

FEBRUARY 2017

PROJECT UPDATE

Continuous line markings inside tunnels



Continuous line markings will indicate to drivers to not change lanes inside both tunnels.

If the sight of line markings in the tunnels is getting our people excited about the opening, eager travellers and project fans are likely to be no different.

Line marking inside both 2.4km tunnels was completed recently, achieving a key milestone prior to the opening in April.

“Our team are extremely pleased to complete

this work ahead of schedule,” says Project Engineer, Olly Burton.

“It’s exciting for our people to see the line markings painted, knowing that these world class tunnels will make it easier for all people to move around Auckland.”

The three lanes in each tunnel have been marked with continuous white line markings.

This is a safety measure implemented by the NZ Transport Agency to avoid the risk of tunnel traffic incidents.

The continuous line markings indicates to drivers that they are not allowed to change lanes or cross over the line while underground.

“With no off-ramps between the Maioro St and Great North Road interchange, vehicles should not need to change lines while within the tunnels,” says Olly.

“As drivers exit the tunnels, the line marking will return to the normal broken white dividing lines as seen on all other sections of the motorways around Auckland.”

Night shifts: preparation for opening

As we approach the opening of the Waterview project in April, the Well-Connected Alliance will continue to work efficiently and safely to ensure it has a faultless finish to New Zealand's largest and most ambitious roading project ever.

While the majority of work on the project is carried out during the day (7.30am - 6pm), Monday to Friday with some work as well on Saturday.

With Council approval, the project will also continue to work on selected nights (6pm - 6am) on some tasks that are less disruptive to daily life and safer to perform during those hours.

Night work will be concentrated in two areas across the project:

- The installation of lighting, CCTV cameras, establishment of pedestrian crossings, guard rail installation and other work.
- Equipment testing in the tunnel - sirens, smoke, PA system.
- Between Maoro Road and Hillsborough Road onramps - the widening of State Highway 20.

We understand that this work may inconvenience our neighbours, and recommend that if you have any issues/concerns to call 0508 TUNNEL (886635) to speak with a member of our Stakeholder and Communications team.



Testing our flow

Eight massive exhaust fans that will help to propel air fumes from inside the tunnels to the ventilation stacks were recently tested on the Waterview Connection project - and boy were they powerful.

A 'flow test' was conducted to ensure that the exhaust fans, four in each of the ventilation buildings, had been installed correctly and worked as intended.

A large group of Well-Connected Alliance engineers managed the flow testing alongside their counterparts from the German and Malaysian companies that had supplied equipment for these fans.

"It was a very positive outcome for our team, both from a confirmation of install and a proof of performance perspective with our overseas suppliers of the exhaust fans," says Project Engineer, Justin Johnson.

"The powerful exhaust fans exceeded our expectations as they managed to achieve full operating volume of 600 cubic metres of air a second at only 75% of its running capacity."

The flow test included a general function check, vibration measurements and acoustic testing of the fans as well as the attenuators which soften noise of the air fumes which are released into the atmosphere through the ventilation stacks.

Acoustic testing was carried out while the exhaust fans were operating at full speed, from the road level inside the tunnels, inside each ventilation building and close to nearby property boundaries.

Each test passed satisfactorily although the litmus test for consent conditions will occur later this month.

"Having achieved positive results in our flow testing, later this month we're going to test all our gear - exhaust fans, jet fans, and emergency PA messages inside the tunnel to test the maximum noise when the tunnels are fully operational," says Justin.



Exhaust fan air flow testing by the Witt & Sohn field engineer.



Anemometer grid air flow testing by the commissioning team.



Acoustic testing outside at the property boundary.

New bus lane to keep people moving

Auckland Transport is adding a new bus lane to Great North Road in Waterview to help move Aucklanders move more quickly through this area.

Work will commence mid-February to establish the new bus lane from the corner of Oakley Ave and Great North Road before extending out to the Great North Road Interchange (CBD-bound ramp).

From April to June, drainage and pavement construction will take place before resurfacing work is undertaken. The latter will take place at night when traffic volume on one of New Zealand's busiest arterial route is at its quietest.

The new bus lanes will be marked using a system called EverGreen, which has been developed to align with Zero Waste Policies. It is made of 90% renewable resources and is made in New Zealand.



Great North Road will have a new bus lane established on it.

Alice TBM goes back to school

Alice may be long gone from Waterview, but our giant Tunnel Boring Machine returned to school together with thousands of children across the country late last month.

The TBM will be an important part in the education of children this year, as many will be able to learn how this amazing machine excavated and constructed the Waterview Connection.

