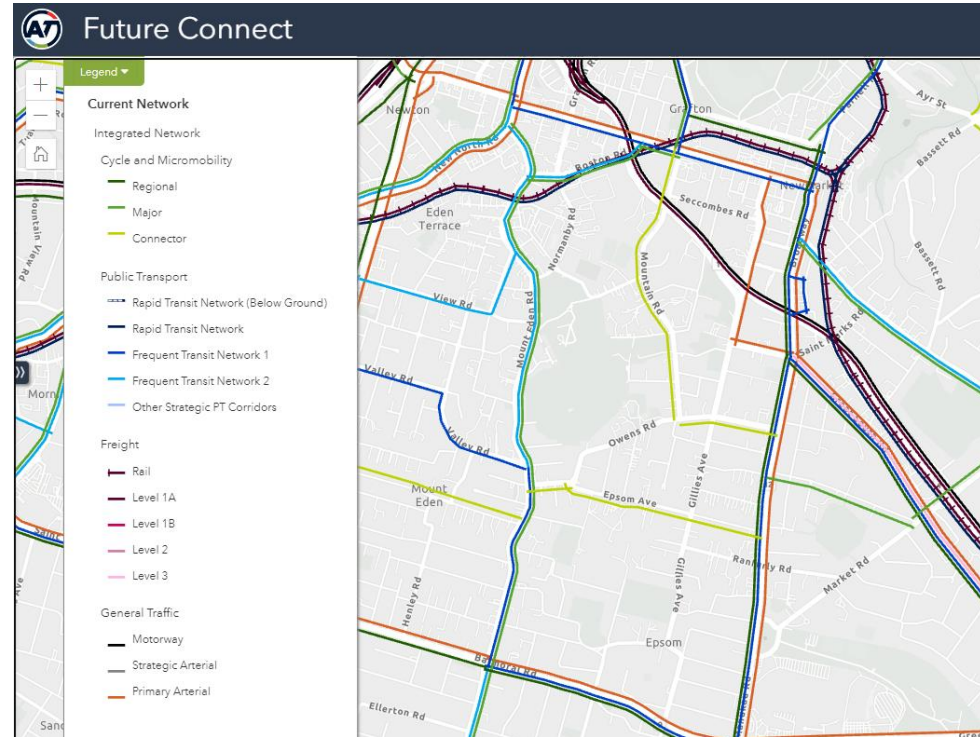


Power BI in Signal Optimisation

What we do in signal optimisation?

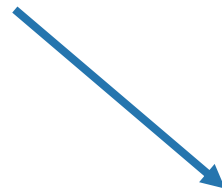
- Review and identify safety of the route related to signal
- Measure the performance as a corridor
- Prioritise different travel mode in accordance with Auckland Network Operations Plan (ANOP)



What is Power BI?



Route Information

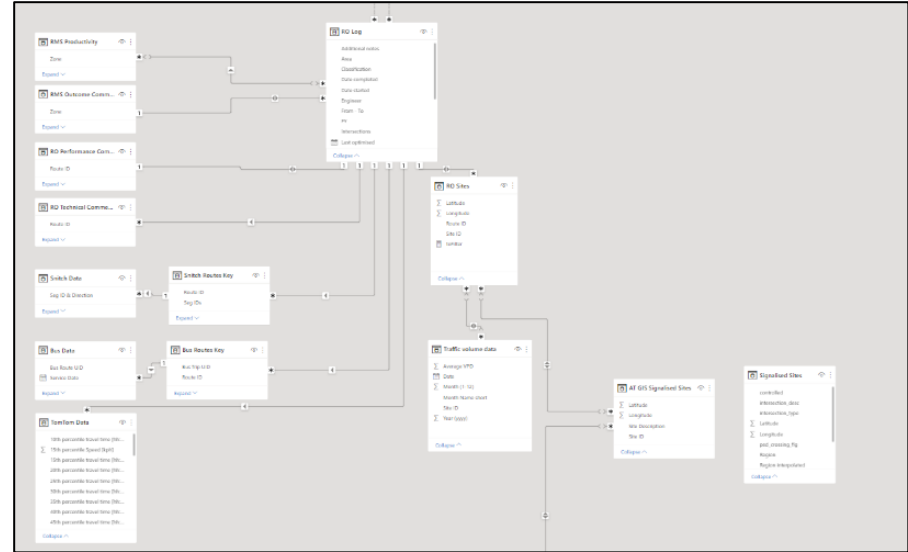
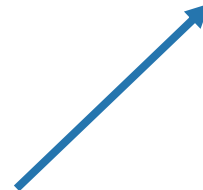


