
Thursday, 12 November 2020

Te Hui o Te Kaunihera ā-Rohe o Heretaunga
Hastings District Council
Council Meeting

Kaupapataka

Attachments Under Separate Cover – Document 1

Te Rā Hui:
Meeting date: **Thursday, 12 November 2020**

Te Wā:
Time: **9.00am**

Te Wāhi:
Venue: **Council Chamber
Ground Floor
Civic Administration Building
Lyndon Road East
Hastings**

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TE KAUNIHERA Ā-ROHE O HERETAUNGA

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DRAFT STATEMENT OF PROPOSAL

PROPOSED SPEED LIMIT
AMENDMENTS TO THE
SPEED LIMITS BYLAW 2012



PRJ20-36-0002



Item 5

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A. Introduction & Background

- A.1 In 2005, like most other territorial authorities in New Zealand, Hastings District Council ('the Council') adopted a speed limits bylaw. The bylaw is called: "Hastings District Council Speed Limits Bylaw 2005" ('the bylaw').
- A.2 The adoption of the bylaw was in response to a Government decision to delegate all (local) road speed limit decision making to road controlling authorities from 1 July 2005. This delegation is contained in a regulation called: "Land Transport Rule: Setting of Speed Limits 2003" ("the Rule").
- A.3 The Rule was replaced by "Land Transport Rule: Setting of Speed Limits 2017", and incorporates the amendments in "Land Transport Rule: Setting of Speed Limits Amendment 2019".
- A.4 In 2007, the bylaw was reviewed and replaced with Speed Limits Bylaw 2007.
- A.5 In 2009, the bylaw was reviewed again and replaced with Speed Limits Bylaw 2009.
- A.6 In 2012, the bylaw was reviewed again and replaced with Speed Limits Bylaw 2012.
- A.7 In 2014, 2015, 2018 and 2019 the bylaw was reviewed again and amended to reflect a number of changes to speed limits across the District.
- A.8 The bylaw (inter alia) contains thirteen schedules identifying road speed limits within the District and it sets out a process for changing speed limits.

B. Calculating Speed Limits

- B.1 Despite the fact that speed limit decision-making is now delegated to road controlling authorities the actual calculation of speed limits remains tightly controlled. This is to ensure uniformity of approach across the country.
- B.2 The rules and policies for speed limits and the method of calculating speed limits are set out in the Land Transport Rule: Setting of Speed Limits 2017. This rule requires roads to be assessed against the NZTA Speed Management Guide.
- B.3 Any decision of a road controlling authority can be reviewed by New Zealand Transport Agency.

C. Changing Speed Limits

C.1 Any change to a speed limit in the District requires a change to the bylaw and under the provisions of the Local Government Act 2002, significant change to a bylaw can only be made via the 'special consultative procedure' (SCP). The SCP is a formal consultation process that requires councils to:

- Prepare a 'statement of proposal' explaining the proposal;
- Give public notice of the proposal explaining what it is about, where details of the proposal can be viewed and inviting public submissions for a minimum one month period;
- Ensure that those likely to be most affected by the proposal are aware of the proposal;
- Consider all submissions carefully before making a decision.

(Refer to Part 6, Subpart 1 of the Local Government Act 2002 for more information.)

C.2 Furthermore, the Speed limit rule states (clause 2.5) that with regard to proposed changes to speed limits, in addition to the 'special consultative procedure' requirements the Council must consult with the following persons and groups:

- road controlling authorities that are responsible for roads that join, or are near, the road on which the speed limit is to be set or changed;
- any territorial authorities that are affected by the existing or proposed speed limit;
- any local communities that the road controlling authority considers to be affected by the proposed speed limit;
- the Commissioner;
- the chief executive of the New Zealand Automobile Association Incorporated;
- the chief executive of the Road Transport Forum New Zealand;
- the Agency;
- any other organisation or road user group that the road controlling authority considers to be affected by the proposed speed limit.

C.3 Finally, the Council must also comply with certain consultation and decision-making requirements set out in Part 2.7 of the Rule. These provisions duplicate much of the bylaw process.

C.4 The Council will follow these procedures carefully and key milestones are shown below:

| Date | Key Milestone |
|---------------------|---|
| 14 July 2020 | Council approves Statement of Proposal for consultation. |
| 3 August 2020 | Public consultation starts. |
| 14 September 2020 | Public consultation ends at 12 noon (last day for submissions). |
| 12-17 November 2020 | Council hears submissions and confirms changes. |

D. Administrative Details

D.1 View the Statement of Proposal

Copies of this Statement of Proposal can be viewed at the following locations during normal office hours:

- Hastings District Council, Lyndon Road East, Hastings
- Hastings Public Library, Eastbourne Street East, Hastings
- Flaxmere Public Library, Swansea St, Flaxmere
- Havelock North Public Library, Te Mata Road, Havelock North

Alternatively, it can be viewed on the Councils website: www.myvoicemychoice.co.nz.

D.2 Make an Enquiry

Enquiries about the proposed amendment should be directed in the first instance to Council's Traffic Engineer, Lachlan Crawford. His contact details are:

- Email: lachlanc@hdc.govt.nz
- Phone: 06 871 5000

D.3 Make a Submission

If you would like to make an online submission on this proposal, please go to the following website: www.myvoicemychoice.co.nz or follow the link on the Hastings District Council website.

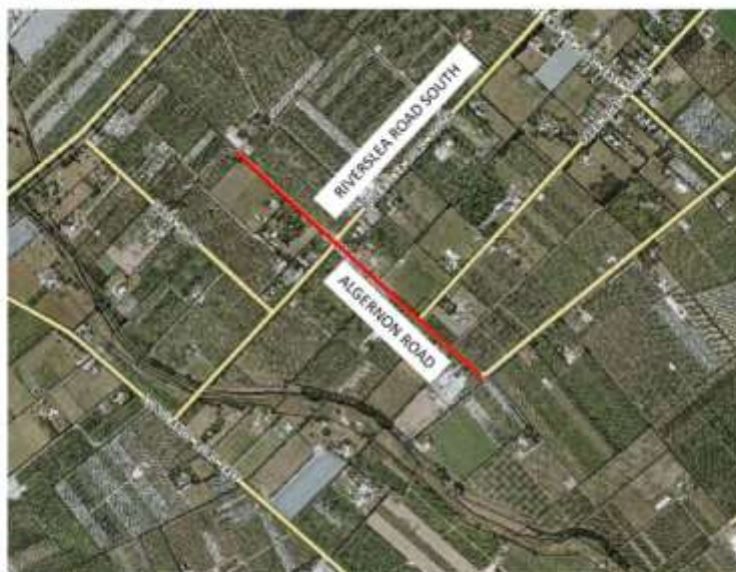
Hardcopy submission forms are also available from Hastings District Council or Public Libraries listed above.

The deadline for submissions is **14 September 2020 at 12 noon**.

Hastings District Council: Speed Limit Review - Explanation of Proposed Changes

The statement of proposal details proposed speed limit changes follow the introduction of the new "Speed Management Guide" which was developed by the New Zealand Transport Agency (NZTA) to help Road Controlling Authorities (RCAs) better understand the risk associated with their roads so that the appropriate speed limits can be set.

1 Proposal 1: Algernon Road



1.1 Explanation

The proposal to review the speed limit on Algernon Road relates to the broader speed limit review associated to Riverslea Road South (and surrounding roads) that it connects to. The proposed change in speed limit aims to achieve a consistent application of Safe And Appropriate Speed limits across these intersecting roads.

1.2 Survey Assessment

Algernon Road is classified as an access road with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

Algernon Road is split by Riverslea Road South which is also proposed for a reduced speed limit of 80km/h (from its current 100km/h limit). To achieve a consistent solution across the road network in this area it is proposed to reduce Algernon Road to 80km/h also.

1.3 Proposal

- The speed limit on Algernon Road be reduced from 100km/h to 80km/h along its entire length.

2 Proposal 2: Bennett Road



2.1. Explanation

The review of the speed limit on Bennett Road is part of an area-wide speed review in Waipatu. Due to the existing residential settlement in this area combined with the extension of the residential area and a potential school development on Bennett Road, a review of speed limits across this network is proposed.

2.2. Survey Assessment

Bennett Road is classified a Secondary Collector, and currently signed as 80km/h for the northern part, from Otene Road south for 630m, and 70km/h through to the intersection with SH51. With a low collective risk and low personal risk and an Infrastructure Risk Rating band of low-medium, the Safer Journeys Assessment Tool suggests no change to the northern part of Bennett Road which is currently 80km/h, a 60km/h limit to replace the current 70km/h limit with the exception of the section from Panapa Road south to SH51 which is suggested to be 40km/h. Part of the reason for this is that the ONRC classification changes along the road, with Bennett Road from Panapa Road south being classed as an access road while to the north it is a secondary collector.

Whilst the Safer Journeys Assessment Tool suggests no change to the northern part of Bennett Road, which is currently 80km/h, this does not account for a school being proposed for the northern part of Bennett Road. The Ministry of Transport has recently announced that a new approach will be taken for speed limits outside schools and that in future all schools on rural roads should have a maximum speed limit of 60km/h. The proposed school will be the main determinant of the posted speed limit on Bennett Road along this section. A 60km/h speed limit on the northern section to replace the existing 80km/h speed is therefore recommended.

When considered as an access road the Safe And Appropriate Speed on the southern part of Bennet Road has been calculated as 40km/h. It is noted that NZTA are reviewing the speed limit on SH51 and it is possible that the existing 50km/h speed limit for the Hastings urban area will be extended beyond Bennett Road. Therefore, it is recommended to reduce the speed limit on this section of Bennett Road to 50km/h (rather than 40km/h) to gain consistency across the network. This would in turn result in Panapa Road, Apatu Road and Kauru Road also being reduced to 50km/h.

2.3. Proposal

- The speed limit on northern part of Bennett Road be reduced from 80km/h to 60km/h between Otene Road and the current 70km/h speed limit signs.
- Reduce the speed limit on the remainder of Bennett Road, from the 70km/h signs to SH51, from 70km/h to 50km/h.
- Reduce the speed limits on Panapa Road, Apatu Road and Kaura Road to 50km/h for their entire length.

3 Proposal 3: Brookfields Road



3.1. Explanation

Brookfields Road has been identified as a high-risk corridor by NZTA. The road serves as an alternative route between Napier and Hastings and provides a key connection across the region alongside the typical rural activities observed along the route. Napier City Council is also proposing to reduce the speed limit on Sandy Road and Brookfields Road, which creates a need to review the speed limit on Brookfields Road to ensure it is consistent and appropriate.

3.2. Survey Assessment

Brookfields Road is classified a Secondary Collector with a medium collective risk and medium personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h along the entirety of this route.

Although the ONRC lists Brookfields Road as a secondary collector it plays an important role by way of being one of the few crossing points over the Tutaekuri River hence the relatively high traffic volume for this class of road. This corridor is also a popular route amongst cyclists who wish to avoid SH2 and SH51 when commuting between Napier and Hastings.

In addition, the route includes a tight radii curve at Sisson Road (55km/h advisory speed) and a one lane bridge just 400m from this curve. Given the mixed use of this road including cyclists and the number of physical constraints over a relatively short distance, a reduction to 80km/h is recommended. This approach also helps achieve consistency with the surrounding road network (Pakowhai Road, Gilbertson Road etc.) including Napier City Council proposed changes on Brookfields Road and Sandy Road.

3.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h for the entire length of Brookfields Road.

4 Proposal 4: Chatham Road



4.1 Explanation

Chatham Road is one of the four roads that intersect with Omaha Road that provide direct access to Flaxmere. The speed limits on each of these routes are currently inconsistent, therefore it is proposed to assess each route and determine a consistent approach which works for all options.

4.2 Survey Assessment

Chatham Road is classified a Primary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of Low-medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 60km/h along this section of the route (between Margate Avenue and Omaha Road) which corresponds with actual travel speeds. In addition, there is a desire within the community for the four roads that connect Omaha Road to Flaxmere be treated with the same speed limit. Chatham Road is one of the three roads that intersect where Omaha Road is 50km/h but is the only one that is signed 50km/h along its entire length (following recent changes in 2018). For consistency, a 60km/h speed limit along the 'rural sections' of these roads is assessed to be the most appropriate solution for the routes.

4.3 Proposal

- The speed limit be increased from 50km/h to 60 km/h on Chatham Road between Margate Avenue and a point 70m west of Hazelwood Street.

5 Proposal 5: Charlton Road



5.1 Explanation

Charlton Road has been reviewed due to the proposed change to the speed limit on Clifton Road (from 100km/h to 80km/h).

5.2 Survey Assessment

Due to the proposed reduction in speed limit on the section of Clifton Road at Te Awanga where Charlton Road connects, it is proposed to also implement an 80km/h speed limit on Charlton Road to ensure consistency is maintained.

5.3 Proposal

- Reduce the speed limit on Charlton Road from 100km/h to 80km/h for its entire length.

6 Proposal 6: Clifton Road (between Haumoana and Te Awanga)



6.1 Explanation

This section of Clifton Road, starts south of the Haumoana and ends north of Te Awanga, is currently 100km/h with approximately a 670m length in the middle being identified as one of the top ten percent sites for Death and Serious Injury crash reductions through speed management. It is bordered at each end with 50km/h speed limit sections.

6.2 Survey Assessment

Clifton Road is classified a Primary Collector with a low-medium collective risk and medium personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h along this section.

The section of road highlighted in the Safer Journeys Risk Assessment Tool as being in the top ten percent of Death and Serious Injury crash reducing sites is the 670m section of Clifton Road located between Haumoana and Te Awanga. It starts 250m south of the Haumoana 50km/h speed limit and ends approximately 600m prior to the 50km/h speed limit at Te Awanga. While only the middle section has been identified as being in the top ten percent, the full length from Haumoana to Te Awanga has the same Safe And Appropriate Speed of 80km/h and it was therefore assessed as one length. This approach also ensures a consistent treatment for the route rather than regular and sporadic speed limit changes.

In addition to the risk rating, Clifton Road provides direct access to the beach in a number of places and has a campsite and a number of popular vineyards/wineries within its length. Give the mixed use of this road including cyclists and horses, a reduction to 80km/h is recommended to better reflect the safe and appropriate use of this road.

6.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h along the section of Clifton Road between the existing 50/100km/h speed limit signs south of Haumoana and the 50/100km/h signs north of Te Awanga.

7 Proposal 7: Clifton Road (From Te Awanga to End)



7.1 Explanation

This section of Clifton Road starts 120m south of Kuku Street at 50/100km/h signs and extends to the end of the road at the Clifton Motor Camp. This route section has been identified one of the top ten percent sites for Death and Serious Injury crash reductions through speed management.

7.2 Survey Assessment

Clifton Road is classified a Primary Collector with a low-medium collective risk and medium personal risk and an Infrastructure Risk Rating band of medium. Whilst the Safer Journeys Risk Assessment Tool identifies this as a standalone section, for all other measures the assessment and recommendations are the same as for the other section of Clifton Road. For that reason, the Safe And Appropriate Speed is also 80km/h. This section of Clifton Road is a cul-de-sac and clearly has mixed use with pedestrians, cyclists, horses and tourists present. A speed limit reduction is proposed to better reflect the Safe And Appropriate Speed.

The 85th percentile speed of 81km/h was recorded between Charlton Road and the car park and indicates that the majority of vehicles are already travelling at or under the Safe And Appropriate Speed thus this change to the posted speed limit should make little difference to most users.



Entering Te Awanga from the south

Note, the image above shows the starts of the 50km/h speed limit and the speed hump immediately behind it with a 20km/h advisory speed. Even if the speed limit is reduced to 80km/h it is likely that vehicles will enter the lower speed area at a speed greater than 50km/h. Due to the limited separation between the speed limit change point and speed hump it is proposed to extend the 50km/h section approximately 30m to the south (providing better offset from the speed limit change and the speed hump).

7.3 Proposal

- The 50km/h speed limit area be extended a further 30m to the south of its current location.
- The speed limit be reduced from 100km/h to 80km/h along the section of road from the 50km/h speed limit signs (as proposed above) south of Te Awanga to the eastern extent of the route.

8 Proposal 8: Craggy Range Road



8.1 Explanation

Craggy Range Road has been reviewed due to the proposed change to the speed limit on Tuki Tuki Road (from 100km/h to 80km/h)

8.2 Survey Assessment

Due to the proposed reduction in speed limit on Tuki Tuki Road where Craggy Range Road connects, it is proposed to also implement an 80km/h speed limit on Craggy Range Road to ensure consistency is maintained.

8.3 Proposal

- Reduce the speed limit on Craggy Range Road from 100km/h to 80km/h for its entire length.

9 Proposal 9: Dartmoor Road



9.1 Explanation

Dartmoor Road is highlighted in the Safer Journeys Risk Assessment Tool as one of the top ten percent sites for Death and Serious Injury crash reductions through speed management. Members of the public have also requested a speed limit reduction in this area.

9.2 Survey Assessment

Dartmoor Road is classified a Primary Collector with a low collective risk and low-medium personal risk and an Infrastructure Risk Rating band of medium-high. Roadside hazards along Dartmoor are less severe in comparison to other rural roads in the region with the roadside environment experiencing only short sections where there may be deep ditches in the shoulder. Trees are set well back from the road and there are no risks associated to power poles etc. due to their absence along this road.

Nevertheless, Puketapu Park is a favourite location for many families in the area. In addition, just beyond the crest located west of Puketapu Park's access, is a reverse curve with an orchard access between the two curves. Reducing the speed limit to 80km/h between the 100km/h speed limit signs north of Vicarage Road to the reverse curve west of Puketapu Park's access is recommended as a suitable solution.

9.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h from the start of the 50km/h speed limit 250m west of Vicarage Road through to a point 870m west of the entrance to Puketapu Park.

10 Proposal 10: Davis Road



10.1 Explanation

The review of the speed limit on Davis Road relates to the broader speed limit review associated with Longlands Road and Riverslea Road South that it connects to. Speed limit changes across this area are proposed to achieve a more consistent solution for road users.

10.2 Survey Assessment

Davis Road is classified as an access road, with a low collective risk and low personal risk and an Infrastructure Risk Rating band of low-medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

Davis Road is bound by Longlands Road and Riverslea Road. Both roads are recommended for a speed reduction to 80km/h. For a consistent approach, it is recommended to reduce the speed limit on Davies Road to 80km/h.

10.3 Proposal

- The speed limit on Davis Road be reduced from 100km/h to 80km/h along the entirety of its length.

11 Proposal 11: East Road



11.1 Explanation

The previous speed limit review on this section of East Road related to the expansion of the urban area along East Road, and the regional road network speed limit review. A further assessment has been completed to ensure the risks associated to the remaining route length are sufficiently mitigated.

11.2 Survey Assessment

East Road is classified a Primary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. The 50km/h speed limit was extended by 185m in 2019 due to development along East Road leaving 440m between the speed limit change point and the 35km/h right-angle curve that is also a T intersection with Parkhill Road. Within this length, there is a car museum and a large egg producing facility.

The ratings given by the Safer Journeys Risk Assessment Tool for East Road (and Parkhill Road) show a Safe And Appropriate Speed of 80km/h. It appears appropriate to implement an 80km/h speed limit on East Road.

11.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h on East Road from Parkhill Road to the existing 50/100km/h speed limit signs west of Rockwood Place.

12 Proposal 12: Elwood Road



12.1 Explanation

The speed limit assessment for Elwood Road relates to the Waipatu area wide speed limit review.

12.2 Survey Assessment

Elwood Road is classified a Primary Collector with a low collective risk and low-medium personal risk and an Infrastructure Risk Rating band of low-medium. The Safer Journeys Risk Assessment Tool shows 800m of Elwood Road being subject to a 70km/h speed limit with the 200m prior to Otene Road being 80km/h.

Due to increased residential development and the provision of a proposed school on Bennett Road, the speed limits in this area are being reviewed, including the speed limit on SH51. It would appear that if NZTA wants to alter the 70km/h speed limit then the options would be either 50 or 60km/h. Elwood Road is the closest side road to the start of the Hastings urban speed limit therefore it is most likely that this section will intersect with a 50km/h part of SH51. Like Bennett Road, it is recommended to reduce the speed limit in the southern part of Elwood Road from 70km/h to 50km/h.

12.3 Proposal

- The speed limit be reduced from 70km/h to 50km/h on Elwood Road between SH51 and the current 70/80km/h speed limit signs.

13 Proposal 13: Evenden Road (from SH2 to Ormond Road)



13.1 Explanation

This section of Evenden Road has been reviewed due to it being identified as a top ten percent site for Death and Serious Injury reductions through a lowering of travel speeds.

13.2 Survey Assessment

Evenden Road is classified a Primary Collector with a medium collective and medium personal risk and an Infrastructure Risk Rating band of medium. The Safe And Appropriate Speed identified within the tool is 80km/h. Only a short section of Evenden Road is shown as being in the top ten percent of sites. North of Ormond Road, Evenden Road becomes a secondary collector with a lower IRR band and is considered as part of the Twyford area speed limit review area. The recommendation is that the Twyford area becomes 80km/h. For consistency, it is recommended that this section of Evenden Road is also reduced to 80km/h from the roundabout northwards.

13.3 Proposal

- The speed limit be reduced from 100 to 80km/h on Evenden Road between SH2 and Ormond Road (*note the remainder of the route between Ormond Road and Ruapare Road is detailed within the Twyford speed limit change proposals*).

14 Proposal 14: France Road



14.1 Explanation

This section of France Road has been reviewed due to the proposed change to the speed limit on Railway Road (from 100km/h to 80km/h).

14.2 Survey Assessment

Due to the proposed reduction in speed limit on Railway Road from 100km/h to 80km/h, it is proposed to also implement an 80km/h speed limit on France Road to ensure consistency is maintained.

14.3 Proposal

- Reduce the speed limit on France Road from 100km/h to 80km/h for its entire length.

15 Proposal 15: Gilpin Road



15.1 Explanation

The request to review the speed limit on Gilpin Road relates to the broader speed limit review associated to Te Aute Road, Middle Road and Lona Road that it connects to.

15.2 Survey Assessment

Gilpin Road is identified a secondary collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium-high. The Safe And Appropriate Speed identified within the tool is 80km/h.

At its northern end, Gilpin Road intersects with Te Aute Road which has a recommendation to reduce the speed limit to 80km/h, whilst at the southern end, Lona Road and both Middle Road legs are also proposed to have the speed limit reduced. For consistency, a reduction in speed limit from 100km/h to 80km/h is recommended for Gilpin Road

15.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h along the full length of Gilpin Road.

16 Proposal 16: Haumoana Road



16.1 Explanation

The speed limit review for the Haumoana Road is to extend the 50km/h zone further from the sharp curve in the road to provide greater distance between the curve hazard and the speed change. In addition, it is proposed to reduce the speed limit on Haumoana Road to 80km/h to align with the proposed reductions on Mill Road and Parkhill Road.

16.2 Survey Assessment

The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h within the section under review. Due to the proposed speed limit reductions on Mill Road and Parkhill Road, combined with the 90degree curves on Haumoana Road at its intersection with Mill Road and Parkhill Road, adopting a consistent 80km/h speed limit through here is deemed appropriate.

A minor modification to the 50km/h extents is also proposed to move the speed limit change further from the right hand curve and residential properties to achieve improved speed limit adherence through the 50km/h zone.

16.3 Proposal

- Extend the 50km/h speed limit a further 50m south from the current 50km/h speed limit signs. Reduce the speed limit from 100km/h to 80km/h from the proposed 50km/h extents to the intersection with Mill Road.

17 Proposal 17: Havelock North CBD



17.1 Explanation

The speed limit review for the Havelock North CBD area was undertaken following a public request to consider the introduction of a 30km/h speed limit zone. The Havelock North Business Association have indicated their support for this proposal.

17.2 Survey Assessment

The operating speeds recorded in the Havelock North CBD suggest that the majority of vehicles are already travelling between 30km/h and 35km/h, which is typical of a constrained urban environment with a high level of pedestrian traffic.

A 30km/h speed limit would provide a safe shared space among all modes of traffic including pedestrians, cyclists and cars. Implementing a 30km/h speed limit in other city centres has resulted in a reduction in injury crashes, especially those involving pedestrians, and an increased perception of traffic safety within the CBD for all users. This increased perception of traffic safety can create a more attractive CBD with greater freedom of movement.

17.3 Proposal

- The speed limit be reduced from 50km/h to 30km/h across the CBD area as indicated above.

18 Proposal 18: Heathcote Road



18.1 Explanation

The speed limit review on Heathcote Road was undertaken due to the previous speed limit changes on Maraekakaho Road as well as the proposed changes to Southland Road.

18.2 Survey Assessment

Heathcote Road is identified as a Primary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. Heathcote Road is a fairly typical rural road on the outskirts of Hastings with power poles along one side and a relatively deep ditch on the other, with associated driveway culverts.

At its northern end, Heathcote Road intersects with Maraekakaho Road. The speed limit on this section of Maraekakaho Road was reduced to 80km/h in the most recent round of speed limit changes. At its southern end, Heathcote Road intersects with Southland Road which also forms part of this current review.

The Safer Journeys Risk Assessment Tool has identified a Safe And Appropriate Speed of 80km/h on this road. The 85th percentile speed of 87km/h along this route suggests that people are generally travelling close to the Safe And Appropriate Speed. A reduction to 80km/h is recommended for the road as a suitable speed and also provides consistency with Maraekakaho Road.

18.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h along the entire length of Heathcote Road.

19 Proposal 19: Henderson Road



19.1 Explanation

Henderson Road is one to the four roads that intersect with Omaha Road that provide direct access to Flaxmere. The speed limits on each of these routes are currently inconsistent, therefore it is proposed to assess each route and determine a consistent approach which works for all options.

19.2 Survey Assessment

Henderson Road is classified a Primary Collector with a low collective risk and low personal risk. Like Chatham Road to the north and Wilson Road to the south Henderson Road has a calculated Safe And Appropriate Speed of 60km/h and sits between the 70km/h speed limit on Omaha Road and the 50km/h speed limit in Flaxmere. Also, like Chatham Road the measured 85th percentile speed is more in line with a 60km/h speed limit than one that is 70km/h.

Within the existing 70km/h section there are seven accesses, generally to orchards and fruit packing businesses. A reduction to 60km/h would improve the safety of these accessways and would also provide consistency on the four routes that connect Omaha Road to Flaxmere.

19.3 Proposal

- The speed limit be reduced from 70km/h to 60 km/h between Folkstone Drive to a point 95m west of Stevens Place (the accessway to the refuse transfer station).

20 Proposal 20: Iona Road



20.1 Explanation

The speed limit review on this section of Iona Road relates to public request in addition to the current speed review in the surrounding network.

20.2 Survey Assessment

Iona Road is classified a Secondary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium-high. Iona Road intersects with Middle Road in a 100km/h speed limit zone on the outskirts of Havelock North, before it becomes 50km/h approximately 130 west of Lane Road. Iona Road gradually becomes more developed as you move further east.

This section of 100km/h road is only 500m in length with an intersection at one end and a 50km/h speed limit at the other. When leaving the 50km/h zone it is possible to see the intersection ahead, therefore, it is very unlikely that many vehicles reach 100km/h along this section of road. The 85th percentile speed recorded in RAMM is 81 km/h.

With the speed limit on Middle Road also under review and 80km/h being recommended it would be logical to adopt the same approach on that the section of Iona Road from the end of the existing 50km/h speed limit through to Middle Road. Therefore, the section of Iona Road that is currently 100km/h is recommended to reduce to 80km/h. A further review is likely to be required as residential development increases in this area but is not proposed at this time given the uncertainty associated to the timing of this development.

20.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h for the section of Iona Road between Middle Road and the existing 50/100km/h speed limit signs west Lane Road

21 Proposal 21: Jarvis Road



21.1 Explanation

The speed limit review on Jarvis Road is a part of a wider review of the Twyford area. It starts at Omaha Road and ends at Thompson Road.

21.2 Survey Assessment

Jarvis Road is classified a Secondary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

The existing speed limit along this road is 100km/h for most of its length with the exception of the first 110m from the Omaha Road intersection which is 70km/h. The 85th percentile speed is slightly below the calculated safe speed of 80km/h which suggests that compliance with an 80km/h speed limit will not be an issue. Given the width of the road and roadside hazards in the form of ditches and culverts (see below), the speed limit on Jarvis Road is proposed to reduce to 80km/h to be closer to the Safe And Appropriate Speed.



Typical layout of Jarvis Road

21.3 Proposal

- The speed limit be reduced on Jarvis Road from 100km/h to 80km/h between Thompson Road and the existing 70km/h signs.
- The speed limit be reduced from 70km/h to 50km/h between Omaha Road and the existing 70km/h signs.

22 Proposal 22: Kirkwood Road



22.1 Explanation

Kirkwood Road is one to the four roads that intersect with Omaha Road that provide direct access to Flaxmere. The speed limits on each of these routes are currently inconsistent, therefore it is proposed to assess each route and determine a consistent approach which works for all options.

22.2 Survey Assessment

Kirkwood Road is classified a Secondary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of low-medium. The road has an existing speed limit of 50km/h to the south and 70 km/h to the north. The 50km/h speed limit on Kirkwood Road was extended in 2017 to take account of the extension of the residential area along Kirkwood Road. At the time, it was also considered whether the speed limit should be extended all the way to Omaha Road but with open parkland on one side and industrial storage on the other there was little to support a change at that time. Further development is planned but this will all take access from Frobisher Street which is within the current 50km/h area.

There is a desire within the community for the four roads that connect Omaha Road to Flaxmere Road be treated in a consistent manner with respect to their designation speed limits. Kirkwood Road is the only one of these roads that intersect with Omaha Road outside its 50km/h speed limit. At present, the speed limit on Omaha Road is 70km/h with a recommendation in this proposal that 60km/h be considered, the natural solution for Kirkwood Road then is recommended to reduce the 70 km/h speed limit to 60km/h.

22.3 Proposal

- The speed limit be reduced from 70km/h to 60km/h on Kirkwood Road from the existing 50km/h speed limit signs north of Frobisher Street to the intersection with Omaha Road.

23 Proposal 23: Lawn Road



23.1 Explanation

This section of Lawn Road between Napier Road and Mill Road has been identified as a top ten percent site for Death and Serious Injury reductions. Lawn Road connects to Mill Road and forms part of the route from Hastings to Haumoana and the Cape gannet colony, both popular tourist destinations.

23.2 Survey Assessment

Lawn Road is classified a Primary Collector with a low-medium collective risk and low-medium personal risk, and an Infrastructure Risk Rating band of medium, the Safe And Appropriate Speed identified within the tool is 80km/h.

Lawn Road is noticeably straight but has narrow shoulders and a number of hazards close to the road, including power poles and ditches. There are a number of driveways along the route, both residential and to provide access to the numerous orchards. For a consistent approach, it is recommended to reduce the speed limit along this section of road to 80km/h, matching the calculated Safe And Appropriate Speed and within the range of compliance with the measured 85th percentile speed of 89km/h.

23.3 Proposal

- The speed limit be reduced from 100 to 80km/h on a section of Lawn Road between Napier Road and Mill Road.

24 Proposal 24: Middle Road



24.1 Explanation

This section of Middle Road, from School Road to the urban boundary west of Breadalbane Road, is currently 100km/h with a short section through the reverse curve at Gilpin Road was identified as a top ten percent site for Death and Serious Injury reductions.

24.2 Survey Assessment

Middle Road is classified a Primary Collector with a low collective risk and medium personal risk with the Safe And Appropriate Speed identified within the tool is 80km/h.

Measured speeds show an 85th percentile speed in the low 80's east of Gilpin Road, but this increases to 101km/h near School Road. This does indicate that achieving a travel speed of 80km/h should be relatively easy on the section closer to Havelock North and through the curves south of Gilpin Road, although higher speeds could be expected to the west.

24.3 Proposal

- Introduce an 80km/h speed limit from the existing 50km/h speed limit 150m west Breadalbane Road to School Road.

25 Proposal 25: Mill Road



25.1 Explanation

This section of Mill Road, from Clive to Tuki Tuki Road, is currently 100km/h and is being identified as a top ten percent site for Death and Serious Injury Crashes.

25.2 Survey Assessment

Mill Road is classified a Primary Collector, and forms part of a key link to the Haumoana, Te Awanga and Clifton communities, as well as the gannet colony and wineries which are a popular tourist destination. With a low-medium collective and low-medium personal risk and an Infrastructure Risk Rating band of medium, the Safe And Appropriate Speed identified within the tool is 80km/h. Lower speeds approaching the roundabout at the Lawn Road intersection and the sharp curve at the Tuki Tuki Road intersection would also benefit from a reduction in speed limits. Furthermore, with the recommendation being for an 80km/h speed limit on Lawn Road, Tuki Tuki Road and Haumoana Road it appears appropriate to propose the same should on this section of Mill Road between Lawn Road and Tuki Tuki Road, to provide a consistent route treatment.

25.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h on Mill Road between the existing 50km/h speed limit signs and Tuki Tuki Road.

26 Proposal 26: Millar Road



26.1 Explanation

Millar Road has been reviewed due to the proposed change to the speed limit on Tuki Tuki Road (from 100km/h to 80km/h)

26.2 Survey Assessment

Due to the proposed reduction in speed limit on Tuki Tuki Road, it is proposed to also implement an 80km/h speed limit on Millar Road to ensure consistency is maintained.

26.3 Proposal

- Reduce the speed limit on Millar Road from 100km/h to 80km/h for its entire length.

27 Proposal 27: Moore Road



27.1. Explanation

Moore Road has been reviewed due to the proposed change to the speed limit on Tuki Tuki Road (from 100km/h to 80km/h)

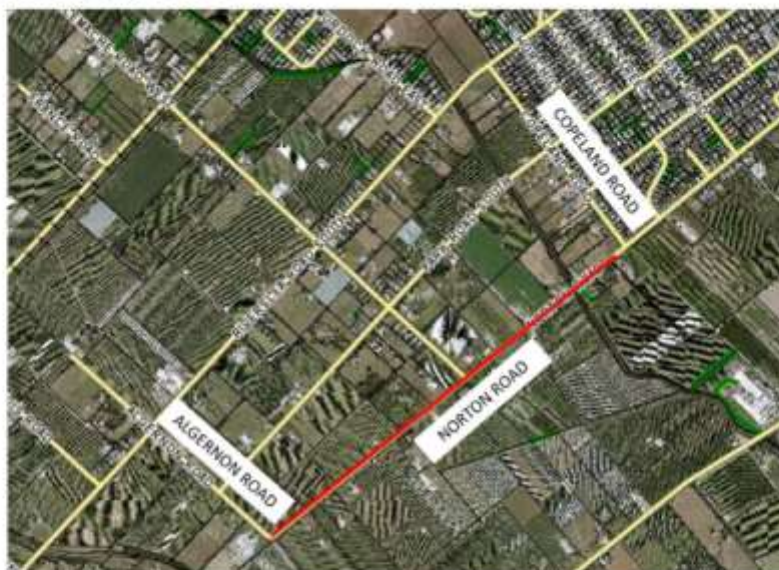
27.2. Survey Assessment

Due to the proposed reduction in speed limit on Tuki Tuki Road where Moore Road connects to, it is proposed to also implement an 80km/h speed limit on Moore Road to ensure consistency is maintained.

27.3. Proposal

- Reduce the speed limit on Moore Road from 100km/h to 80km/h for its entire length.

28 Proposal 28: Norton Road



28.1 Explanation

The public request to review the speed limit on Norton Road, between Algernon Rd and Copeland Road, forms part of the broader speed limit review for the Longlands area.

28.2 Survey Assessment

Norton Road is classified as an access road, with a low-medium collective risk and medium personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

Norton Road intersects with Algernon Road to the south, which is proposed for a reduced speed limit of 80km/h, and with Tollemache Road which has an existing speed limit of 70km/h. The current speed limit rule no longer permits provision of 70km/h speed limits and as such it is recommended to reduce the speed limit on Norton Road to 80km/h for consistency with Algernon Road.

28.3 Proposal

- The speed limit be reduced from 100km/h to 80km/h along Norton Road from Algernon Road to the existing 50km/h speed limit signs 90m west of Copeland Road.

29 Proposal 29: Omaha Road



29.1 Explanation

This section of Omaha Road was selected for the speed review for two reasons, to review the section identified as being in the top ten percent of sites for Death and Serious Injury reductions and a request to extend the existing 50km/h speed limit.

29.2 Survey Assessment

Omaha Road is classified as an arterial with posted speed limits of 100km/h to the north, 70km/h in the middle and 50km/h to the south section of the road.

At present, the speed limit changes from 50 to 70km/h at a point 250m south of Jarvis Road. Due to recent land development, the location at 250m north of Jarvis Road would make a more appropriate point to start the urban speed limit. This 500m increase in the length of the 50km/h speed limit would result in the speed limit starting at the beginning of the flush median where the 70km/h repeater signs are currently positioned.

