



City of League City, TX

300 West Walker
League City TX 77573

Text File

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Title:

Consider and take action on a resolution authorizing Change Order No. 1 to the construction contract with Reytec Construction, Inc. related to the 36-inch Waterline from State Highway 3 Booster Pump Station to the South Shore Harbour Booster Pump Station (WT1109) in a net amount not to exceed \$112,449.78. (Executive Director of Capital Projects)

..Background:

Approval of this resolution will authorize the Change Order No. 1 in an amount not to exceed of \$112,449.78 to the construction contract with Reytec Construction, Inc. related to the 36-inch Waterline from State Highway 3 Booster Pump Station to the South Shore Harbour Booster Pump Station (WT1109)

On June 22, 2021, Council authorized the award of the construction contract to Reytec Construction, Inc. for the installation of this 36-inch Waterline from State Highway 3 Booster Pump Station to the South Shore Harbour Booster Pump Station (Bid No. 21-CIP-032), for an amount not to exceed \$20,176,170 and authorized an additional \$2,017,617 for a Construction Work Change Directive (WCD) budget.

This project includes furnishing, installing, and providing all labor and materials required to install, approximately 17,730 linear feet of new 36-inch diameter potable water pipeline of which approximately 9,660 linear feet is by horizontal directional drill installation (fusible PVC pipe), approximately 1,995 linear feet of 36-inch diameter pipe inside 54-inch diameter steel casing installed by trenchless method, and approximately 6,075 linear feet by open-cut installation, including connections to the existing State Highway No. 3 Booster Pump Station and South Shore Harbour Booster Pump Station.

During the course of construction, project encountered major supply-chain issues including production and delivery of the fusible PVC pipe, deeper bore pits due to presence of deeper existing pipelines, discovery of new pipelines, and other unforeseen field conditions.

This agenda item presented to Council for the Change Order No. 1 to contract in the amount not to exceed a net of \$112,449.78 will be funded from the Construction Work Change Directive budget of \$2,017,617.

This Change Order No. 1 as presented herein is a collection of eight (8) work change directives submitted by Reytec Construction and reviewed by City staff and the project's engineering consultant, CMD-Smith. The work change directives are as follows:

1. WCD #1 = (\$179,611.52)

Due to fusible PVC pipe production issues during the COVID period caused by the global shortage of special resin needed to make large diameter pipes, and the timing of construction, a credit for material substitution from fusible PVC pipe to ductile iron pipe was approved. The approved ductile iron pipe was installed in open-cut and jack & bore segments after thorough review by City staff and consultant with the inclusion of special wrapping and joint constraints. Ductile iron pipe commonly used for water pipe. Credit to City is (\$179,611.52).

2. WCD #2 = \$25,643.98

This work change directive was for additional hydro excavation to determine pipe depth due to discovery of existence of a 24" and 36" Enterprise pipelines and 8" Dow pipeline, not shown on plans. Despite consultant's coordination with Enterprise and receiving the Letter of No Objection (LONO) from them, these pipelines were discovered and required additional hydro excavation to determine depths and subsequently changed placement of pipe.

3. WCD #3 = \$54,198.53

This work change directive was for the additional bore pit depth excavation and steel shoring due to field discovery of the Enterprise and Dow pipelines at the two HWY 3 bore pits. These are same pipelines discussed under WCD #2.

4. WCD #4 - \$320,708.66

This work change directive was for additional bore pit depths and steel shoring at three bore pits near the CPE's power line corridor. The 36", 24" and 12" Enterprise pipelines were not shown on plans. Despite consultant's coordination with Dow and Enterprise pipeline Co's and receiving the Letter of No Objection (LONO) from them, these pipelines were discovered during construction and required additional hydro excavation to determine depths, needed deeper bore pit excavations, and special vertical shoring system. To complicate the issue further, the side of pits could not be laid back to avoid deep holes thus required installation of special vertical shoring to protect men and equipment at bottom of the deep pit.

5. WCD #5 = \$47,288.67

This work change directive was for the shifting of the Hwy 3 bore launch shaft after encountering a fiber optic cable after Reytec started excavation at the original plan location of the bore shaft. Reytec had to abandon, remove shoring, and backfill and then relocate the shaft 6 feet from the original location.

6. WCD #6 = 31,588.21

Removal of CCISD Garden and perimeter fencing. The original scope called for a horizontal directional drill under this garden and fence. CCISD requested the garden and fence be removed. This allowed contractor to use open cut method in this area instead of directional drill. This ended up saving the City by having less directional drill quantity under the base bid which will be reflected at end of project as actual quantities are reconciled.

7. WCD #7 = \$93,208.25

During the jack and bore operation under the Union Pacific (UP) rail crossing as a part of their permit, UP mandated that their preapproved safety provider, RailPro, must be used and paid to do the construction observation, inspection and provide railroad flaggers. This was not in the initial scope of work for the contractor.

8. WCD #8 Time Extension - 514 Days

Majority of this time extension due to the 36” fusible PVC pipe production and delivery issues. Additionally, once pipe was delivered, expert studies, inspection and reporting had to take place to resolve the fusible PVC pipe quality issues brought up by the City. Other noted reasons for this time extension are redesign of bore pits, time to conduct hydro excavations, review and approval of ductile iron pipe, and coordination with pipeline companies. Completion of this project is anticipated at the end of January 2024.

9. Available Funds from Unused Bid Items = (\$280,575)

Project’s base bid and extra work items sections have number of construction items which we have determined are no longer required since majority of non-directional drill segments of work are installed. These include among other things, well pointing, extra ductile iron fittings, extra concrete, etc. We propose to use these savings along with credit from ductile iron pipe, to offset much of the cost of this Change Order.

Therefore, the proposed net cost of Change Order NO. 1 to contract is \$112,449.78 as summarized below:

WCD #1	(\$179, 611.52)
WCD #2	\$25,643.98
WCD #3	\$54,198.53
WCD #4	\$320,708.66
WCD #5	\$47,288.67
WCD #6	\$31,588.21
WCD #7	\$93,208.25
WCD #8	NA
Available Funds from a Partial Reconciliation of Quantities	<u>\$280,575</u>
	\$112,449.78

Therefore, the Proposed Contract Increase resulting from Change Order No. 1 is as follows:

Original Contract Amount	\$20,176,170
Change Order 1 (Net)	<u>\$112,449.78</u>
Total Adjusted Contract Amount	\$20,288,619.78

The Contractor and City have discussed other work change directives which have not been fully negotiated and approved yet by staff and consultant. The Contract may require additional change order as project reaches final completion, which will be presented to Council, as warranted.

Attachments:

1. Data Sheet
2. Proposed Resolution
3. Change Order No.1 and back up information
4. Agenda Item 11F - 6-22-2021
5. Contract 3220153

FUNDING

{X} CO 1 (WCD #1-8) totaling \$112,449.78, is available from the construction contingency, RS Cash, fund 1055, with expenses charged to project expense string WT1109-CONSTRUCT-CONSTRUCT2-RS CASH.

STRATEGIC PLANNING

{X} Addresses Strategic Planning Critical Success Factor #1: Develop and Maintain our Infrastructure