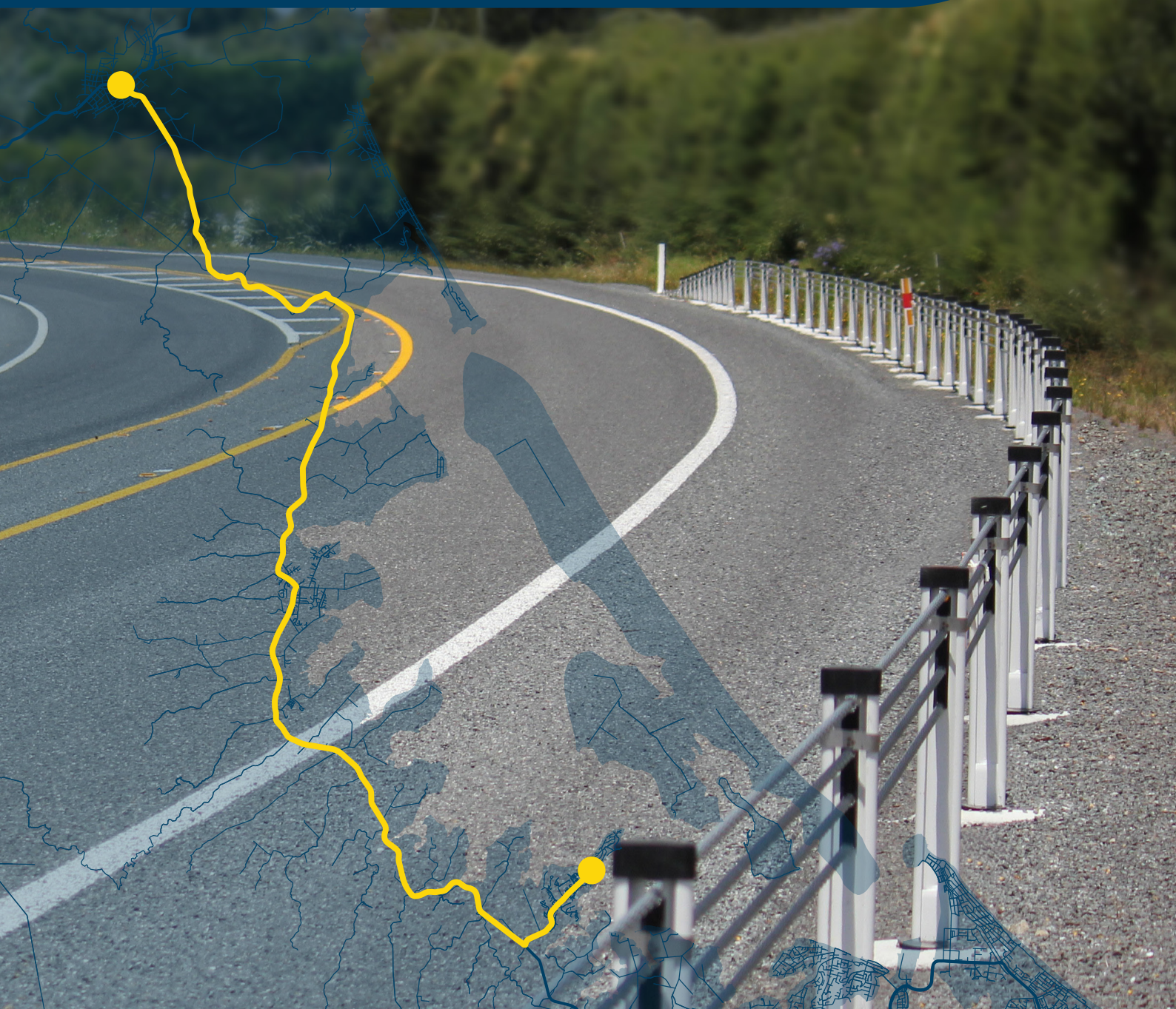


2 Waihī to Ōmokoroa safety improvements



Waka Kotahi NZ Transport Agency, together with NZ Police and Te Manatū Waka Ministry of Transport is focussed on delivering a wide range of safety improvements and other actions in 2023 to make progress towards the Road to Zero interim target of a 40% reduction in deaths and serious injuries on New Zealand roads by 2030.

Why we're doing this work

Crashes happen for many reasons. A 2018 study* found that for around 70% of crashes where people were seriously injured, drivers had generally followed the road rules.

Rather than driving recklessly, people had simply made a mistake or something unexpected happened. We all make mistakes, but our mistakes on the road shouldn't cost lives.

That's why Waka Kotahi is installing flexible median barriers and other proven safety interventions on high-risk roads such as State Highway 2 (SH2) between Waihi and Ōmokoroa, as part of New Zealand's Road to Zero strategy.

Reducing crashes is about much more than just how we drive - it's about all the different parts of the system - roads, vehicles, speeds, and people.

