

County: _____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: _____

Issued To: _____

Property Location: _____

Subdivision: _____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes No

If yes, name and license number of LSS: _____

New Repair Expansion System Relocation

Proposed Structure: _____

Proposed Wastewater System Type: _____ (Initial) _____ (Repair)

Fill System: Yes No If yes, specify: New Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: _____ GPD Proposed LTAR (Initial): _____ Proposed LTAR (Repair): _____

Design Wastewater Strength: domestic high strength industrial process

Number of bedrooms: _____ Number of Occupants: _____ Other: _____

Pump Required: Yes No May be required based upon final location and elevations of facilities

Artificial Drainage Required: Yes No If yes, please specify details: _____

Type of Water Supply: Private well Public well Municipal Supply Spring Other: _____

Drainfield location meets requirements of Rule .1945: Yes No

Drainfield location meets requirements of Rule .1950: Yes No

Permit valid for: Five years [site plan submitted pursuant to GS 130A-334(13a)] No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: _____

Licensed Soil Scientist Signature: Alex Adams Date: _____

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

County: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

Permit Number: _____

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date of Issuance: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

See attached site sketch

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: _____

Issued To: _____

Property Location: _____

AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE: _____

Facility Type: _____

New Expansion Repair System Relocation
Basement? Yes No Basement Fixtures? Yes No

Type of Wastewater System** _____ (Initial) _____ (Repair)

Design Daily Flow: _____ GPD Wastewater Strength: domestic high strength industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? Yes No

Installation Requirements/Conditions

Septic Tank Size: _____ gallons Total Trench/Bed Length: _____ feet Trench/Bed Spacing: _____ feet on center

Drainfield square footage: _____ Trench/Bed Width: _____ inches LTAR: _____ gpd/ft²

Soil Cover: _____ inches Slope Adjusted Maximum Trench/Bed Depth: _____ inches

Aggregate Depth: _____ inches above pipe _____ inches below pipe _____ inches total

Pump Tank Size (if applicable): _____ gallons Requires more than 1 pump? Yes No

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: Serial D-Box or Parallel Pressure Manifold(s) LPP Other: _____

Artificial Drainage Required: Yes No If yes, please specify details: _____

Legal Agreements (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)

Multi-party Agreement Required [.1937(h)]: Yes No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: Yes No

Declaration of Restrictive Covenants: Yes No

<p>**If applicable: <i>I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.</i></p> <p>Owner/Legal Representative Print Name: _____</p> <p>Owner/Legal Representative Signature: _____ Date: _____</p>

Pre-Construction Conference Required: Yes No

Conditions: _____

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Alex Adams

AOWE/PE Signature: Alex Adams Date: _____

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

County: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date Initials

Permit Number: _____

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

Copies of this were sent to the AOWE/PE and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____
Date

State Authorized Agent: _____ Date: _____

Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

Adams Soil Consulting, PLLC
1676 Mitchell Road
Angier, NC 27501
919-414-6761
alexadams@bcsoil.com

June 22, 2023
Project #1236

“The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3).”

“The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335 (a2), (a5), and (a6)”

“This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).”

RE: 190 Black Creek Drive, Lillington. NC (Harnett County) for DR Horton Homes

To whom it may concern:

Adams Soil Consulting (ASC) conducted a preliminary soil evaluation on the above referenced parcel to determine the areas of soils which are suitable for subsurface wastewater disposal systems (conventional & LPP). The soil/site evaluation was performed using hand auger borings during moist soil conditions based on the criteria found in the State Subsurface Rules, 15ANCAC 18A .1900 “Laws and Rules for Sewage Treatment and Disposal Systems”. From this evaluation, ASC is providing the attached 4-bedroom septic design.

The suitable soils found on the subject property were relatively consistent in the initial and repair areas. The area designated for the initial/primary septic system (see attached septic plan) was found to contain soils with greater than 24 inches in depth before a restrictive horizon was encountered.

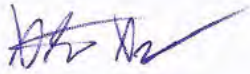
Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary septic field and repair area are provided. A location sketch for profile descriptions is also attached. The initial and primary septic fields were sized based on a flow rate of 480 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair locations. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and local county regulations for septic system installation. The trenches must be installed in the same location as the site plan. If the installation is in question at the time of installation call me (Alex Adams) at 919-414-6761.

