The Mechanics and Politics of Changing a Speed Limit

Dr Glen Koorey
Principal, ViaStrada Ltd, Christchurch

Trptn Group Conference, Mar 2019
Presentation Outline

• The current situation
  • And the problem…
• Why do people object to lower speeds?
  • Reviewing the objections
• Possible ways forward
What could you do with an extra…

72 seconds?
St Asaph St 30km/h speed limit

"You will clog up the city so that it becomes un-accessible"

"The central city is ruined"

"This only causes congestion. The reduction in speeds does not correlate to safer streets"

"The reduced speed is more dangerous to road users because it is way too slow"

Feedback largely against extending Christchurch's central city 30kmh zone

261 ✓
473 ✗

1.5km @ 30km/h = 180 sec
@ 50km/h = 108 sec
All the tools... Why are we waiting?

- Setting of Speed Limits Rule (2017)
- NZTA Speed Management Guide (2016)
- NZTA Risk Assessment Tool ("Mega Maps")
Calculated “Safe and Appropriate” Speeds

Potential speed limit drop will cast Taranaki further adrift, says mayor

Mackenzie mayor Graham Smith says a 70kmh open road speed limit would be 'a bit ridiculous'
Why do people object to lower speeds?

- “It takes a lot longer to get somewhere”
  - = more driver fatigue/frustration = more crashes

- “Only changing speed limits doesn’t change travel speeds”

- “It won’t improve safety”
  - Fix the roads and focus on driver skills/behaviour instead!

- “I have to watch my speedo more”

- “It’s just revenue gathering”
“Won’t lowering speed limits greatly increase Travel Times?”

- Maybe a little, but most traffic delay is due...
  - Other traffic (local towns, intersections)
  - Site restrictions (curves, roadworks)

- You will gain more economic benefits from:
  - Safety benefits of reduced speeds
  - Health benefits of encouraging more active trpt
  - Retail benefits from encouraging passing trade
  - Property Value benefits due to more liveability

Trading a little mobility for vastly improved amenity
Travel time savings/gains are over-estimated

- What’s the average speed?

**Total: 200 km over 3:00 hrs = 66.7 km/h average speed**

**3:15 hrs = 61.6 km/h**
“Lower posted speed limits alone won’t change traffic speeds”

For every 10 km/h posted speed limit change:

- Typically we observe a 2-3 km/h change in mean speeds

Even small travel speed changes MATTER

- For every -1% speed reduction we see:
  - ≈ -2% all injuries
  - -3% serious injuries
  - -4% fatalities

LOTS of overseas evidence of safety
But we already have NZ evidence too…

Mt Maunganui:
- 50 km/h down to 30 km/h
- 21%

NZ 1973:
- 100 km/h down to 80 km/h
- 36%

Rural Int’sns:
- 70 km/h down to 50 km/h
- 51%

Wellington:
- 40 km/h down to 30 km/h
- 82%

Chch CBD:
- 50 km/h down to 30 km/h
- 31%

ITF (2017)
“It’s not speed that causes crashes, it’s poor driving and poor roads”

Reality check:

• We’re all human (and make mistakes & poor decisions)

Even if road users followed all the road rules, fatalities would only fall by around 50% and injuries by 30%.

• We could never afford (nor justify) to fix every road in NZ
Speed always affects the CONSEQUENCES

(it affects the likelihood too)

We are more interested in reducing fatalities and serious injuries – NOT reducing crashes

Scott & Mackie 2014
Possible ways forward

Start with the ‘Low Hanging Fruit’

- Suburban/CBD shopping streets
- Residential traffic calmed areas
- School zones
- Unsealed/winding/narrow rural roads
Possible ways forward
One Network Road Classification defaults

- High Volume: 110
- National: 100
- Regional: 50
- Arterial: 80
- Primary Collector: 40
- Secondary Collector: 60
- Access: 30
Possible ways forward

Stop getting hung up on strict compliance

• Currently mean speeds must be $< \{Spd\ Limit + 10\%\}$
  • Makes trialling new initiatives more difficult

  *Is a speed reduction of some degree a “failure”?

