

The Evolution of Digital ROW Management Tools

TexITE

2024-04-03



A brief history of new mobility management

2007: first iPhone released; 2011: Uber launches service in SF



A brief history of new mobility management

Pre-emption* with mixed results

Uber

lyft

State Governments

Local Governments

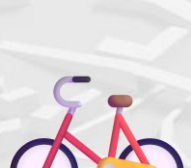
Excuse me?

*with some exceptions

INRIX

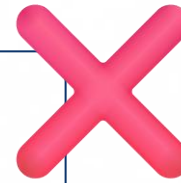
A brief history of new mobility management

2014 to 2017: dockless micromobility launches in China and US



A brief history of new mobility management

Some key differences with micromobility



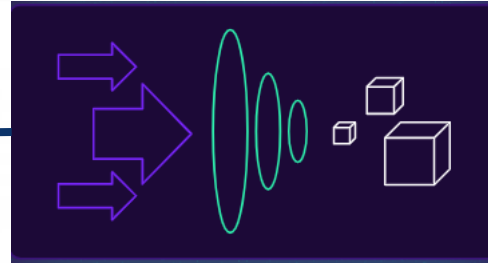
State Governments

Local Governments

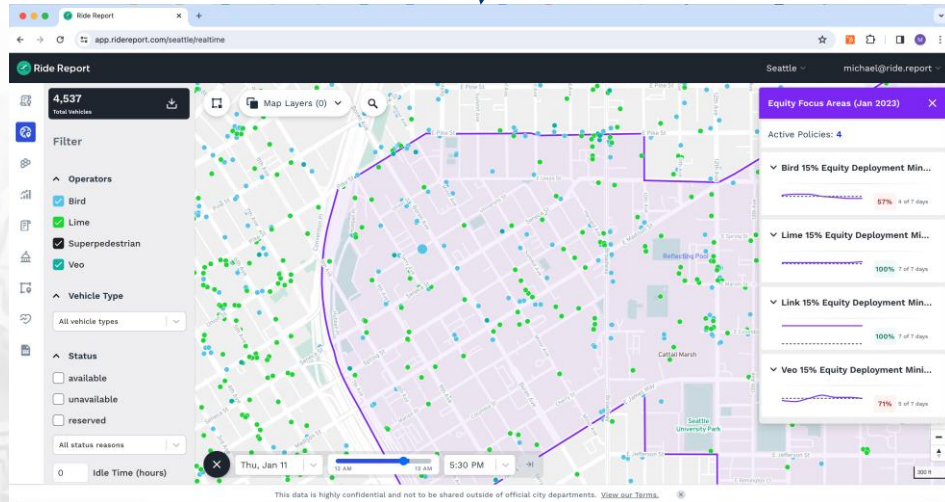


A brief history of new mobility management

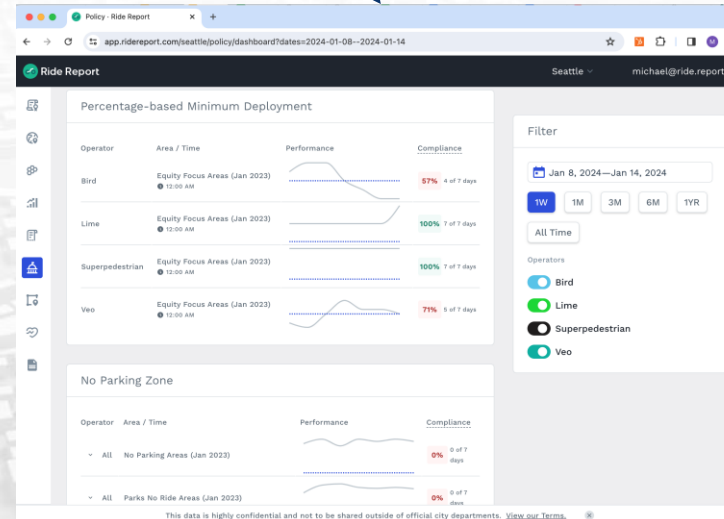
2019-2021: Digital management and data sharing leap forward: a practice round with micromobility



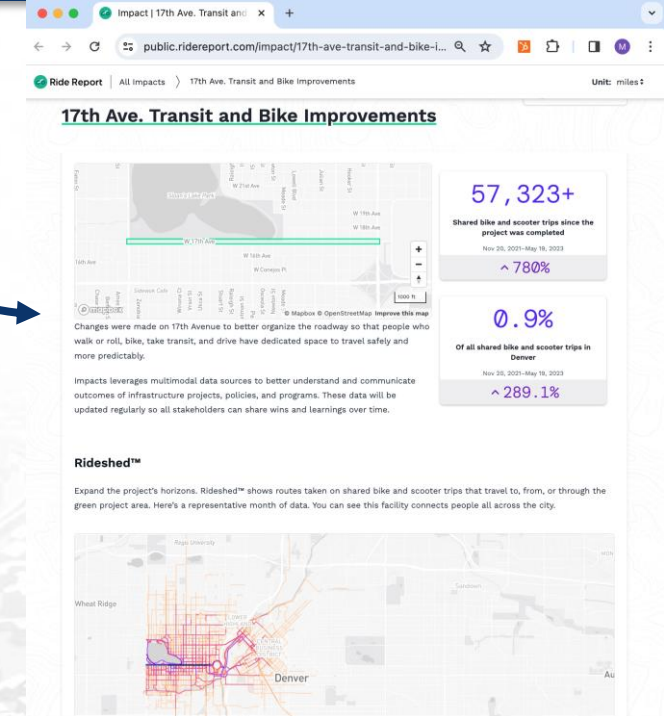
Mobility data ingestion engine



Shared mobility management
(government agencies)



