

This Case Study is part of the Safe System Approach for Speed Management Report: [Click here to read the full report here.](#)

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## Case Study A.8. Auckland Transport Safe Speeds—Auckland, New Zealand

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### *The Safe System Approach Highlights*

- **Death/serious injury is unacceptable:** New Zealand is committed to eliminating fatal and serious injury crashes. New Zealand’s Road to Zero National Road Safety Strategy 2020–2030 focuses on Vision Zero. Auckland Transport (AT) adopted Vision Zero in 2019 with the goal of reaching zero deaths on their road network by 2050.
- **Humans make mistakes/humans are vulnerable:** Set appropriate speed limits that are safe for all road users.
- **Responsibility is shared:** International road safety experts, along with AT staff and partners, worked together to change Auckland’s safety culture. Public consultation was part of the process to change speed limits in Auckland.

### *Background*

#### **National Context**

In 2016, the Waka Kotahi New Zealand (National) Transportation Agency published the *New Zealand Speed Management Guide*. This document set out a new framework for setting safe and appropriate speed limits. This was a significant shift in what speeds limits were considered appropriate for different roads and changed expectations around speed limit setting.

#### **Regional Context**

Auckland Transport is an Auckland Council Controlled Organization accountable for delivering an efficient, effective, and safe land transport system in Tāmaki Makaurau (Auckland), New Zealand’s largest city, with a population of approximately 1.6 million people.

From 2013 to 2017, Auckland experienced a 65 percent increase in road fatalities and serious injuries. In 2017 alone, the city saw 64 deaths and 749 serious injuries, a level of road trauma last seen in Auckland 20 years prior.

International road safety experts, along with AT staff, helped to encourage an important change in thinking about road safety within AT and their partners—shifting the approach from a traditional focus of “blaming individual road users” to instead “designing a more forgiving transport system where people who make common mistakes do not end up killed or seriously injured.” This helped to engrain the Safe System Approach and develop a desire for Vision Zero outcomes. It was also supported by the development of several guidelines and other documents aligned to a safe system and Vision Zero. One element of this approach is Auckland Transport’s Safe Speeds program.

## Process

The Waka Kotahi *New Zealand Speed Management Guide* was mainly used to determine the safe and appropriate speed limit for different roads in the AT Safe Speeds program.

The *Speed Management Guide* expects that the speed limit aligns with the safe and appropriate speed (SaAS); however, it is not always necessary to change the speed limit to the SaAS. Instead, the road could be redesigned to increase the SaAS so that it supports the existing (or higher) speed limit. This is where additional infrastructure is provided so that when a crash occurs at the current operating speed, it is unlikely to result in a death or serious injury.

Evidence-based tools like Infrastructure Risk Rating (IRR)—a road assessment methodology designed to assess road safety risk based on the road and roadside environment—and safety science were used to determine the correct part of the network to focus on. IRR was important in determining the SaAS for a road segment because, unlike traditional road safety metrics, IRR doesn't consider historical crashes. Instead, IRR is a proactive measure which is used to provide an approximation of underlying levels of risk for a road segment even when no crashes have been observed. This was especially useful for lower volume parts of the network. IRR can also be considered a basic version of the International Road Assessment Programme (iRAP) tool, requiring fewer input attributes which could be generated from the following existing national datasets:

- Road stereotype
- Alignment
- Carriageway width
- Roadside hazards
- Land use
- Intersection density
- Access density
- Traffic volume

For speed management in New Zealand, the IRR assessment was undertaken at a national level, giving councils like Auckland the evidence base to target their highest risk routes. The national IRR and SaAS assessments were then made available to all New Zealand local councils through the Safer Journeys Risk Assessment Tool website, also referred to as “MegaMaps.”

By combining the *Speed Management Guide* and MegaMaps metrics with AT's knowledge of the local network, AT was able to review current speed limits and determine safe and appropriate speed limits for the roads. These were then prioritized in the first tranche (phase). The next step was the bylaw consultation process which allowed Aucklanders to submit feedback on the recommended changes.

## Implementation

Following reviewing and consulting with the public, a list of possible options was provided to the AT Board which can be viewed via the following link: <https://at.govt.nz/media/1981112/item-131-attachment-6-open-22-october-2019-safe-speeds-implementation-options-report.pdf>.

Although small changes were made from the original scope, **Table 11** shows a high percentage of the benefits of the selected option, with a total estimated deaths and serious injury (DSI) reduction of 86.6 over a 5-year period.

**Table 11. Option 3 estimated costs and benefit table.**

Short List/ Option	Estimated DSI Saving in five years	Benefits Realization (%)	Estimated Cost
<b>Rural Roads (Option 3G)</b>	51.3	100.0%	\$0.5 million
<b>City Centre (Option 4E)</b>	24.1	96.8%	\$2.8 million plus approximately \$5–\$10 million supporting enhanced safety measures
<b>Urban Roads (Option 2A)</b>	7.2	100.0%	\$0.2 million
<b>Residential (Option 2A)</b>	1.5	100.0%	\$5.4 million
<b>Town Centres (Option 4A)</b>	2.5	100.0%	\$8.2 million
<b>TOTAL</b>	<b>86.6</b>	<b>99.1%</b>	<b>\$22–\$27 million</b>

Source: Auckland Transport, 2019.

### *The Speed Limit Bylaw*

In October 2019, the AT Board approved the Speed Limits Bylaw (2019). This bylaw reduced the speed limit on over 800 km (497 miles) of Auckland roads. Customer surveys, as well as a Monitoring and Evaluation Plan, were set up to monitor the effectiveness of the bylaw.

## References and Additional Information

Sources/Web pages for reference:

[Contact us \(Auckland, NZ\).](#)

[Safe Speed Programme 2019: Implementation Options Report.](#)

[Speed limit changes around Auckland Public Feedback Report.](#)