

**Carolina Drilling, Inc.**  
326 Railroad St.  
Mocksville, NC 27028

**April 4, 2025**

**Customer:** Baxter Johnson

**Project:** Providence Creek

**Description:** Drilling and Blasting of mass rock

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## **Safety Procedures for Blasts**

All operations involving the transportation, handling, and loading of explosives will adhere to applicable industry standards and regulations as defined by relevant city, county, state, or federal agencies. Blasting will be conducted in compliance with all safety protocols, including, but not limited to: clearing the blast zone, securing the blast area, and controlling vehicular and pedestrian traffic. No explosives will be stored on site.

## **Test Blasts**

Initial blasts will be considered test blasts. The effects of these blasts will be monitored and analyzed to determine if adjustments to the blast design are needed. Ongoing evaluation of monitoring data will guide any necessary revisions to the blast design throughout the blasting phase.

## **Blast Site Dimensions**

Each blast will involve approximately 20-300 holes. The depth of the rock ranges from 5-20 feet. Approximately 20,000 cubic yards of material is expected to be blasted for this project.

## **Drill Pattern**

The proposed drill pattern involves 3.5 inch diameter boreholes with a 6x6 to 8x8 foot pattern.

## **Blasts Required**

The project will require several blasts over a period of a few months.

## **Explosives Loading & Initiation**

Explosives used will include Riohit 250MS 2.5" x 7 or 3" x 11, Dyno Unimax 2 x 16, and ANFO for the main charges in each borehole, initiated with a suitable detonating booster charge which is typically Trojan Cast Boosters or Unimax 1 inch dynamite. Main charges will weigh

approximately 2.5 to 3.5 pounds per foot, with the total charge per hole determined by proximity to nearest dwellings, site-specific conditions, and borehole depth. Booster charges may include cast boosters or other cap-sensitive charges, as chosen by the blaster in charge. The delay system will be Zipdet DD 25/500 with a 25 ms sequence, and the maximum amount of explosives per delay period will be 50 lbs.

The project is expected to use 35,000 lbs. of explosives, with each delay utilizing between 10 and 50 lbs of explosives, depending on proximity to dwellings and hole depths. Sufficient inert stemming material will be loaded at the top of each borehole, starting below the depth of competent rock. Stemming height will be determined by the blaster's judgment and site-specific conditions.

## **Ground Control**

All blasts shall have sufficient cover of natural soil materials to prevent excessive movement of material from the blast zone or project site. Sufficient cover will be determined by the experience and judgment of the blaster in charge. The overburden on this project is 0-10 feet. The blaster will include in their consideration such factors as rock type, geologic conditions, borehole depth, charge weight, and any other relevant, site-specific conditions for each shot. If the blaster in charge determines there is not sufficient natural cover, additional soil should be placed atop the blast zone according to the blaster's instructions. In certain circumstances, artificial matting could be required, also according to the blaster's determination.

## **Monitoring Blast Effects**

Seismic monitoring will be conducted by an independent third party, S&ME.

## **Blast Warning Signals**

- Three long horn blasts, five minutes prior to the blast.
- Two short horn blasts, one minute before the blast.
- One long horn blast, for all clear after the blast.

## **Blast Records**

Records of each blast will include the date, time, location, total amount of explosives, maximum explosive charge weight per delay, and seismograph records (where applicable), identified by instrument number and location. These records will be maintained at Carolina Drilling, Inc., 326 Railroad St., Mocksville, NC 27028.

U.S. Department of Justice  
Bureau of Alcohol, Tobacco, Firearms and Explosives

**Federal Explosives License/Permit**  
**(18 U.S.C. Chapter 40)**

In accordance with the provisions of Title XI, Organized Crime Control Act of 1970, and the regulations issued thereunder (27 CFR Part 555), you may engage in the activity specified in this license or permit within the limitations of Chapter 40, Title 18, United States Code and the regulations issued thereunder, until the expiration date shown. **THIS LICENSE IS NOT TRANSFERABLE UNDER 27 CFR 555.53.** See "WARNINGS" and "NOTICES" on reverse.

Direct ATF      ATF - Chief, FELC  
Correspondence To      244 Needy Road  
                                 Martinsburg, WV 25405-9431

License/Permit  
Number

**1-NC-059-33-7D-00404**

Chief, Federal Explosives Licensing Center (FELC)

Expiration  
Date

**April 1, 2027**

Name

CAROLINA DRILLING INC

Premises Address (Changes? Notify the FELC at least 10 days before the move.)

**326 RAILROAD ST  
MOCKSVILLE, NC 27028-**

Type of License or Permit

**33-USER OF EXPLOSIVES**

Purchasing Certification Statement

The licensee or permittee named above shall use a copy of this license or permit to assist a transferor of explosives to verify the identity and the licensed status of the licensee or permittee as provided by 27 CFR Part 555. The signature on each copy must be an original signature. A faxed, scanned or e-mailed copy of the license or permit with a signature intended to be an original signature is acceptable. The signature must be that of the Federal Explosives Licensee (FEL) or a responsible person of the FEL. I certify that this is a true copy of a license or permit issued to the licensee or permittee named above to engage in the business or operations specified above under "Type of License or Permit."

Mailing Address (Changes? Notify the FELC of any changes.)

CAROLINA DRILLING, INC  
326 RAILROAD ST  
MOCKSVILLE, NC 27028-

Licensee/Permittee Responsible Person Signature

*Isaac E. Tuttle*

*President*

Position/Title

*3126124*