

THIRD AMENDMENT TO
PROFESSIONAL CONSULTANT SERVICES AGREEMENT

WUNDERLICH-MALEC ENGINEERING, INC.

Remote and On-Site Control Systems Maintenance at the RERC and Spring Power Plants

THIS THIRD AMENDMENT TO PROFESSIONAL CONSULTANT SERVICES AGREEMENT ("Third Amendment") is made and entered into this _____ day of _____, 2022, by and between the CITY OF RIVERSIDE, a California charter city and municipal corporation ("City"), and WUNDERLICH-MALEC ENGINEERING, INC., a Minnesota corporation authorized to do business in California ("Consultant"), with respect to the following:

RECITALS

WHEREAS, the City and Consultant entered into that certain Professional Consultant Services Agreement dated September 7, 2017 ("Agreement"); and

WHEREAS, the City and Consultant entered into a First Amendment to Professional Consultant Services Agreement ("First Amendment") dated October 29, 2018, extending the Agreement to July 1, 2019, and amending compensation for an agreement total of Ninety Thousand Dollars (\$90,000.00); and

WHEREAS, the City and Consultant entered into a Second Amendment to Professional Consultant Services Agreement ("Second Amendment") dated June 27, 2019, extending the Agreement to July 1, 2022, and amending compensation for an agreement total of Two Hundred Seventy Thousand Dollars (\$270,000.00);

WHEREAS, the City has been satisfied with Consultant's performance under the Agreement and desires to have Consultant continue providing the services referenced in Agreement; and

WHEREAS, the current Agreement expires on July 1, 2022; and

WHEREAS, City and Consultant desire to renew the Agreement an additional (3) three years, to July 1, 2025, and add additional compensation of Sixty Thousand Dollars (\$60,000.00) per year during the extended term of the Agreement, for an agreement total of Four Hundred Fifty Thousand Dollars (\$450,000.00).

NOW, THEREFORE, in consideration of the foregoing recitals which are incorporated herein by this reference, City and Consultant agree as follows:

1. Section 1 of the Agreement is hereby amended by adding the additional Scope of Services as set forth in Exhibit "A-3," attached hereto and incorporated herein by this reference.

2. The rate schedule is hereby amended by replacing Exhibit "B" with Exhibit "B-3."

3. The term of the Agreement is hereby extended to July 1, 2025.

4. Section 3, "Compensation/Payment" is hereby amended for an amount not to exceed Sixty Thousand Dollars (\$60,000.00) per year for the extended term of the Agreement, for a new total of Four Hundred Fifty Thousand Dollars (\$450,000.00).

5. All other terms and conditions of the Agreement between the parties which are not inconsistent with the terms of this Third Amendment shall remain in full force and effect as if fully set forth herein.

[SIGNATURES ON FOLLOWING PAGE.]

IN WITNESS WHEREOF, the parties hereto have caused this Third Amendment to Professional Consultant Services Agreement to be duly executed the day and year first above written.

CITY OF RIVERSIDE,
a California charter city and municipal
corporation

By: _____
City Manager

WUNDERLICH-MALEC
ENGINEERING, INC.,
a Minnesota corporation authorized to do
business in California

By: Walter L. [Signature]
Its: PRESIDENT

Attest: _____
City Clerk

By: Karen R. Raland
Its: Chief Financial Officer

Certified as to Availability of Funds:

By: [Signature]
Chief Financial Officer

Approved as to Form:

By: Susan [Signature]
Assistant City Attorney

EXHIBIT "A-3"

SCOPE OF SERVICES

Section 1 – Introduction

Wunderlich-Malec Engineering/Systems (WM) sincerely expresses our thanks in your invitation to provide a proposal to provide engineering services for continued support for COR. WM is very excited to present this proposal and firmly believes its deliverable components respond to customer requirements.

WM is an established industrial systems integrator with central offices in Eden Prairie, (MN) and regional branch offices in Phoenix (AZ), Los Angeles (CA), Las Vegas (NV), Denver (CO), Portland (OR), Chicago (IL), San Francisco (CA), Minneapolis, (MN), Albuquerque, (NM), and Dallas (TX) to name a few. Because WM is an independent systems house, we can provide state-of-the-art solutions using the best technology and maintaining superior technical service and customer support.

