



11 August 2021
 To: Mayor and City Council members
 Southdown 500k gallon water ground storage tank completed and looking good for service. Clay

Southdown Plant Ground Storage Tank Replacement

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	Sustainable Infrastructure
Project Phase?				
Construction				

Highlights:

- Construction of Ground Storage Tank (GST) has been completed.
- All Welds have been X-Rayed and passed 3rd party inspections.
- The GST has been sandblasted and final paint has been completed.
- All concrete flatwork has been poured and completed throughout site.
- Discharge header has been replaced and new water service has been established to control building.
- All piping has been pressure washed, cleaned and recoated with light blue paint per CH. 290 of TCEQ Regulations.
- GST exterior ladder anti climb cage has been installed.
- Water samples have been taken and passed inspections from Water Production and Plant is in full operation.
- Gas service has been established and generator start up and training has taken place.
- Site grading throughout site has taken place and all exposed soil has been Hydro mulched.
- Substantial walk through took place July 28, 2021
- Punch list items were all small details and have been completed already.
- Balancing Change Order adding \$17,525 for additional work pending to close out the project.

Construction Schedule

- The Phase II portion of the FM 521 plant (Shadow Creek) was taking place at the same time as this project. We were unable to shut down both the Southdown and 521 plants and maintain water service to residents. Through coordination with water production we delayed the start of the Southdown plant to ensure residents had a continuous supply of water throughout construction. The plant was also unable to be isolated due to several inoperable valves on the site. These valves had to be replaced adding days to the schedule for these unforeseen conditions and have been accounted for in the balancing change order.

Budget Info:

Funding Sources	Series	To Date	Future	Total Budget
System Revenue - Cash		350,000		350,000
System Revenue - Cash				-
System Revenue - Cash				-
General Obligation Bonds				-
General Obligation Bonds				-
W/S Revenue Bonds	2020B	2,150,000		2,150,000
Impact Fee - Debt				-
Other Funding Sources				-



Total Funding Sources	2,500,000	-	2,500,000
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Expenditures	To Date	Future	Total
PER			-
Land			-
Design	273,068		273,068
Construction	1,672,700	17,525	1,690,225
Construction Management/Inspection			-
Construction Materials Testing	25,842		25,842
FF&E			-
Total Expenditures	1,971,610	17,525	1,989,135

Project Contingency	0%	
Project Balance		510,865

Schedule Info:

	Base Line	Current
Design Start	April-19	April-19
Bid Start	February-20	March-20
Construction Start	May-20	July-20
Construction Completion	May-21	July-21

Upcoming Work Items:

- Final acceptance is based on acceptance of hydro-mulch sprouting.
- Close out documents will be completed by August 31,2021.

Project Manager: Fatema Weekly

Construction Manager: Michael Collins

Designer: KIT Professionals, Inc.

Contractor: W.W. Payton

Scope: Project scope consist of the design to remove and replace the existing 140,000-gallon bolted steel ground storage tank (GST) with a new 500,000-gallon welded steel GST and associated yard piping, permanent removal of two existing hydro-pneumatic pressure tanks, and installation of a variable frequency drive (VFD) on an existing booster pump.

Justification: The water well and booster pump station were originally constructed with the subdivision development prior to the area’s annexation into the City. Consequently, the City inherited the two original storage tanks. The bolted steel tank has already been decommissioned due to the tank reaching the end of its expected life and showing signs of leaking. Bolted steel tanks generally have a shorter life span than welded steel tanks or concrete tanks, with the decommissioning of this bolted tank it leaves the site with a single 500K-gallon tank to meet the current demand of nearly 1 million gallons per day. With a peaking factor of 2.0, the peak hourly demand for the service area is approximately 1.8 MGD (1,250 GPM). As a result, the



well pump will run continuously to maintain water availability during these peak demands. Confirmation is based on the review of SCADA data for the Southdown WP GST Operational Levels for 2018.

Previous Memos: 03/07/2019, 10/31/2019, 01/09/2020, 04/16/2020, 01/21/21,3/25/21

Project Location Map:

VICINITY MAP



Legend/Notes

Parcels



1:879

1 inch = 73 feet



NORTH

This product is for informational purposes only and may not be prepared or be suitable for legal, engineering, or surveying purposes.

MAP PREPARED: MARCH 5, 2019



Project Photos:



Ground Storage Tank Painted and Flatwork Poured Back



All Piping has been Painted and Pump Disconnects Replaced



Gas Service to Generator has been Established and Unit is Fully Operational



Generators Automatic Transfer Switch



Exterior Ladder Anti-Climb Cage Installed and Secured