

COMMONWEALTH OF MASSACHUSETTS

CITY OF LOWELL

In City Council

VOTE

Authorizing the City Manager and to proceed under the provisions of Massachusetts General Laws Chapter 30B for engineering services for continued support and maintenance of Lowell Regional Wastewater Utility's (LRWWU) existing supervisory control and data acquisition (SCADA) control system for a term of five (5) years.

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The City Council must authorize the City Manager and to proceed under the provisions of Massachusetts General Laws Chapter 30B, in order to obtain such services for a term of five (5) years.

NOW, THEREFORE, BE IT VOTED BY THE CITY COUNCIL OF THE CITY OF LOWELL, as follows:

That the City Manager and are hereby authorized to seek, receive and accept proposals under the provisions of Massachusetts General Laws Chapter 30B, relative to engineering services for continued support and maintenance of Lowell Regional Wastewater Utility's (LRWWU) existing supervisory control and data acquisition (SCADA) control system for a term of five (5) years.

BE IT IS FURTHER VOTED:

That the City Manager and be and hereby are authorized to execute and deliver any and all other documents related to engineering services for the City of Lowell, on such terms and conditions as the City Manager and deems in the best interest of the City of Lowell.

V:contract:LRWWU-engineering services



MARK A. YOUNG  
EXECUTIVE DIRECTOR

## LOWELL WASTEWATER UTILITY WASTEWATER TRANSPORT AND TREATMENT



SERVING LOWELL  
CHELMSFORD DRACUT  
TEWKSBURY  
TYNGSBORO

**TO:** Thomas A. Golden, Jr., City Manager  
**CC:** Conor Baldwin, Chief Financial Officer  
**FROM:** Mark Young, Executive Director; Aaron Fox, Operations Manager  
**DATE:** June 23, 2023  
**SUBJECT:** Request for Proposals (RFP) 23-94 Wastewater SCADA & Business Intelligence Services

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On April 19, 2023, the City of Lowell Purchasing Department issued a Request for Proposals (RFP) for Wastewater Supervisory Control & Data Acquisition (SCADA) Engineering Services. By solidifying a five year agreement, the Utility can maintain continuity of SCADA services during the upcoming Duck Island treatment plant upgrade, which is scheduled to start in July 2024. A change in vendor after three years would incur extra costs and disruption to the construction schedule. The contract will also include ongoing cyber security support of the SCADA network, which is separate from the City Network.

I am recommending City Council approval is obtained, under MGL 30B, for the City Manager to award a five year contract for these services. A committee was formed to review the responses to the RFP. Through the MGL 30B process, the committee has selected Woodard & Curran, Inc. The committee feels that the proposal is complete, exceeds the minimum criteria, and is highly advantageous for the City.

Please contact me if you have any additional questions.

Via Electronic Mail

June 20, 2023



Mark Young, Executive Director  
Lowell Regional Wastewater Utility  
451 First Street Blvd  
Lowell, MA 01850

Re: Proposal for Engineering Services for Waste Water Scada & BI Services  
RFQ 23-94

Dear Mr. Young:

The City of Lowell has requested Woodard & Curran to provide engineering services for continued support and maintenance of Lowell Wastewater Utility's existing SCADA control system. Additionally, Woodard & Curran will offer SCADA programming and startup services in support of the planned Phase 3 Upgrades in accordance with RFQ 23-94.

#### **SCOPE OF WORK**

##### **Phase 1 – SCADA On-Call Support Services**

Woodard & Curran will provide support services for the City of Lowell's Wastewater Treatment SCADA system. Woodard & Curran will provide planned and emergency response services at the request of treatment plant staff, to modify or troubleshoot instrumentation and software associated with the facilities' SCADA system. These services will also include integration and design, where needed, to advance the City's existing GIS and business intelligence program. Additionally, planned visits will be made to review and patch software, firewalls, and network switches to maintain the LRWWU's control system.

##### **Phase 2 – Design Support and Integration of Lowell, MA Phase 3 Upgrades**

This phase includes support services during LRWWU's Phase 3 Upgrade project and integration services during construction.

Design support services includes coordination with the City's wastewater treatment designer to support the Phase 3 Upgrade project. Woodard & Curran will attend meetings as requested by LRWWU, review design plans and specification, and respond to technical questions during the design phase.

Integration services include providing software programming and start-up services to integrate new or modified equipment and processes into the existing treatment facility SCADA system.

These services will include:

**Centrifuges** – Integration of vendor control panels for three new centrifuges. Woodard & Curran will program interlocks and process changes to provide sludge feed to the new equipment, while also providing centrifuge visualization, control, and alarms into the existing plant wide Human Machine Interface (HMI) software.



