



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: JSJ Builders Inc  
Mailing address: 1135 Robeson St. City: Fayetteville State: NC Zip: 28305  
Phone: 910-483-0796 Email: kevinshortridge@gmail.com

Authorized Onsite Wastewater Evaluator Information:

Name: John Kase Certification #: 10060E  
Mailing address: PO Box 9321 City: Fayetteville State: NC Zip: 28311  
Phone: 910-539-5439 Email: john@southeasternsoil.com



Site Location Information:

Site address: 293 Black Duck Lane , Lillington, NC 27546  
Tax parcel identification number or subdivision lot, block number of property: \_\_\_\_\_  
Parcel # 010527001251 Ducks Landing S/D Lot 96 County: Harnett

System Information:

Wastewater System Type: IIIb-Pump to Accepted Trenches with 25% reduction  
Daily Design Flow: 480  
Saprolite System: ☐ Yes ☒ No Subsurface Operator Required: ☐ Yes ☒ No  
Water Supply Type: ☐ Private Well ☐ Public Water Supply ☒ Spring Other: \_\_\_\_\_

Facility Type:

☒ Residential 4 # Bedrooms 8 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 10 day of June, 2025 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 10 day of June, 2030.

Signature of Authorized Onsite Wastewater Evaluator: john kase

Digitally signed by John Kase  
DN: cn=John Kase, email=john.kase@ncdhs.gov, o=North Carolina Department of Health and Human Services, ou=North Carolina Department of Health and Human Services, c=US

Signature of Owner or Legal Representative: [Signature]

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: \_\_\_\_\_

# Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321  
Fayetteville, NC 28311  
Phone/Fax (910) 822-4540  
Email [mike@southeasternsoil.com](mailto:mike@southeasternsoil.com)

June 10, 2025

Kevin Shortridge  
JSJ Builders, Inc.  
1135 Robeson Street  
Fayetteville, NC 28305

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(A2)/SL 2022-11), 277 Black Duck Lane, Lillington, NC 27546, Parcel Number 010527001251, Lot 96, Ducks Landing Subdivision, Harnett County, North Carolina

Dear Mr. Shortridge,

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable or provisionally suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (4-bedroom home). All ratings and determinations were made in accordance with "Laws and Rules for Wastewater Treatment and Dispersal Systems, 15A NCAC 18E". **This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.**

The soil evaluation was completed on May 29, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (5% slope). Soil borings conducted in most of this area consisted of 20 or more inches of loamy sand/sandy loam underlain by clay loam to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 36 inches below the soil surface in the initial system and 34 inches in the repair system. All other soil characteristics were suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated Suitable for a Pump System to Pressure Manifold with Accepted 25% reduction subsurface waste disposal drainfield (0.4 gal/day/ft<sup>2</sup> LTAR; initial system). There is enough suitable soil area to allow for Pump System to Pressure Manifold with Prefabricated Permeable Block Panel Trenches with 50% reduction subsurface subsurface septic system repair (0.4 gal/day/ft<sup>2</sup>). A map showing the approximate location of the site and proposed septic layout accompanies this report. If gravity flow cannot be achieved then a design revision may be required for a pump system. **[Note: No grading, rutting or other soil disturbance can occur in or near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]**

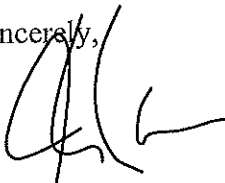
## Design Summary

- Initial System: Pump System to Pressure Manifold with Accepted 25% reduction trenches (300', see septic layout detail)
- 480 gal/day flow rate (4BR)
- 22" maximum trench depth as measured on the downhill side
- 0.4 gpd/ft<sup>2</sup> LTAR
- Pump to produce 27.4 gpm at 18.37 TDH
- Pump dose 129 gallons (6.4" drawdown-pending final pump tank gallons/inch)
- 1000-gallon septic tank and pump tank (**each certified watertight**)
- Repair System: Pump System to Pressure Manifold with PPBPS 50% reduction trenches (240', see septic layout design detail)
- 22" maximum trench depth as measured on the downhill side
- 0.4 gpd/ft<sup>2</sup> LTAR
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- **Install in dry soil conditions**
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system

During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

Sincerely,



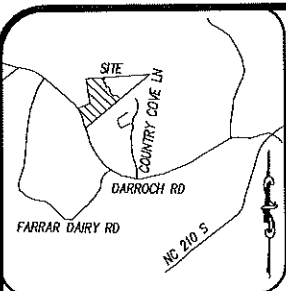
John Kase

NC Licensed Soil Scientist #1323

NC Authorized Wastewater Evaluator #10060E

NC REHS #1785





VICINITY MAP (NTS)

LEGEND:

