 = 104.1'	
Line 5 = 103.6'	
Line 6 = 103.1'	
Line 7 = 102.7'	
Line 8 = 102.2'	
Line 9 = 101.7'	
Line 10 = 101.2'	
Line 11 = 101.7'	
Line 12 = 101.2'	
Line 13 = 100.8'	

**System Details**

-----

Initial System:  
 1000 gal tank  
 0.3 gpd/sqft  
 Lines 1-10 (370')  
 Accepted - Manifold  
 Pump to D-Box:  
 Serial Distribution  
 Product - EZ Flow  
 20" MTD

Repair System  
 0.3 gpd/sqft  
 Lines 11-13 (315')  
 Accepted - Manifold  
 Product - EZ Flow  
 12" MTD

**Legend**

———— System    - - - - - Repair

Map provided by PAC-One LLC  
 [.] Locations are approximations and [.]  
 [.] are provided for reference only [.]  
 Parcel data provided by: Johnston County  
 Elevation data provided by: NCDOT

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Units: Foot US

1 inch = 36 feet



# 140 Hazelwood Rd :: Septic Layout Detail

ZONING: R-30

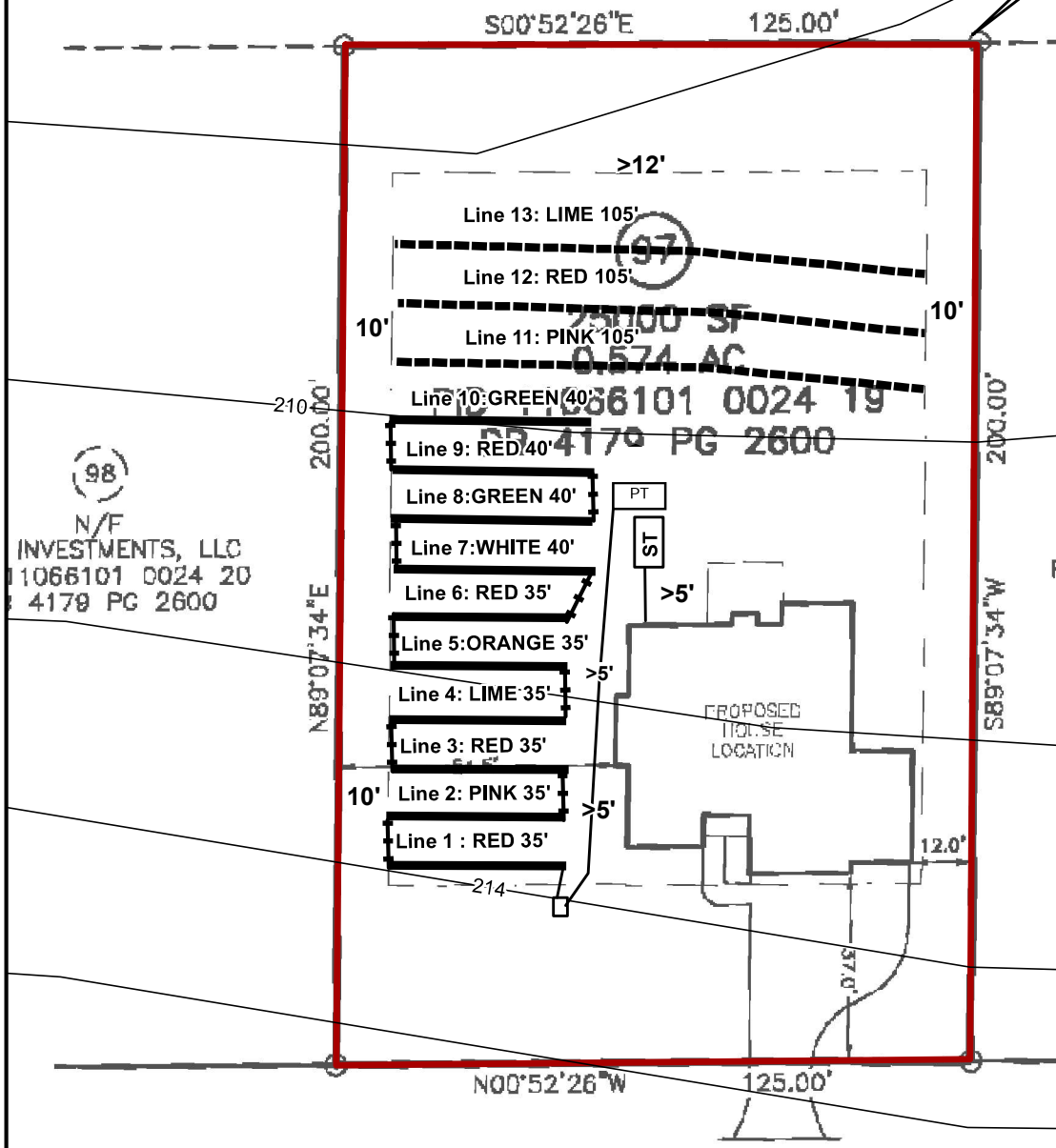
PB 2023 PG 65

NT.....35'  
 .....10'  
 NER SIDE.....20'  
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**NOTE**

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**System Details**

Initial System:  
 1000 gal tank  
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**Legend**

—— System    - - - - Repair

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# 140 Hazelwood Rd :: Septic Layout Detail

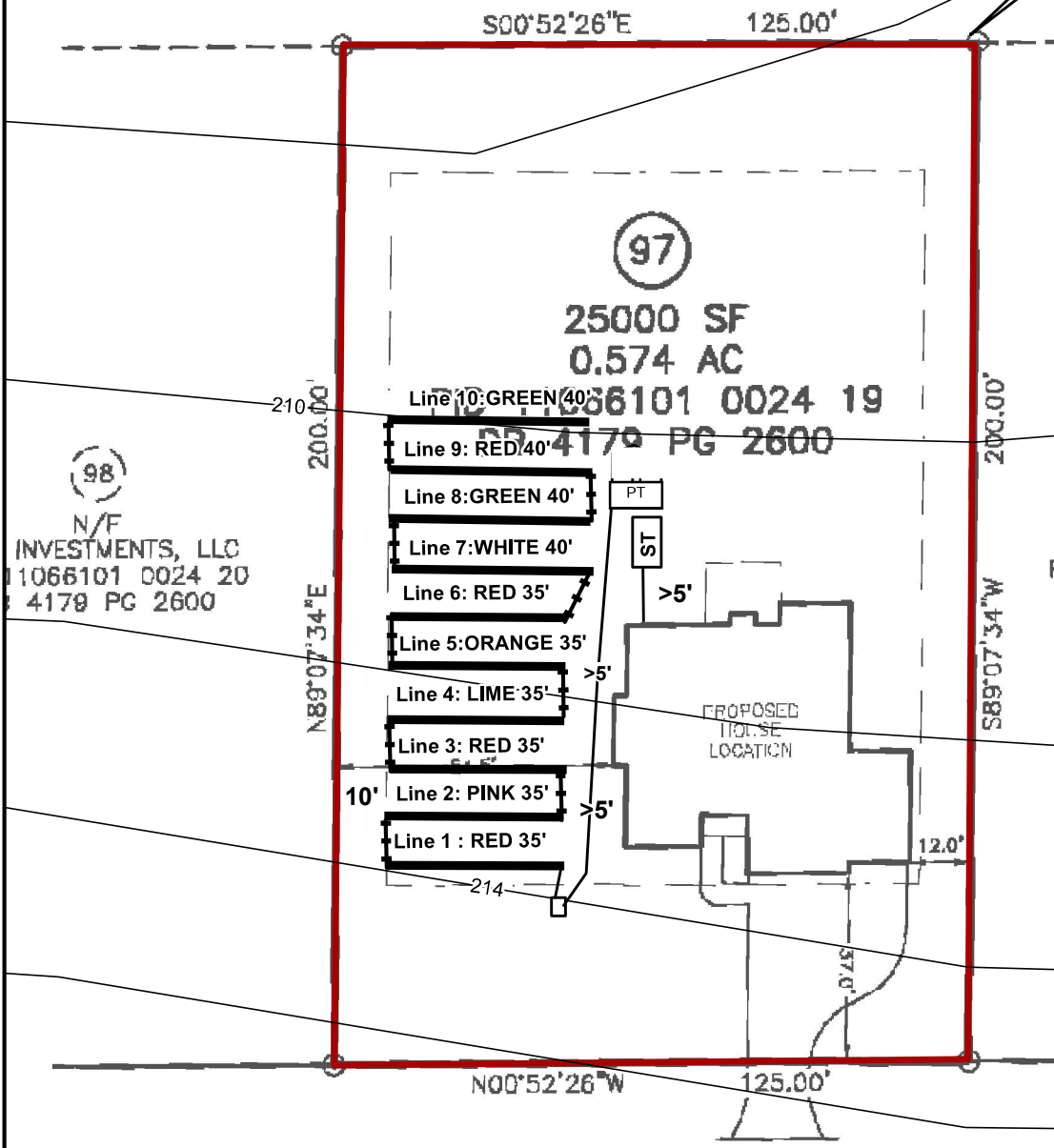
ZONING: R-30

PB 2023 PG 65

NT.....35'  
 .....10'  
 NER SIDE.....20'  
 .....25'

