

**REQUEST FOR SEALED BIDS
CITY OF JOHNSON CITY, TEXAS
SCADA UPGRADES**

SUBMITTAL DEADLINE: FRIDAY, DECEMBER 10, 2021 AT 3:00 P.M. C.S.T.
CITY OF JOHNSON CITY CITY HALL
303 E. PECAN DRIVE (Physical)
P.O. BOX 369 (Mailing)
JOHNSON CITY, TEXAS 78636

BID OPENING: FRIDAY, DECEMBER 10, 2021 AT 3:05 P.M. C.S.T.
SAME LOCATION

SCOPE OF WORK:

The City of Johnson City is requesting sealed bids from qualified VTScada software integrators for labor, materials, and programming for the installation of new back panels, PLC's and panel equipment, flow meters, motors starters, surge suppression, battery back-up, and miscellaneous items at various water/wastewater locations.

PROPOSED PROJECT SCHEDULE:

1. Notice of Award to be sent by December 17, 2021.
2. Notice to Proceed to be issued by December 17, 2021.

PROJECT MINIMUM SPECIFICATIONS:

Integrators shall bid the following minimum specifications, or equal. Integrators may substitute the named product for another product that meets or exceeds the identified product's character, quality, and performance.

West Well Site

1. Furnish and install two (2) FVNR N3R Combination Motor Starters for West Well No. 3 and West Well No.4.
2. Furnish and install two (2) 480V/3P Surge Suppression at each of the West Well starters. Surge protector will be mounted at the starter cabinet.
3. Furnish and install one (1) 4-inch Siemens Magnetic Flow Meter and display for West Well No.3. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
4. Furnish and install one (1) 4-inch Siemens Magnetic Flow Meter and display for West Well No.4. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
5. Furnish required flexible conduit and wire between existing well and proposed combination motor starters.
6. Furnish and install 120V surge suppression at the existing RTU enclosure.
7. Furnish and install new UPS for RTU. UPS will be mounted within the existing RTU.

8. Furnish and install 120V isolation relays for each of the existing RTU inputs. Isolation relays will assist in protecting the RTU with incoming field voltage spikes.
9. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
10. Labor for RTU software programming for new magnetic flow meters.
11. Update radio firmware.
12. Start-up and training as required.

Danz Well & Pump Station Site

1. Furnish and install one (1) FVNR N3R Combination Motor Starter for the Danz Well No. 2.
2. Furnish and install one (1) 480V/3P Surge Suppression at the Well starter. Surge protector will be mounted at the starter cabinet.
3. Furnish and install relay junction box located the well starter rack.
4. Furnish and install 480V/3P/N3R Disconnect for the well starter.
5. Furnish and install one (1) 2-inch Siemens Magnetic Flow Meter and display for the Danz Well No. 2. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
6. Furnish required flexible conduit and wire between existing well and proposed combination motor starter and disconnect.
7. Furnish and install one (1) 10-inch Siemens Submersible Rated Magnetic Flow Meter and display for station effluent flow. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
8. Furnish and install 120V surge suppression at the existing RTU enclosure.
9. Furnish and install new UPS for RTU. UPS will be mounted within the existing RTU.
10. Furnish and install 120V isolation relays for each of the existing RTU inputs. Isolation relays will assist in protecting the RTU with incoming field voltage spikes.
11. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
12. Labor for RTU software programming for new magnetic flow meters.
13. Update radio firmware.
14. Start-up and training as required.

Eagle Pump Station Site

1. Furnish and install conduit and wire from the existing Chlorine Leak Detector and RTU.
2. Furnish and install one (1) 2-inch Siemens Magnetic Flow Meter and display for the Eagle Well No. 5. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
3. Furnish and install one (1) 3-inch Siemens Magnetic Flow Meter and display for the Eagle Well No. 6. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.
4. Furnish and install one (1) 12-inch Siemens Magnetic Flow Meter and display for plant effluent flow. Flow meter signal wire will be re-pulled from the proposed meter display back the existing RTU located onsite.

