Seattle Department of Transportation

CURBSIDE MANAGEMENT TEAM 2019 ANNUAL REPORT

May 2020

Seattle
Department of Transportation

WELCOME

The Curbside Management team at the Seattle Department of Transportation (SDOT) is responsible for planning, managing, operating, and maintaining the city's curbspace (including parking) to help achieve a number of mobility, access and sustainability goals for the city.

Welcome to our team's annual report!

We are revamping how we communicate our team's work, and will be using three tools over the next few years:

1. **Curbside Management Policy Report** that will articulate SDOT's curbside management policies and explain how we make decisions. We will complete the first version of this report towards the end of 2020 and will update it periodically as policies change.
2. **Paid Parking Study Report** that summarizes the results of our annual study and suggests potential changes to paid parking rates and hours to make it easier to find parking.
3. **Curbside Management Team Annual Report**, this document, that summarizes:
   - Our team's responsibilities
   - Accomplishments in the past year
   - Our performance

These three documents are intended to work together to:
- Give a more comprehensive and transparent view into our work
- Communicate the policies and practices we use to make decisions about managing curbspace
- Explain changes to paid parking and evaluate how well they help us meet our goals for well-managed curbspace
- Describe projects we completed and plans for the future

WHAT WE DO

OUR PURPOSE

Our team manages the city's finite amount of curbspace to provide reliable access for people who live, work, and play in Seattle.

DECISION-MAKING

When making curbside management decisions, we consider various and often competing demands for the curb, whether from transit riders, business owners, drivers, residents, shared vehicles, ride hail, those making deliveries, or others. Our decisions about how to manage the curbspace are informed by data and intended to help SDOT achieve its broader goals for mobility, sustainability, safety, equity, livability, and excellence.

PRIORITIZATION

As demands grow for the finite amount of curbspace where so much activity happens, "finding a balance" between different demands is no longer sufficient. Rather, we must systematically prioritize different curb activities for different land uses whether residential, commercial, mixed use, or industrial. These priorities are summarized in the City's Comprehensive Plan, and SDOT intends to elaborate those into more specific guidelines in the Curbside Management Policy Report.

AUTHORITY

One important context about curbside management is whether any kind of vehicle parking, stopping or standing is allowed. The Transportation Operations Division (TOD) makes decisions about the overall use of streets and other public right of way, including whether parking or loading spaces are allowed along the curb at all. Generally, TOD staff decide whether vehicles are allowed to "park" and the Curbside Management Team makes decisions about the type of curb regulations to install and maintain.

What is curbside management?

By "curbside" we mean all of the curb frontage on a block. The curbside can be made up of individual curbspaces with different regulations. Our team uses various tools and strategies to manage demand for Seattle's finite and valuable curbside.

OUR PERFORMANCE-BASED APPROACH TO CURBSIDE MANAGEMENT

We strive to be as rules-based and data-driven as possible so our programs can be more consistent and effective.

People often drive to get around in Seattle. Whether for trips made by car, for pick ups, ride hail, or deliveries, it is crucial that we provide reliable access at the curb. This reduces how much time drivers spend circling, which provides other important benefits:
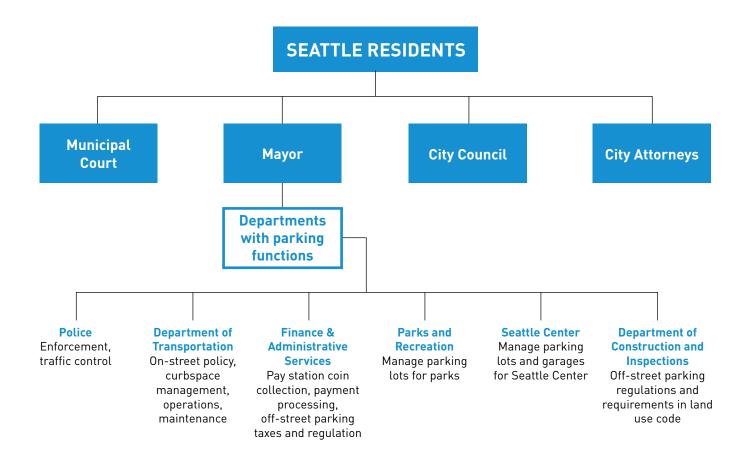
- **Reduces congestion** – Drivers circling for parking contribute to congestion
- **Speeds transit** – Less congestion means faster and more reliable public transit
- **Decreases greenhouse gas emissions** – Less circling means fewer emissions
- **Saves people time** – Time spent looking for parking is wasteful
- **Improves safety for pedestrians and cyclists** – Drivers circling for parking are distracted drivers
- **Enhances access** – People can more reliably park close to their destination
- **Improves neighborhood commercial vitality** – People and businesses can more reliably access commercial and retail areas

Managing demand for parking benefits everyone, even those who do not drive.

