

Network Performance

**Measuring, managing and
Network Operating Plans**

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**Auckland
Transport**
An Auckland Council Organisation




1. Measurement
2. Management
3. Network operating plans
4. Route Optimisation

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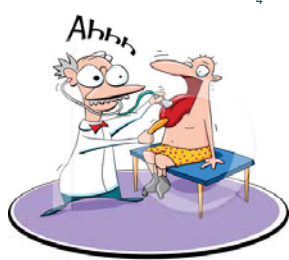
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1. Measurement


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Key measures:

- **Travel Time** – translated to LOS (HCM defined)
- **Corridor Productivity** – AUSTRoads defined + **more!**
requires volume and occupancy (AP-R305/07)
- **Key interests** – operational performance **by mode**,
intersection LOS/congestion



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1. Measurement

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Current progress:

- LOS or **travel time** for Freight on freight routes
- **Corridor Productivity** for general traffic routes
- Bus and Transit Lane annual reviews
- **Monthly Reporting** on Network Performance
- Customer Information
- Travel time reliability
- Travel time delay
- Operational performance by mode – also required for SmartRoads

1. Measurement

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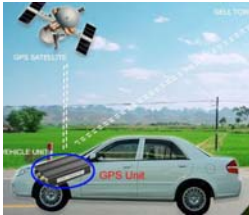

Travel Time is useful measure







1. Measurement

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Travel Time is useful measure
Various technologies

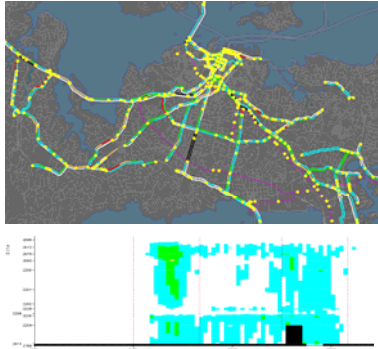









1. Measurement

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- GPS-based (*Snitch Inc. & Smartrak*)
- SCATS-based (*ARTIS*)




1. Measurement
- 2. Management**
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2. Management - RTTI

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1. On road
2. Website



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2. Management - RTTI

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The screenshot shows the MyAT website interface. At the top, there is a navigation bar with links for 'Bus Train Ferry', 'Cycling & Walking', 'Driving & Parking', 'Projects & Roadworks', and 'About us'. A search bar is located at the top left. The main content area features a map of Auckland with traffic congestion overlays in green, yellow, and red. A sidebar on the left contains a list of navigation options under 'Driving & Parking', including 'Pay or query a fine', 'Parking in Auckland', 'Carpooling', 'Commute', 'Live traffic congestion', 'Road works & disruptions', 'Parking permits', 'Monthly parking leases', 'Bus & transit lanes', 'Motorcycles', 'Parking rules & consultations', 'Road safety', and 'Cityhop'. A right-hand sidebar lists various transport categories: 'Traffic' (Congestion, Cameras, Signs, Journey Times), 'Public Transport' (Bus stop, Train stations, Ferry pier, Ferry positions, Customer Service), 'Parking' (Car parks, Motorcycle, Mobility), and 'Road Information' (Motorway Works, Roadworks, Public Events). A vertical photo on the right side of the page shows a person in an orange vest holding a red 'STOP' sign on a street.

2. Management - RTTI

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This screenshot shows a zoomed-in view of the MyAT website interface. The map is centered on a specific road area, with a pop-up window displaying traffic information for '09 W2 Greentane West R092W'. The pop-up window shows a table of traffic data:

Direction	10	11	12
DOMINION RD NEW NORTH SH16	10	11	12

The interface elements, including the navigation bar, search bar, and sidebar, are consistent with the previous screenshot. The vertical photo on the right side of the page remains the same, showing a person in an orange vest holding a red 'STOP' sign.

2. Management - reporting

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Arterial network performance February 2014 Morning peak

Travel speeds

36 km/h
is the average traffic flow speed on the network. The average weighted speed limit on the network is 55 km/h.



5 km/h
or slower is the average speed observed at the locations highlighted on the map.

Productivity

60%
of the benchmark productivity level is the average our SOI routes operate at in the morning peak.



