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## Tranche 2A Peer Review

### Auckland Transport



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### Quality Assurance Information

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## Executive Summary

Abley has been engaged by Auckland Transport (AT) to undertake an independent peer review of the proposed actions and priorities in Tranche 2A of the Safe Speeds Programme, to determine if these are adequately justified, supported by evidence and consistent with industry and AT speed management strategies, processes and guidelines.

The peer review was undertaken in three parts:

- **Strategic Alignment:** A review of AT's Safe Speeds Programme against AT nominated reference documents.
- **Methodology:** A review of AT's process and methodology used in identifying and selecting roads for lower speed limits for compliance with the Waka Kotahi Speed Management Guide and Mega Maps, and any AT nominated documents.
- **Application:** A review of a randomly selected and stratified sample of different road and environment types in Tranche 2A against the Safe Speed methodology and other available evidence.

This review was carried out as a desktop exercise and was conducted prior to public consultation.

Additionally, Auckland Transport has advised that the information they have provided for review, was in a draft format and indicated that there may be additional changes to the final outputs that are not captured in the review.

Overall, the peer review has found Tranche 2A to be a robust and well thought out stage of the Safe Speed Programme, with strong alignment to strategic documents and a methodology and application that is reasonably consistent with industry and AT processes. There are however several recommendations that have been made. These recommendations include:

- when the segmentation overlaps multiple Mega Maps segments, an explanation of the reasons for segmentation are documented.
- the variables that are required to be given "regard to" within the Setting of Speed Limits Rule be individually assessed in the MCA.
- where the IRR is extracted directly from Mega Maps, a sense check be conducted using the "Corridor editor" functionality within Mega Maps of the individual elements that make up the IRR score.
- the reason for selecting specific intervention approaches is documented. If the 'engineering up' intervention category is selected, this should also be documented, and a process developed to make sure road sections that have engineering improvements proposed are not missed.

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## Glossary of terms

Term	Definition
Deaths and serious injuries (DSI)	Road related fatalities and serious injuries that have or are expected to occur.
Safe and appropriate Speed (SaAS)	SaAS is a travel speed that reflects the function, design, safety and use of any given road.
Vision Zero	Vision Zero is an ethics-based transport safety approach developed in Sweden in the late 1990s. It places responsibility on people who design and operate the transport system to provide a safe system.
Safe System	<p>A safe system is a transport system that acknowledges that people make mistakes and human bodies are vulnerable to high-impact forces in the event of a crash.</p> <p>The safe system approach is a modern road safety approach that involves a holistic view of the road transport system and the interactions among roads and roadsides, travel speeds, vehicles and road users.</p> <p>The 4 elements of the safe system are:</p> <p>Safe roads – roads and roadsides that are designed to cater for human mistakes and manage the momentum when crashes do occur so that they do not result in a death or serious injury.</p> <p>Safe Speeds – Speeds that are survivable, cater to all road users and treat road users as vulnerable to high-impact forces</p> <p>Safe Vehicles – Vehicles that are designed to cater for the vulnerable nature of road users, use technologies that decrease the likelihood and severity of crashes and are maintained so that they operate as intended.</p> <p>Safe People – Road users that are safety conscious and make choices that do not put themselves or others in excessive danger.</p>
Mega Maps	The Waka Kotahi geospatial speed management tool. This tool draws on a wide range of data sets to provide strategic road safety metrics to road controlling authorities.
Engineer Up	<p>Engineer up in an intervention category.</p> <p>Engineer up interventions are typically only justifiable on economically important roads where the safety performance is poor and there is a strong case for investment to bring the corridor up to the required standard to support existing or higher travel speeds. On these roads, travel speeds tend to be close to or above the existing speed limit. Therefore, decreasing the posted speed limit to match the SaAS may be inappropriate and possibly have poor levels of compliance and therefore not reducing risk on the road segment to desired levels.</p>

Term	Definition
Challenging conversation	<p>Challenging conversation is an intervention category.</p> <p>These are corridors where current travel speeds and the speed limit are above the calculated SaAS. However, unlike roads that might be suitable for engineering up, these roads are typically lower order roads or do not have an established crash problem that justifies engineering intervention.</p>
Self-explaining	<p>Self-explaining is an intervention category.</p> <p>These are corridors where the posted speed limit is higher than the SaAS, but where road users are already travelling at (or even below) the SaAS. These are high benefit opportunities, because lowering the speed limit will tend to reflect how people are currently using the road and therefore be self-explanatory and credible</p>
Engineering Down	<p>Engineering Down is an intervention category.</p> <p>These are roads where safety performance is poor, the SaAS is lower than both the 85th percentile speed and posted speed limit and there is a strong case for investment to modify the corridor into a formation which supports lower than existing speed limits.</p> <p>On these roads, engineering measures are required to encourage users to travel at a lower posted speed limit.</p>
Vulnerable Road User (VRU)	<p>Non-motorised road users, such as pedestrians and cyclists.</p>
Homogeneous road segments	<p>Road segments where all of the base information remains the same over the length of the segment.</p>
Proposed speed limit	<p>The speed limit determined from AT's speed limit review methodology.</p>
MCA	<p>Auckland Transport's Multi Criteria Analysis spreadsheet used to carry out a speed limit review</p>

# 1. Introduction

Abley has been engaged by Auckland Transport (AT) to undertake an independent peer review of the proposed actions and priorities in Tranche 2A of the Safe Speeds Programme, to determine if these are adequately justified, supported by evidence and consistent with industry and AT speed management strategies, processes and guidelines.

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## 2. Background

### 2.1 Responsibility

Auckland Transport is the Auckland Council Controlled Organisation accountable for delivering a safe Tāmaki Makaurau land transport system.

### 2.2 Road Safety Crisis

From 2013 to 2017 Auckland tragically experienced a 65% increase in road deaths and serious injuries (DSI), and in 2017 alone there were 64 deaths and 749 serious injuries; a level of road trauma last seen 20 years ago. This increase in severe road trauma far exceeded population or vehicle travel growth.

### 2.3 Vision Zero and Safe System

To address this road safety crisis, in 2019 Auckland Transport adopted Vision Zero with the goal of reaching zero deaths or serious injuries on their road network by 2050. With Vision Zero, along with the Safe System approach, Auckland Transport set out to reduce death and serious injuries on the network.

The Safe System approach is a holistic approach to the road system and the interactions among roads and roadsides, travel speeds, vehicles and road users. It is an inclusive approach catering for road users, including drivers, motorcyclists, passengers, pedestrians, cyclists, and commercial and heavy vehicle drivers.