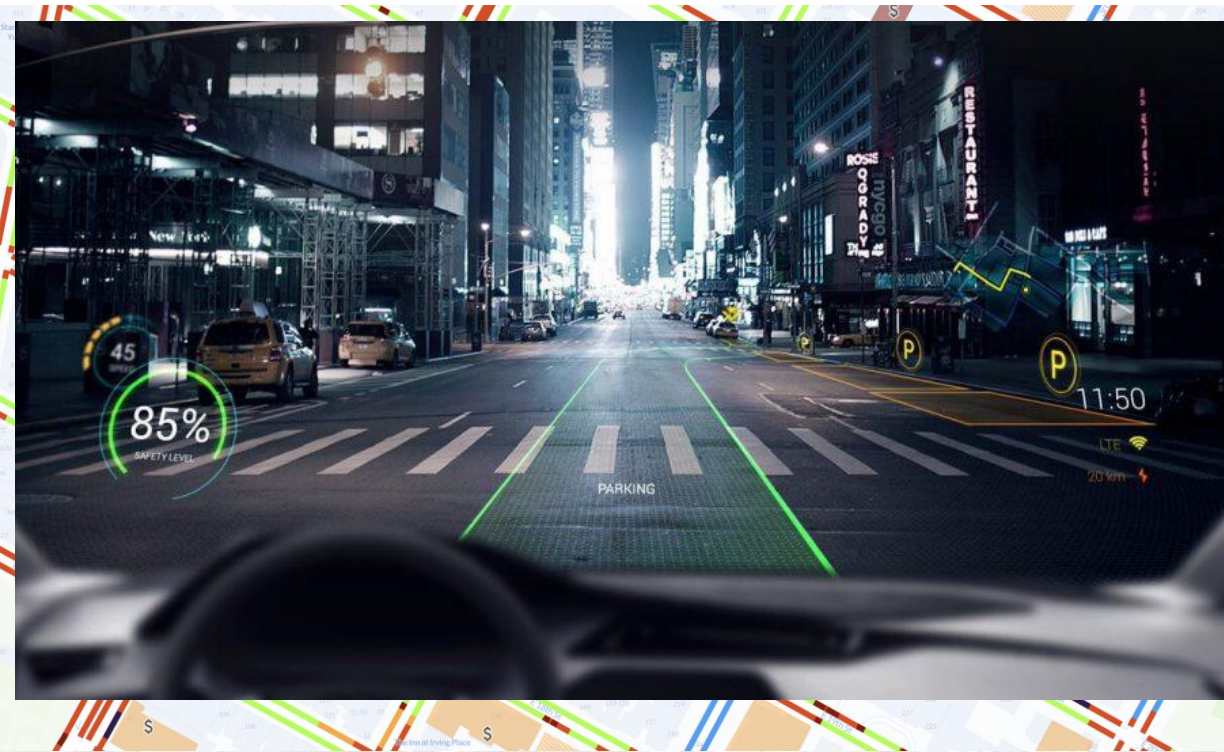
Operational compliance
(operators)



Public benchmarking
(planning, research,
advocacy)

