

# RESOLUTION NO. 08 22 2024H

**A RESOLUTION AUTHORIZING A SUPPLEMENTAL AGREEMENT WITH LOCHMUELLER GROUP, INC., FOR THE PERUQUE CREEK EQUALIZATION BASIN IMPROVEMENTS AND EAST LIFT STATION DECOMMISSIONING PROJECT, IN AN AMOUNT NOT TO EXCEED \$35,563.00, BRINGING THE TOTAL CONTRACT TO AN AMOUNT NOT TO EXCEED \$276,141.00.**

**WHEREAS**, the City of O'Fallon, in June of 2022, approved an agreement with Lochmueller Group, Inc., for the Peruque Creek Equalization Basin Improvements and East Lift Station Decommissioning Project; and

**WHEREAS**, additional design work is required to comply with Missouri Department of Natural Resources requirements and to resolve problems with an existing gravity sewer line on the project; and

**WHEREAS**, City staff recommends approval of this Resolution;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF O'FALLON, MISSOURI, AS FOLLOWS:**

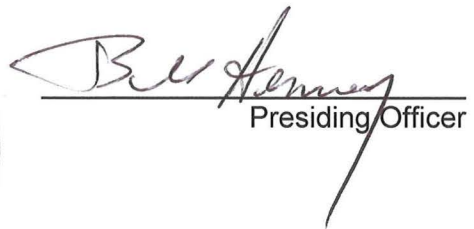
**SECTION 1:** The City Council approves on behalf of the City a supplemental agreement with Lochmueller Group, Inc., for the Peruque Creek Equalization Basin Improvements and East Lift Station Decommissioning Project at a cost not to exceed \$35,563.00 with a new agreement total not to exceed \$276,141.00, in substantial conformity with the terms shown on Exhibit A attached hereto and incorporated herein by this reference as if set out here in full, together with such changes therein as shall be approved by the officers of the City executing same which are consistent with the provisions and intent of this legislation and necessary, desirable, convenient or proper in order to carry out the matters herein authorized. The City Administrator and other appropriate City officials are hereby authorized to execute the Agreement and such additional documents and take any and all actions necessary, desirable, convenient or prudent in order to carry out the intent of this legislation.

**PASSED BY THE CITY COUNCIL FOR THE CITY OF O'FALLON, MISSOURI, THIS 22<sup>ND</sup> DAY OF AUGUST, 2024.**

Attest:

  
Bess Bacher, City Clerk



  
Presiding Officer


# RESOLUTION NO. 08 22 2024H

APPROVED BY THE MAYOR FOR THE CITY OF O'FALLON, MISSOURI, THIS 22<sup>ND</sup> DAY OF AUGUST, 2024.




Attest:

  
Bess Bacher, City Clerk

  
Bill Hennessy, Mayor

Approved as to Form:

  
Kevin M. O'Keefe, City Attorney

SUPPLEMENTAL AGREEMENT NO. 3  
TO  
ENGINEERING SERVICES CONTRACT

This Supplemental Agreement is made part of an agreement dated June 9, 2022, between the City of O'Fallon and Lochmueller Group, Inc. for professional services of the 22-108

— Collection System Upgrades Project. The purpose of this supplemental agreement is to increase the agreement amount by an additional \$35,563.00 for a new agreement total not to exceed Two Hundred Seventy-Six Thousand One Hundred Forty-One Dollars and Zero Cents (\$276,141.00) without further authorization. Exhibit A outlines the scope and cost breakdown for this Supplemental Agreement. Also with this agreement, the schedule of the project is being adjusted. As noted in Exhibit A, the scope of work will be completed within three (3) months of the notice to proceed.

Supplemental Agreement No. 3 accepted as defined herein:

**CITY OF O'FALLON, MISSOURI**

*Michael Snowden*  
(Signature)

Michael Snowden  
Printed Name)

City Administrator  
(Title)

08/22/2024  
(Date)

ATTEST:

*Bess Bacher*  
(Signature)  
Bess Bacher, City Clerk

**LOCH MUELLER GROUP, INC.**

*Scott J. Smith*  
(Signature)

Scott J. Smith P.E.