Road to Zero is about shifting our mindset to say "no more" to deaths and serious injuries on the road. We won't get to zero overnight, although by setting the vision and working towards it with a clear plan, we can save hundreds of lives and prevent thousands of injuries.



As longtime partners at the table Pirirākau, Ngāi Tamawhariua, Ngāti Te Wai and Te Whānau a Tauwhao have contributed to the project in a meaningful way by providing cultural and environmental advice and support for the project, including designing the cultural recognition. The design, pictured, was a taonga (gift) from Te Whānau a Tauwhao and derives from a mangopare (hammerhead shark) pattern found in the whareniui at Otawhiwhi Marae, which will be used at some of the roundabouts.

The group meet regularly to work through project priorities and opportunities for input and decision making.

"Even today, years after a fatal incident our hapū are still working with the family of the person that tragically died on this stretch of highway and will continue to manaaki the whānau."

Pirirākau hapū representative, Carlton Bidois

* New Zealand AA Research Foundation



Between 2009 and 2018 when this project began, 24 people died and 65 were seriously injured on this stretch of SH2.








The analysis of these SH2 crashes shows most were caused by running off the road, head-on collisions, and intersection crashes.

* Crashes are grouped to make this map easier to read. This should not be interpreted as where crash hotspots are.

- Deaths
- Serious injuries

When flexible median barrier is in place to divide lanes, roundabouts will provide safe turnaround points, removing the risk of making a right turn onto a busy State Highway 2.

*Flexible median barrier locations are approximate - this is currently in detailed design phase

-  Sections completed
-  Sections to complete
-  Flexible median barrier
-  Bridge
-  New roundabouts
-  Roundabouts completed
-  Roundabouts to complete



Road design is critical

Road design is the greatest contributing factor to fatal and serious crashes, according to a series of studies carried out in Sweden. Improving road design is the most likely way to reduce the number of deaths on our roads – and dividing roads with flexible median barriers is the most effective way to avoid crash fatalities.

To make this stretch of road safe we have:

- **widened SH2 to give greater recovery distance and consistency** across the corridor, the effect of this has also improved visibility
- put in **22km wide centreline** to help separate oncoming traffic
- installed **35km life-saving roadside safety barriers** giving protection from trees and deep ditches (these barriers have been struck 28 times since being installed in 2020)
- **made intersections safer** with wide shoulders and 18 right turn lanes
- removed overhanging shelter belts **reducing hazards** and ongoing disruption from maintenance
- **shifted power services underground**, and removed all overhead mains cables, eliminating unprotected power poles.

In the next phase of the project, flexible median barriers will be installed between Katikati and Ōmokoroa, along with intersection upgrades. Significant investigation, assessment and review has been carried out to determine which of 23 side roads are best suited for upgrades, with key considerations being availability of land, terrain, environmental impacts, crash rates, traffic volumes, and spacing between turnaround points.

Eight intersections were identified as being able to accommodate a roundabout and consultation on these options was carried out in 2021. Six roundabouts are confirmed and will provide safe turnaround points once flexible median barrier is installed. This means safe access to SH2 and reduced severity of crashes.

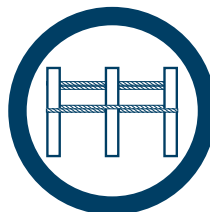
Good progress has been made with the construction of the first two roundabouts, and the detailed design for the remaining sites is near completion. This has included an independent safety audit. We are working through programming for the first section of flexible median barrier to be installed 2023/24.

Night work in progress at SH2 / Rea / Tetley roads



Flexible barriers work.

As part of the safety improvements already underway between Waihi and Ōmokoroa, additional investment has provided for life-saving barriers and intersection upgrades south of Katikati, making this road safe for everyone.



When you hit a flexible barrier, the cables flex, slowing your vehicle and keeping it upright. They're designed to absorb the impact, protecting you and others in the vehicle, ensuring your vehicle isn't deflected into another traffic lane.

Following installation of side barriers across the SH2 corridor, and a small section of flexible median barriers between Trig Road and Mathers Road, north of Katikati, these have been struck 28 times since 2020.

The installation of flexible median barriers is an effective infrastructure treatment and, combined with the improvements works already undertaken, can reduce the number of people killed or seriously injured on this section of SH2 by 75%. Based on previous crash data, this is estimated to prevent around 60 deaths and serious injuries over 10 years.

