


INTEROFFICE MEMORANDUM



TO: Joseph N. Davis
Timothy Dimond

FROM: William L. Mason 

DATE: September 19, 2022

SUBJECT: Change Request #1/Government Center
Cooling Tower Retrofit Project – Fan Assemblies
& Fissure Crack Repairs

During the Design Phase of the Cooling Tower Retrofit Project in the Government Center, our Project Team had the Cooling Tower drained to provide access for the Design Engineers and conduct a routine environmental assessment.

While empty, further investigation discovered unexpected damage and deteriorating components to the two (2) Fan Assemblies and more Fissure Cracks in the concrete walls of the water tank than were originally programmed for repair. Correcting these unforeseen existing conditions goes beyond the Project scope and will incur additional costs and term to the Project.

The two (2) Fan Assemblies comprised of fans, motors, gearboxes, and couplings were designed for 100,000 hours of operation if properly maintained but may be original to the building. Specific deficiencies include corroded fans having lost their protective exterior coating, gearboxes leaking oil and showing interior corrosion, failed or ill fitted omega couplings/bushings, and non-functioning vibration and oil level switches. These conditions suggest a full replacement of all components of the Fan Assemblies rather than repair of the non-functioning ones.

Additionally, the investigation identified twenty-nine (29) Fissure Cracks in the concrete wall of the water tank requiring repair more than the twelve (12) programmed in the Project scope. None of the Cracks are structural in nature but without repair could lead to water leaks and wall deterioration. Repairing all twenty-nine (29) Fissure Cracks helps ensure the longevity of the Cooling Tower's structural integrity.

Accordingly, I am requesting your authorization to submit to the Board of Commissioners a recommendation for approval of Change Request #1 in the amount of **\$78,562** representing **(4.7%)** percent of the original Contract Sum of **\$1,677,706** and increasing the amended Contract Sum to **\$1,756,268**.

Details of the deficiencies to the Fan Assemblies and additional Fissure Cracks, costs to repair/replace, and expected completion are shown as follows:

PARTS	CONDITION	COMPLETION	COSTS
Motors	Damaged and corroded.	4Q22	\$4,738.86
Gearboxes	Leaking oil. Interior corrosion. Damaged impeller and shaft from bearing failure.	4Q22	\$9,797.90
Omega Couplings/Bushings	Deteriorated and ill-fitting.	4Q22	\$2,538.21
Vibration & Oil Level Switches	Worn and non-functioning.	4Q22	\$2,298.53
Fans	Heavily corroded. Protective coating deteriorated.	4Q22	\$20,747.38
Labor, Freight, & Taxes	N/A	4Q22	\$12,501.12
Markup	N/A	N/A	\$6,223.00
Fan Assemblies Subtotal	N/A	4Q22	\$58,845.00
Fissure Crack Repairs Subtotal	Additional seventeen (17) Fissure Crack Repairs above the twelve (12) in scope.	4Q22	\$12,575.00
Contingency (10%)			\$7,142.00
TOTAL			\$78,562.00

Coupled with rising construction pricing, scarcity of replacement parts, and scheduling impacts, we believe this Change Request #1 is merited.

As part of this Change Request #1, the Contract term is proposed to be extended by an additional four (4) months and all work should be completed by December 31, 2022. This extension is solely attributable delivery of necessary replacements parts which can be up to sixteen (16) weeks in today's marketplace.

Funds are provided by the 2017 FCURA (Urban Redevelopment) Bond in Funding Line # 532 520 5200 K008.