

**INFORMATION REQUIRED TO ACCOMPANY
LEGISLATION AUTHORIZING A CONTRACT**

ORDINANCE NO. 0089 - 2007

**MODIFICATION NO. 10 TO CONTRACT FOR
PROFESSIONAL SERVICES**

**WASTEWATER TREATMENT FACILITIES INSTRUMENTATION AND CONTROL
(I&C) SYSTEM UPGRADE
PROJECT NO. 650348**

PROCUREMENT BY REQUEST FOR PROPOSAL (RFP) PROCESS

1. Names, locations, and business status of all entities submitting an RFP or RFSQ for the original contract:

- A. Camp Dresser & McKee, Inc. 8800 Lyra Drive, Suite 500, Columbus, OH 43240, Majority
- B. EMA Services,, Inc., 3860 Broadway, Grove City, Ohio 43123, Majority
- C. H. R. Gray & Associates, Inc. and Mishra & Associates, 1335 Dublin Road, Suite 100-B, Columbus, Ohio 43215, Majority
- D. URS Consultants, 277 West Nationwide Blvd., Columbus, OH 43215-2566, Majority

2. **Scope of Work to be performed:** The Contract with Camp Dresser & McKee, Inc. provides professional engineering services for the Wastewater Treatment Facilities Instrumentation and Control (I&C) System Upgrade, Project No. 650348. This project will provide centralized control, monitoring, data collection, and energy management for both the Jackson Pike and Southerly Wastewater Treatment Plants. The project I & C system improvements were initially considered to be constructed by three construction contracts, one for the communication backbone, a second for the liquid stream process control system improvements and a third for the solids stream process control system improvements. As the design progressed, it was determined that it was better to build the process control system improvements under one construction contract. A third construction contract is for improvements to the Jackson Pike WWTP Administration Building. The construction contract designations and purposes are:

Contract J198A/S61A – Process Control System Communication Backbone
Provides for the construction of the fiber optic communications system at the Jackson Pike and Southerly Wastewater Treatment Plants, which will be utilized by the Plant Wide Process Control System to be constructed under Contract J198B/S61B.

Contract J198B/S61B – Process Control Systems Improvements

Provides for the construction of the Plant Wide Process Control System (PWPCS) and other control system improvements, workstations for the Operations Control Center and Remote Operator Stations at the Jackson Pike and Southerly Wastewater Treatment Plants for the liquid and solids streams.

Contract J204 – Administration Building Improvements

Provides for the construction of an instrumentation and control training center/conference room, laboratory renovation to meet current safety standards, upgrading the building HVAC and electrical system to meet current code and provide compliance with ADA requirements.

The engineering services provided by Camp Dresser & McKee, Inc. are being accomplished in four Phases for each of the construction contracts, as follows:

Phase 1 – Strategic Planning services consists of the preparation of a Strategic Plan to define a centralized monitoring, control, energy management and data collection system in both wastewater treatment plants. The plan shall include the details of the recommended system architecture, an evaluation of the existing facilities' function and condition; an investigation and evaluation of the existing facilities' records; an investigation of process technology and available equipment; an evaluation of the present and future needs of the City in regard to the planned improvement; an approximate Input/Output (I/O) point count; an energy management strategy; a staffing plan, a cost/benefit analysis; and a master program schedule, while taking into count any existing constraints that would modify what is possible for organizational change.

Phase 2 - Preliminary Design/ Detailed Design Memorandum Preparation services continue the work beyond the Strategic Plan to both prepare a Preliminary Design which shall be the basis of the construction program for the recommended I&C Upgrade facilities and such refinement and additional investigations of staffing and workforce reorganization that may be necessary. A detailed report is developed that provides a general plan for project improvements that includes viable alternatives, and provides recommendations for the City's consideration and determination of project direction.

Phase 3 – Detailed Design services provide for the development of a facility design that is detailed in written specifications and drawings for bidding the construction work of the Project, development of estimates of project cost and duration, and assistance with bid solicitation and evaluation.

Phase 4 – Services During Construction and Commissioning provide for assistance to the City during construction of project improvements.