Flexible median barrier is already making a difference around the motu (country):



- Several kilometres of flexible median barriers were installed on State Highway 1 between Cambridge and Piarere in 2020. In the first four months of installation, the barriers were hit 40 times. That's 40 incidents which had the potential to result in serious head-on crashes.
- On SH2 at Bethlehem Tauranga, 1km flexible median barrier was installed in 2013. In the 10-year period before installation, one person died and 11 people were seriously injured along this short section of highway. Since the barriers were installed, there have been no crashes causing death or serious injury here. Since 2015, the barrier has been hit 78 times.
- 14km flexible median barrier installed on SH1 north of the Brynderwyn Hills in 2015; this section of SH1 was considered high-risk with five deaths and four serious injuries between 2006–2010. Since the barriers were installed there have been no deaths. In 2021, the barriers were hit 15 times.
- Following installation on SH1 Rangiriri – Waikato, SH58 Haywards – Greater Wellington and SH1 Centennial Highway – Kapiti Coast, and SH3 Te Awamutu – Ōhaupō, all four sites saw significant reductions in fatal and serious crashes.

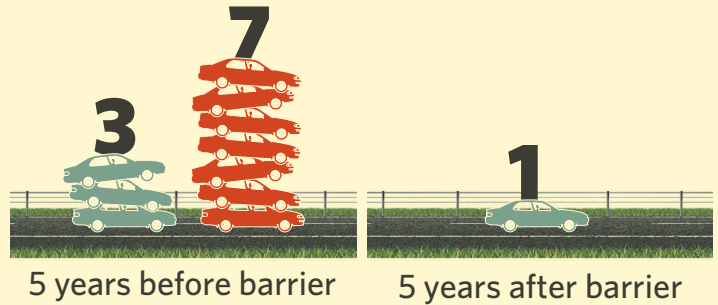
“We know flexible median barriers are effective, because of the number of times they get hit. Every time this happens, a potentially fatal or serious crash has been prevented.”

Rob Campbell,
Waka Kotahi
NZ Transport Agency
Regional Manager,
Maintenance and
Operations,
Waikato / Bay of Plenty



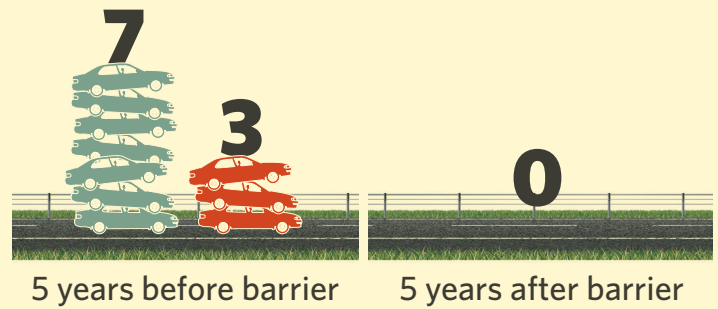
Where flexible road safety barriers are working to reduce harm

 Serious crash  Fatal crash



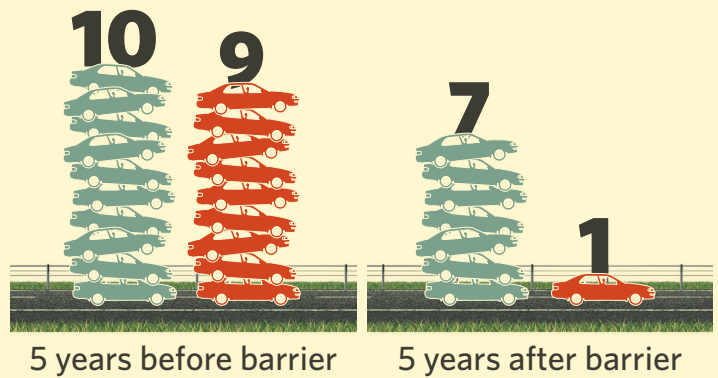
SH1 Centennial Highway - Kapiti Coast

Barrier installed 2005/2006



SH58 Haywards - Greater Wellington

Barrier installed 2003



SH1 Rangiriri - Waikato

Barrier installed 2005

Your local crew doing the mahi

Today, thousands of people are working on the roads for you. And every day, they experience abuse and dangerous behaviour, despite the fact they're out there make your roads safe. That's unacceptable.

This work includes completing our safety improvements and maintenance programmes across the country, as well as responding after weather events like Cyclone Gabrielle, to keep you safe. They're out there no matter the conditions, working for Aotearoa New Zealand, and they deserve to return safely to their families at the end of every workday.

Here's how you can help: stick to the posted speed limit, drive carefully, and treat workers with respect whenever you're passing through roadworks.

Our website is updated 24/7 with the latest information on state highway closures and disruptions. Check road conditions before you travel at journeys.nzta.govt.nz.



"There's a lot to a road, so many layers. There's pavement design, geometric design, barrier and retaining walls. There's so much more than meets the eye."

Georgia Hayden,
Engineer, Beca

The crew at the completed SH2 / Morton Road roundabout

Around 100 people are working on the Waihi to Ōmokoroa project - and around 80 live local. They are your neighbours, your community - your people.



Subscribe to updates about the project at nzta.govt.nz/w2o

23-SH-W2O-001