



**REQUEST FOR COMMISSION ACTION**  
**CITY OF INDEPENDENCE**  
**November 12, 2020**

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**Department** Utilities

**Director Approval** Terry Lybarger

**AGENDA ITEM** Consider authorizing a supplemental agreement with PEC for a Water Supply and Treatment Master Plan.

**SUMMARY RECOMMENDATION** City staff recommends the approval of the PEC Supplemental Agreement No. 2.

**BACKGROUND** The City of Independence has received a supplemental agreement for the Water Treatment Plant to prepare a Water Supply and Treatment Master Plan. The evaluation of the plant recently revealed that the infrastructure condition is very poor and end of life expectancy is within 10-years with repairs. City Staff has requested PEC prepare a Master Plan for the Commission and Staff to evaluate how to proceed with the plant improvements and repairs.

**BUDGET IMPACT** KDHE SLF Loan

**SUGGESTED MOTION** I move to authorize the mayor to sign a supplemental agreement with PEC for Water Supply and Treatment Master Plan.

**SUPPORTING DOCUMENTS** Supplemental Agreement No 2.

November 5, 2020

Mayor Leonhard Caflisch  
City of Independence 811 W.  
Laurel Street Independence,  
KS 67301

Reference: Independence WTP Phase 2 Improvements  
Supplemental Agreement No. 2  
Original Contract Date: March 3, 2020  
PEC Project No. 35-190768-001-0918

Dear Mayor Caflisch:

This Supplemental Agreement by Professional Engineering Consultants, P.A. (PEC) modifies the referenced Agreement, and any other previous Supplemental Agreements as may be noted herein.

A. Modification of Scope:

1. See attached Exhibit A.

B. Time of Performance:

1. The completion date will be increased.

C. Payment Provisions:

1.	Original Contract amount	\$ 171,500.00
2.	Net change by previous Supplemental Agreement(s)	\$ 24,442.00
3.	The contract amount will increase by this Supplemental Agreement in the amount of	\$ <u>34,000.00</u>
4.	The new contract amount including this Supplemental Agreement will be	\$ <b>229,942.00</b>

Mayor Leonard Caflisch  
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D. Authorization to Proceed:

1. Return receipt of this executed Supplemental Agreement will be considered our authorization to proceed.

Sincerely,  
**PROFESSIONAL ENGINEERING CONSULTANTS, P.A.**

Sarah C. Unruh, P.E.  
Principal

SCU:apg

ACCEPTED:

CITY OF INDEPENDENCE

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **EXHIBIT A**

### **A. Project Description**

1. The Project shall consist of preparing a Water Supply and Treatment Master Plan to determine source water needs and potential alternate sources, evaluate water supply and treatment components, identify improvements required over a 20-year planning period, and provide cost estimates and proposed phasing to assist the CLIENT in Capital Improvement Planning and obtaining funding for the projects.

### **B. Anticipated Project Schedule**

1. PEC shall commence its services on the Project within 7 days after receiving CLIENT's notice to proceed.
2. PEC and CLIENT anticipate that the draft Water Master Plan will be completed within 90 days after receiving the information included in the Data Request.
3. CLIENT acknowledges that directed changes, unforeseen conditions, and other delays may affect the completion of PEC's services. PEC will not have control over or responsibility for any contractor or vendor's performance schedule.

### **C. Project Deliverables**

1. This Project Deliverables shall consist of the following:
  - a) Draft Master Plan Report
  - b) Final Master Plan Report.

### **D. Scope of Services**

1. Project Management:
  - a) Conduct project kick-off meeting.
  - b) Conduct a maximum of two project progress meetings and two workshops with City Staff and/or City Commission.
2. Water Supply and Treatment Master Plan:
  - a) Data Collection
    - i. Review the City's current water rights and compare to historical raw water pumping information from the City's existing low service pump station.
    - ii. Obtain mapping of the existing distribution system from the City and conduct interviews as needed with key staff familiar with the public water supply system.
    - iii. Collect water use data including average day use, peak daily use, peak hourly use, and usage information for large water consumers from City staff.
    - iv. Review existing studies, master plans, treatment system O&M manuals, and comprehensive plans to be provided by the City.
    - v. Review water quality sample results for raw water, finished water, and waste streams provided by the CLIENT.

