Safe Speed programme

Randhir Karma, Group Manager Network Management and Safety
AT has embraced Vision Zero principles and recognises the importance road safety plays in creating a healthy, safe and sustainable city. Setting safe speeds underpins Vision Zero principles.
Why a Safe Speed Plan?

• The Speed Management Guide, published in 2017, outlines the new approach to speed management that aligns with the National Safer Journeys strategy and the Safe System (Vision Zero) approach to road safety.

• Many existing speed limits are inappropriate for the environment and do not align with Safe System and Vision Zero principles.

Prioritisation of roads

• Primary focus on treating the top 10% of high risk roads as these will provide the highest benefits. It is important to treat feeder roads as well to ensure the network is easy to navigate. The majority of these roads are on our rural network and focus of motorised road users.

• Auckland city centre and town centres are areas where the greatest numbers of vulnerable users are present and therefore where the biggest impact can be achieved.

• Residential roads have vulnerable road users especially near schools, kindergartens and other community facilities. Concerns about speeding are often raised by the community.

Safe speeds will also be considered:

• As part of other projects to achieve the safe speed limit for the roads being treated.

• Where significant land use change is planned.
# Safe speeds – The evidence

<table>
<thead>
<tr>
<th>Location</th>
<th>Speed Limit Change</th>
<th>Crash/Speed Reduction Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queen Street, Auckland, NZ.</td>
<td>50km/h to 30km/h.</td>
<td>Lowered in 2008. Crash rates down 39.8% and a 36% reduction in deaths and serious injuries (10 years before compared to 10 years after).</td>
</tr>
<tr>
<td>Wynyard Quarter, Auckland, NZ.</td>
<td>50km/h to 30km/h.</td>
<td>Zero deaths and serious injuries since implementation.</td>
</tr>
<tr>
<td>Auckland city centre temporary traffic management area, NZ.</td>
<td>50km/h to 30km/h.</td>
<td>All injury crashes reduced by 25% and deaths and serious injuries reduced by 27%.</td>
</tr>
<tr>
<td>Whitford Road, Auckland, NZ.</td>
<td>80km/h to 60km/h (temporary).</td>
<td>Between 2013–2017 44 injury crashes were recorded including 11 serious injuries. In the first 5 months of 2018 an additional 5 crashes were recorded – 1 fatal, 1 serious and 3 minor injury crashes. Since a temporary 60km/h was introduced in June 2018 there have been no reported crashes. Public opinion has swung from being against the change to supporting the change. We received this email “A large number of people are very supportive of your changes as they have young kids driving which is a real concern for them. Once again thanks for everything you are doing in pushing for change and improvements.”</td>
</tr>
<tr>
<td>London, United Kingdom.</td>
<td>32km/h City speed limit (2014).</td>
<td>1km/h average speed reduction in City of London after one year (2015) 6% reduction in collision rates on urban main roads.</td>
</tr>
<tr>
<td>Christchurch, NZ.</td>
<td>From 50km/h to 30km/h in City Centre.</td>
<td>Compared with crashes prior to the speed limit reduction, injuries have reduced by 25% in the 30km/h zone. The same type of crashes have increased by 13.5% in the parts of the City Centre that were still at 50km/h.</td>
</tr>
<tr>
<td>Sweden.</td>
<td>90km/h to 80km/h.</td>
<td>On rural roads where the speed limit was reduced from 90km/h to 80km/h, the mean speed decreased by 3.1 km/h, the number of fatalities decreased by 41%.</td>
</tr>
<tr>
<td>South Australia – urban.</td>
<td>From 60km/h to 50km/h default urban speed limit (2003).</td>
<td>37% reduction in fatal crashes (compared to those that stayed at 60km/h was 19% reduction).</td>
</tr>
<tr>
<td>South Australia – rural.</td>
<td>100km/h speed limit along 1,100km of rural roads (formally 110km/h), introduced July 2003.</td>
<td>On the road sections where the speed limit was reduced from 110km/h to 100km/h, casualty crashes reduced by 32%. On the 110km/h roads that were not changed, casualty crashes reduced by 12%.</td>
</tr>
<tr>
<td>Bristol, United Kingdom.</td>
<td>32km/h limits introduced 2014-2015.</td>
<td>4km/h reduction in speeds since 2014 (2018) Four lives a year saved Approximately GBP15M saved per year due to lower casualty rates 15 DSI’s avoided each year (plus 160 minor injuries)</td>
</tr>
<tr>
<td>Israel</td>
<td>INCREASED speed limit from 90km/h to 100km/h in 1988.</td>
<td>In the six years following, an average of 347 more people died than what would have been expected based on previous trends. “The increases in deaths and case-fatality rates persisted six years after the speed limit change despite major countermeasures and increasing congestion throughout the period of follow-up”</td>
</tr>
</tbody>
</table>
Benefits