The Safe System approach operates on the following guiding principles:

- **People make mistakes:** Humans will continue to make mistakes, and the transport system must accommodate these. The transport system should not result in death or serious injury because of errors on the roads.
- **People are vulnerable, and the system should be managed within human biomechanical injury limit:** Our bodies have a limited ability to withstand crash forces without being killed or seriously injured. A Safe System ensures that the forces in collisions do not exceed the limits of human tolerance. Speeds must be managed so that humans are not exposed to impact forces beyond their physical tolerance. System designers and operators need to consider the limits of the human body in designing and maintaining roads, vehicles and speeds.
- **Shared responsibility:** The burden of road safety responsibility no longer rests solely with the individual road user. System managers have a primary responsibility to provide a safe operating environment for road users and ensuring that the system is forgiving when people make mistakes.
- **Strengthening all parts of the system:** All pillars of the road system need to be strengthened so that if one part fails, other parts will protect the people involved from serious harm.

Central to the Safe System approach is human tolerance to crash impacts and the management of kinetic energy transfer so these are within survivable limits. The Safe System approach is based on the following four Safe System pillars:

- **Safe Roads** - Roads and roadsides are designed and maintained to reduce the risk of crashes occurring, and to lessen the severity of injury if a crash does occur.
- **Safe Speeds** – speeds are managed to complement the road environment and ensure crash impact forces are within human tolerances.
- **Safe Vehicles** – vehicles lessen the likelihood of a crash and protect occupants and other road users.
- **Safe People** – road users are skilled, competent, alert and unimpaired.

Speed management is the key method for managing kinetic energy transfer. Having travel speeds that are aligned to the Safe System approach are statistically proven to provide a significant reduction to both deaths and serious injuries. These remain the most practical way for addressing safety of vulnerable road users, such as pedestrians, cyclists and motorcyclists.



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The Safe Speeds Programme focuses predominantly on the Safe Speeds pillar of the Safe System.

## 2.4 Safe Speeds

Safe Speeds are one of the most effective road safety interventions in decreasing both the likelihood and severity of crashes. AT has already made considerable steps in this space, delivering Tranche 1 of the Safe Speeds Programme in 2020, which is expected to achieve a reduction of 87 deaths and serious injuries over five years.

Following on from Tranche 1, in December 2020, the AT board approved the commencement of Tranche 2, which comprises around 1,022 km of high-risk roads across Auckland, in a variety of different settings including urban roads, rural roads, town centres, residential areas, schools, marae, kōhanga reo, kura kaupapa and wharekura. Tranche 2 has been split into two parts: Tranche 2A and Tranche 2B. Investigation work for Tranche 2A is currently underway, with Tranche 2B commencing later in 2021.

## 2.5 Tranche 2A

Our understanding of scope, methodology and application of Tranche 2A in its current state have been informed from the following documents:

- Tranche 2 Board Report
- Safe Speeds Roadmap
- Safe Speeds Milestone Schedule 23 March 2021
- AT Safe Speeds Tranche 2A Speed Limit Review Process
- Multi Criteria Assessment Documents
- Discussions with the AT Safe Speeds team

A high-level synopsis of the content provided in each document is provided below.

### ***Tranche 2 Board Report***

The Tranche 2 Board Report approves the scope and scale of Tranche 2 for investigation, stating the length of Tranche 2 to cover approximately 1,022km that will be broken down into two separate tranches.

It also discusses AT's Speed Limits Bylaw 2019, which commenced on 30 June 2020 and is on track to be completed by 30 June 2021.

### ***Safe Speeds Roadmap***

The Safe Speeds Roadmap is a high-level timeline overview of the Safe Speed Programme plan covering Tranche 1, 2 and 3.

### ***Safe Speeds Milestone Schedule 23 March 2021***

The Safe Speeds Milestone Schedule is a comprehensive breakdown of the entire Safe Speeds Programme over the period from 8 February 2020 to 27 February 2021. Covering the last stages of Tranche 1 alongside both Tranche 2A and 2B. It includes all tasks and responsibilities over this period.

### ***AT Safe Speeds Tranche 2A Speed Limit Review Process***

The AT Safe Speeds Tranche 2A Speed Limit Review Process document outlines the methodology for reviewing existing speed limits and proposing any speed limit changes within the AT road network for Tranche 2A of the Safe Speeds Programme. It separates out the process for each workstream outlining both the stages and reasoning behind why certain decisions have been made for each workstream.

### ***Multi Criteria Assessment (MCA) Documents***

An excel sheet that documents a significant amount of information relating to Tranche 2A on a per road segment basis. This includes the crash history, characteristics of the road and road environment, safety risk metrics and comments captured from the site inspection.

## 3. Strategic Alignment

### 3.1 Review Documents

The strategic alignment of Tranche 2A of the Safe Speed Programme has been reviewed against the following documents nominated by AT:

- Government Policy Statement on Land Transport (GPS)
- Auckland Plan 2050 – Auckland Council
- Auckland Transport’s Regional Land Transport Plan
- Vision Zero for Tāmaki Makaurau
- AT Road Safety Programme Business Case (PBC)
- Safe Speeds Programme Business Case SSBC

### 3.2 Evaluation

#### ***Government Policy Statement on Land Transport***

##### **Description**

The GPS outlines the government’s 10-year land transport investment strategy. It also provides guidance to decision-makers around how the government will prioritise resource allocation. The GPS operates under the Land Transport Management Act 2003 (LTMA 2003), which sets out the scope and requirements for the GPS.

##### **Alignment**

The GPS is supportive of a review of speed limits, outlining that tackling unsafe speeds is one of the elements that will be used to deliver its road safety related outcomes. It goes on to identify the proportion of state highway and local road networks that require speed limits to align with a safe and appropriate speeds as one of the proposed indicators of achieving its first strategic priority of *Developing a transport system where no-one is killed or seriously injured*.

Additionally, one of the proposed indicators in the GPS is mode share for how children travel to/from school. The inclusion of the schools workstream in Tranche 2 is likely to provide safer environments for children to walk to and from schools.

This indicates very strong alignment between Tranche 2A of the Safe Speeds Programme and the GPS.

#### ***Auckland Plan 2050 – Auckland Council***

##### **Description**

The Auckland Plan 2050 is designed to ensure Auckland grows in a way that will meet the opportunities and challenges of the future. It aims to contribute to Auckland’s social, economic, environmental and cultural well-being.