N/F  
 COY L. BROADWELL  
 PID 11066101 0024 02  
 DB 1394 PG 979

Benchmark = 100'



Elevation Table	
Benchmark = 100'	
Line 1	= 105.7'
Line 2	= 105.1'
Line 3	= 104.6'
Line 4	= 104.1'
Line 5	= 103.6'
Line 6	= 103.1'
Line 7	= 102.7'
Line 8	= 102.2'
Line 9	= 101.7'
Line 10	= 101.2'
Line 11	= 101.7'
Line 12	= 101.2'
Line 13	= 100.8'

System Details	
Initial System:	
1000 gal tank	
0.3 gpd/sqft	
Lines 1-10 (370')	
Accepted - Manifold	
Pump to D-Box:	
Serial Distribution	
Product - EZ Flow	
20" MTD	
Repair System	
0.3 gpd/sqft	
Lines 11-13 (315')	
Accepted - Manifold	
Product - EZ Flow	
12" MTD	

(98)  
 N/F  
 INVESTMENTS, LLC  
 1066101 0024 20  
 4179 PG 2600

HAZELWOOD ROAD  
 50' R/W (PUBLIC)

**Legend**

— System

Map provided by PAC-One LLC  
 [ ] Locations are approximations and [ ]  
 [ ] are provided for reference only [ ]  
 Parcel data provided by: Johnston County  
 Elevation data provided by: NCDOT

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Units: Foot US

1 inch = 36 feet

0 5 10 20 30 40 Feet

# 140 Hazelwood Rd :: Septic Layout Detail

ZONING: R-30

PB 2023 PG 65

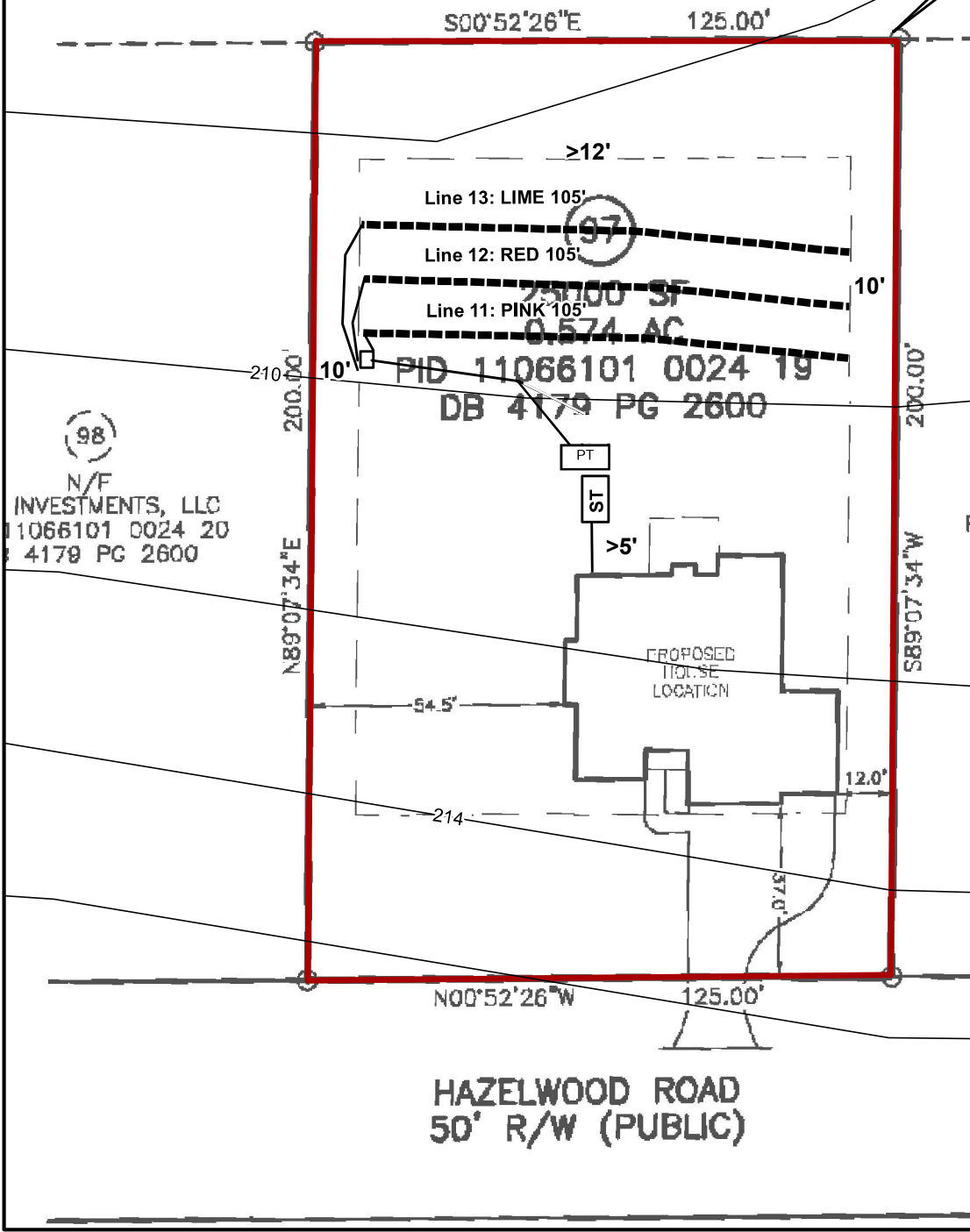
NT.....35'  
 .....10'  
 NER SIDE.....20'  
 .....25'

**NOTE**

-----

This system requires suitable fill material to meet minimum separation requirement. See design information for details.

Benchmark = 100'



Elevation Table	
Benchmark = 100'	
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System Details	
Initial System:	
1000 gal tank	
0.3 gpd/sqft	
Lines 1-10 (370')	
Accepted - Manifold	
Pump to D-Box:	
Serial Distribution	
Product - EZ Flow	
20" MTD	
Repair System	
0.3 gpd/sqft	
Lines 11-13 (315')	
Accepted - Manifold	
Product - EZ Flow	
12" MTD	

**Legend**

----- Repair

Map provided by PAC-One LLC  
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 Elevation data provided by: NCDOT

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Units: Foot US

1 inch = 36 feet

0 5 10 20 30 40 Feet

# Initial System Overview for

140 HAZELWOOD RD LILLINGTON, NC 27546

## Design Criteria

Number of bedrooms	3
Design Flow	360 gal/day
Soil L.T.A.R.	0.30 gal/day/sq ft

## System Details

### PUMP TO SERIAL DISTRIBUTION: SUM OF TRENCHS IS TOTAL TRENCH LENGTH

Trench Depth	20 inches
Total Trench Length	370 feet

## System Components

Trench Product	EZ Flow
Septic Tank	1000 gallons
Pump Tank	1000 gallons
Effluent Filter	Polylok PL-68 (or approved equivalent)
Effluent Pump	Zoeller Dose-Mate Model 151/152/153 (or approved equivalent)
Control Panel	SJE Rhombus Model 112 panel (or approved equivalent)

# Repair System Overview for

140 HAZELWOOD RD LILLINGTON, NC 27546

## Design Criteria

Number of bedrooms	3
Design Flow	360 gal/day
Soil L.T.A.R.	0.30 gal/day/sq ft

## System Details

Trench Depth	12	inches
Total Trench Length	315	feet
Manifold Length	36	inches
Manifold Diameter	4in sch 80pvc	
Supply Line Length	50	feet
Design Head	2	feet
Elevation Head	6.20	feet
Total Design Head	9.53	feet
Dose Volume	143	gallons
% Pipe Volume	70	
Drawdown	7.17	in inches
Pump Run Time	16.88	minutes

## System Components

Trench Product	EZ Flow	
Septic Tank	1000	gallons
Pump Tank	1000	gallons
Effluent Filter	Polylok PL-68 (or approved equivalent)	
Effluent Pump	Zoeller Dose-Mate Model 151/152/153 (or approved equivalent)	
Control Panel	SJE Rhombus Model 112 panel (or approved equivalent)	

### NOTE

-----  
This system requires 6" of settled suitable fill material to meet minimum separation requirement. See design information for details.