ArcGIS

Signal Location
Signal Information

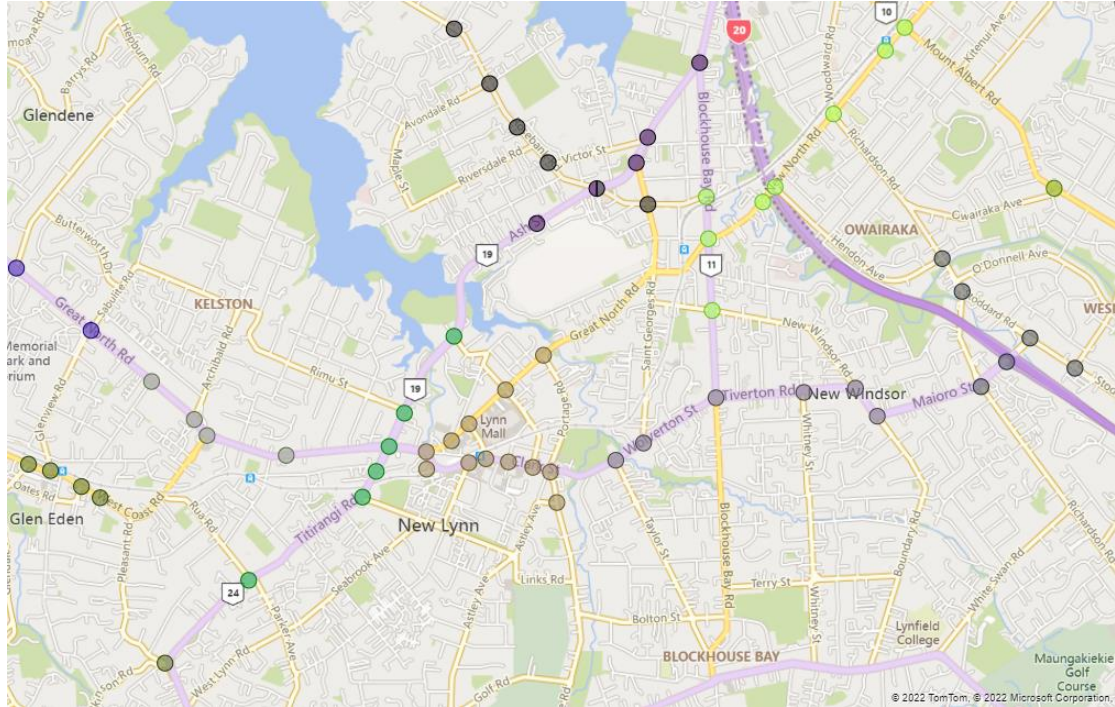


Traffic Volume
Red Light Running
Signal timing



Identify Signal Location

By route

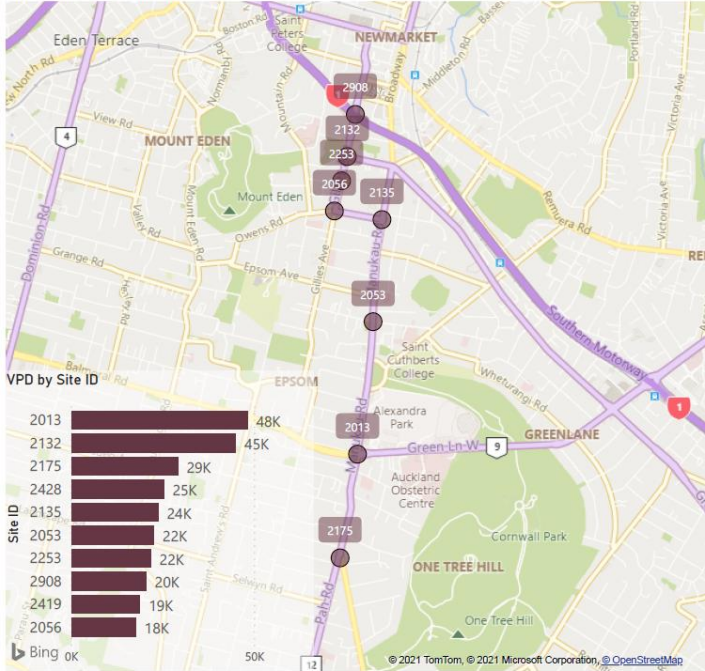


Map visual
Shows the location of signal
Colour coded by route

Display Traffic Volume

By signalised intersection

Traffic signal sites on route