Principal  
Title)

July 30 2024  
(Date)

ATTEST:

*Allison Mannion*  
(Signature)  
Allison Mannion, P.E., Project Manager



## **22-108 – Collection System Upgrades**

### **Peruque Creek Equalization Basin Improvements and East Lift Station Decommissioning**

### **Supplemental Agreement #3**

**City of O'Fallon, Missouri  
2022 Water & Sewer Projects**

## **SCOPE OF SERVICES**

**PREPARED BY: Lochmueller Group, Inc.**  
820 S. Main Street, Suite 207  
St. Charles, Missouri 63301

**July 29, 2024**

This supplemental agreement will amend an agreement between the City of O' Fallon and Lochmueller Group per Resolution No. 06 09 2022E, passed and executed by the City Council of O'Fallon on 9<sup>th</sup> June 2022. The agreement provided professional engineering services for Collection Systems Upgrades 22-108.

**General Project Description:**

Lochmueller has been tasked by the City of O' Fallon to prepare a supplemental agreement for additional design services to complete the construction for the Peruque Creek Lift Station Equalization Basin Improvements Project.

**Miscellaneous Design Assumptions:**

- 1) Lochmueller has assumed that the design plans, specifications, and bid documents will be prepared in accordance with the City of O'Fallon and MDNR design guidelines.
- 2) Lochmueller has assumed that the existing design data including influent and effluent flow characterization, as well as quantitative flow data provided by the City of O'Fallon during the design study is applicable for final design daily, average, monthly, annual, and peak flows.
- 3) Lochmueller has assumed that all proposed work will be completed within the City of O'Fallon's property boundary and public Right of Way and will not impact private property.
- 4) Lochmueller assumes that the City is responsible for removal, transportation and disposal of sanitary sewage or sludge, if needed to complete the project.

**Schedule:** It is anticipated that the design scope of work will be completed within three (3) months of notice to proceed.

**Billing Rates:** An estimate of the hours it will take to complete this additional scope of work is included in the attached work breakdown structure. Schedule of current Consultant billing rates are also attached for additional services requests.

A more detailed description of Lochmueller's design scope is shown below:

**1.1 Administration/Project Management/Meetings**

**1.2** Administration for this project includes monthly preparation of invoices and progress reports and review and approval of subconsultant invoices.

**1.3** Project Management for this project will involve general oversight of the project by the designated Project Manager whereby he/she provides weekly direction to the design staff and subconsultant. This effort also includes maintenance of project files and updating the City on project status and coordination of design issues.

**2.1 Data Collection and Review**

**2.2** Lochmueller will review historical reports and take any applicable data and information from these reports to incorporate into the facility plan.

### **3.1 Facility Plan**

**3.2** A Facility Plan will be completed and will follow the MDNR standards for a Facility Plan.

- 3.2.1 Cover page with all facility and contact information
- 3.2.2 Table of Contents
- 3.2.3 Identify and evaluate wastewater treatment facility challenge(s), such as a compliance schedule, an increase in flow or pollutant load or effluent limit violations
- 3.2.4 Assemble basic information
- 3.2.5 Planning and service area location
- 3.2.6 Population projection and planning period (20 years)
- 3.2.7 Hydraulic Capacity and Organic Waste Load
- 3.2.8 Examine alternatives, including initial development and evaluations
- 3.2.9 Alternatives must include a no-discharge option and a regionalization option
- 3.2.10 Provide sufficient information to document the reason an alternative is not feasible.
- 3.2.11 Detailed site evaluation
- 3.2.12 Include a completed geohydrologic evaluation for earthen basins
- 3.2.13 Include a discussion of soils and a soil morphology analysis as needed
- 3.2.14 Design criteria and assumptions
- 3.2.15 Maps, diagrams and preliminary layouts
- 3.2.16 Preliminary cost estimates for all alternatives (20-year present worth of capital construction costs and annual operation and maintenance costs) with enough detail to make an informed decision
- 3.2.17 Recommended project alternative
- 3.2.18 Present the recommended project from the alternatives considered.
- 3.2.19 Include financing considerations.
- 3.2.20 Outline expected project schedule, including any enforcement or permitting schedules of compliance dates.