5. Furnish and install new coax cable and surge protector from the existing antenna to the RTU.
6. Furnish and install 120V surge suppression at the existing RTU enclosure.
7. Furnish and install analog surge suppression for each existing GST analog input to the RTU.
8. Furnish and install new UPS for RTU. UPS will be mounted within the existing RTU.
9. Furnish and install 120V isolation relays for each of the existing RTU inputs. Isolation relays will assist in protecting the RTU with incoming field voltage spikes.
10. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
11. Labor for RTU software programming for new magnetic flow meters.
12. Update radio firmware.
13. Start-up and training as required.

Deer Creek Lift Station Site

1. Furnish and install Submersible Level Transducer as required for wet well monitoring.
2. Furnish and install 120V surge suppression at the existing RTU enclosure.
3. Furnish and install analog surge suppression for each existing analog input to the RTU.
4. Furnish and install new UPS for RTU. UPS will be mounted within the existing RTU.
5. Furnish and install 120V isolation relays for each of the existing RTU inputs. Isolation relays will assist in protecting the RTU with incoming field voltage spikes.
6. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
7. Update radio firmware.
8. Training as required.

Gonzalez Lift Station Site

1. Furnish and install 120V surge suppression at the existing RTU enclosure.
2. Furnish and install analog surge suppression for each existing analog input to the RTU.
3. Furnish and install new UPS for RTU. UPS will be mounted within the existing RTU.
4. Furnish and install 120V isolation relays for each of the existing RTU inputs. Isolation relays will assist in protecting the RTU with incoming field voltage spikes.
5. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
6. Training as required.
7. Update radio firmware.

Elevated Storage Tank

1. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing RTU.
2. Labor for antenna and coax inspection for proper radio communication.
3. Update radio firmware.

4. Excludes replacement of materials which would be provided on a cost-plus basis (see exclusions).

City Hall

1. Furnish labor as required for HMI programming updates to include the following:
 - Operational tank level and lockout setpoints.
 - Well pump remote control with Hand - Off – Auto.
 - Remote HSP control to include Hand - Off – Auto.
 - Integration and alarming of Eagle CL2 leak detection.
 - Meter totalization (available if existing meter is changed).
 - Reprogram radios for City Hall to be the master instead of Danz.
 - Standardization of programming convention for future service efficiency.
2. Provide and install new enclosure back panels, PLC, and panel equipment to upgrade existing MTU.
3. Update radio firmware.
4. Furnish and install omni antenna for radio communication.

Additive Alternate

1. Deer Creek Lift Station - Furnish and install new antenna mast, antenna, coax, and coax surge suppression.
2. Gonzales Lift Station - Furnish and install new antenna mast, antenna, coax, and coax surge suppression.

QUALITY CONTROL OBJECTIVES:

The City's experience in the operation and maintenance of its water and wastewater system guides this Request for Sealed Bids. The installation of the proposed SCADA system improvements, therefore, is designed to achieve the following objectives:

1. The City desires a contractor that will provide excellent construction, installation, and support practices through a stable, available personnel pool experienced in the water/wastewater field.
2. The City desires a contractor that has experience in design, construction, upgrade, retrofit, and integration of projects of similar magnitude and complexity.
3. The City desires a SCADA system that meets modern equipment, technology, and integration standards that:
 - a. Utilizes open, non-proprietary architecture that can be serviced by any qualified contractor;
 - b. Utilizes hardware and software that has a local or regional distribution network in the area that maintains an in-stock supply of readily available replacement parts via will-call from a local distributor;

- c. Utilizes architecture that is scalable and expandable without loss of initial investment;
 - d. Achieves high performance standards for SCADA functionality for displaying, monitoring, controlling, reporting, and alarming of specified parameters; and
 - e. Provides technical, as-built documentation essential for seamless transition of support from one contractor to another, if required
4. The City desires a SCADA system that addresses current and future essential operational and regulatory functions.
 5. The City desires a SCADA system that establishes a single source of near and long-term technical service and support by establishing a relationship with a single successful contractor that demonstrates a service and support ethic commensurate with the needs of the City.
 6. The City desires a contractor that will provide suitable response time and economy in technical service and support.