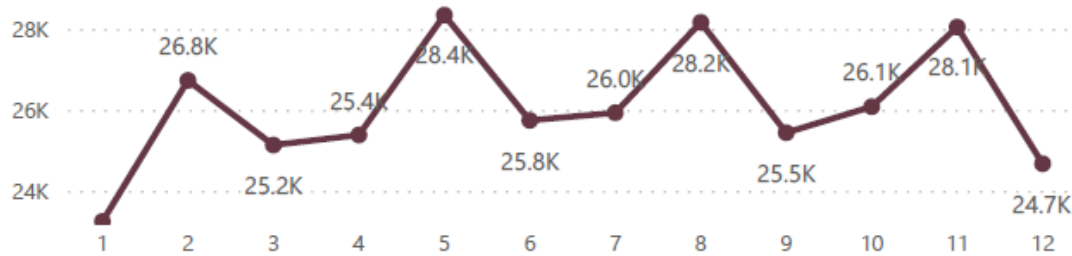


Map Visual with bar chart
Shows the location of signal
Traffic volume of each signal

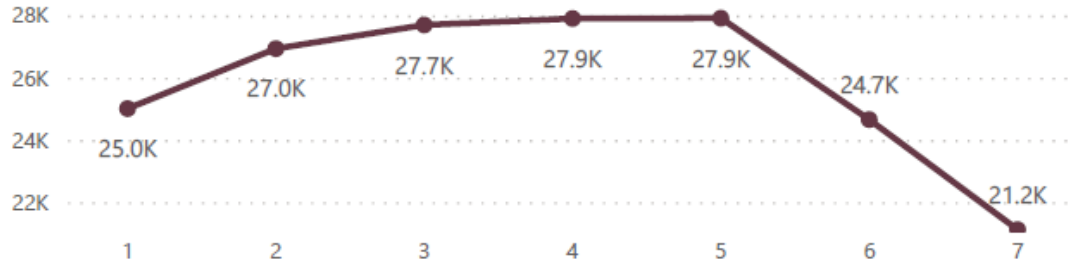
Route Average Volume

By duration

VPD by Month



VPD by Day of Week



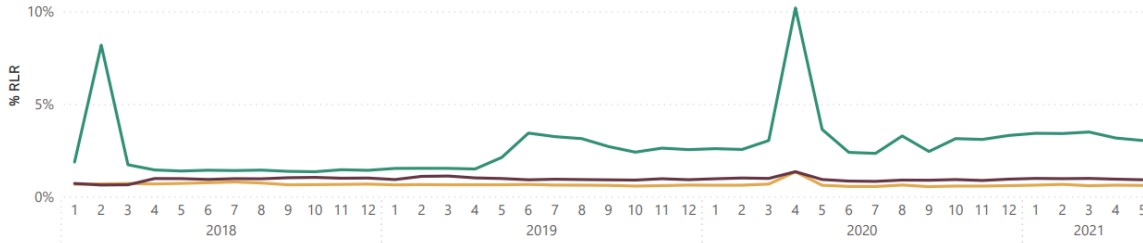
Line Chart Visual
Average volume by month or day