At present, the primary way we use data to actively manage the curbside is for paid parking. In paid parking areas, we find the lowest hourly rate that leaves at least one parking space available on each block throughout the day. We also use data when evaluating community requests to create or expand Restricted Parking Zones (RPZs), specifically, whether an RPZ will help reduce all-day commuter parking in residential areas near hospitals, universities, light rail stations, and neighborhood business districts. In the future, we will continue to explore how to use data to more actively and effectively manage curbspace for other uses, such as commercial loading zones, passenger loading zones, and in existing RPZ areas.
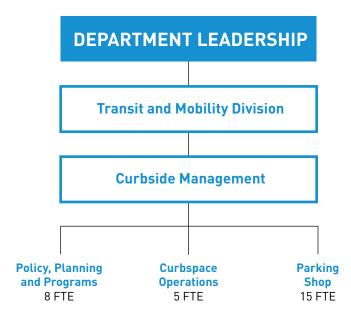
HOW WE FIT INTO CITY GOVERNMENT

Our team is within the Seattle Department of Transportation, one of several departments that work on policy, finance, operations and regulation of on- and off-street parking. The following chart summarizes which city department handles the various parking related business functions.

SEATTLE RESIDENTS

Municipal Court

Mayor

City Council

City Attorneys

Departments with parking functions

Police
Enforcement, traffic control

Department of Transportation
On-street policy, curbspace management, operations, maintenance

Finance & Administrative Services
Pay station coin collection, payment processing, off-street parking taxes and regulation

Parks and Recreation
Manage parking lots for parks

Seattle Center
Manage parking lots and garages for Seattle Center

Department of Construction and Inspections
Off-street parking regulations and requirements in land use code

OUR TEAM

The following chart summarizes our team's responsibilities and how we fit within SDOT.

DEPARTMENT LEADERSHIP

Transit and Mobility Division

Curbside Management

Policy, Planning and Programs
8 FTE

Curbspace Operations
5 FTE

Parking Shop
15 FTE

CURBSIDE MANAGEMENT TEAM RESPONSIBILITIES

- **Policy, Planning, and Programs**
  - **Paid parking** – Manage the performance based pricing program, including data collection and analysis, to make it easier to find parking in commercial areas
  - **Payment methods** – Implement and manage ways to pay (e.g., pay stations, pay by phone)
  - **Commercial vehicle permitting** – Manage policy around permits for commercial vehicles that allow them to use commercial loading zones
  - **Restricted parking zone (RPZ)** – Manage the RPZ program, to reduce all-day commuter parking in residential areas near hospitals, universities, light rail stations, and neighborhood business districts
  - **Transit & mobility capital projects** – Work with teams in SDOT to consider how their projects will affect the curbside and update the area's curbside management
  - **Community access and parking program** – Review curbside management with stakeholders in several neighborhoods each year to improve access
  - **Carshare** – Manage policy and operations for SDOT's free floating and designated space carsharing programs
- **Curbspace Operations**
  - **Curbspace management** – Make decisions about where and when to manage the curb for disabled access, commercial loading, shuttle zones, passenger pick up and drops offs and other various curb zones.
  - **Write work orders** – Communicate to the Parking Shop what changes to make on the street
  - **Sign design** – Design all curbspace signage
  - **Customer service** – Respond to customer requests for new and replaced signs
  - **Plan reviews** – Review development proposals from the curbside management and operations perspective
- **Parking Shop**
  - **Install and remove infrastructure** – Install, remove, or relocate signs and pay stations
  - **Pay stations operations and maintenance** – Maintain pay stations in working condition and address graffiti and vandalism
  - **Programming** – Implement updated pay station programing to adjust rates, hours of operations
  - **Temporary space reservation** – Install temporary signs in paid areas to restrict parking to allow for temporary uses such as construction
  - **On-street carpool program** – Manage permit program that allows carpools and vanpools to park on-street in designated areas
  - **Customer service** – Provide customer service support for all paid parking inquiries
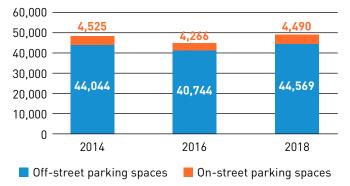
CONTEXT

Our team manages demand for a finite supply of curbspace. As Seattle has grown and evolved over the last 10 years, so has demand for that curbspace.