This report discusses the location of provisionally suitable soils identified on the property and does not guarantee the future function of any waste water disposal system installed.

If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me anytime.

Sincerely,



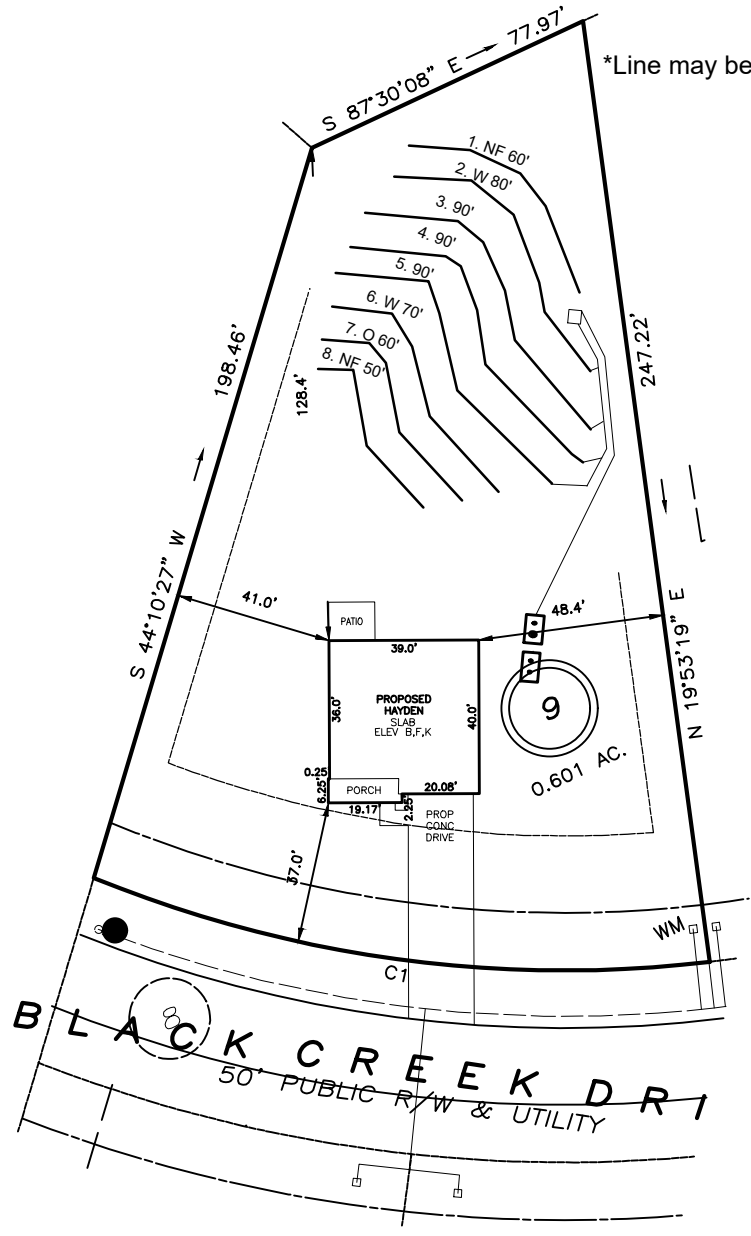
Alex Adams
NC Licensed Soil Scientist #1247
AOWE Certification: 10021E



McKay Place- Lot #9
 4-Bedroom - Septic Design
 190 Black Creek Dr. - Lillington, NC
 DR Horton
 Harnett County PIN: 0528-66-5386

*Not a Survey
 Sketched from a plot plan supplied by owner

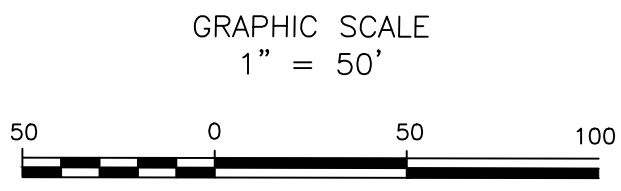
*Line may be flagged longer on the lot than required for installation.



System: Pressure Manifold
 Lines: 2-5 (355')
 0.35 LTAR
 20" Max Trench Bottom
 Accepted Status System
 Repair: Pressure Manifold
 Lines: 1, 6-8 (240')
 0.35 LTAR
 20" Max Trench Bottom
 T&J Panel Block - 50 Reduction System

**1000 Gallon Septic and Pump Tank
 Tank and trenches to be located minimum of 10'
 from any property line and minimum of 5'
 from any building foundation.
 *Do Not Cut, Fill, or Alter Drainfield or Repair Area
 *Comply with all setbacks
 *Contact local health dept. and/or Alex Adams prior to
 or during installation with any questions or concerns.

