



Ngauranga to Aotea Quay upgrade

Putting the smarts into Wellington's urban motorway

PROJECT UPDATE NO. 4

SEPTEMBER 2015



WHY THE SMART MOTORWAY: REDUCING CONGESTION ON WELLINGTON'S BUSIEST ROAD

Congestion adds cost, time and stress to individuals and businesses. People's lives are affected when they can't plan their time accurately, or miss an event due to congestion or delay clearing an incident on the road.

Because of these costs, the Transport Agency tries to reduce congestion where possible. If nothing was done, congestion would get worse as traffic volumes increased leading to longer and less predictable journey times.

Smart motorways ease congestion by smoothing the flow, ie they reduce the stop/start nature of congested traffic that sees motorists drive at speed until they reach the back of the queue, then rapidly slow down. Pacing the traffic smoothes the flow - it delays the onset and reduces the length of congestion which results in more consistent and predictable journey times.

Everyone is better off when traffic moves more smoothly. People can more accurately plan their time and travel costs are reduced.

SMART MOTORWAYS ARE DELIVERING RESULTS AROUND THE WORLD

Highways England recently reported that one year after introducing the smart motorway system on the M26:

- an average of 1000 more vehicles per hour are travelling through the area
- the speed has increased by an average 5-10 miles per hour
- injury crashes have reduced by 53%. They're confident it'll reduce even more as people get used to the system.

SMART DRIVING FOR THE SMART MOTORWAY

Everyone benefits from the smart motorway when everyone does the right thing. Understanding the smart system will help you do the right thing. Features of the smart system include:

Lane control signs – square electronic variable signs with three display options:

- **Electronic mandatory variable speed signs:** the smart system has the best chance to reduce congestion before the road gets gridlocked, that is as traffic is building up. The system reduces the speed limit to smooth the traffic flow. It can be confusing being slowed down when you can't see congestion ahead, but following the speed limit is part of being a smart driver. And remember, the speed limit displayed on the electronic signs is the legal speed limit.

- **Red X:** when an incident occurs or work is being carried out on the road, the red X is displayed to close the lane. It's illegal and potentially very dangerous to drive under a red X.
- **Merge arrow:** directs drivers to change lanes.

Emergency stopping areas – because there is no shoulder on the northbound lanes, we're building two emergency stopping areas. Normal motorway rules apply – emergency stopping areas are for emergencies only. They'll have sensors, cameras and a phone which will connect to Wellington's Transport Operations Centre. When a vehicle is ready to leave the emergency stopping area, operators will display the upstream red X to clear the lane, allowing the vehicle time to get up to the speed of the main traffic flow.

A ramp signal on the SH2 on-ramp at Ngauranga – a set of traffic lights that pace traffic from the on-ramp onto the highway during busy times. Ramp signals keep traffic flowing smoothly on the main corridor and make merging safer.

CONSTRUCTION UPDATES

Bridge move – the unused off-ramp at Kaiwharawhara has been pushed closer to the highway and 'stitched' to the Thorndon Overbridge with a seam of strengthened concrete. The bridge will be re-surfaced later in the year to become part of the new northbound lane.

New overhead gantries – four new overhead steel gantries have been installed. More will be installed in November, so look out for more information nearer the time.

The first new truss gantry, with its electronic signs already attached, was erected overnight in early August. Check out a time lapse sequence of the lift on our website.

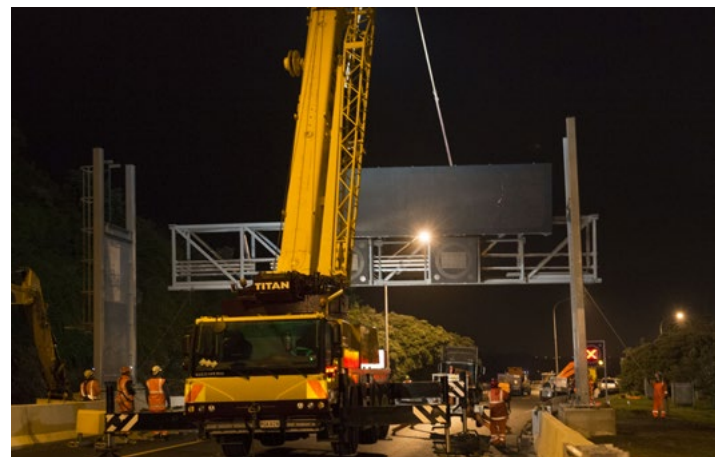


Lifting the beam of the SH2 off-ramp portal gantry.

We're installing two types of gantries – portal gantries are tubular and hold the green or blue fixed destination signs, while truss gantries are made up of a steel lattice and house the electronic variable message and lane control signs.

Central median barrier – the concrete extruding machine has been back on the job to install the next 500 metres of new barrier. The work site will then leap-frog south, so look out for changes as lane markings are reconfigured in early September.

State Highway 2 off-ramp at Ngauranga – work is due to begin in September widening the off-ramp. See the website for details.



The beam of the SH1 Ngauranga flyover pre-fitted with electronic signs being eased into place.

i CONTACT

Email us and/or sign up for our newsletter at ntaq@nzta.govt.nz

Find out more at nzta.govt.nz/smartmotorway

Transport for Wellington tfw.govt.nz

Visit the smart information site in the **Johnsonville Mall**

Sign up for Twitter updates [@nztawgtn](https://twitter.com/nztawgtn)

Slower today

better tomorrow