



# City of Grand Island

Tuesday, February 14, 2006

Council Session

## Item G14

**#2006-42 - Approving Agreement with CH2M Hill for Consulting Engineering Services for Lift Station No. 19**

Staff Contact: Steven P. Riehle, Public Works Director

# Council Agenda Memo

**From:** Steven P. Riehle, Public Works Director

**Meeting:** February 14, 2006

**Subject:** Approving Agreement with CH2M Hill for Consulting Engineering Services for Lift Station No. 19

**Item #'s:** G-14

**Presenter(s):** Steven P. Riehle, Public Works Director

## Background

Lift Station 19 is located on Capital Avenue just west of Diers Avenue. The station was constructed in 1980. With the growth and development west of US HWY 281, the lift station is reaching capacity. Approximately 20 to 25 percent of the daily wastewater treatment plant flow comes through Lift Station 19.

Proposals were solicited for performing Consulting Engineering Services for Lift Station No. 19. One (1) proposal was received from CH2M Hill of Englewood, Colorado.

## Discussion

The construction costs for replacing lift station number 19 is estimated at \$2,873,000. The agreement for the design of Lift Station No. 19 was negotiated with billings to be at actual costs with a maximum dollar amount.

## Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve a resolution authorizing the mayor to execute the agreement.
2. Refer the issue to a Committee.
3. Postpone the issue to a future date.
4. Take no action on the issue.

## **Recommendation**

City Administration recommends that the Council approve the agreement for actual costs with a maximum amount of \$189,291.00.

## **Sample Motion**

Move to approve the agreement with CH2M Hill to perform Consulting Engineering services for Lift Station No. 19.

# STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

This AGREEMENT is between CH2M HILL INC., ("ENGINEER"), and the City of Grand Island, ("OWNER") for a PROJECT generally described as:

## Lift Station # 19 and Force Main Improvements

### ARTICLE 1. SCOPE OF SERVICES

ENGINEER will perform the Scope of Services set forth in Attachment A.

### ARTICLE 2. COMPENSATION

OWNER will compensate ENGINEER as set forth in Attachment B. Work performed under this AGREEMENT may be performed using labor from affiliated companies of ENGINEER. Such labor will be billed to OWNER under the same billing terms applicable to ENGINEER's employees.

### ARTICLE 3. TERMS OF PAYMENT

OWNER will pay ENGINEER as follows:

#### 3.1 Invoices and Time of Payment

ENGINEER will issue monthly invoices pursuant to Attachment B. Invoices are due and payable within 30 days of receipt.

#### 3.2 Interest

3.2.1 OWNER will be charged interest at the rate of 1-1/2% per month, or that permitted by law if lesser, on all past-due amounts starting 30 days after receipt of invoice. Payments will first be credited to interest and then to principal.

3.2.2 In the event of a disputed billing, only the disputed portion will be withheld from payment, and OWNER shall pay the undisputed portion. OWNER will exercise reasonableness in disputing any bill or portion thereof. No interest will accrue on any disputed portion of the billing until mutually resolved.

3.2.3 If OWNER fails to make payment in full within 30 days of the date due for any undisputed billing, ENGINEER may, after giving 7 days' written notice to OWNER, suspend services under this AGREEMENT until paid in full, including interest. In the event of suspension of services, ENGINEER will have no liability to OWNER for delays or damages caused by OWNER because of such suspension.

### ARTICLE 4. OBLIGATIONS OF ENGINEER

#### 4.1 Standard of Care

The standard of care applicable to ENGINEER's Services will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar Services at the time said services are performed. ENGINEER will reperform any services not meeting this standard without additional compensation.

#### 4.2 Subsurface Investigations

In soils, foundation, groundwater, and other subsurface investigations, the actual characteristics may vary significantly between successive test points and sample intervals and at locations other than where observations, exploration, and investigations have been made. Because of the inherent uncertainties in subsurface evaluations, changed or unanticipated underground conditions may occur that could affect total PROJECT cost and/or execution. These conditions and cost/execution effects are not the responsibility of ENGINEER.

#### 4.3 ENGINEER's Personnel at Construction Site

4.3.1 The presence or duties of ENGINEER's personnel at a construction site, whether as onsite representatives or otherwise, do not make ENGINEER or ENGINEER's personnel in any way responsible for those duties that belong to OWNER and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction Contract Documents and any health or safety precautions required by such construction work.

4.3.2 ENGINEER and ENGINEER's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except ENGINEER's own personnel.

4.3.3 The presence of ENGINEER's personnel at a construction site is for the purpose of providing to OWNER a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). ENGINEER neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents.

For this AGREEMENT only, construction sites include places of manufacture for materials incorporated into the construction work, and construction contractors

include manufacturers of materials incorporated into the construction work.

#### **4.4 Opinions of Cost, Financial Considerations, and Schedules**

In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the PROJECT, ENGINEER has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate PROJECT cost or schedule. Therefore, ENGINEER makes no warranty that OWNER's actual PROJECT costs, financial aspects, economic feasibility, or schedules will not vary from ENGINEER's opinions, analyses, projections, or estimates.

