

**Request for Proposals
For
DESIGN AND INSTALLATION OF SCADA SYSTEM
UPGRADE**



By the
City of Greenfield

November 8, 2019

Response Due
~~Friday, November 22, 2019 @ 3:00 pm~~
December 13, 2019

City of Greenfield
Public Works Department
Attention: Arturo "Felix" Felix, Public Works Operations manager
599 El Camino Real

RFP SCADA SYSTEM UPGRADE

Greenfield, CA 93927

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**CITY OF GREENFIELD
NOTICE OF REQUEST FOR PROPOSALS**

1. Notice is Hereby given that the City of Greenfield (Hereinafter "City") request proposals for DESIGN AND INSTALLATION OF SCADA SYSTEM UPGRADE (hereinafter "project"), and will receive proposals in the office of the **PUBLIC WORKS DEPARTMENT, 599 El Camino Real, Greenfield, CA 93927, ATTN: Arturo "Felix" Felix**, up to the hour of 3 p.m., on the **22th Day of November, 2019**.
2. The service to be performed by the successful proposer are described in the request for proposal. Any questions should be directed to "Felix", Operations Manager in the Public Works Department. The City is soliciting proposals for the design, supply, installation, commissioning, and maintenance of a SCADA system.
3. Any changes to the Request for Proposals will be posted on City's website in the form of addendum. Proposers shall periodically check City's website at www.ci.Greenfield.ca.us for any addendum issued for this request and acknowledge the inclusion in proposal documents
4. Proposals shall be submitted and clearly marked as follows: "SEALED PROPOSAL FOR DESIGN AND INSTALLATION OF SCADA SYSTEM UPGRADE - DO NOT OPEN WITH REGULAR MAIL."

1 (two) Copies of the proposal shall be provided in the sealed envelope.

5. All responsive proposals shall be reviewed and evaluated by the CITY in the order to determine which proposal best meets the CITY's needs for this project by demonstrating the competence and professional qualifications necessary for the satisfactory performance of the required services. The criteria by which the CITY shall evaluate proposals are set forth in the request for proposals.
6. The CITY reserved the right to reject and all proposals or waive any irregularities in any proposal, this request for proposal (RFP) or the proposal process.



ARTURO FELIX, OPERATIONS MANAGER

11-18-19
DATE

SECTION 1 – Introduction

The City of Greenfield is requesting qualified consulting firms to respond to this Request for Proposals (RFP) to provide necessary upgrades to the Supervisory Control and Data Acquisition (SCADA) system used to remotely monitor and control their potable water facilities and wastewater facilities. Respondents to this RFP should have extensive experience designing, installing, programming, and supporting SCADA systems for water treatment and distribution systems, including experience with: Programmable Logic Controllers (PLCs), radio and internet-based telemetry systems, and pumping systems.

The City of Greenfield incorporated in 1947. Greenfield is located between the Gabilan Mountains range to the east and the Santa Lucia Mountains to the west: and is in the heart of the Salinas Valley, approximately 135 miles south of San Francisco, 95 miles south of San Jose and 60 miles north of Paso Robles. The city has a total of 2.1 square miles, with a population to be about 17,547 (2011).

Background

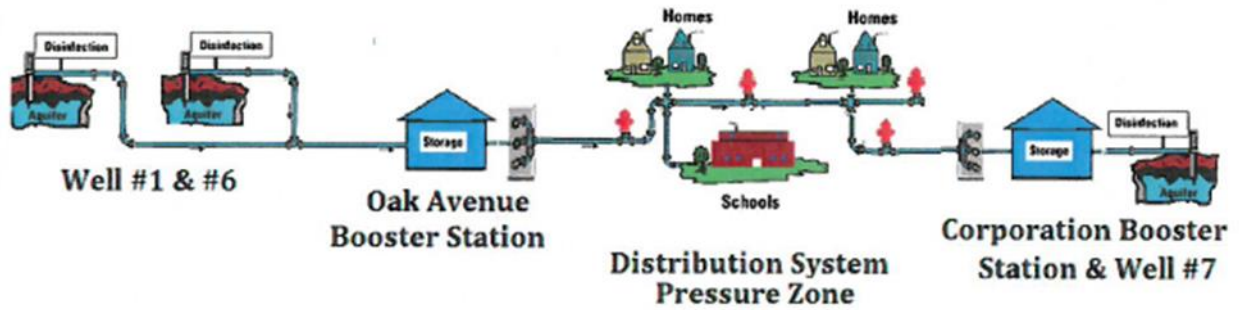
The City owns and operates potable water facilities and wastewater facilities that serve the City residents.