Red Light Running

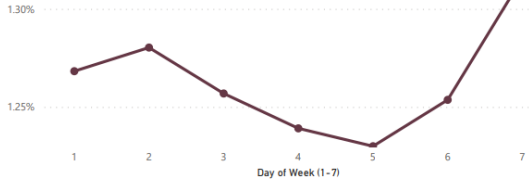
By duration

% RLR by Year, Month and Site ID

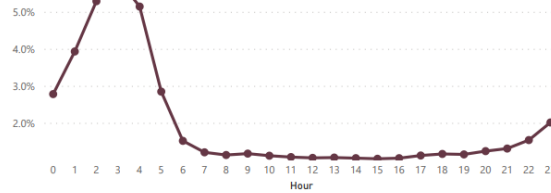
Site ID — 2013 — 2053 — 2135



% RLR by Day of Week



% RLR by Hour (Weekdays)

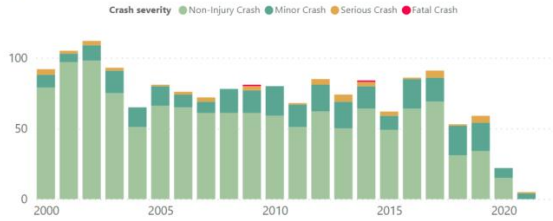


Line Chart Visual
Percentage of red light runner

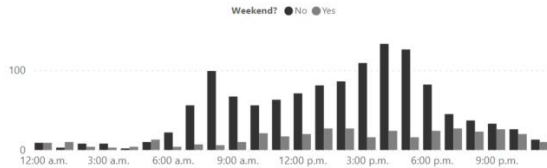
Crash Analysis

By Route

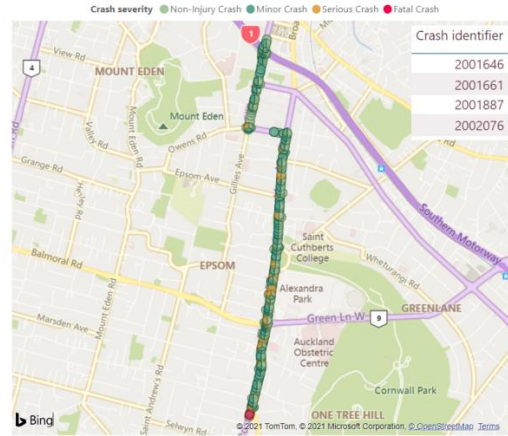
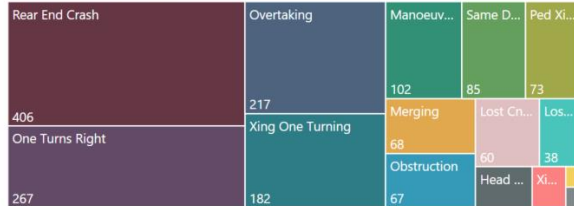
Number of crashes by Year