If OWNER wishes greater assurance as to any element of PROJECT cost, feasibility, or schedule, OWNER will employ an independent cost estimator, contractor, or other appropriate advisor.

#### **4.5 Construction Progress Payments**

Recommendations by ENGINEER to OWNER for periodic construction progress payments to the construction contractor(s) will be based on ENGINEER's knowledge, information, and belief from selective sampling that the work has progressed to the point indicated. Such recommendations do not represent that continuous or detailed examinations have been made by ENGINEER to ascertain that the construction contractor(s) have completed the work in exact accordance with the construction documents; that the final work will be acceptable in all respects; that ENGINEER has made an examination to ascertain how or for what purpose the construction contractor(s) have used the moneys paid; that title to any of the work, materials, or equipment has passed to OWNER free and clear of liens, claims, security interests, or encumbrances; or that there are not other matters at issue between OWNER and the construction contractors that affect the amount that should be paid.

#### **4.6 Record Drawings**

Record drawings, if required, will be prepared, in part, on the basis of information compiled and furnished by others, and may not always represent the exact location, type of various components, or exact manner in which the PROJECT was finally constructed. ENGINEER is not responsible for any errors or omissions in the information from others that is incorporated into the record drawings.

#### **4.7 Access to ENGINEER's Accounting Records**

ENGINEER will maintain accounting records, in accordance with generally accepted accounting principles. These records will be available to OWNER during ENGINEER's normal business hours for a period of 1 year after ENGINEER's final invoice for examination to the extent required to verify the direct costs (excluding established or standard allowances and rates) incurred hereunder. OWNER may only audit accounting records applicable to a cost-reimbursable type compensation.

#### **4.8 ENGINEER's Insurance**

ENGINEER will maintain throughout this AGREEMENT the following insurance:

- (a) Worker's compensation and employer's liability insurance as required by the state where the work is performed.
- (b) Comprehensive automobile and vehicle liability insurance covering claims for injuries to members of the public and/or damages to property of others arising from use of motor vehicles, including onsite and offsite operations, and owned, nonowned, or hired vehicles, with \$1,000,000 combined single limits.
- (c) Commercial general liability insurance covering claims for injuries to members of the public or damage to property of others arising out of any covered negligent act or omission of ENGINEER or of any of its employees, agents, or subcontractors, with \$1,000,000 per occurrence and in the aggregate.
- (d) Professional liability insurance of \$1,000,000 per occurrence and in the aggregate.
- (e) OWNER will be named as an additional insured with respect to ENGINEER's liabilities hereunder in insurance coverages identified in items (b) and (c) and ENGINEER waives subrogation against OWNER as to said policies.

### **ARTICLE 5. OBLIGATIONS OF OWNER**

#### **5.1 OWNER-Furnished Data**

OWNER will provide to ENGINEER all data in OWNER's possession relating to ENGINEER's services on the PROJECT. ENGINEER will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by OWNER.

#### **5.2 Access to Facilities and Property**

OWNER will make its facilities accessible to ENGINEER as required for ENGINEER's performance of its services and will provide labor and safety equipment as required by ENGINEER for such access. OWNER will perform, at no cost to ENGINEER, such tests of equipment, machinery, pipelines, and other components of OWNER's facilities as may be required in connection with ENGINEER's services.

#### **5.3 Advertisements, Permits, and Access**

Unless otherwise agreed to in the Scope of Services, OWNER will obtain, arrange, and pay for all advertisements for bids; permits and licenses required by local, state, or federal authorities; and land, easements, rights-of-way, and access necessary for ENGINEER's services or PROJECT construction.

#### **5.4 Timely Review**

OWNER will examine ENGINEER's studies, reports, sketches, drawings, specifications, proposals, and other documents; obtain advice of an attorney, insurance counselor, accountant, auditor, bond and financial advisors, and other consultants as OWNER deems appropriate; and render in writing decisions required by OWNER in a timely manner.

#### **5.5 Prompt Notice**

OWNER will give prompt written notice to ENGINEER whenever OWNER observes or becomes aware of any development that affects the scope or timing of

ENGINEER's Services, or of any defect in the work of ENGINEER or construction contractors.

## **5.6 Asbestos or Hazardous Substances**

5.6.1 If asbestos or hazardous substances in any form are encountered or suspected, ENGINEER will stop its own work in the affected portions of the PROJECT to permit testing and evaluation.

5.6.2 If asbestos is suspected, ENGINEER will, if requested, manage the asbestos remediation activities using a qualified subcontractor at an additional fee and contract terms to be negotiated.

5.6.3 If hazardous substances other than asbestos are suspected, ENGINEER will, if requested, conduct tests to determine the extent of the problem and will perform the necessary studies and recommend the necessary remedial measures at an additional fee and contract terms to be negotiated.

5.6.4 Client recognizes that CH2M HILL assumes no risk and/or liability for a waste or hazardous waste site originated by other than CH2M HILL.

