



Traffic & Transportation Engineers Ltd

SPEED LIMIT SETTING: A SAFE SYSTEMS APPROACH



Hastings speed limit debate gathers pace

DIANE JOYCE



Take focus off speed, put it on idiot drivers

Lower speed limit catches 58,000

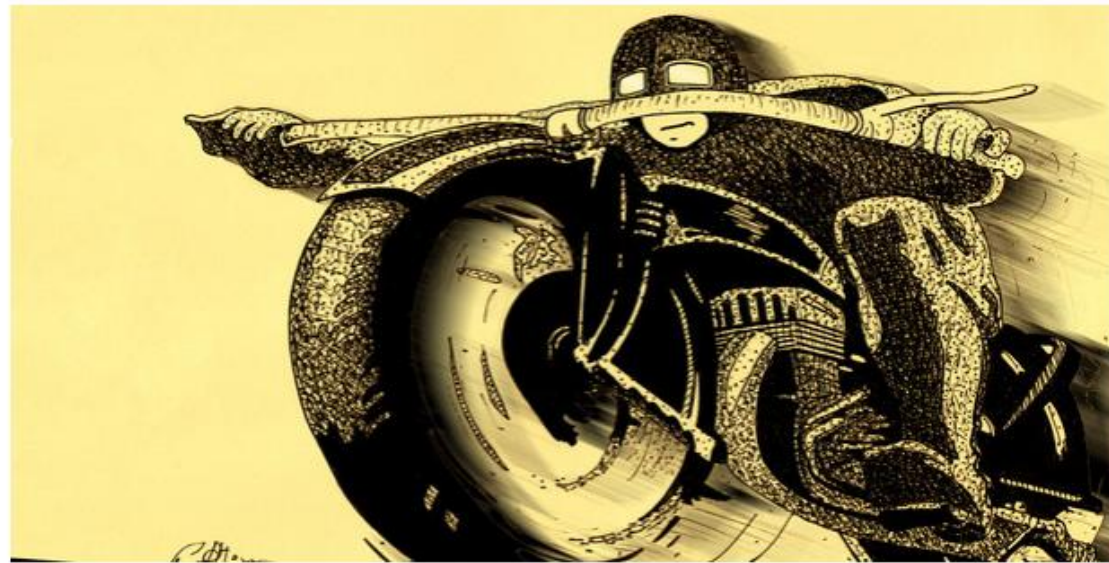
Is the 'zero tolerance' speed campaign working?

8:40 AM Monday Jan 5, 2015

747 comments

Driving Offences Motoring NZ Police Opinion ...

☆ f 75 t 6 in 51 g+ 1



New speed li

STACEY KNOTT

'Expect to be stop

Published: 4:44PM Thursday Novemb

New speed lim

By Mathew Dearnaley

5:00 AM Wednesday Sep 17, 2014

limits

d tolerance

' - police

ONE News

d, drink driving

'City 30kmh speed limit saved my life'

TOM HUNT AND OLIVIA WANNAN



A Safe System Approach to Setting Speed Limits?

Land Transport Rule:
Setting of Speed
Limits Rule 54001/2



Safer Journeys:
New Zealand Road
Safety Strategy
2010-2020

- 30 Operating speeds and threshold tolerance
- 30 Calculated speed rating - Roadside Development vs Roadway Rating



Threshold Tolerance

Mannering (2009) - driver's perception of a safe speed was strongly determined by how fast they could travel before they would be given speeding ticket.