EIP - EXISTING IRON PIPE  
 EIB - EXISTING IRON BAR  
 BEIP - BENT IRON PIPE  
 BEIB - BENT IRON BAR  
 CM - CONCRETE MONUMENT  
 NIP - NEW IRON PIPE SET  
 CATV - CABLE TV BOX  
 EB - ELECTRIC BOX  
 TEL - TELEPHONE PEDESTAL  
 PP - POWER POLE  
 OHL - OVERHEAD LINE  
 LP - LIGHT POLE  
 WM - WATER METER  
 WV - WATER VALVE  
 CO - SINKER, CLEAN-OUT  
 SW - SIDEWALK  
 PO - PORCH  
 H/F - NOW OR FORMERLY  
 CVD - COVERED  
 CB - CATCH BASIN  
 EOP - EDGE OF PAVEMENT  
 BOC - BACK OF CURB

NOTES:

1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
2. AREAS SHOWN HEREON WERE COMPUTED USING THE COORDINATE METHOD.
3. LINES NOT SURVEYED ARE SHOWN AS DASHED LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS PLAT.
4. PROPERTY MAY BE SUBJECT TO ANY/ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS SURVEY IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND OR DEEDED AND HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH AND LOCATION OF EASEMENTS, AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.
5. THIS PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AS INDICATED ON CID NO. 370328 PANEL 0526, SUFFIX J, HARNETT COUNTY WITH AN EFFECTIVE DATE OF 10/03/2025.

CERTIFICATE OF ACCURACY & MAPPING

I NICHOLAS M. FRENCH PLS CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY DONE UNDER MY SUPERVISION, AND THAT THE ERROR OF CLOSURE AS COMPUTED BY CO-ORDINATES IS LESS THAN 1:10,000.

PRELIMINARY

NICHOLAS M. FRENCH, PLS L-4817

DATE

THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED. ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

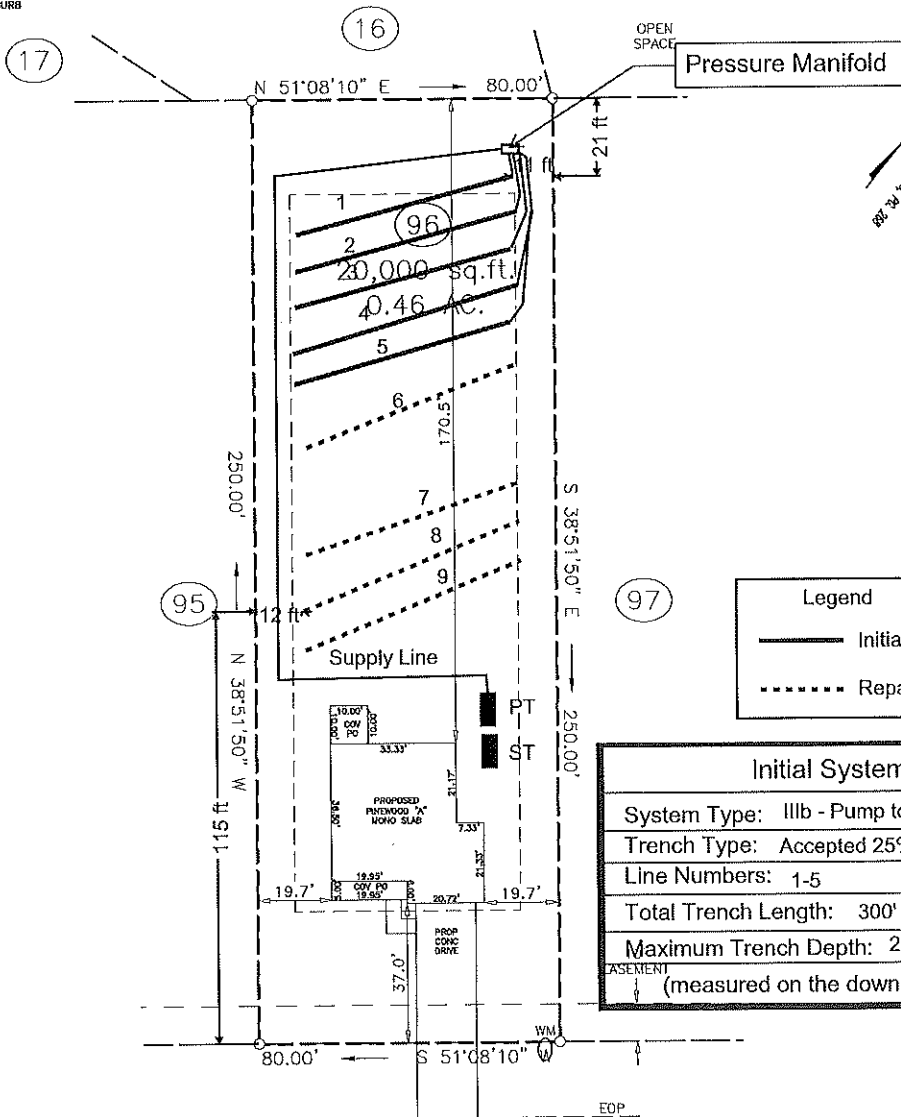
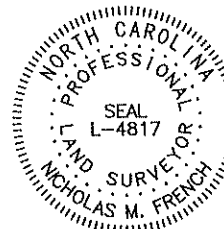
IMPERVIOUS SURFACE TABLE

