

LOS RIOS COMMUNITY COLLEGE DISTRICT

1919 Spanos Court, Sacramento, CA 95825
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Purchasing Department



Sacramento City College American River College Cosumnes River College Folsom Lake College

ADDENDUM NO. 4

ISSUE DATE: March 27, 2017

CRC Pool Heater Upgrades

LRCCD BID NO. 17018

Issued By:

LOS RIOS COMMUNITY COLLEGE DISTRICT
1919 Spanos Court, Sacramento, CA 95825
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This addendum forms a part to the Contract Documents. The addendum items supersede and supplement all portions of the bidding documents with which it conflicts. All workmanship, materials, appliances and equipment which may be included in the following addendum items shall be of the same relative quality as described for similar work set forth in the general or main specifications of which these addendum items shall be considered a part.

This Addendum has been acknowledged in the space provided on the Bid Form and is considered part of the bid documents.

This Addendum consists of 5 pages.

March 22, 2017

Reza Mirmiran
Facilities Planning and Engineering
Los Rios CCD
3753 Bradview Drive
Sacramento, CA 95827

Project: CRC Pool Heater Upgrades

Re: Addendum 4 Items

Reza-,

Based on our discussions and the March 15 job walk notes, we have the following contract addendum items:

1. *Drawing Sheet MP4.03, demolition note 5, new work note 1*: The contractor is responsible for soil removal and concrete preparation on filter room roof for the entire roof area, plus a distance of 12" down the side walls (and as necessary to install the roof support posts) and 12" up the parapet walls. Los Rios CCD will provide the roofing materials and labor for the reroofing. Contractor is to coordinate scheduling in advance.
2. *Drawing Sheets MP2.01, MP2.02*: It is acceptable to install the underground natural gas pipeline by horizontal boring rather than open trench as shown. Specification section 33 05 07 Trenchless Installation of Utility Piping is included in this addendum, and is to be part of the project documents.

I will expect the College District to address questions of hazardous material abatement and pool building disruption/hours of access, if they have not already done so.

Respectfully,
R&A Engineering Solutions, Inc.

Tom Ferrel, P.E.
Project Engineer

SECTION 330507 – TRENCHLESS INSTALLATION OF UTILITY PIPING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The work specified in this section consists of furnishing and installing underground utilities using the directional boring (horizontal directional drilling, HDD) method of installation, also commonly referred to as guided horizontal boring. This work shall include all services, equipment, materials, and labor for the complete and proper installation, testing, restoration of underground utilities and environmental protection and restoration.

1.2 RELATED SECTIONS

- A. Comply with the requirements of section 312000 SHORING AND TRENCHING as applicable.

1.3 QUALITY ASSURANCE

- A. The requirements set forth in this document specify a wide range of procedural precautions necessary to insure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any directional bore operation covered by this specification, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.
- B. All personnel shall be fully trained in their respective duties as part of the directional boring crew and in safety. Training shall be provided specific to the project if any potential hazards may be encountered which has not already been included in personnel's training.

1.4 SUBMITTALS

- A. **WORK PLAN:** Prior to beginning work, the Contractor must submit to the Engineer a general work plan outlining the procedure and schedule to be used to execute the project. Plan should document the thoughtful planning required to successfully complete the project.
- B. **EQUIPMENT:** Contractor will submit specifications on directional boring equipment to be used to ensure that the equipment will be adequate to complete the project.
- C. **MATERIAL:** Specifications on material to be used shall be submitted to Engineer. Material shall include the pipe, fittings and any other item which is to be an installed component of the project.
- D. **PERSONNEL:** Documentation of training and relevant experience of personnel shall be submitted.

PART 2 - EQUIPMENT REQUIREMENTS

2.1 GENERAL

- A. The directional boring equipment shall consist of a directional boring rig of sufficient capacity to perform the bore and pullback the pipe, a boring fluid mixing & delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations and trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project.

2.2 OTHER EQUIPMENT:

- A. Pipe rollers: Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull-back operations. Sufficient number of rollers shall used to prevent excess sagging of pipe.
- B. Pipe rammers/pullers: Hydraulic or pneumatic pipe rammers or pullers may only be used if necessary and with the authorization of Engineer.

PART 3 - EXECUTION

3.1 General

- A. The college representative must be notified 48 hours in advance of starting work. The Directional Bore shall not begin until the college agrees that proper preparations for the operation have been made. This approval shall in no way relieve the Contractor of the ultimate responsibility for the satisfactory completion of the work as authorized under the Contract. 3.02 Personnel Requirements.
- B. Site preparation: Prior to any alterations to work-site, contractor shall photograph or video tape entire work area, including entry and exit points. One copy of which shall be given to college and one copy to remain with contractor for a period of one year following the completion of the project. Work site as indicated on drawings, within right-of-way, shall be graded or filled to provide a level working area. No alterations beyond what is required for operations are to be made. Contractor shall confine all activities to designated work areas.
- C. Bore path survey: Entire drill path shall be accurately surveyed with entry and exit stakes placed in the appropriate locations within the areas indicated on drawings. If contractor is using a magnetic guidance system, drill path will be surveyed for any surface geo-magnetic variations or anomalies.
- D. Environmental protection: Environmental protection necessary to contain any hydraulic or boring fluid spills shall be put in place, including berms, liners, turbidity curtains and other measures. Contractor shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200' of any water-body or wetland.

- E. Utility locates: Contactor shall notify all companies with underground utilities in the work area via the state or local “one-call” to obtain utility locates. Once the utilities have been located Contractor shall physically identify the exact location of the utilities by vacuum or hand excavation, in order to determine the actual location and path of any underground utilities which might be within 20 feet of the bore path. Contractor shall not commence boring operations until the location of all underground utilities within the work area have been verified.
- F. Safety: Contractor shall adhere to all applicable state, federal and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly with a written record of attendance and topic submitted to Engineer.
- G. Pipe: Installed pipe shall be one continuous piece as possible. Where joining is necessary, pipe shall be connected together in one length prior to pull-back operations, as space permits.
- H. Reaming: Contractor will ream bore hole to a minimum of 25% greater than outside diameter of pipe using the appropriate tools. Contractor will not attempt to ream at one time more than the boring equipment and mud system are designed to safely handle.
- I. Pull-back: After successfully reaming bore hole to the required diameter, contractor will pull the pipe through the bore hole. Once pull-back operations have commenced, operations must continue without interruption until pipe is completely pulled into bore hole. During pull-back operations contractor will not apply more than the maximum safe pipe pull pressure at any time. In the event that pipe becomes stuck, contractor will cease pulling operations to allow any potential hydro-lock to subside and will commence pulling operations. If pipe remains stuck, contractor will notify college representative.

3.2 TESTING

- A. Following successful pull-back of pipe, contractor will pressure test the pipe at 80 psi for a period of 12 hours. Verify the test with the college district or other authority having jurisdiction.

3.3 SITE RESTORATION

- A. Following boring operations, contractor will de-mobilize equipment and restore the work-site to original condition. All excavations will be backfilled and compacted to 95% of original density. Landscaping will be restored to original.

3.4 DOCUMENTATION

- A. Contractor shall maintain a daily project log of boring operations and a guidance system log with a copy given to the college representative at completion of project. As-built drawings shall be certified as to accuracy by contractor. Third-party verification of as-built drawings may be done, at owner’s expense.

END OF SECTION 300507