

Wellington City Council's Urban Mobility Evolution:

Tools, insights, lessons
learned, and future plan.

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Wellington City Council
Me Heke Ki Pōneke

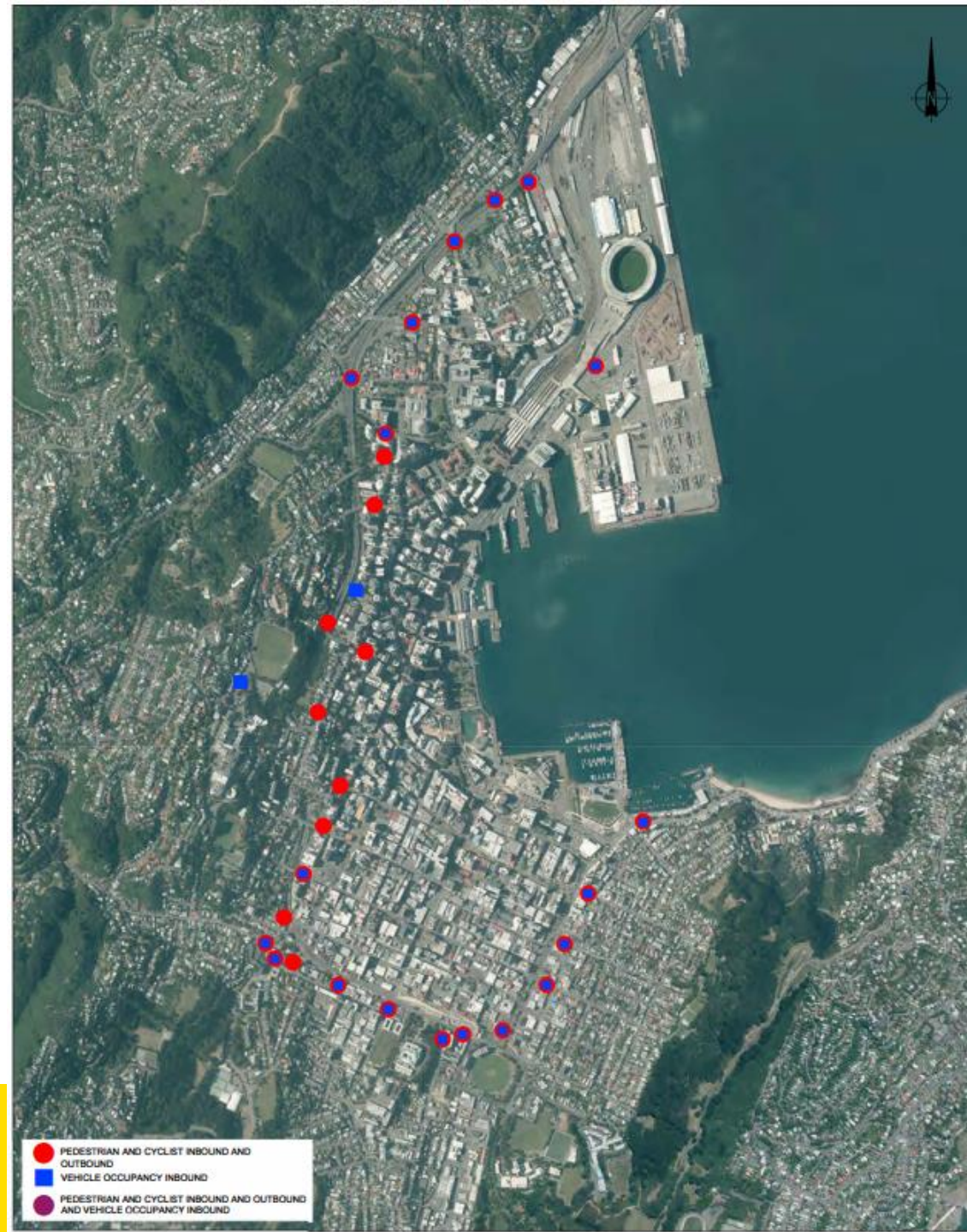
Julia McMaster | Data & Innovation Manager

