



City of Grand Island

Tuesday, September 10, 2002

Council Session

Item G10

#2002-276 - Approving Amendment to Agreement with CH2MHill for Review of Sewage Sludge Handling and Disposal at the Wastewater Treatment Plant

The Public Works Department, Wastewater Division, advertised on October 15, 2001 for proposals for furnishing engineering consulting services to review the City's sewage sludge handling and disposal methods, recommend odor control measures for the sewage sludge handling operation, prepare bid plans/specifications, and perform construction engineering oversight. Council approved the selection of CH2M Hill and authorized them to proceed with Phase I (Review of Sewage Sludge Handling and Disposal Methods) at the December 4, 2001 Council meeting. CH2M Hill presented a summary of their findings at the July 9, 2002 Council meeting.

It is now time to undertake Phase 2 (Design and Plan/Specification Preparation). Work will be performed with billing at actual costs not to exceed \$625,149.00. Phase 2 includes: Belt Filter Press Pilot Study, Value Engineering, Preliminary Engineering Design, Intermediate Design, Final Design, Bidding Services, and Project Management. A detailed outline of the work is attached. There are sufficient funds available in account number 53030001-85207 for the work.

Staff Contact: Steve Riehle, City Engineer/Public Works Director

**Amendment to Agreement for Review
of Sewage Sludge Handling and Disposal Methods
Phase II Engineering Design and Plan/Specification Preparation
September 5, 2002**

Project Description:

Construction of an addition to the existing sludge dewatering building, including new belt filter presses. The expanded facility will dewater both raw primary sludge and digested secondary sludge prior to composting. Construction will include modifications to the existing polymer storage and feed room; sludge pumping improvements; and mechanical, electrical and instrumentation systems needed to provide a fully functioning system.

Modifications to the existing aerobic digesters, including covering two of the digesters, conversion to diffused air aeration in one of the digesters, addition of an odor scrubbing system to treat air from the covered digesters, and miscellaneous other process modifications.

Grit handling modifications, including replacement of existing grit handling equipment and installation of grit slurry pumps in the existing aerated grit basins.

Removal of existing centrifuges as deemed necessary to allow re-use of existing space for new belt press dewatering equipment.

Work Tasks:

Belt Filter Press Pilot Test:

Will confirm feasibility of implementing belt filter press technology.

- Prepare plan of study.
- Communicate with involved parties, rent equipment.
- Test execution.
- Analyze data.
- Prepare and present analysis.

Value Engineering Study Assistance

Will work toward overall goal of reducing construction costs of improvements while maintaining function and quality of product.

- Assist City staff in preparing scope of work for Value Engineering Consultant.
- Familiarize Value Engineering team with the project.
- Discuss recommendations by the team, incorporate Value Engineering changes approved by the City.

Preliminary Engineering Design

Will involve general placement of structures, preliminary facility layouts and other pertinent information.

- Conduct project kick-off meeting.
- Perform schematic design including the following elements: Civil, Architectural, Structural, Process Mechanical, Implementation and Control, and Electrical Design.
- Prepare a preliminary estimate of construction costs.
- Conduct one-day workshop to review preliminary design.

Breakdown of Services

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Intermediate Design

Will provide review plans detailed enough to determine layout of equipment and buildings.

- Perform schematic design including the following elements: Civil, Architectural, Structural, Process Mechanical, HVAC/Plumbing, Instrumentation and Control, Electrical Design.
- Conduct one-day workshop to review intermediate design with City staff.

Final Design Phase

Will provide plans and specifications for final review prior to preparation of final contract documents.

- Create specifications.
- Update engineer's opinion of costs.
- Conduct one-day workshop to review work product.

Bidding Services

Will provide assistance to City staff during the bidding phase of the project.

- Review and evaluate technical questions from prospective bidders.
- Hold pre-bid conference and site visit.
- Evaluate bids, make recommendation regarding award.

Project Management

Will provide project management and administrative activities to support the technical work.

- Prepare project instructions.
- Coordinate project activities.
- Prepare monthly progress reports and invoices.

RESOLUTION 2002-276

WHEREAS, on December 4, 2001, by Resolution 2001-330, the City of Grand Island approved the proposal of CH2M Hill of Englewood, Colorado to furnish engineering consulting services for review of sewage sludge handling and disposal methods; and

WHEREAS, Phase I of the agreement, which included the evaluation and report preparation, has been completed; and

WHEREAS, it is necessary to begin Phase II of the project, which is the preparation of plans and a bid package for the solids handling facility improvements; and

WHEREAS, CH2M Hill has agreed to perform Phase II services with billing at actual costs not to exceed \$625,149.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that CH2M Hill is hereby authorized to perform Phase II engineering consulting services for review of sewage sludge handling and disposal methods with billing at actual costs not to exceed \$625,149.

BE IT FURTHER RESOLVED, that a contract between such parties be entered for said services, and the Mayor is hereby authorized and directed to execute such agreement on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska on September 10, 2002.

RaNae Edwards, City Clerk

Approved as to Form ? _____ September 6, 2002 ? City Attorney
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