Operations Performance Data
Fourth Quarter FY 2014

We Move DC:
Tracking DDOT's Progress

Our Vision

The District of Columbia will have a world-class transportation system serving the people who live, work, and visit the city. The transportation system will make the city more livable, sustainable, prosperous, and attractive. It will offer everyone in the District exceptional travel choices.

Service Delivery

One way that we deliver a world-class transportation system is by maintaining and improving our transportation assets – the roads, sidewalks, and alleys that all District residents use every day.

Our Portfolio

The District Department of Transportation's (DDOT) portfolio is large. There are over 1,100 miles of urban streets, 1,600 miles of urban sidewalks, 65 miles of bike lanes, 453 miles of urban alleys, 147,000 street trees and over 300,000 signs that a team of 1,000 DDOT employees works every day to maintain and operate. We also own and operate almost 50 Circulator buses, 2,000 Capital Bikeshare bikes, and 6 streetcars. Our asset inventories continue to grow, and so do our responsibilities to maintain them.

Citizen Input and DDOT's Response

Our goal is to maintain all of our assets, and we rely on resident input through 311 to know when we have cracked sidewalks, when trees need to be pruned, or when there are potholes. Responding to requests is a top priority, even though that some requests – like paving a road or reconstructing an alley could take a year or more. Other requests, like filling a pothole or repairing a streetlight, usually take only a couple of days.

The very first thing that we do when we get a Mayor's 311 Call Center request is to inspect the problem. Even if the work has to be scheduled for the paving season, or conducted when there is sufficient budget, we need to assess the issue.

And through the work that we have done since March, we know that it will cost approximately $28 million to repair all of the sidewalk requests that we have currently received. The budget for sidewalk repair is typically less than $10 million a year, so requests must be prioritized. The same is true for road resurfacing and alley replacement requests.

Tracking Operational Performance

The key to improving performance is to track it. There are limitations: some things we have control over and some things we do not; performance measures are not perfect, tracking systems are problematic, and not everyone agrees on what should be tracked. But the limitations to performance tracking should not prevent the perfect from becoming the enemy of the good.

DDOT has recently reviewed our performance measures and output measures to develop ways to consistently track our performance. Consistent tracking will help us improve the condition of our assets, and it will help inform future budgets by allowing us to show the trends and patterns that have developed.

Tracking our progress is essential for knowing when we are on target or when we need to shift course. That is the spirit in which we present this first quarterly report. We have developed reasonable, consistent measures for all 311 requests. While they are not perfect, they are a place to start. They show how we're performing, allowing DDOT to have a conversation – internally with policy makers, and with the general public – about successes and challenges, and they help us to decide where to direct resources, either process improvements, financial, or otherwise.
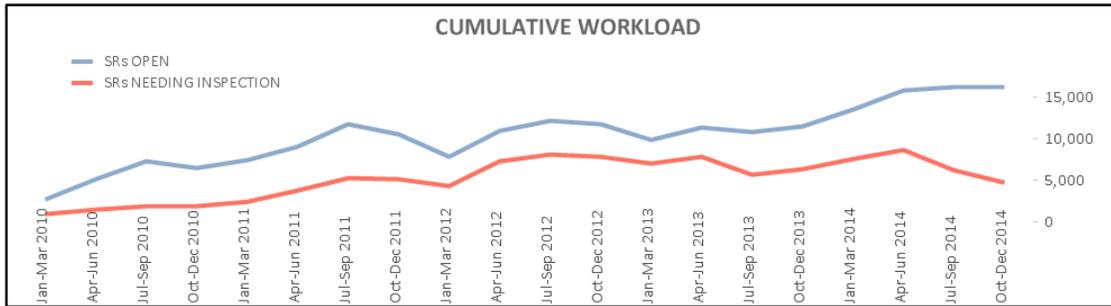
Operations Performance

This report focuses on six specific service areas: streets, alleys, potholes, sidewalks/curbs/gutters, signs and trees. The set of tracking visuals look at the combined effort of all six service areas. In the following pages we have broken out each of the six visuals into unique areas that focus on the same tracking measure. The idea is to see the trends and patterns as a group and then individually so we can better understand the progress. Last, by looking at them individually, we can share processes that have helped some groups or leverage efforts from another group. The group trends and patterns show that we are headed in the right direction and that the changes are making a difference even over a short time span.