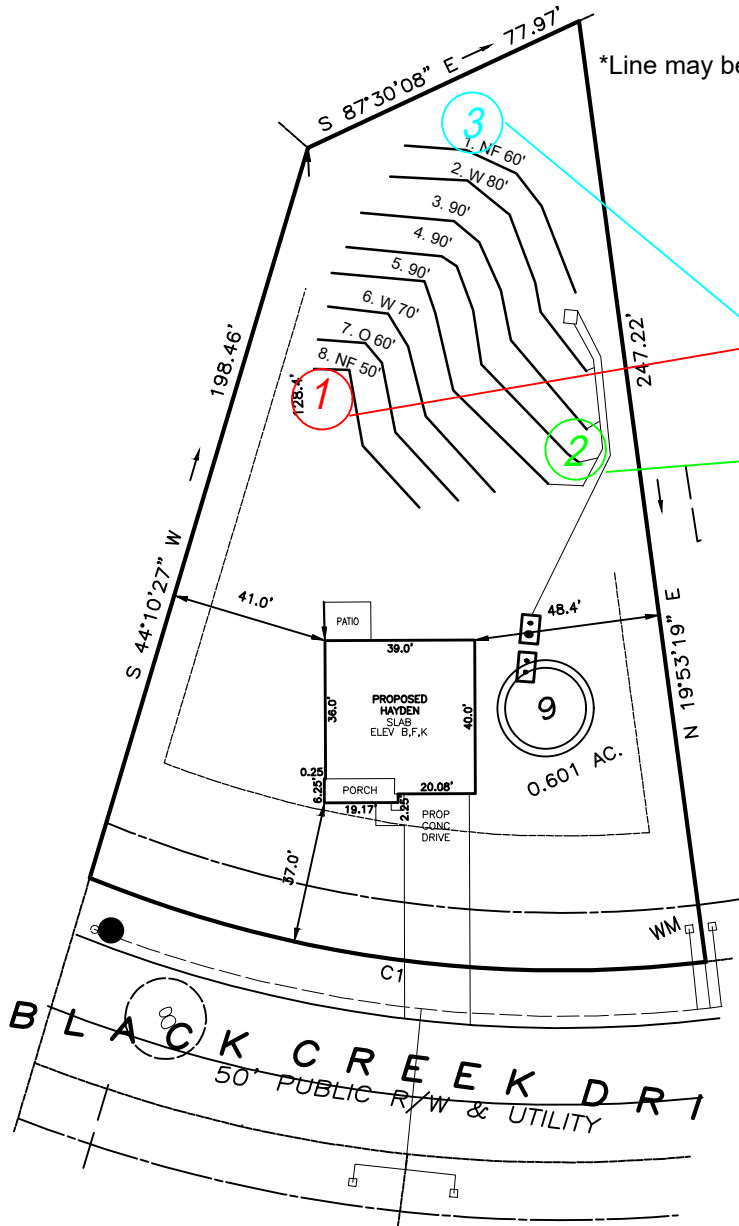
Adams
 Soil Consulting
 919-414-6761
 Job #1236



McKay Place- Lot #9
 Soil Boring Map
 190 Black Creek Dr. - Lillington, NC
 DR Horton
 Harnett County PIN: 0528-66-5386

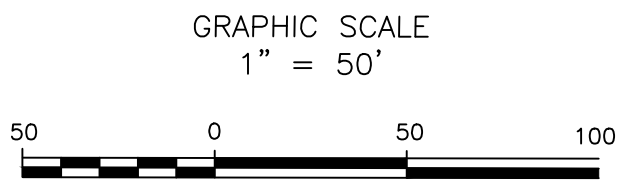
*Not a Survey
 Sketched from a plot plan supplied by owner

*Line may be flagged longer on the lot than required for installation.