Perhaps the most important WM resource is our highly motivated and trained engineering professionals. Encompassing every aspect of the controls and automation industry, these leaders can assure innovative and cost-effective solutions to your industrial information system application. At the moment WM employs over 500 men and women dedicated to the controls and automation industry, with over 350 engineers and programmers making up over 2/3's of the company staff.

WM has more than 40 years' experience implementing industrial control & automation systems. WM offers stable industry leadership, state-of-the-art technology and the personnel knowledge base and resources, to ensure timely, on-budget completion of your project.

The remainder of this proposal outlines the methodology that WM extends for consideration of providing engineering and support services for COR.

Section 2 – Wunderlich-Malec and City of Riverside RERC

Wunderlich-Malec Engineering/Systems has provided the most recent control system upgrade (2012) for the City of Riverside facility. A description of the project efforts follow:

Design and implementation of a PLC/HMI system for monitor and control of four GE LM 6000 50MW combustion turbine generators as well as all balance of plant equipment. Procure, Construct, Program, Integrate, Startup and Document the BOP system. Included were system network ties in remote control site for System Control And Data Acquisition for unmanned automatic operation. In addition to the four GE Mark 6 Turbine control systems, the BOP integrates: four Continuous Emission Monitoring Systems (CEMS), four Selective Catalyst Reduction systems (SCR), an Ammonia Skid, a Fuel Gas Skid, Air Compressors, Evaporative Coolers, Switch Gear Status and Control, Black Start Generator, Preexisting ABB SCADA and RTUs, California CalSO Revenue Meters, Bitronics Meters, and a Hathaway DAS DPG.

WM Scope:

- Detail design of control system
- Procurement and Manufacture of PLC (GE RX3i, 90-30) and RIO Control Cabinets
- Procurement and Configuration of SCADA (Wonderware). Included Alarms, Graphics, Faceplates, Etc.
- System Architecture, Control Programming Philosophy, HMI Graphics, Alarm Handling, System Security, Historical Archiving, Documentation and Drawing Packages, Control Panel Construction.
- Implemented giga-bit Ethernet switches with layer 3 and VLANs
- Provided interfaces to electrical and OEM subsystems
- Implemented one button start to achieve under 10 minute start-up.
- Establishment of long-term maintenance support contract, which is currently active.

Percentage of the cost of the work performed by our WM forces: 100%

WM has been providing continued support for COR since the completion of this project. With the knowledge that WM has from the design and implementation of the complete project, WM is the best equipped system integration engineering team to work with the COR plant control systems. WM has done all of the changes/modifications to the system by request of COR since this project install. WM's support of the system that has been custom designed especially for this COR facility give us the most knowledge of anyone regarding the plant control systems.

Section 3 – Description of Project Design Methodology

Analysis

For existing systems requiring upgrades or additions, the current SCADA system must be analyzed in terms of how the system is currently performing and what items require remediation. At a minimum, network communications; SCADA system hardware; software and configuration; cyber security; and monitoring and reporting of the system should be analyzed.

Deliverables generally include documentation reporting actionable recommendations and strategies with the goal of improving the performance of the current system and generating a specification for use in the design phase. Recommendations for the design phase could include replacement, augmentation, or a change of methodology of current equipment, software, or procedures.

For new system designs, a sequence of operations is generally created in cooperation with the engineer. During this phase, WM recommends customer involvement at appropriate intervals in order to direct the recommendations toward a customized design.

Design

Once a thorough analysis has been completed, the design process can begin using the deliverables from the analysis as a guide. The design should include a sequence of operations, plans, reports, and specifications that may address at a minimum: standardization of equipment, technical specifications, design standards, guidelines, and documentation; data collection functionality between enterprise reporting and business management; and network security improvements. It is recommended that the customer participate in design reviews in order to maintain compliance with customer requests. WM will maintain the standards that currently exist and those that are created during this project if revisions or acceptable changes have occurred during the design review process.