The first chart below focuses on tracking inspections over time. Within each quarter we are looking at the service requests that come in, the service requests that have been inspected, and finally, the percent of the total inspected. This is an important measure because the rate of inspection should exceed the rate of intake. The increase in inspection rates provides DDOT the opportunity to address requests first and plan routine repairs accordingly. A great example can be seen with sidewalk requests. Over the last few months, we have more than doubled our inspection rate. This helps DDOT to increase safety at many sites, while more complex repairs are planned until funding becomes available. The infrastructure process is one that really benefits from inspection to identify either a work process to repair or replace what's needed, but also to identify the need for higher levels of funding and longer lead times.
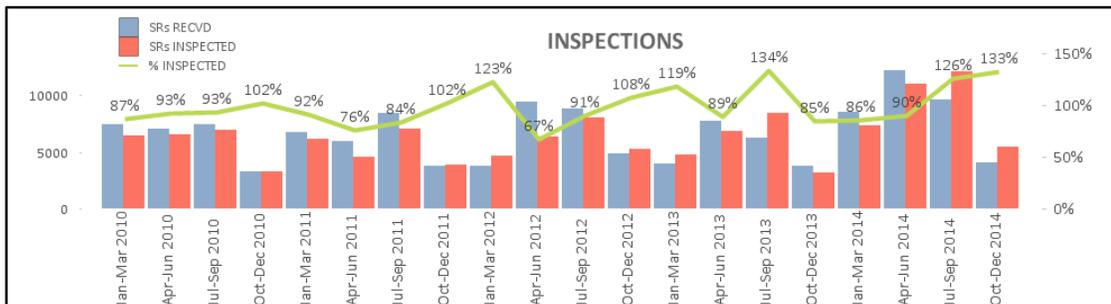
The second chart below focuses on tracking the number of service requests still needing to be inspected. Reducing the number of service requests that need to be inspected greatly improves the service delivery time for the agency. The inspection reveals the work need and allows us to have a greater understanding of the workload that exists out there. It also allows us to perform the quick safety repairs that are identified and schedule work for the routine work. Having a more accurate and active list of work sites allows DDOT to deploy technology, such as GIS, to group work together and reduce travel times for the crews. This technique also allows us to repair a larger portion of the community and create a more unified appearance. This improvement is very evident in street construction requests where there has been a dramatic reduction in the number of service requests in need of inspection. This will better inform the street-paving plan for the year. It also provides the opportunity for DDOT to perform repair techniques such as slurry seal to protect the street if the inspection reveals that this is the best course of action. This reduces costs and extends the life of the street, therefore, allowing DDOT to move funds to streets that have a greater need.

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CUMULATIVE WORKLOAD

SRs OPEN
SRs NEEDING INSPECTION

The final chart below focuses on tracking service requests that are open and closed. This measure is very important because it tracks the performance over time. It also highlights which assets require technical expertise, time and budgeting to fully resolve. This is best seen in the alley construction where a request can require brick, concrete or asphalt that varies greatly in price. Last, alleys can require a very high level of engineering to resolve storm water or drainage issues. DDOT can patch the issues that are of immediate need, but these other issues require additional budgeting or time to program, especially when we have over 450 miles of alleys.

SRs

RECVD
CLOSED
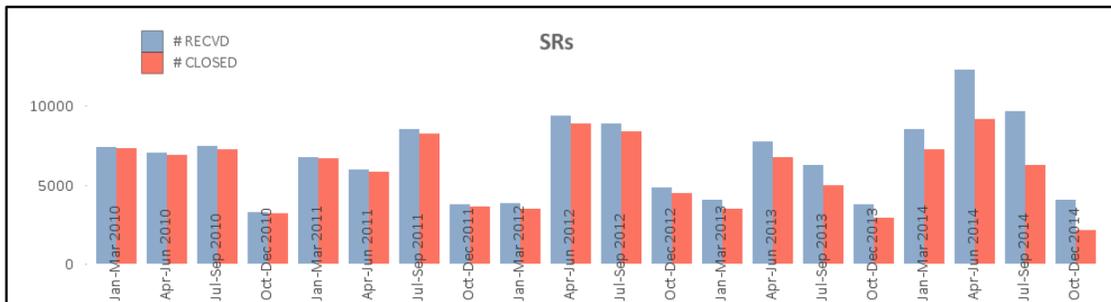
Tracking Outcomes to Move DC forward

