

Item Details

Legistar # 18-0276

Change Order No. 7 – With PLW Cadagua Partners of the Woodlands, Texas for the O. N. Stevens Water Treatment Plant High Service Building No. 3 Project	
<u>Council Meeting Dates:</u> Future Item – March 27, 2018 Action Item - April 10, 2018	<u>Item Being Considered:</u> Motion

RECOMMENDATION:

Authorization to execute Change Order No. 7 with PLW Cadagua Partners of The Woodlands, Texas in the amount of \$182,629.43 for the O. N. Stevens Water Treatment Plant High Service Building No. 3 project for correction of soil and drainage issues at the project site.

SUMMARY:

Construction Change Order No. 7 is required to correct soil and drainage issues at O.N. Stevens Water Treatment Plant and complete the High Service Building No. 3 project. The High Service Building No. 3 project was awarded by City Council on August 16, 2016 with construction starting in October 2016. During construction, the contractor encountered unanticipated erosion and soil conditions that require additional work to complete the project.

The new High Service Building No. 3 site is located just to the south of existing Clearwell No. 2. Clearwell No. 2 is a 90,000-square foot (300 feet x 300 feet), 10 million-gallon water ground storage tank. The lower sections of the four concrete exterior walls extend partially underground. The water in the tank puts significant pressure on the concrete walls which require solid, stable soil around them to counteract water pressure. The surrounding terrain has lower elevations on the south and east walls that require sloped earthen embankments on both the south and east side.

During excavation for the new High Service Building No. 3, severe erosion and unstable soils were encountered on the south embankment that are undermining the existing Clearwell No. 2 structure. The site drainage for Clearwell No. 2 and surrounding area sheet flows to the south into a small underground collection system that outfalls to a nearby drainage creek within the O.N. Stevens Water Treatment Plant property. The sheet flow and excessive rains have caused severe erosion along the south embankment. There was also severe erosion discovered at the outfall to the nearby drainage creek.

Construction Change Order No. 7 was developed to replace the unstable soils, correct the erosion by restoring the embankments with new erosion control matting on the south embankment, improve the drainage collection system (new French drain), and stabilize the outfall at the creek. The outfall improvements include grading, compaction, placement of new rock rip rap and miscellaneous erosion control and vegetative cover.

This work was unavoidable. Additional geotechnical testing would have discovered the unstable soils and therefore work would have been included in the bid documents in lieu of a construction change order.

The previous Construction Change Orders 1 through 6 were administratively authorized. A summary is provided below:

Change Order #	Description	Cost (\$)
1	Daily delays due to O.N. Stevens Water Treatment Plant personnel safety request	56,843.90
2	Changes to cable tray supports	34,442.14
3	Changes to wastewater line and AEP power additions	55,881.50
4	Changes and alignment to storm sewer drains and replacement of existing manhole	66,948.00
5	Motor witness testing credit	(35,600.00)
6	Change analyzer instrumentation	7,433.70

PREVIOUS COUNCIL / BOARD ACTIONS:

Construction contract awarded August 16, 2016.