

REQUEST FOR PROPOSAL  
THIS IS NOT AN ORDER RETURN ORIGINAL KEEP ONE COPY

**PROPOSAL # 2020 - 01  
WASTEWATER TREATMENT PLANT (WWTP) and LIFT STATIONS  
SCADA SYSTEM UPGRADE**

Return your Proposal in an envelope, sealed and clearly marked on the outside with Proposal # 2020-01 shown:

**CITY OF SPRINGVILLE  
FINANCE DEPARTMENT  
ATTN: BRUCE RIDDLE  
110 SOUTH MAIN STREET  
SPRINGVILLE, UT 84663**

Proposals must be received and logged in prior to the date and time indicated.  
Bids will not be accepted after:

**2:00 p.m. Friday, January 31, 2020**

For Technical Information Contact:
Juan Garrido, Wastewater Superintendent
Email: <a href="mailto:jgarrido@springville.org">jgarrido@springville.org</a>
Phone: (801) 420-1272

**Delivery Requirement:**

<b>FAILURE TO SIGN THIS SECTION WILL DISQUALIFY YOUR RESPONSE</b>	
The undersigned agrees to furnish the products and/or services listed in this document at the prices and terms stated, subject to the requirements of this Request for Proposals and the Contract Documents:	
Firm Name	
Signature	
Printed Name	
Date	Phone
Fax	
Email	Website

## SECTION 1: PURPOSE

- 1.1 The City of Springville, Utah is requesting proposals for the WWTP and LIFT STATIONS SCADA SYSTEM UPGRADE for the City's Water Reclamation Facility and 7 of the 13 Lift Stations.
- 1.2 A **MANDATORY** site visit will be held Tuesday **January 14, 2020 at 10:00 AM** at the Springville Wastewater Treatment Plant located at 500 West 700 North, Springville. Failure to attend this Pre-bid Meeting will disqualify you from making a proposal.

## SECTION 2: RECEIPT OF PROPOSALS:

- 2.1 Two (2) copies of the proposal must be received no later than **January 31, 2020 at 2:00 p.m.** at the following address:

Bruce Riddle, Finance Director  
City of Springville Finance Department  
110 South Main  
Springville, Utah 84663

The proposal must be submitted in a sealed envelope, the outside of which must be marked as follows:

**"Proposal Enclosed - RFP # 2020-01 - WASTEWATER TREATMENT PLANT AND LIFT STATIONS SCADA SYSTEM UPGRADE"**

- 2.2 The proposal submitted is the document upon which the City of Springville will make its initial judgment regarding each Respondent's qualifications and wherewithal to complete the required services.
- 2.3 Those submitting proposals do so entirely at their own expense. There is no expressed or implied obligation by the City to reimburse any firm or individual for any costs incurred in preparing or submitting proposals, preparing or submitting additional information requested by the City or participating in selection interviews, if any.
- 2.4 Submission of any proposal indicates an acceptance of the conditions contained in this Request for Proposals unless the submitted proposal clearly and specifically states otherwise.
- 2.5 The City of Springville reserves the right to accept or reject any and all proposals in whole or in part, to waive any and all informalities and to disregard all non-conforming, non-responsive, or conditional proposals.
- 2.6 The City of Springville reserves the right to award the WWTP and Lift Stations SCADA System Upgrade project to one or more firms and individuals.
- 2.7 Any award of the Wastewater Treatment Plant and Lift Stations SCADA System Upgrade shall be conditioned on the later execution of a formal written contract agreement. The City of Springville reserves the right to revoke or rescind any award at any time prior to the full execution of a formal written contract agreement.

### **SECTION 3: QUALIFICATIONS OF RESPONDENT:**

**ALL RESPONDENTS ARE REQUIRED TO SUBMIT A QUALIFICATION PACKAGE WITH THEIR PROPOSAL.** Qualification package shall contain the following:

- 3.1 Firm's service office is within 100 miles of Springville City and the ability to assist with questions and potential problems. Include a ten (10) year service agreement proposal.
- 3.2 Firm has the ability to substantially complete, with their own equipment, multiple projects simultaneously or otherwise allowed prior to bid acceptance.
- 3.3 Project Manager shall have a minimum of 2 years' experience as a Project Manager on similar projects, and have supervised the installation or done upgrades similar to the project mentioned herein.

