



Memorandum

TO: HONORABLE MAYOR
 AND CITY COUNCIL

FROM: Kerrie Romanow
 Matt Cano

SUBJECT: SEE BELOW

DATE: October 26, 2018

Approved

Date

10-26-18

SUPPLEMENTAL

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 8073 – BLOWER IMPROVEMENTS PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

REASON FOR SUPPLEMENTAL

This memorandum responds to a request from Councilmember Khamis at the October 23, 2018 meeting for comparative cost information related to the Report on Bids and Award of Construction for 8073 – Blower Improvements Project (Project) at the San Jose-Santa Clara Regional Wastewater Facility.

ANALYSIS

As described in the staff report, bids were publicly opened on August 16, 2018 with the following results:

Contractor	Base Bid Amount	Add Alt 1 Total	Total Bid	Variance Amount ^(a)	Over/ (Under) Percent ^(b)
Monterey Mechanical Company (Oakland)	\$28,736,000	\$762,000	\$29,498,000	\$(1,702,000)	(5)
GSE Construction Company Inc. (Livermore)	\$29,211,000	\$320,000	\$29,531,000	\$(1,669,000)	(5)
Engineer's Estimate	\$29,400,000	\$1,800,000	\$31,200,000	---	---
Shimmick Construction Company, Inc. (Oakland)	\$31,197,000 ^(a)	\$745,000	\$31,942,000	\$742,000	2
Flatiron West Inc. (Benicia)	\$32,518,000	\$1,600,000	\$34,118,000	\$2,918,000	9

^(a)Submitted amount contained a math error. Value is revised to show the corrected amount.

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The City Charter requires that public works projects be competitively bid and awarded to the lowest responsive and responsible bidder. Prior to bidding, an Engineer's Estimate is developed, usually by the City or its designer, and represents an *estimate* of the project cost in current market conditions. For this Project, a detailed Basis of Estimate was prepared by the City's design consultant in accordance with the Association for the Advancement of Cost Engineering International (AACE) criteria. The estimate was prepared by a professional estimator using quantity take-offs, vendor quotes and equipment pricing, and includes direct labor costs and anticipated productivity adjustments to labor and equipment as well as specialty subcontractor work. Construction labor crew and equipment hours were calculated from production rates contained in data published by R.S. Means, Mechanical Contractors Association (MCA), National Electrical Contractors Association (NECA), and Rental Rate Blue Book for Construction Equipment. The Engineer's Estimate also includes estimates for Contractor General Conditions (CGC) to account for the contractor's personnel cost, bonds, insurance, labor burdens, and other indirect costs such as local sales tax applicable to material and equipment rentals, and markups and profit. The Engineer's Estimate was further validated by the RWF CIP Program Management Consultant, Stantec (via Leland Saylor Associates who has over 30 years of experience in cost analysis and construction management in the San Francisco and Los Angeles area).

The actual bids received are dictated by actual market price for the work. The Engineer's Estimate assumed a minimum of four bidders; actual bid prices may increase with fewer bidders. The low bid submitted by Monterey Mechanical Company is 5 percent below the Engineer's Estimate and is considered to be a reasonable price for the work in current market conditions. The fact that the second lowest bidder was within one-tenth of one percent of the low bid is further validation that the price is consistent with the current bidding climate.

This Project replaces blower motors and engines, and adds switchgear, electrical upgrades, variable frequency drives (VFDs), soft starters and control systems. The major equipment upgrades include the installation of a new medium voltage switchgear, two new 4160V/480V step down transformers, ten medium-voltage high-efficiency motors ranging in size from 2000hp to 4000hp, three medium voltage VFDs and seven reduced voltage soft starters (RVSS) up to 2250hp, control panels, valves/piping, inlet guide vanes and actuators. Other related work includes programming services, fire suppression and electrical support systems. After reviewing market pricing for this equipment, the City's design consultant developed an Engineer's Estimate of \$13.3 million. This estimate was validated by Monterey Mechanical's bid of \$13.4 million for the purchase of all equipment.

Below is a comparison table showing comparative unit cost for several of the major pieces of equipment being furnished under this contract.

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Major Equipment Unit Cost	RWF, SJ CA	Bowery Bay, NY	Bay Park, NY
Motors	\$118,950	\$125,000	-
VFDs	\$467,000	\$400,000	-
RVSSs (soft starters)	\$51,500	-	-
Switchgear	\$663,000	\$1,050,000	\$1,450,000

Projects of this size and scope require significant amounts of specialized equipment and complex control system. The size of the Regional Wastewater Facility requires that much of its equipment is of the largest sizes commercially available. Equipment of this size is nearly always custom built to a particular facility's specifications, based on process control needs. Given the specific requirements of this project, staff believes that the bid prices received are consistent with what other agencies are paying for their equipment replacement projects.

/s/
KERRIE ROMANOW
 Director,
 Environmental Services Department

/s/
MATT CANO
 Director,
 Public Works Department

For questions, please contact Julia Nguyen, Deputy Director, Environmental Services Department at (408) 635-4038.

