



2/9/2023

To: Mayor and City Council

Important next steps after the Barry Rose/Longwood plant alternatives study, are action items to amend the CMAR contract and award a design contract. The CMAR amendment will address plant repairs necessary to keep operational through the design/construction phases as well as restore the scope used during the alternatives analysis.

-Trent

Memo

To: Trent Epperson, Interim City Manager
From: Morgan R. Early, Project Manager
CC: Robert D. Upton, P.E., Director of Engineering & Public Works
Jameson Appel, Assistant Director of Capital Projects
Laurie Rodriguez, Interim Assistant Director of Public Works
Date: February 9, 2023
Re: Barry Rose WRF Expansion & Longwood WRF Decommission projects

Purpose

This memo provides information about the progress on the Barry Rose Water Reclamation Facility Expansion & Longwood Water Reclamation Facility Decommissioning projects and the proposed Construction Manager at Risk (CMAR) contract amendment for McCarthy Building Companies, Inc (McCarthy). This amendment is scheduled for presentation to Council on the February 13, 2023, meeting agenda.

This memo also provides information about the proposed professional service contract with Freese and Nichols, Inc., scheduled for presentation to Council on the February 20, 2023 meeting agenda.

Background

In September 2018, Council awarded a final design contract to Stantec for the design of the Barry Rose Expansion project including the construction of a regional lift station at the Longwood facility and connection to Barry Rose by a force main. In 2019, staff advertised for a Construction Manager at Risk (CMAR) to have pre-construction design services for the projects. A contract for Pre-construction services was awarded to McCarthy at the August 10, 2020, regular council meeting in the amount of \$1,177,920. Pre-Construction services include constructability, market analysis, budget confirmation, and preliminary estimates.

In March 2021, the City terminated Stantec's contract. Subsequently, an Alternatives Evaluation and Consolidation Study were conducted through a contract with Freese and Nichols, Inc. (FNI) that analyzed the feasibility of the options presented to staff and Council and developed life cycle costs to determine the most cost-effective, long-term solution to managing the growing demand for treatment capacity. April 14, 2022, progress memo outlines an update on the study results. Upon completion of the Alternatives Evaluation, the City then developed the Request for Qualifications to search for a new engineering company to complete the design of the project and work with McCarthy to construct this project.

As part of the pre-construction services and to provide real-time cost estimating, McCarthy remained engaged as part of the FNI study to support the City by refining capital construction and Operations and Maintenance costs for three of the identified alternatives. They also remained engaged in the Request for Qualifications (RFQ) and selection phases completed to recommend a professional services contract for restarting the design based upon the Alternatives Evaluation study.

Current Status

CMAR Contract Amendment

The current CMAR contract includes Pre-Construction services for the expansion of the BRWRF, the decommissioning of the LWWRF, and the construction of the Longwood lift station and force main. The Pre-Construction Services contract contains provisions for project management and cost estimation personnel, continuous design review, and constructability recommendations to ensure a complete set of plans is developed and vetted. The CMAR assists in developing cost-effective design alternatives, determines

construction methodologies, negotiates bidding and sub-contracting portions of the work that need to be self-performed, and generates detailed cost estimates leading up to the provision of a Guaranteed Max Price (GMP) at the completion of the 90% plans. Construction Phase services are not a component of the current contract but will be added by the amendment upon Council's award of the approved GMP.

This amendment encompasses the following:

- Funding for the schedule of value items for 30% of design documents with a new Design firm for \$189,480 at BRWRF and \$47,370 at LWWRf;
 - Design for a Membrane Bioreactor treatment process surpassed 30% with Stantec, resulting in the expenditure of the 30% design line items in McCarthy's existing contract. Since Stantec's departure and based upon the Alternatives study, the treatment process was changed to the Sequencing Batch Reactor (SBR) treatment process at BRWRF. The SBR treatment process will match the treatment process at JHEC WRF and Reflection Bay WRF. Funding is required to start these services over with the new design firm and selected treatment process.
- Funding for CMAR & Pre-construction Phase Services for \$282,875 at BRWRF and \$89,257 at LWWRf;
 - Funding from the line item was utilized to support the cost estimating services that is in line with pre-construction services during the Alternatives study and the selection of a new design firm. To continue to support the design cost estimating and constructability review during this stage of the project an increase in funding is requested. The funding will provide that these pre-construction services will continue with the new design firm and will meet the requirements of the CMAR contract.
- Funding for critical repairs of existing equipment for maintenance of plant operations during design & construction for \$341,857 at BRWRF and \$268,746 at LWWRf.
 - During the Alternative Study, the BRWRF and LWWRf were reevaluated for critical failure equipment from the 2019 evaluation. The evaluation identified many areas that are in critical need of repairs and are needed to keep the plant in operation during construction. Several critical life safety items have been addressed but additional items need to be addressed to ensure continuance of operation through the design and new plant construction process.
 - EPW staff in collaboration with McCarthy have prioritized equipment in failure, nearing its end-of-life, or that would have the highest impact on the maintenance of plant operations should a failure occur. This equipment includes headworks, influent lift station, aeration basins, sludge pump stations, digesters, and clarifiers (in failure) at both facilities.
 - Lessons learned through the JHEC expansion and rehabilitation project emphasize the importance conducting critical repairs to mitigate equipment failures once construction commences.

