M E M O R A N D U M

TO: Zero Waste Advisory Commission

FROM: Sam Angoori, P.E., Interim Director
Austin Resource Recovery

DATE: February 8, 2016

SUBJECT: **Vehicle Fleet Technology Upgrade**

The purpose of this memo is to provide information regarding the Request for Council Action (RCA) on ARR's Vehicle Fleet Technology Upgrade.

Summary

This action seeks Council approval to negotiate and execute a contract that would provide Austin Resource Recovery's fleet with technical upgrades that would be fully integrated into current systems used for Citywide utility billing and the Austin 3-1-1 contact center.

Background

Austin Resource Recovery (ARR) continually evaluates its operations and services for improvement opportunities. Over the last several years, ARR staff identified barriers in ARR's current vehicle technology and data management systems that make it difficult to reduce risk, improve customer service, increase operational efficiencies, and improve data accuracy. Recognizing that ARR had not made improvements to its vehicle technology and data management systems in nearly ten years, ARR decided to implement a Vehicle Fleet Technology Upgrade (VFTU) to address these issues. This upgrade will focus on adding an in-vehicle technology solution to ARR's fleet and replacing ARR's current work management system also known as the Solid Waste Tracking System (SWTS). During the last three years, ARR researched best practices, coordinated with a variety of City Departments including Austin 3-1-1 staff, City Fleet Services and Communications and Technology Management (CTM) to develop a Request for Purchase (RFP) that would address the Department's VFTU needs.

RFP Development

The RFP developed considers ARR's need to have a fully integrated data management system that interfaces to systems used by Austin 3-1-1 and for Citywide utility billing, and fulfills the Department's current and future operational and data management needs. The VFTU will provide an 'all-in-one' system solution that increases operational efficiency, employee safety

and the accuracy of citizen services. It will also increase transparency and ARR's responsiveness to customer inquiries by offering more accurate information about how we service our customers.

Technical Upgrades

This request includes the purchase of a fully integrated data management system. The updated system will include GPS (global positioning system), RFID (radio frequency identification), automatic vehicle location units, touchscreen control displays, and the ability to run various types of reporting.

The system is needed to reduce risk, lower the chance of vehicle incidents, provide accurate customer services, increase transparency of the work performed by ARR operational staff and increase the accuracy of ARR's billing.

The essential technology upgrade categories include the following:

- "All-in-One" system automation and integration which will also incorporate existing RouteSmart (Routing Software) and CC&B (Citywide utility billing system)
- On-Board GPS/AVL units and touchscreen control displays, including various sensors, for all collection vehicles
- Work management system software and hardware
- Radio Frequency Identification (RFID) System for all collection vehicles
- Standard, custom, and analytical reporting

Cost

The first year of the contract amount includes a proof of concept pilot, installation, hardware, training and integration to existing systems and is estimated at $2.1 million beginning in fiscal year 2017 and is available in the ARR Budget. The second year of the contract will include ongoing license fees, expense for hardware repairs, replacements and new units and is estimated at $400,000. These expenses will be included in the ARR Fiscal Year 2018 Proposed Budget.

The key improvements expected:

<u>Short Term</u>

- Automation and integration of routing and billing
- Increased accuracy of customer service, billing, and fleet management functions
- Capability to identify routing improvements
- Capability to assign missed or out-of-cycle collection calls to the nearest route driver
- Capability to interface with RFID technology, Customer Service Request (CSR) software
- Capability to interface with and manipulate both historical databases and current data
- Ability to extract raw data and generate customizable, user-defined and/or ad hoc reports

<u>Long Term</u>

- Reduced fuel and maintenance costs

- Carbon footprint reduction
- Optimization of travel patterns for drivers
- Cost effective implementation of expanded garbage/recycling collection programs
- Ability to produce more accurate budget projections based on actual operational data
- Reduction in the number of vehicle collisions and employee injuries
- Reduction in the number of billing errors and disputes
- Increased revenue

Ongoing services and products provided throughout the term of this contract will include system design and configuration, all hardware and software, installation, training and documentation, technical support, system updates, maintenance and repairs, and parts replacement.

Justification

According to a recent Bureau of Labor Statistics (BLS) incident and accident report, the Solid Waste industry is the fifth most dangerous profession in the nation. Industry wide, vehicle incidents have increased. For ARR, collisions have doubled from this same time a year ago. As the city of Austin continues to grow, traffic and traffic hazards continue to increase. By incorporating the tools available in this Vehicle Fleet Technology Upgrade (VFTU) project, ARR can reduce risk, and lower the chance of vehicle incidents.

This project will also incorporate industry leading micro-routing technology that will reduce time spent on the road by our vehicles as well as lowering the overall miles travelled by the department's vehicles. These reductions will lower ARR's carbon footprint as well as reducing vehicle maintenance cost for ARR's vehicle fleet. Micro-routing will also improve ARR's customer service by helping to reduce missed collection services as well providing more accurate billing. This capability will also help ARR identify billing discrepancies that will increase our revenue by identifying residents who currently receive our services without being charged.

Without the advances that the VFTU will provide, ARR will also lose a comprehensive customer service component to its work management system. Furthermore, staff and citizens will be exposed to a higher level of risk along with a reduction in ARR's operational efficiencies.

Staff Recommendation

Based on an evaluation team's review of the two proposals received, staff recommends the selection of FleetMind Solutions, Inc. The proposals were evaluated based on the following criteria:

- Proposed system concept and solutions,
- Technical plan,
- Applicable experience and personnel qualifications,
- Evidence of good organization and management practices,
- Cost, and
- Local business presence.

The resulting contract will include 2.5% MBE subcontractor participation.