



City of Grand Island

Tuesday, May 14, 2013

Council Session

Item I-4

#2013-148 - Consideration of Approving Amendment No. 6 to the Agreement for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation" with Black & Veatch

Staff Contact: John Collins, P.E. - Public Works Director

Council Agenda Memo

From: Marvin Strong PE, Wastewater Treatment Plant Engineer

Meeting: May 14, 2013

Subject: Approving Amendment No. 6 to the Agreement for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation" with Black & Veatch

Item #'s: I-4

Presenter(s): Terry Brown PE, Manager of Engineering Services

Background

On October 11, 2011 City Council approved, by Resolution No. 2011-307 in the amount of \$1,121,160.00, the initial agreement with Black & Veatch for project management, collection system master planning and conceptual designs for the Northeast Interceptor sewer, Collection System rehabilitation and Wastewater Treatment rehabilitation.

On April 24, 2012 City Council approved, by Resolution No. 2012-111 Amendment No. 1, in the amount of \$1,910,075.00, to this agreement in continued design effort to finalize design and prepare bidding documents. Bidding documents in Amendment No. 1 included; Lift Station No. 7 Improvements, 4th to 5th Eddy to Vine, Northeast Interceptor Phase 1A, and 1B, South and West Collection System rehabilitation, and Wastewater Treatment Rehabilitation.

On August 28, 2012 City Council meeting Resolution No. 2012-229 was approved for Amendment No. 2, in the amount of \$53,000.00, to this agreement. This amendment added Community Development Block Grant (CDBG) guideline provisions, as well as provided for construction engineering services for the Lift Station No. 7 Improvements and 4th Street to 5th Street; Eddy Street to Vine Street rehabilitation.

On November 13, 2012 City Council meeting Resolution No. 2012-329 was approved for Amendment No. 3, in the amount of \$265,754.00, to this agreement. This amendment added construction engineering services and resident inspection during construction for the 5th Street Sanitary Sewer Improvements, as well as for the South & West Sewer Interceptor Improvements with the consulting firm Black & Veatch of Kansas City, Missouri.

On February 12, 2013 City Council meeting Resolution No. 2013-34 was approved for Amendment No. 4 in the amount of \$30,000 to this agreement. This amendment updated the Report on Revenue Requirements, Cost of Service and Rates for Wastewater completed in March 2011.

On February 12, 2013 City Council meeting Resolution No. 2013-35 was approved for Amendment No. 5 in the amount of \$451,896 to this agreement. This amendment provides preliminary design engineering services in Phase II of the North Interceptor Sewer planning, and final bidding documents for Phase II-B North Interceptor Sewer.

Discussion

With the approval of Amendment No. 6 to the Agreement for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation", City staff in conjunction with consulting engineer; Black & Veatch, and sub-consultant; Olsson Associates; will conduct administrative, and field services in oversight to the conditions of the contract, North Interceptor - Phase I; Project 2012-S-6 as identified in specifications and plans.

Amendment No. 6 incorporates compensation for engineering services that were not specifically identified in the original design agreement. Additionally, add Consulting Engineering Construction Phase Services and Resident Inspection during Construction for North Interceptor – Phase I construction with the consulting firm Black & Veatch of Kansas City, Missouri.

Task Summary Table

<u>Task / Description</u>		
1.	Additional analysis in Service Area Build-out	\$ 16,059
2.	Easement acquisition assistance and preparation	\$ 26,626
3.	Combining Bidding Documents	\$ (20,398)
4.	Reroute Sewer at Highway 30	\$ 26,354
5.	Editing City Attorney comments design documents	\$ 17,683
6.	Construction Phase Services	\$ 485,355
7.	Resident Inspection During Construction	\$ 167,938
Total for Amendment No. 6, Engineering Services		\$ 719,617

The North Interceptor Phase I project construction will expand over the next eight (8) months. City staff, consulting, and resident services are estimated consuming 3,300 hours to administer, coordinate, and witness quality control in the construction.

