

ITEM # 22  
DATE: 02-14-23  
DEPT: Electric

## COUNCIL ACTION FORM

**SUBJECT: RDF STORAGE BIN REPAIR PROJECT**

### **BACKGROUND:**

The City's Resource Recovery Plant (RRP) converts municipal solid waste (MSW) into refuse derived fuel (RDF). The RDF is then conveyed to the RDF Storage Bin, which provides buffer and storage capacity until the RDF can be metered into the Power Plant boilers for combustion.

The existing RDF Storage Bin has been in service since 1996. The bin was primarily constructed of COR-TEN steel, a weathering steel designed to initially rust and build up an oxide layer that then prevents further rusting of the steel from occurring. The use of COR-TEN steel to construct the RDF Storage Bin has proven to be problematic in places where the COR-TEN steel is in regular or constant contact with the RDF. Constant contact with the RDF removes the oxide layer meant to protect the steel underneath, causing the exposed steel to rust anew. This cycle repeated over and over eventually removes enough steel that portions of the bin need to be repaired or replaced.

**The RDF Storage Bin has reached the point that the containment's confining walls are in dire need of being replaced, and certain structural steel supports need to be repaired or replaced.** This project to repair the bin was initially sent out to bid in August 2018. The bids received were much higher than what was budgeted. Staff chose to perform some of the repair work with City staff and through an annual maintenance contract with an outside vendor. Staff then worked with the engineering consultant to reduce the remaining scope to essential items and rewrite the specifications. The project was then delayed due to COVID and most recently due to limited staffing.

The project is now ready to be bid with revised plans and specifications. The Engineer's estimate for this project is \$2,870,090 for the base work. The base bid excludes repair or replacement of the bin wall panels. To keep the project within the budgeted amount, options to either repair or replace the wall panels are included in the bid specifications. Once the bids are received, staff will evaluate the proposed costs for repair or replacement and recommend the most cost-effective option that can be completed within the project budget. The Capital Improvements Plan includes a balance of \$3,568,000 for the RDF Bin repair work.

**ALTERNATIVES:**

1. Approve the preliminary plans and specifications for the RDF Storage Bin Repair Project and set March 29, 2023, as the bid due date, and April 11, 2023, as the date of award.
2. Delay these critical repairs, which will result in increased deterioration of the bin and most likely result in catastrophic damage and extended downtime.

**CITY MANAGER'S RECOMMENDED ACTION:**

This project will return the RDF Storage Bin to a condition that will allow it to operate safely and function properly. **The Council should note that although options are being considered for the future of the waste-to-energy system that do not require use of this bin, most of the options do rely on continuing to use the existing bin. Even if the City was to pursue a waste-to-energy option that no longer relies on the existing bin, implementing a new system would take at least five years. The proposed repairs to the bin under this project must be undertaken to ensure the bin can operate until that time.** Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as stated above.