The Auckland Plan 2050 has the following focus areas when it comes to Transport and Access:

- Make better use of existing transport networks
- Target new transport investment to the most significant challenges
- Maximise the benefits from transport technology
- Make walking, cycling and public transport preferred choices for many more Aucklanders
- Better integrate land-use and transport
- Move to a safe transport network, free from death and serious injury
- Develop a sustainable and resilient transport system

## Alignment

The Auckland Plan 2050 states that Auckland Council will make necessary regulatory changes to promote safety, such as targeted speed limit reductions and states that appropriate speed limits must be introduced in high-risk locations to move to a truly safe transport network. While Tranche 2 focused on an area-wide approach rather than targeted at high-risk locations, it goes a long way to reducing speeds on residential streets where there are high numbers of pedestrians and cyclists, which is strongly aligned with what the Auckland Plan is aiming to achieve.

Overall, we consider there is good alignment between Tranche 2A of the Safe Speeds Programme and the Auckland Plan 2050.

## ***Auckland Transport's Regional Land Transport Plan***

### Description

The Regional Land Transport Plan (RLTP) is the 10-year plan for Auckland's transport network. It details the areas that AT, Waka Kotahi and KiwiRail will focus on to respond to the region's transport challenges. It also outlines the proposed 10-year investment programme for specific transport projects.

The content of the RLTP is guided heavily by several central and local government policies, strategies and decisions.

### Alignment

The RLTP highlights the importance of ensuring speed limits on Auckland's roads are safe and appropriate and states its plan for ongoing implementation of speed limit reviews on high-risk roads to ensure they are safe and appropriate.

The RLTP and the Safe Speeds Programme both recognise that network-wide safety improvements like speed management are needed to create a safer network.

This is very much aligned with what Tranche 2 of the Safe Speeds Programme aims to achieve.

## ***Vision Zero for Tāmaki Makaurau***

### Description

Vision Zero for Tāmaki-Makaurau Auckland is a transport safety strategy that aims to achieve no deaths or serious injuries on Auckland Transport's road network by 2050. It is coupled to taking a Safe System approach to the transportation system.

Implementation of Vision Zero for Tamaki Makaurau is overseen by the Tāmaki-Makaurau Road Safety Governance Group, a partnership between various agencies Auckland Transport (AT), NZ Transport Agency (NZTA), NZ Police, Auckland Regional Public Health Service (ARPHS), Accident Compensation Corporation (ACC), Auckland Council (AC) and the Ministry of Transport (MoT).

Vision Zero for Tāmaki Makaurau states that speed management is central to achieving Vision Zero. It goes on to discuss how infrastructure and speed limits need to reflect the true risk of the road.

This document also highlights the importance of a Safe System and how Vision Zero builds on the Safe System approach. Safe speed is one of the four pillars that make up a Safe System and is recognised internationally as a key element in achieving Vision Zero.

Fundamentally, Vision Zero for Tāmaki-Makaurau supports speed limit reviews stating that safe speeds are a key method of reducing the risk of dying or being seriously injured.

### Alignment

Tranche 2A takes significant steps in reviewing Auckland speed limits, with an aim to set safe and appropriate speed limits that are better aligned to the Safe System approach, and at times going beyond even national guidance to

ensure that speeds are set at lower survivable limits. Thus, Tranche 2 helps to move Auckland towards its Vision Zero goals. For this reason, the review found there is significant alignment between Tranche 2A and Vision Zero for Tāmaki Makaurau.

### ***AT Road Safety Programme Business Case (PBC)***

#### **Description**

The PBC is a 10-year Road Safety programme for the Auckland Transport Network. The geographical area of the PBC covers Auckland Transport's road network, with consideration to the wider Auckland context. In terms of contents, it covers wider legislation, education and enforcement across all roads and transport facilities, including state highways while also covering funding for local roads.

The document highlights the substantial increase in DSI from 2014-2017 and lays out the significant change in Auckland's approach to road safety.

The desired benefit of the PBC is to achieve a sustained reduction in road deaths and serious injuries, create safe and healthy streets for all road users, safe roadside and street environment and encourage safe road user behaviour.

In terms of speed management, the PBC also states there is a significant amount of Auckland's road network where vehicle speeds are higher than safe or appropriate speeds, going on to note that either these roads should be improved, or the speeds should be reduced.

In addition, one of the investment objectives of the programme is to create a safe road and roadside environment by increasing the proportion of the road network where speed limits are adjusted to align with safe or appropriate speeds.

#### **Alignment**

There is good alignment between the AT Road Safety PBC and Tranche 2A of the Safe Speeds Programme. With an estimated 1,022 km of speed limit changes, the Tranche is expected to deliver a significant reduction in deaths and serious injuries, which is a key goal of the PBC.

Overall, Tranche 2A makes a good impact on achieving the road targets of the PBC by creating a safer system, implementing changes that support children walking and cycling to/from school, and reducing the severity of any crashes that do occur.

### ***Safe Speeds Programme Business Case SSBC***

#### **Description**

The SSBC covers an element of the PBC and is for the first three years of deliverables. The SSBC is the basis of the Safe Speeds Programme for the next 2-3 years.

The purpose of the SSBC is to:

- provide a summary of the technical analysis of current problems articulated in the PBC, and to
- describe the process of identifying and assessing a range of options that achieve a defined set of objectives.

The SSBC sets out the plan for the Safe Speeds Programme. It highlights that there are a significant number of speed limits currently on the Auckland local road network which do not accurately reflect the road's function, design, safety risk/survivability or current use. It also states that there has been a lack of comprehensive speed management to set safe speed limits and control actual travel speeds to safe levels. In addition, it indicates that this misalignment is a key factor in the crisis in road safety performance that Auckland experienced.

With the problem identified; the SSBC outlines how the Safe Speeds Programme will address these issues and provide a sustained reduction in road deaths and serious injuries, create safe and healthy streets for all road users, safe roadside and street environment, and encourage safe road user behaviour.

### Alignment

There is good alignment between the SSBC and Tranche 2A of the Safe Speeds Programme. The considerable DSI reduction that the programme is estimated to achieve makes good progress towards achieving the overarching national context of the PBC of creating a land transport system that is free of death and serious injuries. Additionally, the programme takes steps in addressing the issue of a disconnect between current speed limits and safe and appropriate speed limits outlined in the SSBC.

Tranche 2A is expected to make good progress towards the investment KPIs in the SSBC of:

- Reducing road deaths and serious injuries crashes.
- Reducing road deaths and serious injuries crashes involving a vulnerable road user.
- Improved community perceptions of vehicle speeds on routes to school, town centres and public transport as safe environments for active modes
- Increased proportion of town centres with a high number of people walking and cycling where operating speeds are 30 km/h or lower.
- Increased % of road network where speed limits align with safe and appropriate speeds.
- Increased % of traffic travelling within speed limits by activity area.