## **5.7 Contractor Indemnification and Claims**

5.7.1 OWNER agrees to include in all construction contracts the provisions of Article 4.3, ENGINEER's Personnel at Construction Site, and provisions providing contractor indemnification of OWNER and ENGINEER for contractor's negligence.

5.7.2 OWNER shall require construction contractor(s) to name OWNER and ENGINEER as additional insureds on the contractor's general liability insurance policy.

5.7.3 OWNER agrees to include the following clause in all contracts with construction contractors, and equipment or materials suppliers:

"Contractors, subcontractors, and equipment and material suppliers on the PROJECT, or their sureties, shall maintain no direct action against ENGINEER, ENGINEER's officers, employees, affiliated corporations, and subcontractors for any claim arising out of, in connection with, or resulting from the engineering services performed. OWNER will be the only beneficiary of any undertaking by ENGINEER."

## **5.8 OWNER's Insurance**

5.8.1 OWNER will maintain property insurance on all pre-existing physical facilities associated in any way with the PROJECT.

5.8.2 OWNER will provide for a waiver of subrogation as to all OWNER-carried property damage insurance, during construction and thereafter, in favor of ENGINEER, ENGINEER's officers, employees, affiliates, and subcontractors.

5.8.3 OWNER will provide (or have the construction contractor(s) provide) a Builders Risk All Risk insurance policy for the full replacement value of all PROJECT work including the value of all onsite OWNER-furnished equipment and/or materials associated with ENGINEER's services. Such policy will include coverage for loss due to defects in materials and workmanship and errors in design, and will provide a waiver of subrogation as to ENGINEER and the construction contractor(s) (or OWNER), and their respective officers, employees, agents, affiliates, and subcontractors. OWNER will provide ENGINEER a copy of such policy.

## **5.9 Litigation Assistance**

The Scope of Services does not include costs of ENGINEER for required or requested assistance to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by OWNER. All such Services required or requested of ENGINEER by OWNER, except for suits or claims between the parties to this AGREEMENT, will be reimbursed as mutually agreed.

## **5.10 Changes**

OWNER may make or approve changes within the general Scope of Services in this AGREEMENT. If such changes affect ENGINEER's cost of or time required for performance of the services, an equitable adjustment will be made through an amendment to this AGREEMENT.

## **ARTICLE 6. GENERAL LEGAL PROVISIONS**

### **6.1 Authorization to Proceed**

Execution of this AGREEMENT by OWNER will be authorization for ENGINEER to proceed with the work, unless otherwise provided for in this AGREEMENT.

### **6.2 Reuse of PROJECT Documents**

All reports, drawings, specifications, documents, and other deliverables of ENGINEER, whether in hard copy or in electronic form, are instruments of service for this PROJECT, whether the PROJECT is completed or not. OWNER agrees to indemnify ENGINEER and ENGINEER's officers, employees, subcontractors, and affiliated corporations from all claims, damages, losses, and costs, including, but not limited to, litigation expenses and attorney's fees arising out of or related to the unauthorized reuse, change or alteration of these PROJECT documents.

### **6.3 Force Majeure**

ENGINEER is not responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents, or other events beyond the control of ENGINEER. In any such event, ENGINEER'S contract price and schedule shall be equitably adjusted.

### **6.4 Limitation of Liability**

6.4.1 To the maximum extent permitted by law, ENGINEER's liability for OWNER's damages will not, in the aggregate, exceed \$1,000,000.

6.4.2 This article takes precedence over any conflicting article of this AGREEMENT or any document incorporated into it or referenced by it.

6.4.3 This limitation of liability will apply whether ENGINEER's liability arises under breach of contract or warranty; tort; including negligence; strict liability; statutory liability; or any other cause of action, and shall include ENGINEER's officers, affiliated corporations, employees, and subcontractors.

### **6.5 Termination**

6.5.1 This AGREEMENT may be terminated for convenience on 30 days' written notice, or for cause if either party fails substantially to perform through no fault of the other and does not commence correction of such nonperformance within 5 days of written notice and diligently complete the correction thereafter.

6.5.2 On termination, ENGINEER will be paid for all authorized services performed up to the termination date plus termination expenses, such as, but not limited

to, reassignment of personnel, subcontract termination costs, and related closeout costs.

#### **6.6 Suspension, Delay, or Interruption of Work**

OWNER may suspend, delay, or interrupt the Services of ENGINEER for the convenience of OWNER. In such event, ENGINEER's contract price and schedule shall be equitably adjusted.

#### **6.7 No Third-Party Beneficiaries**

This AGREEMENT gives no rights or benefits to anyone other than OWNER and ENGINEER and has no third-party beneficiaries.

#### **6.8 Indemnification**

6.8.1 ENGINEER agrees to indemnify OWNER for any claims, damages, losses, and costs, including, but not limited to, attorney's fees and litigation costs, arising out of claims by third parties for property damage or bodily injury, including death, to the proportionate extent caused by the negligence or willful misconduct of ENGINEER, ENGINEER's employees, affiliated corporations, and subcontractors in connection with the PROJECT.