## Pressure Manifold Design Worksheet Repair System

PROPERTY INFORMATION			
Address:	140 HAZELWOOD RD LILLINGTON, NC 27546	P.I.N. #:	0660-69-9552
		Bedrooms:	3

DESIGN CRITERIA	
Design Flow:	360 gal/day
L.T.A.R.:	0.300 gal/day/sq.ft

### SYSTEM DETAILS

<b>Tanks</b>		
Septic Tank:	1000 gals	Pump Tank:
		1000 gals
<b>Trenchs</b>		
Trench Depth:	12 in	Sq. Feet:
		945
Length of Trenches:	315 ft (See Tap Chart for Details)	Product Depth:
		12 in
<b>Manifold</b>		
# of Taps:	3	Manifold Length:
		36 in
		Tap Configuration:
		6 in spacing
		Manifold Diameter:
		4in sch 80pvc
		1 side(s) of manifold

<b>System</b>		
Design Head:	2 ft	Elevation Head:
		6.20 ft
		Total Head:
		9.53 ft
Friction & Fitting Loss:	1.33 ft (supply line length + 70' for fittings in pump tank)	
Supply Line length:	50 ft	Diameter:
		2 in sch 40pvc
Pump to Deliver:	21.33 gals/min at	9.53 ft head
Dosing Volume:	143 gals	
Drawdown:	143 gals divided by	20 gals/in =
		7.2 inches

TAP CHART									
Bench Mark	_____	is = 100.00	located at	_____	Property Corner	Design Head:	_____	2	
Pump tank elev.	_____		101.50	Pump elev.	96.50	Manifold elev.	102.70		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
11	PINK		101.70	105	1/2in SCH 40	7.11	120.00	315	0.381
12	RED		101.20	105	1/2in SCH 40	7.11	120.00	315	0.381
13	LIME		100.80	105	1/2in SCH 40	7.11	120.00	315	0.381

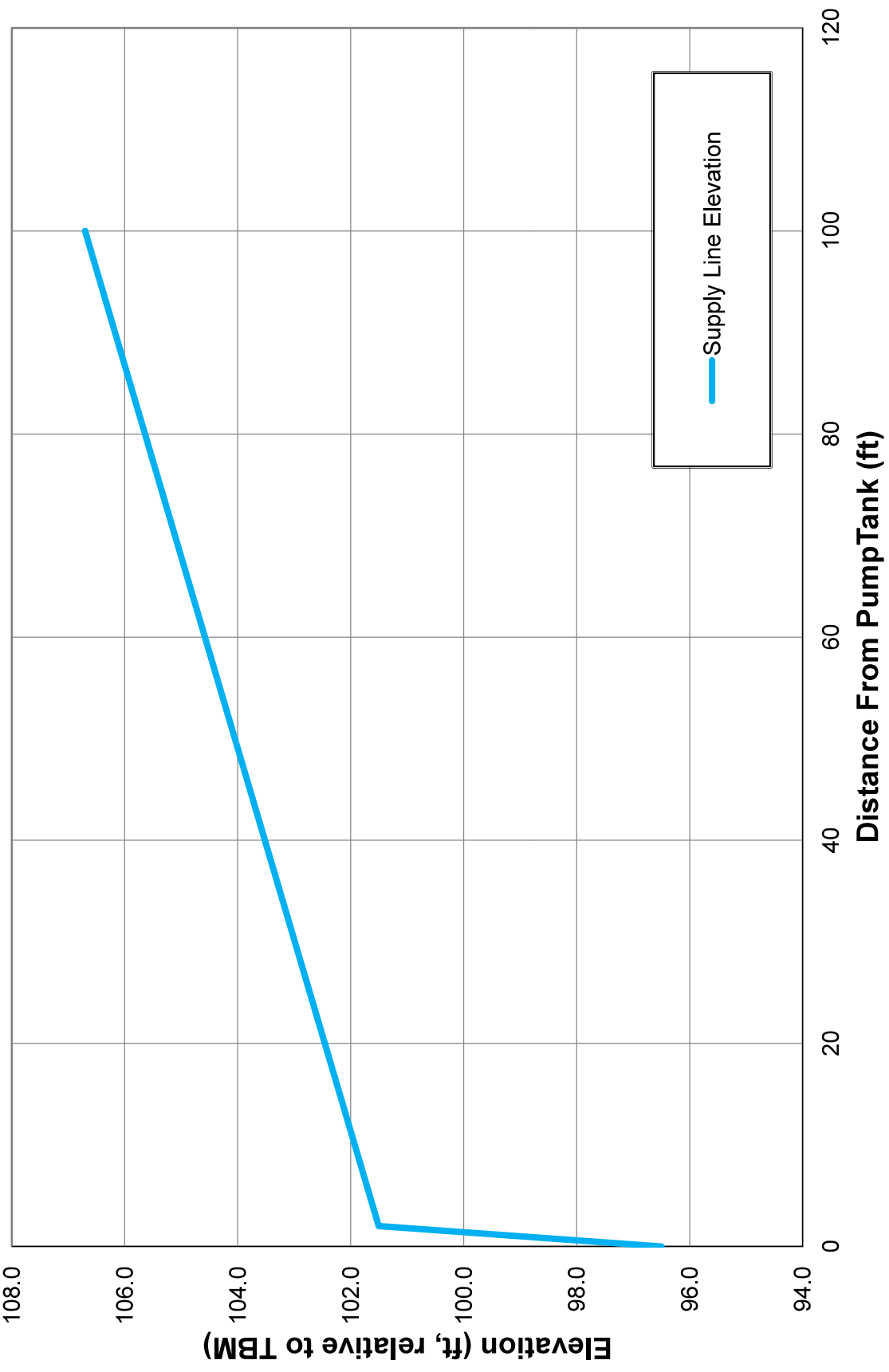
	total feet =	315	gal/min =	21.33		LTAR =	0.30
% of Dose Vol. (66-75)		70	Design Flow	360		(Itar + 5%)	0.32
Dose Volume		143	Pump Run	16.88		(Itar W/ INOV)	0.40
Dose Pump Time		6.72	Tank gal/in	20.00		(Itar + 5%)	0.42
Drawdown in Inches		7.2	Elev. Head	6.20			
Supply Line Length		50	Scour Velocity (ft/sec)	2.18			

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Supply Line Hydraulic Profile



**DAVID BRANTLEY & SONS**  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597  
 Office 252-478-3721  
 Fax 919-573-0443  
 installer@gmail.com

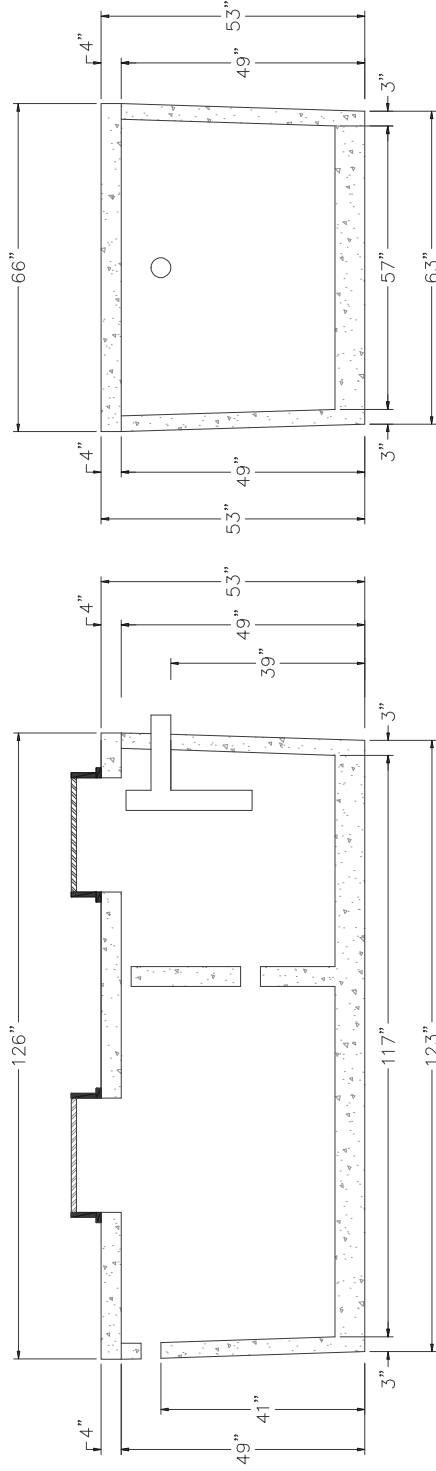
PREPARED FOR: David Brantley & Sons  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597