- According to the state Office of Financial Management (OFM), **Seattle's population increased approximately 20% between 2010 and 2018**, adding about 61,000 new residents to our city.
- According to the Puget Sound Regional Council (PSRC), the number of **jobs in the City of Seattle increased by 18%** between 2010 and 2016 – about 84,743 jobs.

Another factor in prioritizing curbspace for access is the amount of off-street public parking. Every two years since 2014, SDOT has collected data about publicly-available parking supply in the greater downtown area.

- Over the past few years, on-street parking has accounted for **approximately 9% of publicly accessible parking** in downtown Seattle neighborhoods (Belltown, Commercial Core, Chinatown/ID, Denny Triangle, and Pioneer Square).

Approximate On- and Off-Street Parking Supply in Downtown Seattle, 2014 - 2018

Off-street parking spaces On-street parking spaces

Loading – for both goods and passengers – is another important demand on the finite supply of curbspace. The delivery of goods is a key part of success for small and large businesses throughout the City, especially in the downtown core where curbspace is most in demand. In 2019, we began working to better track commercial and passenger load zones in downtown to proactively maintain loading access.

ACCOMPLISHMENTS

This section summarizes some of what we accomplished in 2019.

CURBSPACE OPERATIONS

Curbspace changes
- Created approximately 5,900 work orders, or detailed instructions, for our crews to install signs. Examples of this work include: disabled access, commercial loading, shuttle zones, passenger pick up and drops offs, time-limited parking and other various curbspace uses.

Plan review
- Reviewed and commented on over 300 design plans associated with capital projects (like bike and transit facilities) and private construction that would likely affect the curbside.

Construction-related parking changes
- Removed, installed, relocated pay stations and/or parking signs on behalf of 74 projects in coordination with contractors for work on individual projects. These are for longer-term temporary parking removal in paid parking areas generally due to larger construction projects.

Temporary No Parking Zones
- Launched temporary no parking zones in the Accela online portal so that people can apply for their temporary no parking zones (e.g., for construction, moving vans, etc.) online
- Fulfilled 3,160 requests May - December 2019:
    - 1,541 installations
    - 1,619 removals

Implemented pay by plate for all paid parking
- Upgraded pay stations with new "Pay by Plate" technology for an improved customer experience. Pay by Plate does not require customers to return to their vehicle to put a receipt in the window after paying.
- Consolidated transactions into a single plate-based back office for more efficient enforcement and to set up SDOT for future moves to virtual permitting.

Parking shop

2019 Parking Shop Accomplishments	
Customer service inquiries addressed	9,363
Pay station service orders	9,309
Pay station graffiti abatement work orders	3,942
Curbspace operations work order requests	519
Meter reservation requests	3,160

Right-of-way (ROW) violation reviews
- Sent approximately 75 ROW violation notices to individuals posting improper signage, typically signs posted by private individuals to illegally restrict access to public space.

Significant projects
- Supported installation of protected bike lanes by coordinating curbspace changes (specifically on 8th Ave , 9th Ave N, South End Connection, Pike St, Dexter Ave N sections, Avalon Way Project, and Key Arena temporary protected bike lane)

- Alternately installed, removed, and reinstalled 17 pay stations near the Alaskan Way viaduct through the changing demolition conditions
- Relocated approximately 20 load zones in one weekend for the Pioneer Square areaways project
- Updated curbspace to accommodate King County Metro service changes and bus layover (specifically on Cedar St and Clay St)
- Supported Red Bus Lane project on Olive Way
- Supported Elliott Ave Metro business access and transit (BAT) lane for peak service revisions & curbspace needs related to Expedia
- Completed sign installation and removal for Microsoft Employer Shuttle Stops and Waterfront Shuttle Stops