6.8.2 OWNER agrees to indemnify ENGINEER from any claims, damages, losses, and costs, including, but not limited to, attorney's fees and litigation costs, arising out of claims by third parties for property damage or bodily injury, including death, to the proportionate extent caused by the negligence or willful misconduct of OWNER, or its employees or contractors in connection with the PROJECT.

#### **6.9 Assignment**

This is a bilateral personal Services AGREEMENT. Neither party shall have the power to or will assign any of the duties or rights or any claim arising out of or related to this AGREEMENT, whether arising in tort, contract or otherwise, without the written consent of the other party. Any unauthorized assignment is void and unenforceable. These conditions and the entire AGREEMENT are binding on the heirs, successors, and assigns of the parties hereto.

#### **6.10 Consequential Damages**

To the maximum extent permitted by law, ENGINEER and ENGINEER's affiliated corporations, officers, employees, and subcontractors shall not be liable for OWNER's special, indirect, or consequential damages, whether such damages arise out of breach of contract or warranty, tort including negligence, strict or statutory liability, or any other cause of action. In order to protect ENGINEER against indirect liability or third-party proceedings, OWNER will indemnify ENGINEER for any such damages.

#### **6.11 Waiver**

OWNER waives all claims against ENGINEER, including those for latent defects, that are not brought within 2 years of substantial completion of the facility designed or final payment to ENGINEER, whichever is earlier.

#### **6.12 Jurisdiction**

The substantive law of the state of the PROJECT site shall govern the validity of this AGREEMENT, its interpretation and performance, and any other claims related to it.

#### **6.13 Severability and Survival**

6.13.1 If any of the Provisions contained in this AGREEMENT are held for any reason to be invalid, illegal, or unenforceable, the enforceability of the remaining provisions shall not be impaired thereby.

6.13.2 Limitations of liability, indemnities, and other express representations shall survive termination of this AGREEMENT for any cause.

#### **6.14 Materials and Samples**

Any items, substances, materials, or samples removed from the PROJECT site for testing, analysis, or other evaluation will be returned to the PROJECT site within 60 days of PROJECT close-out unless agreed to otherwise. OWNER recognizes and agrees that ENGINEER is acting as a bailee and at no time assumes title to said items, substances, materials, or samples.

#### **6.15 Engineer's Deliverables**

Engineer's deliverables, including record drawings, are limited to the sealed and signed hard copies. Computer-generated drawing files furnished by ENGINEER are for OWNER or others' convenience. Any conclusions or information derived or obtained from these files will be at user's sole risk.

#### **6.16 Dispute Resolution**

The parties will use their best efforts to resolve amicably any dispute, including use of alternative dispute resolution options.

#### **6.17 Ownership of Work Product and Inventions**

All of the work product of the ENGINEER in executing this PROJECT shall remain the property of ENGINEER. OWNER shall receive a perpetual, royalty-free, non-transferable, non-exclusive license to use the deliverables for the purpose for which they were intended. Any inventions, patents, copyrights, computer software, or other intellectual property developed during the course of, or as a result of, the PROJECT shall remain the property of the ENGINEER.

### **ARTICLE 7. ATTACHMENTS, SCHEDULES, AND SIGNATURES**

This AGREEMENT, including its attachments and schedules, constitutes the entire AGREEMENT, supersedes all prior written or oral understandings, and may only be changed by a written amendment executed by both parties. The following attachments and schedules are hereby made a part of this AGREEMENT:

Attachment A--Scope of Services  
Attachment B--Compensation

IN WITNESS WHEREOF, the parties execute below:

For OWNER, \_\_\_\_\_

dated this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name (printed) \_\_\_\_\_

Name (printed) \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

For ENGINEER, CH2M HILL INC.,

dated this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name (printed) \_\_\_\_\_

Name (printed) \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_



# Scope of Services – Lift Station 19 and Forcemain Improvements

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## General

CH2MHILL (ENGINEER) was awarded a contract by the City of Grand Island (CITY) for engineering and design services for Lift Station 19 and Forcemain Improvements. This project is being executed in multiple phases as identified below. The scope of services presented herein describes only those services to be rendered by ENGINEER to the CITY for

### *Phase I – Replacement Lift Station 19 Design and Services During Bidding*

Amendments to this contract will be negotiated by the ENGINEER and CITY for future project phases to include:

- Phase II – Replacement Lift Station 19 Services During Construction
- Phase III – Forcemain Design and Services During Bidding
- Phase IV – Forcemain Services During Construction

It is assumed that as-built drawings of existing facilities, aerial mapping, and wastewater flow records are available and will be provided by the City for use on this project.

## Project Information

*Project Title:* Lift Station 19 Improvements (PROJECT)

*Objective:* The CITY requires replacement of the existing Lift Station 19 (L.S. 19) and the existing forcemain downstream of L.S. 19. This scope of work is to provide preliminary design services, final design services, bidding support services, and services during construction for these improvements for Lift Station 19 improvements only.

*Project Location:* The L.S. 19 site is near the intersection of Diers Avenue and Capital Avenue.

