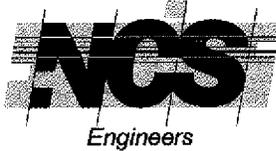


EXHIBIT A



E N G I N E E R I N G

June 24, 2013

SCOPE OF WORK CITY OF TEMPE REHABILITATION OF WATER STORAGE TANKS ENGINEERING SUPPORT SERVICES

BACKGROUND

The City of Tempe Water Utilities Division operates the City's water treatment and distribution, and wastewater collection and treatment systems. The City has four welded steel water storage tanks in its system: Hayden East, Hayden West, Belle Butte and Papago. The Hayden East and Papago tanks have a capacity of one million gallons (MG) and each of the remaining tanks has a capacity of 2.0 MG. Riley Industrial Services, Inc. (Riley) conducted condition assessments of the tanks and summarized the findings and recommended repair items in reports dated December 2012. As the next step in the City's rehabilitation program, NCS Engineers (NCS) has developed the following Scope of Work (SOW) to provide engineering and third party construction inspections for rehabilitation activities. NCS (herein referred to as the 'ENGINEER') presents the following list of specific tasks that comprise the SOW. NCS will perform this SOW in association with our subconsultant, Greeley and Hansen.

PHASE 1 – MAINTENANCE SPECIFICATIONS

The first work phase will develop technical specifications that can be utilized in procuring typical tank maintenance services. The specifications shall be suitable to append to a REQUEST FOR PROPOSAL as issued by the City Procurement Office for any one of or all of the services as required. The specifications shall cover the following major services.

- Recoating
- Overcoating
- Cathodic Protection System Replacement

Task 1 - Prepare Bid Specifications for Storage Tank Maintenance

The ENGINEER shall develop the biddable specifications for tank coating systems. These activities include draining, cleaning, minor structural repairs, surface preparation, coating and/or overcoating and disinfection. A coating specification designed for and requiring a 10 year warranty shall be developed. Additional language covering periodic inspection as well as additional requirements as appropriate for procurement of the specified maintenance services

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shall also be developed for insertion in the City's REQUEST FOR PROPOSAL document. National Association of Corrosion Engineers (NACE) Level 3 certified inspector will be involved in reviewing the coating specifications.

Subtask 1.1 - Interior Coating Repair/Replacement

The ENGINEER shall prepare specifications for rehabilitation of the interior coating of storage tanks in accordance with the standards of the industry and satisfying all applicable regulatory requirements.

Subtask 1.2 - Exterior Coating Repair/Replacement

The ENGINEER shall develop specifications for rehabilitation of the exterior coating of the storage tanks in accordance with the standards of the industry and satisfying all applicable regulatory requirements.

Subtask 1.3 – Cathodic Protection System

The ENGINEER shall develop specifications for replacing the cathodic protection system in accordance with standards of the industry and satisfying all applicable regulatory requirements.

Subtask 1.4 – Specification Documents

The ENGINEER shall prepare the specifications in CSI format using the MSWord version identified by the City's Procurement Department. Two (2) hard copies and two (2) electronic copies will be furnished for the final deliverable.

Task 2 - NACE 3 Coating Inspections

During the regular tank maintenance activities and/or major coating repair work, coating inspections will be performed by a NACE Level 3 certified inspector, Mr. Greg Sprinkle of Certified Coating Inspections, Inc. The NACE inspector will perform field services to inspect and approve the surface preparation, prime and finish coat applications. The NACE inspector will also assist during the First Anniversary Coating Inspections. If necessary, the ENGINEER will coordinate inspections with the coating inspector during the tank rehabilitation activities described under Phase 2.

PHASE 2 – TANK REHABILITATION PROGRAM

The second work phase will finalize the rehabilitation plan, develop the drawings and specifications for procurement of the rehabilitation work, and provide construction phase services for a complete rehabilitation program.

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Task 3 – Rehabilitation Plan

The ENGINEER shall develop a rehabilitation plan (PLAN) that establishes the course for preparing the rehabilitation design, construction drawings and technical specifications for rehabilitating the four tanks. The PLAN will define and summarize the civil, mechanical, and structural improvements along with associated costs. Safety upgrades will also be included. PLAN contents will be based on the prior condition assessments prepared by Riley, discussions with City Operations Staff, and one (1) field visit by the ENGINEER to each tank site to review site civil features. The following subtasks briefly describe the process in developing the PLAN.