RESPONDENT MINIMUM QUALIFICATIONS:

1. A single SCADA System Integrator (SSI) shall complete the work as specified.
2. All bidders shall be pre-qualified prior to bid and listed by addendum. Bidders not pre-qualified as listed herein shall submit proposals, in duplicate, in accordance with these minimum requirements.
3. The SSI shall be a “systems house” regularly engaged in the design and the installation of supervisory control and data acquisitions systems, computer systems, and their associated subsystems as they are applied to the retail public water / wastewater utility industry. For the purposes of this section, a “systems house” shall be interpreted to mean an organization that meets all the following criteria:
 - a. SSI shall employ full-time personnel licensed and experienced in the engineering, design, installation and deployment of process control systems and SCADA systems. Firm shall be registered with the Texas Board of Professional Engineers and Land Surveyors (TBPE).
 - b. SSI shall employ full-time personnel experienced in the project management, procurement, assembly, installation, development, calibration, programming, testing, and servicing of process instrumentation and control systems, SCADA systems, radio telemetry systems, and related subsystems.
 - c. SSI shall employ personnel for this project who have successfully installed a minimum of five (5) projects within the past two (2) years using the architecture specified in this project.
 - d. SSI shall generally self-perform all work required on this project. Any sub-contractors must be listed by the SSI and the percentage of work to be completed by the sub-contractor, and the sub-contractors shall, in total, meet all the requirements set forth herein, and shall provide a qualification package as a sub-set of the Respondent’s proposal. Notwithstanding the requirements of this section, Respondents shall note that the City prefers an SSI with in-house capability to

perform most of the work to ensure continuity of construction, technical assistance, and support. The City shall evaluate qualifications accordingly.

4. The SSI shall be responsible for installation of all panels.
5. All electrical equipment, conduit, wiring, connections, and related primary components of the proposed system shall be provided from a single manufacturer and supplier as much as practicable. Secondary components shall be provided from a source acceptable to manufacturer of primary components.
6. A pre-installation conference shall be conducted prior to commencement of any field operations, to establish procedures to maintain optimum working conditions, and to coordinate this work with related and adjacent work. No operation of any site shall be shut down or hindered in its operation during installation of the SCADA system without the express consent by, and coordination with, the City.
7. All Respondents shall, without exception, meet the following requirements and qualifications and provide information in support thereof:
 - a. To ensure a complete and successful project, the SSI must demonstrate a history of successful references, and ten (10) years of sustained business activity under the same company name, in the SCADA industry, serving water and wastewater utilities in Texas.
 - b. To ensure quality control and compatibility with existing operations, the individual integrator(s) to complete the work must be specified in the proposal and their experience must be acceptable, without limitation, in the following areas:
 - i. Integration experience of water utilities serving similar geographical or region-wide areas of at least ten (10) projects of successful reference for radio telemetry SCADA within the State of Texas within the last two (2) years.
 - ii. Integration experience with the type of existing and proposed equipment/software (Allen-Bradley, Microwave Data Systems, and VTSCADA) for at least ten (10) systems of successful reference installed within the last two (2) years.
 - c. The project shall be designed and supervised by a Project Manager with a minimum of ten (10) years' experience in the design and construction of integrated SCADA systems in the water and wastewater industry.
 - d. Underwriters Laboratory 508A Certification. All control panels shall be constructed within UL 508A standards. SSI shall present its UL listing documents with its proposal and label each panel according to UL requirements.
 - e. SSI must have a current State of Texas Electrical Contractors License as prescribed by and follow Title 8 Occupation Code Chapter 1305 Electricians, Subchapter D, Section 1305.159. SSI shall present licensing with its proposal. All work related to electrical installation shall be conducted by a licensed Journeyman Electrician under the supervision of a Master Electrician.
 - f. SSI shall be a registered VTSCADA authorized System Integrator for a minimum of five (5) years.