The cost increase for Amendment No. 6 is \$719,617, resulting in a revised agreement of \$4,551,502.

Alternatives

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

1. Move to approve the Mayor of the City of Grand Island, Nebraska authorized on behalf of the City of Grand Island to execute the Amendment No. 6 with Black & Veatch of Kansas City, Missouri for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation".
2. Refer the issue to a Committee.
3. Postpone the issue to future date.
4. Take no action on the issue.

Recommendation

City Administration recommends that the Council approve by resolution the authorization to execute the Amendment No. 6 with Black & Veatch of Kansas City, Missouri for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation".

Sample Motion

Move to approve the Mayor of the City of Grand Island, Nebraska authorized on behalf of the City of Grand Island to execute Amendment No. 6 with Black & Veatch of Kansas City, Missouri for Professional Engineering Services entitled "Wastewater Treatment Plant and Collection System Rehabilitation".

AMENDMENT NO. 6
TO AGREEMENT BETWEEN
CITY OF GRAND ISLAND
AND
BLACK & VEATCH CORPORATION
FOR PROFESSIONAL SERVICES
FOR
Consulting Engineering Services for the WWTP and Collection System Rehabilitation

THIS IS AN AMENDMENT made as of _____, 2013 to the agreement between City of Grand Island (OWNER) and Black & Veatch Corporation (ENGINEER) dated October 17, 2011, and entitled Consulting Engineering Services for the WWTP and Collection System Rehabilitation. OWNER and ENGINEER agree to amend such Agreement as follows:

ARTICLE 3 – SERVICES TO BE PERFORMED BY ENGINEER

The scope of services for this amendment includes the following services:

1. North Interceptor (7th Street to WWTP – Phase 1) – Construction Phase Services for the North Interceptor Phase 1 from 7th and Skypark Road to the WWTP.

The following tasks are included:

1. Task 2.1 – Wastewater Master Plan – Detailed Design Trends
2. Task 3.3 – North Interceptor Phase 1 (7th Street to WWTP) – Detailed Design Trends
3. Task 3.4 – Construction Phase Services - North Interceptor Phase 1 (7th Street to WWTP)
4. Task 3.5 – Resident Inspection During Construction - North Interceptor Phase 1 (7th Street to WWTP)

The Scope of Services as described in Attachment A – Scope of Services shall be amended to include the following:

Task 2.1 – Wastewater Master Plan – Detailed Design Trends

The detailed design scope and fee was included in Amendment 1 and was based on the project elements defined in Technical Memorandum #2. During preparation of the master plan the OWNER and ENGINEER agreed to modify the scope and include additional analysis to include the service area buildout scenario.

Task 3.3 – North Interceptor Phase 1 (7th Street to WWTP) – Detailed Design Trends

The detailed design scope and fee was included in Amendment 1 and was based on the project elements defined in the Design Memorandum (Technical Memorandum #3). During detailed design, OWNER and ENGINEER agreed to modify the scope and fee and include additional elements in the Contract Document. The changes or design trends include the following:

1. Easement Assistance and Preparation
2. Combining Phase 1A and 1B in one design and bidding package.

3. Additional Editing to Address Attorney Comments

Task 3.4 – Construction Phase Services – North Interceptor Phase 1 (7th Street to WWTP)

ENGINEER's services for these tasks are dependent on the construction Contractor's schedule and completion defined in the Contract Documents (City Project 2012-S-6). The scope of ENGINEER's work and compensation were developed based on the OWNER's intention to issue a Notice to Proceed to Contractor on or about June 1, 2013 followed by 8 months of construction. Including two (2) months for completion of conformed construction documents and project closeout activities, ENGINEER will provide project management administration services over a ten (10) month period. Any changes to this schedule may cause the OWNER or ENGINEER to request an adjustment to the compensation.

