City of Marion
Innovation Brief

Project: Oaklands Park Traffic Monitoring
Date: June 2019

Project Description

Deliver and implement a solution to provide more insight into traffic movements around the Oaklands Park precinct. Oaklands park is a residential area which sees significant rat-racing through the back streets due to the nearby Westfield Shopping Precinct and pressure from the Oaklands Railway station. This project provided equipment and data analytics to enable the following benefits:

- Traffic engineers were provided with a 24/7 destination survey of the included roads to better assess the delays and congestion caused by traffic in this area.
- Resident complaints are able to be better contextualised and associated with measurements of severity to best allocate resources to achieve measurable outcomes
- Trials of traffic management (speed bumps, turning restrictions) are able to be measured against real traffic flow

Traffic Monitoring Device Locations

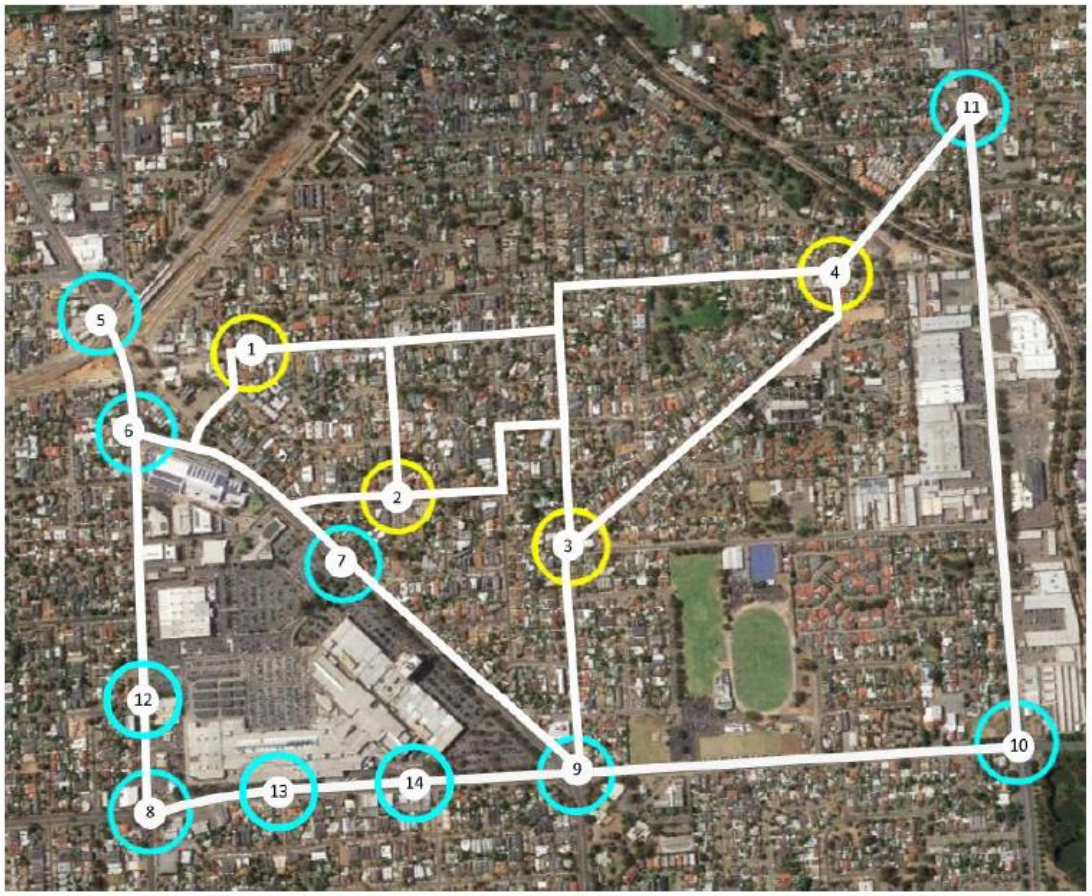

Figure 1 - Addinsight locations, new sites in yellow, existing DIT sites in blue

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Number	Site	Device	
1	Cnr Crew St & Dwyer Rd	Solar 3G Omnia	New installations
2	Cnr Trott Gr & Johnstone Rd	Solar 3G Omnia	
3	Cnr Finniss St & Norfolk Rd	Solar 3G Omnia	
4	Cnr George St & Finniss St	Solar 3G Omnia	
5	Oaklands Crossing	Existing DPTI	Data sharing agreement
6	Cnr Diagonal Rd & Morphett Rd	Existing DPTI	
7	Retail Precinct NE Exit	Existing DPTI	
8	Cnr Sturt Rd & Morphett Rd	Existing DPTI	
9	Cnr Diagonal Rd & Sturt Rd	Existing DPTI	
10	Cnr Marion Rd & Sturt Rd	Existing DPTI	
11	Cnr Finniss St & Marion Rd	Existing DPTI	
12	Retail Precinct W Exit	Existing DPTI	
13	Retail Precinct SW Exit	Existing DPTI	
14	Retail Precinct SE Exit	Existing DPTI	

Timeframe

The trial commenced in June 2019 and there is a data sharing agreement in place for three years. The length of trial will allow for rich data source around the community movements, change in behaviours with changes to the railway traffic and pedestrian connections within the area.