The main components of the drinking water system include:

1. Sources-The City currently operates from three (3) wells
 - a. Wells # 1 and # 6 are located on 14th Street and Cherry Ave. on the northwest of town
 - b. Well #7 behind the Corporation Yard located at Walnut Avenue and Tenth Street
2. Storage Tanks
 - a. 1-million-gallon storage tank (Oak Avenue & 13th Street)
 - b. 1 ½ million-gallon tank (Walnut Avenue and Tenth Street)
3. Booster pump Stations-
 - a. The Oak Avenue Booster Station - located on Oak Avenue and 13th Street consists four (4) booster pumps @ 54 psi.
 - b. The Corporation Booster Station - located behind the Corporation Yard located at Walnut Avenue and Tenth Street, consists of four (4) pumps @ 65 psi (It joins the distribution system on tenth and walnut Avenue). (see figure 1)

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Figure 1. Greenfield Portable water system



The main components of the wastewater system include:

1. The City of Greenfield's Wastewater Plant
 - a. Bar Screen Compactor
 - b. Primary Sedimentation Tanks
 - c. Sludge digester
 - d. Oxidation Ponds (Do Probes)
 - e. Disposal Fields Pump Station

2. six (5) lift stations;

a. Tyler lift Stations –	Tyler Avenue & El Camino Real
b. Los Ositos Station -	Elm Avenue & Eleventh Street
c. Nino Lift Station -	Nino Lane & Del Ponte Drive
d. Vineyard Lift Station -	Vineyard Drive
e. Cypress Lift Station -	Cypress Avenue
f.	

Figure 2- Current SCADA screen



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The City desires to improve the operation and control of these facilities through the upgrade of the existing SCADA system

A contract, if awarded, will be executed with the respondent who proposes the most favorable solution, as determined by the selection committee, following the guidelines set forth in the RFP. If a respondent is selected, they will be notified within 30 days of the proposal due date. Respondent pricing shall be valid for nine months from the date of proposal submittal. This is since some of these components will not be fully functional until next year. The selected respondent will be required to enter into an agreement with the City prior to issuance of Notice to Proceed. The City expects to work with the selected respondent to determine the ultimate configuration of the SCADA system and then negotiate a contract.

Schedule

The following tentative schedule has been established for the selection and contracting process. It is subject to change by the City.

Event	Date
Release of Request for Proposal	November 8, 2019
Pre-Proposal Meeting / site Visit (optional)	November 13, 2019
Deadline for Questions	November 15, 2019
Proposal Due Date	November 22, 2019 December 13, 2019

Obtaining the RFP

The RFP may be obtained on the city website, <http://www.ci.greenfield.ca.us> in the section "How do I..." at the top of the page.

Rights Reserved

City of Greenfield reserves the right to reject any or all proposals, to waive technical deficiencies and to accept any proposal that it might deem to be in the best interest of the City.

SECTION 2 – Scope of Services

The purpose of this SCADA project is to implement a central infrastructure for data communications, system monitoring and control, disturbance reporting and alarming, historic data recording, analysis and reporting for the City's water facilities. The infrastructure will be capable of handling the SCADA requirements of the existing facilities and will have enough capacity or be expandable to accommodate future requirements. The City plans to negotiate final contract terms and scope of service with the selected Vendor.

The following is a summary description of the anticipated scope of services. This information is provided as a framework for Vendor responses and cost analyses. Vendors are free to make any additions that they believe will provide value or benefit to the project.

Overall Control System Description

Features/Function:

- A Central Control Workstation (CCW) will be located at the Public Works Building and multiple remote sites that are queried and controlled via the server and/or CCW. The main workstation will consist of a desktop computer, terminal and typical peripheral devices: keyboard, mouse, etc. A UPS will also be provided to fully support the CCW. The Vendor will provide all components required for the CCW.
- System must have a secure remote connection via VPN.
- Software must support multiple protocols as needed including Modbus RTU, BACnet MS/TP & TCP/IP.
- Web access to SCADA via encrypted internet connection.

