



# City of Eustis

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TO: EUSTIS CITY COMMISSION

FROM: Tom Carrino, City Manager

DATE: March 16, 2023

RE: Resolution Number 23-27: Bates Avenue WWTP Expansion – CMAR Services

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## **Introduction:**

Resolution Number 23-27 authorizes an agreement with Wharton-Smith, approves an expenditure of \$12,187,942 for the Construction Management at Risk (CMAR) Construction Contract; and authorizes the City Manager to execute all agreements, contracts, associated budget amendments and budget transfers for this project.

## **Background:**

The Bates Avenue WWTP has an existing permitted capacity of 2.4 million gallons per day (MGD) on an annual average daily flow (AADF) basis and is currently treating 1.7 MGD AADF. With passing of Resolution No. 19-29, Tetra Tech Inc, recommended that the capacity of the facility expand 0.8 MGD for a total capacity of 3.2 MGD to accommodate projected wastewater flows.

In passing of Resolution Number 21-13, the City Staff selected Wright Pierce Engineering (WPE) to provide Phases 1 and 2 engineering services for Bates Ave WWTP expansion. With the passing of Resolution Number 21-31, a Construction Management at Risk (CMAR) contract was awarded to Wharton-Smith (W-S) for preconstruction services for this project. This alternative delivery method for the construction of Bates Avenue WWTP expansion ensured significantly greater construction cost certainty than the hard-bid delivery method for construction. The hard-bid is the most commonly used method to procure a construction job, which normally chooses the lowest bidder for the construction project. This is subject to cost variability and current market conditions, leaving the City with less budget control and uncertainty. CMAR is an alternative delivery method that allowed Wharton-Smith to serve as a construction consultant, assisting the City and the Engineer - Wright Pierce Engineering (WPE) with value engineering, cost estimating and constructability reviews from the early planning and engineering design phases of the project.

The Contractor (W-S) and Engineer of Record (WPE), with the supervision of Staff, have applied Value Engineering items, refined the scope of the project and completed design allowing W-S to prepare the cost estimate to be used for a Guaranteed Maximum Price (GMP) of construction.

The base bid included the construction of:

- New Train C Process Basin
- Construct additional concrete structure with Modified Ludzack-Ettinger (MLE) process configuration with similar volume of Train B with fine bubble diffusers,

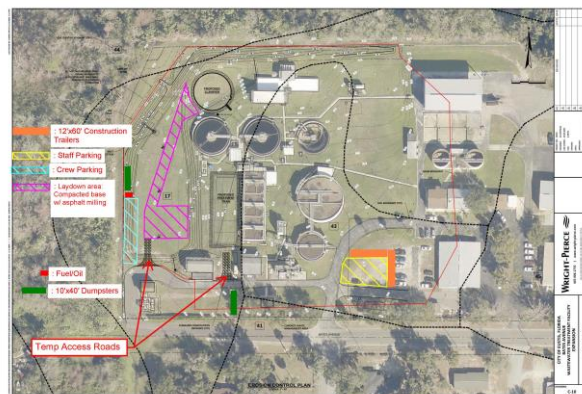
aeration piping, submersible mixers, and instrumentation/controls.

- Provide a duplex IR pump station similar to Train B to provide design capacity with one unit out of service.
- Provide one additional 1,200 scfm single-stage turbo blower to meet the peak day aeration demand with one unit out of service. Rearrange existing blowers and discharge piping within Blower Building.
- Inspect the existing 50-foot diameter circular clarifier and its piping and provide recommendations to improve performance.
- Replace the existing disc filters, piping and control system at the existing tanks.
- Install an additional Effluent Pump at the end of the Chlorine Contact Tanks.
- Miscellaneous electrical, instrumentation and control improvements to incorporate the new equipment.

Two Bid Alternates were also proposed and priced:

Alternate A: Improvements/upsizing to the Lift Station 1 discharge piping through the common manifold to reduce head loss and increase existing submersible pump capacity.

Alternate B: Construct an additional 60-foot diameter secondary clarifier, yard piping, additional RAS pump at Sludge Pump Station Number 1, and Scum Pumping Station.



A competitive bid process was initialized by W-S. City Staff was involved in the bid process and has reviewed the bid proposals (attached). A summary of costs is:

Base Bid	\$ 9,334,621
Alt A (LS1 Improvements)	\$ 735,816
Alt B (New Clarifier and RAS Rebuild)	\$ 2,117,505

CONSTRUCTION TOTAL	\$12,187,942
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**Recommended Action:**

Staff recommends approval of Resolution Number 23-27.

**Policy Implications:**

N/A

**Alternatives:****Alternatives:**

1. Approve Resolution Number 23-27
2. Deny Resolution Number 23-27
3. Modify Resolution Number 23-27 to approve in part

**Discussion of Alternatives:**

1. Alternative 1 approves the Resolution.

**Advantages:**

- The City will have Wharton-Smith construct the full expansion to the Bates WWTP providing a new capacity of 3.2 MGD

**Disadvantages:**

- The action approves budgeted expenditures in excess of \$12M for the Bates Ave WWTP.

2. Alternative 2 denies the Resolution.

**Advantages:**

- The City would not expend the associated funds for the expansion project.

**Disadvantages:**

- The City would be not be able to expand wastewater services without being in violation of the Florida Department of Environmental Protection.

3. Alternative 3 approves the Resolution in part.

**Advantages:**

- By approving the base bid of \$9,334,621 the City would expand its capacity to 2.9 MGD.

**Disadvantages:**

- The construction of the bid alternates would be required in the future. The cost of construction, specifically Alternate B, would be increased due to the constraints of the site resulting in the new process basin installation.

**Budget/Staff Impact:**

The Capital Improvement Plan had allocated funds of \$11,301,511 for the construction of the Bates Ave WWTP Expansion project as shown below:

042-8600-535-66-86	Main WWTP Expansion	\$ 9,159,864
042-8600-535-66-89	Bates CL2 Relocation	\$ 233,450
042-8600-537-68-08	Bates WWTP Sludge Handling	\$ 466,000
Sewer Impact Fee Funds		\$ 1,452,197

Additionally, several capital projects have been completed at underruns and the following transfers are requested into the project:

042-8600-535-66-87	Eastern Sprayfield Pumps	\$53,806
042-8600-535-66-98	Water Legislation Projects	\$90,700

Lastly, it is proposed to move the project associated with the installation of a reuse tank at the Eastern WWTP (065-8600-533-67-33, \$1,226,250) to a later date and utilize those associated funds for this project. The tank installation could be pushed back to FY 25/26 and use the impact fees generated by that time to fund that project.

The proposed budget transfers would result in a project balance of \$12,672,267.

**Prepared By:**

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**Reviewed By:**

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