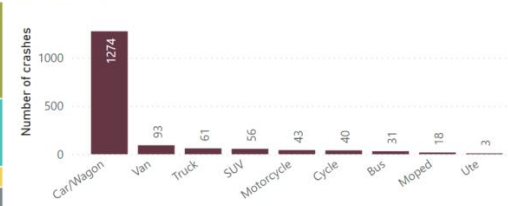
Number of crashes by Time



Number of crashes by Movement



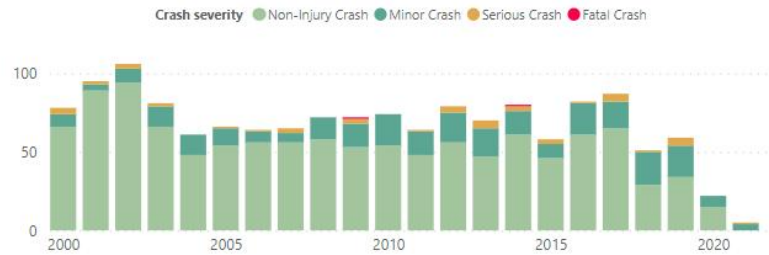
Number of crashes by Vehicle type



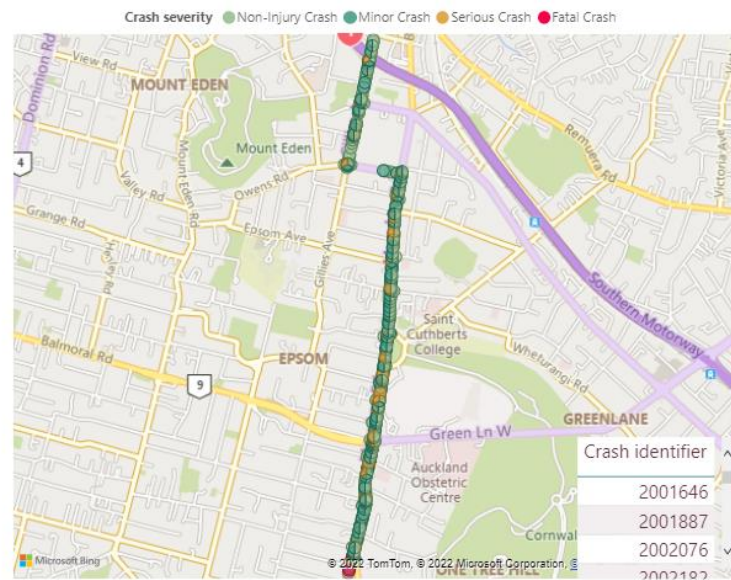
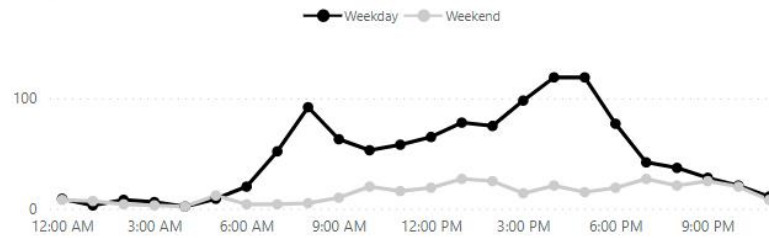
Combined Dash Board (Multiple Visuals)