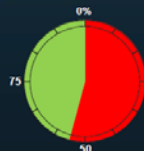
Morning peak LOS



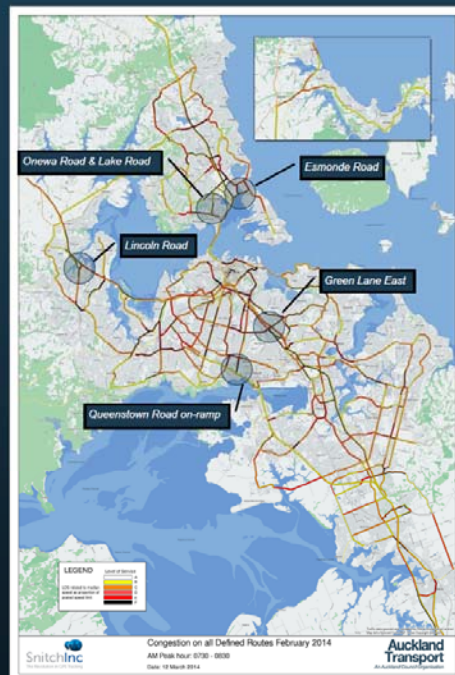
24%
of the network is considered congested.

Delay & reliability

D
is the LOS score for reliability. The difference between a typically long journey and the average is more than 50%.



52%
extra time is added to each journey due to congestion, compared with free flow conditions.



Auckland Transport Summary Sheet 1/03/2014



1. Measurement

2. Management

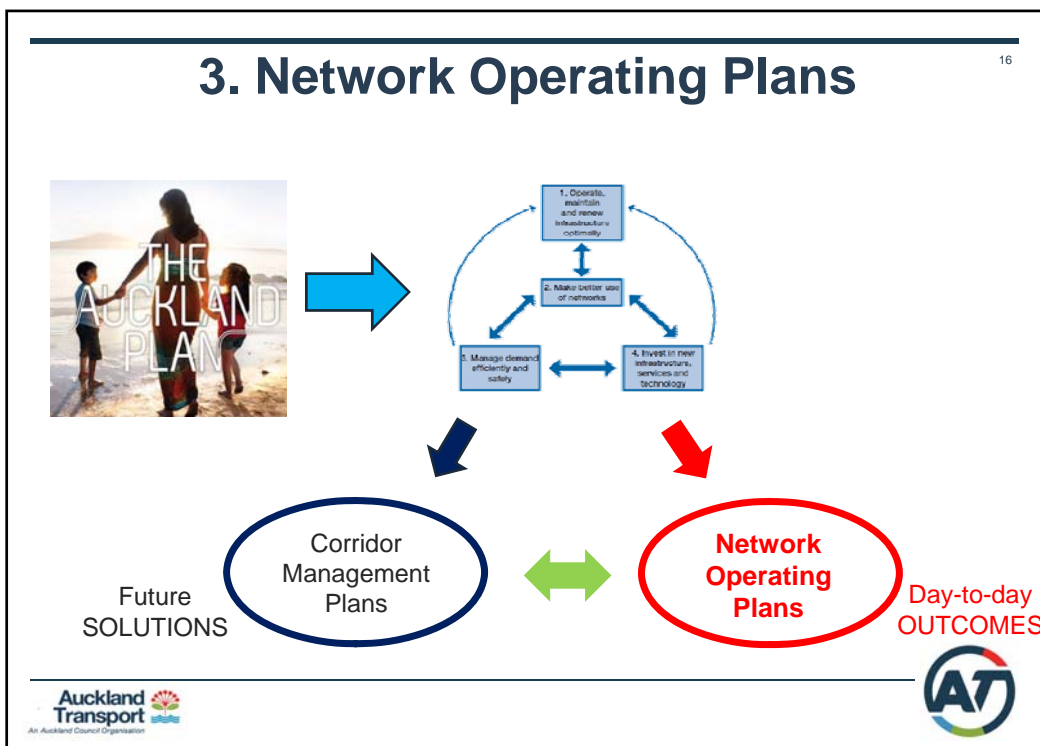
3. Network operating plans

4. Route Optimisation

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3. Network Operating Plans

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THE AUCKLAND PLAN

1. Operate, maintain and renew infrastructure optimally

2. Make better use of networks

3. Manage demand efficiently and safely

4. Invest in new infrastructure, services and technology


Corridor Management Plans

Network Operating Plans

Future SOLUTIONS

Day-to-day OUTCOMES


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3. Network Operating Plans 17

SmartRoads (*VicRoads*)

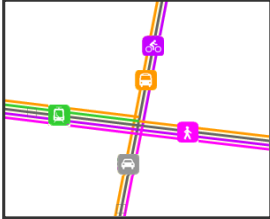
- A common language
- A process
- A tool



