

**DOCUMENT 00910**

**ADDENDUM NUMBER 2**

DATE: April 9, 2020  
PROJECT: Headworks Improvements  
PROJECT NUMBER: R906819690  
OWNER: Hartselle Utilities  
ENGINEER: CDG Engineers & Associates, Inc.  
170 East Main Street  
Dothan, Alabama 36301  
TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated March 10, 2020.

Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of four (4) pages.

**CHANGES TO THE CONTRACT DOCUMENTS AND SPECIFICATIONS**

**DOCUMENT 02300 – EARTHWORK**

1. Delete Part 1 – General Item 1.7 Project Conditions Item C and replace with the following:

“C. Use of Explosives: Use of explosives is **not permitted.**”

**DOCUMENT 02316 – ROCK REMOVAL**

1. Add attached Section 02316 – Rock Removal.

ISSUED THIS 9<sup>th</sup> DAY OF APRIL 2020.



Carmen D. Chosie, P.E.  
Project Manager

END OF DOCUMENT

**SECTION 02316**  
**ROCK REMOVAL**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Removing discovered rock during excavation.
  - 2. Expansive tools and Explosives to assist rock removal.
- B. Related Sections:
  - 1. Drawings and general provisions of the Contract including General and Supplemental General Conditions, and Technical Specifications.

1.2 REFERENCES

- A. National Fire Protection Association:
  - 1. NFPA 495 - Explosive Materials Code.

1.3 DEFINITIONS

- A. Rock: Solid mineral material of size that cannot be removed with 12 metric ton excavator.

1.4 SUBMITTALS

- A. Section 01330 - Submittal Procedures.
- B. Shop Drawings: Indicate proposed method of blasting, delay pattern, explosive types, type of blasting mat or cover, and intended rock removal method.
- C. Survey Report: Submit survey report on conditions of buildings near locations of rock removal.

1.5 QUALITY ASSURANCE

- A. Seismic Survey Firm: Licensed company specializing in seismic surveys with five years documented experience.
- B. Explosives Firm: Company specializing in explosives for disintegration of rock, with five years documented experience.

1.6 PROJECT CONDITIONS

- A. Conduct survey and document conditions of buildings near locations of rock removal, prior to blasting, and photograph existing conditions identifying existing irregularities.

- B. Advise owners of adjacent buildings or structures in writing, prior to executing seismicographic survey. Explain planned blasting and seismic operations.
- C. Obtain seismic survey prior to rock excavation to determine maximum charges that can be used at different locations in area of excavation without damaging adjacent properties or other work.

#### 1.7 SCHEDULING

- A. Section 01300 - Administrative Requirements.
- B. Schedule Work to avoid disruption to occupied buildings nearby.
- C. Conduct blasting operations between hours of 8:00 AM and 4:00 PM only.

### **PART 2 PRODUCTS**

#### 2.1 MATERIALS – **Not Applicable**

- A. Explosives: Type recommended by explosive firm following seismic survey and required by authorities having jurisdiction.
- B. Delay Device: Type recommended by explosives firm.
- C. Blast Mat Materials: Type recommended by explosives firm.

### **PART 3 EXECUTION**

#### 3.1 EXAMINATION

- A. Section 01300 - Administrative Requirements.
- B. Verify site conditions and note subsurface irregularities affecting Work of this section.

#### 3.2 PREPARATION

- A. Rock excavation shall be performed by mechanical methods, such as jack hammers, rippers, hydraulic hammers, or other approved methods. Use blasting to remove massive, unrippable rock only when approved by the Engineer.
- B. Identify required lines, levels, contours, and datum.

#### 3.3 ROCK REMOVAL BY MECHANICAL METHOD

- A. Excavate and remove rock by mechanical method.
  - 1. Drill holes and use expansive tools, wedges or mechanical disintegration compound to fracture rock.
- B. Cut away rock at bottom of excavation to form level bearing.

- C. Remove shaled layers to provide sound and unshattered base for footings.
- D. In utility trenches, excavate to 6 inches below invert elevation of pipe and 24 inches wider than pipe diameter.
- E. Correct unauthorized rock removal in accordance with backfilling and compacting requirements of Section 02300 or as directed by Engineer.

3.4 **ROCK REMOVAL BY EXPLOSIVE METHODS – Not Applicable**

- A. When rock is uncovered requiring explosives method for rock disintegration, notify Engineer.
- B. Provide seismographic monitoring during progress of blasting operations.
- C. Disintegrate rock and remove from excavation.
- D. Remove rock at excavation bottom to form level, intact rock surface.
- E. Remove shaled layers to provide sound and unshattered base for footings.
- F. In utility trenches, excavate to 6 inches below invert elevation of pipe and 24 inches wider than pipe diameter.
- G. Footing excavations designed to bear on soil shall be overexcavated 12 inches and backfilled with compacted, engineered soil fill.
- H. Blasting can create zones of broken and disturbed rock below the planned level of excavation. Correct overshoot rock removal in accordance with backfilling and compacting requirements of Section 02300.

3.5 **FIELD QUALITY CONTROL**

- A. Section 01400 - Quality Requirements.
- B. Excavated rock may not be reused as fill on the site unless expressly authorized by the Engineer. Remove excavated material from site.

END OF SECTION