Subtask 3.1 – Data Review and Site Investigations

The ENGINEER will review the following information and data as available from the City:

- Inspection reports prepared by Riley, dated December 2012.
- System hydraulics data and records for the tanks.
- As-built construction records for the facilities.
- Records of any prior rehabilitation work performed.
- General tank cleaning and maintenance schedules.

The ENGINEER, with City staff, will perform a site visit to each tank to verify documentation, review safety features, collect any missing data required for final design, and identify any additional civil improvements that may be required (slope stabilization, overflow routing, etc.). Previous inspections by Riley appear to be sufficient so that entry into the tanks is not required during these site visits. During the site visits, the ENGINEER will also determine the access available around the tanks to conduct the rehabilitation work. The site visits for all four tanks will be performed in one day.

Subtask 3.2 – Meetings with Operations Staff

The ENGINEER shall meet with the City's Operations Staff to discuss tank rehabilitation activities. Up to three (3) meetings are anticipated to capture Staff input for incorporation in the work. The initial meeting will be conducted prior to field site visits, followed by a meeting with submission of the PLAN draft, and a third meeting to collect Operations Staff comments on the PLAN draft. The initial meetings will identify operational goals, site concerns, service requirements, and issues for taking tanks out of service; and subsequent meetings will validate rehabilitation priorities and identify schedule requirements, potential coordination of maintenance work (re-coating, overcoating, and cathodic protection) with rehabilitation work costs, and budget availability for rehabilitation work.

Subtask 3.3 – Overflow and Venting Requirements

The ENGINEER shall review the hydraulics data and system pumping capabilities to determine the sizes of these appurtenances as required by distribution system hydraulics and in accordance with Section 7 of AWWA D100-11. Overflow pipe sizes will be checked for maximum possible tank fill rates and vent sizes will be checked for conditions occurring with potential distribution system pipeline break.

Subtask 3.4 – PLAN Documentation

The ENGINEER shall prepare a written memorandum summarizing the PLAN as developed from the activities of Subtasks 3.1 through 3.3. Appendices shall be provided as necessary to provide background in support of PLAN components. As discussed under Subtask 3.2, the draft PLAN document will be reviewed with City Operations Staff to validate the PLAN contents, discuss opinions of cost, and adjust the PLAN to the City's available funding.. Following receipt of City comments, comments will be incorporated and five (5) final hard copies and two (2) electronic copies of the PLAN will be prepared as the final deliverable.

Task 4 – Final Design and Construction Documents

In accordance with the PLAN as approved by the City, the ENGINEER shall prepare final design, detailed drawings, technical specifications and opinion of cost for rehabilitation of each tank. Work will include design of structural repairs, overflow and venting improvements, new cathodic protection systems, and OSHA/Safety enhancements as needed.

Subtask 4.1 – Detailed Design and Construction Drawings

The ENGINEER shall prepare design calculations, design details and construction drawings for each tank site in AutoCAD format in accordance with City standards.

Subtask 4.2 – Technical Specifications and Contract Documents

The ENGINEER shall prepare technical specifications and contract documents suitable for bidding and construction. Specifications and contract documents will be compiled based on preferred City front-end documents and CSI format.

Subtask 4.3 – Construction Cost Estimates

The ENGINEER shall prepare two (2) detailed opinions of estimated construction costs. These opinions of cost will be prepared at the 60% and final design levels.

Six (6) copies of 60%, 90% and final design level set of drawings and specifications will be provided to the City for review and comment. Meetings with City Engineering staff will be held

for discussion and comment following the 60% and 90% design submissions. Six (6) copies of the final set of construction documents sealed by a professional engineer registered in Arizona and one electronic set for bidding purposes will be provided as the final design submittal.

Task 5 - Post Design Services

Post design services will include the following subtasks. Inspections for surface preparation and coating activities will be provided as described under Task 2.

Subtask 5.1 – Regulatory Approval Coordination

The ENGINEER shall coordinate with the Maricopa County to obtain design and construction approvals for the tank rehabilitation projects (Approval to Construct and Approval of Construction). These regulatory activities include preparing forms, transmitting design information and drawings, preparing record drawings and preparing correspondence.

Subtask 5.2 – Bid Support

The ENGINEER shall provide post-design assistance to the City during the bid process. Activities will include responding to bidders' questions, preparing addenda, evaluating bids, and conducting one bid-related meeting. The purpose of these services is to facilitate a viable construction bid and advance the construction activities towards construction contract award.

Subtask 5.3 - Construction Phase Support

During construction, the ENGINEER shall provide support through shop drawing and submittal reviews and responses to requests for information. Periodic inspections as well as special inspections for welding and coatings will also be provided.