- 1 Profile Description #1
 See Soil/Site Evaluation Data Form
- 2 Profile Description #2
 See Soil/Site Evaluation Data Form
- 3 Profile Description #3
 See Soil/Site Evaluation Data Form

Adams
 Soil Consulting
 919-414-6761
 Job #1236



RESIDENTIAL PRESSURE MANIFOLD DESIGN

Name: **DR Horton** 190 Black Creek Drive

of BDR: **4** Daily Flow: **480** gal/day L.T.A.R.: **0.3500** gal/day/sq.ft

Septic Tank: **1200** gals Pump Tank: **1200** gals Sq. Foot: **1050** System Type: **Accepted**

Number of Taps: **4** Length of Trenches: **350** ft(See Tap Chart for Details)

Depth of Trenches: **20" max** in Manifold Length: **42** in

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

Supply Line: length: **60** ft Diameter: **2** in sch 40pvc

Friction Loss + Fitting Loss: **2.20** ft(supply line length + 70' for fittings in pump tank)

Design Head: **2** ft Elevation Head: **10.00** ft

Total Head: **14.20** ft Pump to Deliver: **26.81** gals/min at **14.20** ft head

Dosing Volume: **171** gals,

Drawdown: **171** gals divided by **19.65** gals/in = **8.7** 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

Benchmark	0	is = 100.00	set at			Design Head:	2						
Pump tank elev.	10	90.00	Pump elev.	85.00	Manifold elev.	95.00							
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)	Spacing of Panels (in)		
2		6.00	94.00	80	1/2in SCH 40	5.48	98.11	240	0.4088				
3		6.30	93.70	90	1/2in SCH 40	7.11	127.30	270	0.4715				
4		6.60	93.40	90	1/2in SCH 40	7.11	127.30	270	0.4715				
5		7.00	93.00	90	1/2in SCH 40	7.11	127.30	270	0.4715				

Total Feet = **350** gal/min = **26.81**
 Feet Required = **343** Velocity = **2.56**

LTAR = **0.3500**
 (ltar + 5%) **0.3675**
 (ltar w/25% red) **0.4667**
 (ltar + 5%) **0.4900**

Total # of Panels (PPBPS)

% of Dose Vol. **75**

Dose Volume **171**

Dose Pump Time **6.36**

Drawdown in Inches **8.7**

Comments:

Des. Flow **480**

Pump Run= **17.90**

Tank Gal/IN **19.65**

Elev. Head **10.00**

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

OWNER: DR Horton

APPLICATION DATE:

ADDRESS: 190 Black Creek Drive, Lillington

DATE EVALUATED: 6-15-23

PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 480gpd

PROPERTY SIZE: ~0.6 acres

LOCATION OF SITE: 190 Black Creek Drive – Lillington, NC

WATER SUPPLY: Public Water

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/3%	0-22	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/0.35-0.4
		22-40	SBK/SCL	FI/SEXP/SS					
2	Linear Slope/3%	0-26	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/0.35-0.4
		26-40	SBK/CL	FI/SEXP/SS					
3	Linear Slope/3%	0-30	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/0.35-0.4
		30-40	SBK/CL	FI/SEXP/SS					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): SITE CLASSIFICATION (.1948): PS EVALUATED BY: A. Adams OTHER(S) PRESENT:
Available Space (.1945)	>5,000 ft ²	>5,000 ft ²	
System Type(s)	Type III (g)	Type III (g)	
Site LTAR	0.35	0.35	

COMMENTS:



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/7/2023

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).

PRODUCER Wade Associates, LLC 250 Pollock St. New Bern NC 28560	CONTACT NAME: Angela Sensenig PHONE (A/C, No, Ext): (252) 631-5269 E-MAIL ADDRESS: asensenig@wadeict.com	FAX (A/C, No): (252) 649-2443
	INSURER(S) AFFORDING COVERAGE	
INSURED Alex Adams, DBA: Adams Soil Consulting 1676 Mitchell Rd. Angier NC 27501	INSURER A: Markel Insurance Company	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 23-24 Master

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	
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE	\$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
							MED EXP (Any one person)	\$
							PERSONAL & ADV INJURY	\$
							GENERAL AGGREGATE	\$
							PRODUCTS - COMP/OP AGG	\$
								\$
	AUTOMOBILE LIABILITY <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)	\$
								\$
	UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE	\$
							AGGREGATE	\$
								\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
							E.L. DISEASE - POLICY LIMIT	\$
A	Errors & Omissions			ME011181	1/31/2023	1/31/2024	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

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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

© 1988-2014 ACORD CORPORATION. All rights reserved.