Cost

The cost of the trial is $43,748 (ex GST). Funded through grants from the Australian Government and Department of Innovation and Skills. The trial is utilizing the specialized skillset of SAGE automation in traffic movements, technology and data analysis. At the end of the trial the City of Marion can transfer the four monitoring devices to other locations, should the city which to explore solving another traffic community based problems.

Trial Progress

This project involves agreements between the South Australian Department of Infrastructure and Transport (DIT), City of Marion and SAGE Automation to enable a mutually beneficial outcome. Through the installation of measurement devices on local roads the City of Marion is able to extend the coverage of DPTI's existing traffic congestion analysis platform in exchange for insights into the surrounding road network.

SAGE has been instrumental in brokering the relationship and providing both parties with the tools and interfaces to exchange data and visualise it in a way which is useful for the City of Marion to reveal the trends of what is occurring in the back streets of the Oaklands Park area.

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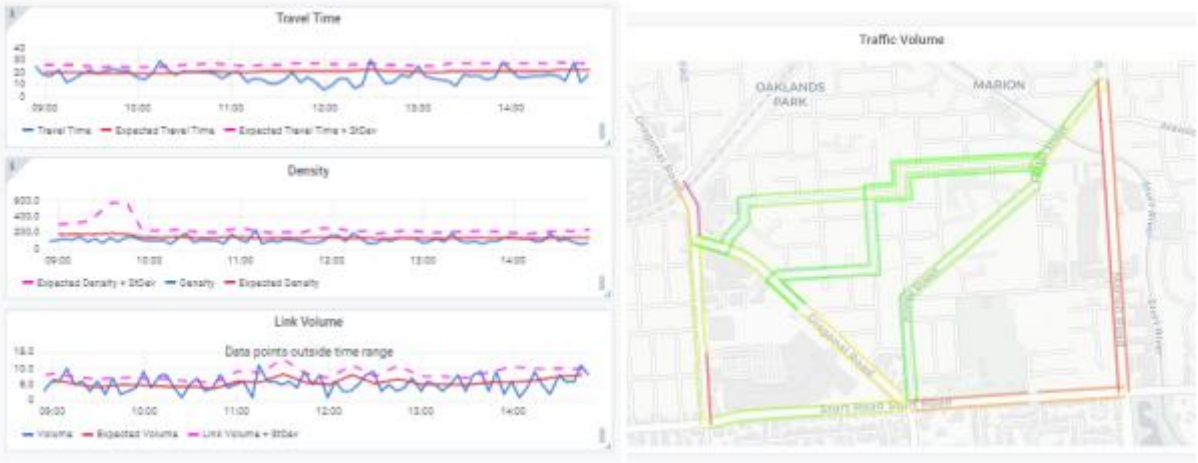
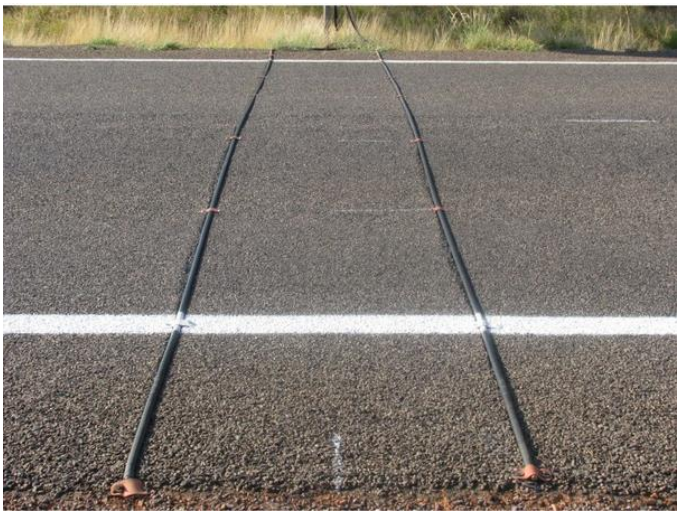


Figure 2 – Indication of the data available through the Addinsight monitoring devices

Figure 3 –Addinsight monitoring devices in construction and installed

Current State



Currently the City of Marion use Pneumatic Tube Sensors. These sensors capture the vehicle class, volume of vehicles and speeds. They are traditionally used by the Traffic and Parking unit to review and assess traffic conditions throughout the City of Marion. Traffic modelling isn't currently a part of the assessment, though modelling assumptions can be derived from the Pneumatic Tube Sensor data.

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Future State Opportunity

With access to real time traffic modelling, the opportunity to expand the Traffic monitoring sensors and data sharing network across local streets could change the way the Traffic and Parking unit undertake assessments.

No expansion funding for this solution has been identified within Long term financial planning past the initial trail.

March 2021