

Hamilton Section

Working at night solves asphalt issues

Roading crews are working day and night at Tamahere to build two new lanes for state highway traffic.

At 7am, the day crew at the Southern Interchange site begins laying and compacting a special blend of rock to provide a solid base for the road. This combination of large rock, finer material and cement is called Hi-Lab. On other projects, pavement trials have shown Hi-Lab is stronger and longer-lasting than other pavement designs.

At 7pm each evening, the night crew arrives to lay and compact 500 tonnes of asphalt per night on top of the rock, to form the road. Asphalt needs to be laid in a continuous process. Working at night means the bitumen plant can supply consistent quantities – and trucks delivering it can avoid peak traffic. Working at night also allows crews to construct the tie-ins to Cambridge Road outside of peak traffic hours.

Night teams work Sunday to Thursday. They place and compact the first layer of asphalt south to north, then repeat the process with a second layer. In total, they will lay 8800 tonnes of asphalt on the new lanes.

Once the asphalt is in place and the tie-ins to Cambridge Road completed, SH1 traffic will be moved off Cambridge Road on to the new lanes which will take traffic under the new East West Link Bridge. Dump trucks will then use the bridge to carry sand and soil from one side of the expressway to the other.

Cambridge Road north of Cherry Lane will be closed to allow excavation for the expressway. The section of Cambridge Road south of Cherry Lane will be rebuilt as a local road, with a shared walking and cycling path.

When the project opens in late 2020, the two new lanes will become a two-lane off-ramp to Hamilton.

Until it opens, residents living in Cherry Lane, Bollard Road and the section of Cambridge Road in between will get on and off the new lanes at a sealed intersection near Bollard Road. This temporary access will be maintained until the Hamilton section opens.

Building the link to Birchwood

A new link road is being built between Cherry Lane and Birchwood Lane. It will provide:

- access to and from the city for residents in Cherry Lane and Bollard Road
- an alternative access to and from the city for residents living around Newell Road and Birchwood Lane
- walking and cycling routes connecting the Tamahere community and the city.

To build this link, a road embankment is being built over two sections of gully.



Trucks deliver the hot asphalt and tip it into the paver machine. The paver then distributes a continuous layer of asphalt onto the base of Hi-Lab rock.



Vibrating rollers compact the asphalt.

Two culverts – one 75m long and the other 110m – are being built to carry the gully streams under the new road.

One is a large steel culvert 5m in diameter that will be constructed in sections. As sections are placed and secured, sand is carefully placed and compacted around them, being careful to maintain their cylindrical shape and strength.

Sand from the other side of the expressway will be transported to the gullies to build the embankment for the link road. Birchwood Lane has been widened and sealed to provide space for a right turn bay where the link road connects.

The other end of the link road will travel over the East West Link Bridge to connect with a raised roundabout at the intersection with Cherry Lane and Cambridge Road.



Project update:
What's happened since November?

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Did you know?
Facts about the project

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Project Update: What's happened since November?

1 Lake Road



Four lanes of sealed highway is being constructed from north to south. Construction of the first 3km is in progress, extending south from Lake Road. Construction is under way on the north-bound off-ramp from the Ngaruawahia section to Lake Road.

2 Resolution Drive Interchange and extension to Borman Road

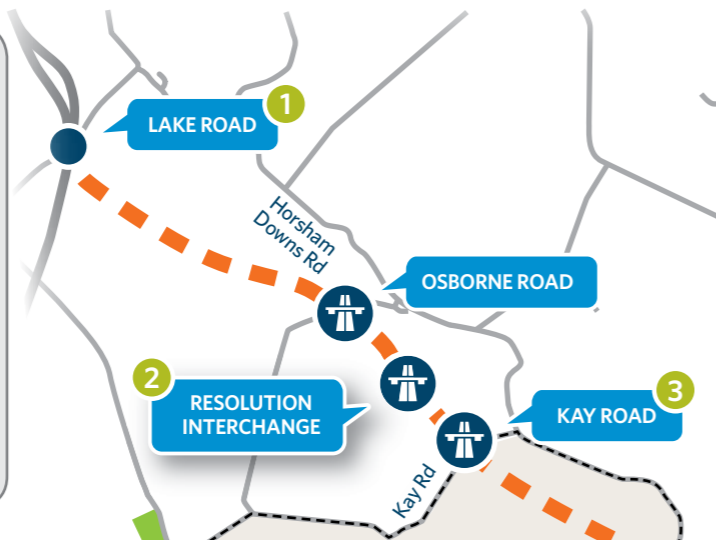


Earthworks for the on-ramps and off-ramps is now complete. Permanent drainage continues.

4 Gordonton Road



Gordonton Road Bridge is open to traffic. Road embankments to the north and south are complete.