HOUSE	1,653 S.F.
DRIVEWAY	582 S.F.
SIDEWALKS	52 S.F.
TOTAL IMPERVIOUS AREA	2,297 S.F.

SETBACKS:

P.B. 2025, PG. 268

FRONT	35'
SIDE	10'
REAR	25'
SIDE STREET	20'



Legend

— Initial  
 ..... Repair

Initial System

System Type: IIIb - Pump to PM  
 Trench Type: Accepted 25% Reduction  
 Line Numbers: 1-5  
 Total Trench Length: 300'  
 Maximum Trench Depth: 22'  
 (measured on the downhill side)

GRAPHIC SCALE



1 INCH = 40 FT.

BLACK DUCK LANE  
60' PUBLIC R/W

PRELIMINARY

ECLS

PROJECT: DUCKS LANDING  
 DRAWN BY: VIH  
 SURVEYED BY:  
 FIELD WORK:  
 DWG DATE: 05-16-2026

PLOT PLAN  
 FOR  
 JSJ BUILDERS

BLACK DUCK LANE  
 LOT 96 DUCKS LANDING SUBDIVISION  
 ANDERSON GREEK TWP., HARNETT CO., NC  
 P.B. 2025, PG. 268



**ECLS**  
 GLOBAL, INC.  
 U.S. VETERAN-OWNED  
 19 N MCKINLEY ST  
 GEDDS, NC 27521  
 910.897.2329 (ECLS.GLOBAL@GMAIL.COM)  
 910.897.2329 (FAX) 606-4175

**SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.**

**PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET**

**SUBDIVISION:** Ducks Landing

**LOT** 96

**INITIAL SYSTEM:** Accepted 25% Reduction

**REPAIR:** PPBPS-Horizontal

**DISTRIBUTION:** Pressure Manifold

**DISTRIBUTION** Pressure Manifold

**BENCHMARK:** 100.0

**LOCATION** H20 Meter - 11.6

**NO. BEDROOMS:** 4

**LTAR** 0.4 gpd/ft<sup>2</sup>

**SEPTIC TANK SIZE** 1000 Gallons

**PUMP TANK SIZE** 1000 Gallons

<u>LINE</u>	<u>FLAG COLOR</u>	<u>ELEVATION(FT)</u>	<u>LENGTH(FT)</u>
1	Pink	110.7	60
2	Yellow	110.2	60
3	Green	109.8	60
4	Blue	109.4	60
5	Red	108.7	60
			Total-300
6	White	108.3	60
7	Blue	107.6	60
8	Pink	106.8	60
9	White	106.5	60
			Total-240

**BY** John Kase

**DATE** 5-29-25

**TYPICAL PROFILE**

**THERE SHALL BE NO GRADING,  
CUTTING, LOGGING OR OTHER SOIL  
DISTURBANCE IN SEPTIC AREA**

0-18 LS  
18-38 CL  
38 10YR 6/2

HEALTH DEPARTMENT USE ONLY.  
DESIGNS DO NOT GURANTEE FUNCTIONALITY

0-14 LS  
14-34 CL  
34 10YR 6/2

**SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC.**  
**RESIDENTIAL PRESSURE MANIFOLD DESIGN**

Permit # Ducks Landing Lot 96

# of BDR: 4      Daily Flow: 480 gal/day      L.T.A.R.: 0.4000 gal/day/sq.ft

Septic Tank: 1000 gals      Pump Tank: 1000 gals      Sq. Foot: 900      System Type: Accepted

**Number of Taps:** 5      **Length of Trenches:** 300      **ft(See Tap Chart for Details)**

Depth of Trenches: 22 in                      Manifold Length: 48 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing 1 side(s) of manifold

pply Line: length: 200 ft Diameter: 2 in sch 40pvc

ction Loss + Fitting Loss: 4.77 ft(supply line length + 70' for fittings in pump tank)

Sign Head: 2 ft Elevation Head: 11.60 ft

**tal Head:** 18.37 ft **Pump to Deliver:** 27.40 gals/min at 18.37 ft head

Using Volume: 129 gals,

awdown: 129 gals divided by  $\frac{20}{\text{gals/in}}$  =  $\frac{6.4}{\text{inches}}$

Complex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined type of pump tank used. A septic tank filter is required.

