

EXHIBIT “A”- SCOPE OF WORK

1. Project Services.

Consultant agrees to provide Construction Management (“CM”) services related to Water Booster Station 1C Replacement (WT 7440) (“BS1C Project”) and Storage Reservoir S-1C-24 (WT 7480) (“Rehabilitation Project”) construction including field inspection and observations for the construction of the combined projects as reflected in the City’s prepared construction plans.

Consultant will provide a Senior Construction Manager to handle the facets of CM listed below. In addition, Consultant will provide limited engineering services during construction, to include the involvement of engineering staff for review of submitted documents. The Services are described in the following subtasks:

1.1 Task 1: Water Booster Station 1C Replacement Construction Management

Construction for BS1C Project is proposed to start in May of 2019 and will require complete construction management services including field inspection, observation, and review of submittals and requests for information (RFIs) for compliance with contract documents. The scope of work will entail replacement of Water Booster Station 1C and related appurtenant improvements for City and as shown on the City’s construction plans. Services for this task have been generated accordingly.

Consultant will provide complete construction management services including field inspection and observations for the construction of the BS1C Project and related appurtenant improvements for the City and as shown on the City’s construction plans for BS1C Project, and review of submittals and RFIs for compliance with contract documents.

Consultant will provide a Senior Construction Manager to handle the facets of CM, listed below, as follows:

- Anticipated Notice To Proceed (“NTP”) is May 2019.
- 8 hours per week for 12 weeks for pre-mobilization/procurement period (May 2019 through July 2019)
- 40 hours per week for 36 weeks for construction activity period (July 2019 through March 2020)

Task 1 includes the following:

- A. Project management.** Perform as-needed project management responsibilities including day-to-day correspondence with the City, budget review and control, and coordination of sub-discipline consultants during the project timeframes referenced above. A total project duration of ten months is assumed for this task.
- B. Preconstruction conference.** Arrange and conduct the Preconstruction Conference at City Hall at 2330 McCulloch Blvd N. and prepare and distribute the meeting minutes.
- C. Construction Administration, Inspection and Oversight.** Provide contract administration during the project, including:
 - i. Serve as City's representative in working with contractor on project issues, documentation and coordination. Report daily to site for full-time oversight during active construction period.
 - ii. Provide daily report and photographs, including contractor staff, materials and equipment at the site, work in progress, work completed, field conditions and issues.
 - iii. Provide online project-specific repository accessible thorough internet connection to serve as repository for project documentation.
 - iv. Coordinate inspections with appropriate City staff and agencies, perform inspections that do not require special equipment or testing.
 - v. Coordinate special inspections and testing with third party firm, including soils, concrete, welding, as needed within established budget and authorized by City.
 - vi. Monitor and process project documentation (submittals, RFIs, field orders, change orders, pay applications, etc.), ensuring contractually stated response times are adhered to in order to minimize delay claims.
 - vii. Negotiate Change Orders with contractor and obtain approval from City's Project Manager prior to finalizing Change Order with contractor.
 - viii. Respond to field conflicts and changes.

- ix. Coordinate with City's Project Manager on issues related to schedule and cost.
- x. Assist City with handling of public inquiries and notifications.
- xi. Conduct substantial completion and final completion inspections, generate punch-lists, and document completion of noted items.
- xii. Plan and conduct startup and operational testing, coordinate timing with City's Water Division staff and Unisource, document performance results and deficiencies that need correction.
- xiii. Facilitate training for City's staff as provided by contractor for equipment and systems.

D. Progress Meetings. Conduct construction progress meetings on a weekly basis at City Hall, project site, or other location TBD at the pre-construction conference. The general progress of the project including a review of the current contractor's schedule will be discussed along with any outstanding design or construction support issues. A total of 40 meetings are assumed. Prepare and distribute the minutes from the meeting.