**3.3** Lochmueller will take information from existing historical reports, the engineering report completed at the 30% design and use this information in the Facility Plan.

**3.4** Additional requirements for the Facility Plan include:

- 3.4.1 Ensure to define the problem and include a description and evaluation of the existing lift station system.
  - 3.3.1.1 Cell 2 is not currently a permitted feature on operating permit MO-0028720. An evaluation of the condition of the earthen basin (cell 2) to be connected should be included.
- 3.4.2 Ensure flood protection is discussed as this facility is located within a special flood hazard area.
- 3.4.3 Consider the adequacy of the collection system which is not being changed.

### **4.1 Pump Selection**

**4.2** Lochmueller will complete the design of a lift station to pump flow back to the Peruque Lift Station.

**4.3** The size of the pump will be calculated for a flow rate that the existing lift station has capacity for and will drain the basin at an adequate rate.

- 4.4 Coordination with the City to determine their pump preferences (skid mounted, submersible, pump manufacturer, rate at which the basin will be drained.)
- 4.5 A comparison of cost will be created to determine the most cost effective solution.
- 4.6 A specification will be created for the desired pump.
- 4.7 The detail for the level sensor manhole will be updated and drawings reissued for contractor bid.
- 4.8 Coordination with the electrical team including sub consultants, electrical contractor and integrator.
- 4.9 Two (2) site visits to discuss location of the pump and any other structures such as a concrete pad as well as electrical needs.

**5.1 Electrical Engineering Services (Introba (Ross & Raruzzini))**

- 5.2 The Consultant Introba (Ross & Baruzzini) has determined that the scope of electrical work defined in the original agreement Resolution No. 06 09 2022E, is sufficient for the anticipated scope of work required for final design of the selected design option.
- 5.3 Delete analog wiring from the existing pump station to the West Basin for direct
- 5.4 connection of a level sensor.
- 5.5 Provide a 480 volt feeder from the existing main electrical building to the West Basin, including connection to a new pump control panel to be provided by the system integrator for the new pump.
- 5.6 Provide fiber optic cable for data communications to a new control panel.
- 5.7 The electrical feeder and fiber optic cable shall be installed in existing (installed under the base project) underground conduit.
- 5.8 Design the new pump control panel to be installed at the West Basin to include a power disconnect, a variable frequency drive, control power, and connection to the underground conduit distribution. (This control panel shall be provided by the system integrator complete with monitoring of wet well level sensing, the variable frequency drive with monitoring and control of the pumping operation, PLC remote I/O to interface with the existing pump station PLC controls, and communications via fiber optic cable to interface with the pump station PLC. The system integrator shall design the PLC and communications part of the control system to be installed in their control panel.)
- 5.9 A small step-down transformer and circuit breakers to serve the controls and miscellaneous lighting and receptacles will be designed into the control panel and shall be provided by the system integrator as a part of their system. Coordination with the electrical contractor and electrical integrator.
- 5.10 Two (2) site visits to discuss electrical power and controls for the new pump.
- 5.11 Additional construction phase services.

**6.1 QA/QC**

- 6.2 This effort is for implementation and documentation of the Lochmueller's Quality Control plan. Lochmueller will complete internal QAQC of all deliverables at each submittal phase.