While the schedule for delivery has not been able to be achieved, the scope and scale of Tranche 2 is similar to that described in the SSBC. Reasonable alterations have been made from the SSBC as more information has become available, as would be expected in a programme of this scale.

### 3.3 Summary

**Table 3.1** summarises the extent to which Tranche 2 of the Safe Speeds Programme is aligned with the nominated strategic reference documents.

**Table 3.1** Strategic Alignment Summary

Document	Tranche 2A Alignment	Comment	Auckland Transport's Response
Government Policy Statement on Land Transport	Good	The GPS is supportive of a review of speed limits, outlining that tackling unsafe speeds is one of the elements that will be used to deliver its road safety related outcomes.	
Auckland Plan 2050 – Auckland Council	Good	<p>While the Auckland Plan does have goals to implement safe and appropriate speed limits, it mainly discusses reviews on high-risk roads, whereas the Tranche 2A of the Safe speed program takes the best practise approach of conducting area-based reviews.</p> <p>Tranche 2 goes a long way to reducing speeds on residential streets where there are high numbers of pedestrians and cyclists, which is strongly aligned with what the Auckland Plan is aiming to achieve.</p>	Areas are selected in order to target high-risk roads with area-based reviews needed to provide consistency between the high-risk roads and the surrounding road network.
Auckland Transport's Regional Land Transport Plan	Good	The RLTP highlights the importance of ensuring speed limits on Auckland's roads are safe and appropriate and states its plan for ongoing implementation of speed limit reviews on high-risk roads to ensure they are safe and appropriate.	
Vision Zero for Tāmaki Makaurau	Good	Tranche 2A takes significant steps in reviewing Auckland speed limits, with an aim to set safe and appropriate speed limits, that are better aligned to the safe system approach. Thus, Tranche 2 helps to move Auckland towards its Vision Zero goals.	
AT Road Safety Programme Business Case (PBC)	Good	Tranche 2A makes a good impact on achieving the road safety targets of the PBC, with an estimated 1,022 kms of speed management limit changes, which	

Document	Tranche 2A Alignment	Comment	Auckland Transport's Response
		are expected to deliver and a significant estimated reduction in deaths and serious injuries reduction.	
Safe Speeds Programme Business Case SSBC	Good	The considerable DSI reduction that the program is estimated to achieve makes good progress towards achieving the overarching national context of the PBC of creating a land transport system that is free of death and serious injuries. Additionally, the program takes steps to address the issue of a disconnect between current speed limits and safe and appropriate speed limits outlined in the SSBC.	



## 4. Methodology

As set out in the AT Safe Speeds Tranche 2A Speed Limit Review Process document, the general process for reviewing and recommending any speed limit change proposals typically follows these steps:

- 1) **Segmentation** of the network in homogeneous road segments.
- 2) Calculation of **road safety metrics**, including the Collective Risk, Personal Risk and Infrastructure Risk Rating (IRR) for each road segment.
- 3) Determination of the **SaAS** using the Speed Management Framework specified in the Speed Management Guide.
- 4) Make Workstream specific **Safe System considerations**
- 5) **Apply engineering judgement** to ensure the technical assessment provides network legibility and aligns with AT's Vision Zero Strategy.
- 6) Identify the **speed management intervention approach** that is most likely to be appropriate.

As part of this peer review, the AT Safe Speeds Tranche 2A Speed Limit Review Process document has been reviewed against the Speed Management Guide and Land Transport Rule - Setting of Speed Limits to determine if the methodology of Tranche 2A of the Safe Speeds Programme meets national requirements and follows best practice within the industry.

### 4.1 Review Documents

#### *Speed Management Guide*

##### **Description**

The Waka Kotahi Speed Management Guide sets out the speed management framework for how road controlling authorities can determine the SaAS for every road in their network.

The Guide was published in November 2016 as part of the Safer Journeys Safer Speeds Programme and in advance of the Land Transport Rule: Setting of Speed Limits 2017 (Setting of Speed Limits Rule). The guidance is evidence based, nationally consistent, prioritises improvements to safety and economic productivity, achieves value for money and contributes to the credibility of the speed management programme.

##### **Comparison**

A comparison of the Tranche 2 methodology with the Speed Management Guide is provided in **Table 4.1**.

**Table 4.1** Tranche 2A methodology comparison with the Speed Management Guide

Key Steps in Tranche 2 methodology	Alignment with Speed Management Guide	Comment	Auckland Transport's Response
Segmentation of the network in homogeneous road segments.	Good	<p>Though the Speed Management Guide doesn't discuss segmentation specifically, the process outline in the speed management guide requires that segmentation first be conducted.</p> <p>The Tranche 2A speed limit review process starts by using Mega Maps segments. As Mega Maps follows generally follows the segmentation process laid out in the IRR Manual,</p>	

Key Steps in Tranche 2 methodology	Alignment with Speed Management Guide	Comment	Auckland Transport's Response
		<p>this is considered a good baseline to start from. It is recommended that the reasons for segmenting the road in a particular manner, is documented.</p> <p>Noting that, while using Mega Maps is sufficient as a starting point, it needs to be reviewed on-site and adjusted as necessary. This is to ensure speed limit changes meet visibility requirements and occur in locations that reflect a change in adjacent land use or road environment.</p>	
<p>Calculation of road safety metrics, including the Collective Risk, Personal Risk and Infrastructure Risk Rating (IRR) for each road segment.</p>	<p>Reasonable</p>	<p>These road safety metrics are calculated using the estimated death and serious injuries (DSi) casualty equivalents approach, as used in the High-Risk Intersections Guide and Urban KiwiRAP analysis.</p> <p>The Tranche 2A speed limit review process either includes having these variables calculated manually or extracting them from Mega Maps. In both cases this is considered appropriate and aligned to the Speed Management Guide. However, it is recommended that when the IRR are extracted from Mega Maps, a sense check should be conducted on the each of the variables that make up the IRR.</p> <p>When determining the Collective and Personal risk manually, these metrics will vary greatly depending on the crash allocation method used. To ensure consistency, it is recommended that these variables are extracted from MegaMaps rather than calculated manually.</p>	<p>The road safety metrics are calculated using actual death and serious injuries (DSi) crash numbers in accordance with the High-Risk Rural Roads Guide.</p> <p>All crashes at intersections are only counted once (based on the Crash Analysis System coded report and the plain English report).</p>
<p>Determination of the SaAS using the Speed Management Framework specified in the Speed</p>	<p>Good</p>	<p>The Tranche 2A speed limit review process determines the SaAS manually using the Speed Management Framework criteria set out in the Speed Management Guide. This information can also come directly from Mega Maps where the input criteria e.g. IRR, is</p>	