The story of Alice and the Waterview tunnels are featured in the latest issue of a journal called Show And Tell, published by the Ministry of Education, which explains to children how things work.

The story is called I Am Alice and it's pitched at year 4 pupils, children aged 8. In seven pages it explains in words and drawings how the TBM works, what her support crew did, and some history about tunnelling.



Innovation on the job



The roller invented by Tee.

Hundreds of kilometres of cable are required for the project and smart thinking by Suliano Kilisimasi - known to most people on the Waterview site as Tee - made the job of installing it safer on the project.

Commercially available rollers were usually a single roller design. Because

of this, and the lengths of cable runs, up to 14 people were required for some of the cable pulls to ensure the cable did not come off the roller. Also the person stationed by the rollers was at risk of being hit if a cable did flick off.

Tee's solution to make the job safer by using a 4 way roller system to keep the cables contained within the roller. He developed the idea while he was at home, where he designed one for himself and then constructed his prototype from materials lying around the house.

After his prototype was approved as safe and fit-for-purpose by the project, it was utilised onsite.

Many hours of work have been saved because fewer people have been needed on cable runs. More importantly, the cable pulling process has been safer with not a single person receiving manual handling injuries using the prototype designed and built by Tee.

VALONIA STREET SKATEPARK OPENING

You are invited to join the NZ Transport Agency, the Well-Connected Alliance and the Whau Local Board to celebrate the official opening of the Valonia Street Skatepark in New Windsor, Auckland.

These facilities are just one of the latest in a number of community amenities that also include shared paths, environmental and sports facilities being built as part of the Waterview Connection project.

The Waterview Connection is being delivered by the NZ Transport Agency on behalf of the NZ Government.

When Saturday 25 February 2017

Time 1pm - 3pm

Where Valonia Street, New Windsor (Off Richardson Road)

Parking Local roads (very limited spaces)



Another Alford Street Bridge milestone

The Waterview Shared Path team celebrated their latest project milestone ahead of Auckland Anniversary weekend.

The six large Super T beams were placed before the long weekend to complete the deck for the 90 metre-long and 16 metre-high Alford Street Bridge which crosses Te Auaunga (Oakley Creek).

“It’s been a solid graft from all the team to get us there,” says Site Engineer, Christian Nicklin. “We’re satisfied with our progress so far but understand there is still work to do before we open it to the public to enjoy and use as part of daily life.”

This work comes off the back of the installation of the two bridge piers onsite back in December 2016.

Beam placement took place at night when winds are generally lighter and safer to manoeuvre a large 450 tonnes cranes to lift the 70 tonnes beams into position.

The horizontal alignment of the deck has three waves which respond to the stream below it Te Auaunga (Oakley Creek) which means ‘swirling waters’ or ‘whirlpool’.

When the bridge opens, people will easily be able to access Great North Road at the Waterview end and the Unitec Campus.

Elsewhere on the project, piling work for the foundations at Phyllis to Harbutt Boardwalk is complete and at Soljak Place Bridge at the southern end of the project, a crosshead has been built on top of the southern pier to support the weight of the bridge beams that will cross the western railway line. Work is also continuing on constructing the three other northern piers for the bridge.

The shared path is planned to open in stages by mid-year 2017.



Alford Street is a 90 metre long, 16 metre high concrete footbridge for cyclists and walkers.



Alford Street Bridge beams are now in place over Te Auaunga.

Commemorative plaque re-established on cycleway

A commemorative plaque honouring the work of a cycle advocate has been re-established on the Northwestern cycleway.

The plaque honours the instrumental work by David Knight, who lobbied for a law change and negotiated with Government to allow safe cyclist and pedestrian access on motorway land as part of the first link of the Northwestern cycleway - Great North Road, Waterview to Te Atatu.

“The cycleway opened on 6 December 1992 which was ground-breaking for this type of community leisure facility in New Zealand,” says David.

“It’s great to see so many people continue to use it today, plus it’s been upgraded so it’s looking superb.”

The plaque had been taken out of its original position on the Northwestern cycleway as part of our work to refurbish the area in and around the Great North Road Interchange.

It’s been re-established next to the crossing on Great North Road (below the ramp taking vehicle into the tunnel) with a bright ‘red carpet’ to help it stand out to passersby.

“You got the red carpet treatment, Dad,” said his son Dale, who led the push for Auckland Council to recognise his father’s work with the plaque.

“We’re incredibly proud of his work to get this cycleway in. It took him five years to get the green light from Council. It’s certainly been the catalyst to get other shared paths in place across Auckland,” Dale said.



David Knight (right) with his son Dale Knight (left).