## Work Tasks

ENGINEER shall perform the following specific tasks and subtasks under this Scope of Work:

### Task 1 – Design

*Objective:* Develop designs and prepare construction documents (drawings, special provisions, and supplemental technical specifications) for competitive bidding for the PROJECT.

*Overview:* To provide the CITY with appropriate opportunities to review and participate in the design process, Task shall consist of the following subtasks:

- ◆ Predesign
- ◆ 30 Percent Design (Design Development)
- ◆ 90 Percent Design (Draft Contract Documents)
- ◆ 100 Percent Design (Final Contract Documents)

For lift station design, ENGINEER will prepare the design using 3-dimensional (3-D) computer-aided drafting CAD technology. This technology will be used to prepare traditional 2-dimensional (2-D) plan and section drawings as well as to provide 3-D perspective drawings in the construction documents. 3-D perspective drawings also will be used for workshop presentations to City staff.

***Subtasks:***

1. Predesign

- A. Kick-off Meeting - Conduct a kick-off meeting in Grand Island. Attendees will include the ENGINEER'S Project Manager, Design Manager, and Project Engineer. The purpose of this meeting is to establish a common understanding of PROJECT scope, goals, issues, concerns, design criteria, and schedule. ENGINEER shall plan and conduct this meeting. ENGINEER also shall prepare and distribute minutes of this meeting to all attendees.
- B. Field Survey – Field surveys will be conducted as necessary to supplement and verify existing available data and aerial mapping. Specifically, field surveys will obtain three dimensional coordinates of up to 10 existing manholes, including verification of pipe invert elevations within these manholes. Two PROJECT-specific control points will be established at the L.S. 19 site for future construction use. Based on information marked on the ground by the local utility locator services, field survey will include horizontal locations of existing underground utilities. Field surveys will be performed by Rockwell and Associates Engineering and Surveying.
- C. Geotechnical Investigations – Geotechnical investigations will be conducted by Mid States Engineering and Testing. One boring within the proposed “footprint” of the new L.S. 19 will be drilled up to 60 feet deep. This boring will identify groundwater elevations at the proposed lift station site and the soil strata will be logged. Appropriate soil samples will be collected and laboratory analyses will be performed to classify the soil strata and to determine engineering properties required for foundation design.
- D. Determine Future Wastewater Flows – In consultation with the Regional Planning Commission of Hall County, projected land use and development density will be reviewed. Estimated future average and peak wet sanitary sewer flows within the L.S. 19 service area will be calculated based on projected land use and development densities. Estimated future wastewater flows will be “ground truthed” against available historic wastewater generation factors as reported in the previous Sanitary Sewer Comprehensive Plan and through review of wastewater treatment plant (WWTP) influent flow records.

E. Establish Design Criteria – Flexibility will be a key consideration in the design of the replacement L.S. 19 and forcemain. This includes consideration of future expansion requirements while providing a high level of service and operability in the near term. The ultimate number and capacity of lift station pumps will be based on the estimated wastewater flows through a 50-year planning horizon. To the extent practical, a phased approach for installation of required pumps and related equipment will be considered. A primary goal in pump selection is to minimize on/off cycles. Other key lift station design criteria that will be established in consultation with City staff include the following:

- Building Code Requirements
- Lightning protection
- Architectural criteria
- Heating, ventilation, and air conditioning (HVAC) for the electrical, supervisory control and data acquisition (SCADA), and motor control center (MCC) room as well as the pump room
- Interior and exterior lighting
- Rail system for equipment handling
- SCADA requirements
- Source of washdown and seal water
- Wet well access and inlet separation/shutoff requirements
- Wet well level and pump control requirements
- Wet well corrosion and odor control
- Overflow basin size, location, and access requirements
- Control valve and bypass requirement
- Landscaping
- Traffic access and patterns
- Driveway pavement
- Emergency power

Other criteria that will be established include traffic control requirements during construction and the sequence of transferring flows from the existing L.S. 19 system to the new L.S. 19 system.

A draft technical memorandum shall be prepared by ENGINEER and delivered to the City with recommended final design criteria, including recommended estimates of average and peak wet day flow rates. The draft technical memorandum also shall explain the basis and rationale for the recommendations, including input from City staff at the kickoff meeting.

After City review of the draft technical memorandum, City review comments will be provided to the ENGINEER. After receipt of City comments, ENGINEER shall plan and conduct a telephone conference with CITY staff to discuss and finalize the design criteria. Telephone conference attendees will include the ENGINEER'S Project Manager, Design Manager, and Project Engineer, plus any other appropriate technical discipline leads on an as-needed basis. Final decisions shall be documented in a final technical memorandum by the ENGINEER and distributed to all conference attendees.

### *Pre-design Deliverables:*

- Meeting Minutes of Kick-off Meeting distributed to all attendees via e-mail
- Two (2) copies each of the Draft and Final Geotechnical Report
- Five (5) copies each of the Draft and Final Design Criteria Technical Memoranda

### 2. 30 Percent Design (Design Development)

The primary purpose of the 30 percent design is to prepare plans in sufficient detail to determine required equipment, process flow diagrams, instrumentation and control (I&C) diagrams, general placement of structures, preliminary facility layouts, and other pertinent information. This design phase also shall include developing a preliminary list of special provisions and supplemental technical specifications that will be required for this PROJECT.