A brief history of new mobility management

2022-2023: Standards, tools, and ecosystem continue to develop for the curb

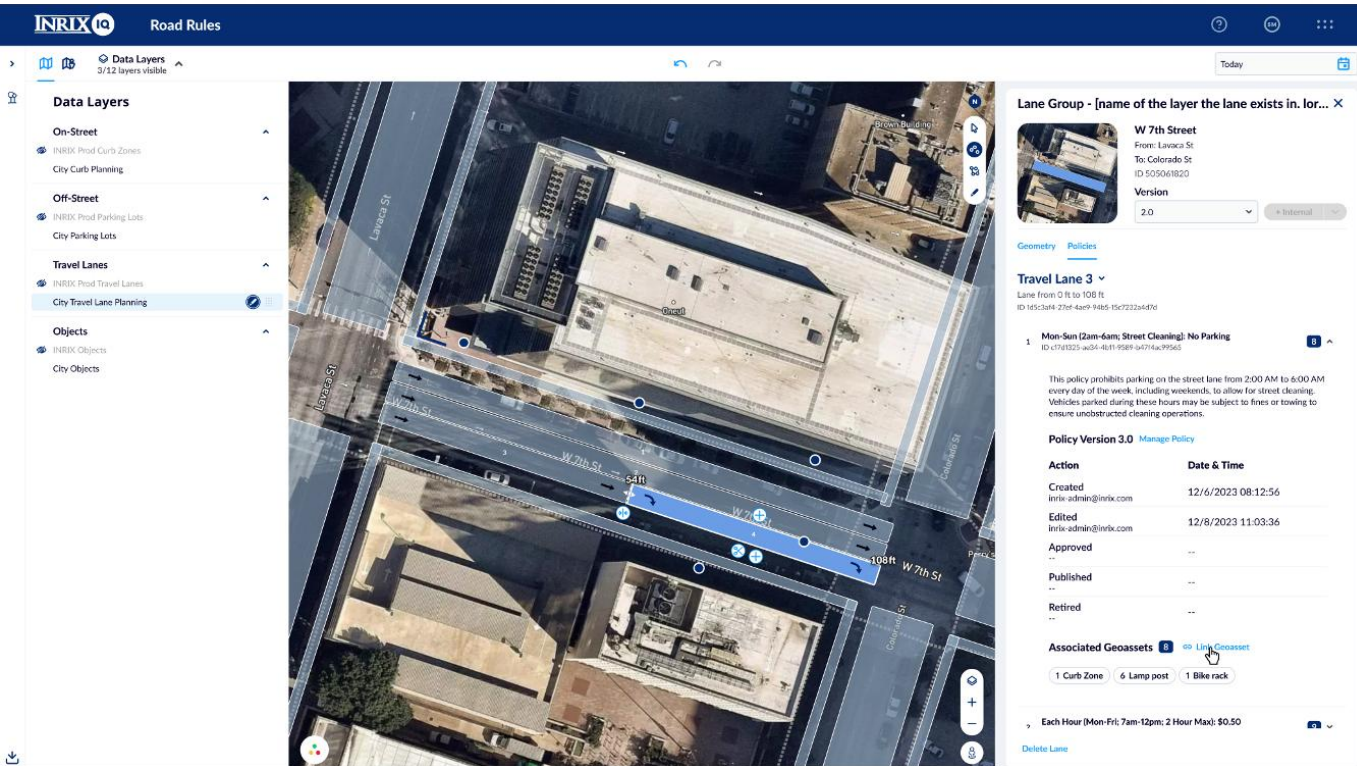


INRIX parking data optimized for next generation enterprise and OEM needs:

- Autonomous vehicles
- Augmented reality
- Voice Assisted Parking
- Automated Payment & Alerting

A brief history of new mobility management

2024: SMART grants begin; standards and tools for the full right of way



THE SMART CURB
COLLABORATIVE

A brief history of new mobility management

2025: Key SMART takeaway is needing compelling offering for enterprise stakeholders to ingest data



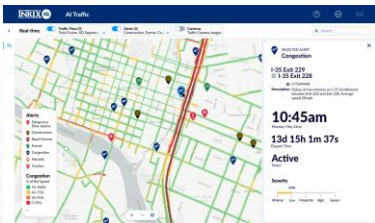
INRIX City Solutions

The Power of 20 Years of Technology Tailored to Support Agencies at the Local Level

Road Management

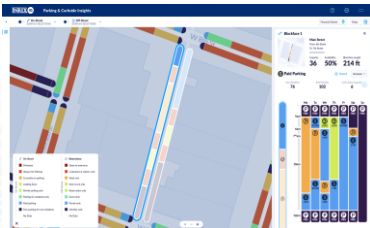
Real Time Traffic & Incidents

Predict real-time traffic conditions faster and more precisely with Generative AI.



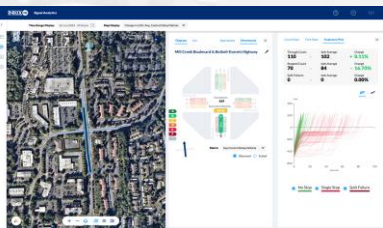
Curb Analytics & Right of Way Manager

Data driven decisions to optimize curbside and off-street parking.



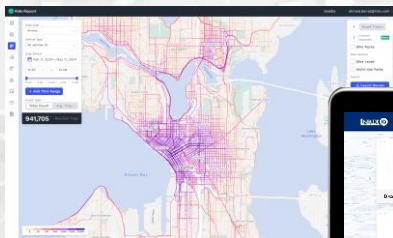
Signal Analytics

Traffic signal analytics using connected Vehicle Data.



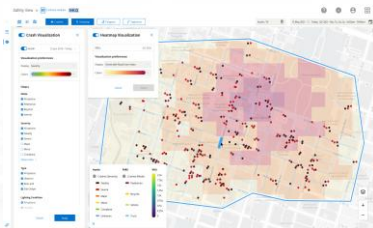
Ride Report

Micromobility program management tool.



Safety View

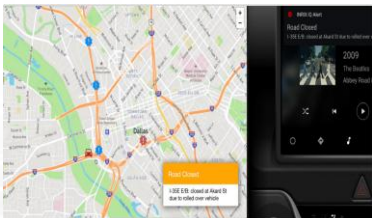
Powerful roadways and diver behavior insights to help improve safety for all road users.



Safety

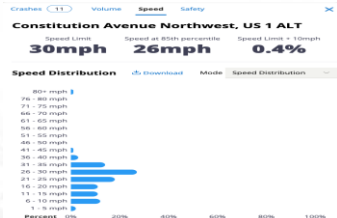
Help Alerts

Two-way communications with customers during roadway closures or other emergencies



Speed Distribution Profiles

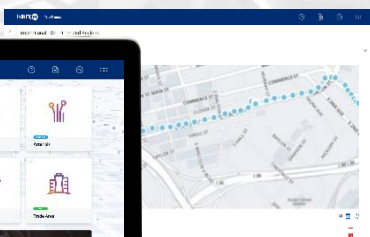
Speeds observed as a percentage of total traffic volume



Policy and Planning

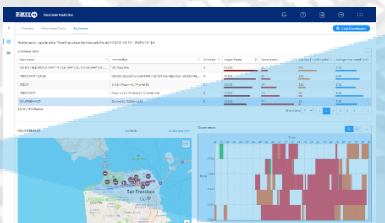
Trip O/Ds, Paths, Analytics

Analyze tips and the path drivers traverse across your region



Roadway Analytics

On-demand traffic data, analytics and visualizations.



Volumes

Reliable traffic volume data for transportation professionals



INRIX Public Private Ecosystem

How does INRIX work?