POLICY, PLANNING, AND PROGRAMS
Car share operations
- Managed operations for SDOT's free floating and designated space carsharing programs, with a peak of 1,938 permitted free floating car share vehicles and 113 dedicated on-street spaces
- Revised free-floating car share permit fees and updated data sharing requirements
- Fielded a survey about new and emerging mobility options and how people use them, including car share and other shared mobility services, with a total of 2,854 responses

Community Access & Parking Program
- Conducted intercept surveys in the Fremont, Greenwood, and Wallingford neighborhood business districts to learn more about how people get to and from those areas, how long they visit and other similar information
- Completed a neighborhood check-in with Othello, sharing data with neighborhood stakeholders and implementing improvements to parking and curb management in the area

- Signed a Letter of Agreement with Sound Transit for upcoming work around the Northgate Link Extension station areas, and a contract with a consultant to conduct parking studies
- Completed a Racial Equity Toolkit (RET) for the Community Access & Parking Program

Paid parking annual study and rate changes
- Completed annual data collection on approximately 1,500 individual blockfaces to inform updated, demand-based rates implemented in January 2020. This resulted in 45 updated rates by area and/or time of day.
- Adopted a new and improved configuration system for updating rates at pay stations
- Reconvened the Curbspace Access Sounding Board to continue conversations with neighborhood stakeholders about our curbspace policies

Data analytics partnerships
- Contracted with Coord, a software technology company located in New York City, to better communicate and visualize curbspace data analytics, including access to the Coord API which communicates regulations by time or across time for a specific area
- Participated in an Innovation Advisory Council project. This is a Mayor's Office advisory group of Seattle-based technology companies offering resources to support City departments to co-develop technology solutions. SDOT's Parking Availability Prediction Model Building was selected.

Pay by phone promotion

- Installed new, easier to read Pay by Phone signs on all paid parking blocks
- Reached 50% of transactions completed with Pay by Phone in December 2019. We started the year at 35%, so saw remarkable growth in 2019
- Ran ads in 24 outlets plus SDOT Facebook and Twitter as part of our public outreach and marketing campaign to grow pay by phone use

RPZ program

- Created/expanded RPZs in Wallingford and West Seattle in response to neighborhood requests. This work included significant data collection and outreach and engagement with these communities.
- Completed two RPZ studies in the Uptown and East Capitol Hill neighborhoods
- Assisted residents in adding eleven individual blocks to various RPZs by petition process

Data management

- Completed the paid parking occupancy database to more reliably and accurately record all paid parking transactions
- Completed the RPZ permit database to more reliably and accurately track the number of RPZ permits sold and the amount of RPZ permit revenue collected

Urban goods delivery

- Goods Morning Delivery – In January 2019, SDOT installed 5 blockfaces of Commercial Vehicle Loading Zone (CVLZ) parking from 6 am to 11 am to provide more reliable package and goods delivery during the Seattle Squeeze (Alaskan Way Viaduct closure)
- Belltown Commercial Loading Technology Project – With the UW Urban Freight Lab, who have a US Department of Energy grant, staff launched a project to install vehicle detection sensors in commercial vehicle loading zones and common carrier package lockers in nearby private property, all to test new technology to improve delivery efficiency.

- University of Washington Urban Freight Lab – The Curbside Management team continued to strengthen our working relationship with the Urban Freight Lab, made up of UW Supply Logistics Center staff and students, major freight goods delivery industrial leaders such as PepsiCo and Kroger and other freight delivery and technology businesses

Ride hail pilot project

- SDOT partnered with the Seattle Police Department (SPD), the Office of Film and Music, Uber, Lyft, and Capitol Hill business and community organizations to develop and implement a new late-night ride hail pickup pilot program called Catch Your Ride.
- The project has been successful in improving circulation during late night hours in Capitol Hill. SPD says their ability to patrol and respond in the area is improved, and that crowds are dispersing more quickly and with fewer disturbances.