3 Kay Road and Horsham Downs Road



The Kay Road Bridge is open to traffic. The Horsham Downs Bridge foundations are under construction. Horsham Downs Road is closed for bridge construction. It will reopen in late 2019.

5 Puketaha Road/Greenhill Interchange



Beams were lifted on to the bridge that spans Puketaha Road in early December 2018. The concrete bridge deck was poured in early February 2019. Construction of the embankments on either side of the bridge is nearing completion. At the Greenhill Interchange, the bridge is largely complete. The extension of Pardoa Boulevard is under way and the new road layout for Greenhill Road is under construction.

6 Ruakura Interchange



The settlement period for the bridge is now over, and the abutments on either side are almost complete. Construction of the Ruakura East connection is well advanced. Design for the Ruakura West connection to Silverdale Road and the University of Waikato is being finalised.

7 SH26 Morrinsville Road /Ruakura Road

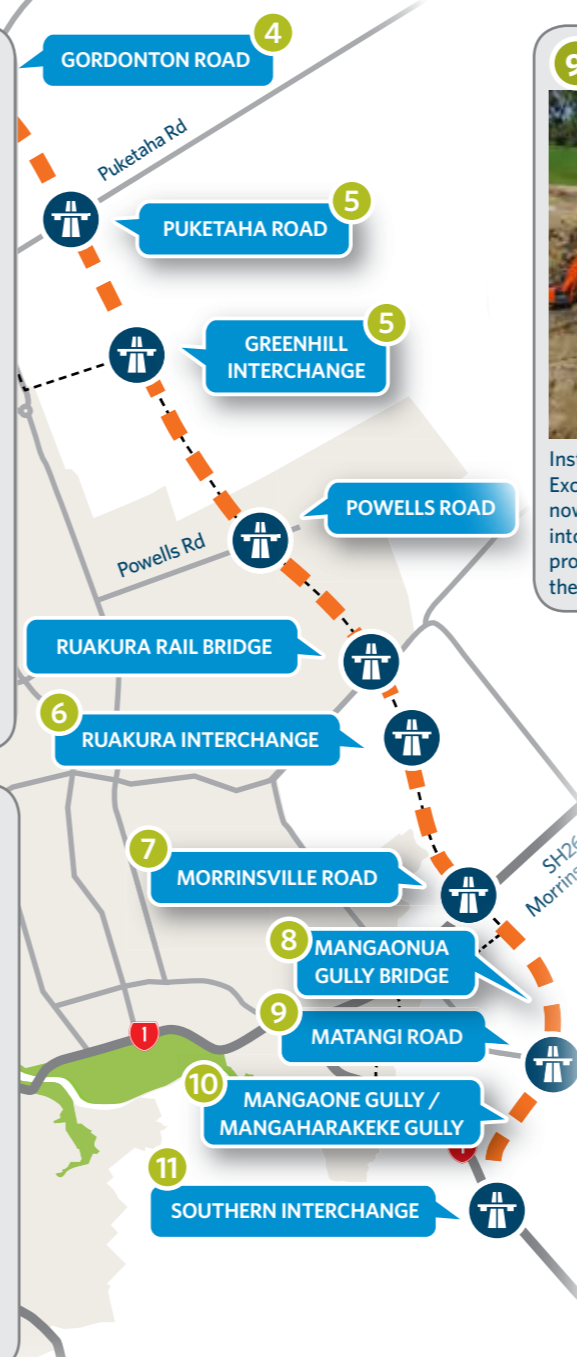


The SH26/Ruakura Road roundabout and reconstruction of Ruakura Road through to Vaile Road/Davison Road is now complete. The roundabout eliminates a known crash hotspot. The new section of road features right turn bays, kerbing and a footpath. Some finishing work is still to be completed along the road verges.

8 Mangaonua Gully Bridge



Construction of the two sets of supporting columns is now advanced. These columns will support three spans of steel bridge beams where they cross the Mangaonua Stream. Excavation of the expressway route to the south is now largely complete.



9 Matangi Road



Installation of bridge barriers is under way. Excavation under the bridge and to the north is now complete. Waste material has been formed into bunds on either side for visual and noise protection for neighbours. Excavation south of the bridge continues.

10 Mangaone Gully/Mangaharakeke Gully



Bridge piling is finished and many of the columns and piers that will support the bridge beams are now complete. The approaches to the bridges are now being formed. The first beams will be placed in March.