ENGINEER shall not have the authority or the responsibility to supervise, direct, or control the Contractor's work or the Contractor's means, methods, techniques, sequences, or procedures of construction. ENGINEER shall not have authority or responsibility for safety precautions and programs incidental to the Contractor's work or for any failure of the Contractor to comply with laws, regulations, rules, ordinances, codes, or orders applicable to the Contractor furnishing and performing the work. Specific services to be performed by the ENGINEER for construction administration are as follows:

- 3.4.1 Attend Pre-Construction Conference. At date and time selected by the City and at facilities provided by the City, conduct preconstruction conference. The ENGINEER shall prepare an agenda for the conference and record, prepare, and distribute minutes of the conference. The preconstruction conference will include a discussion of the Contractor's tentative schedule, procedures for transmittal and review of the Contractor's submittal, processing payment applications, critical work sequencing, change orders, record documents, and the Contractor's responsibilities for safety and first aid. Discussion regarding the Contractor's responsibilities for meeting and necessary requirements of the State and Federal Assurances and Requirements for the project included in the Contract Documents will be provided by the City's Contract Administrator.
- 3.4.2 Construction Staking and Alignment Survey Check. Establish field control points for Contractor to use in constructing the project. The points will be offset stakes at 50' intervals for the sanitary sewer line as well as offset stakes for manholes and structures. Incorporate limits of construction and easement area staking in critical boundary areas. Any re-staking of control points, benchmarks, and/or construction staking damaged or destroyed in the field shall be re-established at the expense of the Contractor. These activities will not relieve the Contractor of the Contractor's overall responsibility to perform the work in accordance with the Contract Documents. A final as-constructed survey will verify selected elevations and horizontal locations of information provided on the Contractor's record drawings.
- 3.4.3 Provide Construction Administration Services. Provide general administration services to facilitate the work by the Contractor are performed in general conformance with the Construction Documents. By performing the services, no authority or responsibility is assumed to supervise, direct, or control the Contractor's work or the Contractor's means, method, techniques, or procedures of construction.

3.4.4 Attend and Conduct Bi-Monthly Construction Progress Meetings. Attend and conduct regularly scheduled construction progress meetings as required by the specifications. Engineer shall prepare agenda and record and distribute meeting minutes of each meeting. Meeting minutes shall include reviews and status of construction activities, construction schedule, requests for information, submittals, contract change requests, contract change orders, and budget reports. The anticipated progress meetings are a combination of monthly, bi-weekly, and some weekly meetings. The planned number of meetings are:

North Interceptor Phase 1 (7th Street to WWTP) - Twenty Four (24) meetings

3.4.5 Review Construction Schedule. Review and comments on the Contractor's initial and updated construction schedule(s) and advise City as to acceptability. Review and analyze Contractor's construction schedule(s), activity sequences, and construction procedures with regard to City's ability to keep existing facilities in operation.

3.4.6 Conduct Periodic Site Visits. Make periodic site visits to the construction site to observe progress of the work and consult with the City and Contractor concerning problems and/or progress of the work. Periodic site visits are based on a total of 34 visits in conjunction with the construction meetings including one site visit by the Rehab Specialist and one site visit by the Microtunneling Specialist.

3.4.7 Interpret Contract Documents. When requested by OWNER or Contractor, ENGINEER will interpret the Contract Documents. ENGINEER's responses to requests for clarification, interpretation, or information from the Contractor will be distributed by ENGINEER to OWNER and Contractor. ENGINEER will prepare and maintain a log of requests for clarifications, interpretations, and information. To establish basis for ENGINEER's compensation, up to forty (40) requests for clarification, interpretations, or information are budgeted to be reviewed and returned with a written response.

3.4.8 Assist in Evaluating and Preparing Change Orders. Investigate and process all necessary construction change orders (initiated by the Owner or Contractor) justifications and related changes to the contract documents as may be necessary. Negotiate with the Contractor to assist in obtaining a fair price for the work. Said negotiations will be subject to the approval of the City. Five (5) change orders are assumed for purposes of this scope of services.

3.4.9 Administer Change Orders. Review documentation and administer the processing of change orders, including applications for extensions of construction time. Documentation will be provided by Resident Project Representative and Contractor.