In October, DDOT completed the moveDC Plan, our first long-range transportation plan in over 15 years. At the same time, we released a two-year Action Plan that introduced seven key outcome measures tied to our vision and goals that we can report on every year. These outcome measures are included in this report as well, and we will continue to update these measures on an annual basis. We are also beginning to track our progress on the two-year Action Plan and will include updates on those actions in these quarterly reports as well.

DDOT is investing in many areas to enforce the idea how consistent tracking is essential to improvements both now and down the line. DDOT has always been a very early adopter of technology that leads to process improvements. Most recently we have ramped up the use of computers in the field so that staff can collect data only once and use it again later. This process improvement has provided staff the chance to move on to the next request and add records for previous requests that can be referenced later. Other improvements have included training for staff so that they can more effectively use the technology. Training has taken many forms such as course work, cross training across administrations and more specific one-on-one events within DDOT.

Asset Data
Total number of Trees Spaces: 151,561
Total number of Trees: 132,560

PERFORMANCE
Inspections- UFA tracks the monthly service requests coming and inspections going out to ensure on time service delivery.
Workload- UFA inspects service requests year-round, and is able to keep the number of outstanding inspections low. Other activities, like pruning and tree planting, can only be conducted at certain times, and that is why there are spikes in the number of services requests open.
Request – Each year, UFA receives about 1,650 planting, 2,400 pruning, 4,750 inspection and 1,650 removal requests.
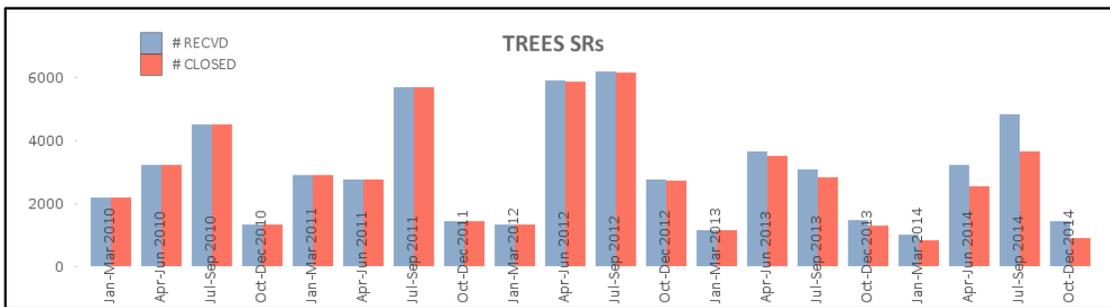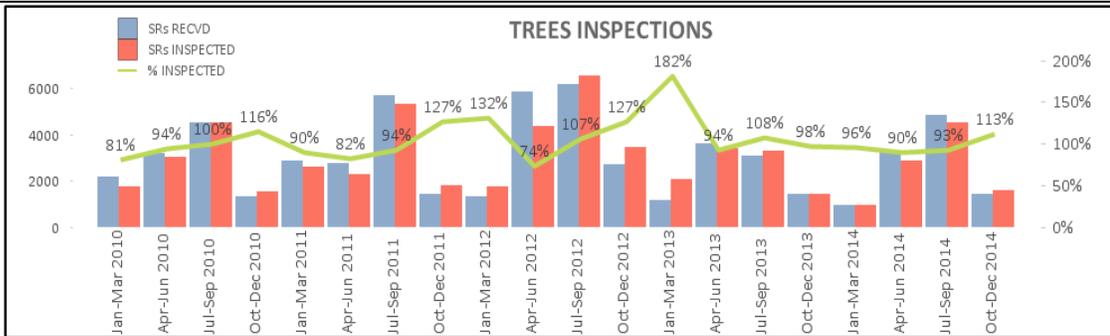
MOVING FORWARD WITH PROCESS IMPROVEMENTS:
1. DDOT continues to deploy new technology like GIS in the field which allows staff to see requests through map interface in real time. These process improvements allow staff to increase productivity whole n the field.
2. DDOT has created a work flow that is a closed loop, so that staff is able to fully close out prior fiscal year service requests so they are always working on the most current requests. This reduces the buildup of requests over time.
3. Seasonal work creates spikes in open service requests but ultimately levels off once that seasonal work is completed and staff can close the request. Planting and American Elm pruning are two examples of seasonal services.
4. UFA staff use electronic tablets in the field to capture the field work in real time that helps or canopy data modeling.