DATE: April 11, 2014

CONTACT: COREY BRANTLEY

REVISION NO.	DATE
Revision 1	April 11, 2014
Revision 2	
Revision 3	
Master Set	

BRANTLEY TANK MODEL  
**1,000 ST 499**  
 SHEET NUMBER  
**1 of 1**



**1,000 ST 499**  
 NTS

**NON TRAFFIC BEARING**



**DAVID BRANTLEY & SONS**  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597  
 Office 252-478-3721  
 Fax 919-573-0443  
 installer@gmail.com

PREPARED FOR : David Brantley & Sons  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597

DATE : April 11, 2014

CONTACT: COREY BRANTLEY

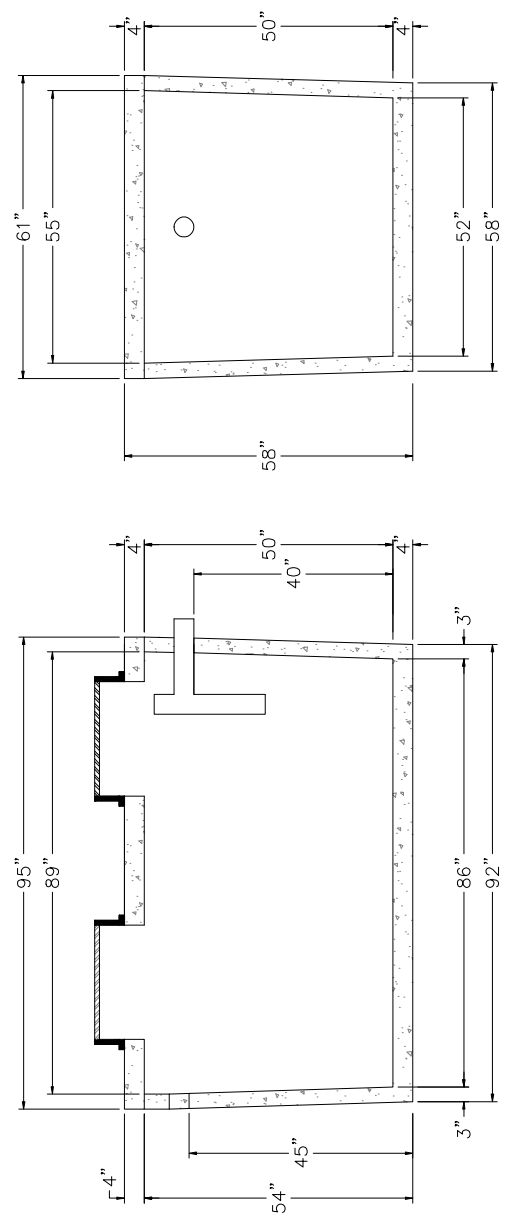
REVISION NO.	DATE
Revision 1	Original Submittal
Revision 2	April 11, 2014
Revision 3	-----
Master Set	-----

BRANTLEY TANK MODEL  
 1,000 PT 237

SHEET NUMBER  
 1 of 1

**NON TRAFFIC BEARING**

**1,000 PT 237**  
 NTS



Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



## TECHNICAL DATA SHEET

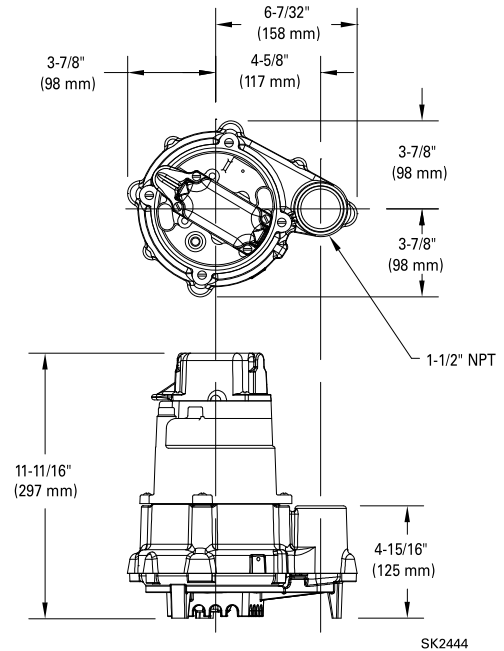
# DOSE-MATE SERIES

### Models 151, 152, 153 Effluent Pumps

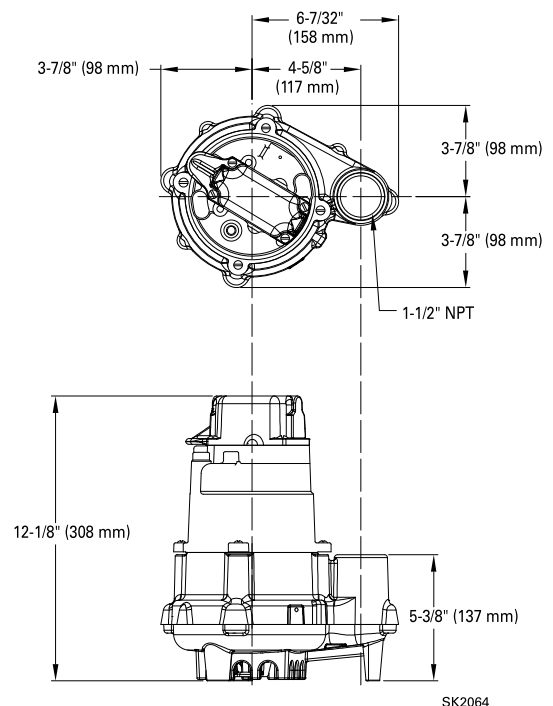
#### PRODUCT SPECIFICATIONS

<b>MOTOR</b>	Horse Power	1/3 (151), 4/10 (152), 1/2 (153)
	Voltage	115 or 230
	Phase	1 Ph
	Hertz	60 Hz
	RPM	3450
	Type	Permanent split capacitor
	Insulation	Class B
	Amps	3.0 - 10.5
<b>PUMP</b>	Operation	Automatic or nonautomatic
	Discharge Size	1-1/2" NPT
	Solids Handling	1/2" (12 mm), 3/4" (19 mm) spherical solids
	Cord Length	20' (6 m)
	Cord Type	UL listed power cord
	Max. Head	44' (13.4 m)
	Max. Flow Rate	77 GPM (291 LPM)
	Max. Operating Temp.	130 °F (54 °C)
	Cooling	Oil filled
	Motor Protection	Auto reset thermal overload
	<b>MATERIALS</b>	Cap
Motor Housing		Cast iron
Pump Housing		Cast iron
Base		Plastic or cast iron
Upper Bearing		Sleeve bearing
Lower Bearing		Ball bearing
Mechanical Seals		Carbon and ceramic
Impeller Type		Non-clogging vortex
Impeller		Engineered thermoplastic
Hardware		Stainless steel
Motor Shaft		AISI 1215 steel
Gasket		Neoprene

#### MODEL 151



#### MODELS 152 & 153



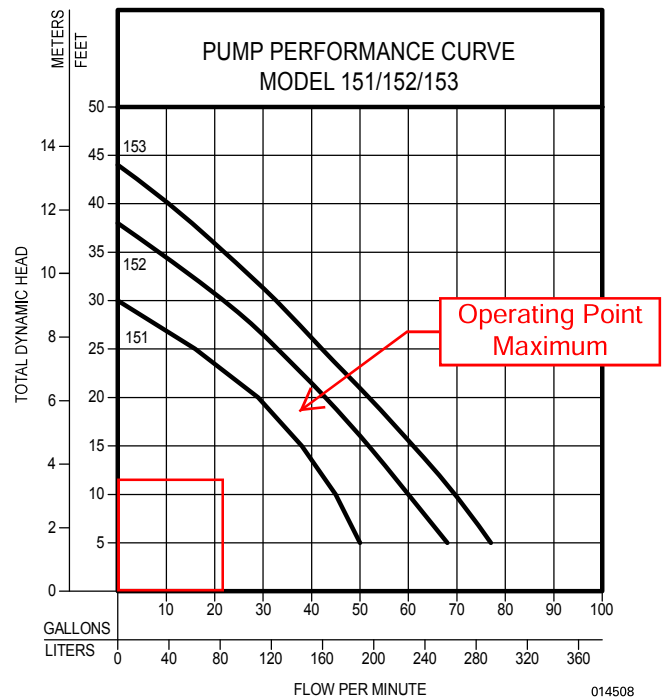
NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

NOTE: See model comparison chart for specific details.