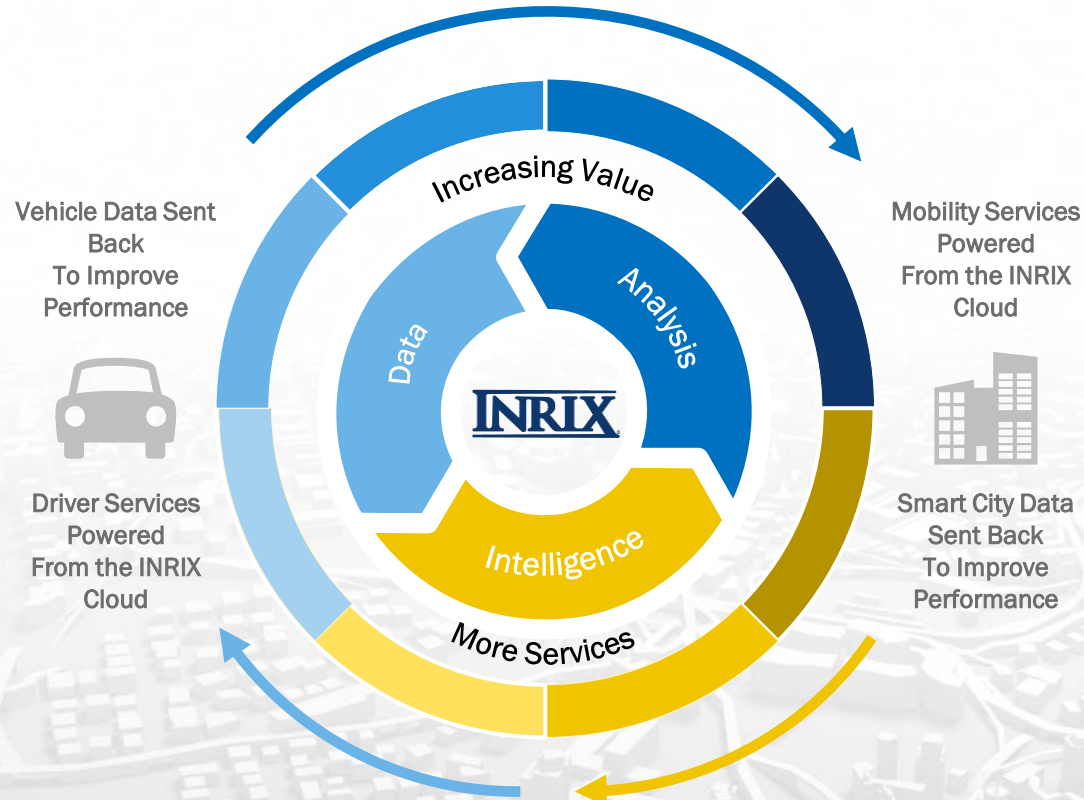
DATA FROM VEHICLES/DEVICES

INRIX acquires real-time data from
OEMs, devices & fleets



DATA TO DEVICES

INRIX provides real-time services to
solutions providers to improve mobility



DATA TO CITIES

INRIX supplies data services to **measure performance** against operations and policy goals



DATA FROM CITIES

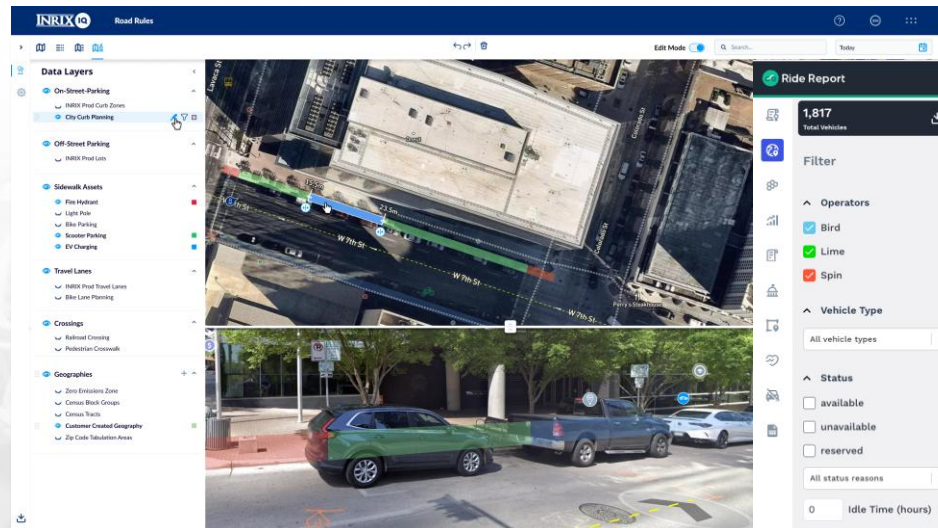
INRIX provides software solutions to
communicate policies



