

City of Lawrence

Public Works Department

MEMORANDUM

TO: Charles Soules, Public Works Director
FROM: Tammy Bennett, Assistant Public Works Director
CC: Steve Stewart, Fleet Manager
Craig Pruett, Solid Waste Operations Supervisor
DATE: December 9, 2010

RE: GPS recommendation for Solid Waste Division

The Solid Waste Division conducted a pilot project to evaluate GPS systems on rear-load and front load refuse equipment in November, 2010. The division recommends proceeding with the purchase of 35 GPS units from NetWork Fleet for the initial installation in rear load and front load trucks.

Background information:

The Fleet Manager solicited quotes from multiple GPS vendors. Four options were installed in solid waste trucks for evaluation (WindTrac, SageQuest, FleetMatic, and NetWorkFleet). A previous demonstration project from a fifth vendor (AT&T) had been completed with light trucks earlier this year.

Units were evaluated based on a variety of factors, including,

- Geo-fencing options
- Reporting, data management
- Frequency of map updating
- User interface from monitoring end (ease of use)
- Diagnostic information relayed
- Ability to interface with fleet management software
- Ability to interface with ArcInfo and GIS software
- Installation processes
- Customer service
- Pricing for equipment and monthly monitoring fees.

The Fleet Manager also researched usability of the systems evaluated for other municipal applications, such as usability for snow crews, which requires additional ports on the system for plow / spreader monitoring.

Recommendation:

The recommendation of evaluation team is to proceed with NetWork Fleet. The vendor offered the lowest total cost for equipment purchase and monthly monitoring. The NetWork Fleet platform will work in tandem with the fleet management software used in the Central Maintenance Garage. The GIS Coordinator reported the system was easily integrated with ArcInfo and our GIS System. Options would be available that make the equipment usable for other city operations, such as Street Maintenance and Utilities equipment.

GPS Evaluation

	AT&T	Wind Trac	Sage Quest	FleetMatic	NetWorkFleet
price / unit	\$ 300.00	\$ 280.00	\$ 420.00	\$ -	\$ 195.00
monthly monitoring costs per month	\$ 37.00	\$ 30.00	\$ 32.00	\$ 40.00	\$ 23.95
geo-fencing / landmarking	??	yes	yes	yes	yes
reporting frequency updating	every 5 minutes	2 minutes	2 minutes	2 minutes	2 minutes
control center -- dedicated or web-based	web	upload	web	web	web
cost per access point for info			10 users no charge		
ability to collect engine data	Yes	Yes	Yes	Yes	Yes
optional features	OBD Diagnostics	OBD Diagnostics	OBD Diagnostics	OBD Diagnostics	OBD Diagnostics
Garmin interactive	??	Yes	Yes	Yes	Yes
Demo costs	\$1500 (?)	Free 1 unit	\$200.00	Free 2 units	Free 2 units
comments from demonstration projects	maps were not useful in tracking vehicles. Reports were generally ok.		2 year tech support; geo fencing easy to use; excellent customer service	Geo Fences weak	integrates with fleet management software used by central maintenance
First Year Total	No Quote	\$ 22,400.00	\$ 28,140.00	\$ 16,800.00	\$ 16,884.00
Second Year	No Quote	\$ 12,600.00	\$ 13,440.00	\$ 16,800.00	\$ 10,059.00
Total first two years		\$ 35,000.00	\$ 41,580.00	\$ 33,600.00	\$ 26,943.00