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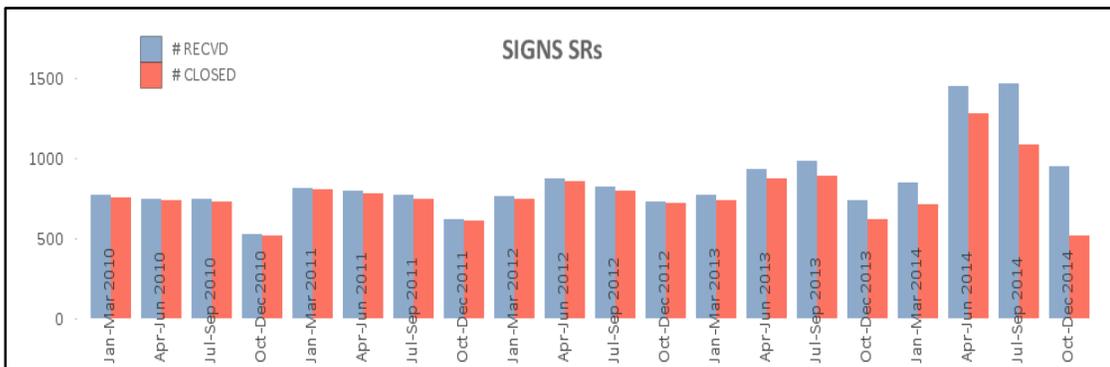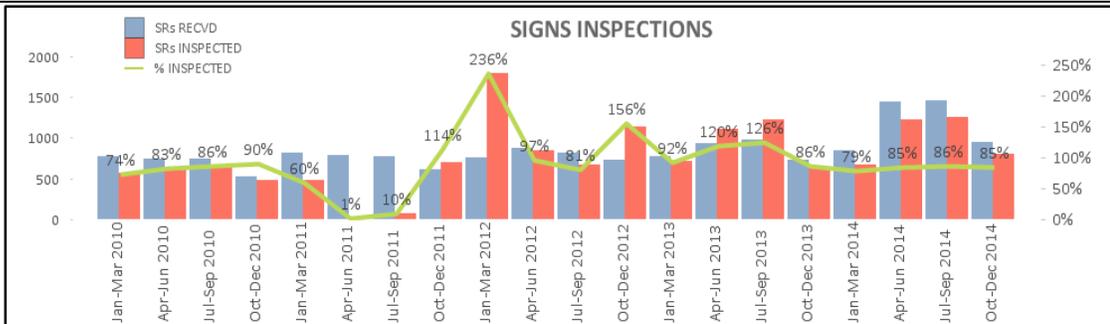
Asset Data
Total Number of Signs: 500,000+
Total number of Service Requests in 2014 (2014 4th QTR): 4,491 (1,460)

PERFORMANCE:
Inspections-DDOT has reassigned staff to assist with process improvements related to signs, which will decrease the inspection timeline and start to close out the existing backlog of sign repair service requests.
Workload- Currently the backlog is mostly new signs where the work flow requires regulatory review and traffic studies to install. This process requires a longer timeframe to close out, such as a new stop sign.
Requests- DDOT receives about 4,500 request per year, most being a request for new or missing signs.

MOVING FORWARD WITH PROCESS IMPROVEMENTS:
1. DDOT is establishing a Sign Pilot now that will include changes to the SOPs, deployment of new technology and streamlining workflows for service requests.
2. DDOT and IT personnel established new problem codes, specifically conflicting signs within the District's 311 system, to track complaints, manage and assign work that leads to the cleanup of many signage issues citywide.