After City review of the 30 percent design, a workshop shall be planned and conducted by ENGINEER in Grand Island to discuss and resolve City review comments. Workshop attendees will include the ENGINEER'S Project Manager, Design Manager, and Project Engineer.

### *30 Percent Design Deliverables:*

- Civil Design: Structure size, location, and orientation. Yard piping. Preliminary site plan and traffic access corridors. Draft proposed sequence of disconnecting influent and effluent piping from the existing L.S. 19 and activating the new L.S. 19.
- Architectural Design: General shape, elevations, and architectural features.
- Mechanical Design: Pump sizes, types, locations, and flow diagrams.
- I&C Design: Coordinated with flow control requirements. One-line control diagram.
- Electrical Design: Define load conditions and determine redundancy requirements. One-line electrical diagram.
- Conceptual 3-D perspectives of the lift station structure and equipment.
- Conceptual estimate of construction costs.
- Minutes of the comment review workshop shall be distributed to all workshop attendees via e-mail.

### 3. 90 Percent Design (Draft Contract Documents)

The 90 percent design drawings and specifications shall be essentially ready for bidding while providing the City with a final review prior to issuing bid documents. Simultaneously with submittal to the CITY, the ENGINEER shall submit copies of the 90 percent design documents to the Nebraska Department of Environmental Quality (NDEQ) for review and approval. This submittal will include a technical memorandum with a summary of design information and calculations.

During review of construction documents, ENGINEER shall respond to comments and questions generated by NDEQ. After City and NDEQ review of the 90 percent design, a workshop will be conducted in Grand Island to discuss and resolve review comments. The workshop shall be planned and conducted by ENGINEER. Workshop attendees will include the ENGINEER'S Project Manager, Design Manager, and Project Engineer.

### *90 Percent Design Deliverables:*

- Five (5) paper copies of the draft advertisement for bids, special provisions, supplemental technical specifications, and Bid Form.
- Five (5) paper copies of the final review set of construction drawings. (It is estimated that there will be approximately 30 sheets of drawings)
- Five (5) paper copies of the engineering analysis technical memorandum.
- One (1) paper copy of the draft estimate of construction costs.
- Minutes of the comment review workshop shall be distributed to all workshop attendees via e-mail.

#### 4. 100 Percent Design (Final Contract Documents)

Final edits will be incorporated into the drawings and other contract documents based on City and NDEQ comments following the 90 percent design review workshop.

##### *100 Percent Design Deliverables*

- Thirty (30) paper copies of the 100 percent half-size construction drawings for bidding purposes only
- Thirty (30) paper copies of the advertisement for bids, special provisions, supplemental technical specifications, and Bid Form
- One (1) CD with final drawings in AutoCAD 2005 format, special provisions and specifications files, advertisement for bids, and Bid Form
- One (1) paper copy of the Final Engineer's Opinion of Probable Cost

#### Task 2 – Services During Bidding

**Objective:** Provide technical and administrative support to the CITY during competitive bidding for construction of the PROJECT.

**Overview:** ENGINEER shall provide support during the PROJECT bidding phase.

The CITY will issue and publish the advertisement for bids and will distribute bid documents to prospective bidders. ENGINEER shall provide the following support during the bidding process:

- Implement procedures for receiving and answering bidders' questions and requests for additional information. These procedures include maintaining a record of all bidders' questions and requests for information and responses thereto.
- Coordinate with the City to arrange and conduct one pre-bid conference. ENGINEER shall develop the agenda, conduct the conference, take minutes of the conference, and record all questions and requests for additional information. The ENGINEER'S Project Manager and Design Manager shall attend the pre-bid conference.
- As appropriate, responses to questions and requests for additional information will be issued in formal addenda. ENGINEER shall prepare addenda as necessary and submit the addenda to the City for distribution to all planholders. Up to two addenda will be prepared by ENGINEER.

- Assist the City with evaluation of bids. After the bids are opened, CH2MHILL will review, tabulate, and evaluate all bids. A report of the bid review and evaluation will be prepared and submitted to the City. This report will include recommendations for award of a construction contract or other action as may be appropriate.

### Task 3 – Project Management

Project Management includes developing a general workplan that defines the ENGINEER'S project delivery approach, staffing, subconsultants, responsibilities, quality assurance and quality control (QA/QC) procedures, and project deliverables during PROJECT implementation. ENGINEER shall advise the City of PROJECT progress, including preparation and submittal of monthly progress reports to the City and holding periodic meetings and consultations with the City. To ensure appropriate implementation of the QA/QC plan, all QA/QC activities are considered part of project management and shall be managed and controlled by the ENGINEER'S Project Manager.