## TAP CHART

[illegible]

**SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC.**  
**PRESSURE MANIFOLD DESIGN - REPAIR SYSTEM**

# of BDR: 4      Daily Flow: 480 gal/day      L.T.A.R.: 0.4000 gal/day/sq.ft

Septic Tank: 1000 gals      Pump Tank: 1000 gals      Sq. Foot: 720      System Type: PPBPS-Horizontal

**Number of Taps:** 4      **Length of Trenches:** 240 ft(See Tap Chart for Details)

**Depth of Trenches:** 22 in **Manifold Length:** 42 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 200 ft Diameter: 2 in sch 40pvc

**Friction Loss + Fitting Loss:** 4.77 ft(supply line length + 70' for fittings in pump tank)

**Design Head:** 2 ft      **Elevation Head:** 8.40 ft

**Total Head:** 15.17 ft      **Pump to Deliver:** 27.40 gals/min at 15.17 ft head

Dosing Volume: 202 gals,

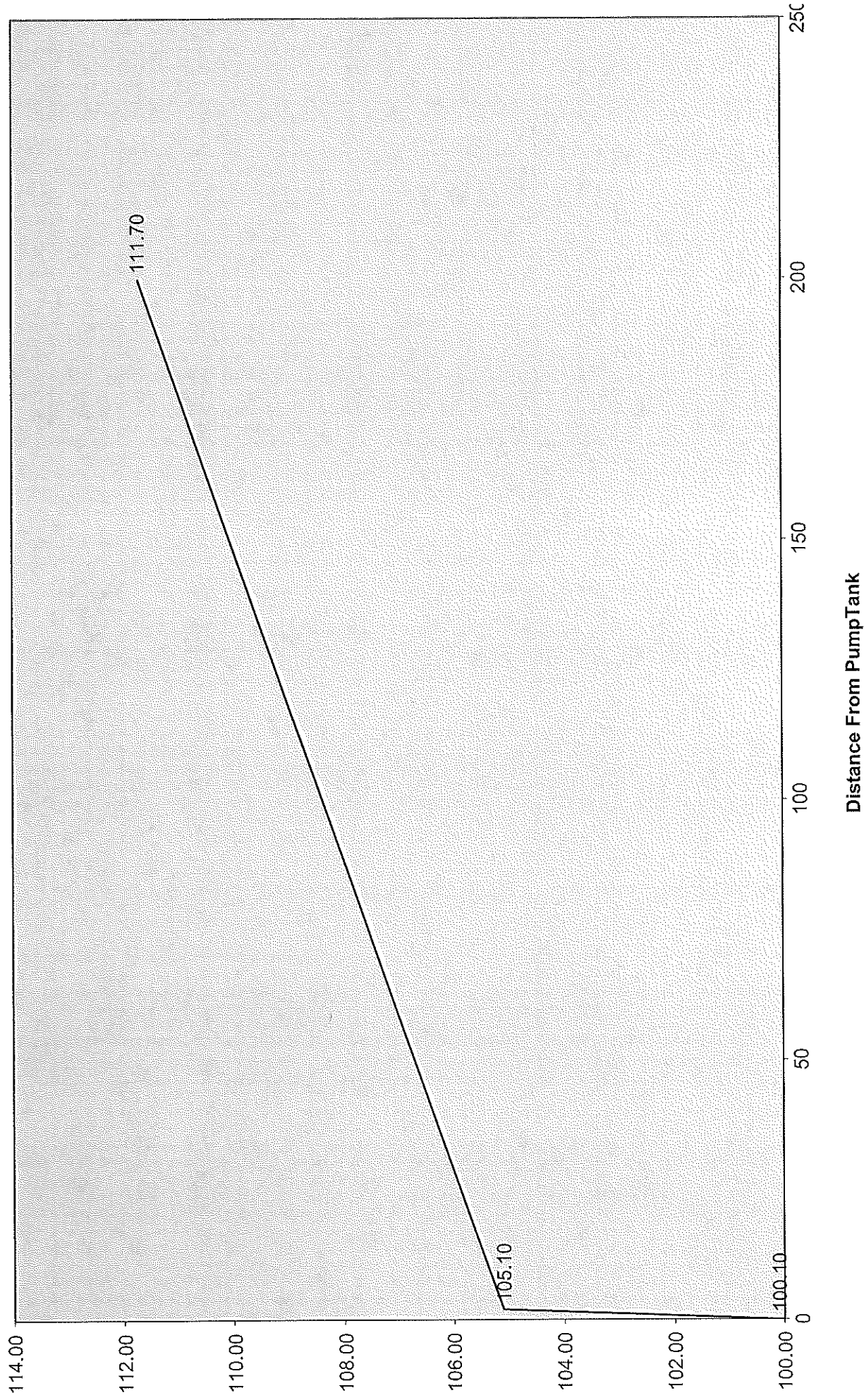
**Drawdown:** 202 gals divided by  $\frac{20}{\text{gals/in}}$  = 10.1 inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