Key Steps in Tranche 2 methodology	Alignment with Speed Management Guide	Comment	Auckland Transport's Response
Management Guide.		verified as accurate. This is considered to be appropriate and align to the Speed Management Guide.	
Workstream specific Safe System Considerations	Good	This is not a stage outlined in the Speed Management Guide; however, it is considered best practice as it helps to set speeds that are survivable if collisions do occur.	
Apply engineering judgement to ensure the technical assessment provides network legibility and aligns with Auckland Transport's Vision Zero Strategy.	Good	This is not a stage outlined in the Speed Management Guide; however, it is considered best practice as it allows AT to set speed limits based on a network-based approach. This also helps to avoid issues such as varying speed limits over a small section of road or speed limits that are lower on side roads than they are to the main road.	
Identify the speed management intervention approach that is most likely to be appropriate.	Good	In this stage, AT considers the three intervention approaches discussed in the Speed Management Guide: Engineer Up, Challenging Conversation and Self-Explaining. AT have additionally considered of Engineering Down as an additional intervention approach. Though Engineering Down is not an intervention approach stated in the Speed Management Guide, it is very much aligned to the overall goal of the Speed Management Guide. This approach is considered to be appropriate and align to the Speed Management Guide.	

In general, AT's method of reviewing and recommending speed limits follows the process outlined in the Speed Management Guide. It also enhanced the process with a few additional steps to help achieve a higher level of network legibility and move closer to creating a Safe System.

### **Land Transport Rule - Setting of Speed Limits**

#### **Description**

The Setting of Speed Limits Rule set by the Ministry of Transport in 2017 allows for Road Controlling Authorities (RCAs) such as AT to set speed limits for roads in their jurisdictions. In addition, the Rule outlines the requirements they must adhere to when setting speed limits.

**Table 4.2** below steps through some of the key requirements within the Setting of Speed Limits Rule for the speed limit review stage and evaluates if the Tranche 2A methodology meets these requirements. Where there is a different process for each workstream, **Table 4.2** only include the methods conducted by all workstreams and does not evaluate the process per workstream.

**Table 4.2** Tranche 2A review against Setting of Speed Limits Rule

Requirement	Ability to meet requirement	Comment	Auckland Transport's Response
In reviewing a permanent, holiday, or variable speed limit, a road controlling authority must have regard to	(a) the safe and appropriate speed information developed and maintained by the Agency; and	Good	Every workstream within the Tranche 2A includes either calculating the SaAS as per the Speed Management Guide or extracting the SaAS from Mega Maps
	(b) any relevant guidance on speed management provided by the Agency; and	Good	The Speed Management Guide is a key document used when determining speed limits within the Tranche 2A speed limit evaluation process.
	(c) the function and use of the road; and	Good	The ONRC is recorded for every road segment and takes into consideration both the use and function of the road. Additional consideration is also made during the site inspection. ONRC forms part of the Speed Management Framework in the Speed Management Guide.
	(d) crash risk for all road users; and	Good	Reactive and proactive crash metrics (Collective Risk, Personal Risk and IRR) form part of the Speed Management Framework in the Speed Management Guide and crashes are collected for each road segment under review.
	(e) the characteristics of the road and roadsides; and	Good	The characteristics of the road and roadside is an integral part of the IRR calculation, which forms part of the Speed Management Framework in the Speed Management Guide.
	(f) adjacent land use; and	Good	The adjacent land use is an integral part of the IRR calculation, which forms part of the Speed Management Framework in the Speed Management Guide. Land use is also used at multiple stages

Requirement	Ability to meet requirement	Comment	Auckland Transport's Response
		of the review, both qualitatively and quantitatively.	
(g) the number of intersections and property accessways.	Good	The number of intersections and property accessways is part of the IRR calculation, which forms part of the Speed Management Framework in the Speed Management Guide.	
(h) traffic volume;	Good	Traffic volume is an integral part of the IRR calculation, which forms part of the Speed Management Framework in the Speed Management Guide. It is also used in the calculation of Personal Risk, which is a measure of individual road user risk based on historic crashes.	
(i) any planned modification to the road; and	Reasonable	Planned modifications to the road are captured; however, the extent to which this information is given regard to in the speed limit review process is unclear.  <i>Following the review, decisions documents that were not available at the time of the review were produced. These documents clearly state the planned modifications to the road and clearly show how this information is given regard to.</i>	Where there is high confidence that the planned modifications will be in place close to the implementation date of the bylaw, these changes are assumed to be in place for making the speed recommendation.
(j) the views of interested parties.	Good	For each workstream considerations have been made around who is affected, and meetings are held with some key stakeholders and partners to get their input regarding the proposed speed limit change.	
A road controlling authority must consult on a proposed speed limit.	n/a	This stage has not yet occurred and thus cannot be reviewed.	
Road controlling authority may set permanent, holiday, or variable speed limit	n/a	This stage has not yet occurred and thus cannot be reviewed.	

## 4.2 Methodology Review Summary

**Table 4.3** outlines to what extent Tranche 2 of the Safe Speeds Programme aligns to the national setting of speed limit documents.

**Table 4.3** Methodology Summary Table

Document	Tranche 2A's alignment to document	Comment
Speed Management Guide	Good	<p>There is good alignment to the Speed Management Guide with additional safe system consideration made. However, there is one recommendation for how to improve the process:</p> <ul style="list-style-type: none"> <li>• In some workstreams the IRR and SaAS are extracted from Mega Maps and sense checking of the SaAS is undertaken on-site. It is recommended that these variables are either calculated manually or Mega Maps' Corridor Editor tool is used to check the individual variables in the IRR.</li> <li>• To ensure consistency, it is recommended that safety metrics are extracted from MegaMaps rather than calculated manually.</li> <li>• It is recommended that when the segmentation overlaps multiple Mega Maps segments an explanation of the reasons for segmentation are documented.</li> </ul>
Land Transport Rule - Setting of Speed Limits	Reasonable	<p>All the key requirements for reviewing a speed limit have been met. However, there are two recommendations for how to improve the process:</p> <ul style="list-style-type: none"> <li>• Documentation of the views of interested parties should be included in the multi criteria assessment stage, separate to other comments to ensure that they are captured.</li> <li>• Documentation of any planned modifications should be included in the multi criteria assessment stage, separate to other comments to ensure that they are captured.</li> </ul>

## 5. Application

### 5.1 Road Selection Process

#### *Tranche 2A (excluding roads in the Schools workstream)*

AT provided a list of all roads in Tranche 2A (excluding roads in the Schools workstream). From this list a random and stratified sample of different road and environment types was selected for review against the Safe Speed methodology and other available evidence. The methodology for selecting roads to be included in the review was as follows:

- 1) Roads were sorted by 'Theme' and 'Local Board' area.
- 2) Then two rules were implemented to ensure reasonable coverage of the programme:
  - a) Rule 1: No less than 3 roads per workstream
  - b) Rule 2: No less than 1 road per workstream and Local Board combination
- 3) 10% of roads were selected such that Rule 1, and Rule 2 were adhered to.