There has been an increasing level of development on the 100km/h section of Omaha Road when turning off SH50 at the northern end. There is an obvious change in character when leaving SH50 and a reduction to 80km/h along this section from the state highway intersection to a point 90m west of Kirkwood Road is recommended to complement the changes as the road becomes more urbanised.

NZTA have highlighted that 70km/h speed limits are no longer to be used as permanent speed limits and given the proposed changes to the 50km/h section and the 100km/h section it is recommended that the current 70km/h section is replaced with a 60km/h speed limit.

29.3 Proposal

- The 50km/h speed zone to be extended from its existing position approximately 250m east of Jarvis Road to the start of the existing flush median 250m west of Jarvis Road.
- A speed limit of 60km/h be implemented on Omaha Road from a point 90m west of Kirkwood Road to a point 250m west of Jarvis Road.
- The speed limit be reduced from 100km/h to 80km/h on Omaha Road from the intersection with SH50 to the existing 70km/100km/h speed limit change point approximately 90m west of Kirkwood Road.

30 Proposal 30: Omarunui Road



30.1 Explanation

This section of Omarunui Road, between SH50 and Strome Road, is currently 100km/h with adjacent land uses being residential lifestyle before becoming more rural north of Strome Road.

30.2 Survey Assessment

Omarunui Road is classified a Primary Collector, the section of Omarunui Road that has been assessed has a Low-medium collective risk and Medium personal risk with a Medium IRR band. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h on this section.

In addition, Omarunui intersects with SH50 to the south, where the main road (SH50) has a lower speed limit of 70km/h. Reducing the speed limit on the approach to SH50 would provide a better and more consistent speed environment and as such the introduction of an 80km/h speed limit is proposed.

30.3 Proposal

- The speed limit be reduced from 100 to 80km/h on Omarunui Road between Strome Road and SH50.

31 Proposal 31: Pakowhai Road



31.1 Explanation

This section of Pakowhai Road, between 240m south of Brookfields Road to 640m north of Brookfields Road, is currently 60km/h following its change as part of the wider Pakowhai Road speed limit reductions in 2014. Traffic counts and observations suggest that this speed limit is rarely adhered to by road users and following the completion of the Whakatu Arterial Link (Te Ara Kahikatea), the strategic importance of this route for commuters and the broader industry has increased.

31.2 Survey Assessment

Pakowhai Road is classified an arterial, with a low-medium collective and personal risk and an Infrastructure Risk Rating band of low, the Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 60km/h based on an urban area classification.

Nevertheless, the 85th percentile speed indicates that the actual travelling speed was approximately 80km/h and the road itself looks no different to the 80km/h section on either side of the 60km/h section... While the 60km/h speed limit is suggested due to the area being classified as an urban area, observations show that the road is quite rural and the 85th percentile speed suggest that motorists see it the same way. Therefore, it is recommended to replace the 60km/h speed limit section with an 80km/h speed limit. This approach achieves route consistency and also wider network consistency.

31.3 Proposal

- The speed limit be increased from 60km/h to 80km/h for the section of Pakowhai road from 240m south to 640m north of Brookfields Road.

32 Proposal 32: Palomino Road



32.1. Explanation

Palomino Road has been reviewed due to the proposed change to the speed limit on Parkhill Road (from 100km/h to 80km/h)

32.2. Survey Assessment

Due to the proposed reduction in speed limit on Parkhill Road where Palomino Road connects to, it is proposed to also implement an 80km/h speed limit on Palomino Road to ensure consistency is maintained.

32.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h for the entire length of Palomino Road.

33 Proposal 33: Paraire Road



33.1. Explanation

Paraire Road is one of the three roads that are all parallel no exit roads that intersect with SH51 in proximity to the Waipatu settlement. The request to review the speed limit on Paraire Road relates to the NZTA speed limit review on SH51.

33.2. Survey Assessment

Paraire Road is classified as an access road, with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

Nevertheless, NZTA is currently reviewing the 80km/h speed limit on SH51 and while the 50km/h speed limit may be extended from Hastings it is unlikely to extend as far as these three side roads. With 70km/h no longer a speed limit option it is most likely that NZTA will look to reduce the speed limit here to 60km/h.

In any case, given the cul-de-sac nature of these roads a reduced speed limit appears appropriate. Paraire Road, along with the other two roads, provides access to a mix of residential and commercial premises. With none of them providing a through route function traffic is likely to be related to the local community and is likely to consist of regular users.

33.3. Proposal

- The speed limit on Paraire Road be reduced from 80km/h to 60km/h along the entire length of the road.

34 Proposal 34: Park Road



34.1. Explanation

The request to review the speed limit on Park Road, between Algernon Road to 200m West of Tollemache Road East, is a part of the broader speed limit review for the Longlands area.

34.2. Survey Assessment

This section of Park Road is classified as an access road, with a low collective risk and low personal risk and an Infrastructure Risk Rating band of low-medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

Furthermore, Park Road intersects with Tollemache Road to the north which has the speed limit of 70km/h, and with Algernon Road to the south which is also under a speed limit review with a recommended speed limit of 80km/h. To achieve a consistent network solution it is proposed to amend the speed limit on Park Road to 80km/h.

34.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h along Park Road from the intersection with Algernon Road to the existing 70km/h speed limit signs 200m west of Tollemache Road East.

35 Proposal 35: Parkhill Road



35.1. Explanation

The speed limit review on this section of Parkhill Road is a part of the speed review in the surrounding road network and more specifically the review on East Road and Haumoana Road.

35.2. Survey Assessment

Parkhill Road is classified as a Secondary Collector with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium. The existing speed limit on this road is 100km/h, and the Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

The northernmost section between Haumoana Road and East Road is part of the main route to the Cape Coast, and has many roadside hazards such as power poles and roadside drains, as well as vehicle accesses. The section between Raymond Road and East Road is the only connection from Haumoana community to Haumoana School, children and their parents / caregivers were observed cycling or scootering to Haumoana School on Raymond Road. From Raymond Road to the south is a no through route with increasing residential development occurring. Given this, it is recommended to reduce the speed limit to 80km/h on this section of Parkhill Road

35.3. Proposal

- The speed limit be reduced from 100 to 80km/h on Parkhill Road from Haumoana Road through to the end of the road south of Raymond Road.

36 Proposal 36: Puketapu Road



36.1. Explanation

The speed limit review on this section of Puketapu Road, south of the township, is a part of the broader speed limit review for the Puketapu area.

36.2. Survey Assessment

The section of Puketapu Road south of the township is classified a Primary Collector (with the same characteristics as Dartmoor Road), with a low collective and low personal risk and an Infrastructure Risk Rating band of medium. The current location of the change from 50 to 100km/h is on a curve, see below. It is recommended to combine speed limit signs with the Puketapu place name sign to provide a threshold treatment to allow a greater buffer prior to vehicles reaching the township. This requires an extension of the 50km/h speed limit by 70m to the south.



Recent changes to the section of Puketapu Road south include the construction of a cycle path along the north side of the road that has a crossing point within the 100km/h area. This crossing point is approximately 430m outside the existing 50km/h zone south of Puketapu township. The cycle path does change the appearance of the road and increases the number of vulnerable road users along this road which supports the need to achieve a safer environment for cyclists. The crossing point is less than 400m from the proposed 50km/h which is less than the minimum 800m length required for new speed limit areas (thus discounting an option to apply a 60km/h or 80km/h limit to this section). As such it is proposed to apply advanced speed limit warning signs and other physical interventions (alongside the 50km/h zone extension) to support improved safety along this route.

36.3. Proposal

- The 50km/h speed limit zone be extended from the existing 50/100km/h signs to the south by 70m.

37 Proposal 37: Railway Road South



37.1. Explanation

This section of Railway Road South has been reviewed due to it being identified as a top ten percent site for Death and Serious Injury reductions through a lowering of travel speeds.

37.2. Survey Assessment

The section west of Murdoch Road to the Rural Intersection Advanced Warning Sign (RIAWS) at the intersection with Longlands Road has a low collective risk and low-medium personal risk and an Infrastructure Risk Rating band of medium. The Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h on this section of Railway Road South. The review and function of this road would support a reduction from the posted 100km/h speed limit to 80km/h.

It is noted that there have been no injury crashes reported in the four years since the Rural Intersection Advanced Warning (RIAW) was introduced at this section. However, RIAWS should have a speed differential of at least 20km/h and it is therefore recommended to reduce the RIAWS speed from 70km/h to 60km/h to maintain this differential.

37.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h on a section of Railway Road South from the 50km/h speed limit 50m south of Murdoch Road through to 250m south of the intersection with Longlands Road.
- The Rural Intersection Advanced Warning Signs speed limit on Railway Road South at Longlands Road be reduced from 100/70km/h to 80/60km/h.

38 Proposal 38: Raymond Road



38.1. Explanation

The speed limit on Raymond Road was requested to be reviewed by residents in the community. It also ties in to the broader speed limit review associated to Tuki Tuki Road and Parkhill Road that it connects to. Speed limit changes across this area are proposed to achieve a more consistent solution for road users.

38.2. Survey Assessment

Raymond Road is bound by Tuki Tuki Road and Parkhill Road. Both roads are recommended for a speed reduction to 80km/h. At the western end there is an existing 50km/h courtesy speed zone outside Haumoana School. For a consistent approach, it is recommended to reduce the speed limit on Raymond Road to 80km/h.

38.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h on the whole length of Raymond Road. The 50km/h courtesy speed zone in front of the school will remain in place.

39 Proposal 39: Riverslea Road South



39.1. Explanation

This section of Riverslea Road South has been reviewed due to it being identified as a top ten percent site for Death and Serious Injury reductions through a lowering of travel speeds.

39.2. Survey Assessment

Riverslea Road South is classified a primary collector, with a low-medium collective and medium-high personal risk and an Infrastructure Risk Rating band of medium. The Safe And Appropriate Speed identified within the tool is 80km/h along here. Riverslea Road South runs parallel to the section of Railway Road South where it is recommended that the speed limit is reduced to 80km/h.

In addition, the 85th percentile speed of 89km/h indicates that an 80km/h speed limit would not be far from the current travel speeds and would reduce potential impact forces. For consistency with other roads in the Akina area, it is recommended to reduce the speed limit on this section of Riverslea Road South from 100km/h to 80km/h.

39.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h from the existing 50km/h speed limit signs south of Tollemache Road through to Longlands Road East.

40 Proposal 40: Southland Road



40.1. Explanation

This section of Southland Road is currently 100km/h with an approximately 380m length to the east, between Tollemache Road and Heathcote Road, being identified as a top ten percent site for Death and Serious Injury reductions.

40.2. Survey Assessment

Southland Road is classified a primary collector, with a medium collective and medium personal risk and an Infrastructure Risk Rating band of medium, the Safe And Appropriate Speed identified within the tool is 80km/h for the section between Tollemache Road and Heathcote Road. West of Heathcote Road is a no exit road that provides access to a number of residential properties and orchard businesses and any change in speed limit on this route would seem appropriate to extend over its full length.

RAMM data shows an 85th percentile speed of 77km/h on the section between Tollemache Road and Heathcote Road which will be due in part to the relatively short distance between them. This speed is in line with the Safe And Appropriate Speed therefore for consistency with other roads in the Akina area it is recommended to reduce the speed limit from 100 to 80km/h.

40.3. Proposal

- The speed limit be reduced on Southland Road from 100km/h to 80km/h from the 50km/h signs near Tollemache Road to its western extent.

41 Proposal 41: Springfield Road



41.1. Explanation

The speed limit review on this section of Springfield Road, from Puketapu Road to Napier City Council boundary, is a part of the road network speed limit review following Napier's proposal to reduce the remaining extents of Springfield Road to 80km/h.

41.2. Survey Assessment

Springfield Road is classified as a secondary collector with a low collective risk and medium personal risk. The Infrastructure Risk Rating band of medium results in a Safe And Appropriate Speed of 80km/h for this section of the road.

Given the proximity of roadside hazards to the narrow road a speed limit reduction to 80km/h is recommended. Springfield Road is one of several roads that leaves Hastings and enters the Napier City roading network and adopting this approach is consistent with what Napier City Council currently proposed along this road.

41.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h on Springfield Road between Puketapu Road and the boundary with Napier City.

42 Proposal 42: Te Aute Road



42.1. Explanation

This section of Te Aute Road, between Longlands Road East and a point 230m east of Gilpin Road, is currently 100km/h and has been identified as a top ten percent site for Death and Serious Injury reductions through a lowering of travel speeds.

42.2. Survey Assessment

Te Aute Road is classified a primary collector with medium-high collective risk and high personal risk. The Infrastructure Risk Rating band of medium results in a Safe And Appropriate Speed of 60km/h. Nevertheless, the various speed survey results in RAMM show 85th percentile speeds of 102 and 104km/h west of Longlands Road and 87 and 89km/h to the east and achieving user speeds which comply with a 60km/h speed limit will be very difficult given the rural nature of the route.

As such a crash reduction study has been completed for this corridor and a number of physical interventions have been progressed to date (crash barrier, signage, road markings etc.). The objective of the crash reduction study and infrastructure responses is to achieve a reduction in the personal risk to achieve a Safe And Appropriate Speed of 80km/h on the section of Te Aute Road between Longlands Road East and a point 230, east of Gilpin Road.. This speed limit is far more likely to be observed by road users and will notably reduce the current risks along the route associated to traffic speeds.

The remaining length of Te Aute Road is much straighter and accommodates fewer traffic movements. As such there is no proposed speed limit change between Longlands Road East and SH2.

42.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h on Te Aute Road between Longlands Road East and the 50km/h speed signs east of Gilpin Road.

43 Proposal 43: Tennant Road



43.1. Explanation

Tennant Road has been reviewed due to the proposed change to the speed limit on Tuki Tuki Road (from 100km/h to 80km/h)

43.2. Survey Assessment

Due to the proposed reduction in speed limit on Tuki Tuki Road where Tennant Road connects to, it is proposed to also implement an 80km/h speed limit on Tennant Road to ensure consistency is maintained.

43.3. Proposal

- Reduce the speed limit on Tennant Road from 100km/h to 80km/h for its entire length.

44 Proposal 44: Tollemache Road West



44.1. Explanation

The speed limit review on Tollemache Road West, from Southland Road to Railway Road South, is a part of the area wide speed limit review including the roads between Maraekakaho Road and Southland Road.

44.2. Survey Assessment

Tollemache Road West is classified a primary collector with low collective and low personal risk. The Infrastructure Risk Rating band of medium results in a Safe And Appropriate Speed of 80km/h for this section of the route.

In addition, this section of Tollemache Road links Southland Road to Railway Road providing a similar role to Heathcote Road a block to the north. The speed limit is recommended to be lowered to 80km/h on all of those roads. As part of an area wide speed limit change it is recommended to reduce the speed limit to 80km/h on Tollemache Road West as well.

44.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h along the section of Tollemache Road West between Southland Road and Railway Road South.

45 Proposal 45: Tuki Tuki Road



45.1. Explanation

The speed limit review on Tuki Tuki Road was undertaken due to public requests, and the section from Mill Road to Moore Road has been identified as a top ten percent site for Death and Serious Injury reductions through speed management.

45.2. Survey Assessment

Tuki Tuki Road is classified a secondary collector with medium collective and high personal risk. The route is popular with cyclists and is part of the Iway network. The Infrastructure Risk Rating band of medium results in a Safe And Appropriate Speed of 60km/h for this section of the route. This speed would be very difficult to achieve on this route given the full rural outlook.

The section north of Moore Road has been identified as a top ten percent site for Death and Serious Injury reductions through speed management. The road is generally straight with a number of individual small radius curves. To the south the road is very much more constrained by the terrain having numerous horizontal and vertical curves. The Safer Journeys Risk Assessment Tool considers the full length as one link and therefore does not take account of the difference in roadside environment and impact on the IRR.

Whilst we do not believe that a 60km/h operating speed is going to be easily achievable on this route the introduction of an 80km/h speed limit will better reflect the desired operating speed.

45.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h along the section of Tuki Tuki Road between Mill Road and Waimarama Road.

46 Proposal 46: Tuki Tuki Hills Road



46.1. Explanation

Tuki Tuki Hills Road has been reviewed due to the proposed change to the speed limit on Tuki Tuki Road (from 100km/h to 80km/h)

46.2. Survey Assessment

Due to the proposed reduction in speed limit on Tuki Tuki Road where Tuki Tuki Hills Road connects to, it is proposed to also implement an 80km/h speed limit on Tuki Tuki Hills Road to ensure consistency is maintained.

46.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h along the whole length of Tuki Tuki Hills Road

47 Proposal 47: Twyford area wide review



47.1. Explanation

A number of roads in the Twyford area have been reviewed individually and discussed separately in this statement of proposal document. However, a number of public requests have also been received suggesting a wider speed limit review is required for the Twyford area. Reviewing crashes in this area shows that the most Death and Serious Injury crashes were actually on Ormond Road so it has also been included in this review. This approach also gives a clearer boundary to any speed limit change and ensures the whole area is treated in a consistent manner.

47.2. Survey Assessment

The Safe And Appropriate Speed limit identified within the NZTA Megamaps tool for this area includes both 80km/h and 60km/h speed limit sections. To ensure a consistent approach to speed limits across the area, and given that each road within the area has similar cross-sections and characteristics, it is proposed to adopt one single consistent speed limit for the area.

47.3. Proposal

The speed limit be reduced from 100km/h to 80km/h on all roads bounded by Omahu Road and SH50 shown on the map above of the Twyford area with the exception of the section of Ormond Road (Oak Avenue) which is currently signed as 60km/h (this limit will remain), and the southernmost sections of Jarvis Road (50km/h) and Twyford Road (60km/h) which will be reduced in line with the adjacent speed limit on Omahu Road. The proposed reduction in speed limit from 100km/h to 80km/h for all roads as follows:

- Carrick Road – full length
- Evans Road – full length
- Evenden Road – from SH2 to Raupare Road
- Hill Road – full length
- Jarvis Road – from Thompson Road to the existing 70km/h signs, with the remainder being 50km/h to align with Omahu Road proposal.

- McNab Road – full length
- Nichol Road - full length
- Ormond Road – From the existing 100km/60km/h speed limit signs to the end of the road at the River access
- Ruapare Road – full length
- Thompson Road – full length
- Trotter Road – full length
- Twyford Road – from Thompson Road to the existing 70km/h signs, with the remainder being 60km/h to align with Omaha Road proposal.

48 Proposal 48: Vicarage Road



48.1. Explanation

The speed limit review on Vicarage Road, between Omarunui Road and Dartmoor Road, is a part of the road network speed limit review associated to the wider Puketapu domain.

48.2. Survey Assessment

Vicarage Road is classified as a primary collector with a low collective risk and medium personal risk and an Infrastructure Risk Rating band of medium. The existing speed limit on Vicarage Road changes 55m from the southern abutment of the bridge from 100km/h (to the south to Omarunui Road) to 50km/h. To the immediate south of the speed limit change point is a layby area and beyond that a wide shoulder (on the opposite side of the road to the layby) through to the intersection with Omarunui Road to the south.

Like Puketapu Road, the Medium IRR band resulted in a Safe And Appropriate Speed of 80km/h for the rural section. For a consistent treatment on all three approaches to Puketapu (Dartmoor Road, Vicarage Road and Spring Road), it is recommended to reduce the speed limit from 100km/h to 80km/h on the rural section of Vicarage Road.

South of Puketapu bridge is a parking area for river access which is heavily used during summer months. A seasonal speed limit at those particular times of year is also recommended to achieve greater compliance and provide greater protection for all road users.

48.3. Proposal

- The speed limit be reduced from 100km/h to 80km/h between the start of the 50km/h speed limit at the south end of the one lane bridge and the intersection with Omarunui Road.
- A seasonal speed limit of 50km/h be introduced on Vicarage Road between the current 50km/h limit and Omarunui road between 1 December and 31 January inclusive each year, when it is the most heavily used for river access.

49 Proposal 49: Waiohiki Road



49.1. Explanation

Waiohiki Road is an arterial road that links SH50/Links Road and Gloucester Street in Napier over the Tutaekuri River and has been reviewed due to it being a top ten site for potential Death and Serious Injury crash reductions through lowering of speed limits.

49.2. Survey Assessment

The Safe And Appropriate Speed is identified as 60km/h within the Safer Journeys Assessment Tool. Napier City Council are currently proposing the provision of a 50km/h speed limit on Gloucester Road up to Waiohiki Road. Adopting a 60km/h speed limit would result in drivers travelling 50km/h, 60km/h and 70km/h between Gloucester Street and SH50 over a relatively short distance.

To achieve a more consistent solution for the route it is recommended that 50km/h is adopted on Waiohiki Road. This would also have added benefit of reducing the speed limit across the narrow bridge and around the tight radii curve to the south of the bridge.

49.3. Proposal

- The speed limit on Waiohiki Road be reduced from 70km/h to 50km/h between SH50/Links Road and the Napier City Council Boundary.

50 Proposal 50: Waipatu Settlement Road



50.1. Explanation

Waipatu Settlement Road is one of the three roads that are all parallel no through roads that intersect with SH51 in Waipatu. The request to review the speed limit on this road relates to the speed limit review on SH51 by NZTA.

50.2. Survey Assessment

Waipatu Settlement Road is classified as an access road, with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium, the Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

NZTA is currently reviewing the current 80km/h speed limit on SH51 and while the 50km/h speed limit may be extended from Hastings it is unlikely to extend as far as these three side roads. It is anticipated that NZTA will look to reduce the speed limit here to 60km/h.

Waipatu Settlement Road, along with the other two roads, provides access to a mix of residential and commercial premises. With the road being a cul-de-sac and having no through traffic the majority of users will be adjacent land owners and members of the immediate community.

For a consistent approach, assuming that NZTA reduce the speed limit to 60km/h on SH51, then the same should be done on Waipatu Settlement Road and the other two roads.

50.3. Proposal

- The speed limit on Waipatu Settlement Road be reduced from 80km/h to 60km/h along the whole road.

51 Proposal 51: Watson Road



51.1. Explanation

Watson Road is one of the three roads that are all parallel no through roads and intersects with SH51 in Waipatu. The request to review the speed limit on this road relates to the speed limit review on SH51 by NZTA.

51.2. Survey Assessment

Watson Road is classified access road, with a low collective risk and low personal risk and an Infrastructure Risk Rating band of medium, the Safer Journeys Risk Assessment Tool indicates a Safe And Appropriate Speed of 80km/h.

NZTA is currently reviewing the current 80km/h speed limit on SH51 and while the 50km/h speed limit may be extended from Hastings it is unlikely to extend as far as these three side roads. It is anticipated that NZTA will look to reduce the speed limit here to 60km/h.

Watson Road, along with the other two roads, provides access to a mix of residential and commercial premises. With the road being a cul-de-sac and having no through traffic the majority of users will be adjacent land owners and members of the immediate community.

For a consistent approach, assuming that NZTA reduce the speed limit to 60km/h on SH51, then the same should be done on Watson Road and the other two roads.

51.3. Proposal

- The speed limit on Watson Road be reduced from 80km/h to 60km/h along the whole road.

52 Proposal 52: Wellwood Road



52.1. Explanation

The speed limit review on Wellwood Road is a part of the road network speed limit review for the area south of Hastings.

52.2. Survey Assessment

Wellwood Road is classified as an access road with a low collective risk and low personal risk and an Infrastructure Risk Rating band of low-medium, the Safe And Appropriate Speed identified within the tool is 80km/h.

It is a relatively short and narrow no exit road providing access to two properties and two businesses. Wellwood Road takes access from Heathcote Road where the proposal is to reduce the speed limit from 100km/h to 80km/h. By default, Wellwood Road should also change to 80km/h which aligns with the Safer Journeys Risk Assessment Tool.

52.3. Proposal

- The speed limit on Wellwood Road be reduced from 100km/h to 80km/h for the entirety of its length.

53 Proposal 53: Wilson Road



53.1. Explanation

Wilson Road is one to the four roads that intersect with Omaha Road and provide direct access to Flaxmere. The speed limits on each of these routes are currently inconsistent, therefore it is proposed to assess each route and determine a consistent approach which works for all options.

53.2. Survey Assessment

Wilson Road is classified a primary collector with a low collective risk and low-medium personal risk. The Infrastructure Risk Rating band of low results in a Safe And Appropriate Speed of 60km/h.

Like Henderson Road, Wilson Road connects Flaxmere Avenue to Omaha Road and has an existing speed limit of 70km/h in the mid-section with 50km/h speed limits at either end. Also, like Henderson Road, there are few accesses within the 1km length of 70km/h. This section is notable by having a separate footpath on one side with a grassed berm with regularly placed trees on it behind a concrete kerb.

As discussed previously, there is a desire within the community for the four roads that connect Omaha Road to Flaxmere Road to be treated with the same speed limit. Wilson Road is one of the three roads that intersect where Omaha Road is 50km/h but is currently signed as 70km/h. For consistency, it is recommended to reduce speed limit to 60km/h on Wilson Road between 50/70km/h speed signs west Manchester Street and 50/70km/h speed sign east Folkstone Drive.

53.3. Proposal

- The speed limit be reduced from 70km/h to 60 km/h on the section of Wilson between 50/70km/h speed signs west of Manchester Street and the 50/70km/h speed sign east of Folkstone Drive.

54 Proposal 54: Richmond Road / Mill Road Intersection (RIAWS)



54.1. Explanation

The Richmond Road / Mill Road intersection is a rural priority-controlled crossroads, and the roads are two-lane, two-way. Both roads have a speed limit of 100km/h. The Safe And Appropriate Speed is 80km/h for Richmond Road, and 100km/h for Mill Road (at this location). Mill Road is proposed to reduce to 80km/h under this proposal.

54.2. Survey Assessment

Mill Road is a primary collector road, and Richmond Road is a primary collector road to the west of the intersection, and a secondary collector road eastward of the intersection. The intersection has a medium collective risk, and a high personal risk. It has an Infrastructure Risk Rating of medium, giving it a medium strategic fit. Due to the crash history at this site, this location has been identified in the national Safer Network Programme as a site suitable for the application of Rural Intersection Advanced Warning Signs (RIAWS).

54.3. Proposal

- Introduce 80/60km/h RIAWS zone on Mill Road from a distance 150m south of the intersection with Richmond Road to a distance 150m north of the intersection.

55 Proposal 55: Pakowhai Road / Elwood Road Intersection (RIAWS)



55.1. Explanation

The Pakowhai Road / Elwood Road intersection is a rural priority-controlled T-intersection, and both adjoining roads are two-lane, two-way. The Safe And Appropriate Speeds and the posted speed limit is 80km/h for both roads.

55.2. Survey Assessment

Pakowhai Road is an arterial road and Elwood Road is a primary collector road. The intersection has a high collective risk, a medium-high personal risk. It has an Infrastructure Risk Rating of medium, giving it a high strategic fit. Due to the crash history at this site, this location has been identified in the national Safer Network Programme as a site suitable for the application of Rural Intersection Advanced Warning Signs (RIAWS).

55.3. Proposal

- Introduce 80/60km/h RIAWS zone on Pakowhai Road from a distance 150m northeast of the intersection with Elwood Road to a distance 150m southwest of the intersection.



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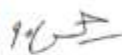
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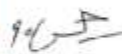
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REVISION SCHEDULE

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| 1 | 19/12/19 | Draft | J Byfield | W Banks | G O'Connor | G O'Connor |
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Hastings District Council

2019 Speed Limit Review

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1. Introduction

Statens were requested to carry out a speed limit assessment on a number of roads within the Hastings district. The roads were identified via two separate processes, a list of sites previously identified for consideration due to requests or complaints and a list of sites identified via the NZTA Safer Journeys Risk Assessment Tool as roads within the top ten percent of those with the potential for DSI savings from lowering the speed of vehicles.

In total there were 61 separate roads that required a speed limit assessment. 21 of these sites were reviewed because they were top ten percent sites.

Data was collated for each road/route from the Safer Journeys Risk Assessment Tool and a site visit was undertaken to help confirm that the data was correct and to form an opinion on whether the speed limit required changing or whether there were any other issues that could be resolved to improve the level of road safety on the particular link.

The Safer Journeys Risk Assessment Tool provides an indication of what the safe and appropriate speed is based on the function, design, safety and use of all links on the road network.

We have followed the 2017 Setting of Speed Limits Rule and the NZTA Speed Management Guide to come up with the speed limit related recommendations contained within this report. At a number of sites, it was found that the level of delineation provided was not up to best practice and that improving this aspect would likely result in a safer outcome for road users than simply relying on a change in the posted speed limit. We have therefore made a number of specific recommendations in addition to those relating to speed limit changes that would improve the level of safety on a number of rural roads in the Hastings district.

With over 50 roads identified for review presenting the results clearly is not a simple matter. We have therefore grouped the sites into similar areas and have appended them to this report.

2. Methodology

Our initial process was to collate the necessary data from various sources. These include crash data from the Crash Analysis System (CAS), traffic volumes and speed data from RAMM and most importantly the various data contained in the Safer Journeys Risk Assessment Tool. The Safer Journeys Risk Assessment Tool contains a variety of information that together provides an indication of what the safe and appropriate speed should be on any given link on the road network. Due to the importance of this tool for reviewing speed limits we have detailed below some of the functionality that we have used.

2.1 Safer Journeys Risk Assessment Tool

The Safer Journeys Risk Assessment Tool (the Tool) is a web based application managed by the Transport Agency that provides a range of data for each road link in the country and from that provides an indication of what the safe and appropriate speed is. A number of the measures are simple however some such as the Infrastructure Risk Rating are relatively complicated yet play a crucial part in determining the speed limit under the current guidelines. The Infrastructure Risk Rating (IRR) calculates a figure based on nine separate items -

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

This calculation produces a figure that falls in to one of five risk bands. This band is then considered against the ONRC, collective risk and personal risk and from that a safe and appropriate speed is presented.

Much of this data is automated and it is often necessary to confirm that the correct inputs have been used. For example, the difference between a road being winding or curved or the severity of the roadside hazard can alter the IRR band and thus the safe and appropriate speed. By way of example, Figure 2-1 is the IRR for a section of Middle Road.

| Infrastructure Risk Rating: Middle Road | |
|---|---------------------------|
| Land Use | Rural Residential |
| Road Stereotype | Two lane undivided |
| Alignment | Winding |
| AAOT | <1000 |
| Intersection Density | <1 per km |
| Lane Width | <3.0m - Narrow |
| Shoulder Width | 0m to <0.5m - Very Narrow |
| Roadside Hazards | High, Moderate |
| Access Density | 2 to <5 per km |
| IRR Score | 1.82 |
| IRR Band | Medium-High |

Figure 2-1: Example of Infrastructure Risk Rating

Middle Road has the ONRC class of Primary Collector, a Low collective risk and a Medium personal risk. The result of this is that the safe and appropriate speed has been calculated as 60km/h. The IRR shows that the alignment is winding but in fact only one curve on the route requires advisory signage. Using the facility in the Safer Journeys Risk Assessment Tool these ratings can be altered and when this is done to the alignment the safe and appropriate speed becomes 80km/h. Measured speeds indicate that this is the speed that motorists are travelling at on that section therefore a reduction in the posted speed limit would be warranted and is likely to be complied with.

By visiting each individual site, we were able to confirm if the IRR was correct or whether amendments were required. Where this was the case, we have referred to it in the individual reports.

2.2 Sites Reviewed

As well as the 61 separate roads reviewed across the district we also investigated the request for a 30km/h speed limit in the central area of both Hastings and Havelock North. The CBD areas are discussed below while the individual roads are attached as appendices to this report based on geographical areas. Appendix A lists all roads that formed part of this review.

2.3 Consultation and Engagement

A major part of the current speed limit regime is to engage the community through the consultation process. The results in this report indicate which speed limits are supported by the data and could be consulted on. That is not to say that the speed limits have to be implemented as recommended in this report, those decisions should be made as part of the consultation using the information set out in this document.

2.3.1 School speed limits

Whilst compiling this report the Ministry of Transport issued a statement regarding speed limits. A priority action for this government is to tackle unsafe speeds around schools. The statement reads that when a road controlling authority reviews a speed limit they are required to reduce them around urban schools to 30km/h and around rural schools to a maximum of 60km/h.

A number of the rural roads that form part of this review pass schools. The MOT statement has therefore been taken in to account at those schools.

3. Hastings CBD

A request was made to consider the introduction of a 30km/h speed limit in the centre of Hastings in the area highlighted in Figure 3-1. Roads that are included within this area are listed in Table 3-1.



Figure 3-1: Hastings CBD review area (Google Earth)

Table 3-1: Hastings CBD area

| Road name | From | To | Number of blocks |
|-------------------|-------------------|-------------------|------------------|
| King Street | Eastbourne Street | Queen Street | 2 |
| Market Street | Eastbourne Street | Queen Street | 2 |
| Russell Street | Eastbourne Street | St Aubyn Street | 4 |
| Karamu Road | Eastbourne Street | Queen Street | 2 |
| Warren Street | Eastbourne Street | Queen Street | 2 |
| Hastings Street | Eastbourne Street | Heretaunga Street | 1 |
| Heretaunga Street | Nelson Street | Hastings Street | 6 |
| Avenue Road | Russell Street | Karamu Road | 1 |

All of the above roads have been reviewed in the Safer Journeys Risk Assessment Tool. Maps showing the ONRC, road safety metrics and IRR are contained in Appendix B for reference. A map of the calculated safe and appropriate speeds on these roads is shown on the following page.



Figure 3-2: Calculated safe and appropriate speeds in Hastings CBD

3.1 Speed data

It can be seen above that none of the roads within the Hastings CBD area have a calculated safe and appropriate speed of 30km/h, in fact very few streets in the Safer Journeys Risk Assessment Tool achieve that. Within the bounded area the majority of roads show a SAAS of 40km/h with only four blocks showing a SAAS of 50km/h which are King Street between Heretaunga Street and Queen Street, Hastings Street between Eastbourne Street and Heretaunga Street and Warren Street between Eastbourne Street and Queen Street.

Speed limits cannot simply be set based on the safe and appropriate speed therefore we have reviewed the various speeds that have been measured in the CBD area.

Table 3-2: Hastings CBD results

| Road name | Between | 85 th Percentile speed |
|-------------------|------------------------------|-----------------------------------|
| King Street | Heretaunga and Eastbourne | 36km/h (2018) |
| Market Street | Heretaunga and Eastbourne | 37.3km/h (2019) |
| Russel Street | Heretaunga and Queens Street | 33km/h (2017) |
| Russell Street | Queen Street and Avenue Road | 30.2km/h (2018) |
| Karamu Road | Heretaunga and Eastbourne | 36km/h (2005) |
| Hastings Street | Heretaunga and Eastbourne | 28.3km/h (2019) |
| Heretaunga Street | Russell Street to Karamu | 31km/h (2017) |
| | Market Street to King Street | 31.3km/h (2019) |
| | King Street to Nelson Street | 29.8km/h (2019) |
| Avenue Road | Russel Street to K-Mart | 32km/h (2017) |

The 85th percentile speeds on some of the roads correspond with what would be expected if there was a 30km/h speed limit so in essence actual vehicle speeds may not change. Other roads have relatively high 85th percentile speeds which suggests that simply installing a lower speed limit may not be enough to see a change in travel speed. There are various methods available to council to constrain vehicle speeds such as more vertical platforms or surface treatments as are already used in places. Traffic signal phasing can also be used to control departure speeds from intersections

The Safer Journeys Risk Assessment Tool also plots mean operating speeds however in most cases the speed is shown as '<30km/h' and while that is the ideal result for this proposal it is at odds with the actual survey data above.

The Speed Management Guide indicates that 40km/h can be the safe and appropriate speed in a CBD or town centre and that it would be 30km/h in a CBD or town centre with high place function and concentration of active road users and a High IRR rating. By its definition a CBD area such as this will have a high concentration of pedestrian usage therefore the various tools do result in a 40km/h speed limit being preferred over 30km/h. Some discussion would need to be held with the Transport Agency to determine if 30km/h would be acceptable.

3.2 Crash data

We have reviewed the crashes held in CAS relating to pedestrians and cyclists in the CBD area over the five year period 2015 to 2019. Over that period there were seven crashes reported, five involving cyclists which all resulted in minor injuries and two crashes involving pedestrians with one resulting in a minor injury.

Four of the five crashes involving cyclists were caused by car drivers failing to give way at one of the CBD roundabouts, including two at the intersection of Heretaunga Street and Hastings Street. The other crash occurred when a cyclist had stopped to turn right at an intersection and was hit from behind by a car.

The two crashes involving pedestrians involved a vehicle pulling into a loading bay and hitting someone standing in the road and a low speed collision when a pedestrian stepped out from between parked cars.

The crash data does not highlight any major safety issues within the CBD area for these users other than roundabouts not being cycle friendly which is an issue nationally.