**TWAS** – Integration of new TWAS pump VFDs into the existing system. Configuring communication and modifying existing PLC programming as required.

**Polymer** – Integration and startup services for a new polymer bulk storage tank, transfer pump and dewatering feed pump.

**Dewatering Control Panel** – A new dewatering control panel will be installed. Woodard and Curran will provide labor to convert the existing dewatering programming to the new panel while also providing PLC and HMI software changes to support additions to the existing processes.

**PAC** – Integration and startup services for two new PAC bulk storage tanks, transfer pumps, feed pumps, eyewash station and ortho-phosphorus monitoring.

**Aeration** - Integration and startup services for new thermal mass air flowmeters.

**Grit Cyclone & Classifier** – Integration and startup services for new hydrogritters and influent channel isolation gates.

**Scum System** – Integration and startup services for new scum pumping and jet mixing systems for the two primary scum wells.

**Sodium Hypochlorite** – Integration and startup services for improvements to sodium hypochlorite additions, including an additional bulk storage tank.

**Sodium Bisulfite** – Integration and startup services for new sodium bisulfite bulk storage and feed system.

**Effluent Building MCC** – Integration of a new effluent building motor control center into the existing effluent building control system.

## **ASSUMPTIONS AND UNDERSTANDINGS**

The above Scope of Work is based on the following assumptions and understandings:

- Aeration system changes will not require modifications or changes to the existing DO control scheme.
- Equipment controlled by the new effluent building MCC will not require programming changes to their existing process control scheme. Labor includes effort to integrate new VFDs and starters into the existing control scheme.
- Reprogramming of equipment for process changes that are different than the existing control scheme is not included.
- Equipment procurement for Phase 2 will be completed by others.
- Production of design drawings for Phase 2 is not included in this scope of work.

## **COMPENSATION AND SCHEDULE**

Woodard & Curran will complete the work on a time and material basis with an estimated budget of seven hundred fifty thousand dollars and zero cents (\$750,000). The budget will not be exceeded without prior written authorization from the City. Attached is the rate table for this scope of work. All work included in the scope of work above will be completed by September 30, 2028.



Sincerely,

WOODARD & CURRAN, INC.

A handwritten signature in blue ink that reads "Jim Rivard".

Jim Rivard  
Vice President

Enclosure(s) Rate Table

cc: Aaron Fox, LRWWU  
Evan Walsh, LRWWU  
Peter Lyons, Woodard & Curran  
Tim Maynard, Woodard & Curran

## Municipal Standard 2023

STAFF TYPE	HOURLY RATE
Project Assistant	\$110
Drafter	\$125
Designer / Engineer 1 / Planner 1 / Technical Specialist 1	\$155
Engineer 2 / Planner 2 / Technical Specialist 2	\$165
Engineer 3 / Planner 3 / Senior Designer / Technical Specialist 3	\$180
Project Engineer 1 / Project Planner 1 / Project Technical Specialist 1	\$190
Project Engineer 2 / Project Planner 2 / Project Technical Specialist 2	\$200
Project Manager 1 / Technical Manager 1	\$210
Project Manager 2 / Technical Manager 2	\$230
SCADA Service Manager / Senior Project Manager / Senior Technical Manager	\$250
Senior Technical Leader	\$255
National Practice Leader	\$265
EXPENSES	
Travel	\$0.655 / mile
Other Direct Costs	At Cost Plus 10%
Subconsultants/Subcontractors	At Cost Plus 10%

### NOTES

Mileage rate will change as the federal allowable rate is modified.



Thomas A. Golden, Jr.  
*City Manager*

Shawn Machado  
*Assistant City Manager*

June 23, 2023

Mayor Sokhary Chau  
And  
Members of the City Council

SUBJECT: Authorize the CM Execute Agreement with Woodard & Curran, Inc. for 5 Year Contract

Dear Mayor Chau and Members of the City Council:

Attached, please find a copy of Operations Manager Aaron Fox's memo regarding SCADA Engineering Services proposal along with a copy of the RFP that was issued in May. Woodard & Curran, Inc submitted response to RFP 23-94 WW SCADA Engineering Services and was reviewed and selected as successful by an evaluation committee.

Pursuant to M.G.L. c. 30B, Council authorization is required for any municipal contract in excess of three (3) years.

Accordingly, attached is the Vote requesting authorization for the City Manager to enter into a 5-year contract with Woodard & Curran, Inc. Both the RFP and the responsive proposal will be made part of this contract.

Sincerely,

Thomas A. Golden, Jr.  
City Manager