



AGENDA MEMORANDUM

First Reading for the City Council Meeting of April 27, 2021
Second Reading for the City Council Meeting of May 11, 2021

DATE: April 27, 2021

TO: Peter Zaroni, City Manager

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Construction Change Order

O.N. Stevens Water Treatment Plant High Service Building No. 3

CAPTION:

Ordinance authorizing the approval of Change Order Number 24 to a construction contract with PLW Cadagua Partners, The Woodlands, Texas, for additional scope of work that includes Clearwell #1 roof repairs for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3 project, located in Council District 1, in an amount of \$427,951.25 for a total restated fee of \$23,843,835.05, with FY 2021 funding available from the Water Fund and amending the Capital Improvement Program.

SUMMARY:

This ordinance authorizes approval of Change Order Number 24 to a construction contract to provide additional repairs associated with the O.N. Stevens Water Treatment Plant High Service Pump Building Number 3 project. The work includes repairing localized cracks observed in the existing Clearwell #1 roof where water is entering the clearwell from the exterior of the tank. The roof repairs include a five-year warranty.

BACKGROUND AND FINDINGS:

In August 2016, City Council awarded a construction contract to PLW Cadagua Partners to build the new High Service Building No. 3 and other associated improvements. The project base bid scope included replacement of the existing High Service Pump Bldg. No.1, with a new 12,700 square foot High Service Pump Building No.3 and rehabilitation of High Service Building No. 2 to provide consistency and facilitate maintenance between both High Service No. 2 and the new High Service No. 3 pump stations.

The existing High Service Pump Bldg. No.1 was placed into service over 60 years ago and is

experiencing severe deterioration impacting its service reliability and capacity. The High Service Pump Bldg. No.1 is an integral part of Clearwell #1 and sits directly above a portion of the clearwell. The clearwell structure has begun to deteriorate due to its continuous exposure to a corrosive chlorine environment and concentrated loads. The deterioration has resulted in critical structural failures along with substantial leaks. The most notable structural failures are significantly settled roof support column, leaking expansion joints, and foundation and wall cracking. Most of the failures seem to be a result of the cracks, expansion joints, and construction joints leaking and allowing water to erode the soil supporting the foundation. The base bid scope of this project included rehabilitation to address the above scope. However, while performing the inspections to the contracted work, the contractor noticed localized cracks in the interior of the Clearwell #1 roof where rainwater was entering the clearwell from the exterior. As a result, Clearwell #1 is not in compliance with the Texas Commission on Environmental Quality (TCEQ) requirements. Therefore, it is imperative that the roof be repaired.

This represents the additional scope of work for the proposed Change Order Number 24. The leakage in the Clearwell #1 is a violation of the TCEQ. With assistance from the design consultant, Ardurra, staff researched options to repair the clearwell roof and stop the leakage. The City received four options for repairs: 1. Tremco Roofing - point roof repairs with a scheduled two-year scheduled maintenance, 2. Tremco Roofing - complete roof replacement with a 15-year warranty, 3. Tremco Roofing – roof restoration with a five-year warranty, and 4. DN Tanks - exterior roof rehabilitation. The best repair option for the City is Option 3 which also includes interim inspections at two-year intervals. The scope is consistent with the City's Capital Improvement Plan to build a new Clearwell #3 in approximately five years that will replace the existing Clearwell #1 and demolish the High Service Pump Bldg. No.1

This Change Order authorizes PLW Cadagua Partners, who is currently mobilized at the water treatment plant to continue construction up to the additional proposed contract amount. If approved the addition of the 75 calendar days will extend the anticipated construction substantial completion date from April 2021 to June 2021.

The new High Service Pump Building No. 3 is currently under construction and once completed will have the capability to deliver treated water to the distribution system from the existing clearwell No. 1, clearwell No. 2 and future programmed addition of clearwell No. 3. Additionally, it will enable the City to decommission High Service Pump Building No. 1.

PROJECT TIMELINE:

The Change Order Number 24 will authorize an additional 75 calendar days to the construction contract. The anticipated substantial construction completion date of the project is June 2021.

ALTERNATIVES:

As an alternative to approving this Change Order the City could pursue a new stand-alone construction contract(s). This process would likely result in additional construction cost due to inflation and mobilization. It would also result in possible regulatory fines from TCEQ.

FISCAL IMPACT:

The fiscal impact for FY2021 is an amount of \$427,951.25 with funding available from the Water

Fund. The Capital Improvement Program will be amended to include the O.N. Stevens Water Plant High Service Building No. 3 project.

FUNDING DETAIL:

The project funds are available from project savings from the O.N. Stevens Water Treatment Plant Maintenance and Repair operational account in the Water Fund (#4010) and will be distributed to this project. There are savings in water treatment chemical expenditures, caustic chemical costs were significantly lower this fiscal year. The cost savings were transferred to the Construction account for the Water Fund to provide for the funding needed for this project.

Fund: **Water Fund 4010 (Fund 4010)**
Mission Elem: Water Treatment (062)
Project: O.N. Stevens Water Treatment Plant High Service Building No. 3 (E11066)
Account: Construction (550910)
Activity: E11066-01-4010-EXP
Amount \$427,951.25

RECOMMENDATION:

Staff recommends approval of Change Order No. 24 in the amount of \$427,951.25, with PLW Cadagua Partners, to repair localized cracks observed in the existing Clearwell #1 roof at the O.N. Stevens Water Treatment Plant. Construction is anticipated to be substantially completed in June 2021.

LIST OF SUPPORTING DOCUMENTS:

Ordinance
Location Map
Change Order No. 24
CIP Page