There were 45 crashes in total recorded in this area in the last five years, ten of which resulted in minor injuries. Six of these crashes have been described above. The other four injury crashes were all minor and involved a loss of control when turning due to the driver being distracted, a visitor driver colliding with a bollard, a driver falling sleep and colliding with a parked car and finally a crash where a vehicle was turning right in to an access at the same time as a car was leaving a parking space.

3.3 Summary

The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 40km/h within the Hastings CBD area. The operating speeds recorded in the Tool suggest that vehicles are already travelling below 40km/h while actual measured speeds indicate that even the highest 85th percentile speeds are within ten percent of 40km/h.

The various guides indicate that 30km/h is the safe and appropriate speed where there is a high concentration of active users, more so than just a standard CBD.

4. Havelock North CBD

The request in Havelock North was to review the possibility of introducing a 30km/h speed limit of the roads the town centre as shown on Figure 4-1 below (highlighted in red).



Figure 4-1: Havelock North CBD area for potential speed limit reduction

Like Hastings CBD the Safer Journeys Risk Assessment Tool has reviewed these roads. With fewer roads they can be summarised as follows:

The Collective risk is Medium on Te Mata Road and Havelock North Road, Low-medium on that part of Te Aute Road and Low on all of the other roads.

The Personal risk is High on Te Mata Road, Low-medium on that part of Te Aute Road and Havelock North Road, and Low on all of the other roads.

This section of Te Mata Road has been identified by the Safer Journeys Risk Assessment Tool as being in the top ten percent of roads that would see a reduction in DSI crashes with reduced vehicle speeds.

The IRR is Medium-high on Napier Road and Columba Way, Medium on Te Mata Road and Low-medium on the other streets.

4.1 Speed data

From the above data the safe and appropriate speeds have been calculated by the Safer Journeys Assessment Tool and these are 40km/h on Te Mata Road, Napier Road and Columba Way which connects the two and 50km/h on all of the other roads. This is shown in Figure 4-2 on the following page.

Across the whole of the Hastings District we are aware of only one road where the safe and appropriate speed has come out at 30km/h, this is Iona Road in Havelock North which on the face of it appears to be an error.



Figure 4-2: Havelock North CBD safe and appropriate speeds.

Of note above is that Havelock Road is shown as having a safe and appropriate speed of 60km/h. Clearly that is not correct or appropriate on this link. On review we found that the full length out to St Andrew Road has been considered as one link when in fact the road changes quite significantly between those extents.

The Speed Management Guide provides a case study of a town centre speed limit change. It is made clear that changes cannot be made solely based on the results of a review against the guidelines but should be informed by extensive community engagement and consultation. A number of data sets will be required to support a reduction including crash data, speed data and information on the number of pedestrians in the area.

The Safer Journeys Risk Assessment Tool records operating speeds on all road links. Havelock Road shows the highest at 50 to 54km/h but as detailed above, this is a long link, in fact going out to St Andrews Road, when only the southern block is of interest. All other roads within the potential lower speed limit area have operating speeds below 35km/h which suggests that the roads are self-explaining, much as was found for the Te Awamutu demonstration project referred to in the Speed Management Guide.

We have reviewed the most recent RAMM data for these roads and identified the following 85th percentile speeds. Note that some of these results are several years old and as found in Hastings they are somewhat higher than that reported on in the Safer Journeys Risk Assessment Tool.

Table 4-1: Havelock North CBD results

| Road name | Between | 85 th Percentile speed |
|---------------|--------------------------------|-----------------------------------|
| Havelock Road | Napier Road to Porter Drive | 40km/h (2007) |
| Joll Road | Havelock Road to Porter Drive | 34km/h (2008) |
| Napier Road | Joll Road to Porter Drive | 29km/h (2009) |
| Napier Road | Porter Drive to Karanema Drive | 43.5km/h (2019) |
| Te Aute Road | Joll Road to Porter Drive | 34km/h (2008) |
| Te Mata Road | Joll Road to Duart Road | 42.8km/h (2019) |

Some of the data in the above table is now getting quite old. To progress a CBD speed limit is going to require significant levels of consultation and engagement therefore we recommend that up to date speed

measurements are taken to act as baseline data. While RAMM records vehicle data the volume of pedestrians and cyclists is a key determinant on speed limit selection when it comes to urban CBD areas. Surveys of their use should also be undertaken to help build a picture of how the centre of Havelock North could look if a lower speed limit was introduced.

4.2 Crash data

In the last five years there have been 14 crashes in total recorded within the potential CBD low speed zone. Three of these crashes resulted in injury which reflects the low speed environment that already exists. Of the three people injured one was a pedestrian, one a cyclist and one a mobility scooter user.

The cyclist crash involved a 13 year old who was hit when riding in the same direction as a car turning left in to an access and received minor injuries. The pedestrian who received minor injuries was a seven year old who across the road when traffic in one direction stopped and got hit by a car going the other way.

The only serious injury crash in the CBD area involved a 90 year old mobility scooter user who was crossing Te Aute Road and was hit by a van at low speed whose driver had not seen them.

4.3 Summary

The Safer Journeys Risk Assessment Tool indicates a mix of safe and appropriate speeds of 40km/h and 50km/h within the section under review in the centre of Havelock North. The operating speeds recorded in the Tool suggest that vehicles are already travelling below 40km/h while actual measured speeds indicate that even the highest 85th percentile speeds are within ten percent of 40km/h on the roads where the safe and appropriate speed has been calculated as 50km/h.

Having reviewed a number of the links that have a safe and appropriate speed of 50km/h it is clear that the function they perform does lend itself to a lower figure than that within the area inside that boundary chosen for review. As an example, an image of Joll Road is shown below where the calculated safe and appropriate speed is 50km/h yet it is a very constrained environment with a high level of pedestrian traffic. There would appear to be a case to support the introduction of a 40km/h CBD speed limit in this area.



Figure 4-3: View of section of Joll Road (Google Earth)

The various guides indicate that 30km/h is the safe and appropriate speed where there is a high concentration of active users, more so than just a standard CBD.

5. Waipatu Area

Several roads in the Waipatu area on the eastern side of Hastings intersect with SH51. There have been recent discussions relating to the State Highway speed limit through Waipatu and the effect on the speed limits on council roads. While these roads are detailed in Appendix E we have summarised them here for clarity.

At present SH51 is subject to an 80km/h speed limit from the roundabout intersection with Napier Road through to just east of St Georges Road where the speed limit becomes 70km/h until the urban boundary.

of Hastings is reached at Kenilworth Road and the 50km/h speed limit begins. Four council roads intersect within the 80km/h section and three in the 70km/h. For a consistent speed limit approach potential changes to the State Highway speed limit need to be taken into consideration.

Figure 5-1 shows the calculated safe and appropriate speeds on the roads in this area. On SH51 the results indicate that the 80km/h section has a safe and appropriate speed of 80km/h however a reduction to 60km/h is being considered. The section that is currently signed as 70km/h has a calculated safe and appropriate speed of 60km/h therefore the Transport Agency may wish to use this data to seek a reduction in the speed limit. A question to be resolved by NZTA is should the section between St Georges Road and Kenilworth Road be reduced from 70km/h to 50km/h.



Figure 5-1: Calculated safe and appropriate speeds in the Waipatu area

In Appendix E we have recommended that Waipatu Settlement Road, Paraire Road and Watson Road have their speed limits reduced to 60km/h. These three roads are all relatively short no exit roads therefore it is unlikely that there will be a change in vehicle speeds. On the two roads that we have measured speeds the 85th percentile speeds are around 50km/h so it is expected that there would be no measurable difference in vehicle speeds with this change.

With an assumption that the 50km/h state highway speed limit will be extended out of Hastings a certain distance we have recommended that the existing 70km/h speed limit on the southern section of both Elwood Road and Bennett Road becomes 50km/h.

A proposal for a new school on the northern part of Bennett Road has resulted in a recommendation for this section to be 60km/h while the northern part of Elwood Street retains its 80km/h speed limit.

6. Report Summary

Sixty one roads are detailed in the following appendices. Individual recommendations are based on a review of various data sets and consideration of other roads in the general area.

At a number of sites, it was found that while speed limit changes may or may not be supported there were still improvements that could be done to improve the level of safety on those roads. These improvements have also been included as recommendations.

The results in this report indicate which speed limits are supported by the data and could be consulted on by council. That is not to say that the speed limits have to be implemented as recommended in this report, those decisions should be made as part of the consultation using the information set out in this document.



Appendix A List of roads reviewed

| Road name | From | To | Appendix |
|---------------------|-----------------------------------|--------------------|--------------------------|
| Algernon Road | Norton Road | End | G - Akina |
| Apley Road | Dartmoor Road | Puketitiri Road | C - Puketapu |
| Bennett Road | Otene Road | SH51 | E - North east |
| Brookfields Road | Pakowhai Road | NCC boundary | E - North east |
| Chatham Road | Omahu Road | Urban Flaxmere | D - Twyford and Flaxmere |
| Clifton Road | Clifton | Car park | F- Clifton |
| Dartmoor Road | Vicarage Road | Apley Road | C - Puketapu |
| Davis Road | Railway Road South | Riverslea Road | G - Akina |
| East Road | Parkhill Road | Clifton | F- Clifton |
| Ellis Wallace Road | Full length | | I - Other sites |
| Elwood Road | Otene Road | SH51 | E - North east |
| Evenden Road | SH2 | Raupare Road | E - North east |
| France Road | Railway Road South | End | G - Akina |
| Gilbertson Road | Pakowhai Road | Gilligan Road | E - North east |
| Gilpin Road | Te Aute Road | Middle Road | H- Havelock and south |
| Haumoana Road | Mill Road | End | F- Clifton |
| Havelock Road | St Georges Road | St Andrews Road | H- Havelock and south |
| Heathcote Road | Maraekakaho Road | Southland Road | G - Akina |
| Henderson Road | Omahu Road | Urban Flaxmere | D - Twyford and Flaxmere |
| Hill Road | Omahu Road | End | D - Twyford and Flaxmere |
| Iona Road | Urban boundary | Middle Road | H - Havelock and south |
| Jarvis Road | Omahu Road | Thompson Road | D - Twyford and Flaxmere |
| Kirkwood Road | Omahu Road | Urban Flaxmere | D - Twyford and Flaxmere |
| Lawn Road | Napier Road | Mill Road | F- Clifton |
| Longlands Road East | Railway Road South | Te Aute Road | G - Akina |
| Longlands Road West | SH50 | Railway Road South | G - Akina |
| Middle Road | School Road | Urban boundary | H - Havelock and south |
| Mill Road | Existing 50km/h Speed limit signs | Tuki Tuki Road | F- Clifton |
| Napier Road | Full length | | E - North east |
| Ngatarawa Road | Maraekakaho Road | SH50 | I - Other sites |
| Norton Road | Existing 50km/h speed limit signs | Algernon Road | G- Akina |
| Omahu Road | Rural boundary | Urban boundary | D - Twyford and Flaxmere |
| Omarunui Road | SH50 | Strome Road | E - North east |
| Otene Road | Elwood Road | Ruahapia Road | E - North east |
| Other Twyford sites | | | D - Twyford and Flaxmere |
| Pakowhai Road | Existing 60km/h section | | E - North east |

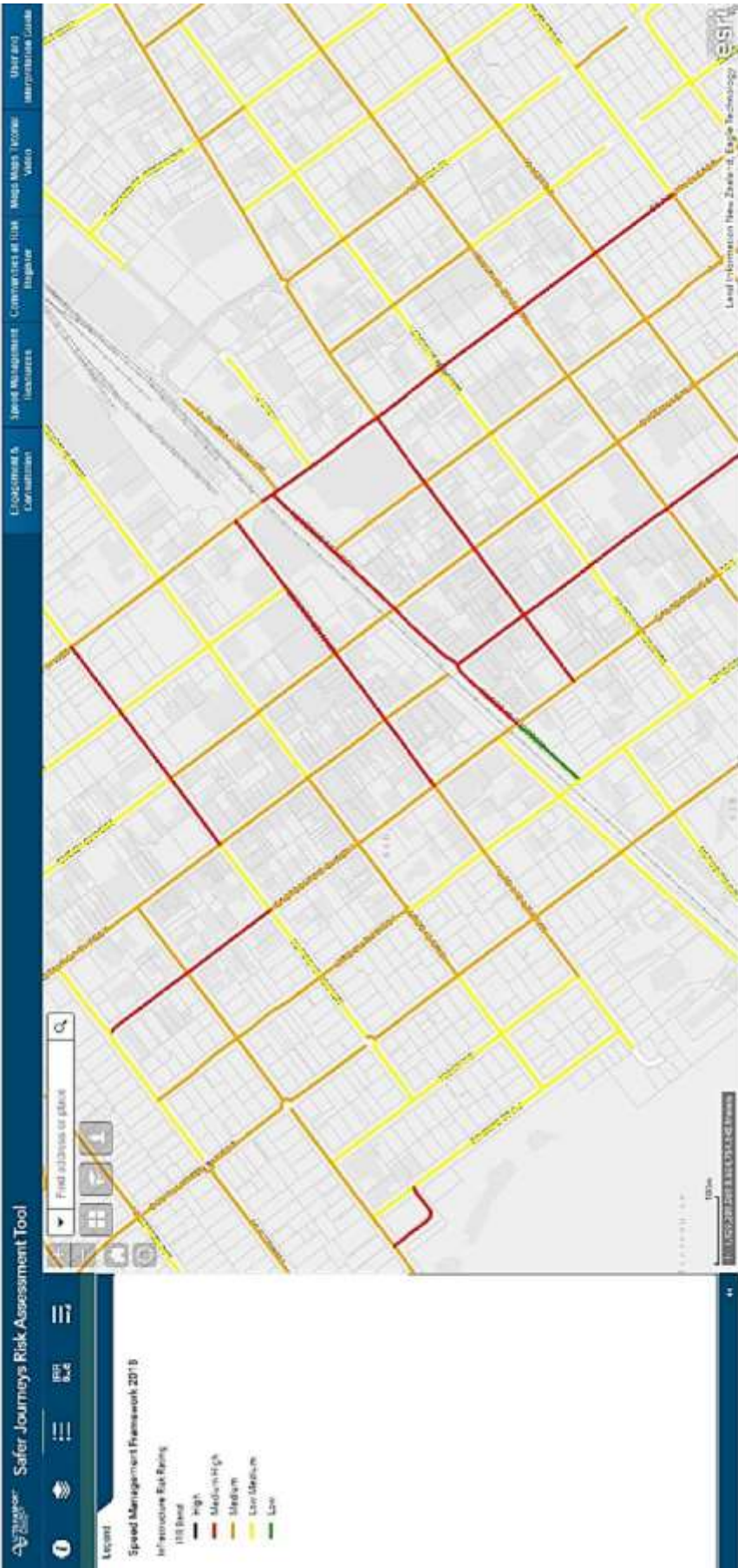
May 2020 | Status: Final | Project No.: 310201117 Child No.: 010108 | Our ref: mDC Spd July Rev

| Road name | From | To | Appendix |
|--|--|--|--------------------------|
| Paraire Road | SH51 | End | E - North east |
| Parkhill Road | Haumoana Road | End | F- Clifton |
| Park Road | Existing 70km/h speed limit signs | Algernon Road | G - Akina |
| Puketapu Road to north | Puketitiri Road | Puketapu | C - Puketapu |
| Puketapu Road to south | Puketapu | To south | C - Puketapu |
| Puketitiri Road | Apley Road | NCC boundary | C - Puketapu |
| Railway Road South | Existing 50km/h speed limit signs | 250m south of intersection with Longlands Road | G - Akina |
| Raupare Road | Omahu Road | End | D - Twyford and Flaxmere |
| Riverslea Road South | Longlands Road | Tollemache East | G - Akina |
| Romanes Drive | Brookvale Road | Napier Road | H - Havelock and south |
| Ruahapia Road | Otene Road | SH51 | E - North east |
| Southland Road | Heathcote Road | Tollemache West | G - Akina |
| Springfield Road | Puketapu Road | NCC boundary | C - Puketapu |
| Swamp Road | Taihape Road | Moteo Pa Road | I - Other sites |
| Taihape Road | Swamp Road | Willowford Road | I - Other sites |
| Te Aute Road | Railway Road South | Urban | G - Akina |
| Te Mata Mangateretere | Lawn Road | Waimarama Road | E - North east |
| Te Mata Peak Road | Full length | | H - Havelock and south |
| Thompson Road | Twyford | Raupare | D - Twyford and Flaxmere |
| Tollemache Road | Southland Road | Norton Road | G - Akina |
| Tuki Tuki Road | Mill Road | Waimarama Road | F- Clifton |
| Twyford Road | Omahu Road | Thompson Road | D - Twyford and Flaxmere |
| Vicarage Road | Omarunui Road | Dartmoor Road | C - Puketapu |
| Waimarama Road | Te Mata Road | Waimarama | H - Havelock and south |
| Waiohiki Road | SH50 Links Road | Napier boundary | I - Other sites |
| Waipatu Settlement Rd | SH51 | End | E - North east |
| Waipunga Road | Full length | | I - Other sites |
| Watson Road | SH51 | End | E - North east |
| Wellwood Road | Full length | | G - Akina |
| Whakatu Road | Full length | | E - North East |
| Wilson Road | Omahu Road | Urban Flaxmere | D - Twyford and Flaxmere |
| Pakowhai Road / Elwood Road intersection | Take guidance from RIAW guidance in terms of extents | Take guidance from RIAW guidance in terms of extents | I - Other sites |
| Mill Road / Richmond Road intersection | Take guidance from RIAW guidance in terms of extents | Take guidance from RIAW guidance in terms of extents | I - Other sites |

Appendix B Hastings CBD metrics








Appendix C Puketapu area speed limit review

| List of roads within this appendix | Page |
|------------------------------------|------|
| Apley Road | 1 |
| Dartmoor Road | 3 |
| Puketapu Road (north) | 5 |
| Puketapu Road (south) | 7 |
| Puketitiri Road | 9 |
| Springfield Road | 11 |
| Vicarage Road | 13 |

| Hastings District Council 2019 Speed Limit Assessment Apley Road | | | |
|--|-------------------|---|-----------------|
| From | Dartmoor Road | To | Puketitiri Road |
| Section length | 7km | Reason for selection | Within area |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 700 vpd | RAMM speeds (85th percentile) | 94km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>In the last five years there have been two crashes at the intersection of Apley Road and Dartmoor Road, one resulting in minor injury, and four crashes north of here which were all non-injury.</p> <p>The only injury crash was in 2018 when a driver tried to perform a u-turn at the intersection of Dartmoor Road and Apley Road and rolled his car. The second crash at this intersection was also in 2018 when a westbound car on Dartmoor Road turning right in to Apley Road lost control. The driver claimed to swerve to avoid another vehicle but excess speed was suspected on this 35km/h corner.</p> <p>The non-injury crashes were in 2014 when the driver fell asleep and his vehicle left the road and in 2016 when a restricted driver put their car in to neutral travelling downhill to save petrol and lost control on a wet corner. In 2017 when a southbound driver lost control while cornering in the wet and in 2018 when a southbound van crossed the centreline and hit mirrors with a northbound vehicle.</p> | | | |
| <p>Discussion</p> <p>Apley Road is 7km long flowing road that connects Dartmoor Road in the south to Puketitiri Road in the north. At the time of our review the road surface was in a generally good condition with excellent road markings. In places the shoulder was non-existent, as shown below.</p> | | | |
|  | | | |
| <p><i>Apley Road</i></p> <p>The curves on Apley Road are connected by sections where it is relatively easy to travel close to the current 100km/h speed limit. The 85th percentile speed of 94km/h is somewhat higher than the calculated safe and appropriate speed of 80km/h which does indicate that it would not be easy to slow traffic.</p> | | | |

The higher speeds that are found on Apley Road do result in the demand for good curve signage however there are a number of unsigned curves that should have advisory speeds on them and a higher level of delineation than is currently provided. The high quality road markings could cause issues at night encouraging higher speeds in to curves that are poorly defined.

The crashes on Apley Road do not indicate issues with the existing speed limit. While the Safer Journeys Risk Assessment Tool could be used to support the introduction of an 80km/h speed limit greater safety gains are likely to be seen by an improvement in curve signage along the route.



Example of unsigned curve with high approach speed on Apley Road

Recommendations

Review curve signage along Apley Road, including at the intersection with Dartmoor Road.

| Hastings District Council 2019 Speed Limit Assessment Dartmoor Road | | | |
|--|-------------------|---|------------------|
| | From Apley Road | | To Vicarage Road |
| Section length | 5.5km | Reason for selection | Top ten percent |
| ONRC | Primary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 1,554vpd | RAMM speeds (85 th percentile) | 90km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>The two crashes at the intersection with Apley Road are discussed under that section. It would appear that Dartmoor Road is one of the top ten percent sites due to a serious injury cash that occurred in December 2016. A westbound motorcyclist failed to negotiate a right hand curve 500m east of Apley Road, crossed the centreline and went off the road to the right through a fence. Alcohol was suspected as a factor in this crash, speed was estimated at 80km/h on what is stated to be an 85km/h curve but all curves are signed as 65km/h.</p> <p>A minor injury crash occurred in 2018 when a westbound car entered a 65km/h corner at 85km/h and drifted wide. The driver overcorrected and the vehicle lost control, left the road and hit a power pole. On the same curve a car lost control in 2015 when an inexperienced driver lost control in the wet.</p> <p>Two non-injury crashes occurred on the same curve approximately 1500m west of Vicarage Road in 2018. In one a driver crashed when travelling in excess of 150km/h during a police pursuit and in the other an alcohol affected driver claimed to have been distracted by her dog causing her to crash.</p> <p>The final crash involved a driver late for work travelling at 70km/h in the current 50km/h area who crossed the centreline on a 35km/h curve and collided head on with another vehicle. Whilst this curve is within the existing 50km/h speed limit and not part of the review we note that we were involved in a near miss during our site inspection when a 4WD negotiated this curve while halfway in to our westbound lane.</p> | | | |
| <p>Discussion</p> <p>The speed limit on Dartmoor Road was reviewed in 2017. The request then was to determine if the 50km/h speed limit could be extended out as far as the Puketapu Park entrance however this section of road is very much rural in nature. The recommendation made was to consider introducing an 80km/h speed limit from the start of the 50km/h speed limit 250m west of Vicarage Road through to the crest/cutting 300m east of the main Puketapu Park vehicle entrance.</p> <p>The Safer Journeys Risk Assessment Tool has incorrectly recorded around 1,100m of what is 100km/h road as having an existing speed limit of 50km/h. This extends as far as 750m west of the Puketapu Park entrance and influences the results on that section.</p> <p>The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 60km/h on Dartmoor Road from Puketapu out to the Apley Road intersection. On the section that is 100km/h this is due to the Medium-high IRR band. The reason for this high rating of 1.68 is that the roadside environment risk has been judged to be moderate on one side of the road and high on the other. Compared to many other roads under review the roadside environment is much more benign as there are only short sections where there may be deep ditches in the shoulder, trees are set well back from the road and there is a distinct lack of power poles in the shoulder. Dartmoor Road has the same rating for roadside hazards as Farndon Road which is clearly not correct.</p> <p>If the roadside hazard rating is considered as moderate on both sides of the road which appears to be fair then the IRR drops below 1.6 in to the medium band which then indicates a safe and appropriate speed of 80km/h. This is much more in line with the actual situation however is still below the measured 85th percentile speed on this road.</p> | | | |



Dartmoor Road


After reviewing the site again we believe that if an 80km/h speed limit is progressed it should extend beyond the entrance to Puketapu Park. Just beyond the crest west of this access is a 65km/h reverse curve with an orchard access between the two curves. The logical solution would be to extend the 80km/h curve further so that it includes this curve as well.

There are three 65km/h reverse curves on this route. All would benefit from improved signage, particularly correctly sized and spaced PW67 single chevron signs.

Recommendations

Consider introducing an 80km/h speed limit from the start of the 50km/h speed limit 250m west of Vicarage Road through to a point 870m west of the entrance to Puketapu Park.

Review signage on the three reverse curves on Dartmoor Road and at the intersection with Apley Road.

| Hastings District Council 2019 Speed Limit Assessment Puketapu Road (north of Puketapu) | | | |
|---|---------------------|---|-----------------|
| From | Puketitiri Road | To | Puketapu |
| Section length | 3.8km | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium-high |
| Collective Risk | Low-medium | Personal Risk | Medium-high |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 464 vpd (estimate) | RAMM speeds (85th percentile) | 89.2km/h (2009) |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>There have been four crashes on Puketapu Road between Puketitiri Road and the township. In 2014 there was a serious injury crash 1.3km north of Dartmoor Road when an eastbound car lost traction on a right hand bend in the wet and rolled in to a tree. A minor injury crash took place in 2015 north of here when a car left the road at 5am due to a fatigued driver and collided with a bank. Two non-injury crashes were recorded; in 2014 when a car swerved to avoid a sheep in the road and collided with a bank and in 2017 when a car was found in the ditch at the side of the road.</p> | | | |
| <p>Discussion</p> <p>We have split Puketapu Road north and south of the township due to the two sections having quite different characteristics and being coded differently in the Safer Journeys Risk Assessment Tool. On this section between Puketitiri Road and Puketapu the road is a secondary collector with a Medium-high IRR band. This rating results in a safe and appropriate speed of 60km/h.</p> <p>The Safer Journeys Risk Assessment Tool shows the mean operating speed as being between 50 and 55km/h while the last speed survey in 2009 showed an 85th percentile speed of 89km/h. It is clear that in places the alignment restricts vehicle speeds so that they are likely to be close to the safe and appropriate speed. There are many tight curves and vertical crests on the route that require slow speeds to negotiate them. The serious injury crash occurred on a curve signed as 45km/h however there are many curves on the route that are either not signed at all or not signed to the current MOTSAM standard. We noted that where chevron signs are used these are predominantly black and white which suggests they are quite old and their night time performance is likely to be poor.</p> | | | |
|  | | | |
| <p><i>Typical curve signage on Puketapu Road</i></p> | | | |

Also shown on the photos is the sealed shoulder which is present for much of Puketapu Road. This does reduce the amount of side friction and in places will mean that vehicle speeds are not as constrained as they would be on other roads that have little to no shoulder. The cross section of Puketapu Road does mean that while 60km/h may be the safe and appropriate speed it is only likely to be achieved on the tighter sections of the route and not on sections such as that shown below.



Puketapu Road just north of Puketapu

Within the tighter section of the road speeds are already going to be below 80km/h due to the alignment. For that reason a review of curve signage should be undertaken, not only to identify those curves where the signage is old and poor performing but also those curves such as shown above where no signage is present.

The 50km/h speed limit starts at the Puketapu boundary but notably is also at the Puketapu School. Whilst carrying out our speed limit review the Ministry of Transport announced that they would be tackling unsafe speeds past schools by requiring road controlling authorities to reduce the speed limit to 30 or 40km/h. Council may wish to consider whether they carry out that change at Puketapu School as part of that review or in a future review of all schools in the district.

Recommendations

Review the curve signage along Puketapu Road.

Consider a lower speed limit past Puketapu School in light of recent announcements from the Ministry of Transport.

| Hastings District Council 2019 Speed Limit Assessment Puketapu Road (south of Puketapu) | | | |
|--|-------------------|---|-----------------|
| From | Puketapu | To | Napier boundary |
| Section length | 2km | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h (part) | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,575vpd | RAMM speeds (85th percentile) | 103km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>Two crashes have been reported south of Puketapu in the last five years. A minor injury in 2018 when a driver lost control on wet bend, overcorrected and the car rolled on to its roof. In 2016 there was a non-injury crash when a driver swung wide on a bend and hit an oncoming car after claiming she was dazzled by lights while cornering.</p> <p>We also note that in September 2019 there was a fatal crash on Puketapu Road when an eastbound motorcyclist failed to negotiate an unsigned left hand bend 500m west of Springfield Road and left the road on the outside of the curve.</p> | | | |
| <p>Discussion</p> <p>We split Puketapu Road north and south of the township due to the two sections having quite different characteristics and being coded differently in the Safer Journeys Risk Assessment Tool. South of the township the road is a primary collector with the same characteristics as Dartmoor Road, Low collective and personal risk and a Medium IRR band.</p> <p>The Safer Journeys Assessment Tool has incorrectly listed the 1.7km length of Puketapu Road out to Springfield Road as being 50km/h when in fact it is only the first 130m that has the urban speed limit. The road is correctly shown as 100km/h east of Springfield Road with a safe and appropriate speed of 80km/h due to the Medium IRR risk rating.</p> <p>Recent changes to the section of Puketapu Road south of Puketapu include the construction of a cycle path along the north side of the road that has a crossing point in the 100km/h area. This crossing point is approximately 430m outside the existing 50km/h zone. The cycle path has altered the appearance of this section of road, as shown below.</p> | | | |
|  | | | |
| <p><i>Cycle path south of Puketapu</i></p> | | | |

The access on the right in the above photo provides for several properties. With a very narrow shoulder and the grassed berm between the road and the cycle path 80km/h does appear to be an appropriate speed limit reduction on this section. Prior to Springfield Road being reached the road straightens out and speeds are likely to increase.

The current location of the change from 50 to 100km/h is on a curve, as shown below. This would be better if the signs were combined with the Puketapu place name sign to provide a threshold treatment that would mean extending the 50km/h speed limit by 70m to the south.



The cycle path does change the appearance of the road therefore we would recommend having an 80km/h speed limit along this section out to around 615 Puketapu Road which would cover the crossing point. After this the road again becomes fully rural in appearance and whilst the safe and appropriate speed may be 80km/h it is unlikely that these speeds will be achieved on this section.

If Council wish to extend the 80km/h speed limit for the full length of Puketapu Road then some discussion would need to be held with Napier City Council as the road crosses the boundary prior to entering Taradale.

Recommendations

Consider extending the existing 50km/h speed limit to the south by 70m.

Consider introducing an 80km/h speed limit from the 50km/h speed limit to a point 400m further south at the access to numbers 615 and 617 Puketapu Road.

Consider combining the Puketapu place name sign with a speed limit sign to provide an improved threshold.

| Hastings District Council 2019 Speed Limit Assessment Puketitiri Road | | | |
|---|-------------------|---|---------------------|
| From | Apley Road | To | NCC boundary |
| Section length | 11km | Reason for selection | Top 10% and request |
| ONRC | Primary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 819vpd | RAMM speeds (85th percentile) | 101km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>There have been seven crashes on this 11km section of road in the last five years. Two of these crashes resulted in serious injuries and both involved motorcycles. In 2015 a motorcyclist misjudged a cresting curve and skidded off the road 6.2km east of Glengarry Road and in 2016 a rider fell off on loose metal in a roadworks site near to Seafield Road. Excess speed was not considered a factor in either crash. CAS also shows a speed and alcohol related serious injury crash in February 2018 at the intersection with Rotowhenua Road however we believe this crash has been incorrectly located and it should be east of the intersection and thus in Napier. This has been queried with the CAS team.</p> <p>From the Apley Road end of Puketitiri Road these are the crashes recorded in CAS -</p> <p>Minor injury in 2016 when a car lost control on loose gravel in a 30km/h work zone. Non-injury crash in 2016 when a westbound 4WD failed to negotiate a sharp right hand curve and collided with an embankment on the outside of a corner 1km south of Glengarry Road. Another non-injury crash in 2016 when a driver swerved to avoid a truck that was over the centre line south of Seafield Road and then a 2017 non-injury when a drunk driver drove off the road due to sunstrike.</p> <p>There was a minor injury crash in 2014 700m south of Seafield Road when a driver failed to negotiate a sharp uphill right hand curve due to travelling too fast and finally a non-injury crash in 2017 when a driver left the road and hit a sign just north of Rotowhenua Road at 12:20am.</p> | | | |
| <p>Discussion</p> <p>The westernmost section of Puketitiri Road has been identified as being a top ten percent site for reducing DSI crashes, this is between Apley Road to the west and Seafield Road to the east. Three of the seven reported crashes occurred on this section, one serious, one minor and one non-injury. Puketitiri Road is classed as a Primary Collector on this section before dropping to Secondary Collector east of Seafield Road. Collective risk of Low-medium and personal risk of Medium-high is consistent along the length however the alignment results in the IRR being High at the Apley Road end and Medium-high at the eastern end. Due to the fact that the IRR is Medium-high or worse on both sections the safe and appropriate speed has been calculated as 60km/h along the full length.</p> <p>Our site review concurs that 60km/h would appear to be a safe and appropriate speed on parts of the route however on other sections higher speeds will occur due to the alignment. Our first comment is that there is a very inconsistent level of curve signage along Puketitiri Road with some curves being signed and others not with no obvious pattern. Edge marker post treatment was also inconsistent. The road markings were in very good condition at the time of our inspection however given the terrain and geometry of the road improvements to the level of delineation provided is required.</p> | | | |



Sharp unsigned curve on downhill grade with relatively high approach speeds


By improving the signage of curves lower speeds may result. The curve above is possibly a 45km/h curve however with no signage provided vehicle speeds on the downhill approach will be much higher leading to a reduced level of safety.

The 85th percentile speed of 101km/h does show that there are sections where the safe and appropriate speed of 60km/h is unlikely to be met. For some length any reduction in the posted speed limit on Puketitiri Road would be inconsistent with other rural roads within Hastings. Reducing the speed limit may be something to consider if the other recommendation do not achieve a reduction in crash numbers.

Recommendations

Review the curve signage along Puketitiri Road.

Carry out a crash reduction study along Puketitiri Road.

| Hastings District Council 2019 Speed Limit Assessment Springfield Road | | | |
|---|---------------------|-----------------------------------|---------------|
| From | Puketapu Road | To | NCC boundary |
| Section length | 3.7km | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | Unknown | RAMM speeds | Unknown |
| Date of assessment | | | December 2019 |
| <p>5yr crash history</p> <p>There have been four crashes recorded on that part of Springfield Road within the HDC boundary.</p> <p>In 2018 there was a non-injury crash when a 17 year old doing burnouts in a car that had just been purchased left the road and collided with a tree 600m south of Puketapu Road. A non-injury crash occurred in 2014 1.1km south of Puketapu Road when a southbound car lost control on a left hand corner due to travelling too fast for the corner. Speed was noted as 80km/h.</p> <p>A further non-injury crash occurred in 2014 when a car doing 90 to 100km/h lost control on a 55km/h left hand curve and collided with a power pole. It appears as if the same power pole was hit in a 2016 crash where a southbound motorcycle lost control on the same left hand curve 2km from Puketapu Road. The rider was critically injured in this 4pm crash.</p> | | | |
| <p>Discussion</p> <p>Springfield Road is much narrower than the roads that access it and has no edge line. The road is generally straight however there are a number of out of context curves that are unsigned, some of which are very hard to read when approaching –</p> | | | |
|  | | | |
| <p><i>Unsigned curve on Springfield Road</i></p> | | | |
| <p>Like a number of other roads in this area of the District, greater safety gains may be realised by providing a consistent level of delineation. On Springfield Road even edge lines would be of benefit on curves such as that above.</p> | | | |

We note two crashes have occurred on the same corner, one of which resulted in serious injuries. This corner has a 55km/h chevron board on it however there is no advance warning at all, no edge lines and a wooden power pole on the outside of the curve that was hit in both crashes.



Site of serious injury crash on Springfield Road

The safe and appropriate speed has been calculated as 80km/h on Springfield Road. Given the proximity of roadside hazards to the narrow road a speed limit reduction to 80km/h is possibly worth pursuing. Springfield Road is one of several roads that leaves Hastings and enters the Napier City roading network. Any proposals for a speed limit change on Springfield Road should be discussed with Napier City Council.

Recommendations

Consider an 80km/h speed limit on Springfield Road.


Review level of curve delineation on Springfield Road.