## TAP CHART

[illegible]

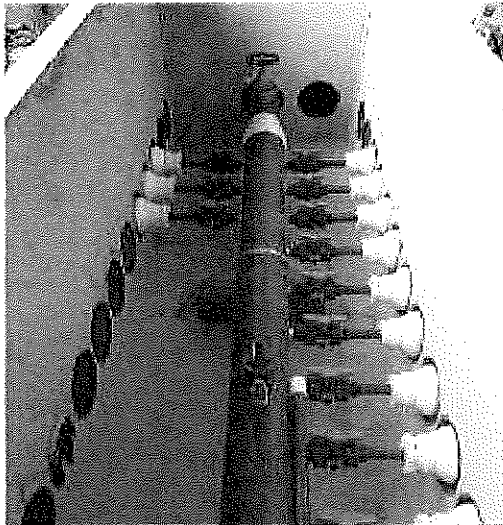
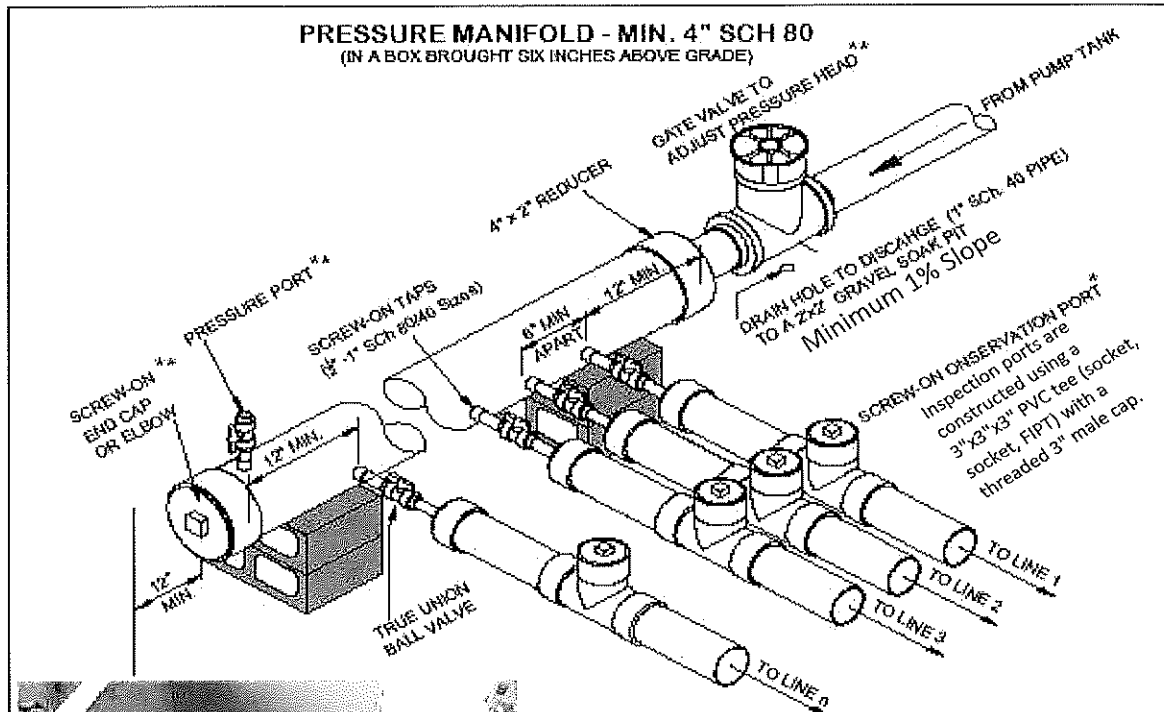
Hydraulic Profile