Shows a summary of crashes on a route

Number of crashes by Year



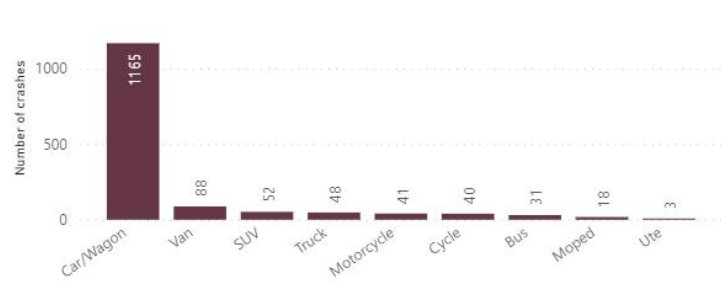
Number of crashes by Time



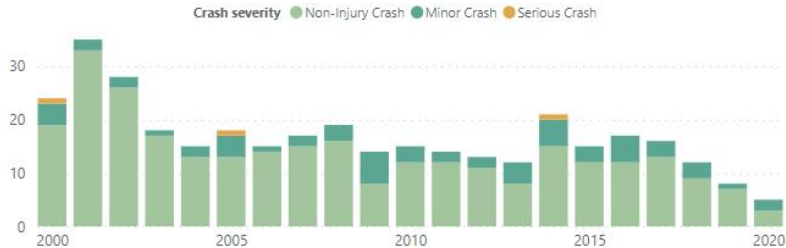
Number of crashes by Movement



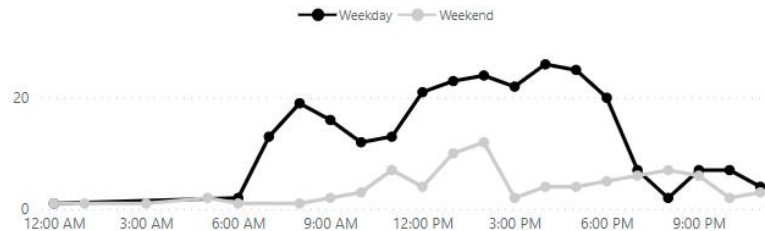
Number of crashes by Vehicle type



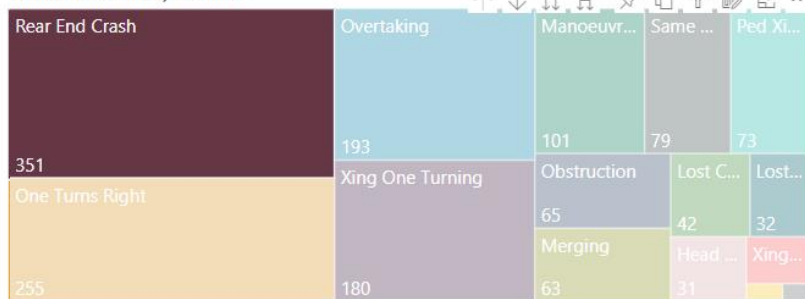
Number of crashes by Year



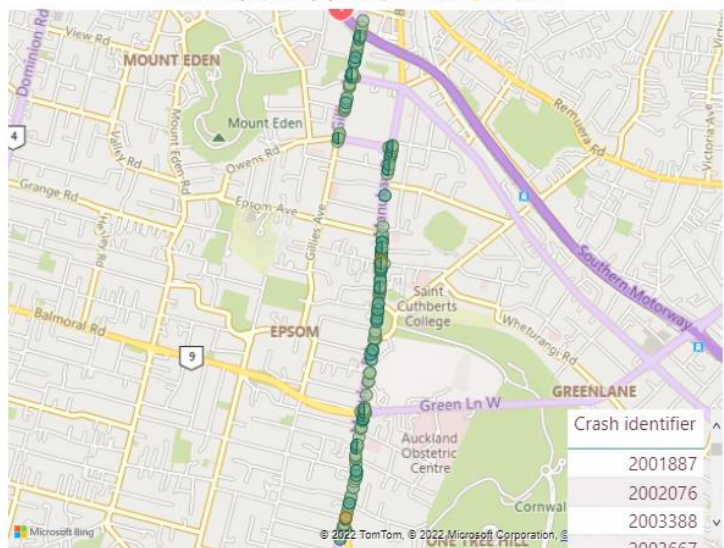
Number of crashes by Time



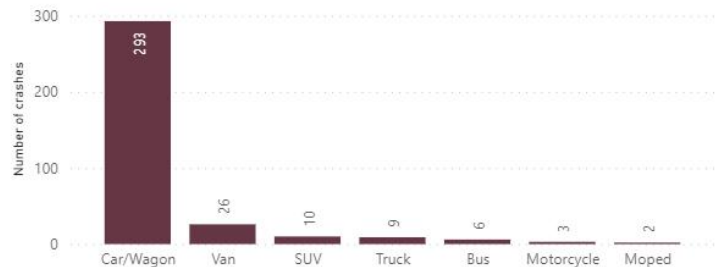
Number of crashes by Movement