## TOTAL DYNAMIC HEAD FLOW PER MINUTE

MODEL		151		152		153	
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	50	189	69	261	77	291
10	3.0	45	170	61	231	70	265
15	4.6	38	144	53	201	61	231
20	6.1	29	110	44	167	52	197
25	7.6	16	61	34	129	42	159
30	9.1	--	--	23	87	33	125
35	10.7	--	--	--	--	22	85
40	12.2	--	--	--	--	11	42
Shut-off Head:		30 ft. (9.1m)		38 ft. (11.6m)		44 ft. (13.4m)	



Model	MODEL COMPARISON										
	Seal	Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex
N151	Single	Non	115	1	6.0	1/3	60	32	15	1	2 or 3
E151	Single	Non	230	1	3.0	1/3	60	32	15	1	2 or 3
BN151	Single	Auto	115	1	6.0	1/3	60	33	15	*	2 or 3
BE151	Single	Auto	230	1	3.0	1/3	60	33	15	*	2 or 3
N152	Single	Non	115	1	8.5	4/10	60	37	17	1	2 or 3
E152	Single	Non	230	1	4.3	4/10	60	37	17	1	2 or 3
BN152	Single	Auto	115	1	8.5	4/10	60	39	18	*	2 or 3
BE152	Single	Non	230	1	4.3	4/10	60	39	18	*	2 or 3
N153	Single	Non	115	1	10.5	1/2	60	37	17		
BN153	Single	Auto	115	1	10.5	1/2	60	39	18	*	2 or 3
E153	Single	Non	230	1	5.3	1/2	60	37	17	1	2 or 3
BE153	Single	Non	230	1	5.3	1/2	60	39	18	*	2 or 3

\*BN and BE models include a 20' (6 m) piggyback variable level pump switch. Additional cord lengths are available in 25' (8 m) and 35' (11 m). 50' (15 m) cords are available for 230 V units only.

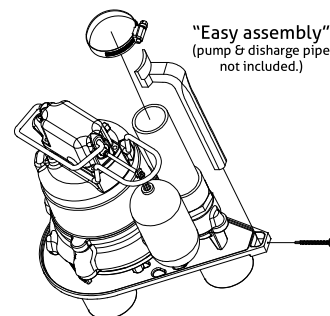
NOTE: Model 151 has a plastic base. Models 152 & 153 have a cast iron base.

## SELECTION GUIDE

- For automatic, use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
- See FM1228 for correct model of simplex control panel.
- See FM0712 for correct model of duplex control panel.

### OPTIONAL PUMP STAND P/N 10-2421

- Reduces potential clogging by debris
  - Replaces rocks or bricks under the pump
  - Made of durable, noncorrosive ABS
  - Raises pump 2" (5 cm) off bottom of basin
  - Provides the ability to raise intake by adding sections of 1½" or 2" (DN40 or DN50) PVC piping
  - Attaches securely to pump
  - Accommodates sump, dewatering and effluent applications
- NOTE: Make sure float is free from obstruction.



All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

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502-778-2731 | 800-928-7867 | 3649 Cane Run Road | Louisville, KY 40211-1961 | zoellerpumps.com

**PL-68 Filter and Tee**

PL-68 is much more than just an effluent filter. The housing can also be used as an inlet baffle (tee) or an outlet baffle. The housing is designed to accept Polylok's snap in gas deflector to deflect gas bubbles away from the tee and to keep the solids in the tank.

**Features:**

- Offers 68 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Accepts 3/4" PVC handle.
- Locks in any 360° position when used with PL-68 Tee.
- PL-68 Housing can be used as an inlet or outlet tee.
- Gasket prevents bypass.

**PL-68 Installation:**

Ideal for residential waste flows up to 800 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

1. Locate the outlet of the septic tank.
2. Remove the tank cover and pump tank if necessary.
3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
4. Insert the PL-68 filter into tee.
5. Replace and secure the septic tank cover.

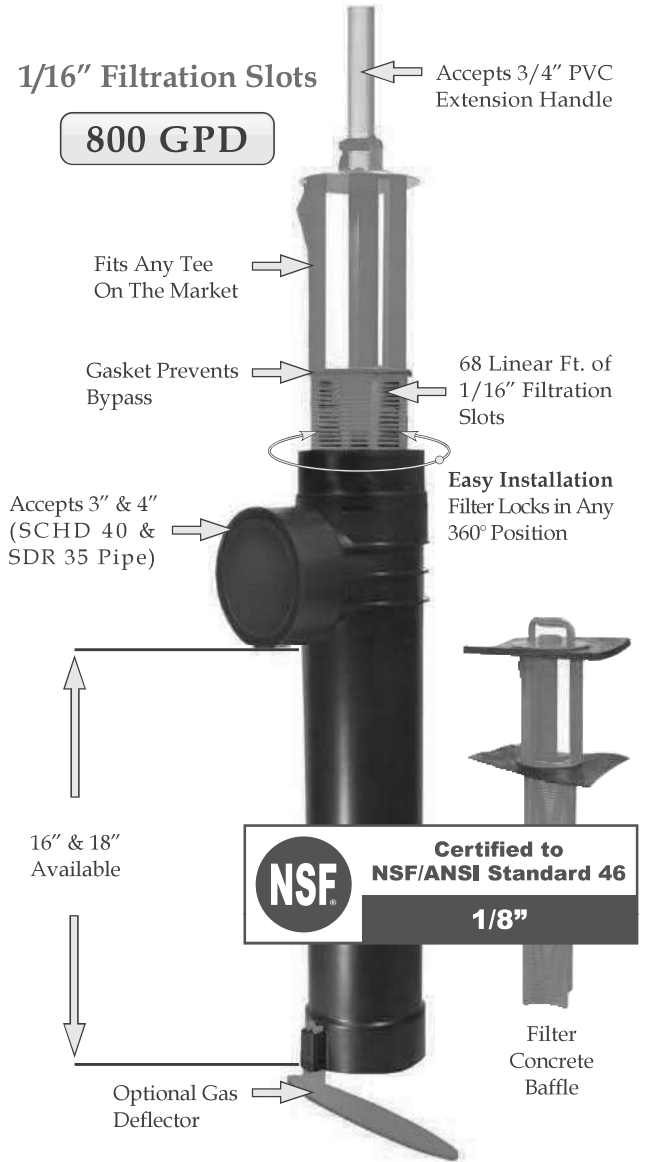
**PL-68 Maintenance:**

The PL-68 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

1. Do not use plumbing when filter is removed.
2. Pull PL-68 out of the tee.
3. Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
4. Insert filter back into tee/housing.

**Related Products:**

PL-68 Filter Concrete Baffle  
 Extend & Lok™



Extend & Lok™  
 Easily installs  
 into existing tanks.



Spacer Bushing  
 4" SCHD 40  
 to SDR 35



Spacer Bushing  
 4" SCHD 40  
 to 110mm Pipe



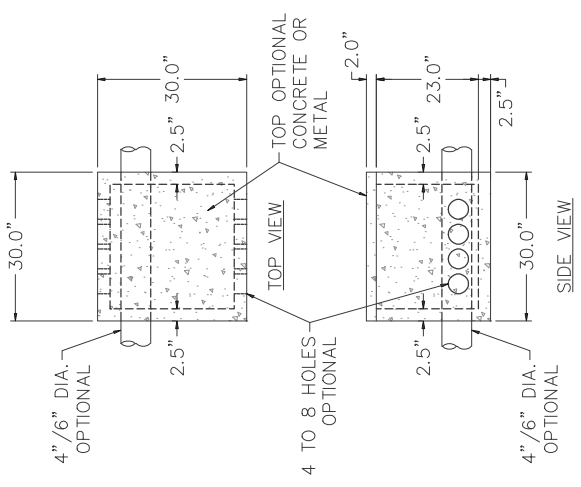
2" Extender

**DAVID BRANTLEY & SONS**  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597  
 Office 252-478-3721  
 Fax 919-573-0443  
 installer@gmail.com

PREPARED FOR : David Brantley & Sons  
 37 Pine Ridge Rd.  
 Zebulon, NC 27597  
 DATE : April 11, 2014  
 CONTACT: COREY BRANTLEY