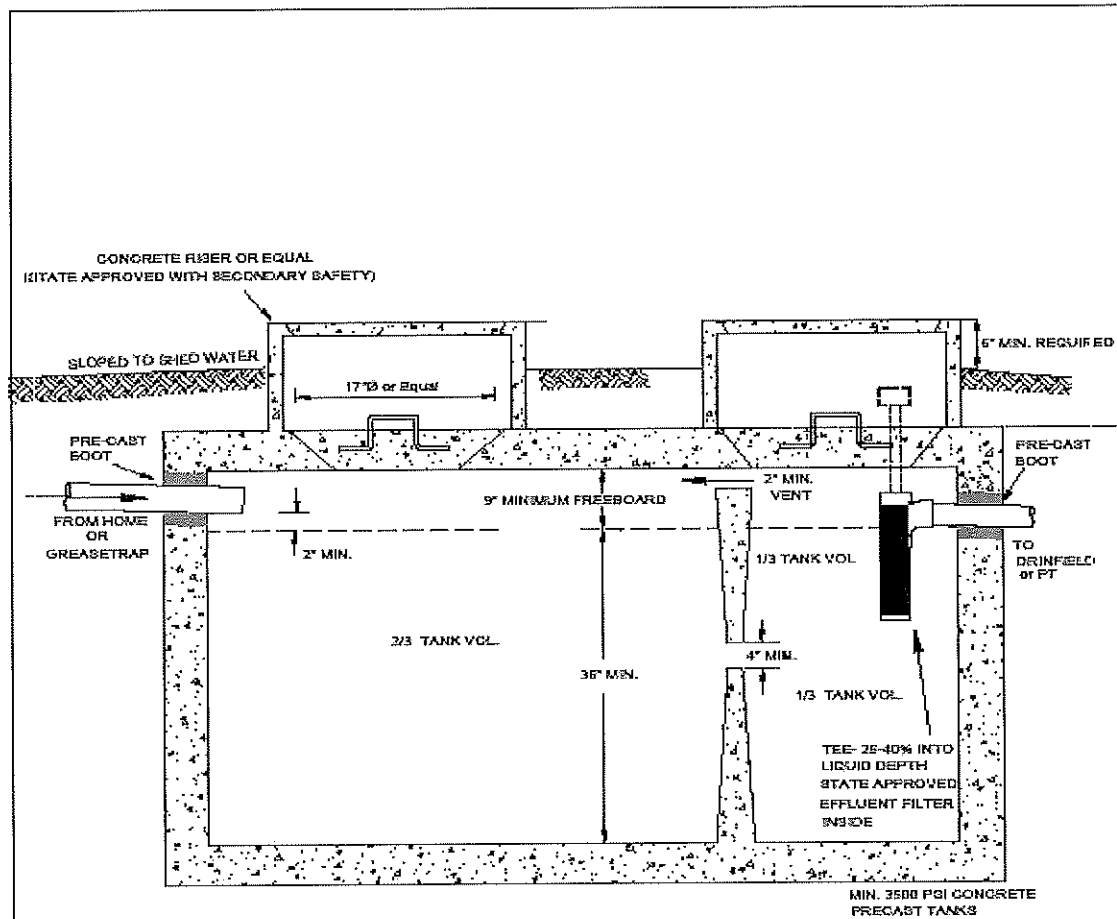
# PM Draw

	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6	Line 7	Line 8	Line 9	Line 10
<b>Taps</b>	1/2in SCH 80	1/2in SCH 80	1/2in SCH 80	1/2in SCH 80	1/2in SCH 80					
<b>Flow</b>	5.48	5.48	5.48	5.48	5.48	0	0	0	0	0



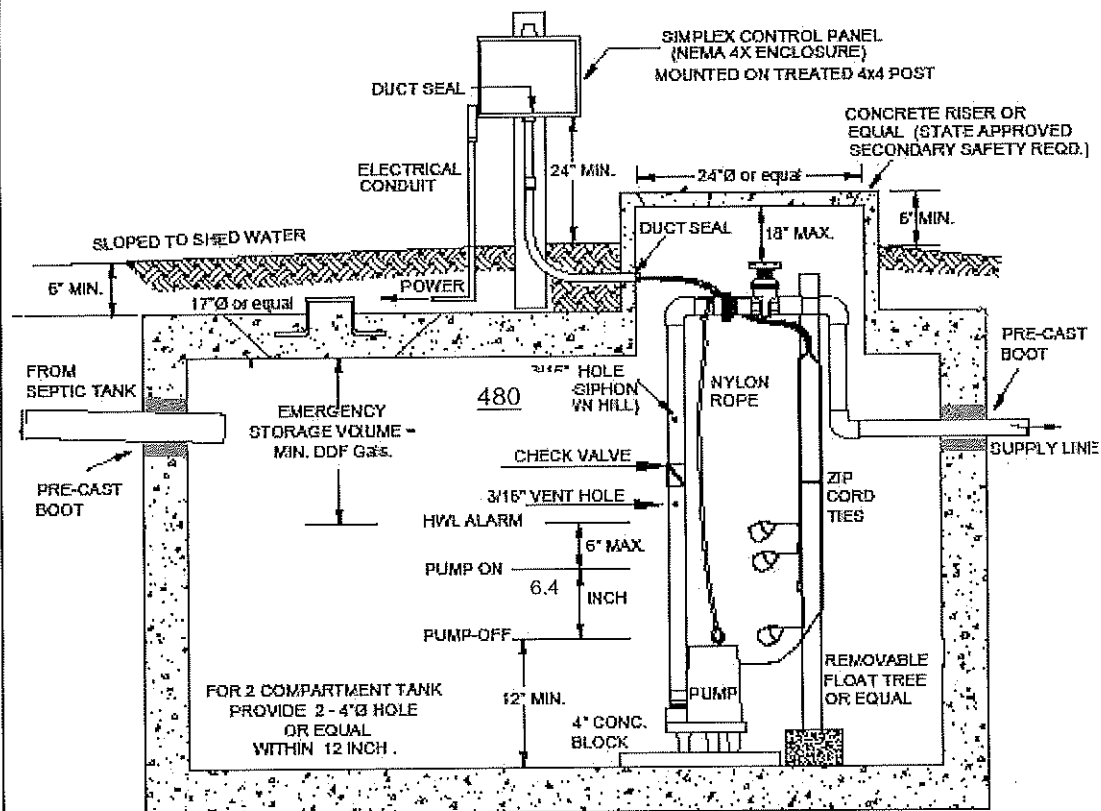
- \*\* MAY BE LOCATED INSIDE OR OUTSIDE MANIFOLD BOX. WHEN LOCATED OUTSIDE VALVE BOX IS REQUIRED.
- \* MAY BE INSIDE BOX OR IF OUTSIDE, BRING 6" ABOVE GRADE