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Asset Data
Total Miles of Sidewalk: 1,600
Total number of Service Requests in 2014 (2014 4th QTR): 3,510 (1,023)

PERFORMANCE:
Inspections - DDOT has drastically increased the overall percentage of service requests inspected the last few months.
Workload - DDOT staff members have reduced the backlog of inspections a series of piloted process improvements, including SOPs, and deploying tablets to inspectors.
Requests - DDOT works to close out requests but are limited by the budget and the growing need for sidewalk repairs citywide. The backlog shown here represents about $27 million of work.
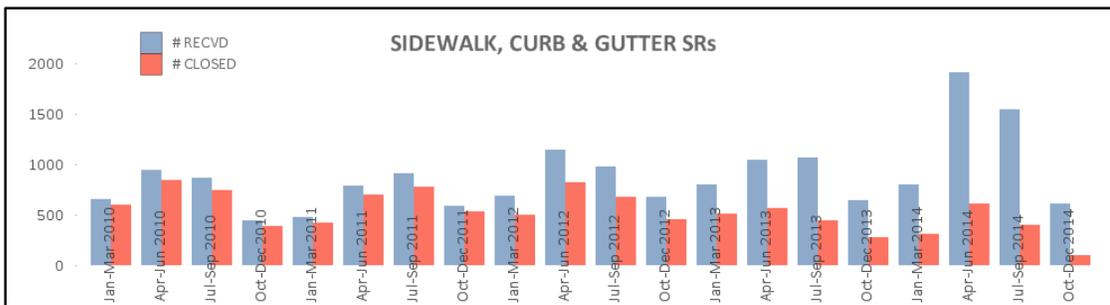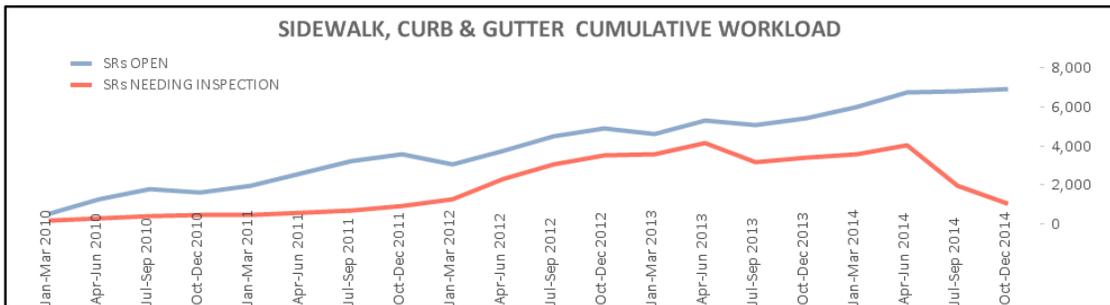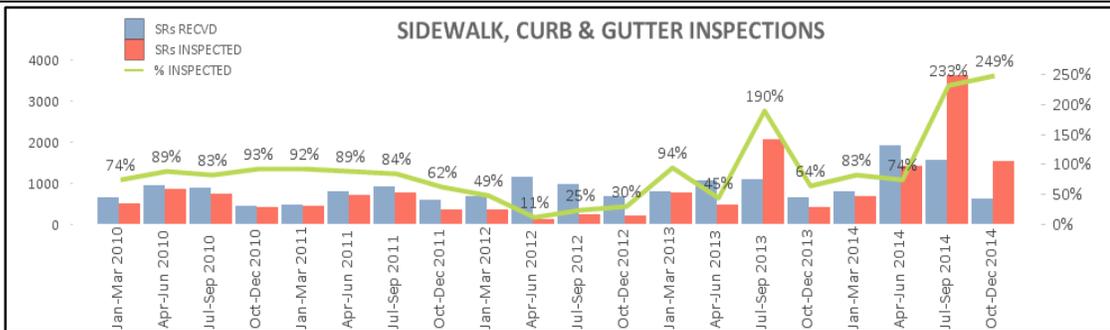
MOVING FORWARD WITH PROCESS IMPROVEMENTS:
1. Sidewalk services were the first pilot and execute new technology (tablets and software), updates standard operating procedures and mapping out improved workflows and capture field data.
2. DDOT researched best practices and has established new contracts for horizontal saw cutting. It allows DDOT to correct trip hazards quickly and are inexpensive, therefore, reducing the potential for claims.
3. A complete sidewalk inventory is in progress and will lay the groundwork for future work plans much like the paving plan does for streets. This process will build a data set that DDOT can leverage in future budget enhancement requests.

