City of Globe, Arizona

Addendum #1

5-20-16

Revised Bid Schedule is listed below.

Cooperative Language: This contract will have cooperative purchasing provisions:

Participating Agencies. Vendors (Bidders) may have the opportunity under this Contract to provide goods and/or services to other Participating Agencies. A Participating Agency is defined as an agency whose purchasing policies are similar to the City's and/or who participates in any of the cooperative purchasing networks/agencies with which the City participates.

The specifications for Cathodic Protection Alternative Options are listed below.

The Contract will be funded with City of Globe Water Fund. No WIFA funds will be used.
Delete reference to Water Infrastructure Finance Authority, (WIFA) in 4.7.1 and Special Provisions

Tank Dimensions:
Apache- 24' Diameter x 12' High
Thompson- 30' Diameter x 10' High

Warranty shall be Two (2) Years

SOLICITATION TYPE:	**INVITATION FOR BIDS**
COMMODITY/SERVICE SOUGHT:	**Rehabilitation and Protective Coating for the 1.0 Million Gallon Crestline Water Storage Tank. Rehabilitation and Protective Coating for the 0.04 Million Gallon Thompson Water Storage Tank. Rehabilitation and Protective Coating for the 0.05 Million Gallon Apache Peak Water Storage Tank.**
BID DUE DATE AND TIME:	**Date May 27, 2016 at 2:00 PM local time**
LOCATION:	**City of Globe** **Joseph Jarvis, MPA** **Finance Director** **150 N. Pine St.**

Globe, AZ 85501
928-425-7146 ext.11
jjarvis@globeaz.gov

Bids shall be enclosed in a sealed envelope clearly identified as "REHABILITATION AND PROTECTIVE COATING FOR UP TO THREE (3) WATER STORAGE TANKS". The name and address of the entity submitting the Bid shall also be clearly marked on the sealed envelope. It is the sole responsibility of the entity submitting the bid to see that his/her bid is received at the proper time. The bid shall be submitted to the City of Globe located at 150 N. Pine St. Globe, AZ 85501 by 2:00 PM May 27, 2016, at which time all bids shall be opened and the name of each bidder and the amount of its bid shall be publicly read. Late bids will not be considered and will be returned unopened. Bid's "faxed" or emailed to the City shall not be accepted.

Every bid shall be accompanied by a certified check, cashier's check or surety bond for ten percent (10%) of the amount of the bid as a guarantee that if selected, the bidder will enter into a contract to perform the work in accordance with the contract documents. Any surety bond submitted in compliance with this requirement shall be executed by a surety company or companies holding a certificate of authority to transact surety business in this state issued by the director of the Department of Insurance pursuant to Arizona Revised Statutes Title 20, Chapter 2, Article 1; shall follow the form prescribed in Arizona Revised Statutes Section 34-201; and all liabilities on the bond shall be determined in accordance with that section as if it were copied at length therein.

The City of Globe will select a vendor based on the lowest responsible and responsive bid. The City reserves the right to waive informalities in any bid and to reject any or all bids in whole or in part with or without cause and/or to accept the bid that, in its judgment, will be in the best interest of the City. The City reserves the right to reject any conditional bid and will normally reject those which make it impossible to determine the intent of the bid. All bidders must fully understand the "all inclusive" nature of the City's work scope request and must therefore structure their bid to eliminate contingency pricing.

The City of Globe seeks the services of a qualified Potable Water Storage Tank Rehabilitation and Coating Company to provide associated services work is generally described as:

1. **Mobilize and Demobilize**
2. **Provide Labor, Equipment, Materials and Expendables**
3. **Provide Tank Inspection and Condition Report**
4. **Provide Tank Rehabilitation and Repair Services**
5. **Provide Protective Tank Coating Services**
6. **Report of Findings and Recommended Action**
7. **Provide Tank Inspection at the end of One (1) Year Warranty**
8. **Provide Five (5) Year Warranty on all Labor and Materials**
9. **Propose Schedule for Mobilization and Completion of Work**

SERVICES REQUIRED

The City of Globe will require a State of Arizona licensed contractor to perform the services.
This Invitation for Bids ("IFB") includes the following:

- **Cost – The proposed costs and fees for the project. Please identify any subcontractors that will be used.**
- **Schedule- This is a time sensitive project that needs to be completed on schedule. The City wishes the project to be completed within four (4) weeks of Notice to Proceed.**
- **Relevant Experience – The company or entity must have at least five years of experience as a licensed contractor in Arizona performing similar work on potable water storage tanks.**
- **Client List – References will be request of the selected Company.**

I. EVALUATION CRITERIA

Any company or individual responding to this IFB should be advised that the following experience and responsibilities will be necessary for the success of the selected contractor:

1. **Flexibility in work scheduling.**
2. **Ability to provide services requested in a timely manner**
3. **Applicable license, insurance and bonding**

Evaluation Criteria – For each of the Required Services included in the response to the IFB, these criteria will be used evaluate the bid:

1. **Cost – The bid price for the project. Please identify any subcontractors that will be used.**
2. **Schedule- Start Date and Completion Date (This project is time sensitive and completion time will be a factor in the selection of the lowest responsive responsible bid.)**
3. **References**
4. **Demonstrated ability to complete the work**

Questions and scheduled site visits related to this IFB can be sent to Jerry Barnes, City Engineer or Ken Sellick, Water Superintendent 928- 425-4820. Questions related to this IFB can be directed to Paul Hendricks, EUSI, 623 204 4901 or phendricks@cox.net.