Consider use of edge lines on Springfield Road, at least on the isolated curves to improve delineation.

| Hastings District Council 2019 Speed Limit Assessment Vicarage Road | | | |
|---|-------------------|---|---------------|
| From | Omarunui Road | To | Dartmoor Road |
| Section length | 850m | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Medium |
| Posted speed limit | 50km/h (part) | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 1,607vpd | RAMM speeds (85th percentile) | 67km/h |
| | | Date of assessment | October 2019 |
| 5yr crash history | | | |
| There has only been one crash recorded on Vicarage Road in the last five years, a minor injury in July 2015. In this crash a car lost control while braking on a wet surface and slid in to a power pole. The road being greasy after heavy rain was blamed for this crash. | | | |
| Discussion | | | |
| The speed limit on Vicarage Road was reviewed in 2017. Our recommendation then was to consider a temporary speed limit on Vicarage Road for those times when it is heavily used for river access and to mark edge lines for the full length of Vicarage Road to improve edge definition and constrain vehicle speeds. | | | |
| The Safer Journeys Risk Assessment Tool shows the full length of Vicarage Road being 50km/h when in fact it is 100km/h for more than half its length. The speed limit changes 55m from the southern abutment of the bridge with 50km/h to the north and 100km/h to the south to Omarunui Road. To the immediate south of the speed limit change point is a layby area and beyond that a wide shoulder on the opposite side of the road through to the intersection with Omarunui Road to the south. | | | |
| With a T intersection at Omarunui Road and a 50km/h speed limit 500m to the north followed by a one lane bridge it is unlikely that vehicles are traveling close to 100km/h, as indicated by the 85 th percentile speed being measured at 67km/h. | | | |
| The Setting of Speed Limits Rule 2017 states that the minimum length for a 60km/h speed limit is 500m while for 80km/h it is 800m. Section 3.3(1) of the Rule does state that this is unless the requirement is impractical which may be the case at this location. | | | |
| With the 85 th percentile speed being in the region of what would be expected for a 60km/h speed limit any reduction in the posted speed limit may not see any change in measured vehicle speeds. An earlier request was to consider a 50km/h speed limit however there is nothing to support an urban speed limit in what is clearly a rural area. Having visited Vicarage Road on a number of occasion we have yet to witness any cars parked along here. | | | |
| If this is a heavily used area for parking and a large number of pedestrians frequent the area then it would appear to be seasonal and weather dependent. A temporary speed limit at those particular times of year is likely to achieve greater compliance and provide greater protection for all road users. | | | |
| Like Puketapu Road, the Medium IRR band does mean that the speed management guide indicates a safe and appropriate speed of 80km/h when correctly considered a rural route rather than urban. | | | |
| Recommendations | | | |
| Consider introducing an 80km/h speed limit between the start of the 50km/h speed limit at the south end of the one lane bridge and the intersection with Omarunui Road. | | | |
| Consider a seasonal temporary speed limit on Vicarage Road for those times when it is heavily used for river access. | | | |

Appendix D Twyford and Flaxmere area

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| Hastings District Council 2019 Speed Limit Assessment Jarvis Road | | | |
|---|---------------------|---|----------------|
| From | Omahu Road | To | Thompson Road |
| Section length | 1,100m | Reason for selection | Requested |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 291vpd | RAMM speeds (85th percentile) | 78km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history | | | |
| There have been no crashes recorded on Jarvis Road in the last five years. | | | |
| Discussion | | | |
| <p>The Safer Journeys Risk Assessment Tool shows Jarvis road being 100km/h for most of its length with the first 110m from the Omahu Road end being 70km/h. This is how the road is signed however the 70km/h speed limit is not included in the speed limits bylaw therefore does not legally exist and should be corrected as part of this review. This is likely to be problematic as NZTA have indicated that no new 70km/h speed limits will be allowed in the future. This change may be negated depending on how council wish to proceed with the proposals on Omahu Road that are discussed later in this report.</p> <p>The safe and appropriate speed for Jarvis Road has been calculated as 80km/h. The 85th percentile speed is slightly below that which shows that people are not traveling that fast along this route. Given the width of the road and hazards in the form of ditches and culverts we suggest that the speed limit on Jarvis Road is reduced to 80km/h to bring speeds closer to the safe and appropriate speed. This should only be considered however as an area wide speed limit with the other roads within this section.</p> | | | |
|  | | | |
| <i>Typical layout of Jarvis Road</i> | | | |
| <p>We note that there are no accesses on the last 110m of Jarvis Road which is currently signed as 70km/h. It would appear unlikely that by introducing an 80km/h speed limit along the full length there would be any issues however any changes should be considered along with the proposals for Omahu Road.</p> | | | |
| Recommendation | | | |
| Reduce the posted speed limit on Jarvis Road from 100km/h to 80km/h between Thompson Road and Omahu Road. | | | |

| Hastings District Council 2019 Speed Limit Assessment Raupare Road | | | |
|--|---------------------|---|----------------|
| From | Omahu Road | To | End |
| Section length | TBC | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100 | Safe and appropriate speed | 60 |
| RAMM traffic volume | 885vpd | RAMM speeds (85 th percentile) | 76km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history <p>There have been three crashes on Raupare Road in the last five years, although none of them resulted in injury.</p> <p>In 2016 a driver unfamiliar with the area failed to see the signs for the 45km/h curve midway along Raupare Road when heading north and lost control. The curve was well signed with an advance sign and a chevron board sign.</p> <p>There were two crashes in 2018. In one the driver failed to properly connect his trailer to the vehicle and it came off and hit a power pole. In the second a vehicle was travelling too fast to turn left at the bridge where Raupare Road meets Nicholl Road and skidded off and hit a sign post and culvert.</p> | | | |
| Discussion <p>The Safer Journeys Risk Assessment Tool shows the road being 50km/h over the 350m between Omahu Road and Thompson Street and 100km/h beyond that. The 50/100 signs are actually located around 135m from Omahu Road while the speed limits bylaw shows no 50km/h speed limit and the full length being 100km/h. There are residential properties on the section that is currently signed as 50km/h which suggests that there may be issues during consultation if the speed limit is raised however it is clear that a fully urban 50km/h speed limit is not supported by the roadside environment.</p> <p>Like Jarvis Road, this is a secondary collector with a Low collective and personal risk. The IRR is however in a higher band at Medium-high. This results in a calculated safe and appropriate speed of 60 km/h. Raupare Road is better provided for than Jarvis Road being wider and provided with edge and centre lines. If a speed limit of 80km/h was progressed on Jarvis Road then for consistency the same speed limit should be pursued here.</p> <p>While reviewing the site we noted that a number of signs were partially obscured by vegetation growth. We also noted a curve between Trotter Road and McNab Road that would appear to require an advisory speed to be consistent with other curves on this road.</p> | | | |
|  | | | |

Signage on Raupare Road

The corner where Raupare Road meets Nicholl Road is signed with a 15km/h advisory speed. We note that this is quite a speed difference even from 80km/h therefore the signage should be reviewed to ensure it is appropriate.

At the time of our site visit we also noticed a high number of truck movements on Raupare Road accessing Carrick Road however it was unclear if that was a temporary issue.

Recommendations

Consider reducing the speed limit on Raupare Road from 100km/h to 80km/h for its full length.

Consider consulting on the extent of the existing 50km/h speed limit which is not in the bylaw.

Install curve advisory signage for the curve between Trotter Road and McNab Road.

Review curve signage at the intersection of Raupare Road and Nicholl Road.

Review vegetation maintenance as a number of signs are becoming obscured.

| Hastings District Council 2019 Speed Limit Assessment Thompson Road | | | |
|--|---------------------|---|----------------|
| From | Twyford | To | Raupare |
| Section length | 1,700m | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100m/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 637vpd | RAMM speeds (85 th percentile) | 72km/h |
| Date of assessment | | | September 2019 |
| 5yr crash history <p>There have been two crashes on Thompson Road recorded in the last five years, both non-injury crashes and both in June 2014. In the first a northbound driver lost control on the left hand bend signed as 35km/h after going too fast for the wet road surface. A week later a second crash took place when an alcohol affected driver entered the same 35km/h curve but from the north at too high a speed and crashed in to the signs and a letter box. This driver had crashed elsewhere on the same day.</p> | | | |
| Discussion <p>Thompson Road connects Twyford Road, Jarvis Road and Raupare Road. The road starts at the Twyford School and mid-way between Jarvis and Raupare Road has a reverse curve signed at 35km/h, the scene of both reported crashes. We note that edge lines are provided around these curves but for the rest of the route only a centre line is provided. Edge lines would give the impression of narrower lanes and would help constrain vehicle speeds if the limit were to be lowered.</p> <p>The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 60km/h along Thompson Road. The reason for this would appear to be that the reverse curve has moved this road in to the 'winding' classification when Twyford and Jarvis are both classed as straight resulting in a Medium-high IRR band. We have tested this in the tool and found that that is the case and the safe and appropriate speed is in fact 80km/h if corrected.</p> | | | |
|  | | | |
| <i>Part of reverse curve on Thompson Road</i> | | | |

The Twyford School is located at the northern end of Thompson Street where another 50km/h courtesy speed limit can be found. This speed limit is not legal and cannot be enforced. Due to problems with the speed of vehicles past schools the Ministry of Transport has recently released a note indicating that legislation will be changed to require all rural schools to have a maximum speed limit of 60km/h on the roads that surround them.

It is not clear whether 50km/h speed limits will be acceptable however this should become clear when rule changes are made in 2020. Whilst unenforceable Council should decide whether to retain the courtesy speed zone in the meant time.


Over the rest of the route an 80km/h speed limit should be considered as an area wide speed management treatment 80km/h.

Recommendations

Consider reducing the speed limit on Thompson Road from 100km/h to 80km/h for its full length.

Consider installing edge lines along the full length of Thompson Road.

Note impending changes to procedures for setting speed limits outside schools.

| Hastings District Council 2019 Speed Limit Assessment Twyford Road | | | |
|--|---------------------|---|----------------|
| From | Omahu Road | To | Thompson Road |
| Section length | 1,400m | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 622vpd | RAMM speeds (85th percentile) | 81km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history Only one crash has been reported in the last five years which was a non-injury in June 2014 north of Evans Road when a van drifted off the road to the left on to the shoulder and then in to a fence. The driver claimed a mechanical problem. Alcohol was present but below limit. | | | |
| Discussion Twyford Road links Omahu Road to Thompson Road forming the northern boundary of the area under review. Over this length Twyford Road is provided with a centre line but beyond Thompson Road there is no delineation provided. The safe and appropriate speed for the full length of Twyford Road is 80km/h which is on a par with the latest speed survey data that recorded an 85 th percentile speed of 81km/h. Previous surveys showed lower speeds. The surrounding development does support an area wide 80km/h speed limit being introduced. | | | |
|  | | | |
| <i>Twyford Road typical layout</i> Twyford School is located on the section just beyond Thompson Road and is signed as having a 50km/h courtesy speed limit. As detailed above, this speed limit is not legal and cannot be enforced however proposed rule changes by the MOT suggest that a 50 or 60km/h speed limit may be able to be formalised in the future. | | | |

We noted some deficiencies with curve signage on this road, with one 35km/h curve being signed and another of a similar nature not. It is the lack of consistency that can lead to a safety issue therefore this should be remedied.

Finally, we noted that at the northern end of Twyford Road the road simply terminates in a turning head. There is no warning of this and no No Exit signs were seen on this road. Serious injury crashes have occurred in the district in similar situations therefore this should also be reviewed.


Recommendations

Consider reducing the speed limit on Twyford Road from 100km/h to 80km/h for its full length.

Review curve delineation on Twyford Road.

Install No Exit signage on Twyford Road and warning prior to the road ending.

Note the impending changes to procedures for setting speed limits outside schools.

| Hastings District Council 2019 Speed Limit Assessment Twyford area wide review | |
|--|--|
| Date of assessment November 2019 | |
| <p>5yr crash history</p> <p>On Nicholl Road there was a serious injury crash in 2017 when a car failed to negotiate an unsigned curve. This crash was alcohol related and took place at 1:30 am. There was a serious injury crash at the eastern end of Ormond Road in June 2018 when a car appears to have failed to negotiate the unsigned curve 800m north of Evenden Road and impacted heavily with a large tree at 3:30am. In both of these crashes there was no delineation at all on the approaches or the curves themselves.</p> <p>In the last five years there have been three serious injury crashes on the section of Ormond Road between Omaha Road and Evenden Road, excluding the intersections at either end. All three crashes occurred in what is currently signed as a 60km/h speed limit. In 2014 a driver fell asleep and drifted across the road in to a tree. In January 2018 a driver pulled out to overtake a vehicle that began to turn right and was shunted in to a tree and finally in May 2018 an alcohol affected driver swerved in to one of the trees after his passenger punched him.</p> | |
| <p>Discussion</p> <p>A number of roads in the Twyford area have been reviewed individually however there are a number of other minor roads in Twyford as shown below. These include an extension of Twyford Road, Hill Road and Raupare Road as well as Evans Road, Trotter Road, McNab Road, Nicholl Road, and the section of Evenden Road north of Ormond Road. Reviewing crashes in this area we noted that the most DSI crashes were actually on Ormond Road so we have also included that in our review.</p> | |
|  | |
| <p><i>Map of Twyford area</i></p> <p>With the roads feeding off Omaha Road having proposed 80km/h speed limits it is logical that the roads accessing them also have the same, particularly given that they are generally no through routes</p> <p>On several roads within the Twyford area we noted the lack of road markings or signs at isolated rural curves. While a reduction in the posted speed limit is recommended and should reduce impacts speeds a review of unmarked curves should also be undertaken to reduce crash frequency.</p> | |

We noted on Twyford Road that there was no warning of the end of the road. The same is true at the eastern end of Ormond Road when the road curves to the left and ends abruptly, with a tree located where there is a good chance it would be hit if a car braked suddenly and lost control – in fact it was hit and resulted in serious injuries to a driver in June 2018. No exit signage and better warning of the end of the road is required.



End of Ormond Road

The most significant safety issue within the Twyford area is perhaps the section of road with the lowest speed limit, the part of Ormond Road through the oak trees that is 60km/h, providing good evidence that simply installing a lower speed limit does not always result in lower speeds. Two of the serious injury crashes occurred when vehicles were traveling in excess of the speed limit. Physical measures may be required here to force lower speeds through an area with so many hazards so close to moving traffic.

Recommendations

Consideration should be given to reducing the speed limit from 100km/h to 80km/h on all roads bounded by Omaha Road and SH50 shown on the map above of the Twyford area.

A review should be undertaken of all unsigned curves on all roads shown on the map above of the Twyford area and appropriate signs and/or markings installed.

A review of specific measures should be undertaken to force compliance with the 60km/h speed limit through the oak trees on Ormond Road.

Install No Exit signage on Ormond Road east of Evenden Road and warning prior to the road ending.

| Hastings District Council 2019 Speed Limit Assessment Omahu Road | | | |
|---|---------------------|-------------------|----------------------------|
| | From | SH50 | To |
| | Section length | Varies | Reason for selection |
| | ONRC | Arterial | IRR Band |
| | Collective Risk | Medium/Low-medium | Personal Risk |
| | Posted speed limit | 100/70/50 | Safe and appropriate speed |
| | RAMM traffic volume | Varies | RAMM speeds |
| | | | Date of assessment |
| September 2019 | | | |
| <p>5yr crash history</p> <p>There have been three serious injury crashes on the 2.8km length of Omahu Road that has been highlighted as being in the top ten percent of sites. In 2015 a southbound cyclist hit a block of wood that had fallen off a truck causing her to fall off her bike at 8:15am. This crash was 300m north of Hill Road in the 100km/h section. In 2016 a southbound car with an alcohol affected driver hit a median island 30m north of Kirkwood Road and then collided with an oncoming car. It is noted that there is no median island at this location or anywhere within the 70 or 100km/h section of Omahu Road. It appears that this crash may be incorrectly located. The third serious injury crash occurred 250m north of Twyford Road when a southbound car was stopped next to the centre line waiting to turn right when it was hit from behind by a distracted driver. This crash occurred in the 70km/h section.</p> <p>Over the full length of Omahu Road from the SH50 roundabout (excluded) to just south of Raupare Road there have been 30 crashes in the last five years, four serious injury crashes, including the three above and nine minor injury crashes. These crashes are a mix of intersection crashes, access crashes, rear ends and manoeuvring. Two crashes occurred in the 100km/h section while the rest were split evenly between the 70 and 50km/h sections.</p> | | | |
| <p>Discussion</p> <p>Omahu Road was selected for this review for two reasons, to review the section identified as being in the top ten percent of sites for DSI reductions and a request to extend the existing 50km/h speed limit.</p> <p>This site is a top ten site due to the three DSI crashes recorded on it. One crash involved a median island however there isn't one on Omahu Road which would suggest the crash is located incorrectly. The crash involving the cyclist occurred on a 100km/h section of the road however the outcome would have been no different if there was a 50km/h speed limit. While very unfortunate the crash had no real speed involvement. This leaves one serious injury crash that took place 250m north of Twyford Road in the 70km/h section. A driver who claimed to have just finished a phone call hit a vehicle that was stopped waiting next to the centre line to turn right in to an access. There was no evidence of speeding, simply inattention or distraction that resulted in a failure to see the vehicle in front. A passenger in the car hit from behind received an undefined serious injury, neither of the drivers were injured. A lower impact speed may have reduced the severity of the crash.</p> <p>The Safer Journeys Risk Assessment Tool does not have the correct existing speed limit data in it. The tool shows Omahu Road as being 100km/h from SH50 to Hill Road (670m), 70km/h from Hill Road to 60m east of Jarvis Road (2.1km) and 50km/h beyond that when in fact it is 100km/h from SH50 to 90m west of Kirkwood Road (1.2km), 70km/h from there to 250m east of Jarvis Road (1.7km) and 50km/h east of that.</p> <p>The tool shows a Medium collective, personal and IRR rating on the section that is 100km/h. The 70km/h section has all three ratings as Low-medium while the 50km/h section is Low-medium collective and personal and Medium IRR. The safe and appropriate speeds on the incorrect link lengths are 80km/h on the 100km/h section, 60 on the 70km/h section and 50 on the 50km/h section.</p> <p>At present the speed limit changes from 50 to 70km/h at a point 250m south of Jarvis Road. The location of these signs appears unrelated to development or the road layout. There is a clear change in road layout 250m north of Jarvis Road which would make a more appropriate point to start the urban speed limit.</p> | | | |



Existing location of 50/70 250m east of Jarvis Road

This 500m increase in the length of the 50km/h speed limit would result in the speed limit starting at the beginning of the flush median where the 70km/h repeater signs are currently positioned.



Existing location of 70km/h repeater signs 250m west of Jarvis Road

There does appear to be an increasing level of development on the 100km/h section of Omaha Road when turning off SH50 at the northern end. There is an obvious change in character when leaving SH50 and a reduction to 80km/h along this section from the state highway intersection to a point 90m west of Kirkwood Road would appear to complement the changes as the road becomes more urban.

The development on both sides of the road does result in vehicles turning right from Omaha Road and being potentially exposed to a rear end crash. A number of these are large commercial vehicles which are stationary in the 100km/h traffic lane as shown on the following page.

If the 1.2km section of Omaha Road that is 100km/h was reduced to 80km/h and the 50km/h section was extended this would leave an approximate 1.2km of 70km/h speed limit. NZTA have highlighted that 70km/h speed limits are no longer to be used as permanent speed limits. It is not clear if they would support retaining the 70km/h speed limit or whether it would require replacing with a 60km/h speed limit. If the 70km/h limit were replaced with 60km/h then the four roads that connect Omaha Road to Flaxmere would need to be reviewed again to ensure a consistent treatment. This would also influence the proposal for part of Jarvis Road.



Example of turning traffic on 100km/h section of Omaha Road

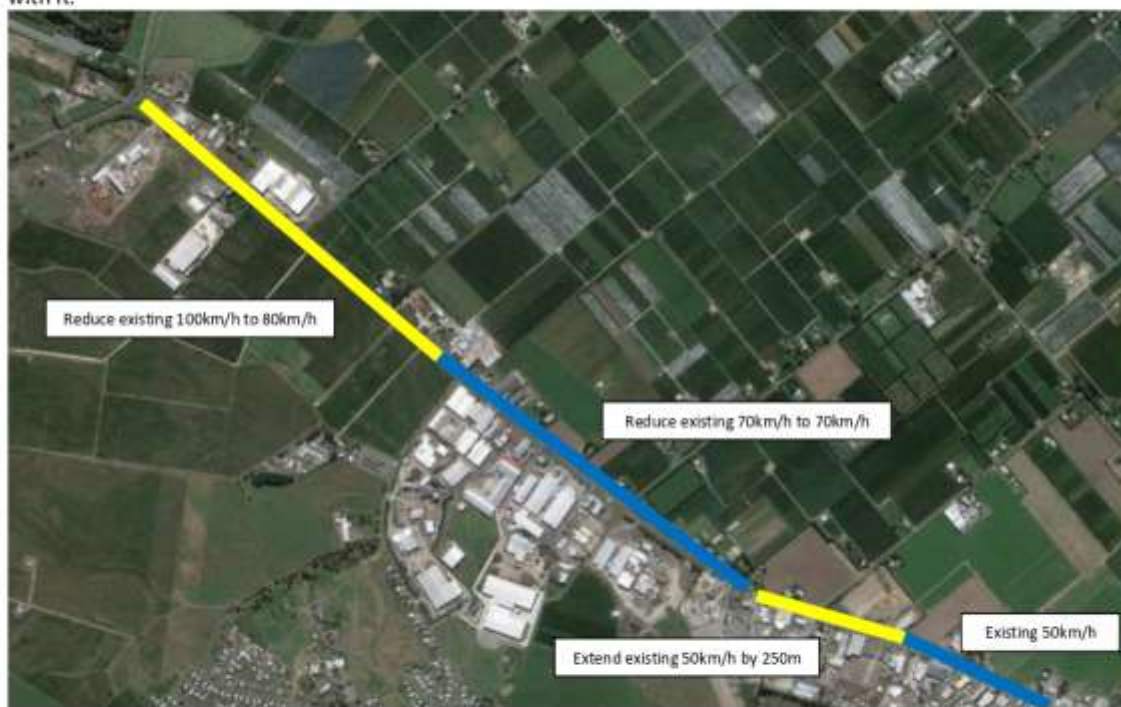
Recommendations

Consider reducing the speed limit from 100km/h to 80km/h on Omaha Road from the intersection with SH50 to the existing speed limit change point approximately 90m west of Kirkwood Road.

Consider extending the existing 50km/h speed limit from its existing position approximately 250m east of Jarvis Road to the start of the existing flush median 250m west of Jarvis Road.

Consider reducing the remaining length of 70km/h speed limit on Omaha Road to 60km/h.

Note that changing the speed limit on Omaha Road will directly affect the speed limit on the roads that intersect with it.



Plan of potential speed limit changes on Omaha Road

Hastings District Council 2019 Speed Limit Assessment

Kirkwood Road

| | | | |
|----------------------------|---------------------|---|-----------------|
| From | Omahu Road | To | Flaxmere Avenue |
| Section length | 600m | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 70km/h | Safe and appropriate speed | 50km/h |
| RAMM traffic volume | 1,745 vpd | RAMM speeds (85th percentile) | 65.2km/h |
| | | Date of assessment | September 2019 |

5yr crash history


There have been three crashes on Kirkwood Road in the last five years, all of which were non-injury and all of which took place in 2017.

One crash occurred at the intersection with Omahu Road when a truck and trailer unit turned right out of Kirkwood Road and failed to see a forklift traveling slowly due to sunstrike. The second crash occurred when a driver fell asleep after working a double shift, left the road and collided with a streetlight on the outside of the bend at the rear of the packhouse. The final crash took place when a driver was travelling too fast to turn in to the Bostocks yard, lost control and hit the fence. While travelling too fast to make the turn it is not known what speed the suspended driver was traveling at.

Discussion

The 50km/h speed limit on Kirkwood Road was extended in 2017 to take account of development that taken place outside the urban boundary. When that review was undertaken we did consider whether the speed limit should be extended all the way to Omahu Road but with open farmland on one side and industrial storage on the other there was little to support this over that particular section of Kirkwood Road and this situation remains the same. We understand that further development is planned but this will all take access from Frobisher Street which is within the current 50km/h area.

The safe and appropriate speed for the 70km/h section of Kirkwood Road is shown as 50km/h. Simply introducing a 50km/h speed limit is unlikely to result in those speeds given the width and wide open nature of Kirkwood Road as shown below. The 85th percentile speed of 65km/h reflects the speeds that would be expected if the speed limit was 60km/h.



Wide open nature of 70km/h section of Kirkwood Road

The three other roads that connect Omahu Road to Flaxmere have safe and appropriate speeds of 60km/h. The reason for the difference appears to be the curve on Kirkwood Road shown above.


To achieve lower vehicle speeds on this section of Kirkwood Road would require a visual narrowing of the road with either edge lines or a wide median being installed. This could even be considered for the existing 50km/h section of Kirkwood Road as we note that a speed hump has had to be installed over 600m inside the speed limit to force compliance with the lower limit.

There is a desire within the community for the four roads that connect Omaha Road to Flaxmere Road to be treated with the same speed limit. Kirkwood Road is the only one of these roads that intersects with Omaha Road outside its 50km/h speed limit. At present the speed limit on Omaha Road is 70km/h with a recommendation in this report that 60km/h be considered. If a 60km/h speed limit is considered on that part of Omaha Road then the natural solution for Kirkwood Road would be to reduce the 70 km/h speed limit to 60km/h.

Recommendations

Whatever speed limit is introduced on Omaha Road at the Kirkwood Road intersection it should be carried along Kirkwood Road replacing the existing 70km/h speed limit.

Consider visual narrowing of the road with either edge lines or a wide median to achieve lower vehicle speeds.

| Hastings District Council 2019 Speed Limit Assessment Chatham Road | | | |
|---|-------------------|---|--------------------|
| | From Omaha Road | | To Flaxmere Avenue |
| Section length | 1km | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 50km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 3,802vpd | RAMM speeds (85 th percentile) | 62km/h |
| Date of assessment | | | September 2019 |
| <p>5yr crash history</p> <p>There have been six crashes reported on Chatham Road in the last five years. Two crashes occurred at the intersection with Omaha Road. In 2015 a non-injury crash occurred when a stolen car lost control turning right from Omaha Road in to Chatham Road too fast for the wet and greasy conditions. In 2016 there was a second non-injury crash when a car turned right from Chatham and hit the trailer of a vehicle northbound on Omaha Road</p> <p>In February 2018 there was a minor injury crash when a car stopped at the centreline 80m west of Hazelwood Street was hit from behind by a distracted driver at 6:15am. It is not clear if this crash was before or after the speed limit at this location was dropped from 70 to 50km/h.</p> <p>There were three further non-injury crashes. In 2014 when a car hit the rear of another that was slowing due to traffic ahead, in 2016 when a driver pulled out of a driveway but failed to see a vehicle approaching from their right and in 2018 when a northbound car crossed the centreline and hit a power pole at 2.30am. The driver and passenger left the scene of what is believed to have been an alcohol related crash.</p> | | | |
| <p>Discussion</p> <p>The 70km/h speed limit on Chatham Road was reviewed in 2017 and as a result a 400m section in the middle remained as 70km/h. This was below the minimum permissible length so for the sake of network wide consistency and in light of the type of users who are likely to use Chatham Park that is within this section the full length became 50km/h. Usage does vary along this road. When there are no cars parked at Chatham Park the road feels wide and speeds are likely to be high. At other times 70km/h would clearly be too high a speed which indicates that this is a borderline case. There have not been any speed surveys on this section since the speed limit was reduced but they have generally been found to be in the 60 to 69km/h range.</p> | | | |
|  | | | |
| View of Chatham Road, currently 50km/h | | | |


The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 60km/h along here which corresponds with actual travel speeds.

There is a desire within the community for the four roads that connect Omaha Road to Flaxmere Road to be treated with the same speed limit. Chatham Road is one of the three roads that intersects where Omaha Road is 50km/h but is the only one that is signed 50km/h all the way along. For consistency the proposed speed limit on Chatham Road should take account of that on Henderson Road and Wilson Road. As evidenced on Chatham Road, 50km/h does appear too restrictive on a road with this lack of development while Henderson Road and Wilson Road appear even less urban in nature. A 60km/h speed limit between Omaha Road and Flaxmere Road does therefore appear to be the best compromise for these three roads.

Recommendation

Consider increasing the speed limit from 50km/h to 60 km/h on Chatham Road between Omaha Road and Margate Drive.

Consider a threshold treatment at Margate Drive where the shortened 50km/h speed limit would start.

| Hastings District Council 2019 Speed Limit Assessment Henderson Road | | | |
|---|-------------------|---|--------------------|
| | From Omaha Road | | To Flaxmere Avenue |
| Section length | 1.3km | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 70km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 3,116vpd | RAMM speeds (85 th percentile) | 63.3km/h |
| Date of assessment | | | September 2019 |
| <p>5yr crash history</p> <p>Four crashes in the last five years including one that resulted in serious injuries. In that 2018 crash a southbound car crossed the centreline for an unknown reason and collided head on with an oncoming vehicle. Vehicle speeds in that crash are unknown.</p> <p>In date order the other crashes within the 70km/h area were a 2014 non-injury when a driver failed to notice the car in front slowing to turn in to driveway and hit them from behind 200m west of Stevens Place, a 2018 non-injury crash when a vehicle performed a u-turn and was hit by the car following and also in 2018 a non-injury crash when an alcohol affected driver lost control at a claimed 140km/h and went through a fence.</p> | | | |
| <p>Discussion</p> <p>Like Chatham Road to the north and Wilson Road to the south Henderson Road has a calculated safe and appropriate speed of 60km/h and sits between the 70km/h speed limit on Omaha Road and the 50km/h speed limit in Flaxmere. Also like Chatham Road the measured 8th percentile speed is more in line with a 60km/h speed limit than one that is 70km/h.</p> <p>Within the existing 70km/h section there are seven accesses, generally to orchards and fruit packing businesses. As shown below, Henderson Road has very wide and flat shoulders that do not help to present an urban feel and do little to encourage low speeds.</p> | | | |
|  | | | |
| <p><i>View of 70km/h section of Henderson Road</i></p> <p>We believe that the current speeds support the introduction of a 60km/h speed limit on Henderson Road and that a fully urban 50km/h speed limit would be too restrictive. A 60km/h speed limit may be an acceptable compromise to retain the required consistency on the four routes.</p> | | | |

As discussed previously, there is a desire within the community for the four roads that connect Omaha Road to Flaxmere Road to be treated with the same speed limit. Henderson Road is one of the three roads that intersects where Omaha Road is 50km/h but is currently signed as 70km/h. For consistency the proposed speed limit on Henderson Road should take account that on Chatham Road and Wilson Road.

A 60km/h speed limit between Omaha Road and Flaxmere Road does therefore appear to be the best compromise for these three roads.

Recommendation

Consider reducing the speed limit from 70km/h to 60 km/h on Henderson Road between the recycling centre at the Omaha Road end to 50m east of Folkestone Drive.

Consider a threshold treatment where the 50km/h speed limit starts at the Flaxmere end.


| Hastings District Council 2019 Speed Limit Assessment | | | | |
|---|---------------------|-------------------|---|-----------------|
| Wilson Road | | | | |
| | From | Omahu Road | To | Flaxmere Avenue |
| | Section length | 1.7km | Reason for selection | Request |
| | ONRC | Primary Collector | IRR Band | Low |
| | Collective Risk | Low | Personal Risk | Low-medium |
| | Posted speed limit | 70km/h | Safe and appropriate speed | 60km/h |
| | RAMM traffic volume | 3,050vpd | RAMM speeds (85 th percentile) | 69km/h |
| | | | Date of assessment | November 2019 |

5yr crash history

There have been two crashes within the posted 70km/h speed limit in the last five years. In 2017 a westbound car left the road at 4:30pm for no apparent reason and collided with a power pole resulting in serious injuries to the driver. In 2015 there was a non-injury crash when a driver fell asleep and drifted off the road colliding with a fence at 1:30pm.

Discussion

Like Henderson Road, Wilson Road connects Flaxmere Avenue to Omahu Road and has a 70km/h speed limit in the mid-section with 50km/h speed limits at either end. Also like Henderson Road, there are few accesses within the 1km length of 70km/h. This section is notable by having a separate footpath on one side with a grassed berm with regularly placed trees on it behind a concrete kerb.



View of 70km/h section of Wilson Road

As discussed previously, there is a desire within the community for the four roads that connect Omahu Road to Flaxmere Road to be treated with the same speed limit. Wilson Road is one of the three roads that intersects where Omahu Road is 50km/h but is currently signed as 70km/h. For consistency the proposed speed limit on Wilson Road should take account that on Chatham Road and Henderson Road,

A 60km/h speed limit between Omahu Road and Flaxmere Road does therefore appear to be the best compromise for these three roads even though the 85th percentile speed on Wilson Road does appear to be a little higher than is desired.


Recommendation

Consider reducing the speed limit from 70km/h to 60 km/h on Wilson Road between Manchester Street and a point 50m east of Folkestone Drive.

Remove the tree on the north side of Wilson Road that obstructs the view of the 50km/h speed limit sign as you enter Flaxmere.

Appendix E North east area

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| Hastings District Council 2019 Speed Limit Assessment Bennett Road | | | |
|--|---------------------|------------------------------------|-------------------|
| From | Otene Road | To | SH51 |
| Section length | 1,200m | Reason for selection | Request to reduce |
| ONRC | Secondary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 70 and 80km/h | Safe and appropriate speeds | Various |
| RAMM traffic volume | 771vpd | RAMM speeds | Unk |
| | | Date of assessment | September 2019 |
| <p>5yr crash history</p> <p>There have been four crashes on Bennett Road in the last five years. Three crashes occurred at the northern intersection with Otene Road.</p> <p>In March 2016 a northbound driver on Bennett Road was traveling at 100km/h when they failed to notice that there was T intersection ahead and crashed through the fence. In January 2017 there was a non-injury crash when a car overtook a line of traffic on Otene Road and was hit by a car turning right in to Bennett. In December 2018 a vehicle attempted to turn left from Otene Road in to Bennett Road but the alcohol affected driver failed to make the turn and collided with a power pole at 4am.</p> <p>The one crash at the SH51 end resulted in minor injuries when a southbound driver failed to notice the car ahead had stopped and hit them from behind pushing them in to traffic on SH51 Karamu Road.</p> | | | |
| <p>Discussion</p> <p>Bennett Road is currently signed as 80km/h for the northern part, from Otene Road south for 630m and then it is 70km/h through to the intersection with SH51. By default the three side roads that intersect with Bennett Road are also 70km/h, Panapa Road, Apatu Road and Kauru Road.</p> <p>The safe and appropriate speeds have been calculated at 80km/h on the section posted as 80km/h, 60km/h on part of the 70km/h section and 40km/h on the section from Panapa Road south. Part of the reason for this appears to be that the ONRC classification changes along the road, with Bennett Road from Panapa Road south being classed as an access while to the north it is a secondary collector.</p> | | | |
|  <p><i>Bennett Road where speed limits drops from 80 to 70km/h</i></p> | | | |

At both ends Bennett Road has the same speed limit as the main roads that it intersects with however Otene Road forms part of this review and the speed limit on SH51 is also under review. There is a noticeable change in roadside development midway along Bennett Road that is reflected by the existing change in speed limit and at present this does seem like the correct place to change speed limits if a change is required.

The Safer Journeys Assessment Tool suggests no change to the northern part of Bennett Road which is currently 80km/h. While this does appear both sensible and logical we are aware of a school being proposed for the northern part of Bennett Road. The Ministry of Transport has recently announced that a new approach will be taken for speed limits outside schools and that in future all schools on rural roads should have a maximum speed limit of 60km/h. It is not known exactly where the school will be located but this would appear to be the main determinant of the posted speed limit on both sections of Bennett Road. A 60km/h speed limit on the northern section to replace the existing 80km/h speed is therefore the obvious solution.

When considered as an access road the safe and appropriate speed on the southern part of Bennett Road has been calculated as 40km/h. We are aware that NZTA are reviewing the speed limit on SH51 and it is possible that the existing 50km/h speed limit for urban Hastings will be extended beyond Bennett Road. It is therefore logical to make this section of Bennett Road 50km/h which would also then mean that Panapa Road, Apatu Road and Kauru Road would fall in to the 50km/h area.