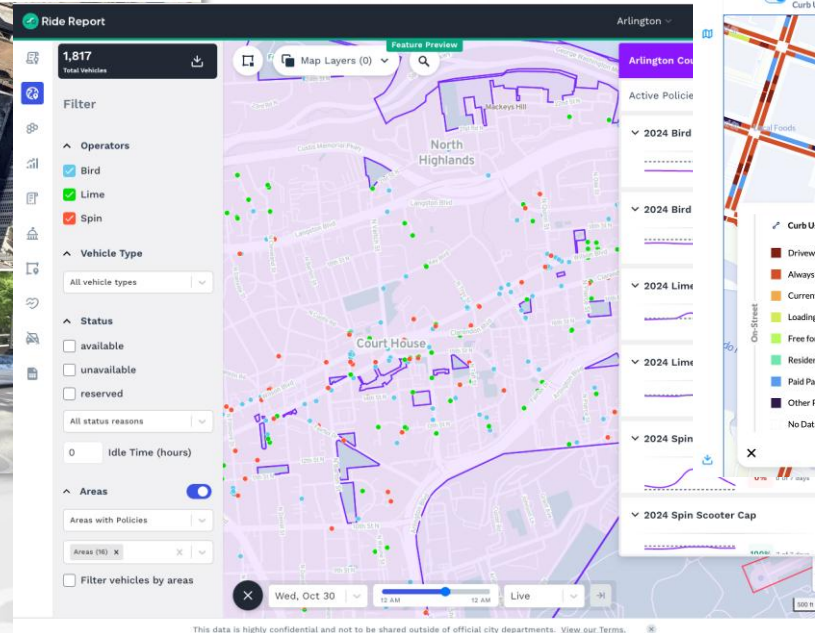
Roadway Management

Road Rules - Digitally shape disruption into city transportation objectives

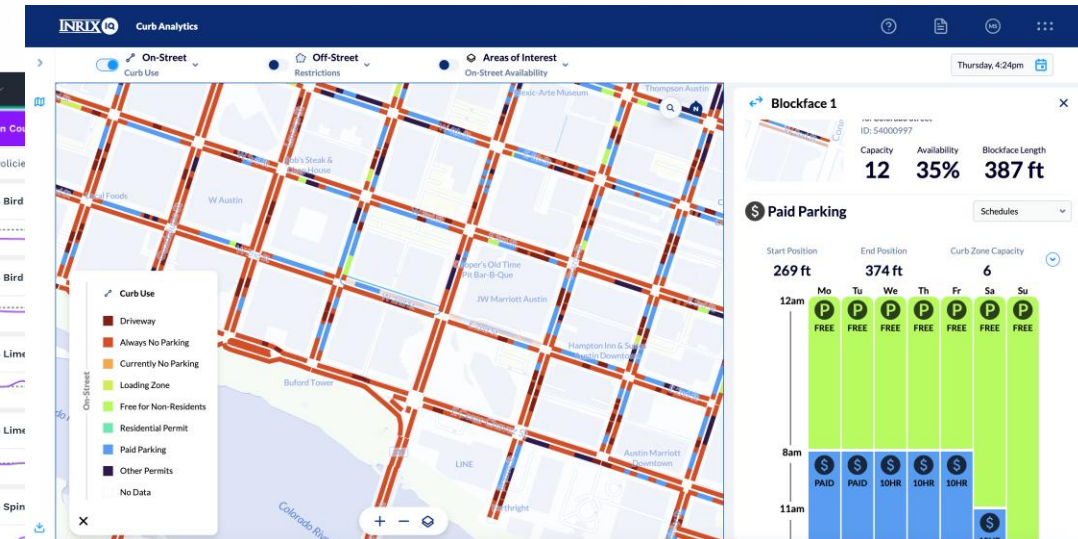
- Digitally view, edit, and communicate rules across the right of way.
 - Sync with asset management and other data feeds
- Understand compliance with policies and rules