Shared mobility hubs

- Installed curbspace changes at four locations to support the smooth transition of modes at key locations, including passenger loading, car share parking, and bike parking
- Installed mobility hub improvements at Seacrest Dock and Othello Station for the Seattle Squeeze

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Awards and Milestones
International Parking & Mobility Institute (IPMI) Parking Professional of the Year

- Mike Estey, Manager of the Curbside Management Team was named Parking Professional of the Year by IPMI

PERFORMANCE

We use a data-driven approach to inform curbside management decisions and to enable us to monitor performance – how well our policies, programs, and operations help to achieve our goals.
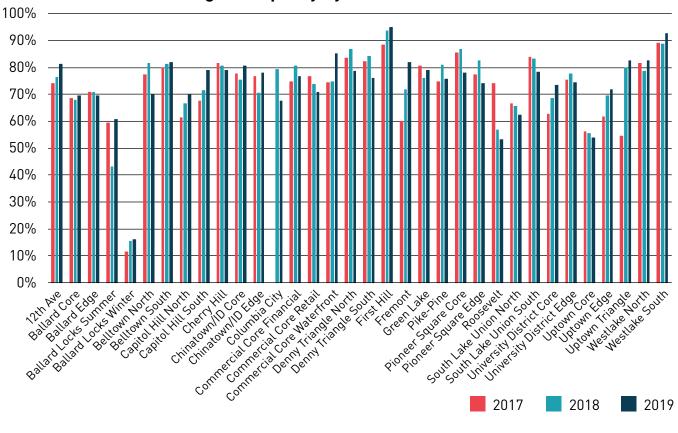
Data and measures are not available for every aspect of curbside management or our operations. In the future we will continue to improve and expand the metrics we use to measure more of what our team does.

This section summarizes high level measures of how well we have achieved our goals for curbside management.

AVAILABILITY – PAID PARKING

In commercial areas we use occupancy data to find the lowest hourly rate that leaves at least one parking space available on every block so that drivers can quickly find a space.

The bottom-line measure of our performance is the average level of availability – in other words, on average, whether drivers would be able to find a parking space. This graph shows our performance since 2017.
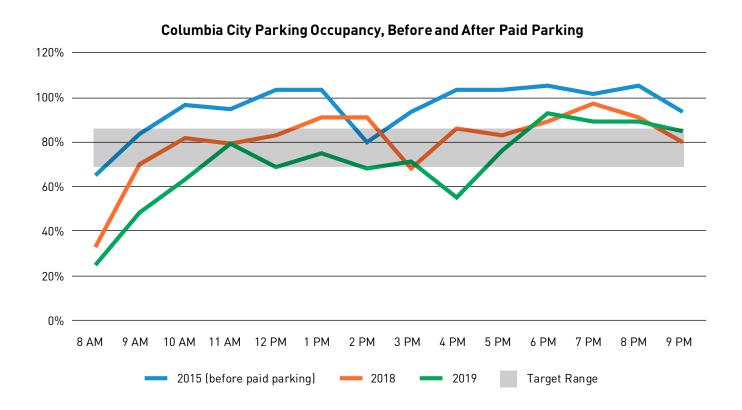
Average Occupancy by Paid Area 2017-2019

Using occupancy data to make it easier to park
To make it easier to find parking, we also use data to determine where to expand the use of paid parking as a curbside management tool, as well as when to expand the use of paid parking later into the evening.

The following case study shows how expanding where we use paid parking increases minimum availability.

SDOT installed new paid parking, load zones, disabled parking, unpaid time limits, and restricted parking zone spaces in Columbia City in late 2017 following a two-year data collection and outreach effort.

Overall, data collected in 2018 and 2019 show that conversion to paid parking has led to improved parking availability. Prior to implementation, parking on commercial streets in Columbia City was completely full for much of the day. Following implementation of paid parking, parking is still well utilized, but drivers are much more likely to find a space.

Columbia City Parking Occupancy, Before and After Paid Parking

Legend: 2015 (before paid parking) — 2018 — 2019 — Target Range

AVAILABILITY – PAYMENT COMPLIANCE RATE

The Seattle Police Department enforces paid parking regulations but SDOT tracks performance in this area because the level of enforcement influences the rate of payment (also known as payment compliance, the percentage of occupied hours that are paid for) and therefore the effectiveness of paid parking. In other words, a lower payment rate means pricing is less effective in creating a minimum level of availability.

VEHICLES EXEMPT FROM PAYMENT

When considering payment compliance data, it is important to remember that some non-compliance is expected because of disabled placards (vehicles with disabled placards do not need to pay), government vehicles, inoperable pay stations, and in some areas, RPZ permit holder exemptions from payment.