Recommendations

Reduce speed limit on northern part of Bennett Road from 80 to 60km/h in light of school proposal
Reduce speed limit on southern part of Bennett Road from 70 to 50km/h

| Hastings District Council 2019 Speed Limit Assessment Brookfields Road | | | |
|--|---------------------|---|----------------------|
| From | Pakowhai Road | To | Napier City boundary |
| Section length | 2km | Reason for selection | Request to reduce |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 4,366 vpd | RAMM speeds (85th percentile) | 98km/h |
| Date of assessment | | | November 2019 |
| 5yr crash history | | | |
| <p>There have been 15 crashes on Brookfields Road in the last five year period. In 2017 there was a fatal crash 170m east of Gilbertson Road when an eastbound cyclist was hit by an eastbound truck. Narrow lanes were a factor but it was also noted that the cyclist was wearing dark clothing and had no lights or reflectors in low light conditions in early evening.</p> <p>Two crashes have occurred at the intersection with Pakowhai Road, both non-injury crashes in 2016. In one a motorcyclist fell off when braking approaching the give way and in the second the driver claims to have fallen asleep and driven straight through the intersection at 6:20am. From the Pakowhai Road intersection eastwards the following crashes have been recorded on Brookfields Road -</p> <p>2017 non-injury crash 330m east of Pakowhai Road when a westbound car pulled out to overtake a van but clipped it before driving off. 2018 minor injury crash when an unlocated car pulled out and forced another car off the road as it was overtaking and a 2018 non-injury crash when a car stopped to turn left onto Gilligan Road and was undertaken by a vehicle which struck it and left the scene. There was a 2014 minor injury crash when a learner driver hit the rear of a slow moving orchard vehicle in a shaded area. A 2016 non-injury crash occurred when an alcohol affected driver took their eyes off the road before crossing the centreline and rolling into the ditch 300m east of Gilligan Road.</p> <p>Two crashes have occurred on the 55km/h curve at Sisson Road. A 2014 non-injury crash when a northbound car with a fatigued learner driver lost control in the wet. In 2016 there was a non-injury crash when a southbound ute lost control on the bend in the wet after several hot and dry days.</p> <p>There have been five crashes related to the one lane bridge at the end of Brookfields Road -</p> <p>2015 non-injury rear end after a southbound vehicle failed to give way 2017 non-injury rear end when a northbound vehicle failed to realise how slow the vehicle ahead was travelling after giving way 2018 non-injury head on crash when a northbound vehicle failed to give way to southbound 2016 non-injury when a northbound car hit the rear of a vehicle stopped at the give way 2018 non-injury when two cars met on the bridge at low speed.</p> | | | |
| Discussion | | | |
| <p>Although the ONRC lists Brookfields Road as a secondary collector it plays an important role by way of being one of the few crossing points over the Tutaekuri River hence the relatively high traffic volume for this class of road.</p> <p>There are a number of anomalies with the Safer Journeys Risk Assessment Tool when looking at Brookfields Road. While the speed limit is 100km/h it is shown as 60km/h between Pakowhai Road and Gilbertson Road. With a Low-medium IRR on this section the safe and appropriate speed is also 60km/h. On the longer section between Gilbertson Road and the one lane bridge the Medium IRR results in a safe and appropriate speed of 80km/h. Further analysis shows that the difference in the IRR rating is due to the two sections being given different land use classifications. If they are rural towns then they both have an IRR of Low-medium, if they are rural residential then</p> | | | |

they both have a Medium rating. Having reviewed the Infrastructure Risk Rating Manual we believe that the correct classification should be rural residential for both.

The result of this is that the short section between Pakowhai Road and Gilbertson Road has a Medium IRR and the safe and appropriate speed drops to 40km/h. This is clearly an error and is due to the speed limit being incorrectly entered as 60km/h putting it in the urban bracket.

The one DSI crash on this route in the last five years was not speed related and in fact the crashes that appear as if they may have involved excess speed also involved vehicles leaving the scene of a crash so it is debateable whether a change in speed limit would alter that behaviour. As shown below, Brookfields Road has wide sealed shoulders which provide a safe area for cyclists but do not encourage slow vehicle speeds. The measured 85th percentile speed of 98km/h suggests that there could be compliance issues with a lower speed limit.




Brookfields Road looking towards Sisson Road

The curve at Sisson Road is signed with a 55km/h advisory speed. The advance signs are oversize and gated suggesting that there have been safety issues on this curve in the past. With a one lane bridge only 400m away reduced approach speeds to both would not be inappropriate. We therefore believe that Council should consider an 80km/h speed limit on Brookfields Road from Pakowhai Road to the one lane bridge.

The bridge over the Tutaekuri River forms the boundary between Hastings District and Napier City. Napier City Council should therefore be consulted on this proposal.

Recommendations

Consider reducing the speed limit on Brookfields Road from 100km/h to 80km/h.

| Hastings District Council 2019 Speed Limit Assessment Elwood Road | | | |
|--|-------------------|---|-------------------|
| From | Otene Road | To | SH51 |
| Section length | 1km | Reason for selection | Request to reduce |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low-medium |
| Posted speed limit | 70 and 80km/h | Safe and appropriate speed | 60 and 80km/h |
| RAMM traffic volume | 3,897vpd | RAMM speeds (85th percentile) | 84.6km/h |
| | | Date of assessment | December 2019 |
| <p>5yr crash history</p> <p>Over the last five years there have been four crashes at the intersection with Otene road, two of which resulted in serious injuries. In a 2015 crash a cyclist failed to give way when crossing from the cycle track and was hit by southbound car. A 2017 crash occurred when a car turned right from Elwood in to Otene Road and failed to give way to a southbound motorbike travelling below the 80km/h speed limit.</p> <p>The other two crashes were both minor injury, in 2016 when a car turning right from Otene Road failed to give way to a southbound vehicle, blamed on driver inexperience, and in 2018 when another cyclist failed to give way to a southbound car, this time at night.</p> <p>South of the intersection there was a non-injury crash in 2015 when a northbound car left the road just south of Otene Road when the driver was reaching for a tissue. A non-injury crash in 2016 when a driver turned from Otene Road and failed to notice that the road had just been resurfaced, braked and lost control. A non-injury crash in 2015 occurred when a driver was distracted by her cell phone and crossed the centre line in to the path of another vehicle.</p> <p>A third serious injury crash took place in 2017 when a southbound car drifted off the road at 4.30am, lost control and came to rest in a ditch on the opposite side of the road. Fatigue and alcohol were suspected in this crash.</p> | | | |
| <p>Discussion</p> <p>The Safer Journeys Risk Assessment Tool shows 800m of Elwood Road being subject to a 70km/h speed limit with the 200m prior to Otene Road being 80km/h. In fact the two speed limits are of almost equal length. The Tool shows that the safe and appropriate speed is 60km/h and 80km/h respectively which are the same outputs as the parallel Bennett Road.</p> | | | |
|  | | | |
| Elwood Road within 70km/h area | | | |


We understand that the speed limit on SH51 is being reviewed. It would appear that if NZTA want to alter the 70km/h speed limit then the options would be either 50 or 60km/h. Elwood Road is the closest side road to the start of the Hastings urban speed limit therefore it is most likely that this section will intersect with a 50km/h part of SH51. Like Bennett Road, it therefore makes sense to have the southern part of Elwood Road currently signed as 70km/h as 50km/h to be consistent.

The difference between Elwood Road and Bennett Road is that there is no school proposed on Elwood Road. For that reason the existing 80km/h on the norther section appears to be appropriate.

Recommendations

Consider reducing the existing 70km/h speed limit on Elwood Road to 50km/h.

| Hastings District Council 2019 Speed Limit Assessment Evenden Road | | | |
|--|-------------------|---|----------------|
| From | SH50A | To | Ormond Road |
| Section length | 320m | Reason for selection | Top 10% |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 3,976vpd | RAMM speeds (85 th percentile) | 73km/h |
| | | Date of assessment | September 2019 |
| <p>5yr crash history</p> <p>The five year crash history shows only one non-injury crash on this short link. In March 2018 an alcohol affected driver crossed the centre of the road and left the road to the right hitting a fence. There are however three crashes at the intersection with Ormond Road, including one which resulted in serious injuries. In this September 2017 crash a northbound motorcyclist over took two cars that were turning left but failed to see a car also turning right and collided with it.</p> <p>The other two crashes at the intersection were both non-injury. In one a northbound car locked its brakes when slowing on Ormond Street and went through the fence while in the other a southbound car failed to stop at the intersection and hit a car on Evenden Road.</p> | | | |
| <p>Discussion</p> <p>Only a short section of Evenden Road is shown as being in the top ten percent of sites. North of Ormond Road, Evenden Road becomes a secondary collector with a lower IRR band and is considered as part of the Twyford area speed limit review area. The recommendation is that the Twyford area becomes 80km/h. For the sake of consistency it is recommended that this section of Evenden Road is also reduced to 80km/h from the roundabout northwards.</p> | | | |
|  | | | |
| <p><i>Evenden Road looking south at Ormond Road intersection</i></p> | | | |
| <p>Recommendation</p> <p>Reduce the speed limit on Evenden Road from 100 to 80km/h to complement the Twyford area speed limit recommendations.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Gilbertson Road | | | |
|---|---------------------|---|-----------------|
| From | Pakowhai Road | To | Gilligan Road |
| Section length | 2.1km | Reason for selection | Top ten percent |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | High |
| Posted speed limit | 80km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 122vpd (estimate) | RAMM speeds (85th percentile) | 81km/h |
| Date of assessment | | | November 2019 |
| 5yr crash history | | | |
| <p>The one DSI crash on Gilbertson Road was in 2017 when a car turned left into Pakowhai Road and the driver failed to see a cyclist directly in front of them. The driver was attempting to join a gap in traffic at 7:45am. The cyclist received serious injuries.</p> <p>There have been six other crashes on Gilbertson Road, all of which took place on the only curve on the road 700m east of Pakowhai Road. Four crashes took place in 2015, a minor injury when a southbound vehicle lost control on a very wet road surface, a minor injury when a southbound vehicle lost control due to excessive speed and another minor injury when a car hit a power pole when Gilbertson Road was being used as a detour route. A non-injury crash occurred when a southbound driver failed to see the curve signs.</p> <p>In 2017 there was a minor injury crash involving a stolen car travelling northbound losing control in the wet and finally in 2018 a minor injury crash occurred when an alcohol affected driver lost control travelling northwards in heavy fog.</p> | | | |
| Discussion | | | |
| <p>The safe and appropriate speed on Gilbertson Road has been calculated as 60km/h due to the high personal risk. Personal risk is based on the number of injury crashes and it is noted that the 25km/h curve midway along the route has been the scene of five injury crashes in the last five years. The only other injury crash was the DSI crash at the intersection with Pakowhai Road which was not speed related and not really related to Gilbertson Road either. The road safety issues as such on Gilbertson Road would appear to be at the curve rather than the speed of vehicles elsewhere on the road. We do note that there was a lot of evidence of boy racer type activity on Gilbertson Road with extensive skid marks along much of the route. This would suggest that there may be speeding issues on this road however these are unlikely to be resolved by a reduction in the posted speed limit.</p> | | | |
|  | | | |
| Gilbertson Road | | | |

On site it is quite clear that this is a rural road and it would be difficult to achieve operating speeds of 60km/h. A reduction in potential DSI crashes could be achieved through improved delineation and this should be considered before installing an urban type 60km/h speed limit on a rural road. At present there are no road markings at all and no edge marker posts. Some hazards such as the concrete power pole shown below are located in the direct path of a vehicle that may miss the mild but currently unsigned curve.




Concrete power pole on outside of curve on Gilbertson Road

The crash history does highlight that the 25km/h curve is the main safety issue on this route. Consideration should be given to increasing the size of the advance warning signs, gating them on both sides of the road and improving the chevron signs on the curve itself.

Recommendations

Review delineation levels along Gilbertson Road.

Improve the signage at the right angle corner mid-way along Gilbertson Road.

| Hastings District Council 2019 Speed Limit Assessment Napier Road | | | |
|--|-------------------|---|----------------|
| From | SH51 | To | Havelock North |
| Section length | 5km | Reason for selection | Request |
| ONRC | Arterial | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Low |
| Posted speed limit | 80km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 4,249 to 7,675vpd | RAMM speeds (85th percentile) | 85 and 95km/h |
| Date of assessment | | | December 2019 |
| <p>5yr crash history</p> <p>There have been seven crashes on Napier Road in the last five years including one that resulted in a fatality. That crash was in January 2014 300m north of Romanes Drive when a southbound vehicle crossed the centreline on a right hand curve and collided head on with a northbound vehicle. No reason for the crash was identified on the TCR other than possible distraction or fatigue.</p> <p>From the north the other seven crashes were a 2016 non-injury when a car pulled over and performed a u-turn without checking the way was clear. A 2014 non-injury when a car slowed to perform a u-turn and was hit from behind just north of Lawn Road. A 2018 non-injury crash occurred when a car turned right from Lawn Road and failed to give way to southbound vehicle and then in 2016 a non-injury crash 300m north of Flanders Road when a sheep ran out in front of car and was hit.</p> <p>Two minor injury crashes occurred on the curve 800m north of Thompson Road. In 2016 a southbound car lost control on the curve and collided with a power pole. The alcohol affected driver was doing 100km/h on a 65 km/h curve in the wet at 2:30am. In 2015 another alcohol affected driver lost control on the curve, this time at 70km/h in a 30km/h temporary speed limit and rolled several times.</p> | | | |
| <p>Discussion</p> <p>The request was to review the speed limit on Napier Road to determine if the speed limit could be both lowered to 70km/h and raised back to 100km/h. For that reason we reviewed the full length of what is currently signed as 80km/h.</p> <p>The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 80km/h along the full route based on the development and IRR rating. This concurs with our view after driving the route. The options available are to increase the speed limit to 100km/h, retain the existing speed limit of 80km/h or reduce it to 60km/h.</p> | | | |
|  | | | |
| Napier Road approaching Thompson Road | | | |

Napier Road is well delineated and generally straight with wide shoulders. It does not give the impression of a fully rural route as do many others we have reviewed and therefore we do not believe that an increase in the speed limit should be sought. This would also be at odds with the Safer Journeys Risk Assessment Tool. Several surveys have been carried out with 85th percentile speeds of 85 and 95 km/h being recorded. The latter is a reflection of the rural aspect of the road while the former is the speed expected on a road subject to an 80km/h speed limit.

The wide shoulders, straight road, surrounding terrain and type of roadside development also mean that a 60km/h speed limit would be considered too restrictive and would be unlikely to result in an increase in the level of safety. The request was to see if the speed limit could be reduced to 70km/h however NZTA will no longer allow any new 70km/h speed restrictions to be introduced. Based on this we believe the 80km/h speed limit should be retained as it is.

Due to the fact two crashes occurred on the same curve within the site we did consider safety improvements here. We noted that due to overgrown vegetation the chevron board on the curve north of Thompson Road was partially obscured and, as is common in Hastings, urban size signs were used on rural roads. Other than that Napier Road was one of the better quality roads reviewed as part of the speed limit assessment.




Curve sign obscured by vegetation

We also reviewed the location of the change between the 50 and 80km/h speed limits 120m north of the Romanes Drive roundabout. Due to the curve on Napier Road leading up to the roundabout and the development of the painted median this location does appear to be the most appropriate.

Recommendation

Retain the 80km/h speed limit on Napier Road.

| Hastings District Council 2019 Speed Limit Assessment Omarunui Road | | | |
|--|-------------------|---|-----------------|
| From | SH50 | To | Strome Road |
| Section length | 830m | Reason for selection | Top ten percent |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,458 vpd | RAMM speeds (85th percentile) | 81.9km/h |
| | | Date of assessment | November 2019 |
| <p>5yr crash history</p> <p>Only two crashes have occurred on this section of road in the last five years, both non-injury. One took place in 2014 when a learner driver lost control while cornering. The second crash was in 2015 when a driver fell asleep and the vehicle left the road in to a power pole.</p> <p>There have been three non-injury crashes on the section between Strome Road and Swamp Road but no DSI crashes in last five years. This is outside the area highlighted as being a top ten percent site. It is not clear why the site has been considered a top ten percent site with no DSI crash history.</p> | | | |
| <p>Discussion</p> <p>The section of Omarunui Road that has been identified is the 800m section between SH50 and Strome Road. This primary collector has a Low-medium collective risk and Medium personal risk with a Medium IRR band. The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 80km/h on this section.</p> <p>Immediately east of the Strome Road intersection is a large culvert and from there a very deep ditch runs along the northern side of Omarunui Road for around half of its length. After an unsigned curve the ditch deviates off to the left however just after the same curve tangent there is an electricity pylon with two of its legs less than 3m from the edge line, protected only by a wooden sight rail. The ditch, associated driveway culvert shown below and the pylon are significant hazards on this section of Omarunui Road.</p> | | | |
|  | | | |
| <p><i>Deep ditch and access culvert on Omarunui Road</i></p> | | | |



Electricity pylon within 3m of edge line on Omarunui Road

Given the hazards on this short section of road and fact that it is approaching a T intersection where the main road has a lower speed limit the introduction of what is in affect a buffer speed limit is potentially warranted. We do feel however that other work is also required on this short section of road to reduce the potential for a serious injury crash in addition to a reduced speed limit.

Recommendations

Review delineation levels along Omarunui Road, particularly for the curve midway between Strome Road and SH50.

Consider reducing the speed limit from 100 to 80km/h on Omarunui Road between Strome Road and SH50 once delineation improvements have been completed.

Consider installing road side barriers to protect motorists from the large vertical face culvert and the electricity pylon within this length of Omarunui Road.

| Hastings District Council 2019 Speed Limit Assessment Otene Road | | | |
|--|---------------------|---|-------------------|
| From | Elwood Road | To | Ruahapia Road |
| Section length | 1.3km | Reason for selection | Request to reduce |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Medium |
| Posted speed limit | 80km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 819vpd | RAMM speeds (85th percentile) | 83km/h |
| Date of assessment | | | December 2019 |
| 5yr crash history | | | |
| <p>Crashes at the intersection with Elwood Road are detailed under that section of this appendix. On Otene Road itself there have been seven crashes over the last five years excluding those at the intersection of Ruahapia Road. We have ignored this intersection as fundamental changes have been made to its layout with the opening of the Whakatu arterial link meaning all previous crashes are now irrelevant.</p> <p>From the Elwood Road end the first crash was in 2018 when a car slowed to turn right into the rugby club west of Bennett Road and then began turning as it was being overtaken. This was a non-injury incident. In 2015 a non-injury crash occurred when a drug affected driver overtook a northbound car on the left and hit a vehicle parked on the grass verge.</p> <p>There have been three non-injury crashes at the intersection with Bennett Road. One in 2016 occurred when a northbound driver on Bennett Road failed to see the T intersection ahead and drove straight through it while travelling at 100km/h in the 80km/h area. In 2017 an eastbound ute overtook a line of traffic and collided with a vehicle turning right in to Bennett Road and in 2018 a drunk driver lost control turning left from Elwood Road in to Bennett Road at 4am.</p> <p>In 2014 there was a non-injury crash after an alcohol affected driver hit an object on the shoulder while doing burn outs at 8am on Sunday morning. The only injury crash of the seven reported crashes was between Bennett Road and Ruahapia Road and involved a vehicle slowing to turn right in to a driveway being rear ended by an inexperienced restricted licence holder who was following too close.</p> | | | |
| Discussion | | | |
| <p>Otene Roads links Elwood Road to Ruapahia Road. With the Whakatu arterial link road recently opened the intersection with Ruahapia Road is no longer an intersection providing access to or from the north but is simply a connection on a 90° corner. This change has fundamentally altered the function of Otene Road as well as the volume of traffic which will now be substantially less than that noted in RAMM.</p> <p>Otene Road is currently subject to an 80km/h speed limit as are both Elwood Road and Ruahapia Road. Based on the pre Whakatu details the safe and appropriate speed was calculated as 80km/h which is on a par with the measured 85th percentile speed. With Elwood Road and Ruahapia Road both being recommended to retain their 80km/h speed limits the same is true for Otene Road.</p> | | | |
| Recommendation | | | |
| Retain the 80km/h speed limit on Otene Road between Elwood Road and Ruahapia Road. | | | |

Hastings District Council 2019 Speed Limit Assessment

Pakowhai Road

| | | | |
|----------------------------|--------------------------------|---|--------------------------------|
| From | 240m south of Brookfields Road | To | 640m north of Brookfields Road |
| Section length | 880m | Reason for selection | Request |
| ONRC | Arterial | IRR Band | Low |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 60km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 9,488vpd | RAMM speeds (85th percentile) | 83.4km/h |
| | | Date of assessment | December 2019 |

5yr crash history

There have been four crashes on the 60km/h section of Pakowhai Road in the last five years –

2017 non-injury crash when a southbound 4WD swerved off the road for no apparent reason 100m north of Chesterhope Road and collided with a power pole. A 2016 non-injury crash occurred when a stolen vehicle was found after having left the road and hit a power pole just north of Brookfields Road. A 2017 non-injury crash took place at 5:30am when the southbound driver fell asleep and left the road. Finally, a crash in 2018 resulted in minor injuries after a driver accelerated to 140km/h when Police were following him. The driver swerved to avoid a car at Brookfields Road and lost control leaving the road.

Discussion

The request was to review the existing 60km/h section of Pakowhai Road and determine whether it is correct or whether it should be increased to 80km/h. With Low-medium collective and personal risk and a Low IRR ranking the safe and appropriate speed is shown as 60km/h on the Safer Journeys Risk Assessment Tool. We note that the 60km/h zone in the Tool is 2.2km long while the real length is only 880m.

The 85th percentile speed indicates that people are not travelling at this speed and the road itself looks no different to the 80km/h section either side. To a motorist it is difficult to see why there is a 60km/h speed limit at this location which is why compliance appears to be low. Due to the potential result of increasing this speed limit to 80km/h we have reviewed the Safer Journey Assessment Tool in more detail.

Because this section of road has a 60km/h speed limit it is classed as urban and a score of 1.57 results in the Low ranking. If rural then the same score would result in a Medium ranking as shown in Table 3-1 reproduced below.

| IRR Score | Rural | Urban |
|-------------|-------------|-------------|
| 0 to <0.8 | Low | Low |
| 0.8 to <1.2 | Low-Medium | Low |
| 1.2 to <1.6 | Medium | Low |
| 1.6 to <2.0 | Medium-High | Low-Medium |
| 2.0 to <2.4 | High | Medium |
| 2.4 to <2.8 | High | Medium-High |
| 2.8+ | High | High |

While the IRR rating is higher the change from urban to rural means that a different classification table is used in the guide and the safe and appropriate speed on this arterial becomes 80km/h (Table 2.2, 3rd line) compared to the 60km/h on the urban table (Table 2.1, 2nd line).

Although 60km/h is an urban speed limit observations show that the road is rural and the 85th percentile speeds suggest that motorists see it the same way.

Without knowing the history it would appear that the Pakowhai School on Chesterhope Road may be one reason for wanting a lower speed limit on this section of Pakowhai Road. Unfortunately, other than the 60km/h signs there is little to distinguish the road either side of the speed limit change due to the use of the flush median.


If Council wishes to retain the 60km/h speed limit then some work is required to encourage slower speeds. This work could include larger speed limit signs, a narrowing down of the road at the speed limit signs, coloured markings at the threshold, signage to indicate a school in both directions and a possible right turn bay at Chesterhope Road.

Without some additional work to alter the perception of motorists on Pakowhai Road to encourage lower speeds the 60km/h speed limit will continue to be somewhat ineffective. This can lead to a reduction in the level of safety due to the larger variance in vehicle speeds. This is not seen in the crash data however so while the speed limit does appear as if it should be 80km/h there would be a number of issues through the engagement and consultation process if Council tried to raise it from 60km/h. We therefore recommend that steps are taken to encourage lower traffic speeds through this section of Pakowhai Road.

Recommendations

Additional speed management devices are required to encourage improved compliance with the 60m/h speed limit on Pakowhai Road. Without their introduction consideration should be given to reverting back to an 80km/h speed limit.

Signage to indicate a school on the side road should be increased and consideration given to providing a right turn bay/pocket in the flush median at Chesterhope Road.

| Hastings District Council 2019 Speed Limit Assessment Watson Road, Paraire Road and Waipatu Settlement Road | | | |
|--|-----------|----------------------------|-------------------|
| From | SH51 | To | End |
| Section length | 450m each | Reason for selection | Request to reduce |
| ONRC | Access | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 80km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | Varies | RAMM speeds | Varies |
| | | Date of assessment | September 2019 |
| 5yr crash history | | | |
| There have been no crashes recorded on any of these three roads in the last five years. | | | |
| Discussion | | | |
| These three roads have been considered together as they are all parallel no through roads that intersect with SH51 in Waipatu. They all provide the same access function and are all currently signed as 80km/h having been reduced from 100km/h in 2014. | | | |
| The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 80km/hr on all three roads, consistent with the posted speed limit. | | | |
| We are aware that NZTA are reviewing the 80km/h speed limit on SH51 and while the 50km/h speed limit may be extended from Hastings it is unlikely to extend as far as these three side roads. With 70km/h no longer a speed limit option it is most likely that NZTA will look to reduce the speed limit here to 60km/h. | | | |
| All three of these roads provide access to a mix of residential and commercial premises. With none of them providing a through function traffic is likely to be related to that development and is likely to consist of regular users. | | | |
|  | | | |
| For a consistent approach if NZTA reduce the speed limit to 60km/h on SH51 then the same should be done on these three side roads. With an 85 th percentile speed of 49km/h on Waipatu Road and 52km/h on Paraire Road it is unlikely that measured speeds will change. | | | |
| Recommendation | | | |
| We recommend that the speed limits on Watson Road, Paraire Road and Waipatu Settlement Road are reduced from 80km/h to 60km/h. | | | |

| Hastings District Council 2019 Speed Limit Assessment Ruahapia Road | | | |
|---|-------------------|-----------------------------------|-------------------|
| From | Otene Road | To | SH51 |
| Section length | 1.3km | Reason for selection | Request to reduce |
| ONRC | Primary Collector | IRR Band | Medium-high |
| Collective Risk | Medium | Personal Risk | Medium |
| Posted speed limit | 80km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | Unk | RAMM speeds | Unk |
| | | Date of assessment | December 2019 |
| 5yr crash history | | | |
| Not reviewed due to recent changes | | | |
| Discussion | | | |
| As a result of the new Whakutu Link Road, Ruahapia Road has fundamentally changed in function and use. It now serves as an access road to the businesses and residences along it and is closed off at the Otene Road end. | | | |
| This part of Ruahapia Road can now be considered alongside Otene Road where the Safer Journeys Risk Assessment tool suggests that 80km/h is a safe and appropriate speed. Given the speed limits on both roads are 80km/h it would appear logical to retain this speed limit, regardless of what NZTA do at the SH51 end. The next speed limit below 80km/h is 60km/h and Ruahapia Road would be some way from that being an achievable travel speed. | | | |
| It should be noted that since the closure of Ruahapia Road at one end there has been an increase in boy racer type behaviour along this road. A change in the posted speed limit is unlikely to alter driver behaviour on this route but there could be an increase in crashes which should be monitored. | | | |
| Recommendation | | | |
| Retain the 80km/h speed limit on Ruahapia road. | | | |
| Monitor use of Ruahapia Road since its closure at Otene Road | | | |

| Hastings District Council 2019 Speed Limit Assessment Te Mata Mangateretere Road | | | |
|---|-----------|---|-------------------|
| From | Lawn Road | To | Waimarama Road |
| Section length | 5.5km | Reason for selection | Request to reduce |
| ONRC | Arterial | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 100km/h |
| RAMM traffic volume | 2,727 vpd | RAMM speeds (85th percentile) | 101km/h |
| Date of assessment | | | November 2019 |
| <p>5yr crash history</p> <p>Te Mata Mangateretere Road was the scene of a fatal crash in August 2014. At 4am on a Sunday morning a southbound car lost control on the second part of the reverse curve 400m north of Te Mata Road. The car impacted with a culvert before colliding with a concrete power pole. Alcohol was suspected in this crash which occurred as an estimated speed in excess of 120km/h.</p> <p>There have been eight further crashes on Te Mata Mangateretere Road in the last five years, all but one resulted in no injury. These are listed below from north to south -</p> <p>2017 non-injury just south of the Lawn Road roundabout when a car commenced overtaking a slow moving truck in foggy conditions at the same time as the truck commenced to overtake a slow moving harvester. The truck clipped the rear of the car which then left the road and collided with a post.</p> <p>2015 non-injury when an alcohol affected driver turned right in to Thompson Road and lost control before driving through fence and in to a tree.</p> <p>2015 non-injury crash when a dog ran out in front of a car south of Thompson Road and was run over.</p> <p>2018 non-injury when a driver was found asleep at the wheel having left the road and come to rest against the hedge</p> <p>2018 non-injury crash when vehicle pulled left before turning right in to a driveway but did so without seeing vehicle approaching from behind and turned across its path.</p> <p>2014 non-injury when a car attempted to overtake two others but was forced to pull in between them due to oncoming traffic. Car hit the first car and then pulled out again causing oncoming vehicle to leave the road.</p> <p>2016 non-injury crash when the driver of a southbound stock truck fell asleep and left the road on an easy curve 700m north of Te Mata Road at 4pm causing the truck to roll on to its side.</p> <p>The minor injury crash was in 2016 when a southbound car on Te Mata Mangateretere turned right in to Te Mata Road and failed to give way to a northbound car on Waimarama Road. The crash was attributed to inattention and occurred early on a Sunday afternoon in fine weather conditions. Two other crashes have been recorded at this intersection but they did not involve traffic on Te Mata Mangateretere Road.</p> | | | |
| <p>Discussion</p> <p>During our round of site inspections Te Mata Mangateretere Road was noted for the high quality of both the delineation and the road surface which were deemed appropriate for its arterial status. Other than the cresting reverse curve that was the scene of the fatal crash in 2014 the road is generally straight with a few very mild curves. The shoulder width varies but is clearly defined and relatively flat. The surrounding environment is mostly orchards with a number of rural properties where the lack of high hedges or stands of trees adjacent to the carriageway leaves a wide open view and lack of side friction. The primary hazard on the route is the power poles on the eastern side of the road spaced approximately every 70m.</p> <p>The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 100km/h. We note that the Safer Journeys Risk Assessment Tool shows Te Mata Mangateretere Road as 100km/h north of Thompson Road and 80km/h south of it when in fact only the last 200m of the road prior to Te Mata Road is signed as 80km/h. The two sections have different IRR bands, different risk ratings and thus different calculated safe and appropriate speeds so we have reviewed that data.</p> | | | |

The IRR rating is Medium in the section south of Thompson Road due to an increase in access density and a higher rating for roadside hazards. The reason the safe and appropriate speed has fallen though is due to the collective risk moving from Low to Medium and the personal risk moving from Low to Medium-high. Both collective and personal risk are based on the number of fatal and serious injury crashes over a length of road. If the full length of Te Mata Mangateretere Road is considered then the collective risk would be Medium, personal risk Medium-high and the safe and appropriate speed 80km/h.

This calculation is based on a single crash that involved excess speed and alcohol and occurred on a curve that is out of context to the remainder of the route. When data is updated again in 2020 this crash will not be counted as it will be outside the standard five year period. Without that particular crash the safe and appropriate speed would be 100km/h.

Notwithstanding the power poles on one side of this arterial road, if any roads within the district are suitable to retain the current 100km/h speed limit then this would be one of them due to its alignment and quality. The out of context curve is signed as such, the only other consideration would be that there are around 70 accesses along the approximate 5.5km length. There has been one crash recorded involving a vehicle turning in to the side road.

Previous speed surveys have found an 85th percentile speed of 103km/h (2009) and 101km/h (2018) on Te Mata Mangateretere Road, These further suggest that the status quo should remain in regard to the posted speed limit.




Te Mata Mangateretere Road looking south

We have noted the curve delineation at the site of the fatal crash. Both curves are provided with PW66 four bar chevron signs but like many other routes within the district urban sized signs have been used. While we are not suggesting that these are replaced a consistent method of treatment should be used across the network as these make a significant difference to night time delineation. At this particular curve we do recommend the addition of PW67 single chevron signs on the left hand curve in the southerly direction due to the cresting nature of the curve and an inability to see the exit.

Recommendation

Retain the 100km/h speed limit on Te Mata Mangateretere Road.

Consider additional PW67 single chevron signs on the reverse curve north of Te Mata Road.

| Hastings District Council 2019 Speed Limit Assessment Whakatu Road | | | |
|--|----------------|-----------------------------------|--------------------|
| From | Roundabout | To | Anderson Road |
| Section length | 570m | Reason for selection | Top ten percent |
| ONRC | Arterial | IRR Band | Medium/Medium-high |
| Collective Risk | Low and Medium | Personal Risk | Low and Medium |
| Posted speed limit | 80km/h | Safe and appropriate speed | 80km/h and 60km/h |
| RAMM traffic volume | 2,107vpd | RAMM speeds | Unknown |
| | | Date of assessment | November 2019 |
| <p>5yr crash history</p> <p>There have been five crashes on Whakatu Road in the last five years. In 2017 there was a non-injury crash when a car turned right to head south at the intersection with Rangitane Road at too high a speed in the wet, lost control and slid in to a lamp column.</p> <p>In 2016 there was a minor injury crash on the section of Whakatu Road north of the rail crossing when the car left the road with the driver claiming that he swerved to avoid a cat.</p> <p>Three crashes have occurred at the curve where Whakatu Road intersects with Anderson Road, a 2014 non-injury crash when a car turned left in to Anderson Road and lost control on the wet surface hitting a power pole on the outside of bend, a 2015 non-injury crash when a car lost control turning right when it appears to have been racing another and finally a non-injury crash in 2017 when a truck with an inexperienced driver turned right and the trailer hit the rail crossing signals.</p> | | | |
| <p>Discussion</p> <p>Whakatu Road is included in the review due to part of it being classed as a top ten percent site. The road consists of two parts, a straight connecting the new roundabout with Rangitane Road and from a right turn bay another straight connecting with Anderson Road. It is this second part that is in the top ten percent of sites. Four of the five crashes occurred at the two intersections which are both sharp 90° corners. At Anderson Road the curve is immediately south of a railway line. This curve is signed with a PW16 sign in advance but no advisory speed is provided. The curve itself has chevron signs in one direction but again no indication of a safe speed in what is currently an 80km/h speed zone.</p> | | | |
|  | | | |
| <p><i>Whakatu Road looking south towards rail crossing</i></p> | | | |


The Safer Journeys Risk Assessment Tool shows a safe and appropriate speed of 80km/h on one leg and 60km/h on the other. The difference is primarily due to the higher collective and personal risk on one leg due to the recent crash history. We did note however that both links have been classed as rural residential when they are in fact industrial in nature. If this is corrected then the safe and appropriate speed is 100km/h on one leg and 80km/h on the other. This indicates that the existing speed limit is perhaps correct through this industrial area.

Recommendation

Retain the existing 80km/h speed limit on Whakatu Road but review the delineation at the intersection with Anderson Road.

Appendix F Clifton area speed limit review


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| Tuki Tuki Road | 14 |

| Hastings District Council 2019 Speed Limit Assessment Clifton Road between Cape View and Te Awanga | | | |
|---|-------------------|----------------------------|------------------|
| From | Cape View 50km/h | To | Te Awanga 50km/h |
| Section length | 1,500m | Reason for selection | Top 10% DSI |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 2,141 | RAMM speeds | Not known |
| | | Date of assessment | September 2019 |
| <p>5yr crash history</p> <p>There have been three crashes recorded on this section of Clifton Road in the last five years. In January 2014 there was a serious injury crash within this section when a northbound car drifted left off the road before losing control and hitting a power pole with the driver then being thrown from the vehicle. Excessive speed and excess alcohol were the main factors in this crash which is the one that causes it to be on the top ten percent list.</p> <p>In 2016 there was a minor injury crash when a car left the road and rolled on a Sunday afternoon with no reason provided. A non-injury crash occurred in 2018 when an alcohol affected driver drove on a flat tire until it shredded and then he drove into a bridge abutment.</p> | | | |
| <p>Discussion</p> <p>The section of road highlighted in the Safer Journeys Risk Assessment Tool as being in the top ten percent of sites is a 670m section of Clifton Road located between Cape View and Te Awanga. It starts 250m south of the Cape View 50km/h speed limit and ends approximately 600m prior to the 50km/h speed limit at Te Awanga. While only the middle section has the high DSI rating the full length from Cape View to Te Awanga has the same safe and appropriate speed of 80km/h and we have therefore treated it as one length.</p> | | | |
|  | | | |
| <p><i>Clifton Road showing shared path and beach access</i></p> | | | |
| <p>Clifton Road provides direct access to the beach in a number of places and has a campsite and the popular Elephant Hill vineyard within its length. Give the mixed use of this road including cyclists and horses we support the speed limit being reduced to better reflect the safe and appropriate speed of 80km/h.</p> | | | |

Recommendation

Introduce an 80km/h speed limit between the 50km/h speed limits at Cape View and Te Awanga.



| Hastings District Council 2019 Speed Limit Assessment Clifton Road at Te Awanga | | | |
|--|---------------------------|---|--------------|
| From | 120m south of Kuku Street | To | End of road |
| Section length | 1.6km | Reason for selection | Top 10 % DSI |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 505 | RAMM speeds (85th percentile) | 81km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>There have been two crashes recorded on this section of Clifton Road in the last five years. In January 2015 there was a single vehicle serious injury crash when an un-helmeted rider left the road on a borrowed motorcycle and collided with a fence strainer post. Both speed and alcohol were factors in this crash which is the one that causes this site to be on the top ten percent list.</p> <p>In December 2018 there was a head on crash within this section when an American tourist was returning from a gannet tour and was driving on the wrong side of the road when he hit an oncoming car. This crash resulted in minor injuries.</p> | | | |
| <p>Discussion</p> <p>Whilst the Safer Journeys Risk Assessment Tool identifies this as a standalone section, for all other measures the link is the same as for the other section of Clifton Road, with no recognition of the 50km/h speed limit in Te Awanga. For that reason the safe and appropriate speed is also 80km/h. This section of Clifton Road is a cul-de-sac and clearly has mixed use with pedestrians, cyclists, horses and tourists present. We therefore support the speed limit being reduced to better reflect the safe and appropriate speed.</p> <p>We note that one of the two crashes was caused by a tourist who had just been on a gannet tour. With this being a popular tourist attraction and the road being relatively lightly trafficked council may wish to install measures to remind tourists leaving the car park of what side of the road to drive on.</p> <p>A significant safety concern is the treatment at the end of Clifton Road where the car park is located. A PW17 curve warning sign is provided with a 35km/h supplementary plate. The curve has no further delineation and the road becomes a car park within the curve with an access to the Clifton Motor Camp. We are surprised to find no history of crashes here given that there is no warning that the road ends.</p> | | | |
|  | | | |
| View of end of Clifton Road | | | |



Entering Te Awanga from the south


The image above shows the starts of the 50km/h speed limit and the speed hump immediately behind it with a 20km/h advisory speed. Even if the speed limit is reduced to 80km/h it is likely that vehicles will enter the lower speed area at a speed greater than 50km/h. There is a risk due to the limited separation between the speed limit change point and speed hump that would be reduced if the speed limit was extended by around 30m to the south. This should be considered regardless of the result of consultation on the potential speed limit change out to the end of the road.

