COUNCIL AGENDA: 10/22/19
FILE: 19-945
ITEM: 7.2

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Cano

SUBJECT: SEE BELOW

DATE: September 18, 2019

Approved D. DSyL

Date 10/2/19

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 7731 – NITRIFICATION CLARIFIER REHABILITATION - PHASE 1 PROJECT AT THE SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Report on bids and award the construction contract for 7731-Nitrification Clarifier Rehabilitation - Phase 1 Project to the low bidder, C. Overaa & Co., in the amount of $26,184,000 and approve a 20 percent contingency in the amount of $5,237,000.

(b) Adopt a resolution authorizing the Director of Public Works to negotiate and execute one or more change orders in excess of $100,000 for the duration of the project, not to exceed the total contingency amount approved for the project.

OUTCOME

Award of the construction contract to C. Overaa & Co. (Overaa), will allow for the construction and completion of the Nitrification Clarifier Rehabilitation - Phase 1 Project (Project), which will improve operational reliability and efficiency of the secondary treatment process at the San José-Santa Clara Regional Wastewater Facility (RWF). Approval of a 20 percent construction contingency will provide funding for unanticipated work necessary for the proper and timely completion of the Project. Adoption of a resolution authorizing the Director of Public Works to negotiate and execute change orders up to the contingency amount will allow for implementation of any changes required in the Project for completion.

BACKGROUND

The RWF has 26 clarifiers associated with the secondary aeration basins and 16 clarifiers associated with the nitrification aeration basins. These clarifiers, together with the aeration

basins, form the biological treatment process and function to remove organics from the wastewater.

The 16 nitrification clarifiers are divided into Battery A and Battery B, and were constructed in the 1970s and 1980s. Each battery has eight clarifiers, which are circular reinforced concrete tanks measuring 140 feet in diameter and approximately 16 feet deep. Major mechanical components include sludge collection mechanism, scum skimmer system, weir plates and scum baffle, spray water system, and return activated sludge (RAS) and drain valves. In addition, two motor control centers provide power to the nitrification clarifiers.

Condition assessments have shown that many components of the clarifiers and control equipment are nearing the end of their useful life, are in poor condition, and require replacement or excessive maintenance. Multiple clarifiers have been completely out of service due to corroded clarifier mechanisms, numerous cracks, and leaking valves. Some of the control equipment is difficult to repair because it is no longer supported by the manufacturers, and replacement parts are scarce or not available. Therefore, there is an urgent need to rehabilitate the clarifiers and replace the equipment to ensure continued operational reliability and regulatory compliance for the next 30 years.

The rehabilitation of the clarifiers will be completed in two phases. The Project will replace clarifier mechanisms and appurtenances for eight clarifiers, repair concrete clarifier walls and slabs, replace drain valves and return activated sludge (RAS) valves serving the clarifiers, rehabilitate clarifier basin groundwater pressure relief valves for the sixteen clarifiers, rehabilitate up to eight RAS pipelines, and replace electrical and instrumentation and control equipment for all sixteen clarifiers.

Construction is scheduled to begin in December 2019, with substantial completion in August 2022. Major construction work will be performed during the planned maintenance shutdown periods for each battery in 2020 and 2021, respectively.

Council Resolution No. 71816, adopted on November 4, 2003, requires pre-qualification of contractors on all public works projects in which the Engineer's Estimate is $10 million or more. The Engineer's Estimate for this project is $43.1 million, and the Project will be delivered using a conventional design-bid-build delivery method. Based on these factors, staff conducted a pre-qualification process in February 2019. Six general contractors submitted their pre-qualification packages. Staff evaluated the packages and determined that all six general contractors met the pre-qualification requirements. Of the six pre-qualified contractors who were invited to bid on the Project, four submitted bids.

A project labor agreement is applicable to the Project because the Engineer's Estimate is over three million dollars and does not fall under any of the exemption categories.

ANALYSIS

Bids were opened on July 3, 2019 with the following results:

Contractor	Bid Amount	Variance Amount	Over/ (Under) Percent
C Overaa & Co. (Richmond)	$ 26,184,000	($16,881,000)	(39)
Kiewit Infrastructure West Co. (Fairfield)	$ 27,251,719	($ 15,813,281)	(37)
Shimmick Construction Company, Inc. (Oakland)	$ 35,403,314	($ 7,661,686)	(18)
Walsh Construction Company II, LLC (Santa Clara)	$ 37,778,606	($ 5,286,394)	(12)
Engineer's Estimate	**$43,065,000**	---	---

A total of four bids were received; all of the bids were below the Engineer's Estimate. Three were responsive and one, submitted by Walsh Construction Company II, LLC, was deemed nonresponsive due to a bid irregularity in the schedule of quantities; one of the bid items contained an allowance and not an item price.