E. Engineering Support during Construction. Review submittals provided by contractor (estimated 40). Review and respond to RFIs provided by contractor (estimated 20). Perform four (4) total site visits by the Engineer of Record to monitor progress or assist full-time CM with field issues. One of these visits will be to observe the connection to the existing pipeline, and one visit will concur with the rehabilitation of tank S-1C-24 as described in Task 2 below.

F. Project closeout. Compile project documentation and record drawings in electronic format for delivery to City and ADEQ.

1.2 Task 2: Tank S-1C-24 Rehabilitation Construction Management

Construction for the Rehabilitation Project is proposed to start in August of 2019 and will commence for an assumed eighty (80) day construction duration, which will require part time construction management services including field inspection, observation, and review of submittals and RFIs for compliance with contract documents. The scope of work will entail rehabilitation of Water Storage Tank S-1C-24 concurrently with the rehabilitation construction of Water Booster Station 1C at the same facility site.

This scope of work assumes that construction of both facilities will occur during an overlap period (Rehabilitation Project likely

to commence in the fall of 2019 due to temperature considerations for workers and application of coating systems) and that the Consultant's CM will be on-site for BS1C Project and will also provide part-time as-needed support for the Rehabilitation Project until such time as interior coating activities commence, at which time a full-time NACE inspector will also be mobilized to the site for the express purpose of full time observation of the application of the tank coating systems. Proposed improvements are to be reflected in the City's WT7480 construction specifications for Water Booster Station 1C Replacement project, which are a separate volume from the Booster Station 1C WT7440 plans and specifications.

Consultant will provide "as-needed" on-call CM services including field inspection and observations for the structural rehabilitation and construction of the S-1C-24 storage tank, including related appurtenant improvements, on behalf of the City. Anticipated facets of CM services related to the tank rehabilitation are as follows:

- Up to 12.5 hours per week for 3 weeks for submittal review during pre-mobilization/procurement period (July 2019)
- Up to 6 hours per week of engineering staff time for 8 weeks for engineering services during construction, including review of submittals, RFIs, and other documentation during tank rehabilitation.
- Weekly progress meetings during construction duration will be conducted by the full-time CM and will occur concurrently with the proposed BS1C weekly meetings.
- On-call inspections will be conducted concurrently with BS1C Project full time inspections. Tank rehabilitation activities are not anticipated to increase the work responsibilities of the single full time CM, and it is our assumption that these additional duties can occur concurrently with BS1C Project inspections at a standard 40-hour work week.
- Consultant will provide a full-time coatings inspector for 40 hours per week for 5 weeks for tank interior and exterior coating oversight; 22 hours total for mobilization and demobilization; and 52 hours total for kick-off and completion meetings and administrative oversight. Includes applicable travel. (NACE Coatings Subconsultant)

Task 2 includes the following:

- A. Project management.** This work will be conducted concurrently with BS1C Project management as outlined in Task 1 above.
- B. Preconstruction conference.** This work will be conducted concurrently with BS1C Project management as outlined in Task 1 above.
- C. Construction Administration, Inspection and Oversight.** This work will be conducted concurrently with BS1C Project management as outlined in Task 1 above, including the following clarifications and additions:

- i. Serve as City's field representative in working with contractor on Rehabilitation Project issues, documentation and coordination. On-call inspections will be conducted concurrently with BS1C Project full time inspections. Tank rehabilitation activities are not anticipated to increase the work responsibilities of the single full time construction manager, and it is Consultant's assumption that these additional duties related to tank rehabilitation can occur concurrently with BS1C Project inspections at a standard 40-hour work week.
 - ii. Provide daily inspection reports for structural rehabilitation progress, to be recorded concurrently with reporting for the BS1C Project (no separate reporting). During full-time coating observation, separate coating-specific reports will be prepared during observation. Inspections reports and correspondence are to include photographs, documentation of contractor staff, materials and equipment at the site, work in progress, work completed, field conditions and issues.
 - iii. Conduct substantial completion inspection at the conclusion of coating and prior to tank filling and hydrostatic observation; generate punchlist, and document completion of noted items. Final completion site walk observation and documentation will be conducted concurrently with the BS1C Project final completion site walk.
- D. Progress Meetings.** This work will be conducted concurrently with BS1C Project management as outlined in Task 1 above.
- E. Engineering Support during Construction.** Review submittals provided by contractor (estimated 12). Review and respond to RFIs provided by contractor (estimated 4). This work will be conducted in addition to the BS1C Project engineering services support as outlined in Task 1 above.
- F. Project Substantial Completion.** Compile project documentation in electronic format for delivery to City.