A Brief History: From Clipboards to Cloud



Cordon Survey

Walking and Cycling
7.00 am -9.00 am
Monday to Friday
One Week in March



Commuter Cycle Surveys

Cycling only
7.00 am -9.00 am
Monday to Friday
One Week in March

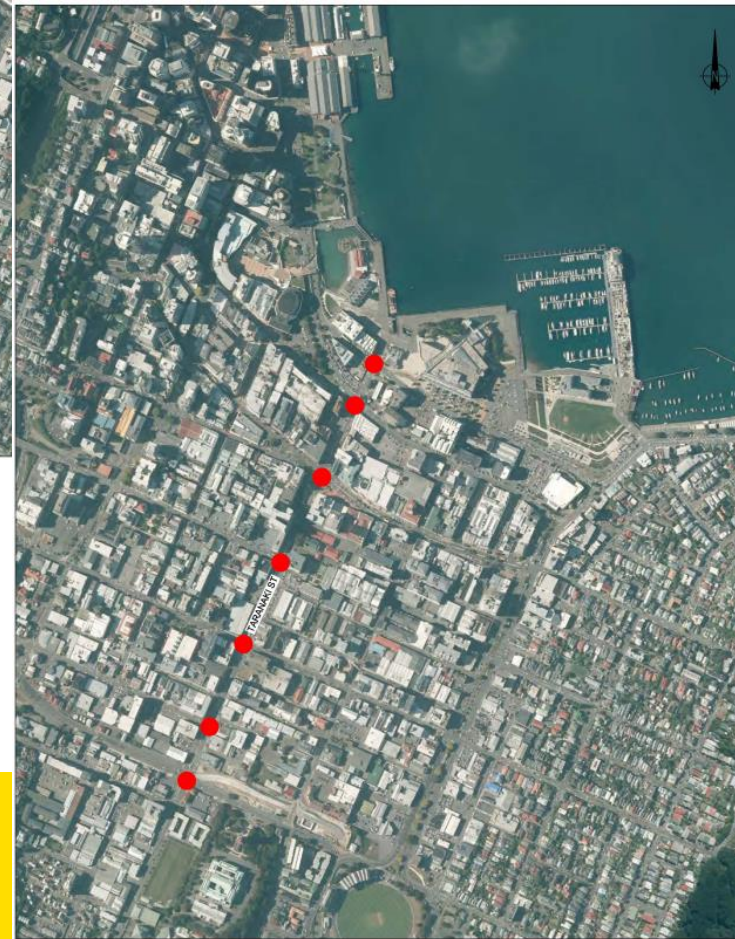


Pedestrian Commuter Surveys

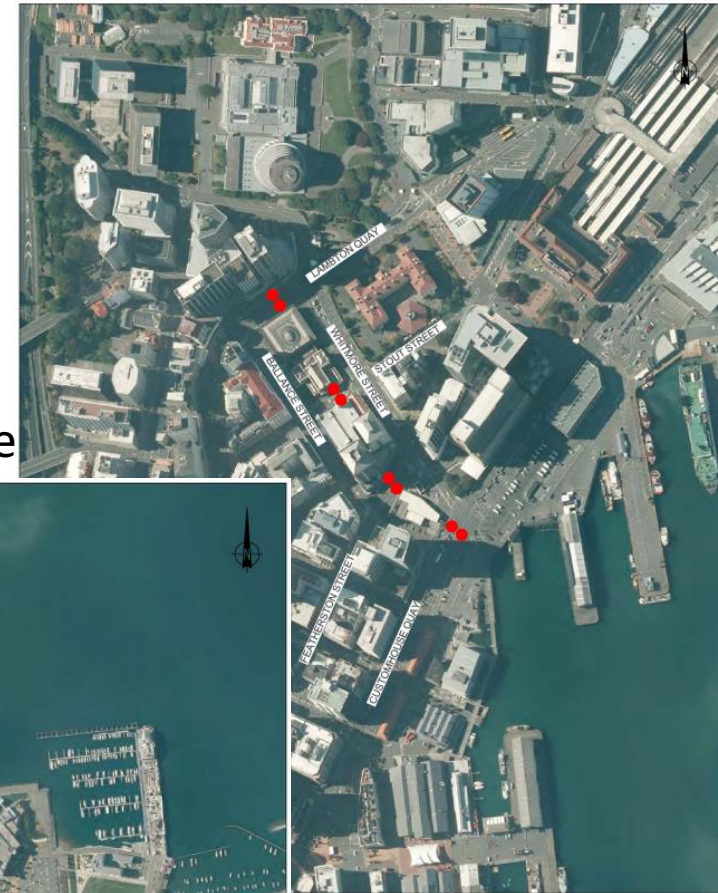
Walking only
7.00am -9.00 am
Monday to Friday
One Week in March