There are three curves within the site that are provided with curve warning signs. All three would appear to warrant an advisory speed of some kind, even if the speed limit is reduced to 80km/h.

The 85th percentile speed of 81km/h was recorded between Charlton Road and the car park and indicates that vehicles are already traveling at or under the safe and appropriate speed thus this change to the posted speed limit should make little difference to most users.

Recommendations

Introduce an 80km/h speed limit from the 50km/h speed limit at Te Awanga through to the end of Clifton Road.
Extend 50km/h speed limit by 30m to the south to increase separation from the speed hump.
Consider messages to remind drivers leaving the car park of the correct side of the road to drive on.
Review the level of warning provided to inform motorists that the road ends.
Review the need for advisory speeds to be installed at the curves that are provided with curve warning signs.

| Hastings District Council 2019 Speed Limit Assessment East Road | | | |
|---|-------------------|---|---------------|
| From | Rockwood Place | To | Parkhill Road |
| Section length | 440m | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 3,625 | RAMM speeds (85th percentile) | 80km/h |
| Date of assessment | | | November 2019 |
| <p>5yr crash history</p> <p>The four crashes on East Road in the last five years all took place at the intersection with Parkhill Road which is on the outside of a corner signed with a 35km/h advisory speed.</p> <p>The only injury crash was minor and took place in 2018. In this crash an alcohol affected driver entered the left hand curve at approximately 70km/h in the wet. A non-injury crash took place in 2014 when a vehicle lost control on the curve when heading away from Clifton. This crash was believed to have been due to the driver performing a burnout. The other two crashes were in 2016 and 2017 and both were non-injury involving learner drivers losing control on the right hand curve in the wet.</p> | | | |
| <p>Discussion</p> <p>The 50km/h speed limit was extended by 185m in 2019 due to development along East Road leaving 440m between the speed limit change point and the 35km/h right angle curve that is also a T intersection with Parkhill Road. Within this length there is a car museum and a large egg producing facility and development continues. Due to the curve and the short distance between it and the start of the 50km/h speed limit any speed limit reduction would be more logical if it started on Parkhill Road north of the intersection. The ratings given by the Safer Journeys Risk Assessment Tool for Parkhill Road are similar to East Road, albeit with slightly higher collective and personal risk at low-medium, and show a safe and appropriate speed of 80km/h.</p> | | | |
|  | | | |
| <p><i>East Road looking north</i></p> | | | |
| <p>It would appear appropriate to commence the 80km/h speed limit at or just before the start of the right turn bay for the intersection which is 100m north of East Road on Parkhill Road therefore the full length of 100km/h speed limit on East Road should be reduced to 80km/h.</p> | | | |



Parkhill Road looking east

The image above is taken from that approximate position and shows the sharp left hand curve and intersection directly ahead. The recommendation for this is contained in the Parkhill Road section that follows.

Recommendations

Reduce the 440m length of 100km/h speed limit on East Road to 80km/h.

| Hastings District Council 2019 Speed Limit Assessment Haumoana Road | | | |
|---|-------------------|---|-----------------------------------|
| From | Mill Road | To | Existing 50km/h speed limit signs |
| Section length | 540m | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 3,625 | RAMM speeds (85th percentile) | 80km/h |
| Date of assessment | | | November 2019 |
| Syr crash history <p>In the past five years, two crashes took place at Mill Rd / Tuki Tuki Rd/ Haumoana Rd intersection. One minor injury crash happened involving a vehicle travelling southbound, attempting to turn right into Tuki Tuki Road, failing to see oncoming cyclist on Mill Road, and colliding with the cyclist. Sunstrike was considered a factor in the crash.</p> <p>Five crashes took place at Haumoana Rd / Parkhill Rd intersection resulted in 1 serious injury, 1 minor injury and 3 non-injury. Four of those crashes involving traffic traveling from Parkhill Road toward Haumoana Road, losing control on the curve.</p> <p>The serious injury crash involved a motorcyclist riding at night. The motorcyclist applied his brakes to slow down at the curve, causing his rear tires to slide out, hitting the traffic island and give way sign. Excessive speed was a contributing factor to this crash.</p> | | | |
| Discussion <p>The Safer Journeys Risk Assessment Tool indicates a safe and appropriate speed of 80km/h within the section under review. Due to the proposed speed limit reductions on Mill Road and Parkhill Road, combined with the 90degree curves on Haumoana Road at it's intersection with Mill Road and Parkhill Road, adopting a consistent 80km/h speed limit through here is deemed appropriate.</p> <p>A minor modification to the 50km/h extents is also proposed to move the speed limit change further from the right hand curve and residential properties to achieve improved speed limit adherence through the 50km/h zone.</p> | | | |
| Recommendations <p>Extend the 50km/h speed limit a further 50m south from the current 50km/h speed limit signs. Reduce the speed limit from 100km/h to 80km/h from the proposed 50km/h extents to the intersection with Mill Road.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Lawn Road | | | |
|---|-------------------|---|-------------------|
| From | Napier Road | To | Mill Road |
| Section length | 4km | Reason for selection | Top 10% of routes |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,530 vpd | RAMM speeds (85th percentile) | 89.5km/h |
| Date of assessment | | | November 2019 |
| <p>5yr crash history</p> <p>There have been eleven crashes on Lawn Road in the last five years. One crash resulted in serious injuries hence this section of road being classed as a top ten percent site. This crash occurred in 2014 and involved a northbound motorcycle at the roundabout intersection with Pilcher Road. The rider slowed to 30km/h before entering the roundabout but then had to brake due to the pillion passenger. This caused a loss of control and the bike went down and skidded in to the kerb. The rider received serious injuries in this dry road Sunday afternoon crash.</p> <p>The other ten crashes are listed below in order from the Napier Road end.</p> <p>2018 non-injury crash when a car turned right out of Lawn Road and failed to give way to a southbound vehicle on Napier Road.</p> <p>Minor injury crash in 2018 when an unlicensed rider south on Pilcher Road rode straight over the central island of the roundabout at 9pm after drinking and taking drugs.</p> <p>2014 non-injury when a southbound car lost control on an easy curve north of Pilcher Road in wet and foggy conditions.</p> <p>2014 non-injury when a car entered a 30km/h road works site too fast and lost control on the unsealed surface when trying to avoid a slow moving vehicle ahead.</p> <p>2014 minor injury crash when a southbound car towing a trailer left the road on a straight and hit a power pole. This crash was believed to be due to a medical condition.</p> <p>Two non-injury crashes in 2018 when southbound cars slowed to turn right in to driveways and were hit from behind.</p> <p>2017 non-injury crash where a southbound car lost control and left the road. Driver stated he swerved to avoid another vehicle that did not stop.</p> <p>2018 non-injury crash when a car hit a number of black cows that had strayed on to the road around midnight.</p> <p>2017 minor injury when a northbound car slowed for the roundabout at Mill Road and was rear ended by a following vehicle.</p> <p>The only serious injury crash was at low speed and was unrelated to the posted speed limit. Lower travel speeds may have influenced some of the other crashes but with eight out of ten being non-injury information is limited.</p> <p>We have also looked at the four non-injury crashes reported in 2019. In June there was a crash at 2am when a car doing donuts on the roundabout at Pilcher Road lost control and went through a fence. Also in June there was a crash when a car was waiting to turn right in to a driveway when it was hit from behind by another vehicle at 6pm. In September there was a loss of control crash when a driver braked while overtaking and the brakes locked up having just been repaired/restored. Finally, in October, there was a failure to give way crash at the intersection with Mill Road.</p> | | | |

Discussion

Lawn Road is noticeably straight but has narrow shoulders and a number of hazards close to the road, including power poles and ditches. There are a number of driveways along the route, both residential and to provide access to the numerous orchards. A number of crashes have occurred at these accesses, including in 2019. For a consistent approach it would appear that 80km/h may be the appropriate speed limit, matching the calculated safe and appropriate speed and on a par with the measured 85th percentile speed. We understand that a Crash Reduction Study has recently, been undertaken on this route.

Our site visit did note that it is unusual to find a roundabout on a 100km/h road in Hastings but there are two on Lawn Road, one at Te Mata Mangateretere Road/Pilcher Road and one at Mill Road. At Mill Road there are additional signs to warn of an intersection ahead but there is nothing to warn of the roundabout at Te Mata Mangateretere Road. The destination signs in advance of the intersection provides no indication that it is a roundabout and should be reviewed.

The traffic volumes change either side of the Pilcher Road roundabout with 1,530vpd to the west and 4,562 to the east. Lawn Road connects to Mill Road and forms part of the route from Hastings to Haumoana and the Cape gannet colony, both popular tourist destinations.



View of Lawn Road showing hazards on both sides of the road



Incorrect style of sign for approach to roundabout on Lawn Road



Correct style of sign for approach to roundabout (Mill Road)

Recommendations

Consider reducing the speed limit on Lawn Road from 100 to 80km/h between Napier Road and Mill Road.
Review the signage in advance of the two roundabouts on Lawn Road so that they show the roundabout.

| Hastings District Council 2019 Speed Limit Assessment Mill Road | | | |
|---|-------------------|---|-------------------|
| From | Lawn Road | To | Haumoana Road |
| Section length | 4km | Reason for selection | Top 10% of routes |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 5,321 | RAMM speeds (85th percentile) | 87km/h |
| | | Date of assessment | November 2019 |
| <p>5yr crash history</p> <p>The serious injury crash that results in this section of Mill Road being in the top ten percent of routes occurred in October 2017. A long queue had formed at the Lawn Road roundabout as competitors were leaving an all-day event at Clifton. One driver appears to have 'blacked out' due to fatigue and collided with the rear of this stationary line of traffic and received serious injuries.</p> <p>The other ten crashes are listed below in order from the Lawn Road roundabout.</p> <p>2015 non-injury crash where a car exited the roundabout at Mill Road and lost control while accelerating in the wet</p> <p>2016 minor injury where a southbound car failed to negotiate an easy left hand curve, lost control and rolled several times. High speed and alcohol were suspected.</p> <p>2018 minor injury where southbound car failed to negotiate an easy left hand curve and hit fence. Driver fatigue.</p> <p>2018 minor injury where northbound car failed to negotiate an easy right hand curve and left the road. Alcohol related.</p> <p>2017 non-injury crash where a car drove in to a bale of hay after it fell from the vehicle in front.</p> <p>2014 non-injury where a driver started to overtake a slow moving tractor but collided with the side of the bridge</p> <p>2018 non-injury where a driver slowed due to a slow moving tractor on the same bridge and was hit from behind.</p> <p>2018 non-injury where disqualified and alcohol affected driver left the road on a curve after a Christmas function and drove through a sight rail in to a paddock.</p> <p>2015 non-injury when a car lost control where the road turns left at Tuki Tuki Road. Believed to be speed related.</p> <p>2018 minor injury crash when car turned right from Mill Road in to Tuki Tuki Road and failed to see a cyclist due to the low sun at 7am.</p> | | | |
| <p>Discussion</p> <p>Mill Road is one of the better delineated roads in the area, matching its status as a primary collector. The reason that it is classed as a top ten percent route is due to an unusual serious injury crash that occurred in heavy traffic due to a one off special event. A change in speed limit may not have altered the outcome of that crash or reduced the likelihood of it actually happening.</p> <p>As shown on the following page there are edge and centre lines provided. The safe and appropriate speed has been calculated as 80km/h. Lower speeds approaching the roundabout at the Lawn Road intersection and the sharp curve at the Tuki Tuki Road intersection would provide safety benefits. Two relatively easy curves on the route that have a crash history also support lower speeds. In the middle of the section is the Black Bridge which is a pinch point for cyclists on this route.</p> <p>Together with Lawn Road, Mill Road forms part of the route from Hastings to Haumoana and the Cape gannet colony, both popular tourist destinations. The crash data suggests that signage improvements may be of value at the two curves which should be reviewed on site.</p> <p>With the recommendation being for an 80km/h speed limit on Lawn Road the data suggests the same should be done on Mill Road to provide a consistent route treatment.</p> | | | |



Mill Road looking south towards Tuki Tuki Road intersection

Recommendations

Review the curve signage on Mill Road, including at the intersection with Tuki Tuki Road as Stage 1.
Consider reducing the speed limit on Mill Road from 100 to 80km/h between Lawn Road and Tuki Tuki Road as Stage 2.

| Hastings District Council 2019 Speed Limit Assessment | | | | |
|---|---------------------|---------------------|---|---------------------|
| Parkhill Road | | | | |
| | From | Haumoana Road | To | Parkhill Road |
| | Section length | 3,740m | Reason for selection | Request |
| | ONRC | Secondary Collector | IRR Band | Low |
| | Collective Risk | Low | Personal Risk | Low |
| | Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h (data error) |
| | RAMM traffic volume | 805vpd | RAMM speeds (85 th percentile) | 74km/h |
| | | | Date of assessment | November 2019 |


5yr crash history

Other than the four crashes at the intersection of East Road and Parkhill Road discussed above there are only two crashes recorded in CAS, both non-injury. One incident involved a car parked outside the school being damaged and the other was a learner driver who swerved to avoid two dogs on the road and rolled in to a ditch.

Discussion

The Safer Journeys Risk Assessment Tool has recorded a number of roads around Parkhill Road as having a 50km/h speed limit and thus treated them as urban roads with safe and appropriate speeds of 60km/h. The reality is that there are non-enforceable 50km/h signs indicating a ‘courtesy’ speed limit in place at the Haumoana School at the intersection of Parkhill Road and Raymond Road. If the true 100km/h existing speed limit had been picked up then the result would be a safe and appropriate speed of 80km/h.

With increasing residential development being taken off this no through route we would recommend that council does consider an 80km/h speed limit for its full length.



Parkhill Road looking north

It should be noted that Parkhill Road is a continuation of Mill Road and also intersects with Tuki Tuki Road. Both of these roads also form part of this speed limit review as part of the North East section.

The courtesy speed zone has no legal standing however during this review the Ministry of Transport announced changes to speed limits in New Zealand. The intention is that the MoT will require local authorities to reduce speed limits around schools to force lower travel speeds. At rural schools the maximum will be 60km/h. These changes

are not likely to come into effect until mid-2020 therefore Council may wish to hold off any changes on Parkhill Road until then.

Recommendations

Reduce the speed limit on Parkhill Road from 100 to 80km/h from from Haumoana Road through to the termination of the road south of Raymond Road

Install 80km/h (or 100km/h) signs on the rear of the 50km/h courtesy speed zone signs.

Review the implications to the school speed limit as a result of the November 2019 MoT announcement on tackling unsafe speeds.



Map of Parkhill Road area

| Hastings District Council 2019 Speed Limit Assessment Tuki Tuki Road | | | |
|--|---------------------|---|----------------|
| From | Mill Road | To | Waimarama Road |
| Section length | 5.2km | Reason for selection | Top 10 percent |
| ONRC | Secondary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | High |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 845vpd (north end) | RAMM speeds (85th percentile) | 80.1km/h |
| | | Date of assessment | November 2019 |
| <p>5yr crash history</p> <p>The two crashes at the intersection with Mill road were discussed in that section. These were a 2015 non-injury when a car on Mill Road lost control where the road turns left and a 2018 minor injury crash when a car turned right in to Tuki Tuki Road and failed to see a cyclist due to the low sun at 7am.</p> <p>There have been 12 crashes on the section highlighted as high risk. These are listed below from north to south.</p> <p>2017 minor injury crash when a northbound car left the road after the passenger pulled on the hand brake during an argument.</p> <p>A serious injury crash in 2015 400m south of Mill Road when a southbound driver had a sudden medical event on the bridge, crossed the centre line and collided head on with a northbound car.</p> <p>Non-injury crash in 2016 when an overseas orchard worker drove around a 55km/h curve on the wrong side of the road and collided with an oncoming vehicle.</p> <p>A second serious injury crash occurred in June 2016 when a southbound car failed to negotiate a sharp right hand curve and rolled in to a ditch in the wet at night. The driver left the scene but was taken to hospital by friends. Excess alcohol was a factor in this crash. The crash is shown as being 800m north of Tennant Road on a 55km/h curve. The curve 800m north of Tennant Road is actually a 35km/h curve therefore it is not clear where this crash occurred.</p> <p>There have been four crashes on the same curve 400m north of Tennant Road. All crashes were in the northbound direction on the curve signed with a 35km/h advisory speed. Two crashes were in 2016, both resulting in minor injury and then a non-injury crash in both 2015 and 2017.</p> <p>There was a non-injury crash in 2017 when an inexperienced driver was out for a practice when she pressed the accelerator rather than the brake and left the road just north of Tennant Road. There were three non-injury crashes on the curve 400m south of Raymond Road. In 2016 an alcohol affected driver claimed they swerved to avoid a black cat at 3am. Also in 2016 a northbound driver lost control turning in the wet. In 2018 a car that had been impounded due to various faults was driven too fast around the corner in the wet by an alcohol affected driver and subsequently lost control.</p> <p>While the high risk section of road stops at Moore Road we noted a further serious injury crash 500m south of that intersection where a motorcyclist travelling downhill lost control on a sharp right hand corner. There is only one other crash reported on Tuki Tuki Road which was 100m from the Craggy Range Road intersection. This 2016 non-injury crash was caused by a driver doing burn outs and drifting before colliding with a fence.</p> | | | |
| <p>Discussion</p> <p>A significant length of Tuki Tuki Road has been identified as a top ten percent site, 5.2km between Mill Road and Moore Road to the south. Tuki Tuki Road is a secondary collector with a Medium collective and High personal risk. The IRR band is Medium on this section. It is the collective and personal risk on this section that result in the Safer Journeys Risk Assessment Tool indicating the safe and appropriate speed is 60km/h. This speed would be very difficult to achieve on this route given the fully rural outlook as shown below.</p> | | | |



View of Tuki Tuki Road

The majority of crashes on Tuki Tuki Road were loss of control on bends that are out of context with the approaches. Some of these curves do appear to be well signed however others, particularly towards the southern end, are unsigned. Drivers travelling in excess of the curve speed would appear to be the primary cause, particularly in the wet or after drinking. On some of these sections of road 60km/h is likely to be the safe and appropriate speed however on others that would not be achievable or necessary.

Several speed surveys have been undertaken with 85th percentile speeds being recorded of 80.1km/h (north of Tennant Road), 97km/h (Raymond to Millar), 93km/h (Moore Road) and 74km/h (Craggy Range to Waimarama). There is a distinct change in character on Tuki Tuki Road either side of Moore Road. To the north on the section highlighted as a top ten percent site the road is generally straight with a number of individual small radius curves. To the south the road is very much more constrained by the terrain having numerous horizontal and vertical curves. The Safer Journeys Risk Assessment Tool considers the full length as one link therefore does not take account of the difference in roadside environment and impact on the IRR.

The collective and personal risk that results in the 60km/h safe and appropriate speed are directly related to the crash performance and history of DSI crashes. We have noted above that one serious injury crash was a head on crash due to one driver having a sudden medical event and drifting across the road in to the path of another. The second occurred when an alcohol affected driver failed to negotiate a 55km/h curve in the wet at night. Together with the serious injury crash further south a review of delineation along Tuki Tuki Road is likely to provide greater safety benefits than simply introducing a 60km/h speed limit on a rural road.

Whilst we do not believe that a 60km/h operating speed is going to be easily achievable on this route the introduction of an 80km/h speed limit will better reflect the desired operating speed and is something council may wish to want to pursue.

Recommendation

Consider reducing the speed limit on Tuki Tuki Road from 100 to 80km/h, from Mill Road to Waimarama Road. Review the delineation levels along Tuki Tuki Road with a particular focus on curves.


Appendix G Akina area speed limit review

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| Hastings District Council 2019 Speed Limit Assessment Algernon Road | | | |
|---|-------------|---|---------------------|
| From | Norton Road | To | End |
| Section length | 973m | Reason for selection | Request to reduce |
| ONRC | Access Road | IRR Band | Medium & Low Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 371vpd | RAMM speeds (85th percentile) | 70km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history There have been three non-injury crashes recorded along Algernon Road. A non-injury crash happened in 2018 involved a vehicle travelling from Norton Road lost control on a curve with Algernon Road. The other that happened in same year involved a vehicle travelling from Park Road South Street missed the intersection with Algernon Road The last crash happened in 2019 at the cul-de-sac and was a U-turn across crash type. | | | |
| Discussion Algernon Road is located on the south of Hastings. Algernon Road is split by Riverslea Road South, with a cul-de-sac to the north, and connects to Park Road South and Norton Road to the south. The Safer Journeys Risk Assessment Tool has identified a safe and appropriate speed of 80km/h on this road. The 85 th percentile speed of 70km/h along this route suggests that people are generally traveling close to the safe and appropriate speed. Our review supports a reduction in the posted speed limit from 100km/h to 80km/h. This includes considering roads in the immediate vicinity such as Riverslea Road South, Park Road South and Norton Road, which are also part of this speed limit review. | | | |
| Recommendations Reduce the speed limit on Algernon Road to 80km/h along the entirety of its length. | | | |

| Hastings District Council 2019 Speed Limit Assessment Davis Road | | | |
|--|--------------------|---|-------------------|
| From | Railway Road South | To | Riverslea Road |
| Section length | 751m | Reason for selection | Request to reduce |
| ONRC | Access Road | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80 km/h |
| RAMM traffic volume | 157vpd | RAMM speeds (85th percentile) | 72 km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history There was no crash recorded along Davis Road in the last 5 years. | | | |
| Discussion Davis Road is located on the south of Hastings, and is bounded by Railway Road South to the North and Riverslea Road to the South. The Safer Journeys Risk Assessment Tool has identified a safe and appropriate speed of 80km/h on this road. The 85 th percentile speed of 72 km/h along this route suggests that people are generally traveling close to the safe and appropriate speed. Our review supports a reduction in the posted speed limit from 100km/h to 80km/h. This includes considering the roads it connects to, Railway Road South and Riverslea Road, which are also part of this speed limit review. | | | |
| Recommendations Reduce the speed limit on Davis Road to 80km/h along the entirety of its length. | | | |

| Hastings District Council 2019 Speed Limit Assessment France Road | | | |
|---|--------------------|---|-------------------|
| From | Railway Road South | To | End |
| Section length | 405m | Reason for selection | Request to reduce |
| ONRC | Access Road | IRR Band | Low Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 44 vpd | RAMM speeds (85th percentile) | NA |
| | | Date of assessment | September 2019 |
| 5yr crash history There was no crash recorded along France Road in the last 5 years. | | | |
| Discussion France Road is located on the south of Hastings, and is a cul-de-sac. The Safer Journeys Risk Assessment Tool has identified a safe and appropriate speed of 80km/h on this road. Our review supports a reduction in the posted speed limit from 100km/h to 80km/h. This includes considering Railway Road South that it connects to, and is also part of this speed limit review. | | | |
| Recommendations Reduce speed limit on France Road from 100km/h to 80km/h for it's entire length. | | | |

| Hastings District Council 2019 Speed Limit Assessment Heathcote Road | | | |
|--|-------------------|---|-------------------|
| From | Maraekakaho Road | To | Southland Road |
| Section length | 1,100m | Reason for selection | Request to reduce |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 144vpd | RAMM speeds (85th percentile) | 87km/h |
| | | Date of assessment | September 2019 |
| <p>5yr crash history</p> <p>There are six crashes recorded at the intersection of Heathcote Road with Southland Road, four non-injury and two minor injury. All six crashes were related to the 90° corner signed with a 25km/h advisory speed at the intersection. There was one crash in 2015, one in 2016, one in 2017 and three in 2018. All but one crash occurred when it was dark.</p> <p>In July 2018 a northbound car with an alcohol affected driver failed to notice the intersection at the northern end of Heathcote Road and drove straight into the bank on the opposite side of Maraekakaho Road. This is the only crash that was not on the corner where Heathcote Road meets Southland Road which would appear to be the main crash related issue on this road.</p> | | | |
| <p>Discussion</p> <p>Heathcote Road is a fairly typical rural road on the outskirts of Hastings with power poles along one side and a relatively deep ditch on the other, with associated driveway culverts. Delineation consists solely of a centre line.</p> <p>At its northern end Heathcote Road intersects with Maraekakaho Road. The speed limit on this section of Maraekakaho Road was reduced to 80km/h in the most recent round of speed limit changes. At its southern end Heathcote Road intersects with Southland Road which also forms part of this current review.</p> | | | |
|  | | | |
| <p><i>Heathcote Road looking north from Southland Road</i></p> | | | |

The Safer Journeys Risk Assessment Tool has identified a safe and appropriate speed of 80km/h on this road. The 85th percentile speed of 87km/h along this route suggests that people are generally traveling close to the safe and appropriate speed.

Our review supports a reduction in the posted speed limit from 100km/h to 80km/h. This includes considering roads in the immediate vicinity such as Tollemache Road which provides a similar north/south function and is also part of this speed limit review.

A request was also received to reduce the speed limit on Wellwood Road. This is a 600m long cul-de-sac that intersects with Heathcote Road. It is logical that any speed limit change on Heathcote Road made as part of this review is also introduced on Wellwood Road.

Like many rural routes in Hastings we note that urban sized chevron signs are used on some corners. At the intersection of Heathcote Road and Southland Road these indicate a 25km/h curve. The number of crashes on this curve suggest that improvements could be made. With high approach speeds in both directions these signs should be the larger rural size. We note a number of crashes on this curve are due to vehicles trying to corner at too high a speed, indicating that improved signage would go a long way to improving safety on this route regardless of the posted speed limit.

We would also suggest a review of this intersection is undertaken due to the alignment and potential for it to be contributing to the crashes that have occurred here.

Recommendations

Reduce the speed limit on Heathcote Road to 80km/h.

Install larger curve signs at the intersection of Heathcote Road and Southland Road

Review the intersection layout of Heathcote Road and Southland Road.

| Hastings District Council 2019 Speed Limit Assessment Norton Road | | | |
|--|-----------------------------------|---|---------------------|
| From | Existing 50km/h speed limit signs | To | Algernon Road |
| Section length | 1,280m | Reason for selection | Request to reduce |
| ONRC | Access Road | IRR Band | Medium & Low Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,740vpd | RAMM speeds (85th percentile) | 72 km/h |
| | | Date of assessment | September 2019 |
| Syr crash history There was one crash recorded along this section of Norton Road, resulted in a minor injury. The crash happened involved a southbound vehicle lost control on curve with Algernon Road. | | | |
| Discussion Norton Road is located on the south of Hastings. This section of Norton Road intersects with Algernon Road and Tollemache Road. The Safer Journeys Risk Assessment Tool has identified a safe and appropriate speed of 80km/h on this road. The 85 th percentile speed of 72 km/h along this route suggests that people are generally traveling close to the safe and appropriate speed. Our review supports a reduction in the posted speed limit from 100km/h to 80km/h. This includes considering roads that it connects to, Algernon Road and Tollemache Road, which are also part of this speed limit review. | | | |
| Recommendations Reduce the speed limit on Norton Road, from Algernon Road to the existing 50km/h speed limit signs 90m west of Copeland Road, to 80km/h. | | | |

| Hastings District Council 2019 Speed Limit Assessment Longlands Road East | | | |
|--|--------------------|---|-------------------|
| From | Railway Road South | To | Te Aute Road |
| Section length | 2km | Reason for selection | Request to reduce |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 100km/h |
| RAMM traffic volume | 4,457vpd | RAMM speeds (85th percentile) | 101km/h |
| Date of assessment | | | September 2019 |
| <p>5yr crash history</p> <p>There have been seven crashes recorded on this section of road in the last five years. In 2014 a southbound car lost control in the wet on the curve south of Railway Road. This non-injury crash was blamed on a combination of bald tyres and the wet road surface. Also in 2014 there was a non-injury crash where a car crossed from Longlands Road East but failed to give way to a northbound car on Railway Road South. This crash was blamed on sunstrike.</p> <p>In 2015 an alcohol affected driver drove straight into the island at the intersection. Another similar non-injury crash occurred when a driver being pursued by the Police also hit the island.</p> <p>Two crashes occurred in 2016. A minor injury crash took place when a driver turned right to enter a driveway across the path of a southbound car. This crash has been blamed solely on the fact that the driver was colour blind and could not see the approaching red vehicle. In the same year a non-injury crash occurred when a car towing a trailer lost control, possibly due to travelling in excess of 110km/h, and left the road 50m south of Riverslea Road.</p> <p>A minor injury crash took place in 2018 when a driver crossing from Longlands Road South failed to give way to a northbound car on Railway Road South. This crash was blamed on inattention.</p> | | | |
| <p>Discussion</p> <p>Longlands Road acts as a boundary road between the rural areas to the west and the semi-rural and urban area to the east towards Hastings. The roads to the east all form part of this speed limit review.</p> <p>Based on the criteria listed above the Safer Journeys Risk Assessment Tool indicates that 100km/h is the safe and appropriate speed on this section. A site review shows that Longlands Road is one of the better delineated roads on the network with centre lines, edge lines and RRPMS, quite different to the roads that take access from it.</p> <p>The measured 85th percentile speed of 101km/h is higher than on other roads, possibly reflecting the improved delineation level.</p> <p>Longlands Road becomes Te Aute Road on a 65km/h curve at its southern end and it is recommended that Te Aute Road becomes 80km/h. There are however many more properties along Te Aute Road and more curves which do make the roads look different in appearance and support the different proposals.</p> | | | |



General view of Longlands Road East looking south

Of note from the crashes is that there were two where a vehicle drove into the nose of the splitter island at Railway Road South. While one crash was during a Police pursuit and the other involved a drunk driver the delineation of this hazard should be reviewed.

Recommendations

Retain the existing 100km/h speed limit on Longlands Road East.

Review delineation of the splitter island at the intersection with Railway Road South.

| Hastings District Council 2019 Speed Limit Assessment Longlands Road West | | | |
|---|-------------------|---|--------------------|
| From | SH2 | To | Railway Road South |
| Section length | 1.9km | Reason for selection | Request to reduce |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 100km/h |
| RAMM traffic volume | 5,131vpd | RAMM speeds (85th percentile) | 87.5km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history <p>There have been ten crashes recorded on this section of road in the last five years, with seven taking place at the intersection with Railway Road South. The intersection related crashes were –</p> <p>Three in 2015, all non-injury. Two crashes took place when a car turned right out of Longlands Road West but failed to give way to a southbound car on Railway Road South. The Police did not indicate any visibility concerns. The third crash occurred when the driver of a stolen vehicle drove straight through the intersection and crashed at the railway line. In 2017 a non-injury crash took place when a southbound driver drove straight through the intersection in foggy conditions.</p> <p>Three crashes in 2018, again all were non-injury. One crash was a rear end when one driver thought that the car ahead was pulling out. In another a car turned right out of Longlands Road West but failed to give way to a southbound car on Railway Road South. This crash was blamed on inattention. The third crash was caused by a car that lost control under heavy acceleration in the wet after turning.</p> <p>There were three crashes that occurred away from the intersection. All three resulted in minor injuries. In April 2014 a cyclist turned right into a pack house access and failed to give way to an oncoming car. There were two crashes in 2018. In April an alcohol affected driver drove off the road at 12:40am into a ditch and in June a car turned right across the path of a truck due to the low sun.</p> | | | |
| Discussion <p>Longlands Road West acts as a boundary road between the rural areas to the west and the semi-rural and urban area to the east towards Hastings. The roads to the east all form part of this speed limit review.</p> <p>Based on the criteria listed above the Safer Journeys Risk Assessment Tool indicates that 100km/h is the safe and appropriate speed on this section. A site review shows that Longlands Road is one of the better delineated roads on the network with centre lines, edge lines and RRPMS, quite different to the roads that take access from it. The road is flat and straight and it is surprising that the 85th percentile speed has come out as below 90km/h.</p> <p>The main safety issue would appear to be at the intersection with Railway Road South. That road also forms part of this review but it is noted that the main road is provided with a RIAWS system whilst Longlands Road West is controlled by a give way sign, although urban size again and not the larger rural sign for high approach speeds.</p> <p>With none of the measures worse than Low-medium for Longland Road East and West we concur with the Safer Journeys Risk Assessment Tool and believe the speed limit should be retained at 100km/h.</p> | | | |
| Recommendations <p>Retain the existing 100km/h speed limit on Longlands Road West.</p> <p>Review signage at the intersection with Railway Road South.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Railway Road South | | | |
|--|-------------------|---|--|
| From | Murdoch Road | To | 250m south of intersection with Longlands Road |
| Section length | 5.4km | Reason for selection | Top 10% and request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Low-medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80 and 100km/h |
| RAMM traffic volume | 4,036 vpd | RAMM speeds (85th percentile) | 97 to 101km/h |
| Date of assessment | | | September 2019 |
| <p>5yr crash history</p> <p>There have been 25 crashes on Railway Road South south of Murdoch Road in the last five years. We have split these crashes into north of the RIAWS, within the RIAWS and south of the RIAWS due to the length of this section.</p> <p>Murdoch Road to RIAWS</p> <p>Five crashes in total in the last five year period. A northbound car left the road at 2am on New Year's Eve 2018 just before the end of the 100km/h speed limit with the driver quickly leaving the scene. A non-injury crash occurred in December 2014 when the wheels on a vehicle that had just been serviced locked up causing it to leave the road.</p> <p>Two crashes occurred at the intersection with Tollemache Road, both caused by vehicles on the side road failing to give way. One crash resulted in minor injury, the other was non-injury. Both of these crashes were in 2018.</p> <p>A minor injury crash occurred in 2015 when a southbound car slowed to turn right into a driveway and was rear ended by another at 9:30pm 150m north of Longlands Road.</p> <p>RIAWS</p> <p>Nine crashes have been recorded at the intersection with Longlands Road, all of them non-injury. These are discussed in the Longlands Road sections as the crashes were invariably due to vehicles on the side road either failing to give way to traffic on Railway Road South or simply losing control.</p> <p>RIAWS to SH50A</p> <p>Eleven crashes have taken place south of the RIAWS in the last five years. Three crashes took place on the long curve midway between Longlands Road and the state highway roundabout, all involving northbound traffic. In 2015 a driver received serious injuries after drifting on to the shoulder and losing control, rolling several times and colliding with a power pole. Two crashes in 2017 were similar in that vehicles crossed the edge line when exiting the corner and then lost control. One of these crashes resulted in minor injuries when the driver was distracted by tuning the radio. All three crashes occurred in daylight hours.</p> <p>In 2017 there was a second serious injury crash on this section of Railway Road. A northbound ute has turned right across the path of a southbound car to enter a driveway. The driver claimed not to have seen the oncoming car due to its orange colour blending into the trees in this 4pm crash. A driver looking for the Baptist church in 2017 at night performed a u-turn and crashed into the ditch thinking it was a flat area of grass. In 2018 in the same general area a southbound driver slowed to turn right into a driveway and a following driver did not see this, panicked and tried to overtake causing a non-injury collision. South of this there was a non-injury rear end crash in the southbound lane but the offending vehicle left the scene.</p> <p>A non-injury crash in 2016 occurred when the driver drifted off the road while using her cell phone. South of that in 2015 another non-injury crash occurred when a southbound driver turned right into a driveway and failed to give</p> | | | |

way to a northbound vehicle. On the same curve also in 2015 there was a non-injury crash when a driver cut the left hand curve at the south end of the route and lost control on the grass verge.

Finally, in 2017 there was a serious injury crash at the intersection of Railway Road and SH50 when an elderly driver travelling south on Railway Road at 12:40pm entered the roundabout at high speed and drove straight over the top of it.

Discussion

The Safer Journeys Risk Assessment Tool splits Railway Road South into three sections which each have different IRR ratings and thus different calculated safe and appropriate speeds. This appears to be a result of the 300m long 70km/h RIAWS speed limit being entered as the permanent speed limit over 2.2km of the road length which fundamentally changes the methodology for the IRR rating. This differs to natural breakdown provided above.