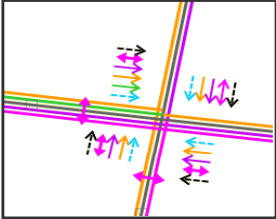



3. Network Operating Plans 18

Road User Hierarchy

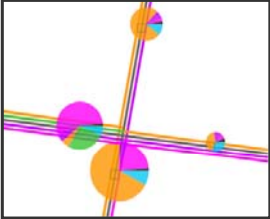


Network Operating Plan





Aspirational

Network Operating Gaps



Actual vs Aspirational

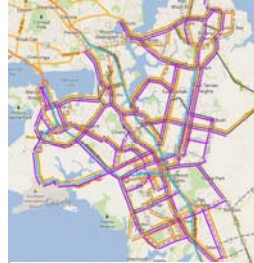



3. Network Operating Plans

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Horizontal Approach

Region-wide
High level



Vertical Approach

Focused – local area based
Detailed



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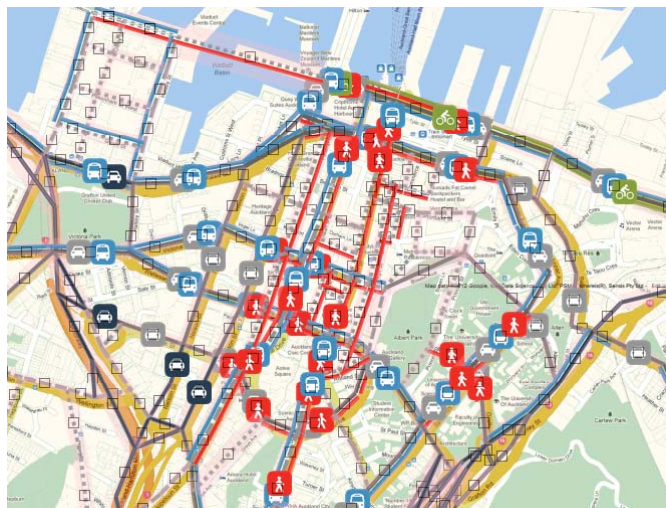
4. Route Optimisation

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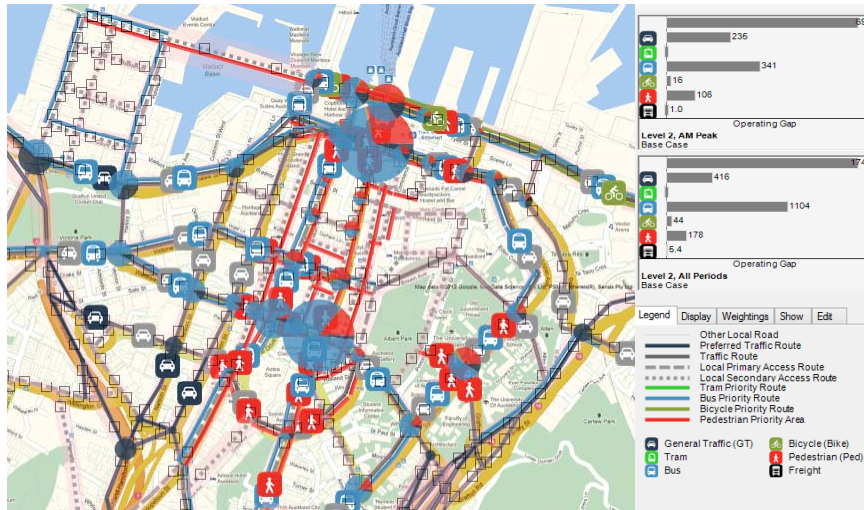
4. Route Optimisation

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4. Route Optimisation

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4. Route Optimisation

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4. Route Optimisation

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4. Route Optimisation

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Estimated Change

Level 2, PM Peak	0.0	6.4
Option 3	6.6	9.8

Legend

Other Local Road	Preferred Traffic Route
Traffic Route	Local Primary Access Route
Local Secondary Access Route	Local Tertiary Access Route
Local Quaternary Access Route	Local Quintenary Access Route
Local Sextenary Access Route	Local Septenary Access Route
Local Octonary Access Route	Local Nonary Access Route
Local Decenary Access Route	Local Undecenary Access Route
Local Duodecenary Access Route	Local Tredecenary Access Route
Local Quattuordecenary Access Route	Local Quindecenary Access Route
Local Sexdecenary Access Route	Local Septuaginta Access Route
Local Octoginta Access Route	Local Nonaginta Access Route
Local Centesima Access Route	Local Centesima Access Route
Local Centesima Access Route	Local Centesima Access Route

Net change in operation

Positive fit	Negative fit
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