- vi. Review available design plans, operational records, maintenance records, and KDHE inspection reports.
  - vii. Review information for the CLIENT's water fund including current rates, the past three year's revenues and expenditures, and current debt obligations.
- b) Population Projections and Water Demands:
- i. Review development areas and update projected development with input from the CLIENT through a 20-year planning period (through 2040).
  - ii. Prepare population and usage projections through the year 2040.
  - iii. Review historical and current population and demands, projected population and demands through the year 2040, and projected future development area mapping with the CLIENT. Incorporate the CLIENT's input into the Draft Master Plan.
- c) Water Supply Evaluation:
- i. Compare the City's current water rights to the projected 2040 usage.
  - ii. Identify up to two alternate water supply sources that can provide the projected water demand over a 20 year period.
  - iii. Coordinate and participate in one meeting with the CLIENT and the Division of Water Resources to discuss water rights.
  - iv. Prepare an Engineer's Opinion of Probable Cost for constructing the required improvements for each water supply option and determine the 20-year net present worth costs for each option factoring in anticipated annual costs
  - v. Prepare a condition and capacity assessment of components associated with raw water supply, including the low service pump station, Parshall flume structure, and raw water piping. Assessment shall include review the process, electrical, controls, mechanical, and structural aspects of each component as required.
  - vi. Prepare recommendations for rehabilitation or replacement of water supply components based on condition and capacity, including an Engineer's opinion of probable costs associated with each improvement.
  - vii. Review recommendations with the CLIENT. Incorporate assessment and recommendations with CLIENT's input into the Draft Master Plan.
- d) Water Treatment Evaluation:
- i. Prepare a condition and capacity assessment of components associated with water treatment, including the reactor clarifier, 3 settling basins, chemical feed systems, slow and rapid mix basins, filtration, finished water storage, high service pump station, and interconnection piping and appurtenances. Assessment shall include review the process, electrical, controls, mechanical, and structural aspects of each component as required. Information obtained as part of the previous and current water treatment plant improvement projects will be used, with supplemental assessment as needed to address all components of the facility.
  - ii. Prepare recommendations for rehabilitation or replacement of current water supply components based on condition and capacity, including an Engineer's opinion of probable costs associated with each improvement.

Alternate treatment processes or treatment facility locations will not be evaluated.

- iii. Review recommendations with the CLIENT. Incorporate assessment and recommendations with CLIENT's input into the Draft Master Plan.

e) Waste Stream Disposal Evaluation:

- i. Summarize information from the waste stream summary review process and the lagoon permitting process. Outline anticipated improvements and associated costs required for the proposed alternate backwash and basin drain waste stream disposal method.
- ii. Review the condition of the existing residuals lagoon and associated piping. Provide estimated costs for any needed improvements to incorporate into the project phasing plan.
- iii. Identify two alternative methods for disposal of sludge from the residuals lagoon and provide an Engineer's opinion of probable costs for each method.

f) Financial Impacts Review:

- i. Prepare a preliminary phasing for recommended water supply and treatment improvements for the 20 year planning period.
- ii. Determine potential rate increases for funding the water supply and treatment system improvements.

- g) Incorporate the water supply, treatment, residuals management, and financial impacts evaluations into a draft Master Plan and submit electronically to the CLIENT for review. Conduct a review meeting with the CLIENT to discuss the draft Master Plan and incorporate CLIENT comments into the final Master Plan. Submit an electronic Final Master Plan to the CLIENT. Hard copies of the draft and final Master Plan shall be submitted to the CLIENT upon request.

**E. Additional Responsibilities of CLIENT:**

The CLIENT agrees to provide the following pursuant to PEC accomplishing the Scope of Services outlined herein.

- a) Provide documents and data as requested and available.
- b) Review submitted reports and documents in a timely manner.
- c) Provide sampling results, treatment system drawings and operational data, and other information as requested and available in a timely manner.
- d) Provide access to the treatment system for review and documentation.

**F. Additional Services:**

The following services can be provided by PEC at an additional cost by Supplemental Agreement:

- 1. Design or assistance with implementation of any improvements recommended improvements.

2. Field survey or geotechnical investigations.
3. Activities associated with water right acquisition, including correspondence with DWR or other water rights owners.
4. Communication with regulatory agencies on behalf of the City outside of what is noted in the scope.
5. Review of alternate water treatment processes or methods or locations for water treatment processes aside from relocating for future construction phasing at the current site.
6. Review or evaluation of the CLIENT's water distribution system including capacity, condition, or potential development.

**G. Exclusions:**

The following shall be specifically excluded from the Scope of Services to be provided by PEC.

- a) Corrosion control study or water quality study for the water distribution system.
- b) Distribution system evaluation, storage evaluation, water modeling, and flow testing.
- c) Water quality sampling or testing.
- d) Coordination with wholesale water purchasers.

**H. PEC's Fees:**

1. PEC's Fee for its Scope of Services for the Water Supply and Treatment Master Plan will be on an hourly basis, at the rates established on the attached Rate Schedule, including Reimbursable Expenses, not-to-exceed \$34,000.00.
2. Taxes are not included in PEC's Fees. CLIENT shall reimburse PEC for any sales, use, and value added taxes which apply to these services.