3.4.10 Review Monthly Contractor Pay Requests. Review and process the Contractor's monthly payment requests and forward them to the City for approval. Review will be for the purpose of making a full independent mathematical of the Contractor's payment request. Resident Project Representative will be responsible for reviewing and verifying the

quantities of work which are the basis of the payment request.

- 3.4.11 Review Contractor's Submittals. Review Contractor's submittals, shop drawings, and other data submitted by the Contractor as required by the construction contract documents. Review will be for general conformity to the construction contract drawings and specifications for the contract, and will not relieve the Contractor of any of his contractual responsibilities. Such review will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
- 3.4.12 Assist with Substantial Completion Inspection. Upon request for Substantial Completion, inspect the construction work for compliance with the Contract Documents and prepare a listing of those items to be completed or corrected before final completion of the contract. Submit results of the inspection to the City and Contractor.
- 3.4.13 Assist with Final Completion Inspection. Upon completion or correction of the items of work on the punch list, conduct final inspection to determine whether the work is complete. Provide written recommendations concerning final payment to the City including a list of items, if any, to be completed prior to the making of such payment.
- 3.4.14 Prepare Conformed Construction Record Documents. Upon completion of the project, revise the construction drawings to conform to the construction records. Conformed to construction record documents will be provided to the City in electronic PDF format and AutoCAD format.
- 3.4.15 Conduct Warranty Inspections. Conduct an inspection during the one-year warranty period at a date to be determined by the City to identify defects of the work that need to be addressed or corrected. As necessary, a formal request will be forwarded to the Contractor requesting corrective action.
- 3.4.16 Assist with Public Involvement. ENGINEER will arrange for and conduct an "open house" style public meeting to inform the public of the project and project timelines. This meeting will be held close to the pre-construction meeting of the project. The ENGINEER will also provide informational updates throughout the project (bi-weekly) for the CITY to post on the City's website and/or release to the press. A total of twenty six (26) bi-weekly updates are anticipated. Individual landowner meetings are also anticipated during the construction of the project. A total of thirteen (13) individual landowner meetings are anticipated.
- 3.4.17 Conduct Project Closeout. ENGINEER will review and file applicable documents required by the OWNER pertaining to the project and turn over required documents from the ENGINEER's RPR to the OWNER. ENGINEER will gather and consolidate its project files for long-term storage.
- 3.4.18 Site Conditions. Provide recorded site condition prior to construction, this will be redundant to contractors recorded preconstruction site conditions. The ENGINEER should carefully check the relevant site details and record them in writing, in sketches and in photos which will be compiled into a condition report. This report is supplied to the CITY and may have to be given to neighboring property owners if their property is affected by the construction.

Task 3.5 – Resident Observation Services During Construction – North Interceptor Phase 1 (7th Street to WWTP)

ENGINEER, through sub-consultant, shall furnish a Resident Project Representative(s) (RPR) under the project work plan for construction of the work for a cumulative total of the following man hours:

North Interceptor Phase 1 (7th Street to WWTP)-

1680 hours

The man hours are based on an estimated construction length of 35 weeks with an average of 48 hours per week of observation time (one full time person plus some part time observation). Time for meetings, reports, testing, and project close-out items are in addition to the above listed hours.

The RPR will observe the Contractor's work and perform the services listed below. The RPR shall not have the responsibility for the superintendence of construction site conditions, safety, safe practices or unsafe practices or conditions, operation, equipment, or personnel other than employees of the ENGINEER. This service will in no way relieve the Contractor of complete supervision and inspection of the work or the Contractor's obligation for complete compliance with the drawings and specifications. The Contractor shall have the sole responsibility for safety and for maintaining safe practices and avoiding unsafe practices or conditions. Specific services performed by the RPR are as follows:

3.5.1 Site Observations and Liaison with OWNER and Contractor. Conduct onsite observations for the work being performed, of the general progress of the work to assist ENGINEER and City in determining if the work is proceeding in accordance with the construction contract documents. Observe pertinent site conditions when Contractor(s) maintain that differing subsurface and physical conditions have been encountered, and document actual site conditions.