WM has experienced that beyond functionality, many clients express needs regarding four other major areas of integration. The first concern is the integration of the SCADA system with the information technology department. Another concern is that the system is up to date with the latest in industry cyber security standards. Third, appropriate communication elements should be selected such as fiber optics, wireless technology and public network technology. Decisions regarding this concern are generally made during the design review process. Finally, clients often need the data and reporting system from SCADA to be integrated into a business network. WM's approach is to satisfy client needs, while investigating options with respect to performance issues, functionality tradeoffs, cost, and security vulnerabilities.

WM has extensive design experience and is perfectly suited to provide solutions in these areas. WM recommends that designs proceed with the intent of providing a system that has a network architecture that meets a set of benchmarks established by WM and the client, which can be developed in the early phases of the project.

Construction and Installation

This includes wiring, programming, SCADA software and hardware installation and/or updating computer internals associated with the SCADA system. These tasks will be conducted in accordance with the approved design. If necessitated by the design, WM operates a full service control panel assembly shop that is certified for UL508 and has the ability to provide panel design and build in accordance with industry standards.

Commissioning

Once installation and programming is complete, the system can be commissioned. This phase will include verification that the construction meets the design. Loop verification should be conducted in order to simulate the field instrument signals back to the SCADA system. For example, a field technician may simulate a 4-20mA signal while another member of the commissioning team verifies that the operator interface screen displays the corresponding data, such as tank level or flow rate. As part of this phase, it is recommended that a documentation system is followed. A database can be populated with applicable data including but not limited to the manufacturer information, tag name, signal type, and methods of testing. Commissioning may also consist of providing assistance on computer control strategy checkout, tuning of control loops, and troubleshooting. A recommended deliverable for this phase is a printed and electronic copy of the testing database.

Training and Operations and Maintenance Manuals

Many clients require detailed operations and maintenance (O&M) manuals as a final deliverable as well as classroom and hands on training for onsite staff. WM has had extensive experience with this task for clients such as the City of Phoenix and Intel Corporation. In most cases, a specification for formatting and content is available or created to follow. The manufacturer data sheets, drawings, factory acceptance testing or commissioning documentation can be found in the O&M manual. WM can provide both classroom and field training as required by the City. For the classroom, media such as PowerPoint presentations and hand-outs may be used to supplement the training material. For field training, it is recommended to find a suitable field location that has both hardware and an operator interface terminal (OIT) in close proximity in order to best demonstrate the new systems.

Recommendations for Future Projects

Finally, many clients request that WM provide a report of recommendations for hardware and software upgrades for any necessary future work. This could be incorporated into SCADA specifications that are existing or developed in the analysis phase, which is an input for the design phase. This would provide a guide for the designer as well as a means for instituting an instrumentation and controls inspection program for the purpose of ensuring proper quality assurance and control of future projects.

EXHIBIT "B-3"
COMPENSATION

Section 4 – WM Rate Information

Below is the current rate schedule for WM Services.

ENGINEERING RATE SCHEDULE

<u>Classification</u>	<u>Rate</u>
P1 Principal	\$275.00
E10 Engineer 10	\$200.00
E9 Engineer 9	\$185.00
E8 Engineer 8	\$175.00
E7 Engineer 7	\$165.00
E6 Engineer 6	\$155.00
E5 Engineer 5	\$145.00
E4 Engineer 4	\$135.00
E3 Engineer 3	\$125.00
E2 Engineer 2	\$105.00
E1 Engineer 1	\$ 95.00
D5 Designer 5	\$110.00
D4 Designer 4	\$100.00
A2 Administrative/Purchasing	\$ 75.00
A1 Administrative/Clerical	\$ 45.00

1. Typical engineering categories that are used for COR:

Staff Category	Rate Class
Administrative	A2
CAD/Technician	D4/5
Associate Engineer	E3/4
Senior Engineer	E6/7
Project Manager	E7/8

2. For one locked-in rate over the next three years (thru 2024), we would use \$164.44/hour for all services and remote support.
3. Typical travel and related expense charges between Riverside and consultant office:

Travel and living costs will be billed at cost. Mileage rates (currently \$0.565/mi) and per diem rates will be per the published GSA rates.
4. We propose to use the same terms as on our existing agreement.