Creating safe, healthy, liveable roads and streets allows Auckland to gain the competitive advantage leading world cities need to compete for mobile talent and businesses and to meet wider sustainability and health goals.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Spend $M</th>
<th>Estimated Annual DSI Savings* (18/19 review carried out by WSP/Opus)</th>
<th>Investment per DSI saved (estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High risk urban roads &amp; intersections</td>
<td>14.4</td>
<td>14</td>
<td>$1,028,000</td>
</tr>
<tr>
<td>High risk rural roads &amp; intersections</td>
<td>20.2</td>
<td>11</td>
<td>$1,836,000</td>
</tr>
<tr>
<td>Minor Safety</td>
<td>7.3</td>
<td>2</td>
<td>$3,650,000</td>
</tr>
<tr>
<td>Safer Communities*</td>
<td>0.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Safety Cameras</td>
<td>0.7</td>
<td>1</td>
<td>$700,000</td>
</tr>
<tr>
<td>Safe Speeds Programme</td>
<td>9.4</td>
<td>24</td>
<td>$391,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52.8</strong></td>
<td><strong>52</strong></td>
<td><strong>$1,010,000</strong></td>
</tr>
</tbody>
</table>

*There is no construction planned in the Safer Communities programme for FY2018/19

Note: The Safe Speeds Programme is conservatively estimated to deliver an annual savings of 24 DSI. However, the synergistic effects of combined Safe Speed Programme and other Road Safety Programmes over a 3 to 5 year period will increase overall DSI savings, as new safe speed norms are adopted amongst road users in response to the expanding influence of safe infrastructure.
The safe speed programme has been classified into five areas to allow for targeted treatments for each area.

<table>
<thead>
<tr>
<th>Area</th>
<th>Typical treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town centres</td>
<td>Gateway entry treatments, raised tables, raised zebra crossing, road narrowing, kerb realignment, pedestrian improvements, place marking, reduced posted speed limit.</td>
</tr>
<tr>
<td>Auckland city centre</td>
<td>Gateway features, kerb realignment, pedestrian improvements, place marking features, reduced posted speed limits and traffic signal phasing improvements.</td>
</tr>
<tr>
<td>High risk rural roads</td>
<td>Setting a speed limit for a safe road environment, improved road signs and markings.</td>
</tr>
<tr>
<td>Residential roads</td>
<td>Speed humps, speed table, raised intersections, zebra crossings, reduced speed limit and gateway entry treatments.</td>
</tr>
<tr>
<td>High risk urban roads</td>
<td>Setting a speed limit for a safe road environment, improved road signs and markings.</td>
</tr>
</tbody>
</table>

In 2018/19 approximately 760 km of roads are being treated consisting of:
- 8.6km - Town centres.
- 46.4km - City Centre.
- 686.6km - Rural Roads (focus on top 10% plus adjoining roads).
- 17.6km - Residential roads.

In addition a further 68km of roads will be modified due to customer requests and or changes required to meet the technical requirements of the speed setting rule.