Server/Data Back-up:

- The server must retain a complete copy of all controller configuration data and operational parameters such that an automatic re-configuration of all controllers is possible at any time, as initiated by the operator.
- The system must provide fully automated regular backup of all data, settings, logs and configuration information for controllers, graphical user interface and servers. These backups must operate without user input or initiation and provide enough data to completely restore the system after a catastrophic failure of any or all components.
- The system must provide a reliable and user-friendly mechanism to create a hard copy of all the above information for offsite storage (network location, flash/hard drives, and a cloud location).
- Note any additional back up procedures or offerings available to ensure the SCADA data is backed up and protected.

HMI/GUI (Human Machine Interface/Graphical User Interface):

- No partial license or trial version will be accepted.
- RFQ shall include example screens of applications similar to those for this project.
- The system will automatically log all alarm and events.
- Alarms must be capable of customizable delay times.
- The software must be able to provide notifications to operators via standard internet connection, voice calls, text messaging, and emails. These alerts must be capable of being sent to multiple devices and repeat as necessary.
- Data reports and history logs shall allow long term monitoring sample rates from 1 second to 24 hours.
- Ability to provide historical data and accessible from the HMI/GUI .
- The software must be able to have tiered security access for different entities within the organization.
 - Each user must have an account that is restricted to their appropriate areas of the system.
- The system will automatically log all user activities.

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- System communication failure monitoring and notification.
- Software will monitor and report data in real-time.
- If a controller is replaced and addressed on the communications network, the server will automatically download, to the newly installed controller, all I/O database parameters and all control applications programming and set points without operator intervention.
- All hardware including appurtenances must have a 12-month warranty.
- Broadband Radio network

Integration and Commissioning – Vendor vs City responsibilities

- The vendor must provide the services of a qualified technician to offer hands-on training of the system immediately following project completion. Plan on a minimum of two full days on-site.
- The contractor must include cost to provide follow-up training 3 and 6 months after project completion, each one day in duration.

Ongoing Support Services

- The vendor shall provide 24/7 access and on-call services, technical support, and software updates.

Deliverables

For the proposed SCADA systems, the selected Vendor will be expected to deliver the following:

1. SCADA System Design Submittals

Vendors shall provide submittals for the proposed SCADA systems that document the proposed configuration of the CCW, RTU's, I/O panels, HMI's and any ancillary systems. Complete design submittals shall be provided to the City for approval prior to system fabrication. Submittals will include but are not limited to:

- Product data sheets for each instrument and component to be supplied in the system
- Panel Layout Drawings
- Installation Drawings
- GUI Displays, Screens, Menus and Output drawings
- Software
- Hardware and Ancillary Equipment

2. SCADA Panel Fabrication

The selected contractor will fabricate SCADA panels containing the controller, communications equipment, and all other required components in accordance with the approved design. SCADA panels shall be manufactured and assembled according to UL requirements.

3. Installation and Integration

Vendor will perform installation of its systems at the Owner's facilities in accordance with the approved design submittals. Establish communications between remote sites and CCW. Some sites may require an external power supply or

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- solar power. Coordination and provision of external power supply and communications will be the responsibility of the Contractor. Vendor will be responsible for integration of the
4. SCADA system with the specified equipment and instrumentation.
 5. System Start-Up and Acceptance Testing
Vendor will provide start-up services to prepare the SCADA systems for commissioning. Acceptance testing of the system, in the presence of the owner, will also be performed by the Vendor.
 6. Training and Documentation
Training for the owner's personnel in the operation and maintenance of the SCADA systems will be performed by the Vendor. In conjunction with this effort, Operation and Maintenance manuals and documentation that describe the system architecture, control logic and operating requirements in sufficient detail to allow the owner's personnel to understand and troubleshoot the system shall be provided. Two (2) bound hardcopies along with an electronic PDF copy of the O&M manual and system documentation shall be provided to the owner.
 7. Maintenance and Support
Proposals should include maintenance and support services for all components of the SCADA system including hardware, software and communications for a period of one year following owner's acceptance. Proposals shall also include information regarding long term support options and opportunities.