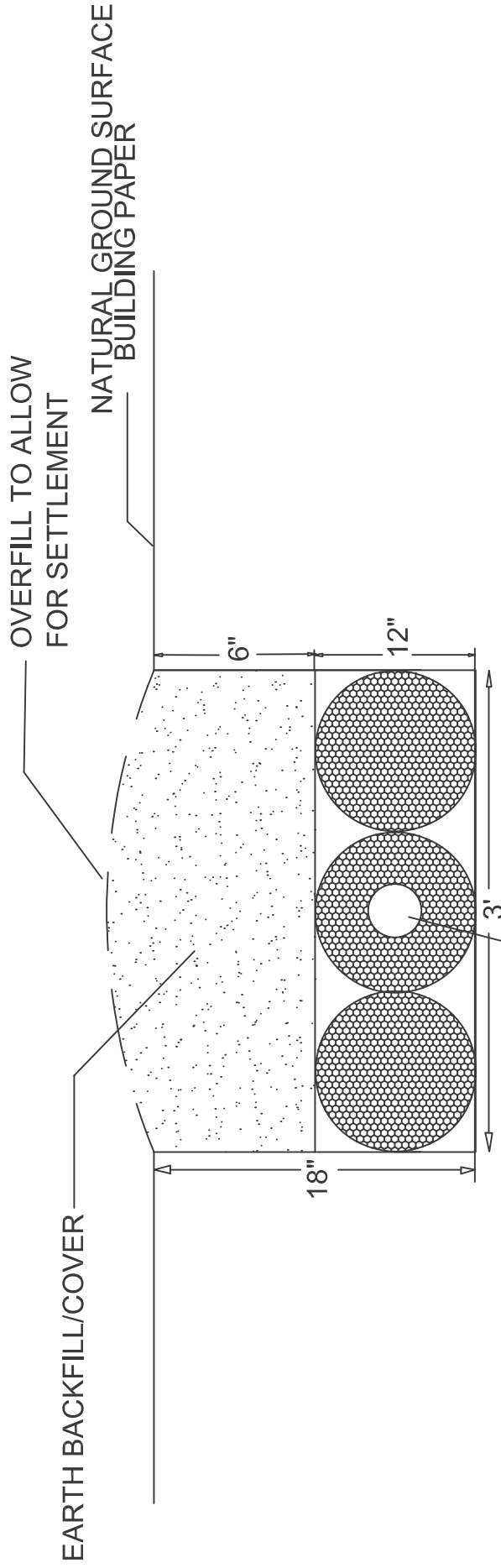
REVISION NO.	DATE
Original Submitted	April 11, 2014
Revision 1	
Revision 2	
Revision 3	
Master Set	

BRANTLEY TANK MODEL  
**SMALL**  
**MANIFOLD BOX**  
 SHEET NUMBER  
 1 of 1



**SMALL MANIFOLD BOX**  
 NTS

# NITRIFICATION TRENCH DETAIL FOR EZ-FLOW



**NOTE :**

**EZ-FLOW**  
**4" DIAMETER CORRUGATED**  
**PLASTIC DRAIN PIPE**  
**SURROUNDED BY**  
**POLYSTYRENE BLOCKS**  
**WRAPPED W/PLASTIC MESH**

1. PERFORATED CORRUGATED PLASTIC PIPE SHALL MEET REQUIREMENTS OF ASTM D 2729.
2. PIPE SHALL BE LEVEL.
3. END CAP SHALL BE PROVIDED AT END OF ALL CORRUGATED PLASTIC PIPE LINES.
4. TRENCH BOTTOM SHALL BE LEVEL.
4. SEE INFORMATION FOR INSTALLER.

JOB NO:

PROJECT MGR:

SCALE:  
NTS

PROJECT NAME:

SHEET TITLE:

NITRIFICATION TRENCH

NOTES:

**PAC-ONE PLLC**

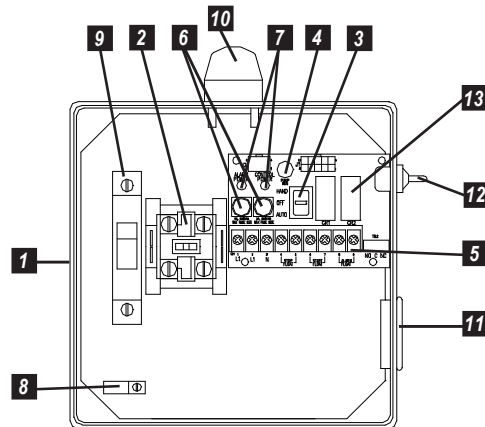
# MODEL 112 Control Panel

## Single phase, simplex motor contactor control.

The Model 112 control panel provides a reliable means of controlling one 120, 208, or 240 VAC single phase pump in pump chambers, sump pump basins, irrigation systems and lift stations. Two control switches activate a magnetic motor contactor to turn the pump on and off. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system.

## PANEL COMPONENTS

- Enclosure** measures 8 x 8 x 4 inches (20.32 X 20.32 X 10.16 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use).  
\* Options selected may increase enclosure size and change component layout.
- Magnetic Motor Contactor** controls pump by switching electrical lines.
- HOA Switch** for manual pump control (mounted on circuit board).
- Green Pump Run Indicator Light** (mounted on circuit board).
- Float Switch Terminal Block** (mounted on circuit board).
- Alarm and Control Fuses** (mounted on circuit board).
- Alarm and Control Power Indicators** (mounted on circuit board).
- Ground Lug**
- Circuit Breaker** (optional) provides pump disconnect and branch circuit protection.



Model Shown 1121W914X



## STANDARD ALARM PACKAGE

- Red Alarm Beacon** provides 360° visual check of alarm condition.  
**Note:** NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
- Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).  
**Note:** NEMA 1 style utilizes an internally mounted buzzer in lieu of horn.
- Exterior Alarm Test/Normal/Silence Switch** allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition has been cleared.
- Horn Silence Relay** (mounted on circuit board).

**NOTE:** other options available.

## FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes three 20' SJE SignalMaster® control switches
- Complete with step-by-step installation instructions
- Three-year limited warranty

SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.  
SEE PRICE BOOK FOR LIST PRICE.

**SJE**  
**Rhombus**

PO Box 1708, Detroit Lakes, MN 56502

1-888-DIAL-SJE • 1-218-847-1317

1-218-847-4617 Fax

email: [sje@sjerhombus.com](mailto:sje@sjerhombus.com)

[www.sjerhombus.com](http://www.sjerhombus.com)

**112** **1** **W** **9** **1** **4** **H** **8A, 8C, 3A, 10E, 15A**

**MODEL 112**

**ALARM PACKAGE**

- 0 = select options or no alarm package
- 1 = alarm package (includes test/normal/silence switch, fuse, red light, horn & float)

**ENCLOSURE RATING**

- I = Indoor, NEMA 1 (metal)
- W = Weatherproof, NEMA 4X (engineered thermoplastic)

**STARTING DEVICE**

- 1 = magnetic motor contactor 120/208/240V
- 9 = magnetic motor contactor 120V only

**PUMP FULL LOAD AMPS**

- 0 = 0-7 FLA
- 1 = 7-15 FLA
- 2 = 15-20 FLA
- 3 = 20-30 FLA

**PUMP DISCONNECTS**

- 0 = no pump disconnect
- 4 = circuit breaker 120V (select STARTING DEVICE option 9 above)  
120/208/240V (select STARTING DEVICE option 1 above)

**FLOAT SWITCH APPLICATION**

- H or L = pump down or pump up (select 17 option)
- X = no floats
- WITH alarm package
- WITHOUT alarm package

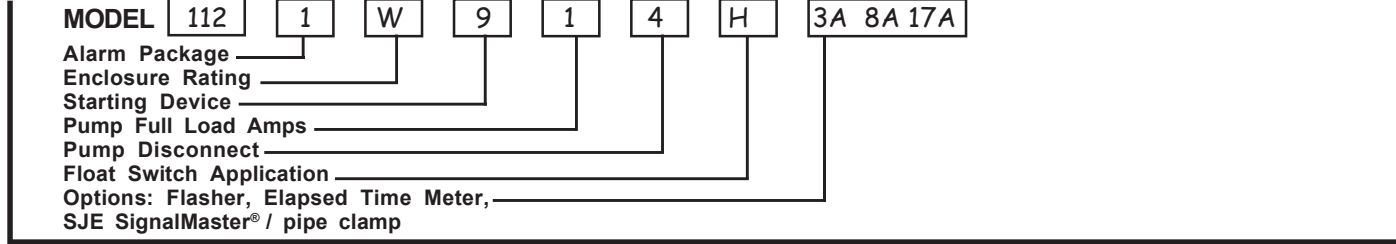
**OPTIONS** *Listed below*

**★** ENCLOSURE UPSIZE - If you selected 3 or more of the ★ options, or one ★★ option, add a one-time enclosure upsize fee would apply.