Years 2 and 3 will see a continuation of delivery of the top 10% high risk roads, an additional seven town centres, more residential areas and a more detailed assessment of the urban high risk roads.
Rural Road Network
Rural Proposed Speed Limits

<table>
<thead>
<tr>
<th>Road segment</th>
<th>Proposed speed limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80 km/h</td>
</tr>
<tr>
<td></td>
<td>60 km/h</td>
</tr>
<tr>
<td></td>
<td>50 km/h</td>
</tr>
<tr>
<td></td>
<td>40 km/h</td>
</tr>
</tbody>
</table>
Rural Top 10% (From NZTA list)

Key

- NZTA Top 10%

Road segment

Proposed speed limit

- 80 km/h
- 60 km/h
- 50 km/h
- 40 km/h
Self-explaining Road Network

Key

- NZTA Top 10%

Posted Speed Limits:
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30

Ngarewa Drive
Self-explaining Operating Speeds
Self-explaining Proposed Speed Limits
Proposed Rationalisation of 70km/h speed limits

70km/h and 90km/h speed limits are interim interventions only because:

- At higher travel speeds, people have trouble differentiating speed limit differences of just 10km/h. The advantage of using 20 km/h increments between 60 and 100 km/h are that fewer and more recognisable speed categories are easier for people to understand and recall. This should mean less need for speed limit changes and repeater signs.

- We need to create a more consistent and intuitive speed management system across the whole network, where people have a greater understanding and appreciation of risk than is manifest at present and there is a greater differentiation between levels of the speed limit hierarchy. Countries which have fewer speed limit options tend to have a greater differentiation of road environments than New Zealand.
St Helier's Town Centre Extent

Key
- Proposed 30km/h
St Helier's Town Centre, Top 10% (From NZTA list)

Key

- Proposed 30km/h
- Top 10%
Proposed Safe Speed Limit for City Centre
Existing 30km/h and below Speed Limits

Key
- Permanent 30km/h
- Permanent 10km/h
- Current
- Temporary 30km/h area
Proposed Speed Limits

Key
- Proposed 30km/h
- Proposed 20km/h
- Proposed 10km/h (shared zone)
Top 10% High Risk Roads (from NZTA List)
Safe Speeds programme communications strategy

Teresa Burnett, Group Manager, Communications
Road trauma on the rise
Getting very little air-time

On an average, one person dies and 14 others are seriously injured every week.

AKLD deaths 78%
AKLD serious injuries 68%

Rest of NZ serious injuries 28%
Rest of NZ deaths 23%

AKLD travel growth est. 15%
Communications planning

- Raising awareness of serious death and serious injuries (DSi) on Auckland roads.
- Continuously building partner and stakeholder support.
  - NZ Transport Agency
  - Ministry of Transport
  - NZ Police.
  - ACC.
  - Politicians.
  - Elected members.
  - Auckland Council.
  - Advocacy groups and charities.
  - People of Auckland.

**Outcome:** Creating a healthy, sustainable and safe Auckland for our children to walk, take public transport or cycle to school, local dairy or sports practice.
Media coverage

Between 1 September and 22 November
132 AT specific media clips

Total general road safety media reach since July has reached an audience of 7,294,328.
Social media (October 2018 onwards)

Facebook reach since October has surpassed 1.6 million Aucklanders.
Heart and minds
Engagement (July 2018 onwards)

• **Office of the Mayor**
  • Regular personalised briefings.
  • Identifying opportunities to partner with the Mayor.

• **Councillors**
  • Presented at September 2018 Auckland Council Planning Committee.
  • Unanimous passing of resolution in support of AT’s speed management programme to make Auckland a Vision Zero region.
  • Regular memos, workshops and presentations.

• **Local Boards**
  • Individualised reports, regular memos, workshops and presentations.

• **Auckland City Centre Advisory Board**
  • Business report and presentation.
Engagement (July 2018 onwards)

Advocacy groups and other stakeholders

- Walk Auckland.
- Bike Auckland.
- AA.
- Brake NZ.
- Residents Associations.
- Business Associations.
- Schools and universities.
- Accessibility groups.
- Emergency services.
- Media.
- People of Auckland.
Methods and tactics

- On-going region-wide awareness campaign partnering.
- Shane Ellison’s columns in *Our Auckland*.
- Videos:
  - Cinema activation (part of awareness campaign).
  - Shane Ellison and Caroline Perry on safe speeds.
  - Speed management video.
  - Dairy Flat Highway improvements.
  - Safe and healthy communities and discussing kinetic energy transfer (in production).
  - Staff forum videos.
- Extensive media coverage.
- Panel discussion with Shane Ellison in partnership with Heart of the City (to be finalised).
- Shane Ellison’s presentation at Trafinz live-cast on AT Facebook.
- Social media.
- Internal communications.