Editing functionality



Realtime data and policy compliance

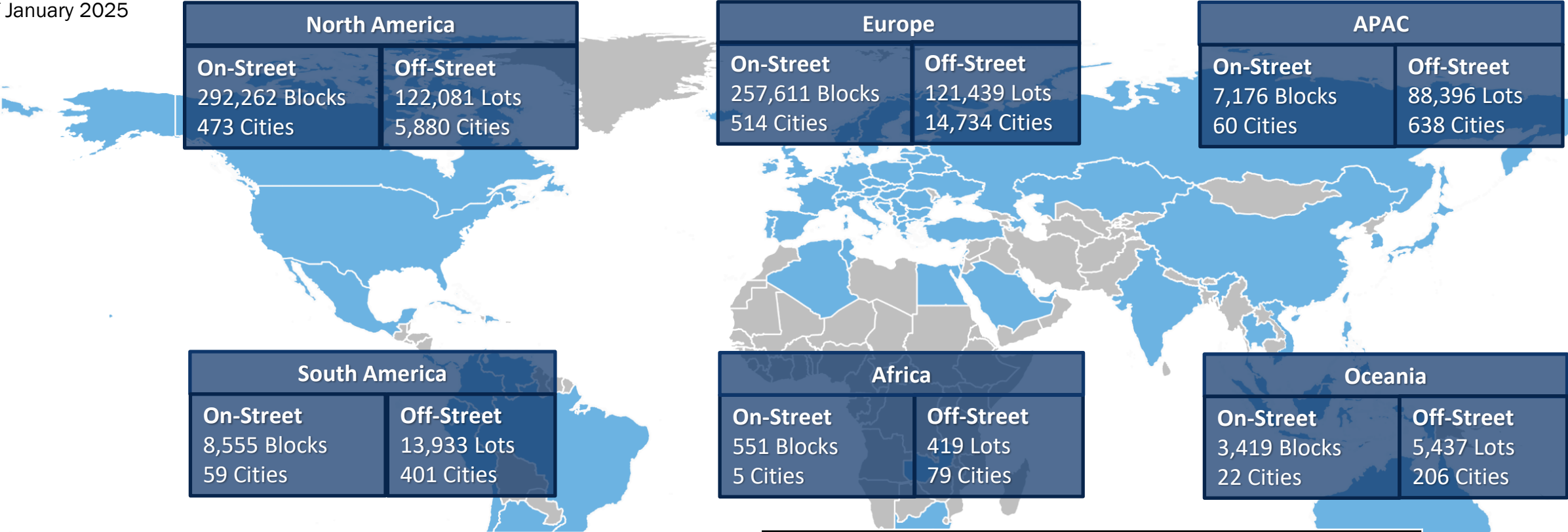


Citywide curb inventory out of the box

Worldwide Provider

Industry Leading Global Coverage, Scalable to Customer Needs

As of January 2025