The number of roads selected for inclusion in the review by workstream is shown in **Table 5.1**.

**Table 5.1** Number of Roads Reviewed by Theme and Workstream

Theme / Workstream	Number of Roads
Rural	16 roads
Residential	10 roads
Town Centre	3 roads
Complementary Speeds	9 roads

The 38 roads selected consisted of 42 road sections. For the 42 road sections reviewed in the MCA:

- 35 were found to have the same SAAS and "Proposed speed limit" to those determined through the review;
- four were found to have a SAAS and/or "Proposed speed limit" that differed to those determined through the review; and
- The remaining three road sections either:
  - had no SAAS provided by AT; or
  - where seemingly removed from the Tranche or from the workstream.

#### *Tranche 2A Schools workstream*

Following the initial review, AT provided a list of all roads included in the Schools workstream. From this list a random and stratified sample of different roads was selected for review against the Safe Speed methodology and other available evidence.

Of the 46 roads sections selected:

- 44 were found to have the same SAAS and "Proposed speed limit" to those determined through the review.
- One of the remaining road section's descriptions did not align with the section of the road to which it referred.
- The other remaining road section had different variables to those noted in Mega Maps.

## 5.2 Application Summary

Table 5.1 outlines extent to which the application of Tranche 2A aligns with the methodology.

Table 5.1 Application Summary Table

The Tranche 2 methodology stages	Alignment to speed management guide	Comment	Auckland Transport's Response
Segmentation of the network in homogeneous road segments.	Reasonable	Generally, follows the methodology. However, in some instances, two sections in Mega Maps were combined into one section in the analysis. This is reasonable to ensure network legibility, where speeds don't rapidly change across the network.	Segments are only combined where similar and we consider that they do not require different speed limits.
Calculation of road safety metrics, including Collective Risk, Personal Risk and Infrastructure Risk Rating (IRR) for each road segment.	Reasonable	Although some discrepancies existed between the metrics calculated in the review and the metrics calculated in the MCA, generally these discrepancies were minor and could be due to the subjective interpretation of the analysis.	Our approach of assigning crashes at intersections to only one of the roads (generally the major road) will be contributing to some of these minor discrepancies. This approach is used to avoid double counting of crashes.
Determining the SaAS using the Speed Management Framework specified in the Speed Management Guide.	Good	Follows methodology.	
Workstream specific Safe System Considerations	Good	Follows methodology.	
Apply engineering judgement to ensure the technical assessment provides network legibility and aligns with Auckland Transport's Vision Zero Strategy.	n/a	This could not be assessed by reviewing a sample of the network.	
Identify the appropriate speed management intervention approach.	Reasonable	Intervention categories are provided for all roads; however, intervention approaches were not clear. It is recommended that additional documentation explaining why intervention approaches were selected is provided.	Additional detail provided in decision documents for each road.



## 6. Review Findings

**Table 6.1** outlines the findings of the review. Overall, the peer review Tranche 2A to be a robust and considered stage of the Safe Speed Program, with strong alignment to strategic documents and a reasonable methodology and application.

**Table 6.1** Methodology Summary Table

Element under review	Alignment to documentation	Comment
Strategic alignment	Good	Auckland Transport has achieved good strategic alignment in Tranche 2A.
Methodology	Reasonable	The methodology that Auckland Transport has created for reviewing speed limits is considered reasonable. However, there are some recommendations for how this process could be improved.
Application	Reasonable	The application of the methodology is considered reasonable. However, some possible issues have been identified in Appendix A and there is a recommendation for how this process could be improved.

## 7. Recommendations

### 7.1 Strategic alignment

There are no specific recommendations for improving the strategic alignment.

### 7.2 Methodology

Recommendations related to the methodology conducted can be seen in [Table 7.1](#).

**Table 7.1** Methodology recommendations

Subject	Recommendation	Auckland Transport's Response
Segmentation	It is recommended that, when the segmentation overlaps multiple Mega Maps segments, an explanation of the reasons for segmentation are documented.	Recommendation noted.
Collective and Personal risk	When determining the Collective and Personal risk manually, these metrics will vary greatly depending on the crash allocation method used. To ensure consistency, it is recommended that these variables are extracted from MegaMaps rather than calculated manually.	Recommendation noted.
IRR calculations	Where the IRR is extracted directly from Mega Maps, it is recommended that a sense check be conducted using the "Corridor editor" functionality within Mega Maps of the individual elements that make up the IRR score.	In programmes where IRR potentially alters the review outcome (e.g. rural roads) the IRR elements are subject to sense checking. In programmes where IRR is not a determining factor for the outcome (residential / town centres / schools) IRR is taken directly from Mega Maps as sense checking does not add value to the process.
Setting of Speed Limits Rule	It is recommended that the variables that are required to be given regard to within the Setting of Speed Limits Rule be individually assessed in the MCA as well as in the decision documents.  <i>Following the review, decisions documents that were not available at the time of the review were produced. These documents are considered to sufficiently cover off this recommendation.</i>	The decision documents for each road compile all the variable in one place for each road including those not contained within the MCA.

### 7.3 Application

Recommendations related to the application conducted can be seen in [Table 7.2](#).

**Table 7.2** Application recommendations

Subject	Recommendation	Auckland Transport's Response
Intervention categories	It is recommended that the reason for selecting specific intervention approaches is documented in the MCA. If the 'engineering up' intervention category is selected, this should also be documented. A process should also be developed to make sure road sections that have engineering improvements proposed are not missed".	Recommendation noted.