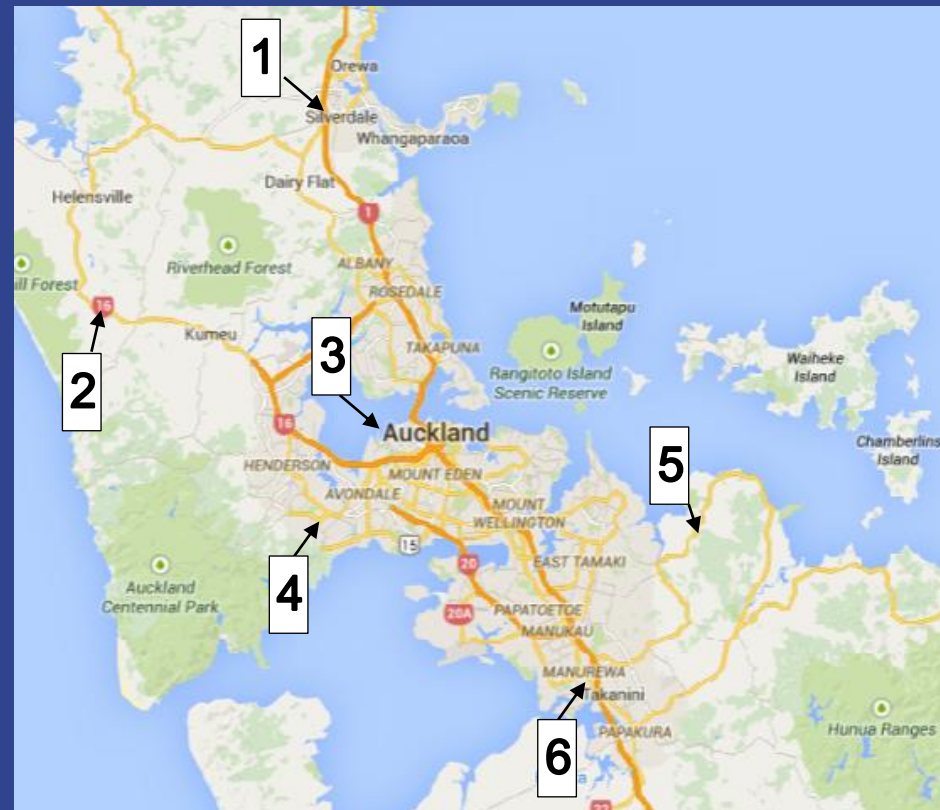
Police - 'Safer Summer' 1 December 2013 to 31 January 2014

- 🚫 A statistically significant drop in vehicle mean speeds by 0.5-1.5km/hr.
- 🚫 A 47-62% drop in the number of drivers exceeding 104 km/h.

Data does indicate that there is a psychological link between driver behaviour and the level of speeding that is tolerated.

Threshold Tolerance

Investigation - The speed limit setting process uses the mean and 85th percentile operating speed to assist in determining the appropriate speed limit, therefore a higher tolerance may be leading to higher speed limits being set.



Key

Urban

- 1 - Hibiscus Coast Highway
- 3 - Meola Road
- 4 - Titirangi Road
- 6 - Mahia Road

Rural

- 2 - State Highway 16
- 5 - Whitford Maraetia Road

Roadside Development Vs Roadway Rating

Higher the rating number calculated the lower the speed recommended. Two rating numbers calculated:



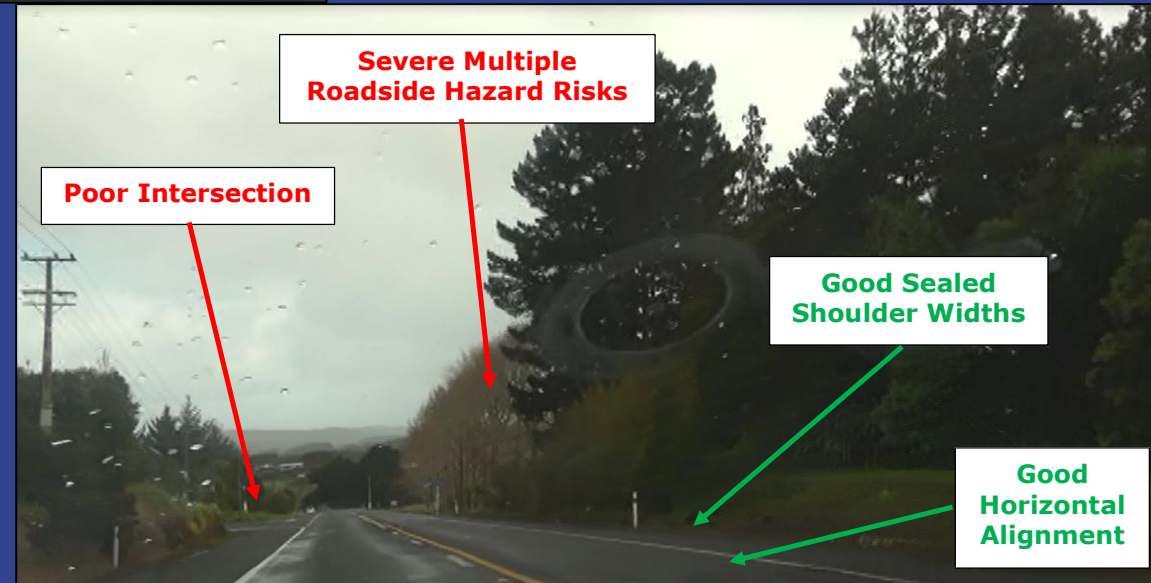
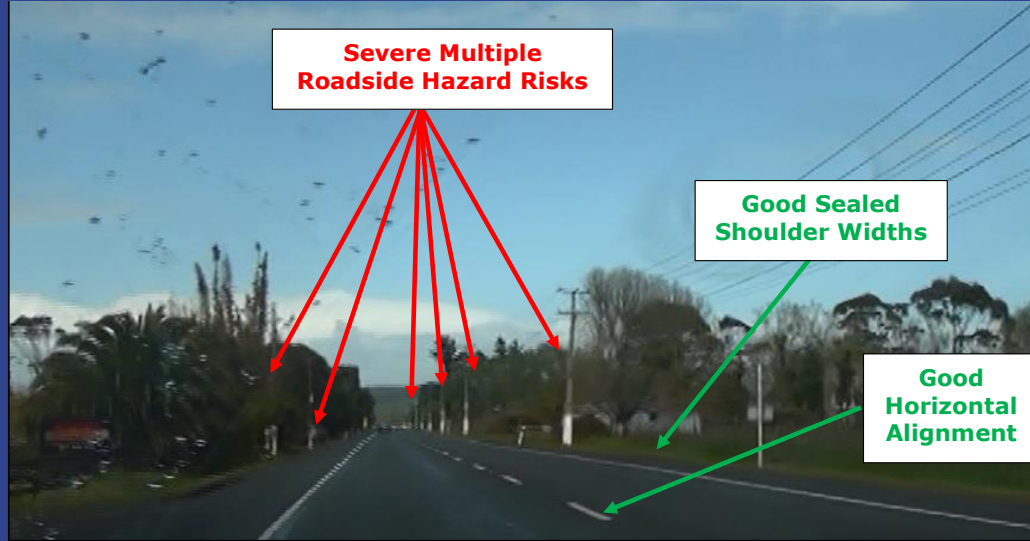
Roadside Development
Rating



Roadway Rating

Section 4.3 of the Rule states that the roadway rating number '**must** be reduced to that of the development rating.' when calculating the average rating.

Roadside Development Vs Roadway Rating



Conclusions

New Zealand's speed limit setting legislation works well but modifications are required to various aspects to align them with the safe systems approach

- 30 Reducing the speed limit tolerance threshold does have a psychological effect but only in particular circumstances.
- 30 The inclusion of additional road geometry elements in the rating calculation such as those used as part of the KiwiRAP RPS.

Updating the legislation to come in line with the safe systems approach to road safety would provide a more constructive and supportive system to set speed limits in New Zealand.



Thank You

Any Questions

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Safety