Section 3 – RFP Submittal Requirements

1. Format

Proposals shall be printed on standard 8-1/2" x 11" paper, single sided printing. All pages of the proposal, cover sheets and appendices shall be sequentially numbered.

The proposal shall be separated into five individual sections as follows:

- Part 1 – Introductory Letter
- Part 2 – Project Approach and Team
- Part 3 – Related Experience and References
- Part 4 – Cost Analyses
- Part 5 – Support: Proximity/Availability to the City

The total number of pages for sections 1 through 5 is limited to 10 pages.

Content

Part 1 - Introductory Letter

An introductory letter shall be prepared by each Vendor and included as the first page of the proposal. The introductory letter is limited to one page in length. The letter shall clearly identify the Vendor including their mailing address, e-mail address, telephone and cell phone numbers and the primary contact person. The letter should express the Vendor's interest in the Project and summarize any key qualifications, the project approach, or other

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relevant information. The letter must also acknowledge the receipt of any addenda to the RFP.

Part 2 - Project Approach

This section will describe the overall project approach for the proposed SCADA systems. Information concerning the design and configuration of the SCADA system(s) should be provided and convey a clear understanding of the controlled systems and Owner requirements.

Multiple aspects of the project approach should be addressed including but not limited to; design/hardware, software/platform, installation, maintenance, training, future upgrades/expandability. Proposers should clearly illustrate how they intend to execute each of these elements for this project.

Part 3 - Experience and References

Proposer shall provide a list of at least five (5) similar projects performed within the last five (5) years. For each project provide the following information:

- Project Title/Name
- Name and address of client
- Client contact person and contact information
- Summary of the project scope and services provided
-

Part 4 - Cost Analysis

Vendors shall submit a cost proposal that addresses various cost elements. Results of the cost analyses will be used in scoring the proposals. Appendix A contains the information required to prepare the components list and cost analysis.

1) Capital Cost

2) Operating Costs

- License cost per month, per year
- License cost per seat fee
- License cost per tag block
- Controller replacement cost
- Telephone support cost
- VPN support cost
- Onsite support cost
- After hours support cost
- Training cost

Part 5 – Support: Proximity/Availability to the City

Proposer shall include the availability of support to the City staff throughout the design process and in the future operations of the system. Detail the proximity of personnel or offices that may be able to provide on-site service if needed.

Section 4- Evaluation and Statement of Qualifications

The City will evaluate all statements of qualifications received by the deadline. The City review team will use the following evaluation criteria, with scoring on a 100-point scale:

1.	Introductory Letter	Included
2.	Project Approach and Team	15 points
3.	Experience and References	20 points
4.	Cost Analysis	45 points
5.	Proximity of Field Support to City	20 points
	Total Available Points	100 points

Based on these selection criteria, the top ranked consultant teams may be selected for separate interviews with the review team prior to making a selection recommendation to the City Council. Upon completion of the interviews, the review team will make a final ranking of the consultant teams. The top-ranked firm will then enter into contractual and fee negotiations with the City. Should the City and the top-ranked firm not satisfactorily negotiate a contract, the City will then enter into negotiations with the 2nd, 3rd, etc., ranked firms, in turn, as required until a successful negotiation is reached. Upon successful negotiation, the City Council will then be requested to approve the award of the contract and authorize the City Manager to execute the contract.

The City of Greenfield will exercise its discretion in selecting a firm or individual that presents the statement of qualifications that, in the sole judgment of the City, best serves the interest of the City. The City reserves the right to waive minor irregularities in any submittal, reject any statement of qualifications that fails to meet the RFQ requirements in any respect, to reject all submittals for any reason, or to cancel in part or in its entirety the Request for Qualifications.

The City has no preferred or favored consultant for Scada System and Design.

Proposals shall be submitted and clearly marked as follows:” Request for Proposals For DESIGN AND INSTALLATION OF SCADA SYSTEM UPGRADE- DO NOT OPEN WITH REGULAR MAIL.”

If you have any questions, regarding this RFP, please contact

Arturo Felix
Public Works Operations Manager
City of Greenfield
Phone (831) 674-2635

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