### **SECTION 4: SCOPE OF WORK:**

4.1 Background - The current WWTP and Lift Stations SCADA system is built around the AutomationDirect Koyo programmable logic controller (PLC) platform and the GE Proficy iFix human machine interface (HMI) platform. The existing SCADA system has become antiquated due to age. The City seeks to replace the existing PLC's and HMI's with new equipment and software. The RFP has been written with Schneider Electric's Modicon M340 PLC and Inductive Automation's Ignition HMI as the basis of design. Respondents may propose on alternate PLC and HMI products but must demonstrate that they are an acceptable equivalent product. The existing communications network consists of fiber optic cabling, CAT5e cabling, radios and Ethernet switches. The radios were replaced recently and shall continue to be used. The cabling is in good condition and shall also be reused. All Ethernet switches shall be upgraded such that the network backbone has gigabit links instead of the current 100Mbps links.

4.2 Scope of Services - The selected respondent shall provide a complete and operable SCADA system that will provide reliable operation of the WWTP and lift stations for years to come. The following tasks outline the responsibilities of the selected respondent.

Task 1 - Design and Programming - The selected respondent shall provide a design submittal that includes an overall network design and panel drawings for each PLC panel and the Headworks Screen Control Panel. Respondents may assume that a copy of the existing drawings will be provided for the network and for each panel. The respondent shall provide PLC, HMI, touch screen and dialer programming as necessary for a complete and operable system. The existing programs will be made available as a reference, but all new programs shall be developed from scratch following current industry standards. As part of the project, provide a comprehensive, electronic O&M manual that includes PDF's of all drawings and programs as well as backups of all programming files. All programming shall be well documented and organized.

Task 2 - On-Site Installation & Commissioning - The WWTP and each lift station are required to operate continuously 24 hours a day seven days a week. In no way shall the replacement of hardware and software interrupt the facility operations. Using qualified personnel, systematically replace the PLC equipment, network equipment, power supplies and UPS

equipment. Test each I/O point and control loop for proper functionality. Install and setup the SCADA Server rack, redundant UPS equipment, SCADA servers and clients as well as the voice and SMS modems. Demonstrate the proper operation of each SCADA screen, alarming, trending, reporting and notification. Route redundant power feeds to the server rack from an existing lighting panel.

Task 3 - SCADA Equipment & Software - Provide a new SCADA server rack complete with redundant UPS equipment, redundant SCADA Servers with Windows Server, network switch and modems for voice and text notification. Provide redundant Inductive Automation licenses for the HMI software. Each license shall have the following modules: Vision, Reporting, SQL Bridge, Historian, Alarm Notification, Voice Notification, SMS Notification and OPC UA/DA drivers. Provide a SQL Server on the primary SCADA server for historical logging. Provide an OPC server for each SCADA server for retrieving tags from each Modicon M340 PLC. Provide three SCADA workstations each with a 27" monitor, keyboard and mouse. Each workstation shall have Windows 10 Pro, Microsoft Office and Adobe Acrobat. One of the workstations shall be setup with the PLC programming software installed on it. All software licenses shall be in the City's name and shall be provided with one year of software support.

Task 4 - PLC & Networking Equipment - The WWTP and lift stations are considered corrosive locations. All PLC equipment shall be conformally coated. Provide Modicon M340 PLC's to be installed in place of the existing Koyo PLC's. Each PLC panel shall also have its surge suppressor, UPS and DC Power supply replaced. See section 6.5 Bid Schedule for the list of PLC replacements. There are seven lift stations and nine panels at the WWTP. In addition, the Headworks PLC is currently part of the Headworks Screens starter panel. Provide a new NEMA 4X PLC panel for the Headworks building. Rebuild the existing Screens starter panel by replacing the breakers, starters, control power transformer and surge protector. All panels that are indicated to have a touch screen shall have a 6" Magelis touch screen installed in place of the existing touch screen. Maintain the NEMA rating of each enclosure with the touch screen replacements.