Dixon/Courtenay Screenline



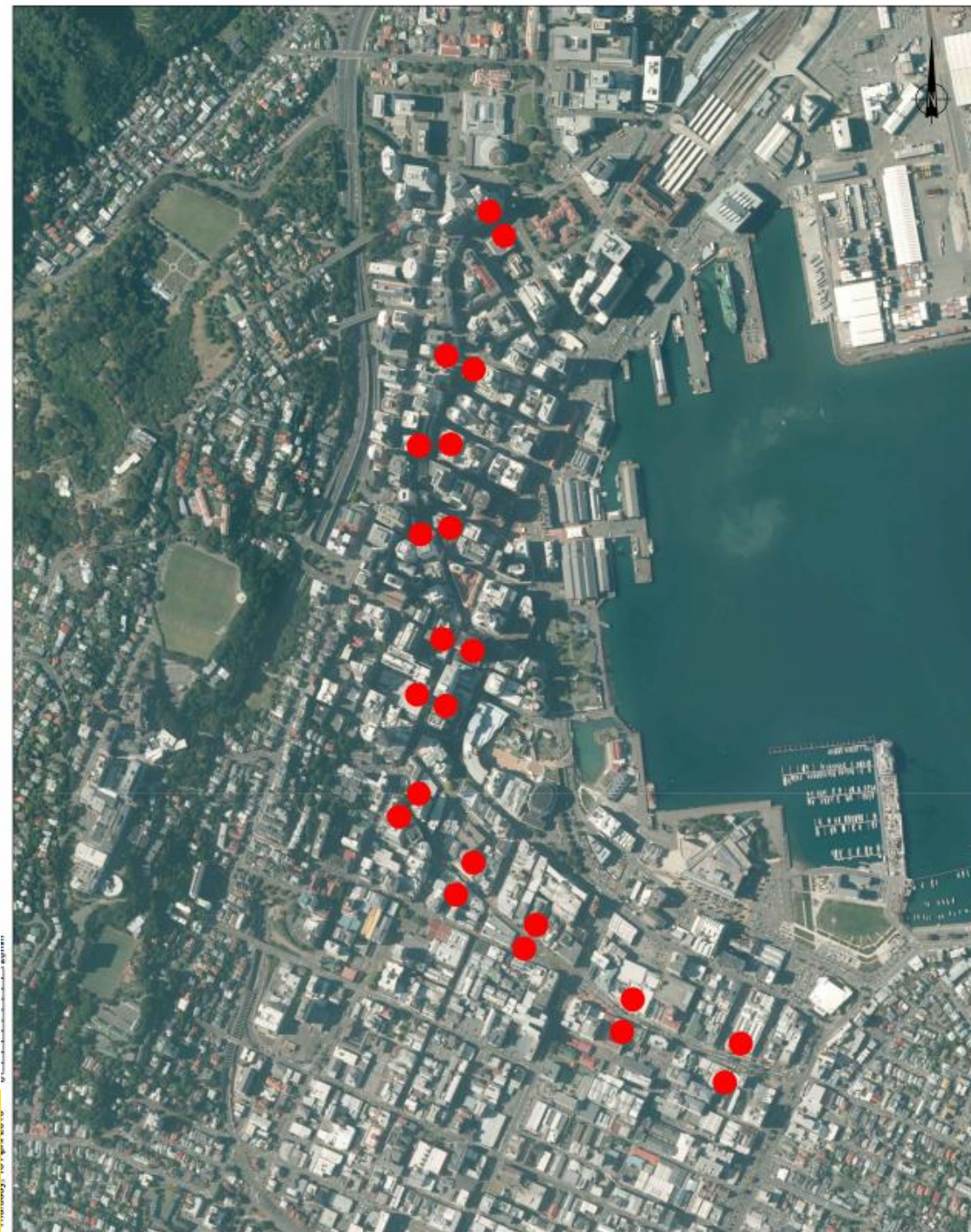
Taranaki Screenline



Railway Screenline

Golden Mile Surveys

Walking only
12.00pm -2.00 pm
Monday to Friday
One Week in March



A Brief History: From Clipboards to Cloud



Challenges of the 'traditional' approach

Our approach was inefficient and provided insufficient data to meet the demands of the organisation.



Duplication

- Teams collect data concurrently using different methods
- Decentralized and difficult to access



Manual

- Reliance on manual counts & analysis, limiting data availability and the ability to analyze
- Struggling to get staff for manual counts



Unscalable

- Demand for data outstrips supply
- Unscalable across the city due to manual processes



Incomplete

- Lacking a comprehensive and continuous view of the city
- Only monitoring events we know are going to happen
- Limited information on pedestrians and private e-scooters

A growing need for data

**Programme
Planning &
Monitoring**

**Asset &
Infrastructure
Management**

**Stakeholder &
Partner
Engagement**

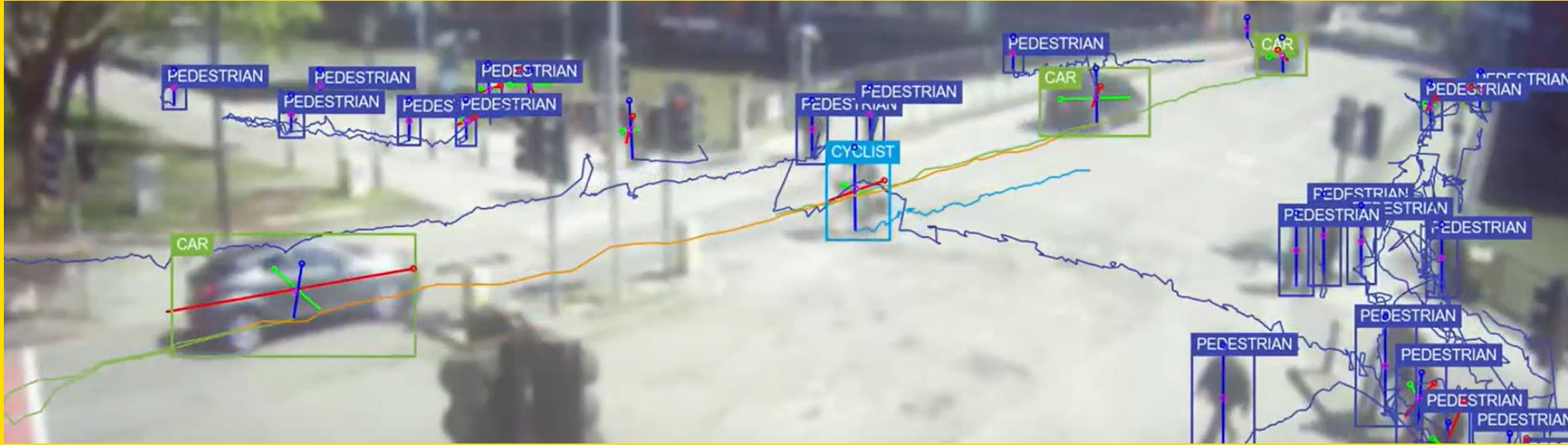
**Emergency
Response & City
Safety**

requires an integrated approach.

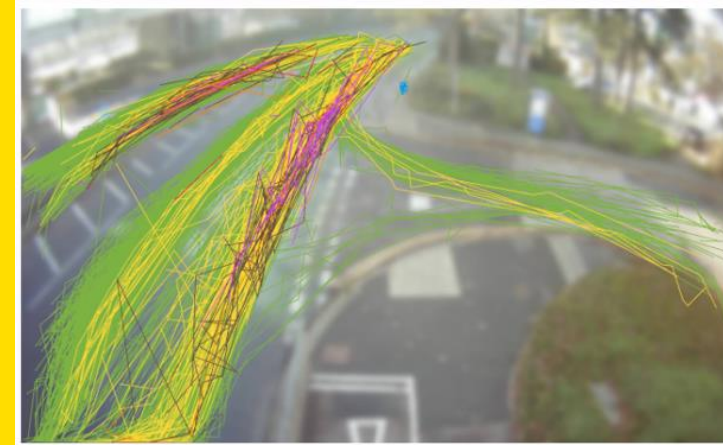
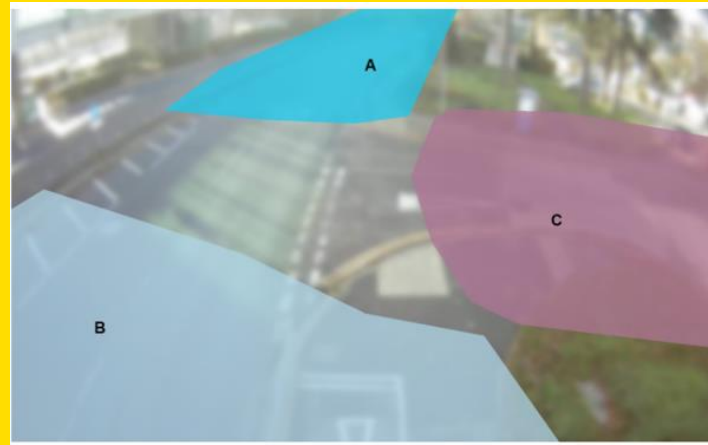
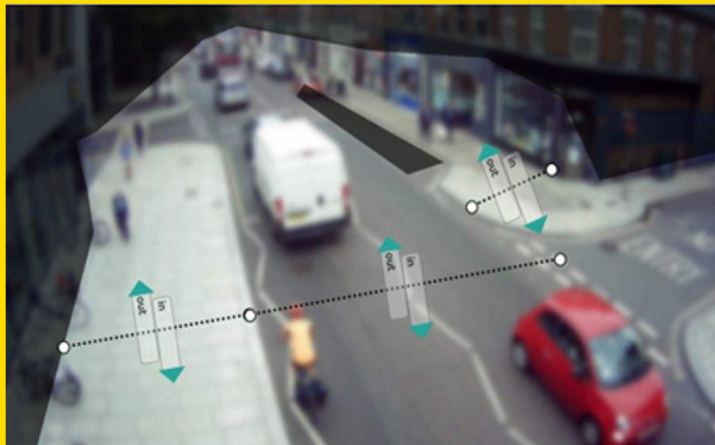


