Routeware

Routeware SMARTCITY™

CUSTOMER STORY

El Paso, Texas

Overview of street sweeper operations

Given its location in the Chihuahuan Desert, the City of El Paso, Texas has a perennial sand problem. Sand lines the streets of the City, sometimes up to six inches deep, clogging storm drains and dirtying El Paso's roads. This makes street sweeping a top priority for the City.

In November 2023, the City of El Paso announced a three-year contract with Routeware to modernize its street sweeping operations. El Paso implemented Routeware SmartCity™ in ten street sweepers that

28%
increase in driver productivity

85K+
estimated annual operating cost savings

### 4,173
fewer gallons of fuel used, preventing 37 metric tons of CO2e

service 35,000 curb miles of roadway, including residential streets, medians, bike lanes, and downtown areas. El Paso leverages exception logging, digital material tickets, digitized routes, and turn-by-turn directions to clean the City's streets effectively and equitably.

Challenges

Before adopting Routeware SmartCity, El Paso's street sweeping operations were entirely paper based, with printouts of daily route sheets, pre- and post-trip inspections, and material tickets. Without a route management system in place, the City struggled with driver accountability and visibility into service. This led to challenges in service confirmation, driver productivity, missed service complaints, training time, and reporting.
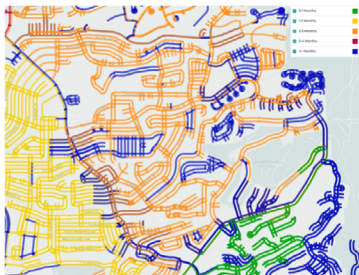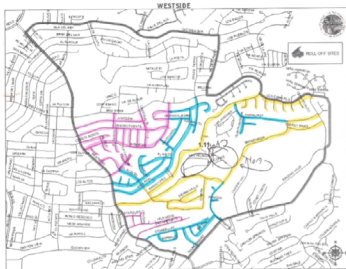
Top: Paper map, Bottom: Digital map in SmartCity Portal

Service confirmation

Supervisors used to rely on highlighted paper maps to verify service. Now, with automatic service completion data, supervisors have real-time visibility into where and when drivers have swept, reducing inaccurate service information and drivers straying from routes. According to Solid Waste Operations Coordinator Andres Carrasco, "It was hard to know where drivers were. Now that we have Routeware, we've been able to see where drivers are and what time they passed certain roads."

Driver productivity

With increased supervisor awareness through vehicle tracking and route progress monitoring, driver productivity has increased. Average stationary time has decreased 27% per route since implementation, from 2 hours 9 minutes to 1 hour 34 minutes.

Customer service has also improved. In the Driver App and the Manager Portal, drivers and supervisors can see the last time streets have been swept. They can also more effectively monitor how many passes are needed on certain streets over a set time period to ensure

streets stay clean and resident satisfaction remains high. Drivers have increased the number of passes completed by 28% since the start of the partnership, from an average of 96 passes to an average of 122 passes per route, leading to cleaner streets. Even with an increase in passes, the City observed an 8% decrease in average route mileage. Routeware estimates this translates to $85,170 in annual operating cost savings for the City.

These idling and mileage reductions lead to 4,173 fewer gallons of fuel annually and 37 metric tons of avoided CO2e emissions, the equivalent of taking 9 passenger cars off the road each year.

Citizen satisfaction

Supervisors address resident complaints using historical service information and can more accurately dispatch sweepers as needed. This has led to increased customer satisfaction and more equitable distribution of service across the city. "Routeware SmartCity helps put a smile on the customer's face," Andres mentions, tying this increased satisfaction to timely service that covers all neighborhoods equally. Additionally, by providing photographic evidence of blocked cars, the City has seen a decrease in citizen complaints. Andres projects this will reduce the number of 311 calls related to street sweeping, as there is

> " Now that we have SmartCity, we've been able to see where drivers are and what time they passed certain roads.

ANDRES CARRASCO
Solid Waste Operations Coordinator

greater accountability at the curb, noting, "As soon as I tell a caller I have a picture of their car parked in the street, the caller closes the issue."

Training time

Prior to SmartCity, training new drivers was an arduous process, as the drivers needed to learn the ins and outs of the City and learn how to use the heavy sweeping machinery. Digitized routes and turn-by-turn navigation have streamlined the training process for new drivers, reducing the onboarding time from 2-3 months to just 3 weeks. The City can save over $20,000 per year for every new driver added to the team by continuing to adopt this efficient training process.

Digital weight tickets

Drivers used to manually fill out weight tickets, leading to incomplete data. Drivers can now log material and water fill-up tickets digitally using their phones, providing more accurate data on material usage. This has streamlined the reporting process for supervisors and enabled the department to report on water usage and debris tonnage to the City Council.

Conclusion

The City of El Paso's partnership with Routeware has transformed its street sweeping operations, providing greater efficiency, accountability, and improved service to its residents. The City now has the tools and technology it needs to maintain cleaner streets and ensure a better quality of life for its residents.

To learn more about how SmartCity can help your city maximize resources, optimize routes and become more proactive, visit:

routeware.com/rubicon-smartcity