



# CITY OF ORLANDO

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**To:** David Billingsley, Chief Procurement Officer, Procurement and Contracts

**From:** Ben Gray, Assistant Division Manager, Streets and Stormwater Services

**Thru:** Lisa Henry, Division Manager, Streets and Stormwater Services

**Date:** May 28, 2014

**Subject:** Procurement of Street Sweepers

The Streets and Stormwater Services Division (Division) has submitted four requisitions (REQ) for leasing and maintaining three makes of street sweepers and one vacuum truck. The details for each piece of equipment are attached to the REQ, and this memorandum provides additional explanation for the method of procurement and arrangements for maintenance.

The Division is responsible for cleaning City streets, and this work is done with street sweepers, machines designed and built specifically for removing debris and trash off paved surfaces. Historically, appearance and safety have been the primary reasons for sweeping streets, but recent regulatory decisions by the Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP) about stormwater water quality have placed a greater burden on the Division's street sweeping resources. The FDEP is requiring the City as a Municipal Separate Storm Sewer System (MS4) to reduce the amount of nutrients in lakes and streams. Plant debris and sediments contain nutrients, such as nitrogen and phosphorus, and transport those nutrients from the streets to the lakes through the stormwater system. Sweeping more streets more frequently is a cost effective approach for reducing the amount of nutrients going into the lakes. Removing nutrients such as nitrogen from lake water can cost over \$2,000 per pound, while the cost to remove a pound of nitrogen trapped in street sweepings is about \$100 per pound. The vacuum truck supports and enhances the benefits of street sweeping by removing debris captured in the street inlet catch basins.

The Division is now using eight street sweepers (sweepers) for this work, six Elgin Pelicans, and two Elgin truck-mounted sweepers. The Pelicans are about four years old, and are at the end of their useful lives. These machines are not suited to the demanding work of running long distances for up to 80 hours per week – 8 hours per shift, 2 shifts per day, 5 days per week – and they are expensive to acquire and maintain. When a sweeper breaks down and cannot be returned to service within a few hours, there is a significant loss of productivity, and opportunities for reducing the amount of nutrients entering our lakes.

The existing sweepers were purchased as capital investments through Fleet Management using the best knowledge available at the time. Our experience with these sweepers has led us to consider another approach for acquiring and maintaining sweepers.

We are proposing a pilot program to assess a variety of sweepers by using leasing and maintenance agreements instead of making a large capital investment in new sweepers without knowing how they will perform and hold up under our use.

The proposed pilot program involves leasing six street sweepers and one vacuum truck from three local vendors – using pricing in the City of Tallahassee Contract #1619, and the State Contract 13-11-0904 (Off-Road Utilities, Medium/Heavy Trucks, & Other Fleet Equipment), which is coordinated by the Florida Sheriffs Association and Florida Association of Counties. Each vendor will be responsible for maintaining their equipment under a maintenance agreement, which will include the condition to loan a sweeper at no additional charge if the lease sweeper is out of service for more than 72 hours. The lease terms will be for 3 years with the option of terminating the lease and maintenance agreement at the City's discretion. The Division will have the option to keep some or all of the leased equipment, and renew the maintenance contracts.

At the end of 3 years, staff from Streets and Stormwater Services in consultation with Fleet Management will analyze the results using a return on investment (ROI) formula, and make recommendations on the equipment configurations, manufacturers, and maintenance agreements.

The ROI will be determined using the following methodology:

1. Track leasing costs
2. Track maintenance costs
3. Track the number of out of service hours
4. Compute the lost productivity cost for out of service hours
5. Calculate the cost to operate based on items 1- 4
6. Rank the sweepers by manufacturer using the results from item 5

To ensure valid comparisons, each vendor will maintain the equipment they provide. This will allow them to monitor warranty items, notify staff if the machine is operated improperly and provide additional training, and have control over the outcome of the equipment's performance. Furthermore, we will negotiate replacement sweepers if the vendor cannot return a unit to service within 72 hrs.

We believe this is the best way to test the new equipment and vendors while providing the most cost effective and reliable service to the constituents of the City of Orlando.

We are also requesting Procurement to arrange for a similar lease and maintenance agreement for the vactor, another specialty machine used to remove debris from catch basins, baffle boxes and inlets. We will perform a similar ROI study on the performance of the leased vactor, and compare the results to the costs of an existing vactor, which was purchased and maintained by Fleet Management.

Please call Ben Gray at 2754 or Lisa Henry at 3646 if you have any questions.