To create an open, accessible, continuous and scalable way of understanding how people move around and use our city spaces.

24/7 anonymous collection of pedestrian, cycle, scooter, & vehicle data



Object detection, pathing and speed with privacy blurs



- Bi-directional count lines

Zones (dwell & occupancy)
Turning Counts

Pathing (desire lines) by
mode

Data ≠ Insight: The Real Goal

Wellington City Transport
Insights Dashboards

Copilot

Cycling Cordon Dashboard

Cover

Cycling Activity Analytics

Daily and monthly patterns

Before After Analysis

Compare Two Locations

All locations live cycling

All location view

Pattern & Anomaly Detect...

Questions and Communic...

Crash Analysis

Wellington City Cycling Cordon Dashboard

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Questions ?

Number of locations	Location
20	All cordon sites
Live cycling today entering CBD	Live cycling today exiting CBD
611	197
Cyclists entering CBD last 28 days	Cyclists exiting CBD last 28 days
85,063	86,784
28-day average daily entering CBD	28-day average daily exiting CBD
3,038	3,099

Last month daily cycling trips entering CBD

Citybound — cyclist

Last month daily cycling trips exiting CBD

Outbound — cyclist

You can choose a location to filter the insights. Click on the map to deselect it.

Microsoft Azure ©2025 EarthStar Geographics Feedback

Overview

Questions ?

Group Location

Hold CTRL to select multiple filters simultaneously

CBD Cordon

A cordon surrounding Wellington CBD illustrating travel into and out of the CBD at key locations.

Transport Class



Day of Week



Rolling Period (days)



Clear Slicers X

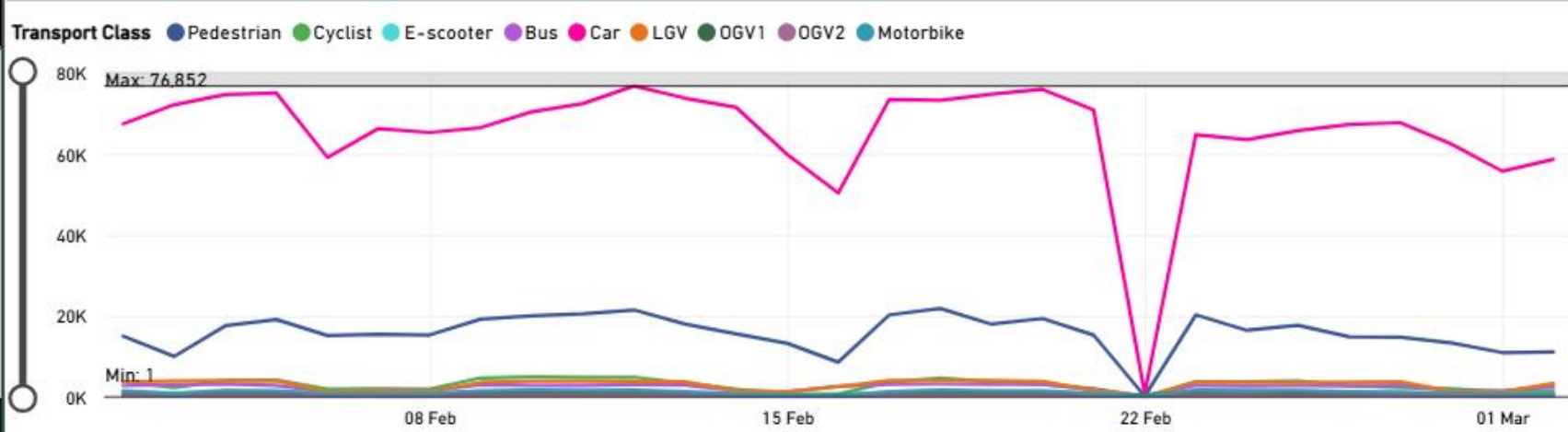
Group	Location
CBD Cordon	20 locations selected