Design Contract Award

An RFQ was advertised for a consultant firm to complete the project design in August 2022. Two qualification statements were received, evaluated, and scored according to the City's standard practice, resulting in a recommendation to award a professional services contract to FNI. A detailed scope has been prepared and staff has completed negotiating the contract in the amount of \$13,373,691. FNI will perform project

management, basis of design development, final design development, and bid phase services for each project and facility.

Project management and administrative duties include project controls, such as cost modeling, risk register development, and schedule, as well as quality control/assurance and monthly status reporting for a lump sum amount of \$1,060,115.

Basis of design development includes data collection and review, plant hydraulic evaluation, regulatory compliance, process modeling, alternative analysis, structural design, general sequencing, and development of the basis of design report for the lump sum amount of \$1,987,553.

Final design development includes preparation of building information modeling for plant arrangement, development of plan sheets for bid and construction phases, and incorporation of the mechanical, equipment and structures defined in the basis of design phase for the lump sum amount of \$8,358,735.

Bid phase services include supporting the City and Owner's Advisor in evaluating the CMAR's subcontractor bids and recommending award for self-performed work for the lump sum amount of \$426,244.

FNI's proposal also includes special services such as geotechnical, topographic surveying, subsurface utility engineering, property acquisition, multi-phase surge analysis, drainage analysis, environmental permitting, decommissioning and closure plan, and TPDES permitting for a cost plus total of \$1,541,044.

This professional service contract award will be presented to Council at the February 20, 2023, regular meeting.

Next Steps

Upon award of this amendment by Council, McCarthy will begin procurement of the equipment needed to conduct facility repairs.

Upon award of the design contract, FNI will begin the basis of design. The timeline to complete the design for bidding is 18 months with a proposed expedited design package for early works items as developed in the basis of design report, within 120 days from notice to proceed. Construction is anticipated to be complete in 30-36 months from acceptance of the CMAR's GMP by council award.

Budget Info

Barry Rose WRF Replacement and Expansion:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
W/S Revenue Bonds	2016C	1,505,000		1,505,000
W/S Revenue Bonds	2017C	400,000		400,000
W/S Revenue Bonds	2018B	4,349,026		4,349,026
W/S Revenue Bonds	2020B	620,000		620,000
W/S Certificates of Obligation	2022C	3,460,132		3,460,132
W/S Certificates of Obligation	TBS 202		15,845,000	15,845,000
W/S Certificates of Obligation			90,495,000	90,495,000
Impact Fee - Cash		700,000		700,000
Impact Fee - Debt		752,500		752,500
Impact Fee - Debt	2022C	3,460,133		3,460,133
Impact Fee - Debt	TBS 202		15,845,000	15,845,000
Impact Fee - Debt			90,495,000	90,495,000
Other Funding Sources - Fund Balance		513,209		513,209
Total Funding Sources		15,760,000	212,680,000	228,440,000

Expenditures	To Date	Future	Total
PER	1,255,922		1,255,922
Land	200	9,000,000	9,000,200
Design	1,334,668	13,062,420	14,397,088
Construction	942,336	194,339,292	195,281,628
Construction Management/Inspection		5,600,000	5,600,000
Construction Materials Testing			-
FF&E		500,000	500,000
Total Expenditures	3,533,126	222,501,712	226,034,838

Project Contingency	2,250,000
Project Balance	155,162

Longwood Water Reclamation Facility Decommissioning:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
W/S Revenue Bonds	2020B	1,056,000		1,056,000
W/S Certificates of Obligation	2022C	490,000		490,000
W/S Certificates of Obligation			34,647,000	34,647,000
Impact Fee - Cash				-
Impact Fee - Debt				-
Other Funding Sources - Fund Balance				-
Total Funding Sources		1,546,000	34,647,000	36,193,000

Expenditures	To Date	Future	Total
PER			-
Land		2,000,000	2,000,000
Design		2,986,009	2,986,009
Construction	235,584	29,395,522	29,631,106
Construction Management/Inspection		1,400,000	1,400,000
Construction Materials Testing			-
FF&E			-
Total Expenditures	235,584	35,781,531	36,017,115

Project Contingency	
Project Balance	175,885

Schedule Info

Critical repair work will begin once Council approves this amendment, with BRWRF taking priority. McCarthy will then move to the LWWRF.

Upon the Council's approval of FNI's professional service contract, design is expected to commence immediately upon execution of a notice to proceed. Design services are expected to be bid-ready within 18 months. Once the project has been bid, and a Guaranteed Maximum Price contract is awarded to McCarthy by Council's approval, the construction phase is anticipated at 30-36 months to substantial completion.

Recommendation

Staff will recommend at the February 13 regular meeting for Council to award the CMAR contract amendment to McCarthy Building Companies, Inc. in the amount of \$1,219,585.00.

Staff will recommend at the February 20 regular meeting for Council to award the professional service contract to Freese and Nichols, Inc., in the amount of \$13,373,679.

Previous Memos

09/21/16, 05/04/17, 03/15/18, 11/08/18, 10/10/19, 07/30/20, 09/16/21, 04/14/22, 06/07/22

Map

EXHIBIT A PROJECT LOCATION MAP