Publish Date: _____, 2016 _____, 2016 PUBLISHERS AFFIDAVIT REQUIRED

CATHODIC PROTECTION SPECIFICATION

GALVANIC / PASSIVE SACRIFICIAL ANODE CATHODIC PROTECTION SYSTEM FOR THE INTERIOR OF STEEL WATER TANKS (VERTICAL ANODE SYSTEM)

A. SCOPE The cathodic protection design/install constructor shall provide all engineering services, materials, equipment, labor, and supervision for the installation of a galvanic sacrificial anode cathodic protection system to provide corrosion control for the interior submerged surface of the specified tank. All work furnished shall be in accordance with N.A.C.E. Standard SPO196-11, AWWA Standard D106-10, ANSI/NSF 61 and features included in this specification.

B. DESIGN

All engineering services shall be provided by a Corrosion Specialist who is accredited by the National Association of Corrosion Engineers International as a Senior Corrosion Technologist, Corrosion Specialist or Cathodic Protection Specialist. The system shall be designed by a Corrosion Specialist with experience in cathodic protection for water storage tanks. The Corrosion Specialist shall design the system to provide effective corrosion control in accordance with criteria for protection. The criteria for protection shall be based on a tank-to-water potential within a range of -0.850 volts to -1.050 volts relative to a stationary copper-copper sulfate reference electrode, or at least 100mV of cathodic polarization.

The Corrosion Specialist shall also base system capacity and performance on:

1. Total submerged surface area of the tank.
2. Type of coating and condition of coating.
3. Total bare surface area to be protected will be a minimum of 2% of total submerged surface area.
4. Minimum current density of 3.0 MA/ft.^{2} bare surface area.
5. Chemical analysis of water including resistivity expressed in ohm-cm.
6. Susceptibility of tank to icing conditions.
7. Minimum anode design life of ten (10) years.
8. Selection, dimensions, and layout of system components specified in Section C. of this specification

C. SYSTEM COMPONENTS

C1. *TEST STATION*

The test station shall include:

1. Calibrated type "CP" 2 amp, 200mV Holloway shunt for anode current verification
2. Variable 100 watt 100 ohm, rheostat to adjust anode current output
3. SPST-NC momentary toggle switch, On / Off / Current Interruption
4. High resistance 2.5" analog meter 0-2Vdc with momentary push to read switch/button to monitor tank-to-water voltage potential
5. Reference electrode selector switch for primary and test cells
6. Screw type wire terminals
7. NEMA 4X rated fiberglass enclosure w/ SS hinge and latch suitable for padlock
8. ACCI model # A22V-F012 or equal

C2. *LONG LIFE REFERENCE ELECTRODE(S)*

The permanent reference electrode shall consist of a copper-copper sulfate electrode which is manufactured to remain stable (plus or minus 10MV) for minimum of twenty (20) years. The reference electrode to lead wire connection shall be encapsulated to prevent water migration with not less than AWG NO. 14 HMW-PE lead wire. The primary reference electrode shall be positioned within the tank to provide the most representative measurements for the submerged surface area(s).

C3. *ANODE SUSPENSION SYSTEM*

The anode suspension system shall be in accordance with AWWA Standard D106 of non-icing tanks shall be a system which allows for vertical suspension from the roof of the tank. The collector cable and anode lead wire shall be a minimum #8 AWG HMW-PE and will be used to secure the anode to a galvanized steel clevis insulator bracket bolted to the interior tank roof. Handhole cover assemblies used for the installation of vertical anode suspension systems from the roof of the tank shall consist of a plated 6" diameter cover, rubber gasket, clamping bar and stainless steel bolt assembly.

C4. *ANODE MATERIALS*

The anode materials shall be selected in accordance with Design (Section B) and shall consist of one of the following:

1. Extruded 2.0"dia. Galvorod H1 magnesium alloys with a steel core
2. Extruded 2.0"dia Galvomag HP magnesium alloys with a steel core

C5 WIRING

All wiring within the tank shall be insulated to prevent copper conductor to water contact.

All wiring on the exterior of the tank shall be insulated and run in rigid conduit.

C6 HARDWARE All hardware used in conjunction with the system shall be protected against corrosion.

