

SH6/SH8B CROMWELL INTERSECTION IMPROVEMENTS

Answers to questions raised at the community drop-in session

APRIL 2021

FREQUENTLY ASKED QUESTIONS

How did this safety improvement project come about?

Between 2010 and 2019 there have been 23 crashes at this intersection with one crash resulting in two fatalities. In about 2012 we added a separated left turn lane and reduced the speed limit from 100km/h to 80km/h to manage the safety risk at this intersection.

With crash numbers rising at this intersection, we considered further improvements and identified a roundabout treatment to improve safety. The project was subsequently put forwards for and obtained regional NZ Upgrade programme funding.

Why a roundabout to improve safety at this intersection?

Roundabouts are proven to be effective at reducing serious injury crashes at intersections due to the lower operating speeds and low angle impacts. Waka Kotahi NZ Transport Agency believes this roundabout will deliver positive road safety outcomes at this intersection.

What factors led to the decision to build a single rather two-lane roundabout?

Initial communications around this project provisionally suggested a two-lane roundabout.

The design of a roundabout is ultimately determined by factors such as traffic volumes and the surrounding road layout. Traffic volumes are required to exceed 20,000 vehicles per day before a second lane to increase the capacity of the roundabout is considered. Adding a second lane is also dependent on the surrounding road layout. Making a roundabout two-lane without enough traffic using it increases the likelihood of conflicts between vehicles as they circulate and exit the roundabout. The decision for a single lane roundabout in this case was based around traffic modelling that carefully considered traffic growth as well as the efficiency and safety benefits of one and two-lane roundabouts.

What are the traffic counts at the SH6/SH8B intersection?

Pre-Covid Waka Kotahi figures show 8491 vehicles a day used the leg of the intersection SH8B with large trucks making up 7.2% of this figure. The daily vehicle count on the SH6 Queenstown leg of the intersection was 5420, of which 9.7% were trucks, and 6006 on the Wanaka leg - 8.7% of them trucks. These figures represent the total estimated number of vehicles in both directions (of each leg) so traffic leaving one leg contributes to the volume on another. All these traffic volumes are well below the 20,000 vehicles needed to justify a two-lane roundabout.

Is the roundabout capable of managing major traffic volumes during busy holiday periods?

Note no road is designed to accommodate absolute peak traffic volumes during busy holiday periods such as Christmas-New Year and Easter. During these infrequent peak load times, traffic will inevitably back up.

What were the findings of the traffic modelling?

The modelling shows a single-lane roundabout will provide the required levels of safety and efficiency at this intersection for many years to come. Even with 6% annual traffic growth, it would still take over 20 years for the SH6-SH8B intersection to reach the vehicle volumes to justify a two-lane roundabout.

How likely is that?

The prospects for sustained 6% increase in traffic volumes are not strong given the current COVID-19 impacts on population growth and tourist traffic. The project team has future-proofed the roundabout design and land requirements to accommodate two lanes when required. The detailed traffic modelling report for this intersection is available on the project website <https://www.nzta.govt.nz/projects/sh6-sh8b-cromwell-intersection-improvements/>

How well will a single-lane roundabout cope with the large trucks and trailers?

We worked with the NZ Heavy Haulage Association to ensure the roundabout meets the needs of the trucking industry as much as possible. This single lane roundabout has been designed to comfortably accommodate quad semis, the largest truck and trailer units typically using this section of SH6.

Why was the location of the pedestrian underpass near the SH8B-Barry Avenue chosen?

We chose the location of the underpass to create the most direct link between Cromwell and the Wooing Tree subdivision. The subdivision plans to have a retail/commercial area, so this location connects to this and allows people to access Barry Avenue to reach areas such as schools and recreation facilities. The position of the underpass also supports the Cromwell Masterplan, creating a key pedestrian/cycling link across SH8B.

Who pays for the SH8B Barry Avenue roundabout and pedestrian underpass?

The construction of this roundabout is a condition of the District Plan change to allow the Wooing Tree development to happen. The cost of the roundabout and the pedestrian underpass are not programmed to be funded by Waka Kotahi.

Are there plans to address speeds and safety on Short Cut Road especially at the intersection with SH6?

This intersection is outside the scope of this project. However, in the medium term, Waka Kotahi we will be looking at highway safety improvements at this location as part of its wider speed management and infrastructure programme. Any work to improve safety or lower speeds on Shortcut Road is a decision for the Central Otago District Council who manage this local road.

What engagement has there been about this project?

We have engaged directly with Central Otago District Council about this project over matters such as land requirements, roading impacts and 3 Waters services. We also had direct discussions with those directly affected, including the Heavy Haulage Association and a nearby vet practice. There has also been considerable media coverage since early 2020 about this project when it was announced as part of the regional NZ Upgrade programme.

What plans are there to reviews the speed limit through the SH6-SH8B intersection?

The speeds were reviewed and lowered about seven years ago when the layout of this intersection was changed to make it safer. A further review has been completed and is currently programmed for the NLTP 2021 – 2024 as part of the Road to Zero Safety programme.