We have been tracking payment rates in two neighborhoods: Cherry Hill and First Hill. Parking availability in Cherry Hill is disproportionately affected by a small number of vehicles that park all day using disabled permits, which makes access difficult for all users.

The First Hill paid parking area also has a large percentage of vehicles parked with disabled permits. In addition, almost half of the paid parking spaces allow Restricted Parking Zone (RPZ) 7 and 21 permit holders to park for up to 72 hours without observing the posted time limit or paying the posted rate. Parking occupancy in these RPZ/paid areas is consistently at or above 100% for all observed hours, with most spaces occupied by RPZ permit vehicles.

The Curbside Management Team continued to track disabled placard and RPZ permit use in Cherry Hill and First Hill in 2019. The Curbside Management Team is planning to explore additional strategies in the coming years to improve turn-over and access in these neighborhoods.

	2014	2015	2016	2017	2018	2019
Average occupancy at mid-day peak hours	88%	93%	98%	98%	92%	91%
Percent of DP vehicles at mid-day peak hours	72%	62%	74%	71%	75%	67%
Rate in effect during data collection	$1.50	$1.50	$2.00	$2.50	$3.00	$3.00

Table above shows Cherry Hill parking occupancy and percent of vehicles exempt from paying the posted rate due to disabled placards.

AVAILABILITY – COMMERCIAL LOADING ZONES

At present SDOT does not have a performance-based approach for managing demand at commercial loading zones or data we could use. We are investigating how to:

- Clarify our goals, policies, and approach for managing demand at commercial loading zones to increase availability, including data sources and metrics.
- Improve the supply of loading zones, in terms of their number, location, size, and placement.

- Improve the process and guidelines for adding and siting loading zones – at present, they are installed at the request of a property owner, so SDOT is investigating the possibility of installing loading zones more proactively.

AVAILABILITY – PASSENGER LOADING ZONES

At present SDOT does not have a performance-based approach for managing demand at passenger loading zones or data we could use. In the future we plan to clarify our goals, policies, approach, and measures for managing demand at passenger loading zones to increase availability, as well as to improve the supply (i.e., number, location, size, and placement of these zones).

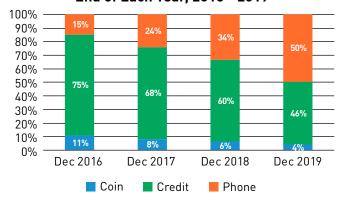## AVAILABILITY – RESTRICTED PARKING ZONES (RPZS)

At present SDOT does not have a performance-based approach for managing demand in RPZ areas, whether demand from residents (i.e., the number of permits sold) or demand from non-residents.

SDOT is working to explore strategies to manage demand from residents by proposing changes to the RPZ permit fee to address zones in which permit demand far exceeds on-street parking supply. The goal is to better manage access to neighborhoods by moving to a data-driven, outcome- and performance-based system for setting RPZ permit fees, similar to the current Performance-Based Parking Pricing Program and related annual parking rate changes. Net new revenues from permit fee changes in high demand zones could then be used to invest in mobility and access improvements to incentivize residents in RPZs to use transit and shared mobility alternatives and ultimately reduce dependence on car ownership.

OPERATIONAL EFFICIENCY – REDUCING TRANSACTION COSTS

Our team considers how to increase the convenience of paying for parking, and how to reduce transaction costs to increase the financial efficiency of the paid parking program.

One strategy is to increase the percent of payments that are made via the pay by phone system. From January to December 2019, parking payments made by phone went from 34% to 50% of all paid transactions, far exceeding our 5% target increase.

Percent of Transactions by Type, End of Each Year, 2016 - 2019

	Coin	Credit	Phone
Dec 2016	11%	75%	15%
Dec 2017	8%	68%	24%
Dec 2018	6%	60%	34%
Dec 2019	4%	46%	50%

OPERATIONAL EFFICIENCY – RESPONSE TIME FOR PAY STATION GRAFFITI

Quickly abating, or cleaning, reported graffiti on our pay stations is an important customer service metric. In 2019, 98% of reported graffiti was abated within 6 business days.

	2017	2018	2019
Total pay station graffiti abatement work orders	2,472	3,808	4,040
Percentage of graffiti abated within 6 business days	99%	99%	98%

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