# Lift Station 19 Improvements

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## ARTICLE 2. COMPENSATION

Compensation by OWNER to ENGINEER will be as follows:

### A. MAXIMUM COST

The maximum cost for this PROJECT, as defined by services identified in ARTICLE 1, is one hundred eighty-nine thousand two hundred ninety-one dollars and zero cents, (\$189,291.00), which will be billed on a time and materials basis in accordance with Article 2.B below.

The cost breakdown per subtask is shown in Attachment A. ENGINEER may alter the distribution of compensation between individual subtasks to be consistent with services actually rendered, but shall not exceed the maximum amount of \$189,291.00 unless approved in writing by the OWNER through a contract amendment to this agreement.

### B. ACTUAL COST

Actual cost for services enumerated in ARTICLE 1 will be computed by multiplying ENGINEER's Salary Cost by a factor of 2.08, plus Direct Expenses, plus a service charge of 0 percent Direct Expenses and 0 percent of subcontracts and outside services, plus applicable sales, use, value added, business transfer, gross receipts, or other similar taxes.

### C. SALARY COST

Salary Cost is the amount of wages or salaries paid ENGINEER's employees for work performed directly on the PROJECT plus a percentage applied to all such wages or salaries to cover all payroll-related taxes, payments, premiums, and benefits.

### D. DIRECT EXPENSES

Direct Expenses are those necessary costs and charges incurred for the PROJECT including, but not limited to: (1) the direct costs of transportation, meals and lodging, mail, special OWNER approved PROJECT specific insurance, letters of credit, bonds, and equipment and supplies; (2) ENGINEER's current standard rate charges for direct use of ENGINEER's vehicles, laboratory test and analysis, printing and reproduction services, and certain field equipment; and (3) ENGINEER's standard project charges for computing systems, special health and safety requirements of Occupational Safety and Health Administration (OSHA), and telecommunications services.

**EXHIBIT 1 TO ATTACHMENT B**  
**Fee Estimate - Lift Station 19 Improvements**  
 (Phase I, Replacement Lift Station 19 Design and Services During Bidding, and Phase II, Replacement Lift Station 19 Services During Construction)  
 City of Grand Island, Nebraska

Task Description	Labor																Expenses		TOTAL								
	Hgberg	Durant	Simon	Day	Monahan	Wagner	Gary Davis	Dave Paris	Moyer	Howard	Evans	Lectnar	Yearsley	Skabo	Gross	Pleper	Robland	Decker		Carlson	Vernil	Afen Davis	Chertoff & Act'g	Total (hours)	Total (\$)	Operating & Travel (\$)	Sub's (\$)
<b>PHASE 1 - DESIGN</b>																											
<b>Task 1. Design</b>																											
1.1 Precision	24	16	16																					60	\$ 6,123	\$ 1,045	\$ 7,168
1.1.A Kickoff Meeting	4																							8	\$ 860	\$ 46	\$ 906
1.1.B Field Survey	4																							16	\$ 1,678	\$ 92	\$ 1,770
1.1.C Geotech Investigations	4																							8	\$ 1,078	\$ 48	\$ 1,126
1.1.D Flow Estimates	12	4	4																					60	\$ 6,028	\$ 345	\$ 6,373
1.1.E Design Criteria	48	24	20	80	28	6	12	12	4	12	12	4	4	40	40	100	36			4			304	\$ 30,535	\$ 3,077	\$ 33,612	
1.2 30% Design	60	24	20	160	40	12	36	39	4	16	39	3	4	4	8	16	8						638	\$ 73,578	\$ 4,997	\$ 78,575	
1.3 90% Design	24	4	16	20	6	4	2	4	2	2	4	4	4	4	8	16	8						128	\$ 15,265	\$ 2,065	\$ 17,330	
1.4 100% Design	0	180	76	80	200	76	28	0	14	24	56	60	0	4	6	60	160	44	0	4	40	48	1222	\$ 145,171	\$ 12,513	\$ 157,684	
<b>Subtotal</b>																											
<b>Task 2. Services During Bidding</b>																											
2.1 Bidding	24	8	4	4																				48	\$ 0,254	\$ 1,576	\$ 1,830
2.2 Bid Evaluation	0	24	8	4	4	0	2	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	48	\$ 6,254	\$ 1,576	\$ 7,830	
<b>Subtotal</b>																											
<b>Task 3. Design Project Management</b>																											
3.1 Project Management	16	40											16											80	\$ 9,233	\$ 1,760	\$ 10,993
3.2 OC	12	16	40	0	0	0	0	0	0	0	0	0	16	12	0	0	0	0	0	0	4	24	124	\$ 7,651	\$ 253	\$ 7,904	
<b>Subtotal</b>																											
<b>PHASE 1 TOTALS</b>	12	220	124	84	264	76	30	0	14	24	56	60	16	4	20	62	162	44	0	8	40	74	1394	\$ 168,319	\$ 15,902	\$ 184,221	