Crash severity ● Non-Injury Crash ● Minor Crash ● Serious Crash



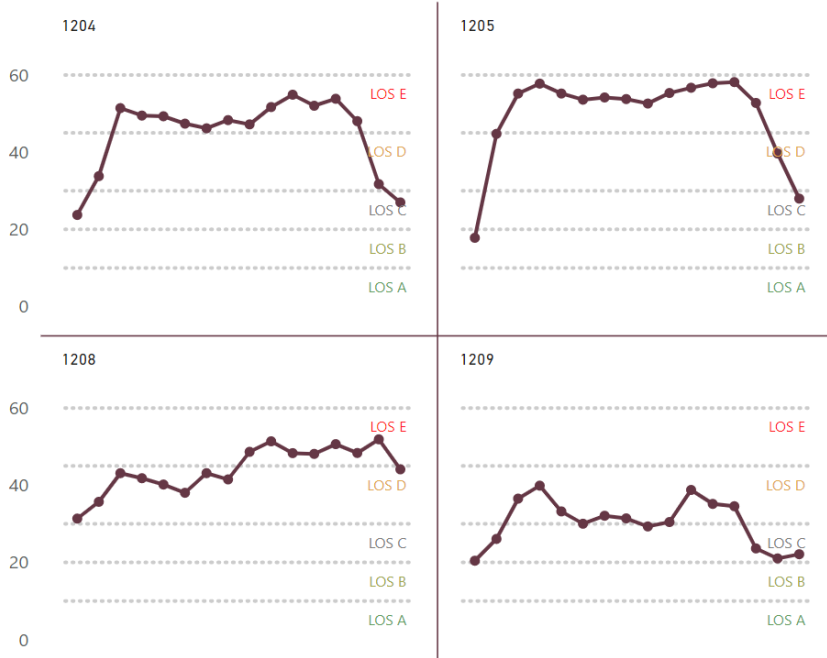
Number of crashes by Vehicle type



Pedestrian Performance

By Site

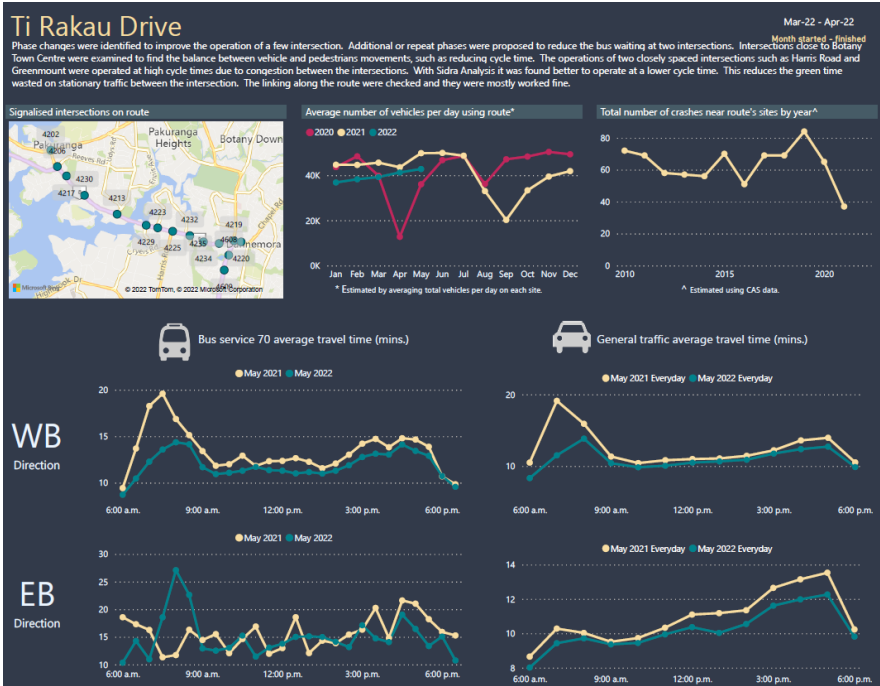
Estimated Average Waiting Time (s) by Time of day



Line Chart Visual
Shows pedestrian delay

Travel Time Report

By Route



Combined Dash Board (Multiple Visuals)

Shows the bus and vehicle travel time, before and after signal optimisation



**Less Time in
Data Analysis**



**Identify Focus
Area**



Questions?