LINE #	TAPS	LENGTH
1	1/2in SCH 80	60
2	1/2in SCH 80	60
3	1/2in SCH 80	60
4	1/2in SCH 80	60
5	1/2in SCH 80	60



1000 Gallon (Min.)

STATE APPROVED SEPTIC TANK WITH A STB NUMBER  
(TRAFFIC RATED TANK REQUIRED FOR > 3' BURIAL)



1000 GALLON (Min.)

STATE APPROVED PUMP TANK WITH A PT NUMBER  
(TRAFFIC RATED TANK REQUIRED FOR > 3' BURIAL)

## PUMP CURVE AND SPECIFICATIONS

### Pump and Control Panel Specification Required:

Pump:

Pump to be UL or equal listed

TDH and Pumping rate calcs & curve

Dose volume

3 floats system in a float tree or bracket of non-corrosive material

Highwater alarm within 6" from "on" float

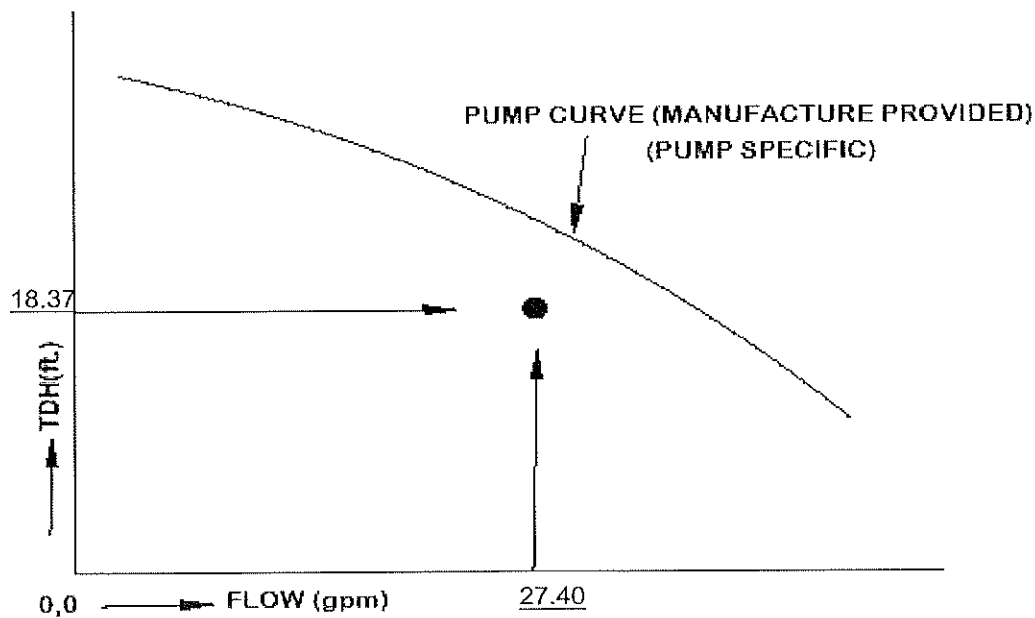
Off float at min. 12" from bottom of tank or to submerge pump

(Manufacture may certify/specify pumps suitability taller than 12" if unsubmerged)

Supply Line Profile when variation in ground profile of more than 5'

Effluent Pump should handle min. 1/2 "solids"

Gate valve, true union disconnect and connection inside tank reachable within 16" from riser top



