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ADDENDUM NO. 1

TO: ALL PLAN HOLDERS

RE: FILTER MEDIA REPLACEMENT – CITY OF MAGNOLIA

ADDENDUM DATE: May 19, 2025

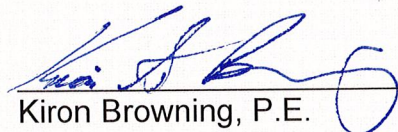
The Plans, Specifications and Contract Documents for the above referenced project are hereby modified as follows:

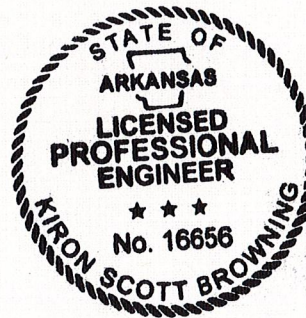
Clarification:

The attached specification, M5 – Filter Media, shall be the specification used when replacing media on the existing filter blocks. This specification should be followed when bidding deductive alternate #1 – Item 3.

ADDENDUM NO. 1 ISSUED BY:

A.L. FRANKS ENGINEERING


Kiron Browning, P.E.
Project Manager



TECHNICAL SPECIFICATIONS

SECTION M5 - FILTER MEDIA

1. GENERAL: Furnish and install, and test new filter media and gravel as indicated and specified. Filter media shall be provided for 2 filters with an area of 450 square feet each. The filters shall consist of 12 inches of support gravel and 30 of filter media, as indicated in Section 5, Equipment.

QUALITY ASSURANCE: The media shall be supplied by the same supplier as the filter blocks to insure unit responsibility.

2. EQUIPMENT DESIGNATION: The Filter Media shall be identified with the following designations:

FM 101 - Filter Media

3. PERFORMANCE REQUIREMENTS: The filter media shall meet the requirements of American Water Works Association Standard B100: "Standard for Filtering Media". All gravel and filter media shall be delivered in one cubic foot bags. The manufacturer and supplier shall provide a list of 10 successful installations of this size or larger on similar projects.

4. SUBMITTALS: The Contractor shall provide to the Engineer for approval, submittals showing full details of equipment settings.

The submittals shall be supported by such notes or written directions as may be necessary.

This submission shall be made as soon as feasible after award of the contract, and in any event, shall be submitted and approval obtained before beginning installation of the equipment. The Contractor shall furnish the Engineer with four (4) copies of the submittal as approved. He shall also provide approved copies sufficient for his own use.

The information required on the submittals shall include, but not necessarily be limited to the following:

- A. Full and complete Specifications covering the equipment proposed to be furnished.

- B. Detail drawings showing plan and elevation dimensions of the equipment proposed to be furnished.
- C. Such weights of the equipment as necessary including the heaviest piece to be handled during construction.
- D. Nearest location of factory maintenance and service facilities that will be available to service the equipment offered.
- E. Assembly, installation, and adjustment instructions.
- F. Warranty as herein specified.
- G. Performance test results as required herein.
- H. Furnish an Affidavit of Compliance from supplier stating that the filter media and gravel furnished comply with the requirements of the contract specifications.
- I. Furnish test data from a licensed and recognized "independent" laboratory detailing the following characteristics. Test data to be submitted in the form of shop drawings, and approved prior to the commencement of work.

-Supplier's Name

-Gradation

-Date of Sampling/Lot Number

-Complete Sieve Analysis of Representative Samples, i.e. effective size, uniformity coefficient, specific gravity, MOH hardness and acid solubility.

- J. All submittals and other information will be provided and approved by a licensed engineer regularly employed by the filter manufacturer. The Engineer shall have at least 15 years experience in water treatment and his resume shall be a part of the submittals. Failure to submit the above data shall be cause for rejection of the equipment offered for installation.

5. EQUIPMENT:

- A. The support gravel shall consist of a minimum of 12 inches of clean, hard, durable, rounded particles of high quality which shall meet or exceed the requirements of AWWA B100 and be consistent with the recommendations of the underdrain manufacturer. Gradation of support gravel shall be:

2" depth - $\frac{3}{4}$ " x $\frac{1}{2}$ " (top layer)

2" depth - $\frac{1}{2}$ " x $\frac{1}{8}$ "

2" depth - $\frac{1}{8}$ " x #10 Mesh (or) $\frac{1}{16}$ "

2" depth - $\frac{1}{8}$ " x $\frac{1}{4}$ "

2" depth - $\frac{1}{2}$ " x $\frac{1}{4}$ "

2" depth - $\frac{3}{4}$ " x $\frac{1}{2}$ " (bottom layer)

- B. Filter sand shall be composed of hard, durable, clean silicious particles, free of all mica with an average specific gravity of 2.6 and shall be in strict accordance with AWWA B100, and have an effective size of 0.45-0.55 mm, and a uniformity coefficient of 1.40 or less, for a finished depth after backwashing and scraping and removal of fines and debris of 12" inches.
- C. Filter anthracite shall be composed of specially selected and graded hard, durable anthracite coal particles. The anthracite shall have an average specific gravity of 1.60 with a hardness (MOH Scale) of 3.0 or more and shall be essentially free of iron, clay, shale, extraneous dirt, and excessive dust, and shall be in accordance with AWWA B100, and have an effective size of 0.95-1.05 mm, and a uniformity coefficient of 1.40 or less for a finished depth after backwashing and scraping and removal of fines and debris of 24" inches.

6. INSTALLATION: Marks to be placed on the side of the filter designating the top elevation of each layer. Carefully place each layer so as not to disturb the previous layers. Do not stand or walk directly upon the filter materials. Workers must stand or walk on boards which will sustain their weight without displacing the gravel and media.

Measure depth of each layer of media after it has been backwashed and skimmed as recommended by the manufacturer. Install all items in accordance with instructions of the manufacturer as indicated and specified, under the direct technical supervision of the manufacturer, and furnish a certificate detailing that the filtering materials have been installed in accordance with the manufacturer's instructions. After all work is completed and before the filter is placed in service, the Contractor will disinfect the entire filter by chlorination.

7. SERVICE: The manufacturer shall furnish the services of a competent Engineer to inspect the installation after the Contractor has it installed, and to assist with installation testing. After the system is ready to be placed into service, a final inspection shall be made and each filter given such running tests as the manufacturer's Engineer may designate to insure that the equipment is as specified. A representative of the manufacturer shall instruct operating personnel in the proper care and maintenance of the equipment at the time it is placed in operation. A written report covering the

Engineer's findings and installation and approval shall be submitted to the Engineer covering all inspections and outlining in detail all deficiencies noted.

8. WARRANTY: The manufacturer shall guarantee for one (1) year from the date of the Certificate of acceptance that the media will perform as expected without deterioration. A full written warranty shall be provided for this one year time period.
9. OPERATION AND MAINTENANCE MANUALS: Provide operation and maintenance manuals as outlined in SECTION M1 -GENERAL REQUIREMENTS FOR MECHANICAL EQUIPMENT of these Specifications.