## Appendix A MCA and Peer Review comparison

### Workstreams excluding schools

Workstream	Road name	Local Board	Section	Assessed Safe and Appropriate Speed		Proposed speed		Peer Review Comments	Auckland Transport's Response
				MCA	Review	MCA	Review		
Complementary Speeds	Aviemore Drive	Howick	Between Tamaki Drive and Clarendon Road	50	50	50	50	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Complementary Speeds	Vale Road	Orakei	Between Tamaki Drive and Clarendon Road	50	50	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Complementary Speeds	Quarry Rd	Rodney	Full Length	50	<80	50	40	The road is rural and unsealed; thus, 50km/h does not follow AT's methodology. Given the road is unsealed, has significant roadside hazards and has a relatively high access density, 40km/h is considered appropriate.	Agree. The proposed speed for Quarry Road has been updated to 40 km/h.
Complementary Speeds	The Avenue	Upper Harbour	N/A	N/A	N/A	N/A	N/A	Not provided by AT, assumed that this has been removed from Tranche 2	
Complementary Speeds	Anglesea St (section)	Waitemata	From Hepburn Street to 40m east of Ponsonby Road	40	40	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Complementary Speeds	Hepburn st	Waitemata	From Napier Street to 10m north of Ponsonby Road	40	40	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS. Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Complementary Speeds	Winn Rd	Waitemata	Full Length	40	40	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Complementary Speeds	Ponsonby Terrace	Waitemata	Full Length	40	40	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Complementary Speeds	Tole St	Waitemata	Full Length	40	40	30	30	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Residential	Neems Place	Manurewa	Full extent	40	40	30	30	Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Residential	Ainsdale Place	Manurewa	Full extent	40	40	30	30	Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Residential	Tuna Place	Manurewa	Full extent	40	40	30	30	No comment	
Residential	Sunlands Drive	Manurewa	Full extent	40	40	30	30	No comment	
Residential	Rowandale Avenue	Manurewa	Full extent	40	40	30	30	Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Residential	Hywell Place	Manurewa	Full extent	40	40	30	30	No comment	
Residential	Aarts Avenue	Manurewa	Full extent	40	40	30	30	Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Residential	Maida Vale	Manurewa	Full extent	40	40	30	30	No comment	
Residential	Tamworth Close	Manurewa	Full extent	40	40	30	30	No comment	
Residential	Minton Place	Manurewa	Full extent	40	40	30	30	No comment	
Rural	Markham Road	Franklin	Full length	<80	<80	60	60	No comment	
Rural	Ardmore Quarry Road	Franklin	Between Papakura-Clevedon Road and 560m south of Crieghtons Road (End of Seal)	<80	<80	60	60	No comment	
Rural	Mill Road	Franklin	Between Harrisville Road and 190m east of Harrisville Road	<80	<80	80	80	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS. Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Rural	Otto Road	Franklin	Full length	<80	<80	60	60	No comment	
Rural	Mile Road	Franklin	Full length.	80	80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	

Workstream	Road name	Local Board	Section	Assessed Safe and Appropriate Speed		Proposed speed		Peer Review Comments	Auckland Transport's Response
				MCA	Review	MCA	Review		
Rural	Fitzgerald Road	Franklin	Full Length	<80	80	80	80	Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Rural	Wattie Road	Franklin	Full length.	<80	<80	60	60	No comment	
Rural	Jollie Road	Franklin	Full length.	<80	<80	60	60	No comment	
Rural	Kawakawa-Orere Road	Franklin	Between 500m south of Kawakawa Bay Coast Road and 1500m south of Kawakawa Bay Coast Road	<80	<80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Kawakawa-Orere Road	Franklin	Between 1500m south of Kawakawa Bay Coast Road and 4340m south of Bertram Road	<80	<80	60	60	No comment	
Rural	Kawakawa-Orere Road	Franklin	Between 4340m south of Bertram Road and the end of the road	<80	<80	60	60	No comment	
Rural	Station Road	Franklin	Between Yates Road and Subway Road	80	80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Buckland Road	Franklin	Between 300m south of George Crescent (south end) and Tuakau Road (Waikato District boundary)	<80	<80	80	60	No adequate reason given to deviate from the SAAS. Although it would have been possible to achieve a SAAS of 80km/h if the road were planned to be engineered up, this was not mentioned.	Most sections of this road are within the Waikato District. Would like to wait to see the speed limit review result from WDC to keep the network consistent.
Rural	Buckland Road	Franklin	Between 100m south of Kitchener Road and 500m north of George Crescent (north end)	<80	<80	80	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	Due to the relatively wide lanes, road markings, delineation signage and good road surface, a speed of 60km/h (less than typical operating speeds) is unlikely to be adhered to.
Rural	Mceldownie Road	Franklin	Full length.	80	80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Ranfurlly Road	Papakura	Between Alfriston Road and Mill Road;	<80	<80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Ranfurlly Road	Papakura	Between Alfriston Road and Mill Road;	<80	<80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Walters Road	Papakura	N/a	N/a	N/a	N/a	N/a	AT advised that this has been removed from rural package	
Rural	Cosgrave Road	Papakura / Franklin	Between 200m north of Old Wairoa Road and Walters Road;	<80	<80	60	60	Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.	
Rural	Porchester Road	Papakura / Manurewa	Between Alfriston Road and 200m north of Berwyn Avenue	50	<80	60	60	Road has been assessed as Urban in the MCA and given a "proposed speed limit" higher than the SAAS. The review showed that this road is rural in nature, with future development. Advise that MCA either assesses the road as rural or urban and follow the process accordingly.  Some minor differences between IRR variables. However, these were inconsequential in determining the SAAS.  Some differences between the safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	Agree, while the road is zoned for future urban land use the current function and environment of the road is more consistent with rural use. Rural criteria were used for the speed recommendation. For consistency rural criteria should also have been used in determining the SAAS. It is noted that the proposed speed within AT's assessment matches the review recommendation.
Town Centre	Alexander Crescent	Otara-Papatoetoe	Between Bairds Road and 50m northeast of Tusso Way	40	40	30	30	Some differences between the Safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Town Centre	Bairds Road	Otara-Papatoetoe	Between Alexander Crescent and East Tamaki Road	50	50	30	30	Some differences between the Safety metrics in the review and those in the MCA. This is possibly due to an update in data available in Mega Maps between the two data extractions.	
Town Centre	Fair Mall	Otara-Papatoetoe	Full extent	N/A	N/A	30	30	Advise that AT check to ensure this is a public road.	AT will check with assets team to ensure this is a public road.