**7.1 Additional Services not included with this contract unless otherwise directed by the City for Additional Fee**

- 1) Electrical system study
- 2) Structural engineering support services
- 3) Traffic Control Plans
- 4) Construction Sequence Phasing Plans
- 5) Preparation of any documentation and/or supporting materials related to Federal, State, Local, and Utility based incentives programs.
- 6) Responsibility for uncovering and correcting existing asbestos or other hazardous materials.
- 7) Preparation of short circuit, coordination (fuse/breaker settings) and arc flash studies.
- 8) Procuring services for HVAC system measurements (e.g., air flow or water flow), electrical equipment metering, hydrant pressure/flow testing, or water quality testing.
- 9) Electrical testing of existing or new equipment/installations
- 10) Owner initiated changes to previously approved documents.
- 11) Analysis, evaluation, or redesign for Owner requested value engineering.
- 12) Any seismic calculations and details that may be required by local authorities for MEP work are not included. These will be required to be submitted by the installing contractor when his routes and equipment selections are finalized.
- 13) Materials testing for structures and foundations.



**FEE CALCULATIONS: WORK BREAKDOWN STRUCTURE**  
Lochmueller Group

Estimate By: AAM	<b>Project:</b> 22-108 Collection System Lift Station Upgrades					<b>Client:</b> City of O'Fallon, MO			
Estimate Date: 29-Jul-24	<b>Project #:</b> 522-1006-00P					<b>Owner:</b> City of O'Fallon, MO			
Project Type: DESIGN/BID/BUILD	<b>Peruque Creek Lift Station Equalization Basin Improvements - Facility Plan and Pump Selection</b>								
								<b>Total Fee:</b>	<b>\$35,563</b>
<b>Task</b>	<b>Principal</b>	<b>Proj. Mgr</b>	<b>Process Eng. IV</b>	<b>Proj. Eng. III</b>	<b>Proj. Eng. II</b>	<b>Proj. Eng. I</b>	<b>Total Hours</b>	<b>Hourly Labor</b>	
	\$285	\$255	\$200	\$180	\$160	\$145			
<b>Project Management and Administration</b>								<b>\$1,825</b>	
Contract, Invoices and Progress Reports	1	1			1		3	\$700	
Project Oversight by PM		3		2			5	\$1,125	
<b>Data Collection and Review (Design Phase - Selected Option)</b>								<b>\$1,760</b>	
Review historical reports				8	2		10	\$1,760	
<b>Facility Plan</b>								<b>\$15,450</b>	
MDNR Coordination				8			8	\$1,440	
Compile and Combine Engineering Report and Historical Data				8			8	\$1,440	
Facility Plan - Additional Requirements				20			20	\$3,600	
Geohydraulic Coordination				2			2	\$360	
Detailed Site Evaluation				8			8	\$1,440	
20-year Life Cycle Costs			4	16	4		24	\$4,320	
QAQC		1	8	2	4		15	\$2,850	
<b>Pump Selection</b>								<b>\$10,400</b>	
Pump Sizing				8	4		12	\$2,080	
City Coordination				8	8		16	\$2,720	
Cost Comparison/Consideration of options				4			4	\$720	
Pump Specification				4			4	\$720	
Update level sensor manhole design				2		8	10	\$1,520	
Coordination with Electrical and pump				4			4	\$720	
QAQC			4				4	\$800	
Site Visit			2	4			6	\$1,120	
<i>Electrical - Peruque Creek Lift Station (By Others R&amp;B)</i>								<i>See Attached ManHour Estimates for Details</i>	
								\$5,600	
<b>Totals</b>	<b>1</b>	<b>5</b>	<b>12</b>	<b>82</b>	<b>15</b>	<b>0</b>	<b>163</b>	<b>\$ 29,440</b>	

<b>Subconsultant Costs</b>	<b>\$ 5,600</b>
<b>Direct Costs (Mileage &amp; Print)</b>	<b>\$ 23</b>
<b>Design Fee:</b>	<b>\$ 35,063</b>
<b>Allowances</b>	
Permit Fees	\$ 500
<b>TOTAL</b>	<b>\$ 35,563</b>