Technical and Field Services generally include providing interpretations and clarifications of the construction documents, responding to contractor's inquiries, reviewing and approving the contractor's submitted documentation, designing and documenting needed changes to the construction work, observing and

verifying construction work, providing evaluations and recommendations on the acceptability of the contractor's work, equipment control software programming, observing facility testing and startup, providing training for plant operations and maintenance personnel, providing manuals for facility operation, and revising drawings of the facility as actually constructed.

Construction Management provides for administration of the project as the City's representative to the construction contractor and generally consists of maintaining and communicating project information, verifying the contractor's compliance with required schedules, verifying the contractor's payment requests, evaluating and negotiating proposed changes in the construction work, providing materials testing, conducting and recording project meetings, coordinating construction work with the plant operations, coordinating quality control verification work, obtaining maintenance and warranty documentation from the construction contractor, and reporting of project progress to the City.

Commissioning Services provides all final project items including completing the punch list, settling any remaining contractual issues, additional application engineering support, training services for the plant staff, and updating the existing Standard Operating Procedures to reflect the operating changes resulting from the control modifications provided under Contract J198B/S61B.

Camp Dresser & McKee, Inc. is performing Technical and Field Services for all construction contracts in the project and Commissioning Services for Contract J198B/S61B. Construction Management services are being performed by others.

Engineering Services Progress:

Contract J198A/S61A – All engineering services have been completed for this project phase. All construction work is completed and the contract is closed.

Contract J198B/S61B – All Strategic Planning, Preliminary Design and Detailed Design services are complete for this project phase. Services During Construction are completed and Commissioning services are nearing completion. The proposed contract modification provides supplemental funding for the Commissioning services.

Contract J204 – All engineering services have been completed for this project phase. All construction work is completed and the contract is closed.

3. **Schedule to Program completion; "phasing":** The Contract Notice to Proceed was issued February 26 1997.

Contract J198A/S61A – Process Control System Communication Backbone

The Strategic Planning was submitted to the City on August 14, 1998. The Preliminary Design (Phase 2) work for the I&C Upgrade facilities was started in May, 1998. This investigative and planning effort was summarized in the draft Detailed Design Memorandum (DDM), submitted to the City on November 29, 1999 and finalized on September 12, 2000. In May, 1999, Camp Dresser & McKee, Inc. proceeded with Detailed Design services (Phase 3) for Contract J198A/S61A. The design was completed and the construction contract bids were received on September 6, 2000. The contract was awarded and the Notice to Proceed was issued on January 4, 2001. Construction was completed in March, 2003.

Contract J198B/S61B – Process Control Systems Improvements

The Strategic Planning was submitted to the City on August 14, 1998. The Preliminary Design (Phase 2) work for the I&C Upgrade facilities was started in May, 1998. This investigative and planning effort was summarized in the draft Detailed Design Memorandum (DDM), submitted to the City on November 29, 1999 and finalized on September 12, 2000. In June, 2000, Camp Dresser & McKee, Inc. proceeded with Detailed Design services (Phase 3) for Contract J198B/S61B. The design was completed and the construction contract bids were received on July 25, 2001. The contract was awarded and the Notice to Proceed was issued on November 20, 2001. Work on the construction contract is completed, a final modification for the construction contract is being executed, and the construction contract is expected to be closed in April 2007.

Contract J204 – Administration Building Improvements

The Preliminary Design (Phase 2) work for the Administration Building Improvements was started in June, 2000. This investigative and planning effort was summarized in a Detailed Design Memorandum (DDM) Supplement, submitted to the City on February 22, 2001. In March, 2001, Camp Dresser & McKee, Inc. proceeded with Detailed Design services (Phase 3) for Contract J204. The design was completed and the construction contract bids were received on October 24, 2001. The contract was awarded and the Notice to Proceed was issued on April 13, 2002. Construction was completed in March, 2004.

4. Estimated Costs over the full contract period:

ORIGINAL CONTRACT: \$700,000.00 (CT-17992 February 21, 1997)

Funding provided estimated to be needed for Phase 1 – Strategic Planning services for the new I&C System Upgrade, Contracts J198A/S61A and J198B/S61B.