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Asset Data
Total Miles of Street: 1,100
Total number of Service Requests in 2014 (2014 4th QTR): 1,446 (425)

PERFORMANCE:
Inspections – Due to recent improvements in work processes, DDOT has seen an increase percentage of requests inspected.
Workload – DDOT has in improved our service request work flow process at the same time performing a "blitz" on the backlog of service requests. Most of the requests are related to local streets were funding is limited due to the lack of federal aid.
Requests - DDOT works to maintain a high PCI rating for all streets but funding determines how many service requests can be closed over time. The work requires high level of management, such as closing streets, work restrictions and weather effects.
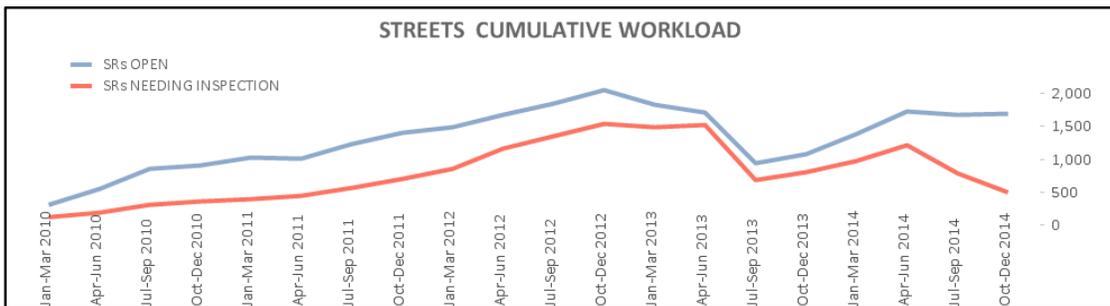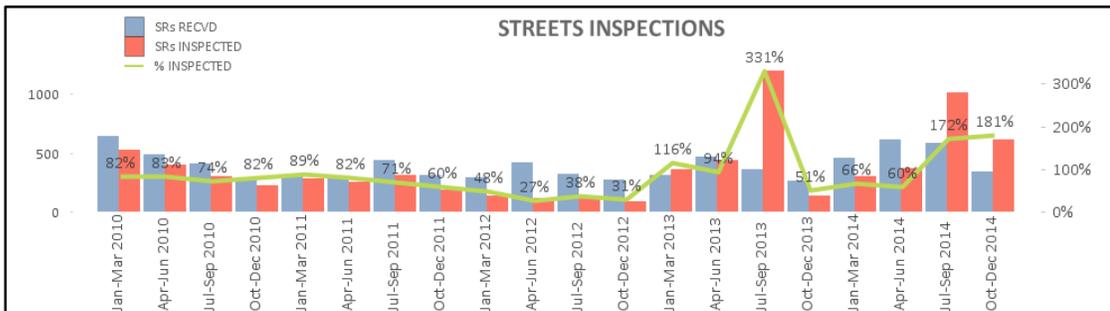
MOVING FORWARD WITH PROCESS IMPROVEMENTS
1. DDOT has applied a formula that weights all the variables for a streets condition and has developed the FY 15 Paving Plan based on this exercise or work process
2. Locally funded streets have the greatest need but also limited funds due to the lack of federal aid participation.
3. The FY 15 Paving Plan will match up service requests that were valid so they can be closed after they are paved.
4. Utility permits that have affected the pavement condition are reviewed to ensure that they are repaired to the standards.
5. DDOT applies slurry seal and crack sealing on many streets to help maintain their good condition and reduce costs.