Schools Workstream

Workstream	Road name	Local Board	Section	Assessed Safe and Appropriate Speed		Proposed speed		Peer Review Comments	Auckland Transport's Response
				MCA	Peer review	MCA	peer review		
Schools	Aberfoyle Street	Albert-Eden	between Pencarrow Avenue and 20m west of St Andrews Road	40	40	30	30	No comment	
Schools	Calgary Street	Albert-Eden	between 20m east of Sandringham Road and 20m west of Dominion Road	40	40	30	30	No comment	
Schools	Arabi Street	Albert-Eden	between Calgary Street and 20m south of Balmoral Road	40	40	30	30	No comment	
Schools	Brixton Road	Albert-Eden	between Eldon Road and 20m west of Dominion Road	40	40	30	30	No comment	
Schools	Mount St John Avenue	Albert-Eden	between 20m east of Manukau Road and 20m west of Market Road	50	50	30	30	No comment	
Schools	Lloyd Avenue	Albert-Eden	between Alberton Avenue and 20m east of New North Road	40	40	30	30	No comment	
Schools	Peary Road	Albert-Eden	between 20m east of Dominion Road and 20m west of Mount Eden Road	40	40	30	30	No comment	
Schools	Plunket Road	Albert-Eden	Between Bank Street and 20m east of Mount Eden Road	40	40	30	30	No comment	
Schools	Kettle Street	Albert-Eden	all of Kettle Road starting from Premier Avenue	40	40	30	30	No comment	
Schools	Cadman Avenue	Albert-Eden	all of Cadman Avenue starting from Fairlands Avenue	40	40	30	30	No comment	
Schools	Oakley Avenue	Albert-Eden	all of Oakley Avenue starting 20m west of Great North Road	40	40	30	30	No comment	
Schools	Herbert Street	Devonport-Takapuna	all of Herbert Street starting from Walter Street	40	40	30	30	No comment	
Schools	Jonathan Place	Devonport-Takapuna	all of Jonathan Place starting from Tonkin Drive	40	40	30	30	No comment	
Schools	Ashbourne Place	Henderson-Massey	all of Ashbourne Place starting from Barrys Road	40	40	30	30	No comment	
Schools	Tirimoana Road	Henderson-Massey	all of Tirimoana Road starting 30m north of Valron Road/Tirimoana intersection	40	40/50	30	30	AT's road section descriptions includes the entire road however, the starting location is not at either the start or the end of the road. AT seems to have taken all variables from one small section of the road.	
Schools	Timu Road	Hibiscus And Bays	between Glenvar Ridge Road and Karengo Street	40	40	30	30	No comment	
Schools	Ian Sage Avenue	Hibiscus And Bays	between Ashley Avenue and 10m north of Glenvar Road	40	40	30	30	No comment	
Schools	Saddleback Rise	Hibiscus And Bays	between Lyons Avenue and 10m north of Sunrise Avenue	40	40	30	30	No comment	
Schools	Adelie Place	Hibiscus And Bays	all of Adelie Place starting from Penguin Drive	40	40	30	30	No comment	
Schools	West Glade Crescent	Kaipatiki	all of West Glade Crescent starting from Verran Road	40	40	30	30	No comment	
Schools	Awhina Road	Mangere-Otahuhu	between Hall Avenue and Curlew Place	40	40	30	30	Some of the variables recorded for this section do not match those provided in Mega Maps.	
Schools	Alderson Lane	Mangere-Otahuhu	all of Alderson Lane starting from Tilberg Street	40	40	30	30	No comment	
Schools	Courtenay Crescent	Mangere-Otahuhu	all of Courtenay Crescent starting from Winthrop Way	40	40	30	30	No comment	
Schools	Walden Place	Mangere-Otahuhu	all of Walden Place starting from Woburn Street	40	40	30	30	No comment	
Schools	Moncrieff Avenue	Manurewa	between 10m south of Finlayson Avenue and 10m west of Roscommon Road	40	40	30	30	No comment	

Workstream	Road name	Local Board	Section	Assessed Safe and Appropriate Speed		Proposed speed		Peer Review Comments	Auckland Transport's Response
				MCA	Peer review	MCA	peer review		
Schools	Hadley Wood Drive	Manurewa	between Manene Street and 10m east of Carnoustie Drive	40	40	30	30	No comment	
Schools	Aberdeen Crescent	Manurewa	all of Aberdeen Crescent starting from Turnberry Drive	40	40	30	30	No comment	
Schools	Courtland Avenue	Maungakiekie-Tamaki	between Leybourne Circle and 15m south of West Tamaki Road	40	40	30	30	No comment	
Schools	Sunnymead Road	Maungakiekie-Tamaki	between Fenchurch Street and Mansfield Street	40	40	30	30	No comment	
Schools	Lanark Place	Maungakiekie-Tamaki	all of Lanark Place starting from Sloane Street	40	40	30	30	No comment	
Schools	Purewa Road	Orakei	all of Purewa Road starting from Manapau Street	40	40	30	30	No comment	
Schools	Macpherson Street	Orakei	all of Macpherson Street starting from Bonnie Brae Road	40	40	30	30	No comment	
Schools	Mount Carmel Place	Orakei	all of Mount Carmel Place starting from Meadowbank Road	40	40	30	30	No comment	
Schools	Platina Street	Orakei	between 10m east of Omaha Road and 10m north of Lillington Road	40	40	30	30	No comment	
Schools	Joyce Street	Papakura	all of Joyce Street starting from Clark Road	40	40	30	30	No comment	
Schools	Hedley Road	Puketapapa	between Farrelly Avenue and Potter Avenue	40	40	30	30	No comment	
Schools	Galbraith Street	Puketapapa	all of Galbraith Street starting from Skeates Avenue	40	40	30	30	No comment	
Schools	Gilbransen Road	Rodney	all of Gilbransen Road starting 10m south of Matua Road	40	40	30	30	No comment	
Schools	Eric Farley Drive	Rodney	between Van Rixel Drive and 10m south of Matua Road	40	40	30	30	No comment	
Schools	Pitcher Place	Waitakere Ranges	all of Pitcher Place starting from Annison Avenue	40	40	30	30	No comment	
Schools	Parawai Crescent	Waitemata	between Hukanui Crescent and 10m north of Richmond Road	50	50	30	30	No comment	
Schools	Bayfield Road	Waitemata	all of Bayfield Road starting from Buller Street	40	40	30	30	No comment	
Schools	Putiki Street	Waitemata	between Kirk Street and Burns Street	50	50	30	30	No comment	
Schools	Niger Street	Waitemata	all of Niger Street starting from King Street	40	40	30	30	No comment	
Schools	Aspen Street	Whau	between Victor Street and 10m north of Rosebank Road	40	40	30	30	No comment	
Schools	Addison Street	Whau	between Marlowe Road and 20m west of Taylor Street	40	40	30	30	No comment	