## **SECTION 5: PRODUCT SUBMITTALS**

As part of your response to this RFP, you are required to provide the information required under this section 5 and any information required under section 6.

5.1 A list of manufacturers and products to be used for the project: \_\_\_\_\_

5.2 Life expectancy of major equipment components:

5.3 References (minimum of 5):

## **SECTION 6: PROPOSAL EVALUATION:**

6.1 All proposals will be evaluated by authorized representatives of Springville City for compliance with the terms and conditions contained in this RFP and the resulting contract awarded to the highest-ranking proposal as determined by the City.

6.2 The selection committee shall evaluate the proposals on the following criteria: (please include a brief written explanation of the items below)

- 6.2.1 Operability - This criterion addresses the relative ease of operating and maintaining the system. Analysis is based mainly on the software and equipment provided in the bid and the operation & maintenance costs associated with the equipment. The proposal shall detail system operation and routine maintenance in their respective proposal. Key items that will be considered for this criterion are as follows:
- Equipment that can at a minimum report and control the same functions as the current system, with the capability to expand functions.
  - Equipment and software which requires minimal preventive maintenance.
  - System that allows for easy operation by the personnel to perform routine monitoring tasks without disrupting plant operation and without placing the personnel in harm's way.
  - A lower cost for providing recommended spare parts.
- 6.2.2 Equipment Capital Cost - Compares the actual cost of the equipment and software
- 6.2.3 Installation - Compares the actual cost of installation of equipment and software.
- 6.2.4 10-Yr Present Value O&M Cost - Compares estimated O&M cost over a 10-year design life based on the information provided from vendors and bidder's experience to determine overall lifecycle costs. This criterion considers the following:
- The cost to perform routine upgrades, replacement parts. Include annual service agreement.
- 6.2.5 Experience - Used to compare the experience of the bidders on facilities of similar size and complexity.
- 6.2.6 Equipment Quality and Reliability - Compares the quality and reliability of the equipment included in the proposal.
- 6.2.7 References - Contact will be made with references and a comparison made on level of satisfaction with product and service by bidder.
- 6.2.8 Local Service - Addresses the location of the nearest service providers and their ability to assist with questions and potential problems. Include 10-year service agreement proposal.
- 6.2.9 Warranties - Evaluate the warranty provided and any differences between bidder's warranties.
- 6.2.10 Owner's Preference - the greater liking for one proposal over another.

6.3 The City shall evaluate the proposal based on the criteria listed above and the established weighted rating system shown below:

Evaluation Criteria	Weighted Value	Example Rating 1-5	Example Total
Operability	3	5	15
Equipment Capital Cost	5	2	10
Installation Cost	5	4	20
10-Yr Present Value O&M Cost	4	3	12
Experience	3	5	15
Equipment Quality and Reliability	3	5	15
References	2	4	8
Local Service	4	5	20
Warranties	3	5	15
Owner's Preference	4	4	16
		<b>Total Score</b>	<b>146 of 180</b>

The City will evaluate each item proposed using the evaluation criteria. A rating score between 1 and 5 will be assigned for the evaluation criteria for each proposed item. These will be totaled and the proposed item with the highest score will be recommended to the Springville City Council for project approval. Any information that will assist the City in evaluating the proposals based on the criteria listed above is encouraged.

The technical proposal should address all the above items.

The included Bid Schedule must be filled out as part of the technical proposal. Excel spreadsheet will be sent to the registered pre bid meeting attendees.

#### 6.4 BIDDERS QUESTIONS:

Questions or objections to specifications of bidding procedures must be submitted via SciQuest at least five (5) business days before the date and time at which proposals are scheduled to be opened.

## 6.5 BID SCHEDULE

The equipment list specifies Modicon components as the preferred product; equivalent is also acceptable.

