

Waitara to Bell Block safety improvements



# SH3/Princess Street roundabout and pedestrian underpass delivering safer journeys

In July, a significant milestone was achieved on Te Ara Tūtohu: State Highway 3 (SH3) Waitara to Bell Block with the completion of the roundabout and pedestrian underpass at the intersection of SH3 and Princess Street.

The Princess Street roundabout was built first because this intersection has the highest crash rate. There were 17 crashes at this intersection between 2017 and 2021 – more than any of the other intersections along the route.

A unique feature of the Princess Street roundabout is the pedestrian underpass which provides a safe place for people to cross the road – including students walking to and from Waitara High School, which is located on Princess Street.

Making sure people feel safe using the underpass has been a key priority of the design. Pedestrians can see right



through the underpass before entering, it is lit day and night, and is being monitored by CCTV cameras.

The underpass walls and the roundabout itself also feature a unique cultural expression developed by project partners Manukorihi, Ngāti Rahiri, Otaraua, Pukerangiora and Puketapu hapū (ngā hapū) in conjunction with Tihei Design and Workshop Studio.





### Waitara Road progress update

The team on-site are making progress on safety improvements at the intersection of SH3 and Waitara Road. They are currently focussed on completing works needed to support the roundabout, including:

- Stormwater work (this includes the installation of new drainage pipes, stormwater swales along Raleigh Street and SH3, and a stormwater outfall).
- The relocation of underground services (such as power and internet) along SH3 and Tate Road.
- Pavement work on Tate Road between the intersection with Raleigh Street through to SH3 following the relocation of underground services and stormwater works
- The installation of temporary pavement adjacent to the northbound lane of SH3 (this will be needed during stage 3 to allow traffic to flow in both directions).

In September we announced some changes to the design for improvements at the SH3/Waitara Road intersection to ensure the project delivers good value for money and is aligned with the Government Policy Statement on land transport 2024.

The changes include:

- Turning the section of Raleigh Street between SH3 and Tate Road into a cul-de-sac, with access in and out via SH3.
- Creating a T-intersection at the intersection of Raleigh Street and Tate Road with minor changes to the alignment of the road. At the intersection of Raleigh Street and Tate Road, traffic heading south on Tate Road will give way. There will be no access to the section of Raleigh Street between Tate Road and SH3 from Tate Road.
- No longer treating stormwater run-off from private properties adjacent to the intersection. All water runoff from the intersection itself will be fully treated. This will ensure an improvement in the quality of water that flows from the highway into local waterways.

Alongside the changes to the design, we are also looking to get better value for money elsewhere, such as with temporary traffic management, without compromising road worker or road user safety.



## Princess Street improvements: More than just a roundabout.

Construction of the Princess Street roundabout and underpass involved completing a significant amount of work all while navigating changing weather and leaving the road open to the public for most of construction so people could get where they needed to go.

Before work on the roundabout itself could begin, stormwater work took place to ensure that water would drain away quickly from the road and to prepare for future housing development. This involved digging 5 metres into the ground to install new pipes – all while navigating a network of gas, power, and internet cables and a high ground water table, which required water to be constantly pumped out of the work site.

Key to the new stormwater system is a new stormwater wetland swale that has been constructed at Manukorihi Park. The wetland swale has been planted with special plants that help remove contaminants. Once treated, the water is safely discharged into the stream in Manukorihi Park, which eventually discharges into the Waitara River (River). A stormwater outfall has also been constructed at the Waitara Awa which will safely discharge excess water in the event of heavy rain – preventing the wetland swale from flooding.

Aerial view of the underpass under construction



Construction underway on the stormwater wetland swale

The construction of the pedestrian underpass was a mammoth task. Over 1500m3 of earth was removed to make way for the underpass, that's enough earth to fill almost 5,000 bathtubs, all while the highway stayed open to traffic.

The pedestrian underpass itself is made up of 19 concrete frames each weighing 15 tonnes. Because the frames are so heavy a special crane strong enough to lift each one was brought in to put them in place.

Either side of the underpass we have planted a variety of native plants next to the shared use path. These make the underpass look more inviting and, alongside the roundabout, remind people that they are driving in an urban area with pedestrians around – helping to increase safety.

With the stormwater system complete and the underpass in place, the road could be rebuilt, and the roundabout installed. This involved widening the road in places, laying concrete foundations to ensure the road at the intersection is long lasting, laying down metal and asphalt and of course building the roundabout itself – all while allowing traffic to travel through the intersection.

We know the construction has been disruptive to the community and we want to thank everyone for their patience and understanding while we completed this important and necessary work.



Completing work on the highway during the summer closure



Concrete frame being installed for the underpass



Installing a pipe to handle stormwater



Laying asphalt on the highway



Placing rip rap for the stormwater outfall at the Waitara River



Pavement work being completed on the state highway

### SH3A and De Havilland Drive intersection improvements

We are currently working through changes to the designs for improvements at SH3A and De Havilland Drive. We remain committed to delivering both roundabouts to improve the safety and efficiency of the corridor.

It has been determined that to construct the roundabout at the SH3/SH3A intersection further funding may be needed. Work to complete investigations and the design for the roundabout, as well as gain consents, is continuing.

We will provide an update on the design and construction timeframes for both the SH3A and De Havilland Drive intersection improvements once they are confirmed.

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