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Asset Data
Total Miles of Street: 1,100
Total number of Service Requests in 2014 (2014 4th QTR): 10,981 (755)

PERFORMANCE:
Inspections- DDOT manages to maintain a very quick turn around time for inspections even with weather related spikes.
Workload – DDOT experienced an increase in requests in early 2014 that after inspection, it was determined that the damage from the harsh winter required repair to the road base. These repairs are not considered potholes and as street construction.
Requests – DDOT staff are able to complete work orders at a rate that is almost consistent with the quantity of requests.
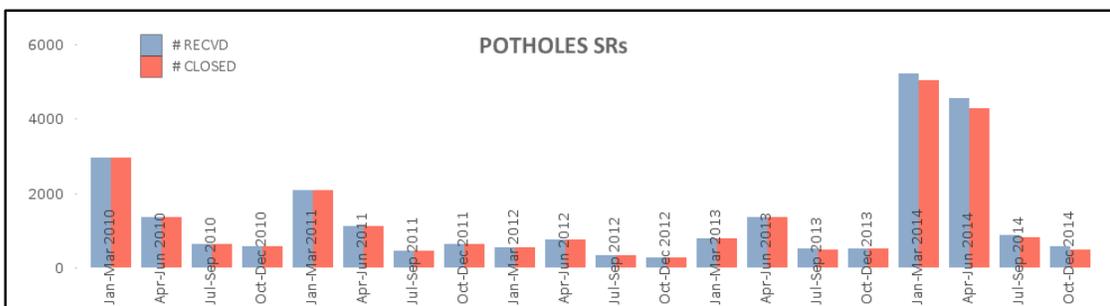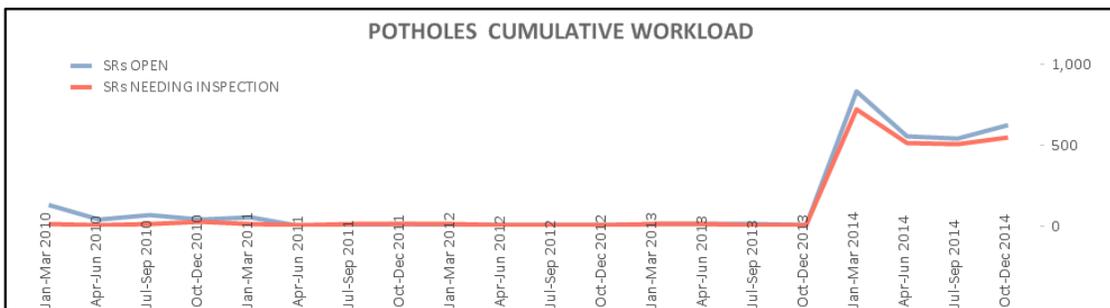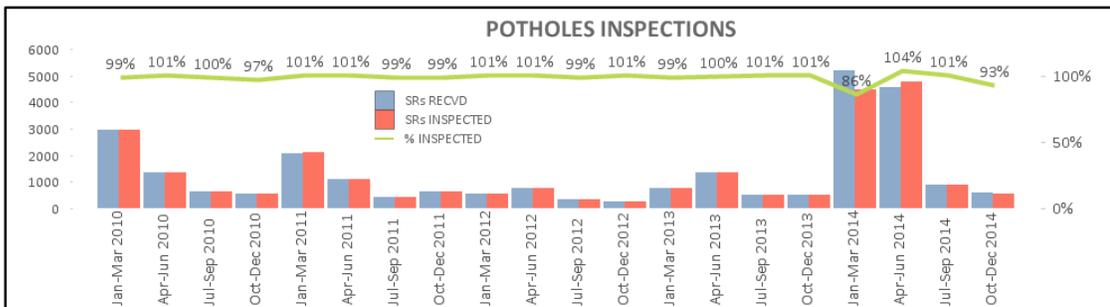
MOVING FORWARD WITH PROCESS IMPROVEMENTS:
1. TOA will continue its annual Pothole Palooza Campaign, a one-month period during which potholes are repaired within 48 hours in contrast to the established performance standard of 72 hours.
2. DDOT will continue to review pothole requests and reclassify those that require a greater level service, such as pavement restoration. This will help ensure that this category includes only those locations that can be successfully addressed by pothole repair.

