



**PIMA COUNTY  
PROCUREMENT DEPARTMENT  
DESIGN AND CONSTRUCTION DIVISION**  
130 W. CONGRESS STREET, 3rd FLOOR. TUCSON, AZ. 85701  
PHONE: (520) 724-3731 FAX: (520) 724-4434

July 29, 2016

**ADDENDUM NO. 05**

PROJECT: IFB 207424 – CONTINENTAL RANCH REGIONAL PUMP STATION  
REHABILITATION PROJECT No. 3CRS05

TO ALL CONTRACTORS:

Be advised of the additions, clarifications and/or changes to the above-referenced Invitation for Bid as stated in the following Addendum.

1. The *Bid Due Date and Time* **REMAINS** Wednesday, August 17, 2016 at 2:00 p.m., as amended in IFB Addendum 3.
2. County has received the following questions regarding this project and is providing the questions and their answers as clarification:
  - Q) For the power feeds to the submersible pumps it is calling for an XLPE cable as the feeder to the units. There is a junction box on the middle level that we are to take the conductors to and then transition to free air cable. Is this XLPE cable required for the entire run or do we install a different type cable to the junction box and then transition to the XLPE cable from that point?
  - Q) Or, do the pumps come with a length of cable already terminated that we will be terminating in the junction box?
  - A) The cables that come with the pumps are to be run exposed (in protective sleeves) up to boxes near the ceiling of the middle level and terminated in terminal blocks in these boxes. A special VFD cable will then run from the boxes to the VFD units. See Keynote J and K on drawing E103 Rev.1.
  - Q) Is it permissible to install the dv/dt filter immediately adjacent to the VFD enclosure in a Nema 1 enclosure as was done with the recently installed ABB VFD on Pump 4?
  - A) It is acceptable to mount the filter in a NEMA 1 enclosure immediately adjacent to the VFD enclosure.
3. Plan Sheet E36 contains the following statement as the second sentence under CONTROL SYSTEM PROGRAMMING NOTES: "Contractor shall provide the services of EMA Services, Inc, 4742 N. Oracle Road, Suite 310, Tucson, AZ 85705-1675, (520) 299-0992, of owner approved alternate, for required programming." County hereby provides the following information and minimum requirements to be considered an owner approved alternate:

**SCADA SYSTEM DESIGN, PROGRAMMING AND INTEGRATION SERVICES FOR  
THE CONTINENTAL RANCH REGIONAL PUMP STATION (CRRPS)  
REHABILITATION PROJECT (3CRS05)**

The firm selected for this project shall serve as the Supervisory Control and Data Acquisition (SCADA) control systems integrator (hereinafter called the CSI), and will provide all SCADA System programming, integration and implementation services required by PCRWRD SCADA system at the Continental Ranch Regional Pump Station (CRRPS), during the construction of the CRRPS Rehabilitation (3CRS05) project. These CSI services include but not limited to:

- SCADA programming, integration and testing services for the CRRPS
- Assist the OWNER during SCADA system inspection, testing and final acceptance.
- Implementation of PCRWRD SCADA Standards, the PCRWRD “Manual of Engineering Standards and Procedures”, Pima County/City of Tucson Standard Specifications for Public Improvements and Pima County/City of Tucson Standard Details for Public Improvements (2003 Editions), and other design standards provided by the PC RWRD SCADA Program Manager.
- Integration of the CRRPS SCADA with the existing PCRWRD Conveyance SCADA human machine interface (HMI) application. The existing PCRWRD Conveyance SCADA HMI is an application based upon Invensys Wonderware System Platform.

The CSI shall interface with and coordinate with the PCRWRD SCADA Program Manager to prepare, install and test the CRRPS SCADA system in accordance with RWRD’s established management and program reporting procedures to insure consistency and quality controls.

PCRWRD has developed SCADA standards for field instrumentation, panels, PLC hardware and other related items. The CSI shall develop PLC programming, HMI development, tag database, alarm notification and reporting and other requirements needed for the successful CRRPS SCADA design and implementation conforming to the existing PCRWRD SCADA system architecture and PCRWRD SCADA standards. The CSI shall apply and conform to existing SCADA network security policies and procedures.

Construction and Software Configuration Services submittals shall include but not limited to:

- A. Progress Meetings
- B. Progress Meeting Minutes
- C. Application Software Requirements
- D. Control Narratives Document (Draft)
- E. Tag Databases
- F. PLC Control Logic
- G. HMI Displays
- H. Alarm Notification and Reporting
- I. PLC and HMI Software Configurations
- J. Control Panel Inspection and Factory Test Witness Documentation
- K. Startup & Testing Documentation
- L. Acceptance Testing Documentation
- M. PLC and HMI Training
- N. Control Narratives Document (Final)
- O. PLC and HMI Training Manuals (Final)
- P. As-Built PLC and HMI Configurations (electronic form)

All documentation above mentioned shall be presented to the PCRWRD SCADA program manager (hard copies and electronic copies) in accordance with the submittals requirement of 3CRS05.

## QUALIFICATIONS AND EXPERIENCE

### a. Firm's Capabilities and Experience

- Provide a list of at least three projects the CSI has worked on during the last five consecutive years with experience designing, programming and implementing other similar SCADA projects for wastewater agencies, water agencies or other industrial entities or mining entities with similar operations on projects of similar type, scope, and complexity.
- A portion of the required work scope entails integration of the CRRPS with an existing Wonderware System Platform HMI application. The CSI shall already possess certification from Invensys Wonderware that the firm is a certified Invensys Wonderware Certified System Integrator (for System Platform). Provide documentation of this certification.
- The Allen Bradley programmable logic controller and the localized panel display at the CRRPS shall be prepared using configuration tools from Rockwell Automation. The CSI shall already possess recognition by Rockwell Automation that the firm supports a control technology discipline and is a recognized Rockwell Automation Systems Integrator. Provide documentation of this recognition.

### b. Project Team

- Members of the project team must possess training certification in Invensys Wonderware Application Server 2014 R2 and certification in Rockwell Automation ControlLogix. List the personnel who will perform the work on this project. For each person listed, also list all relevant Invensys Wonderware and Rockwell Automation Systems technical knowledge, applicable training and applicable certifications as they pertain to the minimum requirements listed above. Please also list which of the firm's sample projects listed previously, if any, each person provided service on.
- Confirm that the firm's availability for each of the proposed Project Team members will be at least 75% during any project month given the firm's other on-going projects and priorities.

Firms desiring to be considered as an owner approved alternate shall submit a statement of interest detailing compliance with all minimum requirements listed above. Document should be on letterhead clearly identifying the company and should also contain all relevant contact information for the company. Submission should be no more than three pages. This document shall be submitted no later than August 3, 2016 at 4:00 p.m. local Tucson time. The document shall be submitted to the solicitation's Contract Officer, Keith E. Rogers. Submission may be made either by email to [keith.rogers@pima.gov](mailto:keith.rogers@pima.gov) or by fax to 520-770-4012.

After review and confirmation of all submissions County will issue an addendum to the Invitation For Bid listing the owner approved alternate firms. This addendum will be issued no later than August 8, 2016.

This addendum is a total of **3 pages**. There are no attachments to this addendum.

Any questions regarding this addendum should be directed to [keith.rogers@pima.gov](mailto:keith.rogers@pima.gov) or by fax to 520-770-4012.

Bidders must acknowledge receipt of this addendum on the bid form provided in the Bid Documents. Failure to do so may render the bid non-responsive.

Keith E. Rogers, CPPB  
Contracts Officer