MODIFICATION NO. 1: \$3,054,236.00 (CT-19992+A April 29, 1998)

Additional funding provided for Phase 1 – Strategic Planning services for the new I & C System Upgrade, Contracts J198A/S61A and J198B/S61B and funding provided for Phase 2 - Preliminary Design/ Detailed Design Memorandum

preparation services and Phase 3 – Detailed Design services estimated to be needed for Contract J198A/S61A.

MODIFICATION NO. 2: \$2,245,248.00 (EL000373 May 25, 2000)

Funding provided for Phase 2 - Preliminary Design/ Detailed Design Memorandum preparation services and Phase 3 – Detailed Design services estimated to be needed for Contract J204. Funding provided for Phase 3 – Detailed Design services for Contract J198B/S61B.

MODIFICATION NO. 3: \$124,880.00 (EL001038 January 9, 2001)

Funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J198A/S61A.

MODIFICATION NO. 4: \$4,883,156.00 (EL001720 November 16, 2001)

Funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J198B/S61B.

MODIFICATION NO. 5: \$157,625.00 (EL002288 May 13, 2002)

Funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J204.

MODIFICATION NO. 6: \$100,730.00 (EL003264 and EL003265 March 19, 2003)

Additional funding provided for Phase 2 - Preliminary Design/ Detailed Design Memorandum preparation services and Phase 3 – Detailed Design services for Contract J204 and additional funding provided for Phase 2 - Preliminary Design/ Detailed Design Memorandum preparation services for Contract J198B/S61B.

MODIFICATION NO. 7: \$63,538.00 (EL003296 April 3, 2003)

Additional funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J198B/S61B.

MODIFICATION NO. 8: \$565,711.00 (EL004110 March 11, 2004)

Additional funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J198B/S61B.

MODIFICATION NO. 9: \$1,436,559.00 (EL005180 March 11, 2005)

Additional funding provided for Phase 4 – Services During Construction and Commissioning services estimated to be needed for Contract J198B/S61B.

PROPOSED MODIFICATION NO. 10: \$350,000.00

This modification provides \$350,000.00 of funding, primarily for extended Services During Construction and Commissioning for Contract J198B/S61B. The additional work includes:

- A. Performing a monthly alarm analysis for both the Jackson Pike and Southerly Wastewater Treatment Plants for a period of five months.
- B. From the results of the alarm analysis, needed corrective actions to the Plant Wide Process Control System (PWPCS) will be identified, along with identification of the entity most appropriate to take ownership of the resolution.
- C. Camp Dresser & McKee, Inc. will attend separate monthly meetings with DOSD administration and senior wastewater treatment plants staff for six months. These meetings will focus on the alarm analysis and corrective actions performed to date.
- D. Camp Dresser & McKee, Inc. will provide some needed additional training to DOSD management and staff at both wastewater treatment plants on the PWPCS's key components and functionality, essentially to refresh the PWPCS "Managers Level" training provided as part of the PWPCS construction.
- E. Camp Dresser & McKee, Inc. will provide, as needed and directed by the City, emergency services to the PWPCS, including Disaster Recovery Support, Data Analysis and Emergency Maintenance Assistance.
- F. Camp Dresser and McKee will also work with the City's Professional Program Manager (PPM) for the Wet Weather Management Plan CIP program, in order to identify potential issues which may arise in the integration of the PWPCS with the new Plants Instrumentation and Control (PI&CS) systems included in the wet weather projects.

Original Contract	\$ 700,000.00
Modification No. 1	\$ 3,054,236.00
Modification No. 2	\$ 2,245,248.00
Modification No. 3	\$ 124,880.00
Modification No. 4	\$ 4,883,156.00
Modification No. 5	\$ 157,625.00
Modification No. 6	\$ 100,730.00
Modification No. 7	\$ 63,538.00
Modification No. 8	\$ 565,711.00
Modification No. 9	\$ 1,436,559.00
Proposed Modification No. 10	<u>\$ 350,000.00</u>
CURRENT PROPOSED TOTAL	\$13,681,683.00