CODE	DESCRIPTION	CODE	DESCRIPTION
<input type="checkbox"/> 1A	Red beacon only / no audio <i>(must select 1E if floats included)</i>	<input type="checkbox"/> 11C	NEMA 1 alarm panel <i>(must select option 6A)</i>
<input type="checkbox"/> 1C	Horn only / no visual <i>(must select 1E if floats included)</i>	<input type="checkbox"/> 11D	NEMA 4X alarm panel <i>(must select option 6A)</i>
<input type="checkbox"/> 1E	Alarm float	<input type="checkbox"/> ★★ 14B	Main disconnect (rotary style, mounted through door, non-fused)
<input checked="" type="checkbox"/> 3A	Alarm flasher	★★ <input type="checkbox"/>	0-20 FLA
<input type="checkbox"/> ★ 3B	Manual alarm reset	★★ <input type="checkbox"/>	20-30 FLA
<input type="checkbox"/> ★ 4A	Redundant off <i>(select option 4D if floats included)</i>	<input checked="" type="checkbox"/> 15A	Control / alarm circuit breaker
<input type="checkbox"/> ★ 4B	Red redundant off indicator & alarm <i>(must select 4A also)</i>	<input type="checkbox"/> 16A	10' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> 4D	Redundant off float <i>(select 4A option) (select 17 option)</i>	<input type="checkbox"/> 16B	15' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> ★ 5A	Thermal cutout/heat sensor auto reset <i>(for pumps w/thermal switch leads)</i>	<input type="checkbox"/> 16C	30' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> ★★ 5E	Seal failure circuit & red indicator (2 wire)	<input type="checkbox"/> 16D	40' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> 6A	Auxiliary alarm contact, form C	<input type="checkbox"/> 17A	SJE SignalMaster® / mounting strap ● <i>(per float)</i>
<input checked="" type="checkbox"/> ★ 8A	Elapsed time meter	<input type="checkbox"/> 17B	SJE SignalMaster® / externally weighted ● <i>(per float)</i>
<input checked="" type="checkbox"/> ★ 8C	Event (cycle) counter	<input type="checkbox"/> 17C	Sensor Float® / internally weighted ▲ <i>(per float)</i>
<input type="checkbox"/> ★★ 9_A	Pump overload specify amperage after number 9 followed by letter "A". Example: 912A = 12 amp pump.	<input type="checkbox"/> 17D	Sensor Float® / externally weighted ▲ <i>(per float)</i>
★★ <input type="checkbox"/>	0-25 FLA	<input type="checkbox"/> 17E	Sensor Float® Mini / pipe clamp ▲ <i>(per float)</i>
★★ <input type="checkbox"/>	25-30 FLA	<input type="checkbox"/> 17F	Sensor Float® Mini / externally weighted ▲ <i>(per float)</i>
<input checked="" type="checkbox"/> 10E	Lockable latch - NEMA 4X	<input type="checkbox"/> 17J	Sensor Float® / pipe clamp ▲ <i>(per float)</i>
<input type="checkbox"/> 10E	Lockable latch - NEMA 1	<input type="checkbox"/> 19T	TOA (Test/Off/Automatic) switch and pump run light through door mounted
<input type="checkbox"/> ★ 10F	Lightning arrestor <i>(select pump circuit breaker)</i>	<input type="checkbox"/> 19U	HOA (Hand/Off/Automatic) switch and pump run light through door mounted
<input type="checkbox"/> ★ 10K	Anti-condensation heater	<input type="checkbox"/> 19X	Door mounted pump run indicator
		<input type="checkbox"/> 21A	SJE PumpMaster® in lieu of on/off switches ●
		<input type="checkbox"/> 21B	SJE PumpMaster® Plus in lieu of on/off switches ●
		<input type="checkbox"/> 21C	Super Single® in lieu of on/off switches ▲
		<input type="checkbox"/> 21D	Double Float® in lieu of on/off switches ▲
			● Mechanically-activated ▲ Mercury-activated

**If additional features are required, call the factory for a quote on an Engineered Custom control panel.**

**SAMPLE**





## INFORMATION FOR THE CONTRACTOR

**The permit should be read very carefully prior to bidding. The following are details that must be considered by the contractor prior to and during installation:**

- Tanks shall be approved by NCDHHS and certification supplied by the manufacturer.
- The installer shall be responsible to the owner for placement of the tanks and to ensure that final grades are returned to the original grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement without damage or displacement of pipe or fittings.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy-bodied PVC pipe glue applied to weld all joints.
- Where required by the regulating County Health Department, post installation inspections by the Engineer or his representative must be scheduled **5 week days** in advance.
- Trenches shall be carefully excavated so the bottom is level **for the entire length and width of the trench**. If the trench bottom level needs adjusting after excavation it **must** be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over-excavated during initial trenching. All fine grading within the trench will be done by hand with a shovel. No loose material will be left in the trench.
- All pipe openings in the tanks shall be properly filled with press boot seal. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent settlement.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pin flag locations should be checked by the contractor prior to beginning trench excavation.
- Pump tank riser shall be 6" above grade, control panel shall be 18" above grade.
- Septic tank shall have specified effluent filter or approved equivalent.

### **System Specifics:**

- **System uses EZ-Flow drain line.**

- **Repair uses EZ-Flow drain line.** This system requires the use of fill material.

## **Considerations for Sites Requiring the Use of Fill Material**

Sites requiring fill material to be imported must meet certain criteria as specified in 15A NCAC 18A .1900 and any other stipulations detailed in the manufacturers specifications of any product being proposed. Fill is considered any soil material that is not “naturally occurring soil”. Per section .1935 (16) naturally occurring soil means soil formed in place due to natural weathering processes and being unaltered by filling, removal, or other man-induced changes other than tillage.

Sites classified UNSUITABLE as to soil depth or soil wetness may be reclassified as PROVISIONALLY SUITABLE with respect to soil depth or soil wetness conditions by utilizing shallow placement of nitrification trenches in the naturally occurring soil as per section .1956 (1). Shallow trenches may be used where at least 24 inches (if conventional trench depth product is being used) of naturally occurring soil are present above saprolite, rock, or soil wetness conditions and all other factors are PROVISIONALLY SUITABLE or SUITABLE.

### **Certain criteria must be met for the installation of these systems:**

1. Systems shall be installed only on sites with uniform slopes less than 15 percent. Storm water diversions and subsurface interceptor drains or swales may be required upslope of the system.
2. Soil cover above the original grade shall be placed at a uniform depth over the entire nitrification field and shall extend laterally five feet beyond the nitrification trench.
3. The soil cover shall be placed over a nitrification field only after proper preparation of the original ground surface. Where fill material is added, the fill material and the existing soil shall be mixed to a depth of six inches below the interface. Heavy vegetative cover or organic litter shall be removed before the additional fill material is incorporated.
4. The type and placement of soil cover shall be approved by the local health department. Fill material shall have such soil texture to be classified as sand or loamy sand (Soil Group I) up to the top of the nitrification trenches. The final six inches of fill used to cover the system shall have a finer texture (such as Group II, III) for the establishment of a vegetative cover. Existing fill material shall have no more than ten percent by volume of fibrous organics, building rubble, or other debris and shall not have discreet layers containing greater than 35 percent of shell fragments. If any questions about the suitability of fill material exist, approval must be gained from the designer and local health department.
5. After placement of fill the covered trench surface material shall be shaped to shed surface water and prevent the ponding of surface water while maintaining the minimum 6” separation requirement, and shall be stabilized with a vegetative cover against erosion.

# Miscellaneous errors and omissions

Markel has over 35 years of experience providing miscellaneous errors and omissions insurance. Our leadership has a wealth of knowledge and expertise in protecting small business owners from litigation stemming from actual or perceived negligence. Our underwriting team has crafted policies that fit your specific needs, while our seasoned, in-house claims professionals will help you successfully navigate a loss or claim should you need their assistance.

## Reporting new professional liability claims

New Claims can be reported in writing by website, email, fax, or regular mail. Please refer to your specific policy for all relevant reporting requirements.

To report a new claim, visit [markelinsurance.com/file-a-claim](http://markelinsurance.com/file-a-claim) and select "BOP/Miscellaneous errors and omissions/Workers compensation" from the drop down. You can also email [newclaims@markelcorp.com](mailto:newclaims@markelcorp.com) and include the following:

- Policy number
- Insured and claimant names with contact details
- Date of loss
- Location and description of loss
- All pertinent documentation available (incident report, police report, witness information, photos, etc.)