A further result of this error would appear to be that the section that has been highlighted as being a top ten percent site has been identified with it being subject to a 70km/h speed limit which is incorrect.

West of Murdoch Road to Longlands Road RIAWS

In the Safer Journeys Risk Assessment Tool this section has a Collective and Personal Risk of Low-medium, an IRR of Medium and a safe and appropriate speed of 80km/h. Our initial review based on the location and function of this road would support a reduction from the posted 100km/h speed limit to 80km/h.



Railway Road South looking west between Longlands Road and Tollemache Road

Longlands Road RIAWS

In the Safer Journeys Risk Assessment Tool this section has a Low-medium Collective risk and Medium Personal Risk, an IRR of Low and a safe and appropriate speed of 60km/h. This is due to the section being incorrectly given a permanent 70km/h speed limit and thus considered urban. For a rural road these criteria result in a safe and appropriate speed of 100km/h.



Railway Road South RIAWS in operation

This does not take in to account the number of crashes at this intersection that resulted in the RIAWS being installed. It is noted that there have been no injury crashes reported in the four years since the RIAWS was introduced at this intersection.

Longlands Road RIAWS to SH50

In the Safer Journeys Risk Assessment Tool this section has a Low Collective and Personal Risk, an IRR of Low - medium and a safe and appropriate speed of 100km/h.

The above would suggest that the speed limit should be lowered from 100km/h to 80km/h at the Hastings end and remain as 100km/h at the SH50A end with the RIAWS being retained at Longlands Road. Ordinarily a RIAWS should have a speed differential of at least 20km/h therefore if the underlying speed limit is reduced to 80km/h then the RIAWS should be reduced to 60km/h.



Railway Road South looking west between Longlands Road and SH50

There are other roads in the district that look similar to Railway Road South, some of which are signed as 80km/h, some 100km/h. The images above do show that towards the SH50 end the road is much more open which would generally result in higher speeds and greater difficulty with speed limit compliance.


The 85th percentile speeds are fairly constant along the road ranging from 97km/h between Longlands Road and Te Aute Road and 101km/h between France Road and Davis Road.

Recommendations

Reduce the speed limit on Railway Road South from 100km/h to 80km/h from the 50km/h speed limit 50m west of Murdoch Road through to the RIAWS at Longlands Road.

Reduce the RIAWS speed limit on Railway Road South at Longlands Road from 70km/h to 60km/h

Retain the 100km/h speed limit on Railway Road South from the Longlands Road RIAWS through to SH50.

| Hastings District Council 2019 Speed Limit Assessment Riverslea Road South | | | |
|---|----------------------|---|---------------------|
| From | Tollemache Road East | To | Longlands Road East |
| Section length | 1.6km | Reason for selection | Top 10% and request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Medium-high |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,277vpd | RAMM speeds (85th percentile) | 88.9km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>The two crashes at Tollemache Road , one minor injury and one serious, have been discounted as this intersection is just inside the 50km/h Hastings Urban Traffic Area. It would appear that it is the serious injury crash that results in Riverslea Road South being a top ten percent site.</p> <p>A non-injury crash occurred in 2014 when a drug and alcohol affected driver claimed to have picked up his cell phone and driven off the road when traveling south at midnight near to Davis Road. A non-injury crash in 2015 took place when a car slowed to turn right into a driveway between Longlands Road and Davis Road and was hit from behind.</p> <p>A non-injury crash took place in 2016 when a northbound car on Algernon Road failed to give way to a southbound car on Riverslea Road. Another non-injury crash took place in 2016 when one party crossed the centreline at night causing a head on crash between a car and a ute towing a trailer. A car was found in a paddock near Davis Road late one night in 2017. No injuries were reported but the suspected driver blew 250 three hours after the crash.</p> <p>In 2018 there was a minor injury crash when a car slowed to turn left to a restaurant and was hit from behind by a driver who claimed after the event that he was having a diabetic incident.</p> | | | |
| <p>Discussion</p> <p>Riverslea Road South runs parallel to the section of Railway Road South where it is recommended that the speed limit is reduced to 80km/h. It also intersects with Longlands Road East where no speed limit changes are proposed.</p> <p>The road is characterised by a number of hazards including deep ditches and power poles on both sides of the road.</p> | | | |
|  | | | |
| <p><i>Riverslea Road South looking east towards Hastings</i></p> <p>As shown above, there is no edge definition along Riverslea Road South, just a centre line and centre line RRPMS are provided.</p> | | | |

Edge definition could be improved by installing edge lines however it is unlikely that the number of hazards could be removed or protected. The 85th percentile speed of 89km/h indicates that an 80km/h speed limit would not be far from the current travel speeds and would reduce potential impact forces.

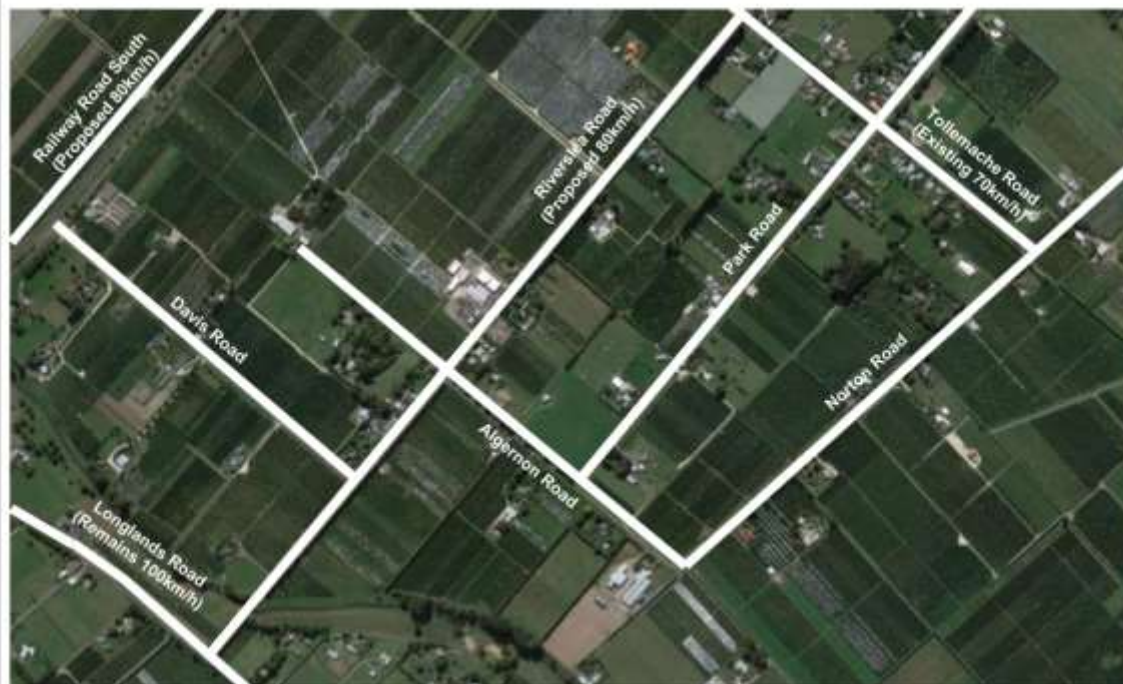
For consistency with other roads in the Akina area we are recommending that the speed limit is reduced from 100 to 80km/h.

Recommendations


Review delineation levels along Riverslea Road South.


Reduce the speed limit on Riverslea Road South from 100km/h to 80km/h from the 50km/h speed limit at Tollemache Road through to Longlands Road East.

A number of side roads will be effected by this change. Consideration should be given to an area wide 80km/h speed limit that includes Davis Road, Algernon Road, Park Road and Norton Road as shown below.



Potential area wide 80km/h area

| Hastings District Council 2019 Speed Limit Assessment Southland Road | | | |
|--|-------------------|---|---------------------|
| From | Tollemache Road | To | Heathcote Road |
| Section length | 380m | Reason for selection | Top 10% and request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,295vpd | RAMM speeds (85th percentile) | 77km/h |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>The only crashes recorded on Southland Road are all at the intersection with Heathcote Road where six have been reported in the last five years, four non-injury and two minor injury. These crashes were all related to the 90° corner signed with a 25km/h advisory speed at the intersection. We note that there was one crash in 2015, one in 2016, one in 2017 and three in 2018. All but one crash occurred when it was dark.</p> <p>Five crashes involved vehicles on Southland Road failing to negotiate the right hand corner in to Heathcote while one crash involved a vehicle southbound on Heathcote that attempted to drive through the 25km/h curve at 70km/h.</p> <p>Discussion</p> <p>Southland Road is similar to other roads under review being generally flat and straight with very little delineation other than a centreline. At the T intersection with Heathcote Street edge lines are provided to guide traffic around the corner. West of this intersection Southland Road is a no exit road that provides access to a number of residential properties and orchard businesses.</p> | | | |
|  <p><i>Southland Road looking towards Heathcote Road intersection</i></p> | | | |
| <p>RAMM data shows an 85th percentile speed of 77km/h on this section of Southland Road which will be due in part to the relatively short distance between Tollemache Road and Heathcote Road. This speed is in line with the safe and appropriate speed therefore for consistency with other roads in the Akina area we are recommending that the speed limit is reduced from 100 to 80km/h.</p> <p>The main safety issue on this section of road is the intersection of Southland Road are Heathcote Road which should therefore be subject to a safety review.</p> | | | |
| <p>Recommendations</p> <p>Reduce speed limit on Southland Road between Tollemache Road and its western extent to 80km/h.</p> <p>Install larger curve signs at the intersection of Heathcote Road and Southland Road.</p> <p>Review intersection layout of Heathcote Road and Southland Road.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Te Aute Road | | | |
|--|-------------------|-----------------------------------|--------------------|
| From | Urban boundary | To | Railway Road South |
| Section length | 6.8km | Reason for selection | Top 10 percent |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Medium high | Personal Risk | High |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 1,600vpd | RAMM speeds | See below |
| Date of assessment | | | October 2019 |
| 5yr crash history | | | |
| Te Aute Road was subject to a crash reduction study in October 2018 where crashes were looked at in detail and nine individual study sites were reviewed. | | | |
| Discussion | | | |
| <p>The combination of IRR and collective/personal risk ratings results in a safe and appropriate speed of 60km/h on Te Aute Road. This is some way from the various speed survey results in RAMM with 85th percentile speeds of 102 and 104km/h west of Longlands Road and 87 and 89km/h to the east. It also appears somewhat at odds with the surrounding roads. These results flag an issue with the route hence the crash reduction study undertaken in 2018. A reduction in the personal risk would result in a safe and appropriate speed of 80km/h which is consistent with a number of other roads in this area west of Hastings.</p> <p>Longlands Road East intersects with Te Aute Road midway along its length which is also a point that defines the different layout of Te Aute Road both east and west. To the east of the intersection there are several curves on Te Aute Road that are provided with advisory speed signs. The two main curves also feature intersections that have a recent crash history. To the west of Longlands Road Te Aute Road has a single mild curve before a straight almost 3km in length. Whilst this is undoubtedly part of the reason for the varying speed results it also points to a potential speed limit solution.</p> | | | |
|  | | | |
| <i>Curve on Te Aute Road</i> | | | |
| <p>Traffic volumes also vary either side of Longlands Road with 1,630vpd to the west and 6,200 to the east. This corresponds with the priority route being from Te Aute Road in to Longlands Road East.</p> | | | |


The 2018 crash reduction study found a number of potential improvements along Te Aute Road that would result in a reduction in the personal and collective risk ratings and thus a safe and appropriate speed of 80km/h. Having reviewed the study document we believe council should progress an 80km/h speed limit on the section of Te Aute Road east of Longlands Road where traffic volumes are higher, the road less straight, there are more property accesses and the crash reduction study showed that crashes were more common. This corresponds quite well with the measured speeds.

West of Longlands Road the measured 85th percentile speeds in excess of 100km/h do show that some work would be required to try and lower the speed limit and achieve a level of compliance. This would also be inconsistent with some of the other recommendations made in this review.

Recommendations

Consider reducing the speed limit on Te Aute Road between Longlands Road East and the urban boundary from 100 to 80km/h.

Progress the recommendations made in the October 2018 crash reduction study.


| Hastings District Council 2019 Speed Limit Assessment Tollemache Road West | | | |
|--|-------------------|----------------------------|--------------|
| From | Southland Road | To | Railway Road |
| Section length | 900m | Reason for selection | Request |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | TBC | RAMM speeds | TBC |
| Date of assessment | | | October 2019 |
| <p>5yr crash history</p> <p>Two crashes have been recorded at the intersection with Railway Road South, both in 2018. The only injury crash was minor and occurred when a southbound car on Tollemache Road failed to give way to a car on Railway Road South. The non-injury crash involved a northbound vehicle on Tollemache Road failing to give way. This vehicle left the scene after the crash.</p> <p>The only other crash on Tollemache Road West was also in 2018 and occurred when a car slowing for the rail crossing has hit a dog that ran out at 9.30pm.</p> | | | |
| <p>Discussion</p> <p>This section of Tollemache Road links Southland Road to Railway Road providing a similar role to Heathcote Road a block to the north. We have recommended the speed limit be lowered to 80km/h on all of those roads. As part of an area wide speed limit change it would be prudent to reduce the speed limit to 80km/h on this section as well. The safe and appropriate speed has been calculated and while we do not have surveyed speeds it is hard to believe that they will be much higher than this given the layout of Tollemache Road shown below.</p> | | | |
|  | | | |
| <p><i>Tollemache Road West looking south towards Railway Road</i></p> <p>The roadside environment on Tollemache Road is particularly unforgiving with power poles on both sides of the road. There have been no run off road crashes in the last five years but if any were to occur in the area shown above there is a possibility of a high severity crash due to the multiple hazards.</p> | | | |
| <p>Recommendation</p> <p>Reduce the speed limit on Tollemache Road West between Railway Road and Southland Road from 100km/h to 80km/h.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Wellwood Road | | | |
|---|----------------|-----------------------------------|-------------------|
| From | Heathcote Road | To | End |
| Section length | 600m | Reason for selection | Request to reduce |
| ONRC | Access | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 28vpd | RAMM speeds | Unknown |
| | | Date of assessment | September 2019 |
| 5yr crash history | | | |
| There have been no crashes recorded on Wellwood Road in the last five year period. | | | |
| Discussion | | | |
| Wellwood Road is a relatively short no exit road providing access to two properties and two businesses. It is sealed but narrow. | | | |
| Wellwood Road takes access from Heathcote Road where the recommendation is to reduce the speed limit from 100km/h to 80km/h. By default Wellwood Road should become the same speed limit which is supported by the Safer Journeys Risk Assessment Tool. | | | |
| Recommendation | | | |
| Reduce the speed limit on Wellwood Road to 80km/h. | | | |

Appendix H Havelock and south speed limit review

| List of roads within this appendix | Page |
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| Waimarama Road | 12 |

| Hastings District Council 2019 Speed Limit Assessment Gilpin Road | | | |
|--|---------------------|---|---------------|
| From | Te Aute Road | To | Middle Road |
| Section length | 770m | Reason for selection | Request |
| ONRC | Secondary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | TBC | RAMM speeds (85th percentile) | TBC |
| | | Date of assessment | February 2020 |
| 5yr crash history | | | |
| There have been two crashes in the last five year period on Gilpin Road, excluding the intersections at either end which are discussed in those sections. | | | |
| In 2015 there was a non-injury crash when a convoy of boy racers slowed down approaching the Te Aute Road intersection and one car hit the rear of another. | | | |
| In February 2018 there was a minor injury crash when a northbound car swerved to avoid an oncoming vehicle at around 6pm and left the road colliding with a culvert. | | | |
| Neither of these crashes indicate that the vehicles were travelling at high speeds. | | | |
| Discussion | | | |
| Gilpin Road was added to the study due to the surrounding roads being part of the review. Te Aute Road to the north has a recommendation to reduce the speed limit to 80km/h past the Gilpin Road intersection whilst at the south end Iona Road and both Middle Road legs are also proposed to have the speed limit reduced. It therefore makes sense to review the speed limit on Gilpin Road at the same time. | | | |
| The IRR band for Gilpin Road is Medium-high. We note that the road has been classified as curved when in actual fact it is straight. When corrected the IRR drops from 1.68 to 1.43 and becomes Medium risk not Medium-high and the safe and appropriate speed becomes 80km/h. It therefore makes sense to consult on introducing an 80km/h speed limit on Gilpin Road to provide a consistent message to motorists. | | | |
| Recommendation | | | |
| Consider reducing the speed limit for the full length of Gilpin Road from 100km/h to 80km/h | | | |

| Hastings District Council 2019 Speed Limit Assessment Havelock Road | | | |
|--|-----------------|---|----------------|
| From | St Georges Road | To | St Andrew Road |
| Section length | 400m | Reason for selection | Top 10 percent |
| ONRC | Arterial | IRR Band | Low-medium |
| Collective Risk | Medium | Personal Risk | Medium |
| Posted speed limit | 70km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 19,149vpd | RAMM speeds (85th percentile) | 67km/h |
| | | Date of assessment | September 2019 |
| <p>5yr crash history</p> <p>On the section identified there have been four crashes in the last five years. Two crashes including the only DSI crash involved drivers having a sudden medical event causing their vehicle to leave the road. In 2015 a driver is recorded as receiving serious injuries after their vehicle mounted the median island when the driver suffered a heart attack. Also in 2016 there was a minor injury crash when a driver had a sudden medical event when exiting the roundabout and crashed in to a rubbish bin.</p> <p>In 2016 there was a non-injury crash when a car pulled out of a café access and failed to give way to a southbound cyclist on the cycle track. In 2018 there was a non-injury crash when a car was clipped by another as it left the roundabout towards Havelock Road and span in to kerb.</p> <p>There have been a number of non-injury crashes on the circulatory part of the roundabout however we have excluded them from this analysis.</p> | | | |
| <p>Discussion</p> <p>We have reviewed this section of Havelock Road due it being identified as a top ten percent site for DSI reductions through a lowering of travel speeds. The site is a top ten percent site due to the 2016 serious injury crash. We queried this crash with NZTA (ID 201511753) because there is nothing to indicate that there were any injuries, the crash report states that the driver was removed to hospital due to a possible heart attack that initiated the relatively minor crash that followed. NZTA did not appear willing to consider this however we question whether a crash caused by a heart attack can in any way be used to determine the appropriate speed limit.</p> <p>The only other injury crash on this section of road was also a medical event that resulted in a car leaving the road after it exited the roundabout.</p> | | | |
|  | | | |
| <p><i>Havelock Road between St Andrew Street and St Georges Road</i></p> | | | |

Havelock Road is the main arterial route connecting Hastings and Havelock North. The road is subject to a 70km/h speed limit from 130m south of Norton Road at the Hastings end through to a point around 160m north of the roundabout at Karanema Drive as you enter Havelock North, a distance of around 2km. Only this 400m section is a top ten percent site but this short section of 70km/h speed limit would not be lowered in isolation therefore we have considered the full length of 70km/h speed limit for this assessment.

We note that the Safer Journeys Risk Assessment Tool shows the incorrect speed limit on Havelock Road with it being 50km/h for the full length apart from the 400m section of 70km/h speed limit between St Georges Road and St Andrew Road. The safe and appropriate speeds are shown as 50km/h north of St Georges Road (where the speed limit has been incorrectly entered as 50km/h) and 60km/h south of St Georges Road. It is the Medium personal risk that suggests 60km/h is the safe and appropriate speed.

A 2018 survey recorded an 85th percentile speed of 67km/h between St Georges Road and St Andrew Street with 65.5km/h being recorded south of St Andrew Street and 71km/h north of St Georges Road. These speeds are in the realm of what would be found if the speed limit was posted as 60km/h and suggest the traffic volume of close to 20,000 vehicles per day is playing a part in constraining vehicle speeds.


The speed management guide indicates that 70km/h is now seen as an interim speed limit only and no new permanent 70km/h speed limits will be allowed. It is possible that at some point in the future NZTA will require all 70km/h speed limits to be reviewed and replaced to create a more consistent and intuitive speed management system.

The available data suggests that 60km/h is the safe and appropriate speed on Havelock Road and even though it is signed as 70km/h the measured speeds are in line with what would be expected with a 60km/h speed limit, at least during peak periods. Peak period travel speeds are therefore unlikely to change much if a lower speed limit is introduced.

Given the high profile of this important route, current travel speeds and the extensive consultation that would be required to adjust the speed limit by 10km/h we recommend that the speed limit is retained at 70km/h for the time being. It should also be noted that the reason this road is under review is due to it being classed as a top ten percent site when the crash that resulted in that ranking was due to a medical event and would appear not to have resulted in serious injuries.

Recommendation

Retain the existing 70km/h speed limit on Havelock Road.

| Hastings District Council 2019 Speed Limit Assessment Iona Road | | | |
|---|---------------------|---|----------------|
| From | Middle Road | To | 50km/h area |
| Section length | 500m | Reason for selection | Public request |
| ONRC | Secondary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 851 vpd (estimate) | RAMM speeds (85th percentile) | 81km/h (2008) |
| Date of assessment | | | November 2019 |
| 5yr crash history <p>There have been no crashes on the 100km/h section of Iona Road in the last five years. There have however been five crashes reported at the intersection with Middle Road. Three of these crashes involved vehicles turning out of Iona Road failing to give way to vehicles approaching on Middle Road from the west. In 2015 and 2017 these crashes resulted in minor injury while another crash in 2017 that occurred when visibility was restricted by a parked truck was damage only. The other two crashes were a minor injury in 2017 when a southbound car on Middle Road lost control on the reverse curve and a non-injury in 2014 when an alcohol affected driver on Gilpin Road failed to see the intersection until too late and skidded through it in to a bank.</p> | | | |
| Discussion <p>Iona Road intersects with Middle Road in a 100km/h speed limit zone on the outskirts of Havelock North. Iona Road is posted as 100km/h for the first 500m from Middle Road before it becomes 50km/h approximately 130 west of Iona Road. Iona Road gradually becomes more developed as you move further east. When turning from Middle Road, Iona Road looks very much rural as shown below -</p> | | | |
|  | | | |
| <p><i>Iona Road from Middle Road end</i></p> | | | |
| <p>Without considering the Safer Journeys Risk Assessment Tool the above does look like a 100km/h rural road suggesting that lower speeds may be difficult to achieve. This is countered to some extent by the fact that this section of 100km/h road is only 500m in length with an intersection at one end and a 50km/h speed limit at the other. When leaving the 50km/h zone it is possible to see the intersection ahead therefore it is very unlikely that high speeds are recorded here. The 85th percentile speed recorded in RAMM is 81 km/h while the Safer Journeys Risk Assessment Tool shows an operating speed of between 55 and 59km/h.</p> | | | |
| <p>The Safer Journeys Risk Assessment Tool shows a safe and appropriate speed of 60km/h however we have noted a number of anomalies with the Infrastructure Risk Rating for Iona Road. The Medium-high IRR rating for this section</p> | | | |

is partly due to it being recorded as having a curved alignment when in fact the road is straight. This alone drops the rating from Medium-high to Medium which would result in a safe and appropriate speed of 80km/h. The number of accesses and intersections appears to have been rated conservatively as is the roadside hazard. When corrected using the facility within the Safer Journeys Risk Assessment Tool the risk rating falls further.

The section of Iona Road that is signed as 50km/h is one of the few roads that has a calculated safe and appropriate speed of 30km/h. This is based on a High IRR band due to the tortuous alignment and severe/moderate roadside hazards which we would again question.

With the speed limit on Middle Road also under review and 80km/h being recommended it would be logical that the section of Iona Road from the end of the existing 50km/h speed limit through to Middle Road complements this proposal therefore we recommend that the section of Iona Road that is currently 100km/h should become 80km/h.

Recommendations

Based on the recommendations for Middle Road the existing 100km/h speed limit on Iona Road should be reduced to 80km/h.

| Hastings District Council 2019 Speed Limit Assessment Middle Road | | | |
|--|-------------------|---|---------------------|
| From | Urban boundary | To | School Road |
| Section length | 2.1km | Reason for selection | Top 10% and request |
| ONRC | Primary Collector | IRR Band | Medium-high |
| Collective Risk | Low | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 905 | RAMM speeds (85th percentile) | 83 to 101.7km/h |
| | | Date of assessment | November 2019 |
| 5yr crash history | | | |
| <p>There have been no crashes between the 50km/h speed limit and intersection with Gilpin Road in the last five years. There have however been five crashes at the intersection. Three crashes involved a car crossing from Iona and failing to give way to a vehicle approaching from the left, two crashes resulting in minor injury</p> <p>In 2014 there was a non-injury crash when a vehicle left the road (limited information available) and in 2017 there was a minor injury crash when a westbound car on Middle Road left the road and hit a lamp column.</p> <p>Four crashes have occurred between Gilpin Road and School Road. A 2015 non-injury crash occurred when a southbound car entered a 30km/h temporary speed limit and lost control, a 2015 non-injury when a car reversed out of a driveway and was hit by a westbound vehicle. The two crashes in 2017 were a non-injury when an eastbound car swerved to avoid a dog at 9pm and a non-injury when a car attempted to reverse in to a driveway and hit a post.</p> <p>The one serious injury crash in this section occurred in October 2018 when a driver south on School Road failed to see the intersection ahead until too late and skidded through it in to a bank and a tree. Alcohol was suspected in this late night crash.</p> | | | |
| Discussion | | | |
| <p>A short section of this route was identified as a top ten percent site, this was through the reverse curve at Gilpin Road. We were however asked to review the speed limit along the full length from the urban boundary through to School Road, a distance of 2.1km.</p> <p>It is not clear why this section was identified as a top ten percent sites as there is no record of a DSI crash in at least 20 years. The only DSI crash in the extended section was when a driver on School Road failed to notice the T intersection until too late and skidded through it. The intersection is provided with a chevron board although an advanced give way sign may also be of value which is a recommendation made below.</p> <p>The Safer Journeys Risk Assessment Tool splits this one section of road in to three parts with the IRR ranging from Low-medium to the north, Medium-high in the south and High in the middle through the reverse curves. This results in a safe and appropriate speed of 50km/h where the speed limit is shown as 50km/h and 60km/h where the road is shown as 100km/h. On review we note that the IRR has used a higher banding for the traffic volumes. Something as simple as correcting this and adjusting the nature of the road from winding to curved reduces the IRR from High to Medium and results in a safe and appropriate speed of 80km/h. This does feel more sensible for a road on the urban fringe.</p> <p>Although noted as winding, only one curve on this section of Middle Road justifies specific signage, the reverse curve at Gilpin Road. The first part of this curve is provided with a 65km/h chevron board in both directions. We note that when heading away from Havelock North the curve has advance signage but there is nothing when traveling eastwards. The signage for this curve should be improved.</p> <p>Measured speeds show an 85th percentile speed in the low 80's east of Gilpin Road but this increases to 101km/h between Gilpin Road and School Road. This does indicate that achieving a travel speed of 80km/h should be relatively easy on the section closer to Havelock North although higher speeds could be expected to the west.</p> | | | |

The picture below is looking east from School Road and shows how rural in nature this road looks.



Although we were requested to review the speed limit as far as School Road the above would indicate that the start of a potential 80km/h speed limit may be better closer to the Gilpin Road curve than at School Road. This would also reinforce the speed reduction required for that curve. On review a location midway between School Road and the eastern Endsleigh Road intersection appears most appropriate due to the curved nature to the east.

Recommendations

Install GIVE WAY 200m sign on School Road to warn of intersection ahead.

Review signage for the reverse curve at Gilpin Road.

Consider introducing an 80km/h speed limit from the existing 50km/h speed limit 150m west of Breadalbane Road to a point 400m west of the eastern intersection with Endsleigh Road.

| Hastings District Council 2019 Speed Limit Assessment Romanes Drive | | | |
|--|-------------------|---|---------------------|
| From | Napier Road | To | Brookvale Road |
| Section length | 500m | Reason for selection | Request to increase |
| ONRC | Primary Collector | IRR Band | Low |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 50km/h | Safe and appropriate speed | 50km/h |
| RAMM traffic volume | 3,725 vpd | RAMM speeds (85th percentile) | 65km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history | | | |
| There has only been one crash recorded on Romanes Drive in the last five years. This non-injury crash occurred in November 2018 when an alcohol affected driver travelling west on Romanes Drive failed to notice the roundabout at the intersection with Napier Road and drove straight over the top of it at 8:30pm. | | | |
| Discussion | | | |
| Romanes Drive is a 500m long link between Napier Road and Brookvale Road that is signed as 50km/h. This primary collector has both the collective and personal risk as Low and a Low IRR band. The Safer Journeys Risk Assessment Tool suggest that 50km/h is the safe and appropriate speed yet it does feel as if this is too low on a road with only one main access point on it which is to Romanes Park which has a number of sports fields and a BMX track. | | | |
| The request is to see whether the speed limit could be increased from 50 to 70km/h. Under the current speed management guidelines 70km/h is no longer a valid speed limit. These are now considered to be interim speed limits due to the desire to only have speed limit changes in 20km/h increments between 60 and 100km/h. The result is that the increase in speed limit would have to be to 60 or 80km/h. | | | |
| The heritage type street lights along Romanes Drive do give an urban feel and in isolation a 60km/h speed limit would be more representative of the function of this road particularly given the fact that the footpaths are separated. However, with roundabouts at either end subject to 50km/h speed limits Council may wish to retain the existing speed limit rather than go through the consultation required to raise the speed limit by 10km/h over such a short length. | | | |
| With marked cycle lanes on both sides of the road council should be aware that due to the width of Romanes Road compliance with the existing 50km/h speed limit is likely to be low, as evidenced by the 85 th percentile speeds recorded in RAMM. This may be justification to increase the speed limit along the 500m section however there is always the chance that the level of safety at the access may be reduced by an increase in vehicle speeds past it. | | | |
| Recommendation | | | |
| Retain 50km/h speed limit on Romanes Drive | | | |

| Hastings District Council 2019 Speed Limit Assessment Te Mata Peak Road | | | |
|---|---------------------|---------------------|----------------------------|
| | From | Full length | To |
| | Section length | 5km | Reason for selection |
| | ONRC | Secondary Collector | IRR Band |
| | Collective Risk | Varies | Personal Risk |
| | Posted speed limit | Varies | Safe and appropriate speed |
| | RAMM traffic volume | Varies | RAMM speeds |
| | | | Date of assessment |
| | | | November 2019 |
| 5yr crash history | | | |
| <p>There have been 12 crashes on Te Mata Peak Road in the last five years. None of these occurred within the short 50km/h speed limit. Within the 60km/h area there were nine crashes, all but one of them non-injury. The only injury crash was in 2014 when a work truck pulled to the side of the road and crushed a pedestrian between one work truck and another. The seriously injured pedestrian may have been another worker as he was attending to a second vehicle. All of the other crashes were single vehicle loss of control non-injury crashes due to traveling too fast for the conditions, although not necessarily exceeding the 60km/h speed limit –</p> <p>In 2016 where an inexperienced driver put their vehicle in neutral to come down the hill and lost control when they put it in to gear, leaving the road and crashing through a fence on a Saturday afternoon. The second 2016 crash occurred when a driver who had been drinking at the summit wanted to see how fast his car would go before crossing the centreline and rolling in to a stand of trees. The third 2016 crash occurred when a driver lost control in the wet on a sharp corner while heading uphill.</p> <p>The three crashes in 2017 included a driver travelling uphill becoming distracted by a drunk passenger and losing control and rolling down a bank in the wet, a learner driver losing control coming downhill while braking and a forbidden driver who lost control coming down the hill and left the road.</p> <p>Two crashes in 2018 both involved inexperience. In one crash a learner driver lost control while cornering downhill and in the other an alcohol affected restricted licence holder coming down the hill claimed to swerve to miss another vehicle and leave the road at 8.30pm on a Saturday night.</p> <p>There have been three crashes reported in the 40km/h area towards the summit, all non-injury. In 2017 where a downhill vehicle lost control while cornering in the wet. In 2018 a car was found over a bank in the morning with the driver claiming to have swerved to avoid an animal and left the road while heading downhill. Finally, there was a head on crash when an overseas driver travelling downhill on the wrong side of the road hit an oncoming car head on.</p> <p>The fact that all of these crashes were non-injury indicates that they occurred at relatively low speeds.</p> | | | |
| Discussion | | | |
| <p>Te Mata Peak Road starts in the Havelock North Urban Traffic Area with a 50km/h speed limit for the first 350m. As it leaves the urban area the speed limit increases to 60km/h for a further 2.3km then drops to 40km/h for another 1.2km when a gateway is reached. The final 1km section through to the summit is subject to a 20km/h speed limit and starts where the road narrows even further. Although somewhat unusual our first thoughts were that the speed limit appeared to be appropriate for the function and layout of the road.</p> <p>The Safer Journeys Risk Assessment Tool splits Te Mata Peak Road into four sections however these do not match the existing situation. The first 1.5km of the road is shown as being 50km/h with a Low collective and personal risk, Medium-high IRR and a safe and appropriate speed of 40km/h. The majority of this section is actually subject to a 60km/h speed limit.</p> | | | |

The next section is approximately 800m in length and is shown correctly as being 60km/h with a Low-medium collective risk and Medium-high personal risk, a Medium IRR band and a safe and appropriate speed of 50km/h. As the road begins to climb up Te Mata Peak the next section is approximately 1,400m in length and is shown as being 40km/h with a Low collective and Low personal risk, a Medium-high IRR band and a safe and appropriate speed of 40km/h. The last section towards the summit is shown as being 20km/h with a Low collective risk and Medium personal risk, a Medium-high IRR band and a safe and appropriate speed of 20km/h. While the lengths used in the Safer Journeys Risk Assessment Tool do not exactly match the speed limit change points the safe and appropriate speeds are the same or very close to the posted speed limits.

Even though there does appear to be some correlation between the existing situation and the Assessment Tool we have reviewed the IRR banding as this influences the safe and appropriate speeds. We found that on the top two sections the IRR banding would actually be higher due to the land use designation being put down as urban residential when it has more in common with remote rural areas due to the lack of development.



Typical view of 20km/h section of Te Mata Peak Road

Having reviewed both the upper and lower sections of Te Mata peak Road we do not believe that anything will be achieved through altering the speed limit. The 20km/h speed limit on the upper section is along the lines of the travel speeds due to the narrow road and very poor forward visibility due to crests and curves. On the 40km/h section below that the width and alignment combine to influence the travel speeds, more so than a signed speed limit would. On the lower section the 60km/h speed limit reflects the fact that the road is not fully urbanised. The change points for the 20 and 40km/h speed limits do appear logical therefore we see no changes required to the posted speed limits. There were however a number of safety concerns identified during our review.

The first thing noted on site was that for a road with such sharp curves and in places very steep non-recoverable slopes the level of delineation provided was poor. A handful of curves are provided with chevron boards signs but the majority of curves have no warning signage at all and no curves have any advisory speed signs.

On one of the higher speed curves on the lower slopes some form of delineation is provided by fixing wooden planks to the fence as shown on the following page.



Unorthodox curve delineation

Correctly placed edge markers would perform the same function but also be visible in the dark and in poor weather conditions. Further up the hill the sporadic use of edge marker posts stops. Occasionally some signs can be seen however they are either poorly placed, too small or a combination of both -



Use of PW67 curve signs

It is notable that of the ten single vehicle loss of control crashes on Te Mata Peak Road eight of them occurred in the downhill direction. While there have not been any crashes reported in the 20km/h section we noted that there are no speed signs when heading down the hill to remind you of this speed limit. There are also no repeater signs in the 40km/h speed limit. There is one set of repeater speed limit signs on this route which is in the 60km/h section for vehicles travelling uphill. Additional signage in the downhill direction would be of value.

Recommendations

Retain the speed limits as they are on Te Mata Peak Road.