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Asset Data
Total Miles of Alley: 453
Total number of Service Requests in 2014 (2014 4th QTR): 1,114 (256)

PERFORMANCE:
Inspections - TOA staff members conduct routine and periodic concentrated efforts (blitzes) to investigate service requests.
Workload - TOA staff members conduct inspections in response to an ever-increasing level of service requests.
Requests - Alleys require higher levels of engineering and may have high material costs that extend the timeline for close out.
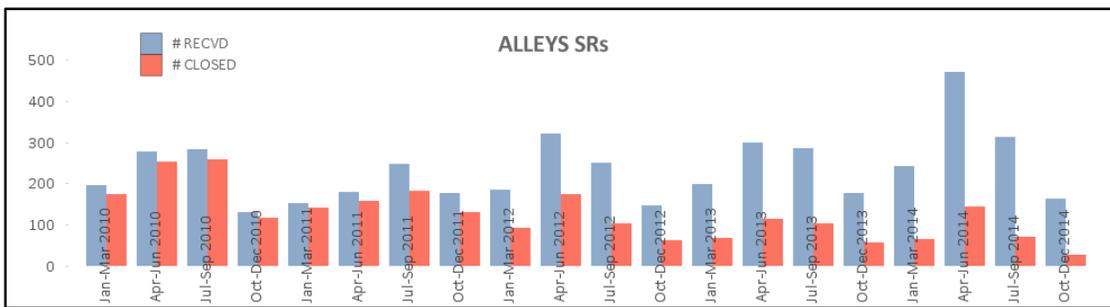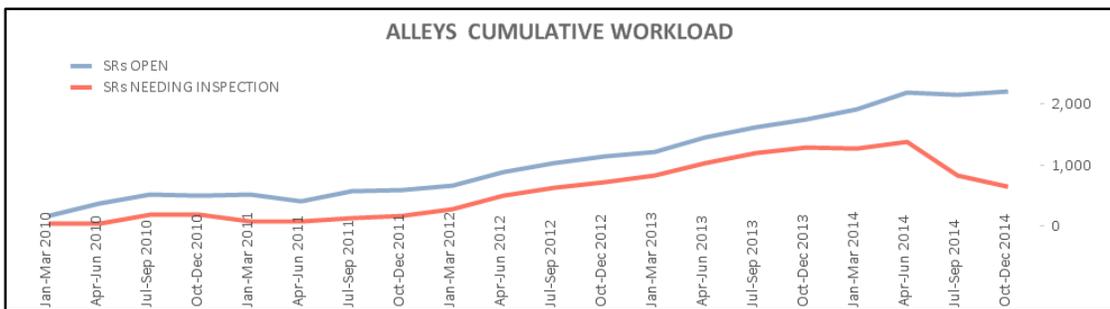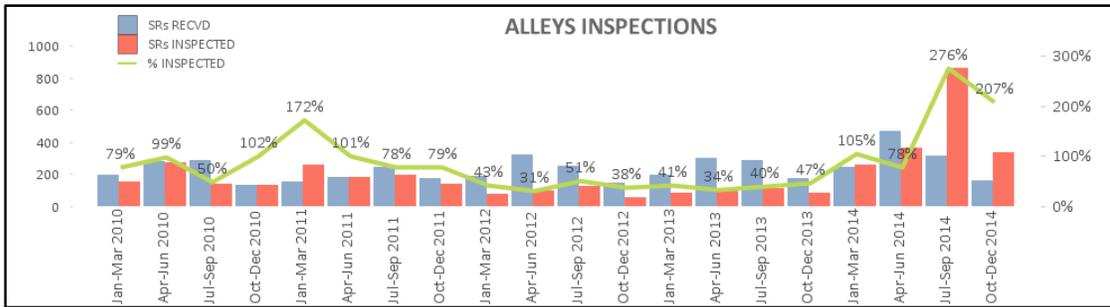
MOVING FORWARD WITH PROCESS IMPROVEMENTS:
1. DDOT is incorporating technology (tablet and smartphone applications) to conduct condition assessments.   This data is used to determine the quantity of needed work to be performed and the associated cost.
2. The backlog related to alleys has been carried for many years due to costs and budget limitations.
3. Alleys are challenging because of the cost of the materials such as brick and the engineering issues related to drainage.
4. DDOT is deploying new ways to manage the alley work such as green alleys that manage storm water and drainage but require higher levels of engineering.