The low bid submitted by Overaa is 39 percent under the Engineer's Estimate. Staff considers the low bid submitted for the Project is acceptable for the work involved and recommends awarding a construction contract to the low bidder. The four submitted bids were reviewed by a third-party cost estimator. The low bid may be attributed to the following factors:

- Equipment vendor quotes used in the bid are likely lower than the quotes used in the Engineer's Estimate due to the competitive nature of the bidding process.
- Lower mobilization and labor costs due to Overaa having several construction projects ongoing at the RWF and is very familiar with the site condition and facility operations.
- The Engineer's Estimate included construction contingencies and overhead costs that might have been higher than actual costs submitted in bids.

The robustness of Overaa's bid can be supported by Kiewit's bid, which was only 4% higher. Both bids were close not only for total bid amounts, but for individual construction line items.

Council Policy provides for a standard contingency of fifteen percent on renovation projects. Staff recommends a 20 percent construction contingency to account for the challenge of maintaining continuous operations at the RWF during construction, complex project interfaces with existing electrical and process control facilities, potential utility conflicts, the challenge of rehabilitating underground pipelines due to confined space, and the potential for conflicts with other concurrent capital improvement projects at the RWF.

Staff also recommends delegating authority to the Public Works Director to execute one or more change orders in excess of $100,000 for the duration of the Project, for a total not to exceed the contingency approved for the Project, and subject to other applicable limitations on the authority of the Director in the San José Municipal Code. Approval of these recommendations will provide funding for any unanticipated work necessary for the proper and timely completion of the Project.

EVALUATION AND FOLLOW-UP

No follow-up action with City Council is expected at this time. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and the City Council on a semiannual basis. Monthly progress reports of the RWF Capital Improvement Program (CIP) will also be submitted to the Treatment Plant Advisory Committee (TPAC) and posted on the City's website.

PUBLIC OUTREACH

This project was advertised on BidSync.com on May 8, 2019 and advertised in the Italics? This memorandum will be posted on the City's Council Agenda website for the October 22, 2019, City Council meeting.

COORDINATION

This Project and memorandum have been coordinated with the City Attorney's Office, the City Manager's Budget Office, and Departments of Fire, Finance, and Planning, Building and Code Enforcement.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the October 10, 2019 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended October 22, 2019 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the Council-approved focus on rehabilitating aging RWF infrastructure, improving efficiency, and reducing operating costs. This Project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST SUMMARY/IMPLICATIONS

1.	AMOUNT OF RECOMMENDATION:	$ 26,184,000
2.	COST OF PROJECT:	
	Project Delivery	$ 14,291,000*
	Construction	$ 26,184,000
	Contingency (20%)	$ 5,237,000
	Total Project Costs	**$ 45,712,000**
	Prior Year Expenditures	$ 5,853,087
	Remaining Project Costs	**$ 39,858,913**

* Project delivery estimate includes: $5,181,000 for professional consultant services (feasibility/development, design, value engineering, and engineering services during bid and award, construction and post construction phases); $966,000 for project management during feasibility and development phase; $1,211,000 for project management during design phase; $216,000 for project management during bid and award phase; $1,205,000 for project management during construction; $5,371,000 for construction management (including special inspections); and $141,000 for project management during post construction and project closeout phase.

The estimated project delivery cost is 55 % of the construction cost, which is in line with project delivery costs for capital projects at the RWF and other wastewater facilities.

3. COST ELEMENTS OF CONTRACT:
This is a lump sum contract. $ 26,184,000

4. SOURCE OF FUNDING: Fund 512 – San José-Santa Clara Treatment Plant Capital Fund

5. OPERATING COSTS: The annual costs to operate and maintain the upgraded facilities are not anticipated to impact the San José-Santa Clara Treatment Plant Operating Fund as this is an equipment replacement project, and therefore there will be no additional annual operations and maintenance costs.

6. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), this project is allocated 40% for flow and 60% for biochemical oxygen demand (BOD).

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contract recommended as part of this memorandum and remaining project costs, including project delivery, construction, and contingency costs.

Fund #	Appn #	Appn Name	Current Total Appn	Amt for Contract	2019-2020 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$ 39,858,913**			
Remaining Funding Available						
512	7074	Nitrification Clarifier Rehabilitation	$54,316,000	$ 26,184,000	V-137	06/18/2019 Ord. No. 30286

CEQA

Exempt, File No. PP17-049, CEQA Guidelines Section 15301, Existing Facilities.

/s/
KERRIE ROMANOW
Director
Environmental Services Department

/s/
MATT CANO
Director
Public Works Department

For questions, please contact Napp Fukuda, Assistant Director, Environmental Services Department at (408) 793-5353.

Attachment A – Nitrification Clarifier Rehabilitation - Phase 1 Project Map

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