Countline
84 countlines included

List of Included Countlines

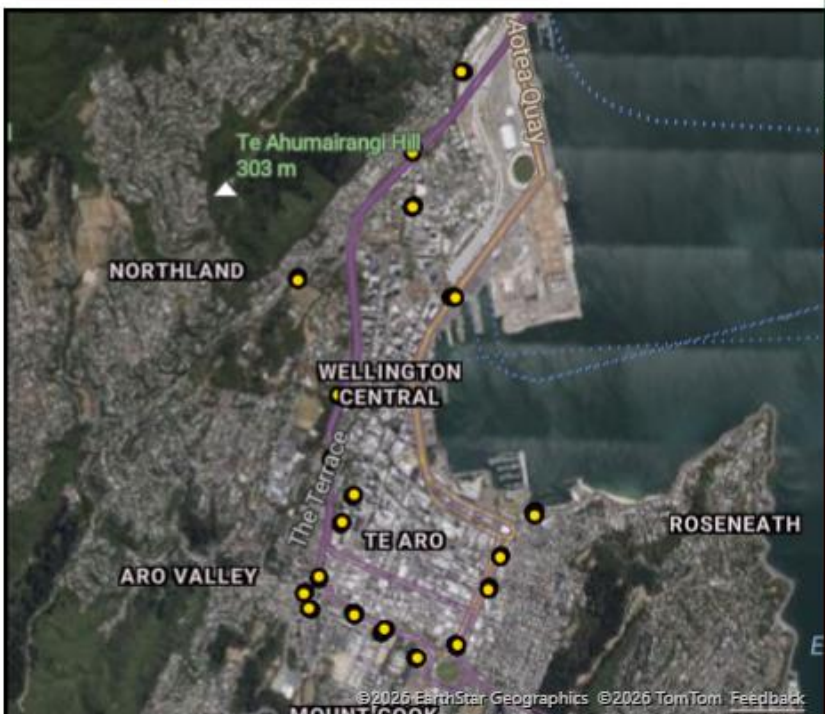
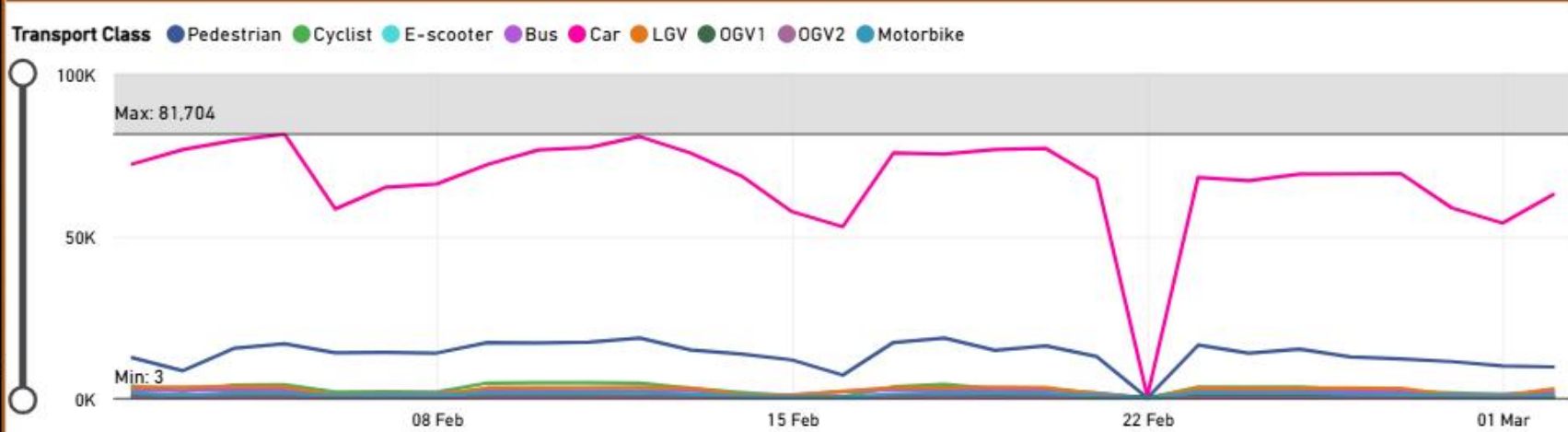
Countline ID	Countline Name
51182	Abel Smith St path LHS
51238	Abel Smith St path RHS
51181	Abel Smith St road
56032	Aro St path LHS
56033	Aro St path RHS
56030	Aro St road

Daily Travel Entering Last 30 distinct days

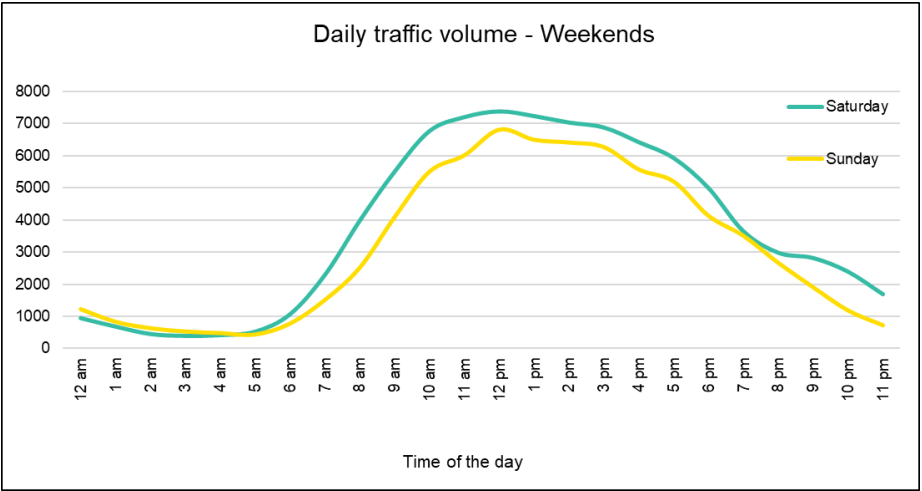
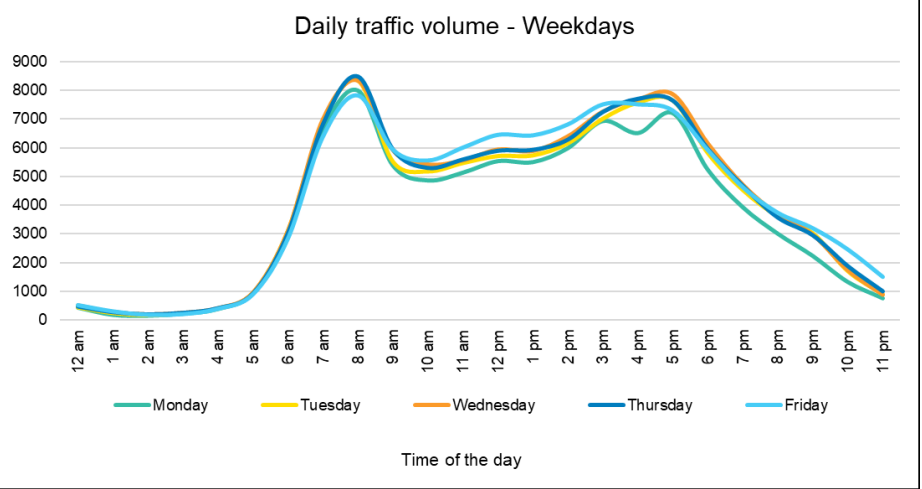
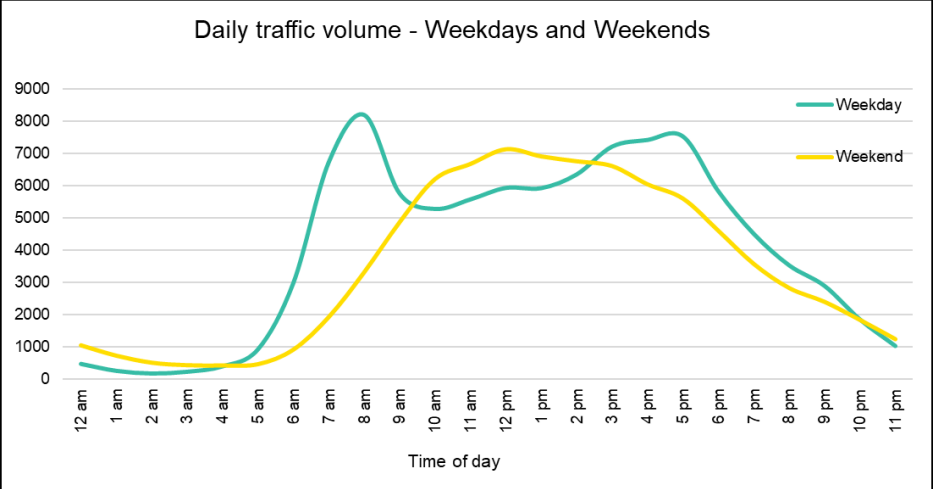