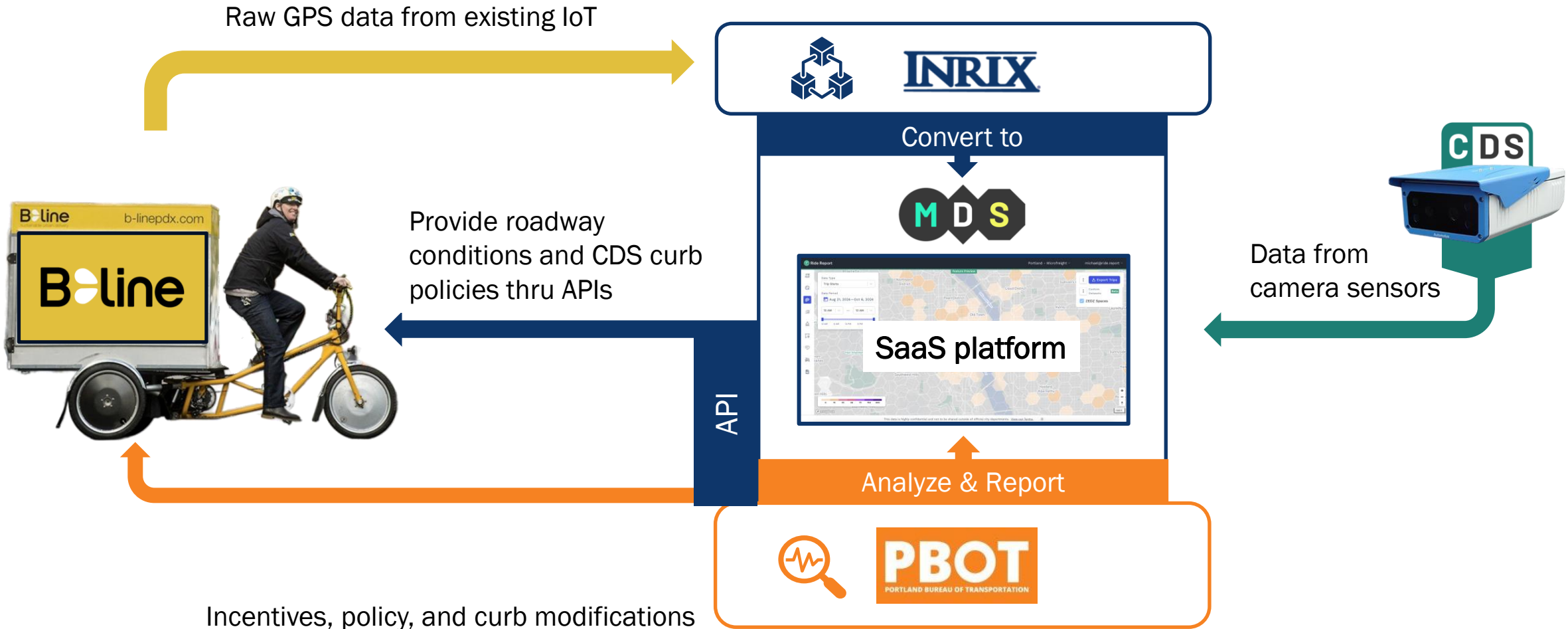


On-Street				
	Blocks	Cities	Countries	Spaces
TOTAL	569,574	1,123	65	8MM+

Off-Street				
	Lots	Cities	Countries	Spaces
TOTAL	351,705	21,919	146	51MM+



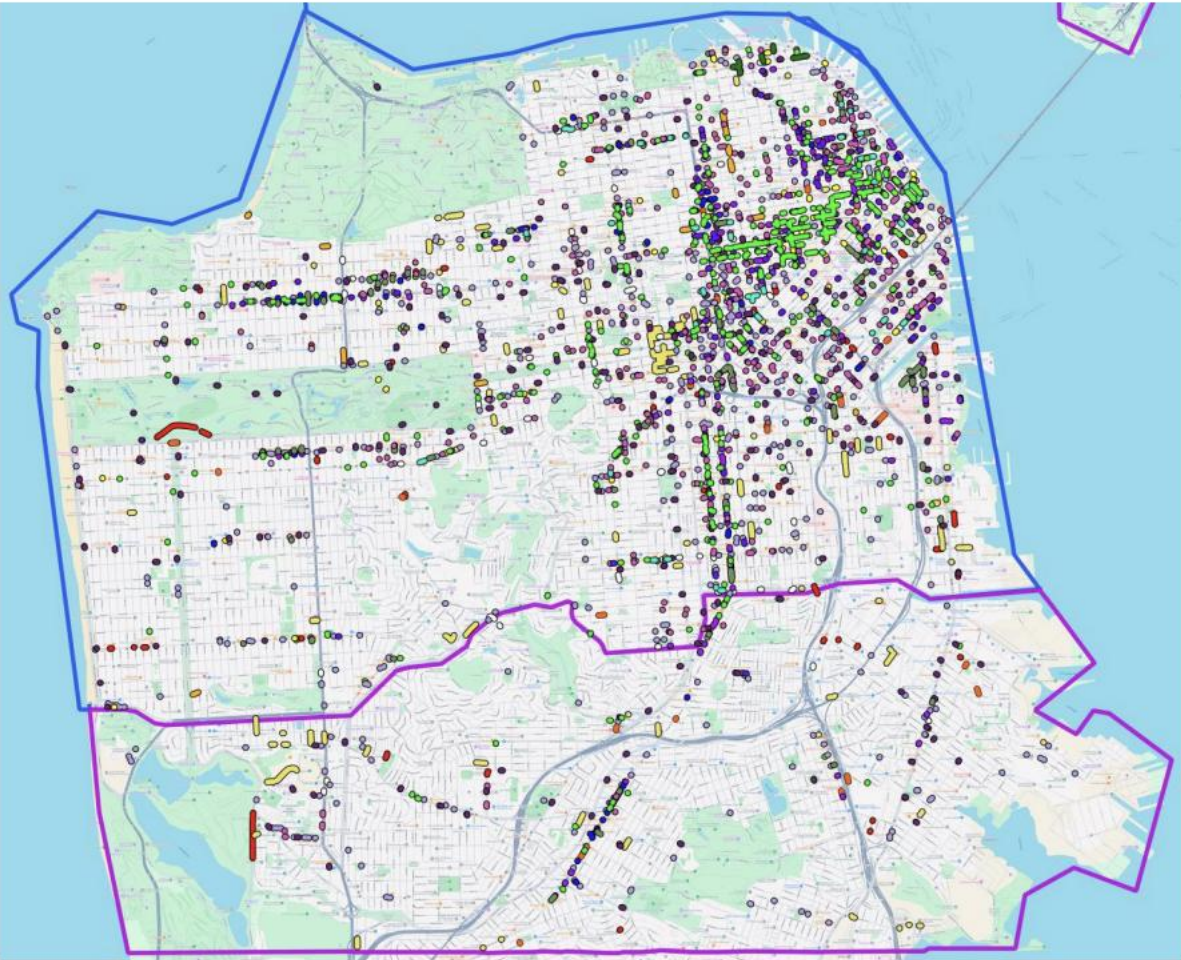
Portland's Zero Emissions Delivery Zone Pilot