<b>Direct Costs</b>	
Printing/Copies	\$ -
Mileage (2 Round Trips)	\$ 23
Permits (Estimated Fees)	\$ 500
<b>Subtotal</b>	<b>\$ 523</b>
<b>Sub-Consultants</b>	
Electrical (R&B)	\$ 5,600
<b>SUB</b>	<b>\$ 5,600</b>
<b>Total Direct Costs &amp; Subs</b>	<b>\$ 6,123</b>

<b>Summary of Engineering Design Fees - Supplement 2</b>	
R&B - Electrical Subconsultant	\$ 5,600
<b>Sub Total Labor Costs</b>	<b>\$ 5,600</b>
<b>TOTAL</b>	<b>\$ 5,600</b>

July 26, 2024

Ms Allison Mannion  
Lochmueller Group  
820 S Main Street  
Suite 207  
St. Charles, MO 63301

Re: **Revised Collection System Lift Station Upgrades Power and Controls for West Basin Pumping Services**  
City of O'Fallon,

MO Dear Ms Mannion:

This letter is in reference to our current contract. We respectfully request additional fee for the following services not included in our scope of services or in previous Amendments to the contract.

Electrical engineering services for modifications at the Peruque Creek Lift Station Equalization Basin including:

- **Design the power and controls for a pump to be added to the West Basin to pump stored overflow wastewater back to the pump station clearwell.**
  - Delete analog wiring from the existing pump station to the West Basin for direct connection of a levelsensor.
  - Provide a 480 volt feeder from the existing main electrical building to the West Basin, including connection to a new pump control panel to be provided by the system integrator for the new pump.
  - Provide fiber optic cable for data communications to a new control panel.
  - The electrical feeder and fiber optic cable shall be installed in existing (installed under the base project) underground conduit.
  - Design the new pump control panel to be installed at the West Basin to include a power disconnect, a variable frequency drive, control power, and connection to the underground conduit distribution. (This control panel shall be provided by the system integrator complete with monitoring of wet well level sensing, the variable frequency drive with monitoring and control of the pumping operation, PLC remote I/O to interface with the existing pump station PLC controls, and communications via fiber optic cable to interface with the pump station PLC. The system integrator shall design the PLC and communications part of the control system to be installed in their control panel.)
  - A small step-down transformer and circuit breakers to serve the controls and miscellaneous lighting and receptacles will be designed into the control panel and shall be provided by the system integrator as a part of their system.



- Design level sensing in the West Basin using an analog level transmitter (already included in the scope of the base project) and high-low level floats (to be added). These will be monitored by the expansion of the pump station control system.
  - 2 additional site visits are included for coordination with the electrical contractor and the system integrator for this system.
  - Additional Construction Phase services for this system addition.
- 
- No electrical system study will be performed unless this is requested as an additional service.

### **SUMMARY OF SERVICES**

These additional Professional Engineering Services shall be performed as added scope to the original project.

### **DELIVERABLES**

The following documents will be provided by Introba Inc for this additional scope of work:

- Modifications and additions to the existing design drawings with the described revisions.
- Additional specifications as required for the control panel, VFD, fiber optic cable, etc. These may be in specification format or included as notes on the drawings as needed.

All documents will be submitted electronically in pdf format.

### **FEES AND PAYMENT**

Introba Inc. proposes to provide the above noted additional services for a lump sum fee of \$5,600.00, assuming this will take approximately 30 hours of effort.

We understand that you will issue a contract for our services. This document shall be referenced and included in the terms of the contract. We appreciate the opportunity to provide this proposal and look forward to working with you toward the successful completion of the project.

Respectfully,

**Introba Inc**

A handwritten signature in blue ink that reads "Bob Wilson".

Bob Wilson, P.E.  
Associate Principal, Electrical  
Industrial & Facility Infrastructure