	Daily Avg (of 30 distinct days)	Total (of 30 distinct days)
Entering	88,630	2,658,913
Exiting	87,959	2,638,778

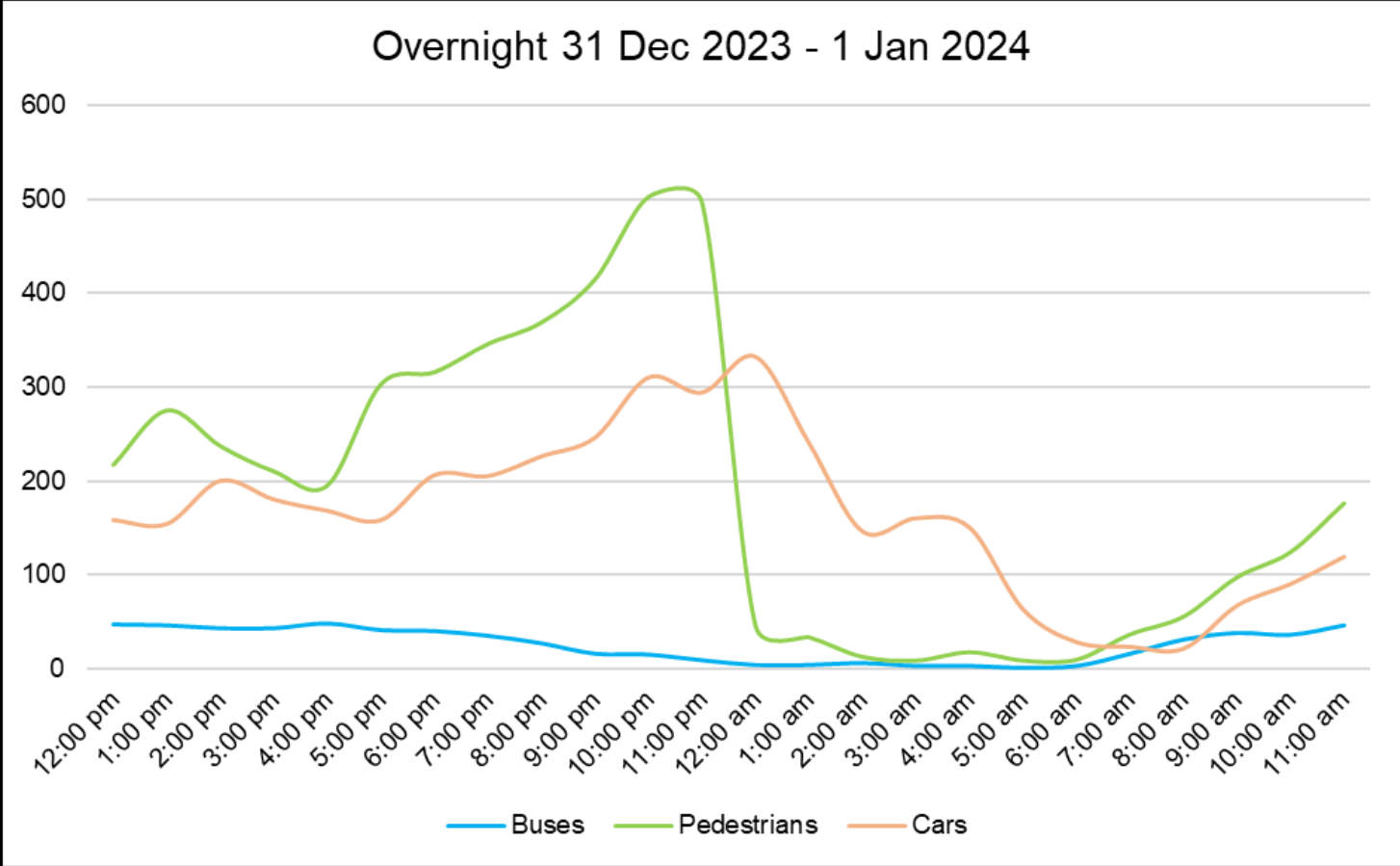
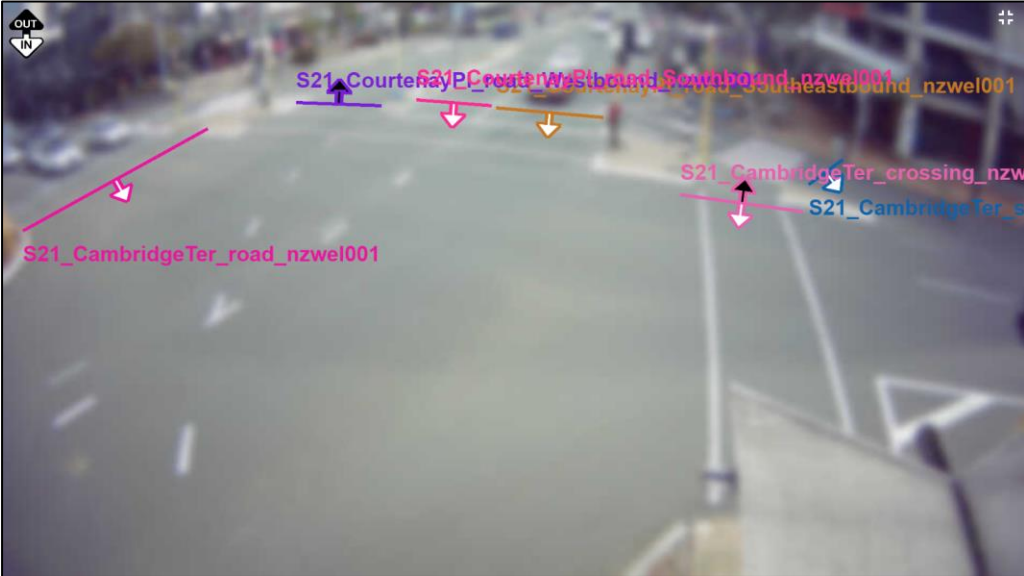
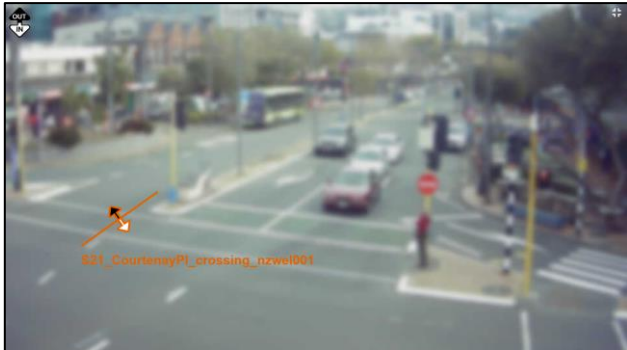
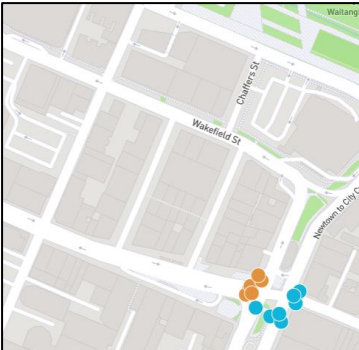
Daily Travel Exiting Last 30 distinct days