SFMTA Digital Curb Inventory

"Belt and Suspenders" Approach

Map of Curb Zones Updated by SFMTA Datasets



INRIX Ground Truth Test

Map of INRIX Random Sample

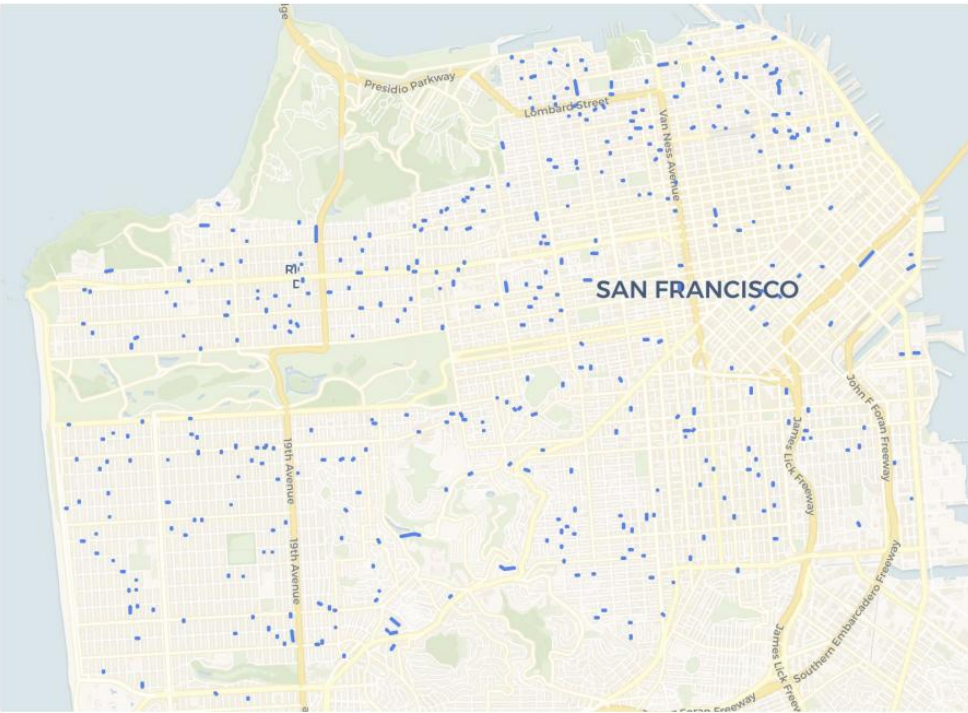


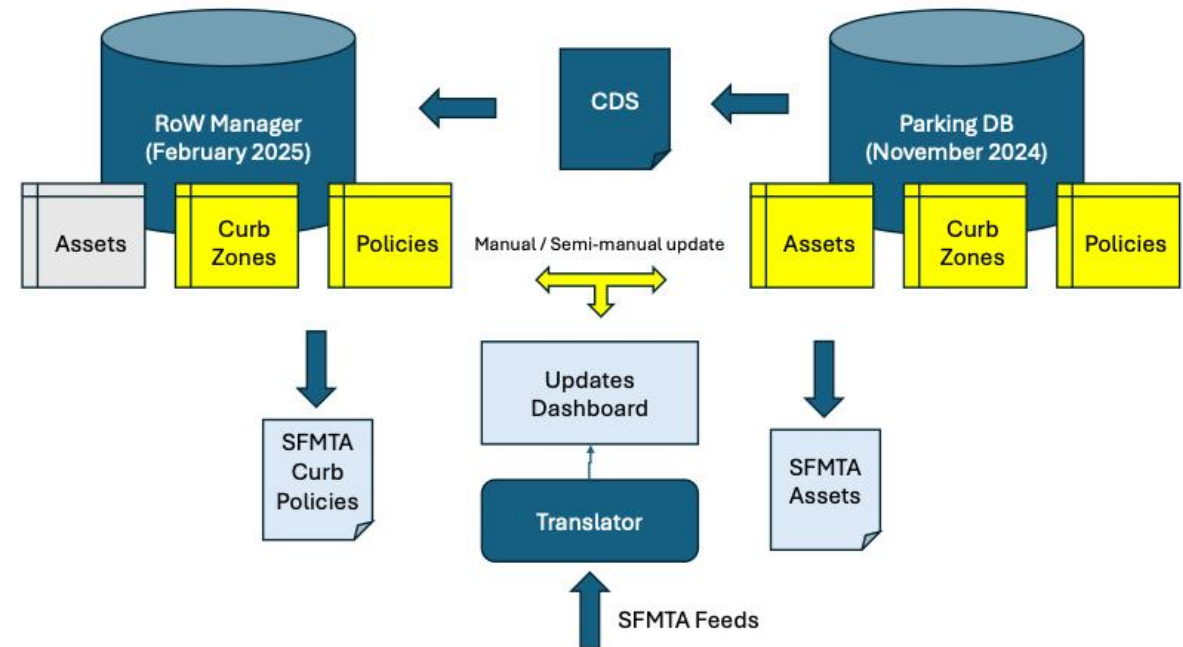
Table of INRIX Ground Truth Testing Results (October and November 2024)

	Curb Zone Segmentation	Activity	User Class	Time Span	Rates	Payment Methods
Sum	389	388	383	382	388	84
Count	390	390	390	390	390	84
Average	99.74%	99.49%	98.21%	97.95%	99.49%	100%

SFMTA Digital Curb Inventory

Agency driven updates will allow for reflection of dynamic changes to curb

- Asset management + temporary closure APIs ingested, reviewed and reflected in parking database



City of Philadelphia Full ROW Editing/Management

Right of Way Manager

The screenshot displays the INRIX IQ Road Rules interface. On the left, a sidebar lists 'Data Layers' with categories: On-Street (INRIX Prod Curb Zones, City Curb Planning), Off-Street (INRIX Prod Parking Lots, City Parking Lots), Travel Lanes (INRIX Prod Travel Lanes, City Travel Lane Planning), and Objects (INRIX Objects, City Objects). The main map area shows an aerial view of a city block with W 7th Street highlighted. A blue line indicates a 'Travel Lane 3' from 0 ft to 108 ft. On the right, a configuration panel for 'Lane Group - [name of the layer the lane exists in. lor...]' shows details for 'W 7th Street' (From: Lavaca St, To: Colorado St, ID: 505061820, Version: 2.0). Below this, the 'Travel Lane 3' configuration shows a policy for 'Mon-Sun (2am-6am; Street Cleaning); No Parking' (ID: c17d1325-ae34-4b11-9269-9a714a39565). The policy description states: 'This policy prohibits parking on the street lane from 2:00 AM to 6:00 AM every day of the week, including weekends, to allow for street cleaning. Vehicles parked during these hours may be subject to fines or towing to ensure unobstructed cleaning operations.' A table shows the policy version history (Version 3.0, Manage Policy). The table has columns for Action and Date & Time. The actions listed are Created, Edited, Approved, Published, and Retired, with corresponding dates and times. Below the table, there is a section for 'Associated Geosassets' with a link to 'Link Geosasset'. The geosassets listed are '1 Curb Zone', '6 Lamp post', and '1 Bike rack'. At the bottom, there is a section for 'Each Hour (Mon-Fri: 7am-12pm; 2 Hour Max): \$0.50' and a 'Delete Lane' button.

INRIX IQ Road Rules

Data Layers
3/12 layers visible

Data Layers

- On-Street**
 - INRIX Prod Curb Zones
 - City Curb Planning
- Off-Street**
 - INRIX Prod Parking Lots
 - City Parking Lots
- Travel Lanes**
 - INRIX Prod Travel Lanes
 - City Travel Lane Planning
- Objects**
 - INRIX Objects
 - City Objects

Lane Group - [name of the layer the lane exists in. lor...]

W 7th Street
From: Lavaca St
To: Colorado St
ID: 505061820
Version: 2.0

Travel Lane 3
Lane from 0 ft to 108 ft
ID: 1d5c3af4-27ef-4ae9-94b5-15c7232a4d7d

1 Mon-Sun (2am-6am; Street Cleaning); No Parking
ID: c17d1325-ae34-4b11-9269-9a714a39565

This policy prohibits parking on the street lane from 2:00 AM to 6:00 AM every day of the week, including weekends, to allow for street cleaning. Vehicles parked during these hours may be subject to fines or towing to ensure unobstructed cleaning operations.

Policy Version 3.0 [Manage Policy](#)

Action	Date & Time
Created	12/6/2023 08:12:56
Edited	12/8/2023 11:03:36
Approved	--
Published	--
Retired	--

Associated Geosassets [Link Geosasset](#)

1 Curb Zone 6 Lamp post 1 Bike rack

Each Hour (Mon-Fri: 7am-12pm; 2 Hour Max): \$0.50

[Delete Lane](#)



Intelligence that Moves the World™

Thank you!

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