



AGENDA MEMORANDUM

Action Item for the City Council Meeting of September 13, 2022

DATE: August 30, 2022

TO: Peter Zaroni, City Manager

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<p style="text-align: center;">Professional Services Contract Broadway Wastewater Treatment Plant Third Clarifier</p>

CAPTION:

Motion authorizing a professional services contract with Ardurra Group, Inc, Corpus Christi, Texas, to provide design, bid, and construction phase services for a new clarifier, odor control equipment, filter and chemical feed improvements and drainage improvements at the Broadway Wastewater Treatment Plant in an amount not to exceed \$845,575.00, located in Council District 1, with FY 2022 funding available from Wastewater Capital Fund.

SUMMARY:

This motion authorizes approval of a professional services contract for design, bid, and construction phase services for Broadway Wastewater Treatment Plant improvements.

BACKGROUND AND PURPOSE:

The Broadway Wastewater Treatment Plant (BWWTTP) was originally designed to include four clarifiers in 2009. Due to a contract dispute, only two clarifiers were installed and in service for conventional activated sludge treatment process. Together, the two clarifiers provide a 20 MGD capacity, however have maintained peak flows as high as 29 MGD. Operations and maintenance

staff have concluded that a third clarifier is optimal to increase the plant capacity to 30 MGD and provide sufficient redundancy for maintenance activity on the existing two clarifiers. A fourth clarifier, as included in the previous design is not needed. That third clarifier project was approved in the FY21-22 Wastewater Capital Budget. This project will deliver a wastewater treatment plant that meets operational requirements.

Staff has determined that the previous design from 2009 cannot efficiently be re-used or modified to meet the needs of the BWWTP, and thus a new design will be required to keep the plant operating within permit allowance. The original design included four clarifiers. Although the design engineer can use it as a reference, it would not be advisable to use those documents to bid the 3rd clarifier work for the following reasons:

- (1) There have been issues with the original BWWTP design, and the clarifiers do not perform well at the rated capacity.
- (2) The new Design Engineer will conduct plant performance evaluations and design a new clarifier appropriately sized to provide a total combined capacity of 30 MGD. This will likely mean the third clarifier will be designed with greater than 10 MGD capacity to account for the underperformance from the original two clarifiers.
- (3) There have been problems with the metallurgy of the original equipment and a different design is required.
- (4) The underground piping for a three-clarifier configuration will be different from the original design.
- (5) In addition to designing a new third clarifier, the proposed scope also includes refurbishing the existing effluent filters, a new effluent filter bypass line, replacement of an odor control unit, a new internal roadway and other improvements which are not included in the original design.

This professional services agreement will provide services for preliminary, design, bid, and construction phase services for the construction of a new clarifier, odor control for the Headworks, refurbishment or demolition of existing sand filters and chemical feed system, and improvements to paving and drainage of access road. The demolition of structures necessary to implement the proposed work will be carried out by a separate project to accommodate this project with no conflicts. Below is the fee breakdown for the scope of services to be provided by the project:

Components	Basic Design Fee	Addition Services Fee	Total Fee
<ul style="list-style-type: none"> • Clarifier #3 • RAS/WAS Pump Station 	\$671,701	\$62,390	\$734,091
<ul style="list-style-type: none"> • Headworks Odor Control Replacement • Sand Filter Bypass & Rehab • Pavement Improvements 	\$100,704	\$10,780	\$111,484
Total Package	\$772,405	\$73,170	\$845,575

PROJECT TIMELINE:

2022 - 2023	2023			2024 - 2025
July - September	O	N	D	January - July
Design	Bid/Award			Construction

Projected schedule reflects City Council award of design services in July 2022 with anticipated construction completion in July 2025.

COMPETITIVE SOLICITATION PROCESS:

Ardurra Group, Inc., was selected in July 2021 under RFQ 3609-Professional Engineering Services for Broadway Wastewater Treatment Plant Third Clarifier project, which was one of three projects announced under the Water and Wastewater CIP 2021 Projects category of the RFQ. Three firms submitted for the Broadway Wastewater Treatment Plant Third Clarifier.

The selection committee was comprised of representatives from the Utilities Department and Engineering Services Department. The final evaluation ranked Ardurra Group Inc. as the highest ranked firm based on three factors: 1) Firm's experience, 2) Team's Experience, 3) Understanding of project scope.

Ardurra Group, Inc. (formerly LNV), has worked on City projects for over twenty years and has completed many projects. Notable projects include Oso WRP Headworks and Lift Station Improvements, New Broadway WWTP, Resaca Lift Station Upgrades, and Oso WRP Chlorine Contract Chamber and Clarifier No. 5 Rehabilitation.

ALTERNATIVES:

Council could choose not to award the contract to Ardurra Group, Inc. Not awarding the contract for professional services to Ardurra Group, Inc., will delay necessary improvements to the Broadway Wastewater Treatment Plant, create more costly maintenance in the future, and may affect the ability to meet the operational and regulatory requirements. In addition, the delay could also cause TCEQ permit violations and fees.

FISCAL IMPACT:

The fiscal impact to FY 2022 is an amount not to exceed \$845,575.00 with funding available through the Wastewater Capital Fund.

FUNDING DETAIL:

Fund: Wastewater 2023 CIP (Fund 4259)
Mission Elem: Wastewater Collection System (042)
Project: Broadway Wastewater Treatment Plant Third Clarifier (Project No. 21001)

Account: Outside Consultants (550950)
Activity: 20101-4259-EXP
Amount: \$845,575.00

RECOMMENDATION:

Staff recommends approval of the professional services contract with Ardurra Group, Inc., in an amount not to exceed \$845,575.00 for Broadway Wastewater Treatment Plant Third Clarifier project. The design phase will begin in July 2022 with estimated design completion in September 2023. Construction is anticipated to begin in January 2024 with anticipated completion in July of 2025.

LIST OF SUPPORTING DOCUMENTS:

Location & Vicinity Maps
Evaluation Matrix
CIP Page
Contract
Presentation