

17 November 2022

To: Mayor and City Council members

Another essential water/wastewater utility investment project underway and on track for completion a year from now. Clay



Bailey Water Plant Improvements Bailey Sewer Line (Veterans to Bailey Water Plant)

Is it in Budget?		Is it on schedule for the Current Phase per the Contract?		Community Benefit
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>Sustainable Infrastructure</i>
Project Phase?				
Construction				

Highlights:

- The transmission line from the Magnolia Water Plant to the Bailey Water Plant has been completed.
- The sanitary sewer line from the Natatorium to the Bailey Water Plant is complete.
- The pad for the control building has been formed and all underground Mechanical/Electrical/Plumbing (MEP) work has been completed and passed inspection.
- The foundation for the five aerolater treatment units have been poured, along with the equipment riser pads.
- The seal slab for the lift station has been completed and the station walls have been poured, cured, and sunk below grade.
- The lift station deck has been poured.

Budget Info:

Water Plant:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
W/S Revenue Bonds	2018B	620,000		620,000
W/S Revenue Bonds	2019B	4,240,000		4,240,000
W/S Certificates of Obligation	2022C	9,580,000		9,580,000
Impact Fee - Debt				-
Other Funding Sources				-
Total Funding Sources		14,440,000	-	14,440,000

Expenditures	To Date	Future	Total
PER			-
Land	45	3,500	3,545
Design	670,771		670,771
Construction (Tank)	1,596,570		1,596,570
Construction (Pretreatment)	11,201,255		11,201,255
Construction Materials Testing	180,723		180,723
FF&E			-
Total Expenditures	13,649,363	3,500	13,652,863

Project Contingency	5%	787,137
Project Balance		(0)



Sewer:

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
System Revenue - Cash		30,000		30,000
W/S Revenue Bonds	2021B	600,000		600,000
W/S Certificates of Obligation	2022C	912,000		912,000
Impact Fee - Debt				-
Other Funding Sources				-
Total Funding Sources		1,542,000	-	1,542,000

Expenditures	To Date	Future	Total
PER			-
Land			-
Design	50,438		50,438
Construction	1,398,172		1,398,172
Construction Management/Inspection			-
Construction Materials Testing	48,505		48,505
FF&E			-
Total Expenditures	1,497,115	-	1,497,115

Project Contingency	3%	44,885
Project Balance		0

Schedule Info:

	<i>Base Line</i>	<i>Current</i>
<i>Design Start</i>	December-18	January-19
<i>Bid Start</i>	April-21	November-21
<i>Construction Start</i>	January-22	May-22
<i>Construction Completion</i>	October-23	October-23

Rain Days: 8

Upcoming Work Items:

- The control building slab will be formed and poured.
- The CMU block installation on the control building will begin.
- The formwork and rebar for the structure of the chemical containment storage area will be completed, and the concrete will be poured.
- Housekeeping pads will be poured around aerolater foundation.
- The 17' aerolaters are scheduled to be delivered late-November 2022.
- The work will begin on the elevated deck for the lift station.



Project Manager: Morgan Early

Construction Manager: Michael Collins

Designer: EHT Environmental and Civil Engineering

Contractor: LEM Construction Company, INC.

Scope:

Bailey Water Plant Improvements: Elevated levels of organic manganese and iron cause taste, odor, and appearance issues though the water product itself remains safe for consumption. Phase 1 of this project is the installation of a new 1 MG concrete Ground Storage Tank to replace the existing welded steel tank. Phase 2 of this project will be the construction of a Water Treatment Plant and the installation of a waterline to transport water from the Magnolia Water Plant to the Treatment Plant.

Bailey Sewer Line (Veterans to Bailey Water Plant): Construct approximately 2,700 LF of sanitary sewer from the Natatorium to the Bailey WTP site to transfer waste to the City's sanitary sewer system and plan for the construction of Fire Station #7.

Justification:

Bailey Water Plant Improvements: The 2,000 gallon per minute well is critical to provide system water quality maintenance and provisions for drought contingency. The City of Pearland has maintained a log of customer complaints regarding water quality. Complaints regarding brown/rusty colored water indicate problems with iron and manganese have been occurring in the winter months.

Bailey Sewer Line (Veterans to Bailey Water Plant): This project includes the construction of a new lift station and sewer line to discharge backwash from the aerolater treatment system, The Natatorium, and future Fire Station 7. It will carry the discharge from the Bailey WTP site to JHEC.

Previous Memos: 11/08/18, 08/08/19, 11/07/19, 01/30/20, 04/02/20, 08/06/20, 01/14/21, 05/06/21, 09/16/21, 2/17/22



Project Location Map:





Drone Image Facing West at the Bailey WTP



East Facing Aerial Image of Bailey Water Treatment Plant



Magnolia Transmission Line Covered and Route Regraded



Control Building Foundation Formwork is Ready for Rebar



Aeration Equipment Pads Being Formed and Rebar Being Tied



Aeration Equipment Pads Poured



The End of the Magnolia Transmission Line and the Future Connection at Bailey WTP



Lift Station Site with Station Walls Sunk to Final Grade



Station Walls Sunk to Final Elevation