Task Description	Labor																Expenses		TOTAL								
	Hgberg	Durant	Simon	Day	Monahan	Wagner	Gary Davis	Dave Paris	Moyer	Howard	Evans	Lectnar	Yearsley	Skabo	Gross	Pleper	Robland	Decker		Carlson	Vernil	Afen Davis	Chertoff & Act'g	Total (hours)	Total (\$)	Operating & Travel (\$)	Sub's (\$)
<b>PHASE 2 - SERVICES DURING CONSTRUCTION</b>																											
<b>Task 1. Services During Construction</b>																											
1.1 Construction	20	12																						32	\$ 4,599	\$ 459	\$ 5,058
1.1.A Preconstruction Conference	36	104																						148	\$ 22,200	\$ 2,250	\$ 24,450
1.1.B Site Visits	28	8	80																					230	\$ 32,015	\$ 3,252	\$ 35,267
1.1.C Shop Drawing Review	12	4	8																					40	\$ 5,753	\$ 600	\$ 6,353
1.1.D Review Alternates	24	4	4																					28	\$ 4,138	\$ 441	\$ 4,579
1.1.E Safety	16	6	16																					56	\$ 7,617	\$ 790	\$ 8,407
1.1.F Field and Change Orders	18	8	16																					40	\$ 5,938	\$ 593	\$ 6,531
1.1.G RFIs	18	8	16																					40	\$ 5,938	\$ 593	\$ 6,531
1.1.H Startups	8	4	24																					168	\$ 23,532	\$ 2,378	\$ 25,910
1.1.I Review Pay Requests	20																							20	\$ 3,095	\$ 325	\$ 3,420
<b>Subtotal</b>	0	180	46	248	8	12	28	120	0	14	40	0	0	0	14	40	0	0	36	0	0	12	768	\$ 108,865	\$ 11,084	\$ 129,949	
<b>Task 2. Project Closeout</b>																											
2.1 O&M Manual	8	4	40																					62	\$ 12,069	\$ 1,295	\$ 13,364
2.2 Record Drawings	12	4	4	60	4																			88	\$ 9,557	\$ 981	\$ 10,538
<b>Subtotal</b>	0	20	4	44	60	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	180	\$ 22,166	\$ 2,276	\$ 24,442	
<b>Task 3. Warranty Inspection</b>																											
3.1 Warranty Inspection	0	0	20	20	0	8	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0		56	\$ 6,596	\$ 576	\$ 7,172
<b>Subtotal</b>																											
<b>Task 4. SDC Project Management</b>																											
4.1 SDC Project Management	40																							68	\$ 7,708	\$ 776	\$ 8,484
4.2 Coordination with City RPR	80																							80	\$ 10,625	\$ 1,060	\$ 11,685
4.3 O&I/O	4																							16	\$ 2,678	\$ 267	\$ 2,945
<b>Subtotal</b>	4	0	124	0	0	0	0	0	0	0	0	0	4	4	4	0	0	0	0	0	0	28	164	\$ 21,012	\$ 2,133	\$ 23,145	
<b>PHASE 2 TOTALS</b>	4	200	194	312	68	24	28	120	0	14	40	0	0	0	34	60	0	0	36	0	0	60	1188	\$ 160,858	\$ 16,069	\$ 176,927	
<b>PROJECT TOTALS</b>	16	420	318	396	332	100	58	120	14	24	60	60	20	4	54	122	162	44	36	8	40	134	2562	\$ 371,943	\$ 37,175	\$ 409,118	





Dale M. Shotkoski, Assistant City Attorney

*Working Together for a  
Better Tomorrow, Today*

**REQUEST FOR PROPOSAL  
FOR  
LIFT STATION 19**

**RFP DUE DATE:** October 11, 2005 at 4:00 p.m.  
**DEPARTMENT:** Public Works  
**PUBLICATION DATE:** September 26, 2005  
**NO. POTENTIAL BIDDERS:** 4

**SUMMARY OF PROPOSALS RECEIVED**

**CH2M Hill**  
**Englewood, CO**

cc: Steve Riehle, Public Works Director  
Danelle Collins, PW Admin. Assist.  
David Springer, Finance Director  
Laura Berthelsen, Legal Assistant

Ben Thayer, WWTP Supt.  
Gary Greer, City Administrator  
Dale Shotkoski, Purchasing Agent

**P1025**

RESOLUTION 2006-42

WHEREAS, the City of Grand Island invited proposals for Consulting Engineering Services for Lift Station No. 19 in accordance with a Request for Proposal on file with the Public Works Department; and

WHEREAS, one proposal was received, reviewed and evaluated in accordance with established criteria; and

WHEREAS, CH2M Hill of Englewood, Colorado, submitted a proposal in accordance with the terms of the request for proposals and all statutory requirements contained therein and the City Procurement Code, such proposal being for an amount not to exceed \$189,291.00.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the proposal of CH2M Hill of Englewood, Colorado, for consulting engineering services for Lift Station No. 19 for an amount not to exceed \$189,291.00 is hereby approved.

BE IT FURTHER RESOLVED, that the Mayor is hereby authorized and directed to execute an agreement for such services on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska, February 14, 2006.

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Jay Vavricek, Mayor

Attest:

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RaNae Edwards, City Clerk

Approved as to Form	☐ _____
February 9, 2006	☐ City Attorney