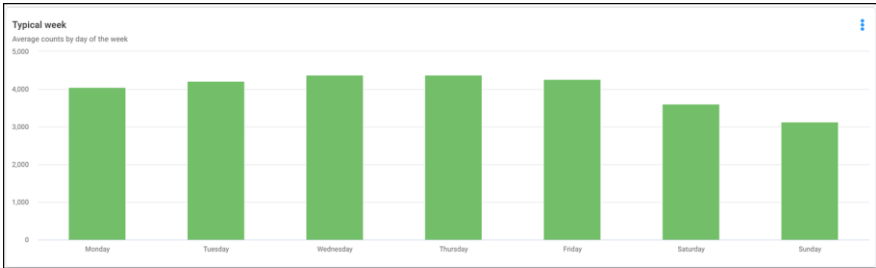
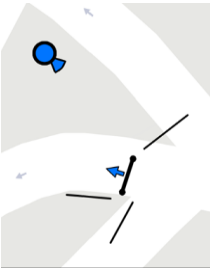
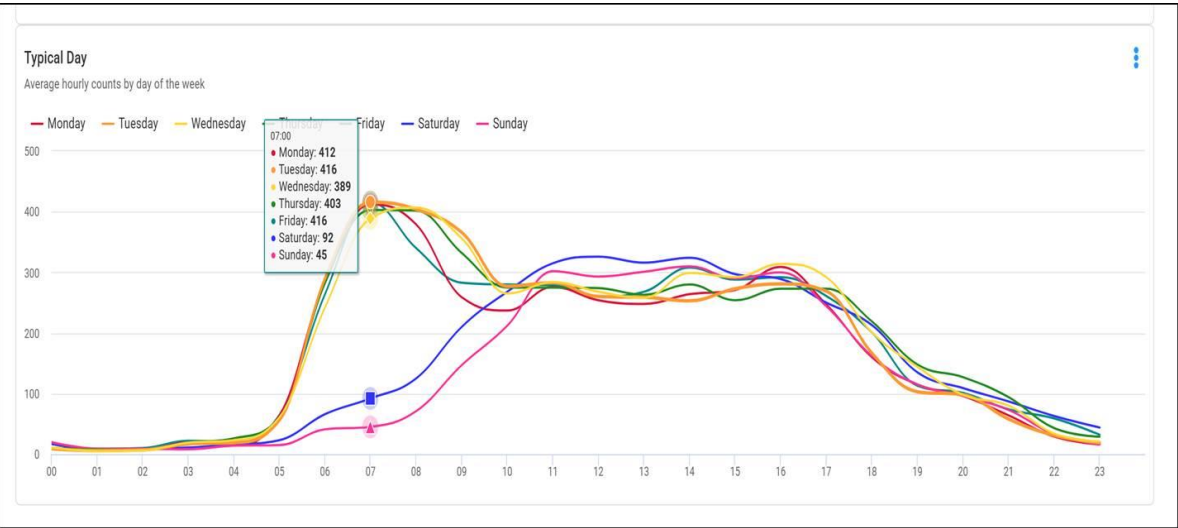
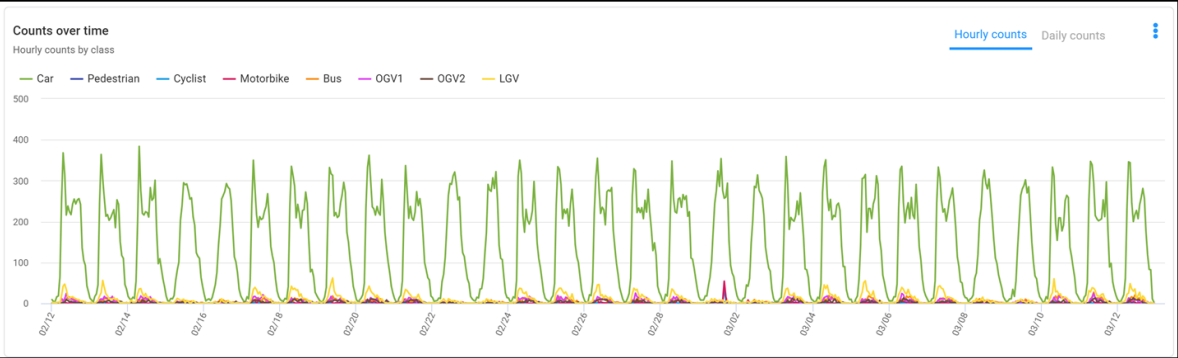
Monitoring key corridors movements