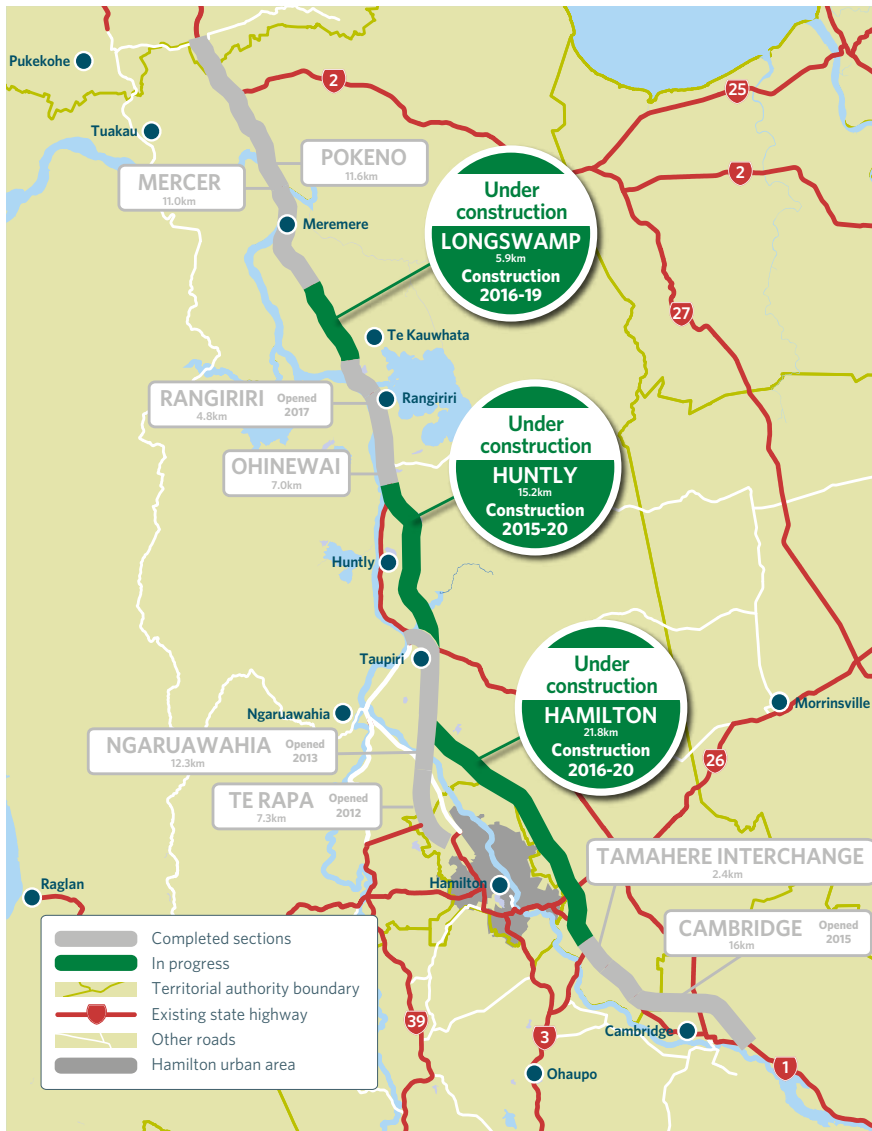
11 Southern Interchange



Retaining walls are almost complete for the Cambridge Road Bridge. This bridge will carry the on-ramp for city traffic heading south on to the expressway. Day and night works are under way at the Southern Interchange to complete two lanes into Hamilton. The new link road connecting Cherry Lane with Birchwood Lane is under construction.

Expressway Overview

The Waikato Expressway will improve road safety, reduce journey times and congestion, and boost economic growth in the Waikato and across the country. The Hamilton section is due to open in 2020. It will complete the 102km expressway that extends from the Auckland Motorway at Bombay to south of Cambridge.



Did you know?

1 So far, we've poured more concrete below the ground than above it.

- 23,763m³ has been poured into underground piles that strengthen the ground under bridges. That's 4752 concrete trucks with a standard 5m³ load. These piles prevent liquefaction damaging the bridges in an earthquake.
- 3,307m³ has been poured into piles for the bridge foundations. That's 661 concrete trucks.
- 8,187m³ been poured into the bridge structures above ground. That's 1637 concrete trucks.



2 You could drive a small digger through our biggest culvert.

- We wouldn't actually do it, but with a 5m diameter culvert it would certainly fit in the space.
- This steel multi-plate culvert is being installed in the East west Gully at Tamahere - part of the Southern Interchange.

3 We're doing our bit to control pests.

- Our staff built 120 rat traps for the control of rodents in and around our site.
- 90 traps have been donated to gully restoration groups. The photo shows how big the rats grow in the gullies.
- 30 traps are being used this year by our staff to control rodents on site.



Visitor Centre Open

Our Visitor Centre at 72a Ryburn Road is open each week day from 9am to 3pm.

View our 5m-long floor map of the whole project, see our scale model of the Southern Interchange, view large aerial photos and watch the latest videos on our big screen TV.



Any questions?



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Phone us on 0800 322 044



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