

ADDENDUM NUMBER 4
TO THE CONTRACT DOCUMENTS

Date: December 7, 2018
Jacobs Project No.: 438920

for the **Duck River Reservoir Phase II – Raw Water Pump Station**

To All Plan Holders:

The following changes, additions, and/or deletions are hereby made part of the Contract Documents for the Duck River Reservoir Phase II – Raw Water Pump Station, dated July 2018, as fully and completely as if the same set forth fully therein:

Questions and Answers

The following questions were emailed to the engineer with Jacobs’ responses provided:

No.	Question	Answer
1	Could retrained epoxy coated couplings be used on some of the steel pipe instead of the welding?	No

Below are revisions to responses provided as part of Addendum No. 3 related to the steel pipe.

4	Re. Specification 33 05 01.01 - 2.07. Please allow polyurethane in accordance with AWWA C222 as an alternate to AWWA C214 tape wrap coating as specified for steel pipe.	Shop-applied polyurethane complying with the requirements of AWWA C222 is acceptable for the exterior coating on the buried steel piping and associated fittings. Sections of steel pipe that are encased in concrete do not require an exterior coating. Uncoated pipe must be stored and protected such that it will minimize the development of corrosion on the pipe surface until it is encased.
5	Re. Specification 33 05 01.01 a. 2.08.D - This section says that Spot RT is required unless welds can't be radiographed, then they can be UT'd. If a form of NDE is preferred, please allow UT in accordance with API 5L. b. 1.05.A.2.e - This section states that we must provide documentation for 5 heat treated crotch plates produced in the last 5 years. We don't see any required crotch plates on this project. Please remove this requirement from the specifications as it is	a. UT will be an allowed NDE inspection method in place of RT. All other inspection and quality provisions remain. b. Agreed. Delete this requirement.

<p>irrelevant to the project.</p> <p>c. 2.02.A - There are two conflicting steel standards presented here. One says ASTM A1018, SS, Grade 36, Type 1, and the other says A1018, HSLAS, Grade 50, Class 2. Both are modified to 36 ksi msys and 53 ksi msts. Please clarify. The industry standard steel used for C200 steel pipe is A139 Gr C. We would recommend adding A139 Gr C steel as an option.</p> <p>d. 2.07.A - This section requires a three coat NSF epoxy lining. This 3-coat lining system is very expensive compared to standard single-layer system as required by AWWA C210. Why would AWWA C205 not work? If cement mortar lining cannot be added, please modify the current system to be an epoxy in accordance with AWWA C210.</p> <p>e. 2.04.B - This section states that joints are butt type with a 3" x 3/8" continuous backer bar, unless shown otherwise on the drawings. Underground C200 pipe is typically a single lap weld joint. The fit-up and weld cost is significantly more for a butt weld and is not necessary for C200 water pipe. Please modify to allow lap weld joints.</p>	<p>c. AWWA A139 Gr C manufactured in accordance with AWWA C200 is an acceptable.</p> <p>d. For the 48-inch steel pipe cement lining in accordance with AWWA C205 is acceptable. Contractor shall submit a detailed plan for transition from the epoxy lining in the existing pipe to the cement lining. All smaller diameter steel pipe covered by other specifications within the bid documents shall be epoxy lined with Tnemec Epoxoline 141 or and approved equal. System shall be NSF approved and system shall be applied in accordance with the manufacturer's recommendations. Minimum thickness unless otherwise approved shall be 10 mils.</p> <p>e. Butt weld as specified.</p>
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Jacobs Engineering Group, Inc.

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