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REQUEST FOR PROPOSAL (RFP)

SCADA INTEGRATION AT WASTEWATER TREATMENT FACILITY

VILLAGE OF ANTIOCH
874 MAIN STREET
ANTIOCH, IL 60002

SEPTEMBER 7TH, 2021

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1. SUMMARY AND BACKGROUND

The Village of Antioch, Illinois, is accepting proposals to provide SCADA integration work at the Wastewater Treatment Facility.

The Illinois E.P.A. has proposed more stringent guidelines for Total Phosphorus and Nitrogen removal. These proposed lower limits prompted the Village to implement an optimization plan to maximize removing these parameters at the Treatment Facility.

The Village installed online O.R.P. (Oxygen-Reduction Potential), pH, and level sensors throughout the facility. The Village is seeking a SCADA firm to integrate the data from these online instruments to the Treatment Facility SCADA network.

The purpose of this Request for Proposal (R.F.P.) is to solicit proposals from various candidate organizations, conduct a fair and extensive evaluation based on criteria listed herein, and select the candidate who best represents the direction Village of Antioch wishes to go.

The Village of Antioch Treatment Facility SCADA system utilizes Schneider Electric Modicon P.L.C.'s and Wonderware software. The ORP, temp, pH, online equipment is Hach. The level sensors are from Vega corporation. All licensing is up to date.

2. PROPOSAL GUIDELINES

Proposals will be received by the Village Administrator of the Village of Antioch, Illinois ("OWNER"), at Village Hall, 874 Main Street, Antioch, IL 60002 until 11:00 AM., on September 24th, 2021 for **SCADA Integration at the Treatment Facility.**

If the organization submitting a proposal must outsource or contract any work to meet the requirements contained herein, clearly state this in the proposal. Additionally, all costs included in proposals must be all-inclusive to have any outsourced or contracted work. Any proposals that call for outsourcing or contracting work must include a name and description of the contracted organizations.

3. PROJECT PURPOSE AND DESCRIPTION

The purpose of this project is as follows:

The Village of Antioch has implemented an optimization plan to attain the Illinois E.P.A. targeted goals for Total Phosphorus and Nitrogen removal. Using the online sensor data as a guide had proven successful in meeting these targets. Furthermore, the staff discovered ways to reduce the impact of the secondary waste streams on the process by utilizing the online data.

Weekly, the Treatment Facility staff downloads all the online sensor data onto a sim card. The Treatment Facility staff then incorporates this data into multiple Excel spreadsheets to analyze the data and see where the overall O.R.P. average currently stands. These averages are calculated for process control in attempt to obtain the for-mention goals.

The SCADA system can easily automate these tasks and perform these basic calculations more effectively and readily than once a week, providing the operators better control, operating the facility more successfully and efficiently.

Project Description:

The Village of Antioch is seeking a firm to provide the Treatment Staff access to the necessary data to make timely process control decisions. The data sent to the SCADA system must be operator friendly, positioned for possible future growth, and provide detailed information, mainly the overall averages for the anaerobic and anoxic zones.

4. PROJECT SCOPE

The following criteria must be met to achieve a successful project:

- Installing Nine (9) ORP tags from the aeration tanks.
 - Three (3) from the anaerobic zones
 - Three (3) from the anoxic zones
 - Three (3) from the aerobic zones
- Four (4) level tags from the digesters
- Four (4) pH tags from the digesters
- Four (4) ORP tags from the digesters
- To have all values from online sensors displayed onto the Treatment Facility HMI screens and computers.
- To have a daily average ORP displayed from **each** of the anoxic and anaerobic zones separately.
- To have a daily average ORP displayed of all three (3) anoxic zones together.
- To have a daily average ORP displayed of all three (3) anaerobic zones together.
- To have a daily average ORP displayed of all six (6) zones anoxic and anaerobic together.
- To have a daily average ORP displayed separately from **each** of the three (3) aerobic zones.
- To have a daily average ORP displayed from each of the three (3) aerobic zones together.
- Evaluate current 4-20 mA wiring to determine any possible issues. The firm will decide if any wiring will need replacing and make recommendations to the Village.
- Firm will provide detailed solutions or alternatives to 4-20 mA wiring.
- Evaluate current hardware to determine any possible issues.
- Identify costs estimates for items 1, 2, and 3.
 - Included costs for sub-contractors
- On-site review of facility is not required but encouraged.
- Identify possible grants or programs the Village can utilize to offset costs.
- Project completion- provide Village with updated programming changes on a flash drive and detailed updated schematics.

5. REQUEST FOR PROPOSAL AND PROJECT TIMELINE

Request for Proposal Timeline:

All proposals in response to this RFP are due no later than 11 AM September 24, 2021.

The Village will evaluate proposals from September 27, 2021, until October 11, 2021, if the Village requires more additional information or discussions with any bidders during this two-week window. The Village will notify the bidders.

The Village will decide the winning bidder by no later than October 27, 2021.

The Village will complete notifications to bidders who are not selected by November 1, 2021.

Project Timeline:

Overall completion of the project should not exceed 90-days from the start of the project unless approved by the Village.

6. BUDGET

All proposals must include anticipated costs to complete the tasks described in the project scope. The Village of Antioch seeks a breakdown of the individual assignments associated with the project, including the estimated time for completion for each task. Proposals must highlight hourly rate for each job and the overall price for the project.

NOTE: All costs and fees must be clearly described in each proposal.

7. QUALIFICATIONS

Responders should provide the following items as part of their proposal for consideration:

- List of how many full time, part time, and contractor staff in your organization
- Clearly identify the names and address of the firm or firms including phone number, e-mail address and contact person for any questions.
- Anticipated resources you will assign to this project (total number, role, title, experience)
- Timeframe for completion of the project
- Project management methodology
- Provide specific examples of similar projects completed in the past five years. Minimum of 5 projects.
- Provide a minimum of five references of similar projects that have been completed in the past five years.
- Provide a list of sub-consultants along with their qualifications to provide those services not provided by your firm. Include a list of similar projects that you have worked on with each consultant in the last five years.
- Describe the Errors or Omissions Insurance that your firm carries
 - Have there been any claims against this policy in the past five years?
 - Has your firm ever been sued for Errors or Omissions? Describe?
- Is your firm licensed to conduct business in the State of Illinois?
- Are the Principals assigned to this project licensed in the State of Illinois?
- How long has your firm been in business?

- Is your staff familiar with Hach and Vega online equipment?
- Provide any other information that your firm deems relevant to this project?
- Provide an estimate cost to complete this project?

8. PROPOSAL EVALUATION CRITERIA

Village of Antioch will evaluate all proposals based on the following criteria. To ensure consideration for this Request for Proposal, your proposal should be complete and include all the following criteria:

- Overall proposal suitability: proposed solution(s) must meet the scope and needs included herein and be presented in a clear and organized manner
- Organizational Experience: Responders will be evaluated on their experience as it pertains to the scope of this project
- Previous work: Responders will be evaluated on examples of their work pertaining to SCADA integration as well as client testimonials and references
- Value and cost: Responders will be evaluated on the cost of their solution(s) based on the work to be performed in accordance with the scope of this project
- Technical expertise and experience: Responders must provide descriptions and documentation of staff technical expertise and experience
- The Village reserves the right to accept or reject any or all proposals received as a result of this request, to waive irregularities in any proposals, to delete any one or more parts or sections, or to cancel this Request for Proposals if it is in the best interest of the Village of Antioch to do so.

Each responder must submit 4 copies of their proposal to the address below by September 24th, 2021 at 11 AM:

Village of Antioch
874 Main St.
Antioch, IL 60002

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