- g. To ensure adequate response to emergencies and service needs, SSI shall have a full-service facility that can meet the following criteria:
 - i. Is within a 100-mile radius of Johnson City, TX.
 - ii. Can provide an appropriate emergency response of less than 8 hours.
 - iii. The service facility shall have been in operation within the area specified for at least five (5) years unless approved otherwise by the Owner.
 - h. The terms and conditions of the Technical Requirements shall be required as presented.
 8. The SSI will specify equipment, sizes and quantities which are proposed to be used for the project. All computer and computer related equipment shall be compliant for date-based functionality. A compliance certificate shall be required from the SSI stating compliance with these requirements.
 9. The SSI shall provide a schedule of the warranty provided for work completed under this bid and non-warranty service schedule with pricing and terms beyond the warranty period. The SCADA system as proposed shall be warranted to be free of defects in materials and workmanship for minimum of a period of one (1) year from date of substantial completion. Substantial completion is defined as a SCADA system generally performing the monitoring and control functions as described in the specifications and requirements with all equipment delivered and constructed satisfactorily. The SSI's references shall demonstrate their effectiveness in providing follow-up service to the system as a function of their commitment to meeting the needs of their customers well beyond the warranty period.

PRE-APPROVED EQUIPMENT & SUPPLIERS:

1. To assure standardization of inventory for maintenance and support, and/or suitability to meet the needs of the City, the system shall be constructed of materials and equipment, as specified, no equal.
2. The SCADA system shall be constructed only by approved SSI's. Approved SSI's:
 - a. TraC-n-trol, Inc. Contact: Ryan Wood at 512-930-5721 x16.
 - b. Approved equal. See Quality Control Objectives and Respondent Minimum Qualifications Sections for pre-approval requirements.
 - c. Pre-approval of substitutions or alternate suppliers shall be submitted no later than ten (10) calendar days prior to bid date.

SUBMITTALS EVALUATED AND RANKED AS FOLLOWS:

Sealed bids evaluated and awarded to the lowest responsible bidder.

Please direct questions and inquiries regarding this Request for Sealed Bids to:

Rick Schroder
City of Johnson City
830.868.7111, Ext. 8
rschroder@johnsoncitytx.org

Addenda, if any, will be placed on the City of Johnson City main webpage, www.johnsoncitytx.org, under “Notices”.

PROPOSAL SHEET

**CITY OF JOHNSON CITY, TEXAS
SCADA UPGRADES**

The undersigned Contractor proposes to furnish the City of Johnson City, Texas all labor, equipment, materials, and delivery associated with this Project, including technical support, in accordance with the attached Request for Sealed Bids:

Items	Quoted Pricing
1. West Wells Site: onsite meters, starters, surge suppression and misc. material as listed, lump sum	
2. Danz Site: onsite meters, starters, surge suppression and misc. material as listed, lump sum	
3. Eagle Pump Station: CL Leak integration, 12-inch meter and antenna coax, misc, material as listed, lump sum	
4. Eagle Well No. 5 2-inch Flow Meter and integration	
5. Eagle Well No. 6 3-inch Flow Meter and integration	
6. Deer Creek Lift Station: Level transmitter, antenna mast & coax, and misc. material as listed, lump sum	
7. Gonzalez Lift Station: Antenna mast & coax, and misc. material as listed, lump sum	
8. Elevated Storage Tank: inspection of existing antenna and Coax	
9. City Hall: HMI programming, antenna installation and radio updates for new master site.	
10. PLC and Panel Upgrades – All Sites	
11. Warranty & Training	
Total	
Cost Adder: Deer Creek Lift Station - Furnish and install new antenna mast, antenna, coax, and coax surge suppression.	
Cost Adder: Gonzales Lift Station - Furnish and install new antenna mast, antenna, coax, and coax surge suppression.	

BIDDER:

PRINT COMPANY NAME

SIGNATURE:

DATE

PRINTED NAME:

TITLE:

ADDRESS: _____

TAX ID NO.: _____

PHONE & EMAIL: _____
PHONE **EMAIL**

ADDENDA RECEIPT

If applicable, receipt of the following addenda to the subject solicitation is hereby acknowledged:

<u>Addendum No.</u>	<u>Date of Addendum Receipt</u>	<u>Signed Acknowledgement</u>
1.		
2.		
3.		