2.

Schedule.

Services will commence upon receipt of an executed Agreement and is expected to have a duration of eleven (11) months, subject to construction actual dates as determined by the selected contractor and project procurement.

3. Assumptions.

- 3.1** Services are to be facilitated by City staff, including site access, coordination of lay-down and temporary construction areas, facility temporary shut-downs and isolation, and other project related construction coordination.
- 3.2** No permit submittals are required to be submitted by the Consultant, with the exception of preparation of as-built drawings and ADEQ permit submittals. Any applicable construction related permits will be the responsibility of the contractor.
- 3.3** Evaluations overseen and signed by an Arizona Licensed Professional Engineer where applicable
- 3.4** City will provide access to the property; no work will commence without prior notification of City staff
- 3.5** No service related taxes are included on subconsultant services.
- 3.6** Per the request of City staff, the project fee has been developed per the attached Fee Schedule (Exhibit "B"); however, actual project tracking and billing will be conducted on a lump sum progress billing basis.

4. Services Not Included.

This scope of work excludes engineering design, survey, or shop or facility fabrication observations. All agency and/or permitting fees (if required) are to be paid by others.

EXHIBIT "B" - FEE SCHEDULE

LAKE HAVASU CITY WATER SYSTEM IMPROVEMENTS

FY 2018/2019

Water Booster Station 1C (BS1C) and Rehab S-1C-24 Construction Management

3/13/2019

DESCRIPTION	PROJ DIR	SR PROJ MGR	SR ENGR I	ENGR I	SR CONSTR. MGR.	ADMIN ASST	TOTAL HRS	TOTAL \$
1 Project Management	12	24					36	\$7,344
2 Preconstruction Conference		12		12		2	38	\$5,486
3 Construction Admin, Oversight and Inspection		16		1536			1552	\$248,800
4 Progress Meetings		24	40	80			160	\$20,120
5 Engineering Support During Construction	1	36	32	40		28	187	\$22,036
6 S-1C-24 Substantial Completion		1	5	5			16	\$2,140
7 Project Closeout	4	8	12	24		8	64	\$8,212
Subtotal	17	121	89	161	1607	38	2033	\$314,138
TOTAL	17	121	89	161	1,607	38	2,033	\$314,138

Classification	Estimated Hours	Rate	Total
Project Director	17	\$232/hr	\$ 3,944
Senior Project Manager	121	\$190/hr	\$ 22,990
Sr. Engineer I	89	\$135/hr	\$ 12,015
Engineer I	161	\$95/hr	\$ 15,295
Sr Construction Manager	1,607	\$160/hr	\$ 257,120
Admin Asst	38	\$73/hr	\$ 2,774
Total Direct Labor Costs	2,033		\$ 314,138

Subconsultants	
Materials Testing	\$8,000
Electrical and Controls	\$14,000
Cathodic Protection	\$10,000
NACE Coating Inspection (5 Weeks) and Administration	\$33,042
8% Markup	\$5,203
Subtotal	\$70,245

Total Subconsultants \$70,245

Direct Expenses	
Reproduction/Printing/Shipping	\$540
Lodging and Per Diem	\$40,552
Travel and Field Vehicle	\$12,506

Total Directs \$53,598

TOTAL **\$437,981**