### Control Panel Specifications:

Installed within 2 ft. and min. 16" above final grade to bottom of panel box

HOA switch provided

NEMA 4X box

Cycle counter & elapsed time meter

Alarm (audible/visible)

Separate circuits for alarm and pumps

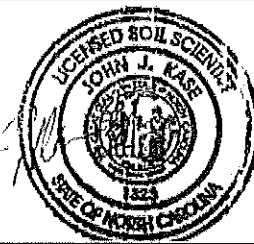
High voltage protection

Pump Pull Rope/chain (non-corrosive)

All duct sealed, no splices or junction boxes inside tanks

3/16th inch hole between Check valve (in vertical pipe) and pump

SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC.			SOIL/SITE EVALUATION SHEET				Sheet #:		1			
OWNER/APP. NAME:		JSJ Builders Inc.			SUBDIV./LOT#		Ducks Landing Lot 96					
LOCATION OF SITE:		293 Black Duck Lane, Lillington										
COUNTY:		Harnett		PROPERTY ID #:		#010527001251		DATE EVALUATED:		5/29/2025		
PROPOSED FACILITY:		SFR		PROPOSED DESIGN FLOW (.0400):		480 GPD		PROPERTY SIZE		0.46 ac		
WATER SUPPLY:		Public			WATER SUPPLY SETBACK:		10'					
TYPE OF WASTEWATER:			Domestic			EVALUATION METHOD:			Auger			
P R O F I L E  #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR			
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ				
1	L	0-18	LS - GR	VFR/NS/NP					NOT OBSER VED	NOT OBSER VED	S - 0.4	
	5%	18-38	CL-SBK	FRIABLE/SS/P								
	.0502(d) SLOPE CORRECTION	38	CL-SBK	FRIABLE/SS/P	10YR7/2							
	1.8"											
2	L	0-20	LS - GR	VFR/NS/NP					N.O.	N.O.	S - 0.4	
	5%	20-36	CL - SBK	FR/SS/P								
	.0502(d) SLOPE CORRECTION	36	CL-SBK	FRIABLE/SS/P	10YR7/2							
	1.8"											
3	L	0-14	LS - GR	VFR/NS/NP					48	N.O.	N.O.	S-0.4
	5%	14-34	CL - SBK	FR/SS/P								
	.0502(d) SLOPE CORRECTION	34	CL-SBK	FR/SS/P	10YR7/2							
	1.8"											
4	L	0-34	LS - GR	VFR/NS/NP					48	N.O.	N.O.	S-0.5
	5%	34-48	CL - SBK	FR/SS/P								
	.0502(d) SLOPE CORRECTION											
	1.8"											
DESCRIPTION:		INITIAL SYSTEM		REPAIR SYSTEM		SITE CLASSIFICATION (.0509):		Suitable				
Available Space		Suitable		Suitable		EVALUATED BY:		John Kase				
System Type(s):		25% Reduction		PPBPS - Hor.		OTHER(S) PRESENT:						
Site LTAR:		0.400		0.400								
Maximum Trench		22"		22"								
Saprolite System:		No		No								
Comments:		Trench bottoms depth measure on downslope side of trench..										









**Travelers 1st Choice+®**

**DESIGN PROFESSIONALS LIABILITY COVERAGE  
DECLARATIONS**

POLICY NO. 108040737

**Travelers Casualty and Surety Company of America**  
**Hartford, Connecticut**  
(A Stock Insurance Company, herein called the Company)

**Important note: This is a claims-made policy. To be covered, a claim must be first made against an insured during the policy period or any applicable extended reporting period.**

This policy is composed of the Declarations, the Professional Liability Coverage, the Professional Liability Terms and Conditions, and any endorsements attached thereto.

<b>ITEM 1</b>	<b>NAMED INSURED:</b> SOUTHEASTERN SOIL AND ENVIRONMENTAL ASSOCIATES  DBA:  Principal Address: PO BOX 9321 FAYETTEVILLE, NC 28311-9084
<b>ITEM 2</b>	<b>POLICY PERIOD:</b> Inception Date: May 1, 2025                      Expiration Date: May 1, 2026 12:01 A.M. standard time both dates at the Principal Address stated in ITEM 1.
<b>ITEM 3</b>	ALL NOTICES PURSUANT TO THE POLICY MUST BE SENT TO THE COMPANY BY EMAIL, FACSIMILE, OR MAIL AS SET FORTH BELOW:  Email: BSIclaims@travelers.com Fax: 1-888-460-6622  Mail: Travelers Bond & Specialty Insurance Claim P.O. Box 2989 Hartford, CT 06104-2989  Overnight Mail: Travelers Bond & Specialty Insurance Claim One Tower Square, MN06 Hartford, CT 06183  For questions related to claim reporting or handling, please call 1-800-842-8496.