Working principally through City's representative, assist ENGINEER in providing interpretation of the construction contract documents. Transmit ENGINEER's clarifications and interpretations of the construction contract documents to the City's representative. When Contractor's operations affect City's onsite operations, assist in obtaining from City additional details or information when required at the jobsite for proper execution of the work. Advise ENGINEER and City's representative or its Public Works Engineer immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been previously reviewed and accepted by the ENGINEER. Monitor changes of apparent integrity of the site resulting from construction related activities. Assist in coordinating and scheduling of utility activities to minimize conflicts with City's activities. Coordinate onsite materials and other field testing services during construction. Provide copies of tests performed and results to ENGINEER and City for review and information.

3.5.2 Meetings, Reports, and Documents Review and Maintenance. Attend the preconstruction conference. Attend bi-monthly progress meetings, and other meetings with the City and the Contractor when necessary, to review and discuss construction

procedures and progress scheduling, consulting management procedures, and other matters concerning the project. Submit to ENGINEER and City daily/weekly construction progress reports containing a summary of the Contractor's progress, general condition of the work, problems, and resolutions or proposed resolutions to problems, hours the Contractor worked on site, construction equipment on the jobsite, observed weather conditions, and observed delays and potential causes. Report to ENGINEER and City regarding work which is known to be defective, or which fails any required inspections, tests, or approvals, or has been damaged prior to final payment and advise ENGINEER whether the work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval. Review applications for payment with Contractor for compliance with the established procedure for their submission, and forward them with recommendations to ENGINEER, noting particularly their relation to the schedule of values, work completed, and materials and equipment delivered at the site, but not incorporated into the work. Maintain a marked set of drawings and specifications at the jobsite based on data provided by the Contractor. Maintain a daily diary or log book of events at the jobsite. Provide a copy of the daily diary to ENGINEER and City upon completion of the project.

3.5.3 Observe Contractor's Field Tests. Observe and document field tests of equipment, soils compaction, concrete, structures, and systems including but not limited to; lamping, air, testing, exfiltration, and mandrel testing; and review the resulting reports, commenting to ENGINEER, as appropriate. Report to ENGINEER, giving opinions and suggestions based on the Resident Project Representative's observations regarding the defects or deficiencies in the Contractor's work and relating to compliance with drawings, specifications, and design concepts. Visually inspect materials, equipment, and supplies delivered to the worksite. Recommend to the ENGINEER the rejection of materials, equipment, and supplies, which do not conform to the construction contract documents.

3.5.4 Provide Geotechnical/Testing Services. Coordinate field soils and concrete testing as required or requested by the ENGINEER and City. Based on the estimate of the required number of tests, the following scope of test services is anticipated:

North Interceptor (7 th Street to WWTP)	
Backfill field density tests -	505 tests
Concrete sets of cylinder casts and tests -	25 sets and tests
Standard Proctor and Atterberg limit tests -	12 tests
Sieves (Pipe Bedding Material) -	6 tests

Plus supervision, data review, and reports.

3.5.5 Provide Completion/Inspections. Assist ENGINEER and City in Certification of Substantial Completion. Before ENGINEER issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction. Assist ENGINEER and City in conducting a final inspection in the company of City and Contractor, and prepare a final list of items to be completed or corrected. Verify that all items on the final list have been completed or corrected and make recommendations to ENGINEER and City for determining final acceptance.

3.5.6. Isolation / By-Passing / Discharging / Street Closing. The RPR shall not authorize any Wastewater Utility systems isolation, by-passing, or discharging. The City's Owner Representative shall be notified of the requirement to isolate, by-pass, or discharge. The RPR shall assist in forty-eight (48) hour notification of a required street closing reporting to the city's Owner Representative.

