EVALUATION OF BID PROPOSALS

FOR: EXPANSION OF THE CO2 INJECTION SYSTEM AT NORTHEAST SURFACE WATER TREATMENT FACILITY (NESWTF)

Bid File No. 3641 Bid Opening: 2/26/19

BID AMOUNT

W.M. Lyles Co. 1210 W. Olive Ave Fresno, CA 93728 Smith Construction Company, Inc. 2139 N. Briarwood Ave Fresno, CA 93750 \$576,250.00 \$576,250.00 \$596,240.00

3. Dawson – Mauldin, LLC 1071 E. Nebraska Ave Selma, CA 93662

1.

2...

BIDDERS

\$699,000.00^{n/l}
(Non-Responsive)
(Subcontractor Detail Page was not submitted.)

Each bidder has agreed to allow the City sixty-four (64) days from date bids are opened to accept or reject their bid proposal. Purchasing requests that you complete the following sections and return this bid evaluation to the Purchasing Unit at the latest by Monday, March 25, 2019, by 5:00 P.M.

The Engineer's Estimate for this expenditure is \$515,012. The contract price is 11.9% above the Engineer's Estimate. If the overage is greater than 10% or only one bid was received, give explanation:

The Engineer's Estimate for the entire project (Expansion of the CO2 Injection System at Northeast Surface Water Treatment Facility (NESWTF)) was \$645,012, which included the process equipment and the SCADA incorporation into the existing SCADA system. However, the Engineer's Estimate did not include the mediation costs of \$15,000 or the Supplemental amount of \$20,000, which brings the adjusted total estimate to \$680,012. In order to expedite the construction schedule, it was decided to pre-purchase the major process equipment, estimated at \$120,000, to be installed by the Contractor. In addition, the SCADA system modification work, estimated at \$45,000, will be performed by the current third party maintenance service providers as a maintenance service to upgrade the existing SCADA system. Therefore due to the change in construction scope, these costs are deducted from the total construction Engineer's Estimate. The Engineer's Estimate for the remaining construction work (included in this Bid Proposal) is \$680,012 - \$120,000 - \$45,000 = \$515,012. The low bidder contract price is therefore (576,250 - 515,012)/515,012 = 11.9 % above the Engineer's Estimate.

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The portion of the bids that came in higher than the Engineer's Estimate was mainly from higher electrical costs. This may be due to the unknown costs of conduit to connect to the existing electrical system, and the unknown work to coordinate with the SCADA integrators to perform functional/operational tests and resolve possible issues to produce a completed system working properly.

<u>BACKGROUND OF PROJECT</u> (To be completed by Evaluating Department/Division. Explain need for project/equipment):

The City of Fresno (City) owns and operates the Northeast Surface Water Treatment Facility (NESWTF), a surface water treatment plant constructed in 2005 that utilizes, among other treatment processes, ballasted flocculation, high rate sedimentation, intermediate ozone, and media filtration. The facility also utilizes numerous chemical systems for optimizing treatment performance, including: alum as a primary coagulant, cationic polymer, sodium hydroxide (caustic), calcium hydroxide (lime), carbon dioxide (CO2), and sodium hypochlorite. Originally designed for 30 Million Gallons per Day (MGD), the NESWTF supplements the water supply from groundwater wells to meet City water demands.

In 2015, the City completed the Evaluation of Facility Expansion of the NESWTF, which identified improvements necessary to increase the NESWTF capacity to 38 MGD. The City currently projects the ultimate capacity of the facility to be 60 MGD. Improvements evaluated under this analysis will include a primary design condition of meeting the 38 MGD near term capacity and provisions for easy expansion to support the 60 MGD ultimate capacity.

Additionally, the City has been conducting full scale testing of various chemical approaches to further improve the treated water quality. To date, the optimum chemical philosophy has been found to be a combination of calcium hydroxide and higher amounts of CO2. To facilitate the revised chemical approach, a new calcium hydroxide storage and feed system was commissioned in 2017. However, required feed rates of CO2 while operating at full plant capacity exceed capacity of the existing CO2 system.

Expansion of the existing CO2 injection system is required to allow NESWTF to operate at the design capacity of 30 MGD while utilizing the optimum chemical philosophy and to allow NESWTF to expand to 38 MGD by capitalizing on a higher filtration rate.

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DEPARTMENT CONCLUSIONS AND RECOM	<u>IMENDATION</u> :	
[X] Award a contract in the amount of \$ 576,250 to W. M. Lyles Co., as the lowest responsive and responsible bidder.		
Remarks:		
[] Reject all bids. Reason:		
Department Head Approval Dejan Pavic Title Public Utilities Manager Date 03/26/2019		
[X] Approve Dept. Recommendation	[X] Approve Finance/Purchasing Recommendation	
[] Disapprove	[] Disapprove	
[] See Attachment		
FINANCE DEPARTMENT	CITY MANAGER	
Purchasing Manager Date Multiplication Date Purchasing Manager Date Date	City-Manager or Designee/ Date	

FISCAL IMPACT STATEMENT

PROGRAM:

Project ID: WC00021 CO2IS Fund No: 40110

Org No:

411501

RECOMMENDATION	TOTAL OR CURRENT	ANNUALIZED COST
Direct Cost	<u>\$576,250</u>	
Indirect Cost*	\$59,800	
TOTAL COST	<u>\$636,050</u>	
Additional Revenue or Savings Generated	\$0.0	-
Net City Cost	<u>\$636,050</u>	
Amount Budgeted	<u>\$650,000</u>	
*Indirect Cost Construction Management/Inspect Administration Contract Compliance Other Total Indirect Cost:	stion \$51,000 \$4,800 \$1,000 \$3,000 \$59,800	