### Labor Costs

Instructions - fill out grey fields

		Project Manager	Controls Engineer	Journeyman Electrician	Electrical Designer		
Rates							
Task ID	Task Description	Hours				Costs	
<b>Task 1 - Design &amp; Programming</b>							
101	HMI Programming				0	\$	-
102	Dialer Programming				0	\$	-
103	PLC Programming				0	\$	-
104	Touch Screen Programming				0	\$	-
105	Panel Drawings				0	\$	-
106	O&M Manual				0	\$	-
<b>Task 1 - Totals</b>		0	0	0	0	\$	-
<b>Task 2 - On-Site Installation &amp; Commissioning</b>							
201	Computer Hardware Installation & Setup				0	\$	-
202	Installation				0	\$	-
203	Testing, Startup & Commissioning				0	\$	-
204	Per Diem Costs (Lump Sum)					\$	-
<b>Task 2 - Totals</b>		0	0	0	0	\$	-
<b>Labor Totals (Hours)</b>		0	0	0	0		
<b>Total Labor Cost</b>		\$ -	\$ -	\$ -	\$ -		\$ -

## Equipment and Software Costs

<b>Task 3 - SCADA Equipmnet &amp; Software</b>		Quantity	Unit Price	Total
301	Main SCADA Server (SCADA1) - Dell R340, Xeon, 16 GB RAM, RAID 1 w/2 960 GB SSD, Redundant PS, WS2016 Std (or equivalent)	1		\$ -
302	Backup SCADA Server (SCADA2) - Dell R340, Xeon, 16 GB RAM, RAID 1 w/2 240 GB SSD, Redundant PS, WS2016 Std (or equivalent)	1		\$ -
303	SCADA Clients (Intel NUC Workstation with 27" Monitor)	3		\$ -
304	SCADA Server Rack with Redundant UPS Equipment	1		\$ -
305	Inductive Automation Ignition Costs (Include redundant SCADA Server Licenses, Alarm Notification, SQL Historian, Modicon Drivers)	1		\$ -
306	Voice and SMS Modems for Alarm Notification	1		\$ -
307	Unity PLC Programming Software	1		\$ -
308	Magelis Touch Screen Programming Software	1		\$ -
<b>Task 3 - Totals</b>				<b>\$ -</b>

<b>Task 4 - PLC &amp; Networking Equipment</b>		Quantity	Unit Price	Total
401	East Lift Station - New Modicon M340 PLC (52 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
402	North Lift Station - New Modicon M340 PLC (52 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
403	South Lift Station - New Modicon M340 PLC (52 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	3		\$ -
404	Spring Haven Lift Station - New Modicon M340 PLC (52 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
405	Valtek Lift Station - New Modicon M340 PLC (52 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
406	1500 W Lift Station - New Modicon M340 PLC (88 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
407	West Fields Lift Station - New Modicon M340 PLC (72 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
408	Chlorine Building - New Modicon M340 PLC (52 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
409	Sand Filter Bridge- New Modicon M340 PLC (28 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
410	Utility Water Building - New Modicon M340 PLC (40 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
411	Solids Handling #1 - New Modicon M340 PLC (48 Wired IO Points), Touch Screen, 24 VDC Power Supply, UPS	1		\$ -
412	Solids Handling #2 - New Modicon M340 PLC (60 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
413	Secondary Digester - New Modicon M340 PLC (36 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
414	Primary Digester - New Modicon M340 PLC (56 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
415	Headworks Building - New 316SS PLC Panel, New Modicon M340 Conformally Coated PLC (44 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
416	Headworks Screen Control Panel Rebuild (new Breakers, Starters, Transformer, SPD and Fusing)	1		\$ -
417	Old Pump House - New Modicon M340 PLC (188 Wired IO Points), 24 VDC Power Supply, UPS	1		\$ -
418	Installation Materials (Lump Sum)	1		\$ -
<b>Task 4 - Totals</b>				<b>\$ -</b>

<b>Equipment Total</b>	<b>\$ -</b>
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<b>Project Contingency</b>		<b>%</b>	<b>\$ -</b>
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<b>Project Total</b>	<b>\$ -</b>
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## **SECTION 7: INDEMNIFICATION:**

7.1 The selected Respondent will be required to defend, indemnify and save harmless the City of Springville, its employees and agents, from and against all claims, damages, losses and expenses (including without limitations, reasonable attorney's fees) arising out of, or in consequence of, any negligent or intentional act or omission of the selected Respondent, its employees or agents, to the extent of its or their responsibility for such claims, damages, losses and expenses.