ARTICLE 4 – COMPENSATION

4.1 The total amount of payments for services and Reimbursable Expenses in accordance with Attachment B-1, Compensation shall be changed from \$3,831,885 (per Council Resolution 2011-307 dated October 11, 2011) to \$4,551,502 representing an increase of \$719,617. The compensation by Task shall be as follows:

1. Task 2.1 – Wastewater Master Plan – Detailed Design Trends \$16,059
2. Task 3.3 – North Interceptor Phase 1 (7th to WWTP) – Detailed Design Trends \$50,265
3. Task 3.4 – Construction Phase Services – North Interceptor Phase 1 (7th to WWTP) \$485,365
4. Task 3.5 – Resident Inspection During Construction – North Interceptor Phase 1 (7th to WWTP) \$167,938

All other provisions of the Agreement shall remain the same.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment as of the day and year first above written.

OWNER:

ENGINEER:

CITY OF GRAND ISLAND, NEBRASKA

BLACK & VEATCH CORPORATION

By: _____

By: _____

Title: Jay Vavricek, Mayor

Title: Associate Vice President

Date: _____

Date: _____

Attest: _____

Date: _____

RaNae Edwards, City Clerk

The Amendment is in due form according to law and is hereby approved.

Date: _____

Bob Sivick, City Attorney

RESOLUTION 2013-148

WHEREAS, on October 11, 2012 Grand Island City Council, by Resolution No. 2011-307, approved the consulting agreement with Black & Veatch of Kansas City, Missouri; for project management, collection system master planning and conceptual designs for the Northeast Interceptor sewer, Collection System rehabilitation and Wastewater Treatment rehabilitation in the amount of \$1,121,160.00, and

WHEREAS, on April 24, 2012 Grand Island City Council, by Resolution No. 2012-111, approved Amendment No. 1 allowed for the continuation of the design effort to final design and bidding, in the amount of \$1,910,075.00; and

WHEREAS, on August 28, 2012 Grand Island City Council, by Resolution No. 2012-229, approved Amendment No. 2 to add CDBG guideline provisions, and provided for construction engineering services for the Lift Station No. 7 Improvements and 4th Street to 5th Street; Eddy Street to Vine Street rehabilitation, in the amount of \$53,000; and

WHEREAS, on November 13, 2012 Grand Island City Council, by Resolution No. 2012-329, approved Amendment No. 3 allowed for construction engineering services and resident inspection during construction for the 5th Street Sanitary Sewer Improvements, as well as for the South & West Sewer Interceptor Improvements with the consulting firm Black & Veatch of Kansas City, Missouri, in the amount of \$265,754.00; and

WHEREAS, on February 12, 2013 Grand Island City Council, by Resolution No. 2013-34, approved Amendment No. 4 allowed for the review to the "Report on Revenue Requirements, Cost of Service and Rates for Wastewater", in the amount of \$30,000.00; and

WHEREAS, on February 12, 2013 Grand Island City Council, by Resolution No. 2013-35, approved Amendment No. 5 allowed preliminary design engineering services in Phase II of the North Interceptor Sewer planning, and final bidding documents for Phase II-B North Interceptor Sewer with the consulting firm Black & Veatch of Kansas City, Missouri, in the amount of \$451,896; and

WHEREAS, Amendment No. 6 will provide fee compensation in engineering services that were not specifically identified in the original design agreement entitled "Wastewater Treatment Plant and Collection System Rehabilitation"; and

WHEREAS, Amendment No. 6 will provide Consulting Engineering Construction Phase Services, and Resident Inspection During Construction for Phase I; North Interceptor Sewer Construction with the consulting firm Black & Veatch of Kansas City, Missouri; and

WHEREAS, the agreement cost increase for Amendment No. 6 is \$719,617, resulting in a revised agreement cost of \$4,551,502; and

Approved as to Form	<input type="checkbox"/>	_____
May 14, 2013	<input type="checkbox"/>	City Attorney

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that such Amendment No. 6 to the agreement with Black & Veatch of Kansas City, Missouri is hereby approved.

BE IT FURTHER RESOLVED, that the Mayor is hereby authorized and directed to execute such Amendment No. 6 on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska, May 14, 2013.

Jay Vavricek, Mayor

Attest:

RaNae Edwards, City Clerk