Subtask 5.4 - Record Drawings

The ENGINEER shall prepare record drawings based on the contractor's redline markup of the construction drawings. One (1) hard copy set and one (1) electronic copy will be provided to the City.

Assumptions:

- The Riley Reports will be used as the basis for the rehabilitation scope and design.
- The City will provide the following assistance and information as available:
 - Site access

- As-built construction documents
 - Demand data from SCADA system
 - Previous Maintenance information
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- The following items are excluded from the scope:
 - Geotechnical testing
 - Surveying

We look forward to working with you on this and your other challenging and important projects.

Sincerely,



Ram Narasimhan, P.E.
President

NCS FEE BREAKDOWN - TEMPE STEEL TANK REHABILITATION

Task and Estimated Costs	LABOR HOURS BY CLASSIFICATION					Total Task Labor Costs
	QA/QC	Senior Project Manager	Project Engineer	CAD Tech/Field tech	Clerical	
NCS FEE SUMMARY						
PHASE 1 - MAINTENANCE SPECIFICATIONS						
Task 1 Prepare Bid Specifications for Storage Tank Maintenance (Lumpsum)						
Subtask 1.1 - Interior Coating Repair/Replacement	2	24	4			\$6,190
Subtask 1.2 - Exterior Coating Repair/Replacement	2	12	4			\$3,430
Subtask 1.3 - Cathodic Protection System	2	8	16			\$3,650
Subtask 1.4 - Specification Documents	2	8	16		16	\$4,450
Task 2 NACE 3 Coating Inspections (Hourly Allowance)				400		\$30,000
PHASE 2 - TANK REHABILITATION PROGRAM						
Task 3 Rehabilitation Plan (Lumpsum)						
Subtask 3.1 - Data Review and Site Investigations		12	24			\$5,040
Subtask 3.2 - Meetings with Operations Staff		12	12		4	\$4,100
Subtask 3.3 - Overflow and Venting Requirements	2	8	16	12		\$4,550
Subtask 3.4 - PLAN Documentation	2	16	8	12	8	\$6,030
Task 4 Final Design and Construction Documents (FEE TO BE DETERMINED)						
Subtask 4.1 - Detailed Design and Construction Drawings						
Subtask 4.2 - Technical Specifications and Contract Documents						
Subtask 4.3 - Construction Cost Estimate						
Task 5 Post Design Services (FEE TO BE DETERMINED)						
Subtask 5.1 - Regulatory Approval Coordination						
Subtask 5.2 - Bid Support						
Subtask 5.3 - Construction Phase Support						
Subtask 5.4 - Record Drawings						
TOTAL COSTS - BASE SERVICES	12	100	100	424	28	\$67,440
TOTAL HOURS PER PERSONNEL CLASSIFICATION						
Average Billing Rate (\$/hr including overhead and profit)						
	145	230	95	75	50	
Direct Labor Cost Sub Totals						
	\$1,740	\$23,000	\$9,500	\$31,800	\$1,400	
LABOR TOTALS						\$67,440
NCS LABOR COSTS (INCLUDING OH + PROFIT)						\$67,440

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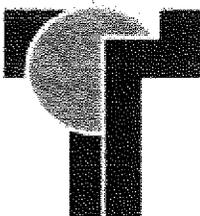
**CITY OF TEMPE
REHABILITATION OF STEEL WATER STORAGE TANKS**

June 25, 2013

PROJECT SCHEDULE

Task	Description	Start Day From NTP	Duration, Work Days	End Day From NTP
NTP	Notice to Proceed (NTP)	0	0	0
Task 1.1	Draft Bid Specifications for Storage Tank Maintenance	1	20	20
Task 1.2	Draft Specifications - City Review	21	15	35
Task 1.3	Draft Specifications Review Workshop	36	1	36
Task 1.4	Final Bid Specifications for Storage Tank Maintenance	36	10	45
Task 2.1	Coating Inspector Services Bid Phase	71	45	115
Task 2.2	Coating Inspections Construction Phase	116	260	375
Task 3.1	Data Review and Site Investigations	1	15	15
Task 3.2	Meetings with Operations Staff	16	5	20
Task 3.3	Overflow and Venting Requirements	21	5	25
Task 3.4	Draft PLAN Documentation	26	20	45
Task 3.5	Draft PLAN Documentation - City Review	46	15	60
Task 3.6	Final PLAN Documentation	61	10	70

* Days are per Standard 5 Day Work Week



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