C7 ANSI/NSF 61

All materials in contact with the water or exposed to the interior of the tank shall be classified in accordance with ANSI/NSF 61 "Drinking Water System Components.

D. SUBMITTALS

The cathodic protection constructor shall submit the following information to the purchaser for approval by the Owner or his representative.

1. Drawings showing system design/configuration.
2. Description of system components.
3. ANSI/NSF 61 certificate for system components located within the tank.
4. Design calculations for required voltage, amperage & life expectancy.

E. WORKMANSHIP AND INSTALLATION

E1 QUALIFICATIONS

The cathodic protection constructor shall have a minimum of five (5) years experience installing and servicing the types of system described in this specification. The system shall be installed by personnel specifically trained by the constructor to provide all workmanship required for corrosion control performance. All personnel shall be subject to Federal Substance Abuse and Testing Regulations.

E2 PERFORMANCE All work shall be in accordance with the following requirements:

1. Components of the cathodic protection system shall be installed in the manner and at the locations as shown on the design drawings prepared by the Corrosion Specialist.
2. Welding, cutting, and coating shall be in accordance w/AWWA Standards D100, D102 & D105

3. Welding of steel coupling and test station mounting bracket shall be performed by the prime contractor prior to coating the tank. The cutting of 5" diameter access openings for vertical anode suspension shall be performed by the prime contractor prior to coating. The cathodic protection constructor shall furnish drawings and materials to the prime contractor prior to coating.

4. Materials and equipment shall be inspected prior to installation. Any defective component shall be repaired or replaced.
5. Electrical work shall be in accordance with the National Electrical Code.
6. Lead wires shall be installed to prevent damage from abrasion.
7. Electrical connections within the tank shall be sealed to prevent water migration.
8. The sacrificial test station shall be mounted at a convenient height (eye level) above grade for monitoring and service purposes.
9. Disinfection of the tank shall be the responsibility of the purchaser.
10. Work provided by the constructor shall be completed in a clean and safe manner.

F. ENERGIZING THE SYSTEM

After the system is installed and the tank is filled, the cathodic protection constructor shall provide start-up service which includes energizing, testing, and adjusting the system for optimum performance of the cathodic protection system. This start-up service shall be in performed in accordance with ANSI/AWWA D106 Section 5.2 Testing. This start-up service shall be coordinated with the Owner or his representative. All tank-to-water potential measurements shall be conducted with a calibrated portable copper-copper sulfate reference electrode and a portable high impedance voltmeter. A minimum of five (5) locations shall be measured. All test data shall be reviewed and evaluated by the Corrosion Specialist.

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BID SCHEDULE

CITY OF GLOBE
WATER SYSTEM
WATER TANK REHABILITATION AND PROTECTIVE COATING

Item Number	Description	Unit	Quantity	Unit Price	Extended Price
1	Mobilization & Demobilization	LSUM	1		
2	Rehabilitation and Coating Crestline	LSUM	1		
3	Bid Alternate #1 Rehabilitation and Coating Thompson	LSUM	1		
4	Bid Alternate #2 Rehabilitation and Coating Apache Peaks	LSUM	1		
5	Cathodic Protection System Alternate Option (Impressed Current)				
6	Crestline	LSUM	1		
7	Thompson	LSUM	1		
8	Apache Peaks	LSUM	1		
9	Patching-Plate Welding and Preparation for Coating per AWWA	$/Square Inch	1,440		
10	Ladder Replacement				
11	Thompson	LSUM	1		
12	Apache Peaks	LSUM	1		
13	Taxes	LSUM	1		
14	Bonding	LSUM	1		
15	Insurance	LSUM	1		
16	Cathodic Protection System Alternate Option (Galvanic Passive)				
17	Crestline	LSUM	1		
18	Thompson	LSUM	1		
19	Apache Peaks	LSUM	1		
20					
21					
22					
23					
24					
25					
26					
27					
28					

29					
30					
				Total Bid=	**$**

TOTAL BID PRICE (Items 1 to 30) **$ _____**
(In Numbers)

_____ Dollars
(In Words)

_____ Cents
(In Words)

In evaluating Bids, discrepancies in the multiplication of units of work and unit prices will be resolved in favor of unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in factor of the correct sum.

Bidders are required to fill in all blank spaces with an entry. Bids submitted with blank spaces may be considered "Non-Responsive".

Quantities shown in this bid schedule are approximate only, and are used for the purpose of bid comparison.

In submitting this Bid, it is understood that the right to reject any and all Bids and or award portions of the work as determined to be in the best interests of the City and to waive irregularities in the Bidding has been reserved by THE CITY.

The undersigned hereby certifies that the information submitted herewith, including any attachment is true to the best of his knowledge and belief.

Seal (if bid is by Corporation)

Respectfully Submitted:

Bidder: _____

Signature: _____

Title: _____

License No. _____

Address: _____

_____

Date: _____