• Try posted limit changes first, then treat where necessary
  • Simple calming, road-marking changes, extra signage, or more

Key question is not “is everyone complying?”
but rather: “have traffic speeds gone down?”
Possible ways forward

Provide common material to pre-empt concerns

- Every RCA shouldn’t have to “reinvent the wheel”

Myths and misconceptions about speed

The setting of speed limits on our roads can be an emotive issue but there is only one objective – and that is to make our roads safer for motorists and pedestrians.

There are many myths and misconceptions about the speed at which we drive – here are a few for you to consider:

*You just want to drop speed limits everywhere.*

We are proposing to set new safe and appropriate speed limits for approximately 10% of Auckland’s high-risk roads and intersections.

We want to see local knowledge and data to make sure we’ve done everything we can to make your roads safer. This could mean road improvements so it’s safer at the current speed limit, or it could mean lowering the speed limit. There may be places where speed limits could be increased. The aim is to make sure we have the right speeds on the right roads.

*Speed isn’t a problem, bad drivers are.*

Even the most skilled drivers make mistakes, and most drivers understand New Zealand’s roads can be challenging. Good speed management gives drivers the cues they need to judge the safe and appropriate speed for the road they’re on.

*Defining a vulnerable road user.*

A vulnerable road user is anyone not in a vehicle. People walking, people on non-motorised two-wheelers (motorcycles, mopeds and light mopeds) and people cycling are referred to as vulnerable road users because of their ‘unprotected’ status.

*Going a few kilometres faster or slower doesn’t make any difference to safety.*

Actually, it does. Speed is the difference between a correctable mistake and a fatal error. Every extra km/h increases the likelihood of someone being killed or injured in a crash, regardless of what causes a crash, speed always plays a part.

Some arguments you might hear (and responses to them)

Myth 1: Going a few kilometres faster or slower doesn’t make any difference to safety.

Myth 2: The police should focus on real crime, not good people doing nothing wrong.

Myth 3: Slowing down will make it take ages to get anywhere.

Myth 4: Modern cars are safer and better, so there’s no need for us to drive slower.
Possible ways forward

Develop a strategy for speed management

<table>
<thead>
<tr>
<th>Possible Action</th>
<th>Engineering DOWN</th>
<th>NO Engineering</th>
<th>Engineering UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase speed limit</td>
<td>Incorrect</td>
<td>Correct</td>
<td>Correct</td>
</tr>
<tr>
<td>No speed change</td>
<td>Incorrect</td>
<td>Correct</td>
<td>Correct</td>
</tr>
<tr>
<td>Decrease speed limit</td>
<td>Incorrect</td>
<td>Correct</td>
<td>Incorrect</td>
</tr>
<tr>
<td>Variable speed limit</td>
<td>Incorrect</td>
<td>Incorrect</td>
<td>Incorrect</td>
</tr>
</tbody>
</table>

May need to “trade off” some increases for decreases…
It is starting to happen…

Hundreds of Auckland streets may have speed limits dropped under new council plan

Remember: this is just the top 10% of the network – and >80% of the network have inappropriate limits
Postscript: St Asaph St 30km/h speed limit

St Asaph St 30kmh proposal going forward despite lack of public support

Michael Hayward • 16:48, Dec 08 2018

A hearings panel has supported reducing St Asaph St’s speed limit to 30kmh, despite largely negative feedback from the public.

A speed limit reduction on Christchurch’s St Asaph St will be recommended to the council, despite public feedback largely opposing the idea.

Almost two-thirds of the 737 submissions on the Christchurch City Council plan did not support reducing the speed limit on sections of St Asaph St and Hagley and Riccarton avenues from 50kmh to 30kmh.
Thank You!

• Any Questions?

• glen@vi astrada.nz

  @ G Koorey