## General claims questions

For information about an already reported Professional Liability claim, email: [markelclaims@markelcorp.com](mailto:markelclaims@markelcorp.com), or contact your assigned claim examiner directly.

Additional contact information:

(800) 362-7535 or (800) 3 MARKEL

(855) 662-7535 or (855) 6 MARKEL

Markel Claims Department, P.O. Box 2009,  
Glen Allen, VA 23058-2009

While your policy is primarily designed to protect against a variety of professional errors and omissions claims, it may also provide protection for other specific exposures such as pollution claims, disciplinary proceedings, third party discrimination claims, subpoena and public relations expenses, among others. Contact your agent for more information, or if you have reported a Claim, your assigned examiner.

For more information about our programs, risk management articles, and FAQs, please visit [markelinsurance.com](http://markelinsurance.com). To pay your bill or view policy documents, please visit [portal.markelinsurance.com](http://portal.markelinsurance.com).

Products and services are offered through Markel Specialty, a business division of Markel Service Incorporated. Policies are written by one or more Markel insurance companies. Terms and conditions for rate and coverage may vary. 201806

## Risk management and loss prevention

Policyholders have access to loss control and risk management resources that can assist in a better understanding of potential hazards within their operation and ways to reduce claims.

Here's a sample of the many services available:

- Exposure assessments
- Loss analysis tools
- Safety videos
- Safety training materials
- Regulatory program guidance

## Designed Protection® for professional service providers and associations – professional service providers hotline

Our panel of Risk Management experts is available to discuss general risk management related concerns and questions. Please visit [markelcorp.com/riskmanagement](http://markelcorp.com/riskmanagement) and under "Designed Protection®" click "Click here," enter your policy number, then select "Professional Service Providers Hotline" to access our panel of experts.

Visit our website at:

[markelinsurance.com/risk-management-home](http://markelinsurance.com/risk-management-home).

For more information about any of Markel's loss control services, contact us at (888) 500-3344 or email [losscontrol@markelcorp.com](mailto:losscontrol@markelcorp.com).





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

2/2/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Wade Associates, LLC 250 Pollock St.  New Bern NC 28560	<b>CONTACT NAME:</b> Angela Sensenig <b>PHONE (A/C No. Ext):</b> (252) 631-5269 <b>E-MAIL ADDRESS:</b> asensenig@wadeict.com	<b>FAX (A/C, No):</b> (252) 649-2443
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> Permit Acquisition Company-One LLC 920 Garner Rd  Selma NC 27576-7763	<b>INSURER A:</b> Auto-Owners <b>NAIC #</b> 18988	
	<b>INSURER B:</b> Builders Mutual <b>10844</b>	
	<b>INSURER C:</b> Markel Insurance Company <b>38970</b>	
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	
	<b>INSURER F:</b>	

**COVERAGES**

CERTIFICATE NUMBER: 22-23

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			35613487	11/22/2022	11/22/2023	EACH OCCURRENCE	\$ 1,000,000	
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000	
							MED EXP (Any one person)	\$ 10,000	
							PERSONAL & ADV INJURY	\$ Excluded	
							GENERAL AGGREGATE	\$ 2,000,000	
							PRODUCTS - COMP/OP AGG	\$ 2,000,000	
								\$	
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident)	\$	
							BODILY INJURY (Per person)	\$	
							BODILY INJURY (Per accident)	\$	
							PROPERTY DAMAGE (Per accident)	\$	
								\$	
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE	\$	
							AGGREGATE	\$	
								\$	
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	69K0UB-5N24039-7-22	11/14/2022	11/14/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	E.L. EACH ACCIDENT	\$ 500,000
								E.L. DISEASE - EA EMPLOYEE	\$ 500,000
								E.L. DISEASE - POLICY LIMIT	\$ 500,000
C	Errors & Omissions			ME01642	11/22/2022	11/22/2023	General Aggregate	\$1,000,000	
							Each Occurrence	\$1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

\*FOR INFORMATIONAL PURPOSES ONLY\*  
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

N Whitsett/RACHEL

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**MARKEL INSURANCE COMPANY**

10275 West Higgins Road, Suite 750  
Rosemont, IL 60018

**INSURANCE POLICY**

Coverage afforded by this policy is provided by the Company (Insurer) and named in the Declarations.

In **Witness Whereof**, the company (insurer) has caused this policy to be executed and attested and countersigned by a duly authorized representative of the company (insurer) identified in the Declarations.

*Kathleen Anne Sturgeon*

*Ray W. Baker*

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
President



## **MARKEL INSURANCE COMPANY**

### **NOTICE TO POLICYHOLDERS**

### **CLAIM REPORTING**

Please immediately report a new claim under this policy to:

**[newclaims@markel.com](mailto:newclaims@markel.com)**

For general claims inquiries after a claim has been reported, please email:

**[markelclaims@markel.com](mailto:markelclaims@markel.com)**

In order for us to expedite the handling of your claim and quickly refer it to the appropriate party, please have the following information available:

- Claim number (or report as new)
- Your name, contact information and position with the Named Insured
- Date of loss
- Policy number and insured name
- Details of loss

Our address and additional contact information are as follows:

Markel Claims  
P.O. Box 2009  
Glen Allen, VA 23058-2009  
Phone: 800-362-7535 (800) 3MARKEL  
Fax: 855-662-7535 (855) 6MARKEL

Markel understands the importance of having knowledgeable claims professionals prepared to answer your questions with personal attention and expertise. With claims professionals located across four times zones, you are sure to find the claims assistance you need -- when you need it.

**PLEASE REFER TO THE POLICY FOR ANY NOTICE AND REPORTING PROVISIONS  
AND DUTIES IN THE EVENT OF LOSS OR DAMAGE TO COVERED PROPERTY.**



PROFESSIONAL LIABILITY INSURANCE DECLARATIONS

Claims Made and Reported Coverage: The coverage afforded by this policy is limited to liability for only those Claims that are first made against the Insured during the Policy Period or the Extended Reporting Period, if exercised, and reported to Markel Insurance Company during the Policy Period or the Extended Reporting Period, if exercised, or within 60 days after the expiration of the Policy Period or the Extended Reporting Period, if exercised.

Notice: This policy contains provisions that reduce the Limits of Liability stated in the policy by the costs of legal defense and permit legal defense costs to be applied against the deductible, unless the policy is amended by endorsement. Please read the policy carefully.

POLICY NUMBER: MEO1642-04

RENEWAL OF POLICY: MEO1642-03

NAMED INSURED: Permit Acquisition Company-One LLC

BUSINESS ADDRESS: 920 Garner Road
Selma, NC 27576

POLICY PERIOD: From 11/22/2022 to 11/22/2023

12:01 A.M. Standard Time at address of Insured stated above.

IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, THE COMPANY AGREES WITH THE NAMED INSURED TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.

1. PROFESSIONAL SERVICES: soil science

2. LIMITS OF LIABILITY

Professional Liability Coverage

- A. Each Claim: \$2,000,000
B. Policy Aggregate: \$2,000,000

Additional Payments

- A. Contingent Bodily Injury And Property Damage \$100,000
B. Pollution \$10,000
C. Pre-Claim Assistance Expenses \$20,000
D. Sexual Abuse \$10,000
E. Third Party Discrimination \$25,000

Supplementary Payments

- A. Disciplinary Proceeding \$25,000 per Policy Period
B. Loss Of Earnings And Expense Reimbursement \$10,000
C. Public Relations Expenses \$5,000
D. Subpoena And Record Request Assistance \$5,000

Table with 1 column: Producer Number, Name and Mailing Address. Row 1: 98496, Wade Associates, LLC. - New Bern, PO Box 1209, Davidson, NC, 28036

**3. DEDUCTIBLE**

- A. Each Claim: \$1,000
- B. Aggregate: \$3,000

**4. RETROACTIVE DATE: 11/22/2019**

**5. PREMIUM RATE: Flat**

**PREMIUM BASE: Flat**

**6. PREMIUM FOR POLICY PERIOD**


- Minimum: \$560
- Deposit: \$560
- Adjusted Annual Premium: \$560

**7. PREMIUM PERCENTAGE FOR EXTENDED REPORTING PERIOD:  
ADDITIONAL PERIOD:**

**8. FORMS AND ENDORSEMENTS ATTACHED AT POLICY INCEPTION:**

See MDIL 1001 attached.

**These declarations, together with the Coverage Form and any Endorsement(s), complete the above numbered policy.**

Countersigned: 09/01/2022	<p>By: </p> <hr style="width: 80%; margin-left: auto; margin-right: 0;"/> <p>Authorized Representative Signature</p>
(Date)	