Event influence



Supporting infrastructure design decisions



Operating in a city environment



Open Data Portal

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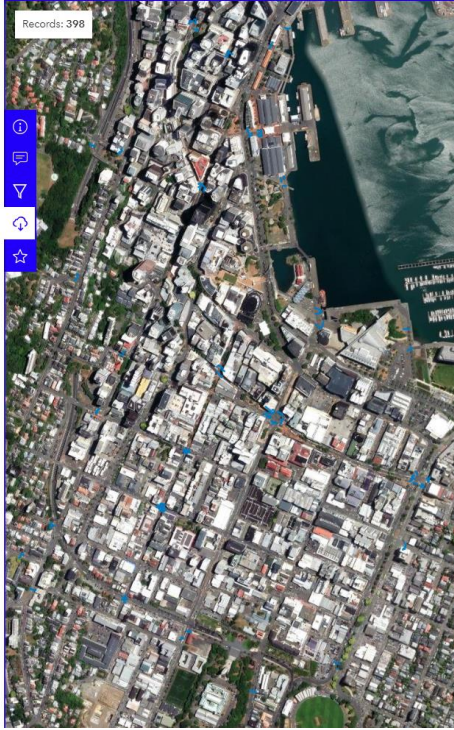
Download Options

Transport Sensors

Records: 398

Toggle Filters:

- CSV
- Shapefile
- GeoJSON
- KML
- File Geodatabase
- Data source



Transport Sensors



- [View Map](#)
- [Download](#)
- [More ▾](#)

Summary

This dataset includes the geospatial locations of transport sensor countlines placed across Wellington city, along with the hourly and directional count data collected from all transport sensor countlines. It was developed to facilitate open access to this multi-modal dataset and to support Wellington City Council (WCC) projects. A countline is a virtual line which has been programmed within a sensor's field of view to enable directional counting of transport modes travelling through it.

Access transport sensor count data here:

Metadata info - https://gis-snowflake-opendata-public-wcc-arcgis-prod.s3.ap-southeast-2.amazonaws.com/transport_sen...

2023 - https://gis-snowflake-opendata-public-wcc-arcgis-prod.s3.ap-southeast-2.amazonaws.com/transport_sen...

2024 - https://gis-snowflake-opendata-public-wcc-arcgis-prod.s3.ap-southeast-2.amazonaws.com/transport_sen...

2025 - https://gis-snowflake-opendata-public-wcc-arcgis-prod.s3.ap-southeast-2.amazonaws.com/transport_sen...

Details

- Dataset**
Feature Layer
- November 19, 2025 at 3:10:24 PM GMT+13**
Info Updated
- November 19, 2025 at 3:10:24 PM GMT+13**
Data Updated
- November 14, 2025 at 10:48:16 AM GMT+13**
Published Date
- Records: 398**
[View data table](#)
- Public**
Anyone can see this content
- Custom License**
[View license details](#)
- Relevant Area**

Curated, accessible open dashboards

Benefits of curated data

- Improve the accessibility of our data
- Reduce the time take to respond to LGOIMA's
- Integrate public transport usage data
- Explore impacts of weather and events

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Select Language ▾ Menu ☰

Papatohu Tirohanga Waka

Transport Insight Dashboard

This story explores how people move around Wellington

Wellington Transport Insights: Data-Driven Mobility

Wellington's compact geography and diverse transport modes create unique mobility patterns across the region.

This story explores how people move around Wellington by bike, how we measure that movement, and how the bike network is changing over time - using sensors, cameras and annual counts.

This tool combines data from Viva city and pedestrian counts to provide a comprehensive view of urban mobility. Whether you're planning your commute, advocating for better infrastructure, or simply curious about how our city moves, this dashboard makes complex transport data accessible and actionable.

Location ⓘ
Select a location ▾

City boundary Cuba street Waterfront Golden Mile

Get Started ✕
Select a location from the dropdown or on the map to get the transport details about area.

Explore the data

You can access the raw data underpinning this dashboard.

View Raw Data ↗

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What's Next? Shaping the Future Strategy



Image credit: Urban Mobility Explained

Ngā mihi
Thank you

Julia McMaster
Wellington City Council