## **SECTION 8: SPECIFICATION CLARIFICATION:**

8.1 All inquiries with respect to this Request for Proposal shall be submitted through SciQuest

All questions about the meaning or intent of the specifications shall be submitted through SciQuest. Answers will be posted on SciQuest. Questions received less than four (4) business days prior to the date of submission of proposals will not be answered. Only questions answered by formal written Addenda will be binding. Oral or other interpretations or clarifications will be without legal effect.

## **SECTION 9: MODIFICATION AND WITHDRAWAL OF PROPOSALS:**

9.1 Proposals may be modified or withdrawn by written request executed (in the manner that a proposal must be executed) and delivered to the place where proposals are to be submitted at any time prior to the opening of proposals.

9.2 If within twenty-four (24) hours after the proposals are opened, any Respondent files a duly signed written notice with the City and promptly thereafter demonstrates to the reasonable satisfaction of the City that there was a material and substantial mistake in the preparation of its proposal, that Respondent may withdraw its proposal. Thereafter, that Respondent will be disqualified from further proposal on the work.

## **SECTION 10: INSURANCE AND SECURITY REQUIREMENTS:**

10.1 The selected Respondent will be required to procure and maintain at its own expense the following insurance coverage, which must be issued by an insurer which is licensed to do business in the State of Utah and which has an A.M. Best rating of not less than "A":

- A. Workers' Compensation and Employer's Liability Insurance: A policy or policies providing protection for employees in the event of job-related injuries that meets the requirements of Utah State law.
- B. General Liability Insurance: A policy or policies of comprehensive general liability insurance with limits of not less than \$3,000,000.

10.2 Each policy of insurance required shall be in form and content satisfactory to Springville City and shall provide that:

- A. The City of Springville is named as an additional insured on a primary and non-contributing basis.

- B. The insurance policies shall not be changed or cancelled until the expiration of thirty (30) days after written notice to Springville City. In addition, said policies shall be automatically renewed upon expiration and continued in force, unless Springville City is given thirty (30) days written notice to the contrary.
- C. All insurance must be issued by an insurer licensed to do business in the State of Utah and must have an A.M. Best rating of not less than "A". Each policy of insurance required shall be in form and content satisfactory to the City of Springville and shall provide that the City of Springville is named as an additional insured. Before any of the services contemplated by this Agreement may be rendered, Respondent shall provide the City of Springville with a certificate or certificates of insurance, which document compliance with the requirements of this Article.

10.3 No agreement will be signed and no services shall be commenced pursuant to this Request for Proposals until the selected Respondent has delivered to Springville City proof of issuance of all policies of insurance required by the Contract to be procured by the selected Respondent. If at any time any of said policies shall be or become unsatisfactory to the City, the selected Respondent shall promptly obtain a new policy and submit proof of insurance of the same to the City for approval. Upon failure of the selected Respondent to furnish, deliver and maintain such insurance as above provided, the contract may, at the election of the City, be forthwith declared suspended, discontinued or terminated. Failure of the selected Respondent to procure and maintain any required insurance shall not relieve the selected Respondent from any liability under the contract, nor shall the insurance requirements be constructed to conflict with the obligations of the selected Respondent concerning indemnification.

#### **SECTION 11: NON-COLLUSIVE PROPOSAL CERTIFICATE AND ACKNOWLEDGMENT:**

11.1 Each Respondent shall complete and submit with his or her proposal the "Proposal Certificate" found on the following page.

## PROPOSAL CERTIFICATE

By submission of this proposal, each Respondent and each person signing on behalf of any Respondent certifies, and in the case of a joint proposal each party thereto, certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in the proposal have been arrived at independently, without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Respondent or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the Respondent and will not knowingly be disclosed by the Respondent prior to the opening, directly or indirectly, to any other Respondent or to any competitor; and
3. No attempt has been made or will be made by the Respondent to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
4. The submitted proposal shall be good for a period of one hundred eighty (180) days.

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(Signature)

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(Print Name and Title)

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(Name of Partnership or Corporation)

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RESPONDENT