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Title: Resolution to Approve the Professional Services Agreement with LG Design, Inc., for Professional Engineering Services for the Water Treatment Plant Interim UV Disinfection System Project (\$145,060.00)

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Attachments: 1. PSA_LG Design_WTP Interim UV System_20181015.pdf

Date	Ver.	Action By	Action	Result
10/15/2018	1	City Council		

Resolution to Approve the Professional Services Agreement with LG Design, Inc., for Professional Engineering Services for the Water Treatment Plant Interim UV Disinfection System Project (\$145,060.00)

This memorandum and resolution requests approval of a professional services agreement for professional engineering services with LG Design, Inc. (formerly known as CH2M and a wholly owned subsidiary of Jacobs Engineering, Inc.) for the Water Treatment Plant (WTP) Ultraviolet (UV) Disinfection System Project for a total of \$145,060.00.

In June 2017 the Michigan Department of Environmental Quality (MDEQ) notified the City of Ann Arbor that their drinking water supply contained levels of Cryptosporidium (a waterborne parasite) that exceeded an annual average limit. MDEQ stated that compliance for treatment was required by June 2020. Subsequently, in 2017, the City hired CH2M to perform a study to evaluate alternatives for compliance. The study concluded that the City is able to meet the new disinfection requirements some of the time, but not all of the time. When the City is performing annual maintenance on some of its treatment basins, which can take 4 to 8 weeks each year, the City is unable to meet the new disinfection requirements. CH2M’s study recommended adding an interim ultraviolet light (UV) disinfection process that will enable the City to comply with the new disinfection requirements during this 4 to 8 week maintenance window. In the long term, the study recommended adding a permanent UV disinfection facility as part of the large plant improvement project scheduled in the City’s Capital Improvement Plan.

The interim UV system will have hydraulic limitations, therefore it would not meet the requirements of a long term permanent UV disinfection system. However, interim UV system will allow the City to meet the MDEQ deadline, and provide additional time for the City to implement a long-term solution that best fits into the future planned Pre-treatment Basin Renovation Project.

In August 2018, CH2M was hired by the City to develop the conceptual design of the interim UV

system. On September 6, 2018, CH2M and the City met with MDEQ to present the conceptual plan and seek MDEQ's preliminary endorsement of the concept. On September 12, 2018 MDEQ responded to the City indicating their acceptance of the City's plan.

The scope of this Project includes professional engineering services for the detailed design of the Interim UV system. CH2M is uniquely positioned to successfully execute this project. CH2M has experience with navigating through MDEQ regulations and acceptance criteria, which will be necessary to obtain process approval and meet compliance requirements. The State of Michigan does not have experience approving UV disinfection for drinking water treatment compliance, therefore CH2M's experience with obtaining approval for this technology to meet disinfection requirements in other States is critical. It is necessary that work begin immediately and CH2M possesses a familiarity with the Ann Arbor Water Treatment Plant, its processes, and MDEQ, which allows them to meet the aggressive schedule. This proposed scope of work is a logical continuation of the previous efforts recently completed by CH2M.

It is therefore recommended that City Council approve the professional services agreement with LG Design, Inc. to perform the professional engineering services for the WTP Interim UV Disinfection System Project.

LG Design, Inc./CH2M complies with the requirements of the City's Non-Discrimination and Living Wage ordinances.

Budget/Fiscal Impact: Funds are available in the Water Supply System Capital Budget for the design amounting to \$210,000.00. The remaining \$2,199,060.00 will be funded from future Water Supply System Capital Budgets, as approved by Council.

The total estimated project cost is \$2,409,060.00 and is broken down as follows: 1) CH2M Conceptual Design of Alternatives \$24,500.00; 2) CH2M Detailed Design Phase \$145,060.00; 3) CH2M Detailed Design Phase Contingency \$14,500; 4) CH2M estimated Construction Phase Services \$150,000.00; 5) Estimated City Staff time (for design and construction) \$75,000.00; 6) Estimated Construction Cost \$2,000,000.00.

Prepared by: Brian Steglitz, P.E., Water Treatment Services Unit Manager

Reviewed by: Craig Hupy, Public Services Area Administrator

Approved by: Howard S. Lazarus, City Administrator

Whereas, The City's drinking water source has exceeded the MDEQ's annual average limit for *Cryptosporidium*, thereby requiring additional treatment to meet new disinfection requirements;

Whereas, The MDEQ is requiring compliance with the new disinfection requirements by June 2020;

Whereas, The City previously hired CH2M in 2017 to develop alternatives to comply with the new disinfection requirements, and again in 2018 to develop the conceptual design of an interim UV disinfection system;

Whereas, This project represents a continuation of the study phase and conceptual design phase for an Interim UV Disinfection System that began in 2017 and continued earlier in 2018;

Whereas, Professional engineering services are required to design the disinfection system, prepare construction documents, and provide bid phase services in order to implement the aggressive schedule required for MDEQ compliance;

Whereas, LG Design, Inc./CH2M is uniquely qualified through previous project efforts, and expertise in obtaining regulatory compliance, thus positioning them to meet the aggressive schedule;

Whereas, Funding is available from the Water Supply System Capital Budget; and

Whereas, LG Design, Inc./CH2M complies with the requirements of the City's Conflict of Interest, Non-Discrimination and Living Wage ordinances.

RESOLVED, That the Professional Services Agreement with LG Design, Inc. is approved in the amount of \$145,060.00;

RESOLVED; That a contingency in the amount of \$14,500.00 is approved to finance change orders to the professional services agreement to be approved by the City Administrator;

RESOLVED, That the Mayor and City Clerk are authorized and directed to execute the Professional Services Agreement after approval as to substance by the City Administrator and approval as to form by the City Attorney;

RESOLVED, That the City makes the following declaration for the purposes of complying with the reimbursement rules of Treasury Regulations 1.150-2 pursuant to the internal Revenue Code of 1986, as amended, that the City reasonably expect to reimburse itself for expenditures for the costs of the Project with proceeds of Bonds;

RESOLVED, That the professional services are to be funded from the Water Supply System Capital Budget;

RESOLVED, That the City Administrator be authorized to take the necessary administrative actions to implement this resolution; and

RESOLVED, That the funds be available for the life of the project without regard to fiscal year.