Review curve delineation and use of repeater signs for the various speed limits on Te Mata Peak Road.

| Hastings District Council 2019 Speed Limit Assessment Waimarama Road | | | |
|---|----------------------|-----------------------------------|------------------|
| From | Te Mata Road | To | Waimarama |
| Section length | 15km | Reason for selection | Top 10 percent |
| ONRC | Arterial | IRR Band | Medium-high/High |
| Collective Risk | Low-medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 2,550 at western end | RAMM speeds | Varies |
| Date of assessment | | | September 2019 |
| 5yr crash history | | | |
| Waimarama Road has recently been subject to a crash reduction study. Crashes were reviewed in depth as part of that study with a number of areas of interest identified. | | | |
| In the last five years there has been five DSI crashes including a 2015 fatality when a driver fell asleep or had a sudden medical event and left road in to trees. Also in 2015 there was a serious injury crash when a car failed to negotiate a sharp right hand curve and left the road over a 20m bank. | | | |
| The other three serious injury crashes all occurred in 2016 with a loss of control on a bend, a vehicle leaving the road in the wet at 5am and a driver affected by sunstrike who drove on to the wrong side of the road resulting in a head on crash. These crashes were spread along the route. | | | |
| During our site inspection we came upon a crash that had occurred less than five minutes earlier. The Suzuki Swift lost control on the right hand corner shown, crossed the centre line and mounted the bank on the opposite side of the road. The driver appeared to be uninjured. | | | |
|  | | | |
| <i>Crash on Waimarama Road 200m north of Waipuka Road on November 12th 2019</i> | | | |
| Discussion | | | |
| The full length of Waimarama Road has been highlighted as being in the top ten percent of sites for possible DSI reductions. The full length is also shown as having a safe and appropriate speed of 60km/h due to the IRR being either Medium-high or High. Our site review suggests that 60km/h may well be the safe and appropriate speed on parts of the route however on other sections higher speeds will occur due to the alignment. This inconsistency means that those sections where lower speeds are required due primarily to the alignment may require additional signage. | | | |

A number of surveys have been carried out on Waimarama Road over the years with various speeds recorded –

| From | To | 85 th percentile speed |
|------------------|------------------|-----------------------------------|
| Tuki Tuki Road | Kahuranaki Road | 69km/h |
| Kahuranaki Road | Maraetotara Road | 71km/h |
| Maraetotara Road | Ocean Beach Road | 83.6km/h |
| Ocean Beach Road | Twin Creeks No1 | 95km/h |
| Twin Creeks No1 | Cooks Access | 100km/h |
| Cooks Access | Waitangi Road | 65km/h |
| Waitangi Road | Tiakitai Road | 78km/h |
| Tiakitai Road | 50km/h signs | 76km/h |

These surveys show that there are sections where people are travelling much slower than the current posted speed limit of 100km/h but also sections where the travel speeds are higher than 60km/h. Having reviewed the IRR rating it is the 'tortuous' nature of the road that results in the high rating and thus 60km/h safe and appropriate speed. The alignment is only tortuous in a few sections where improved signage is clearly required. The crash shown on the previous page occurred on an unsigned curve that certainly warrants an advisory speed.



Open nature of parts of Waimarama Road

The photo above shows part of this section of Waimarama Road. If the alignment severity is reduced from being tortuous to reflect the mixed nature the IRR rating improves and the calculated safe and appropriate speed becomes 80km/h. This does appear to be a much more realistic travel speed for this road.

Council may wish to consult on an 80km/h speed limit along the full length of Waimarama Road. This would reflect the need for lower speeds approaching some of the curves and is on a par with the speeds measured previously other than in the mid-section shown in the table above. While this would be a response to Waimarama Road being identified as one of the top ten percent routes for DSI reductions it may not alter travel speeds all that much. As shown above, there are also sections where 80km/h is likely to be exceeded by some traffic.


With a recent crash reduction study being undertaken on this road implementing the recommendations made in that report are likely to bring a number of safety benefits that might not be realised simply by reducing the posted speed limit.


Recommendation

Review the recent crash reduction study report and implement the recommendations made within it.
Review the speed limit once changes have been made to improve route delineation.

Appendix I Individual or remote speed limit reviews

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| Hastings District Council 2019 Speed Limit Assessment Ellis Wallace Road | | | |
|--|---------|---|---------------|
| From | SH5 | To | End of seal |
| Section length | 4.9km | Reason for selection | Requested |
| ONRC | Access | IRR Band | High |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 134vpd | RAMM speeds (85th percentile) | 72km/h |
| | | Date of assessment | November 2019 |
| 5yr crash history | | | |
| There have been no crashes recorded on Ellis Wallace Road in the last five years. | | | |
| Discussion | | | |
| <p>The first 5km of Ellis Wallace Road from SH5 is sealed and the latest traffic count data indicates 134 vehicles per day. Beyond that point the road is unsealed with much lower traffic volumes. The road provides access for a number of rural properties. With a Low collective and Low personal risk it is the High IRR rating that results in a safe and appropriate speed of 60km/h. This is a relatively narrow winding road with significant roadside hazards, hence the high rating. On certain sections, particularly in the downhill direction towards SH5 it is easy to pick up speed however the alignment is such that vehicles are unlikely to exceed 80km/h, as evidenced by the 85th percentile speed of 72km/h.</p> <p>It would be unusual for a fully rural road such as this to have a 60km/h speed limit, 80km/h does feel more appropriate however if this is the speed that vehicles are travelling it may not be necessary to introduce a lower speed limit on a road where the majority of users are familiar with it and with the hazards that are present.</p> | | | |
|  | | | |
| <i>Ellis Wallace Road</i> | | | |
| <p>Ellis Wallace Road is provided solely with a centre line. There are a number of sharp curves on this road that are either unsigned or are provided with single chevrons. Whilst there are no reported crashes on this route that may simply be due to the remote nature and potentially low speed of incidents on some of the unsigned curves. A review of curve signage and delineation should be undertaken to identify any gaps.</p> | | | |
| Recommendation | | | |
| Review delineation levels along Ellis Wallace Road. | | | |

| Hastings District Council 2019 Speed Limit Assessment Ngatarawa Road | | | |
|---|-------------------|---|------------------|
| From | SH50 | To | Maraekakaho Road |
| Section length | 4.7km | Reason for selection | Requested |
| ONRC | Primary Collector | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 100km/h |
| RAMM traffic volume | 1,293 vpd | RAMM speeds (85th percentile) | 97 and 105km/h |
| | | Date of assessment | September 2019 |
| 5yr crash history There have been no crashes recorded on Ngatarawa Road in the last five year period. | | | |
| Discussion <p>Ngatarawa Road is a long straight road that is not conducive to low speeds. The northern half of the road has little residential development being mainly orchards but the southern half is very much rural residential.</p> <p>The Safer Journeys Risk Assessment Tool shows the full length of Ngatarawa as one node therefore the above results are for the full length. It is clear however that if the two halves were looked at in isolation then the southern half towards the Hastings Aerodrome would achieve a higher IRR rating.</p> <p>It is not clear where the speed surveys were taken but the roadside environment as a result of the residential development at the southern end would suggest lower travel speeds are likely at that end. The development along Ngatarawa Road stretches along 2km of the route.</p>  <p><i>Northern section of Ngatarawa Road</i></p> <p>On the section of Ngatarawa Road shown above an 80km/h speed limit would be inconsistent with other routes under consideration. With no crashes on this section of road there does not appear to be any need to reduce the posted speed limit.</p> | | | |
| Recommendation <p>Retain existing speed limit on Ngatarawa Road.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Swamp Road | | | |
|--|-------------------|---|-----------------|
| From | Taihape Road | To | Moteo Pa Road |
| Section length | 8km | Reason for selection | Top ten percent |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low-medium | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,191 vpd | RAMM speeds (85th percentile) | 103km/h |
| Date of assessment | | | November 2019 |
| <p>5yr crash history</p> <p>There have been 14 crashes on Swamp Road in the last five year period including one fatal and one serious injury. The fatal crash was in November 2017 when northbound car left a straight section of road at 11:30am 1.2km north of Pirau Road and came to rest upside down in a water filled ditch. Fatigue was suspected to be a factor in this crash. The serious injury crash was in July 2018 when an elderly driver was dragged along the road by her own car after getting out of it and it rolling away.</p> <p>The majority of crashes on Swamp Road were single vehicles simply driving off the straight road. From the Taihape Road end the crashes were -</p> <p>A 2015 non-injury crash when a southbound car hit a cow standing in the road at night just north of the Taihape Road intersection. A 2016 non-injury crash when an overseas driver lost control on a corner 200m south of Pirau Road in the wet. There was a minor injury crash in 2017 when a truck pulled to the left due to an oncoming vehicle but went too far and hit a culvert in the water table. There were two alcohol related non-injury crashes in 2017, one when a southbound car drove off the road on a straight at 10pm and another when a southbound car drove off the wet road on a straight at 3am and collided with a power pole. Also in 2017 there was a non-injury crash when a southbound car overtook a tractor which at the same time commenced to turn right in to an orchard.</p> <p>There were two crashes involving northbound vehicles on the 55km/h curve on Swamp Road. A 2016 minor injury crash occurred when a northbound car lost control on this curve and drove off road in to culvert on the inside of the corner. A similar non-injury crash took place in 2017.</p> <p>Other crashes include a 2018 non-injury when a 16 year old driver had a space saver tyre burst when traveling at around 125km/h causing a loss of control, a 2016 non-injury when the driver failed to slow down for a temporary 50km/h speed limit at roadworks and lost control on loose seal, a 2015 minor injury crash when a car left the road at 1:30 am on a Saturday morning with the driver blaming another vehicle and finally a 2014 non-injury near to Moteo Pa Road where a trailer came off the towing vehicle and it rolled in to a power pole.</p> | | | |
| <p>Discussion</p> <p>Swamp Road is around 8km in length and generally straight other than a reverse curve at its midpoint and two individual curves either side of that. The majority of its length has been identified as a top ten site for DSI reductions. Over the last five years there have been two DSI crashes. In one an elderly driver got out of her car which then dragged her as it rolled away, speed was not a factor. In the other a driver died after leaving the road and the car becoming submerged upside down in a body of water. Speed was not noted as a contributing factor in that crash.</p> <p>A number of other crashes did have speed as a contributing factor. A number of these were on the sharp curve or in a roadworks site where they were not exceeding the posted speed limit while others were high speed crashes where the posted speed limit was ignored. Of the 14 crashes there is little commonality as to location other than two crashes which did occur on the same 55km/h curve.</p> | | | |

Swamp Road is well delineated in comparison with other roads with edge and centre lines and edge marker posts provided. RRPM's are evident on some sections but they are missing or have been removed from some long sections of the route.

A number of the curves on the route warrant advisory speeds which range from 45, 55 and 65km/h. There is however no consistency of treatment with the curves all being signed in different ways. Having a common standard would go along way to improving the level of road safety on this road.

As shown below, there is a relatively deep water channel on one side of the road with associated driveway culverts-



Swamp Road looking north

The majority of crashes on Swamp Road are single vehicles leaving the road. One run off road crash became a fatal crash after the vehicle rolled and came to rest upside down in the water filled ditch. Although that crash was not thought to be speed related a number of other crashes have resulted in vehicles hitting culverts and rolling. Lower travel speeds would reduce the impact forces and improve reaction times.

The measured 85th percentile speed of 103km/h does indicate that there may be some compliance issues if a lower speed limit was introduced however as a first step a closer review of the crashes that have taken place should be undertaken and a review of delineation levels to introduce the necessary level of consistency that is missing from this route.

Recommendations

Consider carrying out a Crash Reduction Study along the full length of Swamp Road.

A review of curve delineation along Swamp Road should be undertaken and a consistent treatment used.

Hastings District Council 2019 Speed Limit Assessment

Taihape Road

| | | | |
|----------------------------|-------------------|---|-----------------|
| From | Swamp Road | To | Willowford Road |
| Section length | 40km | Reason for selection | Top ten percent |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Low | Personal Risk | Medium |
| Posted speed limit | 100km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | Varies | RAMM speeds (85th percentile) | Varies |
| Date of assessment | | | December 2019 |

5yr crash history

There have been 23 recorded crashes in the 2014 to 2018 five year period with three of them resulting in serious injuries and seven in minor injuries. The three serious injury crashes were -

In 2015 when a motorcyclist was blown off the road in heavy winds 600m south of Koromiko Road. In 2016 when a logging truck collided with a tractor while overtaking it when the tractor turned right in to an access at the same time 400m south of Kaiwera Road. In 2018 a car slowed to turn right in to a driveway when it was hit from behind and shunted off the road causing the driver to be ejected through the front window 60m south of Sinclair Loop.

14 of the 23 crashes involved a loss of control on a bend. Eight of these were on a wet road surface and one on ice. In total 43 percent of crashes were in the wet which is a higher than normal rate. Thirty percent of crashes were at night which is around the figure generally expected. Crashes were spread along the route with no obvious hot spots or common crash locations.

Discussion

The Safer Journeys Risk Assessment Tool highlights a significant length of Taihape Road as being one that would produce DSI savings if vehicle speeds were reduced. From SH50 to Willowford Road is a distance of close to 40km where the safe and appropriate speed has been calculated as 80km/h.

A number of surveys have been carried out on Taihape Road over the years with various speeds recorded –

| From | To | 85 th percentile speed |
|-----------------------------|-----------------------------|-----------------------------------|
| 100km/h sign SH50 end | Ohiti Road | 103km\h |
| Ohiti Road | Rununga Overflow | 109km\h |
| Kawera Road | Matapiro Road | 99km\h |
| Matapiro Road | Blacks Bridge | 106km\h |
| Flag Range Road | Crownthorpe Settlement Road | 93km\h |
| Crownthorpe Settlement Road | Lechlade Road | 103km\h |
| Lechlade Road | Kikowhero Road | 97km\h |
| Kikowhero Road | Otamauri Road | 100.2km/h |
| Otamauri Road | Lee Road | 96 km\h |
| Waikonini Station | Glenross Road | 101.3km/h |

These surveys show that there are some sections where people are travelling slower than the current posted speed limit but most surveys recorded speeds that suggest compliance with an 80km/h speed limit may be low.

Taihape Road is a primary collector with a Low collective risk and Medium personal risk and a Medium IRR rating. Our site visit identified a number of opportunities to improve safety along the route that should be carried out prior to that conversation starting.

General delineation levels were found to be very good, particularly in relation to some of the routes elsewhere in the district that have been reviewed. Edge lines, edge marker posts and RRPMS were all provided and were generally in very good condition. We did find however that not all curves where a reduction in travel speed was required provided sufficient warning to an approaching motorist. It could be argued that reduced vehicle speeds would negate the need for this but this assumes that a change in speed limit will result in a change in travel speeds which is not guaranteed on a primary collector such as this.

Over half of the crashes on the route (61 percent) were loss of control on curves. The majority of these crashes occurred on a wet road surface with travelling too fast for the conditions considered a factor in more than half of them. It is quite possible therefore that an improvement in curve delineation will result in a reduction in crashes along this popular route.



Typical curve on Taihape Road with no curve signage


While on certain sections of Taihape Road vehicle speeds are likely to be constrained by the topography there are other sections where the opposite is true. At these locations a speed limit lower than 100km/h is unlikely to be self-enforcing and may require an increased level of enforcement to achieve the desired outcomes. Before going down this path we believe the road should be reviewed with a focus on curve delineation and be brought up to an improved standard.

A crash reduction study has recently been undertaken on Taihape Road and a review of barrier needs. This work should be implemented and allowed to settle down before the speed limit is reviewed.

A further point of consideration is that this road provides a cross boundary link to the Rangitikei District and is not simply a part of the Hastings network. A consistent treatment in both sections should be sought.

Recommendation

Review curve delineation along the full length of Taihape Road.

| Hastings District Council 2019 Speed Limit Assessment Waipunga Road | | | |
|--|---------|---|---------------|
| From | SH5 | To | End of seal |
| Section length | 5.7km | Reason for selection | Requested |
| ONRC | Access | IRR Band | Medium high |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 100km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 112vpd | RAMM speeds (85th percentile) | 56km/h |
| | | Date of assessment | November 2019 |
| 5yr crash history | | | |
| There have been no crashes recorded on Waipunga Road in the last five years. | | | |
| Discussion | | | |
| <p>Waipunga Road is similar to Ellis Wallace Road other than it is steeper and longer. Whilst the traffic count suggests a lower volume, logging operations were being carried out at the time of our site visit which significantly increased the number of vehicles using this road. With a Low collective and Low personal risk it is the IRR of Medium-high that results in a safe and appropriate speed of 60km/h. This is a winding road with significant roadside hazards.</p> | | | |
|  | | | |
| <i>Waipunga Road</i> | | | |
| <p>On certain sections of the road, particularly in the downhill direction towards SH5, it is easy to pick up speed however the alignment is such that vehicles are unlikely to exceed 80km/h. The 85th percentile speed of 56km/h does seem quite low however if the survey was carried out while logging was underway this would be explained by the slow speed that logging trucks travel in both directions. Due to the curvilinear nature of the road and its width logging trucks do cross the centre line at some locations. For the same reasons as Ellis Wallace Road, an 80km/h speed limit would reflect the speeds that are being travelled while a 60km/h speed limit would appear unrealistic on such a rural road. Council could consult on an 80km/h speed limit if it wished but this may not result in a change in actual vehicle speeds.</p> | | | |
| Recommendation | | | |
| Review delineation levels along Waipunga Road | | | |

| Hastings District Council 2019 Speed Limit Assessment Waiohiki Road | | | |
|---|-----------------|---|-----------------|
| From | SH50 Links Road | To | Napier boundary |
| Section length | 900m | Reason for selection | Top ten percent |
| ONRC | Arterial | IRR Band | Low-medium |
| Collective Risk | Low | Personal Risk | Low |
| Posted speed limit | 70km/h | Safe and appropriate speed | 60km/h |
| RAMM traffic volume | 7,787vpd | RAMM speeds (85th percentile) | 70.5km/h |
| Date of assessment | | | November 2019 |
| <p>5yr crash history</p> <p>Two crashes occurred on the curve at the intersection with Victoria Lane. A serious injury crash in 2018 when a distracted driver left the road and crashed in to a fence and tree and a 2015 non-injury crash with little detail other than the driver being over the alcohol limit and not knowing how he crashed.</p> <p>A 2016 non-injury crash was the result of a very intoxicated restricted licence holder driving off the road in to a fence while doing over 80km/h and a non-injury crash occurred in 2017 when a car pulled out of a driveway and failed to give way to a southbound vehicle.</p> <p>Three crashes occurred on the 55km/h curve. A 2015 non-injury when a car lost control travelling too fast, a second 2015 non-injury crash occurred when a southbound van lost control on the curve and slid in to a northbound vehicle at 8pm. A non-injury crash on the curve in 2018 appears to have been an intentional collision.</p> <p>The final crash took place when a car was stopped next to the centreline to turn in to a driveway between the bridge and the curve when it was hit from behind.</p> | | | |
| <p>Discussion</p> <p>Waiohiki Road is an arterial road that links SH50 with Gloucester Street in Napier over the Tutaekuri River and has been reviewed because the Safer Journeys Assessment Tool states that it is a top ten site for potential DSI reductions through a lowering of travel speeds.</p> <p>The only serious injury crash on this section took place at 1am on a Saturday morning and involved a restricted driver driving an unfamiliar 1992 Toyota who lost control on a corner after braking heavily. It is not known what speed the vehicle was travelling at before it came to rest against a tree.</p> <p>The Safer Journeys Assessment Tool suggest a safe and appropriate speed of 60km/h along this section road. To the south Waiohiki Road intersects with SH50 which is signed as 70km/h. To the north Waiohiki Road becomes the Napier City Council controlled Gloucester Street which is 70km/h and then drops to 50km/h entering Taradale.</p> <p>To achieve a more consistent solution for the route it is recommended that 50km/h is adopted on Waiohiki Road. This would also have added benefit of reducing the speed limit across the narrow bridge and around the tight radii curve to the south of the bridge.</p> | | | |
| <p>Recommendations</p> <p>The speed limit on Waiohiki Road be reduced from 70km/h to 50km/h between SH50 Links Road and the Napier City Council Boundary.</p> | | | |

| Hastings District Council 2019 Speed Limit Assessment Mill Road / Richmond Road intersection | | | |
|---|------------------------|---|---|
| Section length | Intersection | Reason for selection | Top ten percent |
| ONRC | Primary Collector | IRR Band | Medium |
| Collective Risk | Medium | Personal Risk | High |
| Posted speed limit | 100km/h | Safe and appropriate speed | 100km/h for Mill Road 80km/h for Richmond Road |
| RAMM traffic volume | 5,465 vpd on Mill Road | RAMM speeds (85th percentile) | |
| Date of assessment | | | November 2019 |
| 5yr crash history There have been two non-injury crashes recorded within 50m of the Mill Road / Richmond Rd intersection. However, there were two high severity crashes at the intersection that took place in 2010 and 2011. All were right angle or right turn right side crashes. | | | |
| Discussion The Richmond Road / Mill Road intersection is a rural priority-controlled crossroads, and the roads are two-lane, two-way. Both roads have a speed limit of 100km/h. Since 2011, various safety countermeasures have been installed at the intersection including traversable rumble strips, and flexible bollards on either approach of Richmond Road as well as double gated stop signs(minor road). Mill Road is a primary collector road, and Richmond Road is a primary collector road to the west of the intersection, and a secondary collector road eastward of the intersection. The intersection has a medium collective risk, and a high personal risk. It has an Infrastructure Risk Rating of medium, giving it a medium strategic fit. Due to the crash history at this site, this location has been identified in the national Safer Network Programme as a site suitable for the application of Rural Intersection Advanced Warning Signs (RIAWS). | | | |
| Recommendations Introduce 80/60km/h RIAWS zone on Mill Road from a distance 150m south of the intersection with Richmond Road to a distance 150m north of the intersection. | | | |

| Hastings District Council 2019 Speed Limit Assessment Pakowhai Road / Elwood Road | | | |
|---|--|---|-----------------|
| Section length | Intersection | Reason for selection | Top ten percent |
| ONRC | Pakowhai – Arterial Elwood – Primary Collector | IRR Band | Medium |
| Collective Risk | High | Personal Risk | Medium |
| Posted speed limit | 70km/h | Safe and appropriate speed | 80km/h |
| RAMM traffic volume | 1,3378 vpd | RAMM speeds (85th percentile) | |
| Date of assessment | | | November 2019 |
| 5yr crash history | | | |
| <p>There were 11 crashes recorded within 50m of the Pakowhai Road / Elwood Road intersection, resulted in 2 minor injuries and 9 non injuries. Five of these crashes were right turn right side or two turning crashes. One minor injury crash happened involved a vehicle missed intersection, and the other minor injury crash was a rear end. Both were in dark weather conditions.</p> | | | |
| Discussion | | | |
| <p>The Pakowhai Road / Elwood Road intersection is a rural priority-controlled T-intersection, and both adjoining roads are two-lane, two-way. The safe and appropriate speeds and the posted speed limit is 80km/h for both sites.</p> <p>Pakowhai Road is an arterial road and Elwood Road is a primary collector road. The intersection has a high collective risk, a medium-high personal risk. It has an Infrastructure Risk Rating of medium, giving it a high strategic fit. Due to the crash history at this site, this location has been identified in the national Safer Network Programme as a site suitable for the application of Rural Intersection Advanced Warning Signs (RIAWS).</p> | | | |
| Recommendations | | | |
| <p>Introduce 80/60km/h RIAWS zone on Pakowhai Road from a distance 150m northeast of the intersection with Elwood Road to a distance 150m southwest of the intersection.</p> | | | |

Appendix J Summary of results

| Road name | From | To | Proposal |
|--------------------|----------------------|--------------------|--|
| Algernon Road | Norton Road | Northern extent | 80km/h speed limit |
| Apley Road | Dartmoor Road | Puketitiri Road | Review curve signage |
| Bennett Road | Otene Road | SH51 | 60km/h northern section 50km/h southern section |
| Brookfields Road | Pakowhai Road | NCC boundary | 80km/h speed limit |
| Chatham Road | Omahu Road | Urban Flaxmere | Increase 50 to 60km/h Install threshold treatment |
| Clifton Road | Haumoana | Te Awanga | 80km/h speed limit |
| Clifton Road | Te Awanga | Car park | 80km/h speed limit Review curve signage and tourist messages |
| Dartmoor Road | Vicarage Road | Apley Road | Part 80km/h speed limit Delineation improvements |
| Davis Road | Riverslea Road South | Railway Road South | 80km/h speed limit |
| East Road | Parkhill Road | Clifton | 80km/h speed limit |
| Ellis Wallace Road | Full length | | Review delineation |
| Elwood Road | Otene Road | SH51 | 50km/h on southern section replacing 70 |
| Evenden Road | SH2 | Raupare Road | 80km/h speed limit |
| France Road | Railway Road South | End | 80km/h speed limit |
| Gilbertson Road | Pakowhai Road | Gilligan Road | Review signage and delineation |
| Gilpin Road | Te Aute Road | Middle Road | 80km/h speed limit |
| | | | 80km/h speed limit from Mill Road to 50m South of existing 50km/h Speed limit signs 50km/h from 50m South of existing 50km/h Speed limit signs to Existing 50km/h Speed limit signs |
| Haumoana Road | Mill Road | End | |
| Havelock Road | St Georges Road | St Andrews Road | No change |
| Heathcote Road | Maraekakaho Road | Southland Road | 80km/h speed limit Increase size of curve signs Review intersection layout |
| Henderson Road | Omahu Road | Urban Flaxmere | Replace 70 with 60km/h Install threshold treatment |
| Hill Road | Omahu Road | End | 80km/h speed limit |
| Iona Road | Urban boundary | Middle Road | 80km/h speed limit |

May 2020 | Status: Final | Project No.: 310201117 Child No.: 010108 | Our ref: mDC Spd July Rev

| Road name | From | To | Proposal |
|------------------------|--------------------------------------|--|--|
| Jarvis Road | Omahu Road | Thompson Road | Part 80km/h speed limit |
| Kirkwood Road | Omahu Road | Urban Flaxmere | Replace 70 with 60km/h Narrowing treatment |
| Lawn Road | Napier Road | Mill Road | 80km/h speed limit Review intersection signage |
| Longlands Road East | Railway Road South | Te Aute Road | Review delineation of splitter island at intersection |
| Longlands Road West | SH50 | Railway Road South | Review signage at Railway Road |
| Middle Road | School Road | Urban boundary | Part 80km/h speed limit Review curve and intersection signage |
| Mill Road | Existing 50km/h Speed limit signs | Tuki Tuki Road | Review curve signage 80km/h speed limit |
| Napier Road | Full length | | No change |
| Ngatarawa Road | Maraekakaho Road | SH50 | No change |
| Norton Road | Algernon Road | 90m west of Copeland Road | 80km/h speed limit |
| Omahu Road | Rural boundary | Urban boundary | Replace 100 with 80km/h speed limit Replace 70 with 60km/h speed limit Extend 50km/h speed limit |
| Omarunui Road | SH50 | Strome Road | Review delineation and then consider speed limit change |
| Otene Road | Elwood Road | Ruahapia Road | No change |
| Other Twyford sites | | | Area wide 80km/h Review curve delineation |
| Pakowhai Road | Existing 60km/h section | | Additional speed management or revert to 80km/h Right turn bay for school |
| Paraire Road | SH51 | End | 60km/h |
| Park Road | Algernon Road | 200m west of Tollemache Road | 80km/h speed limit |
| Parkhill Road | Haumoana Road | End | 80km/h speed limit |
| Puketapu Road to north | Puketitiri Road | Puketapu | Review curve signage Consider school speed limit |
| Puketapu Road to south | Puketapu | 70m South of Existing 50km/h Speed limit signs | Extend 50km/h speed limit Part 80km/h speed limit Threshold signage |

| Road name | From | To | Proposal |
|-----------------------|--------------------|--|--|
| Puketitiri Road | Apley Road | NCC boundary | Review curve signage Crash Reduction Study |
| Railway Road South | Urban Boundary | 250m south of intersection with Longlands Road | Part 80km/h speed limit Reduce RIAWS from 70 to 60km/h |
| Raupare Road | Omahu Road | End | 80km/h speed limit Formalise 50km/h speed limit Review curve signage |
| Riverslea Road South | Longlands Road | Tollemache East | 80km/h speed limit Area wide 80km/h speed limit Review delineation |
| Romanes Drive | Brookvale Road | Napier Road | No change |
| Ruahapia Road | Otene Road | SH51 | No change |
| Southland Road | Heathcote Road | Tollemache West | 80km/h speed limit Increase size of curve signs Review intersection layout |
| Springfield Road | Puketapu Road | NCC boundary | 80km/h speed limit Review curve signage Improve edge definition |
| Swamp Road | Taihape Road | Moteo Pa Road | Carry out Crash Reduction Study Review curve delineation |
| Taihape Road | Swamp Road | Willowford Road | Review curve delineation |
| Te Aute Road | Railway Road South | Urban | Part 80km/h speed limit Progress CRS recommendations |
| Te Mata Mangateretere | Lawn Road | Waimarama Road | Signage improvements |
| Te Mata Peak Road | Full length | | Review curve and speed limit signage |
| Thompson Road | Twyford | Raupare | 80km/h speed limit Improve edge definition Consider school speed limit |
| Tollemache Road | Southland Road | Norton Road | 80km/h speed limit |
| Tuki Tuki Road | Mill Road | Moore Road | 80km/h speed limit Review curve signage |
| Twyford Road | Omahu Road | Thompson Road | 80km/h speed limit Review curve delineation Consider school speed limit |
| Vicarage Road | Omarunui Road | Existing 50km/h Speed limit signs | Seasonal 50km/h Speed Limit operational between 1 December and 31 |

May 2020 | Status: Final | Project No.: 310201117 Child No.: 010108 | Our ref: mDC Spd July Rev

| Road name | From | To | Proposal |
|--|--|--|---|
| | | | January inclusive each year |
| Waimarama Road | Te Mata Road | Waimarama | Implement CRS recommendations |
| Waiohiki Road | SH50 Links Road | Napier boundary | 50km/h to match Napier City Council proposal |
| Waipatu Settlement Rd | SH51 | End | 60km/h |
| Waipunga Road | Full length | End | Review delineation |
| Watson Road | SH51 | | 60km/h |
| Wellwood Road | Full length | | 80km/h speed limit |
| Whakatu Road | Full length | | Review intersection delineation |
| Wilson Road | Omahu Road | Urban Flaxmere | Replace 70 with 60km/h Install threshold treatment |
| Havelock North CBD | Various - as per map | | Introduce 30km/h CBD speed limit |
| Pakowhai Road / Elwood Road intersection | Take guidance from RIAW guidance in terms of extents | Take guidance from RIAW guidance in terms of extents | Introduce 80/60km/h RIAWS zone on Pakowhai Road |
| Mill Road / Richmond Road intersection | Take guidance from RIAW guidance in terms of extents | Take guidance from RIAW guidance in terms of extents | Introduce 80/60km/h RIAWS zone on Mill Road |

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SEPTEMBER 2020

FOLKL

HASTINGS DISTRICT COUNCIL.

‘Changes to Speed Limits 2020’
Havelock North CBD

FOLKL COMMUNITY CONSULTATION

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RESEARCH METHODOLOGY.

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3

Research Methodology.

F O L K L

This research project has been undertaken to gain further data and insight to directly feed into the ‘Changes to Speed Limits 2020 - Havelock North Consultation’ report.

The method utilised was interviews, with the objective of firstly uncovering the participants’ preference on the proposed speed change, and then exploring the reasons behind their chosen preference.

All data has been thematically analysed with findings presented in the following report.



Interviews

Intercept interviews were conducted with 52 participants in the Havelock North Central Business District (CBD).

FOLKL researchers were stationed on Te Mata Road, with time split between the Porters Drive roundabout area and the Havelock North Domain area.



The research was conducted over the following time period:

| | |
|-----------------------------------|-------------------------------------|
| 31 August 10am - 3pm | 2 September 10am - 3pm |
|-----------------------------------|-------------------------------------|

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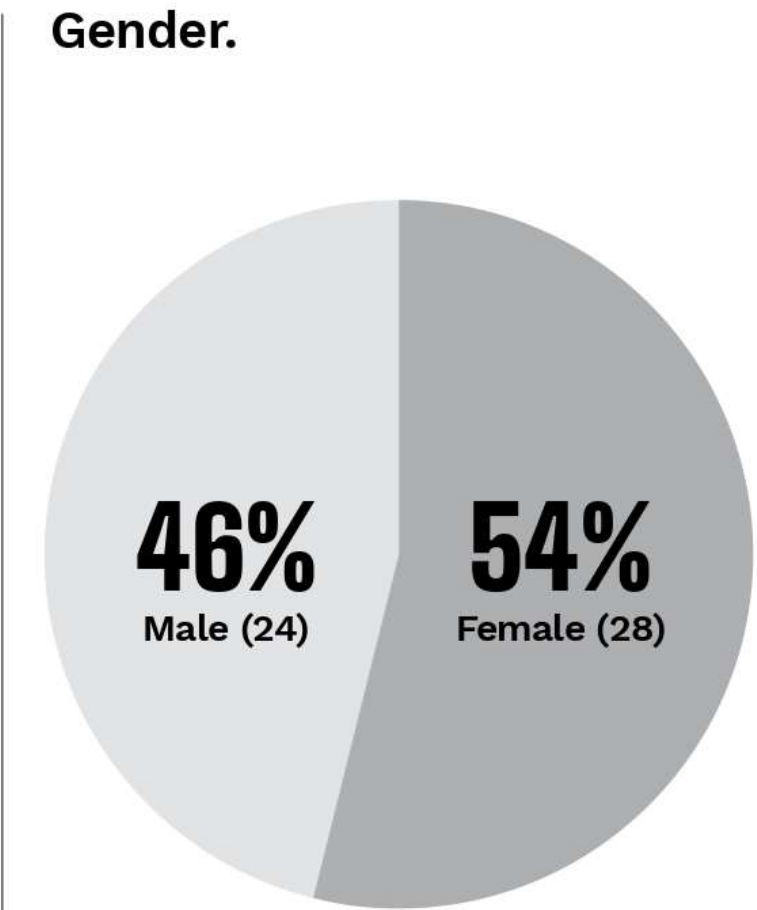
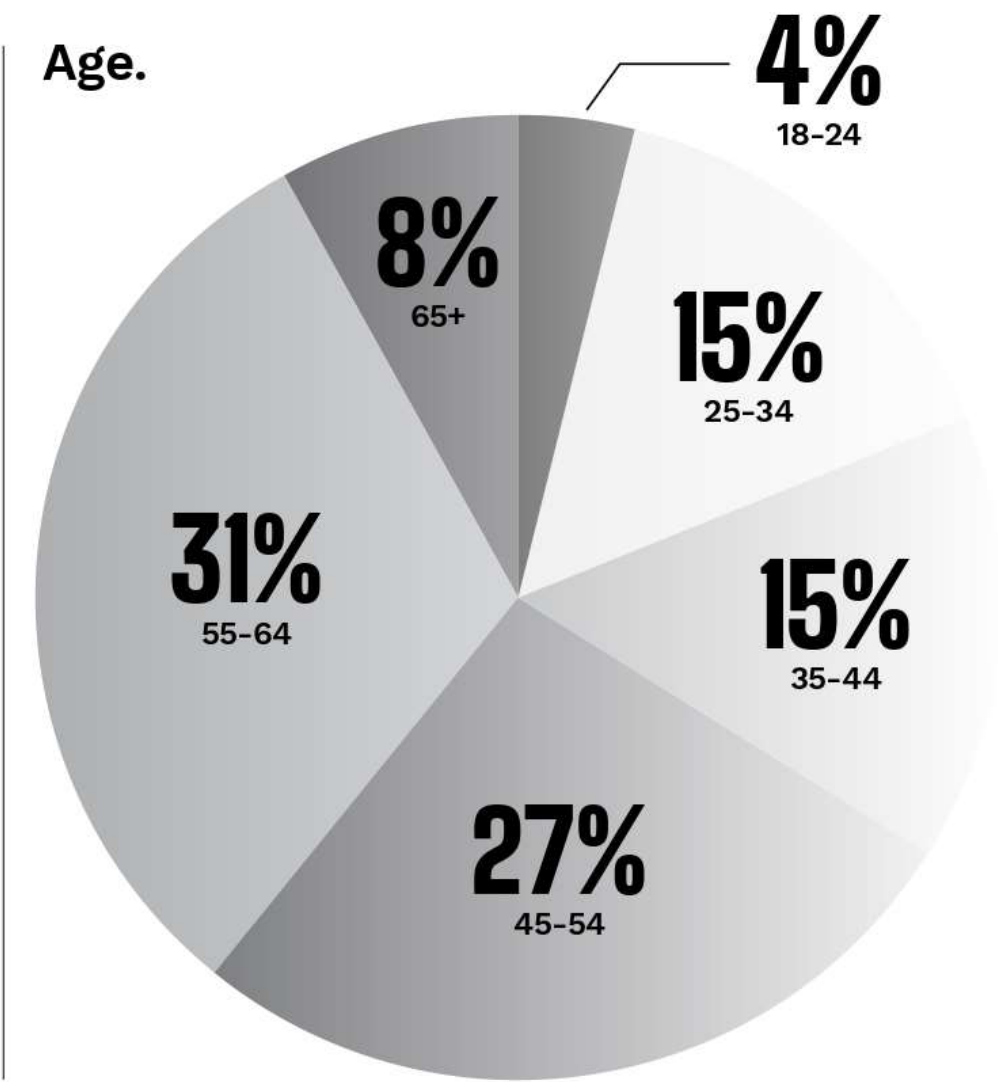


PARTICIPANT DEMOGRAPHICS.

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Participant Demographics.



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SOURCE: FOLKL RESEARCH - N52

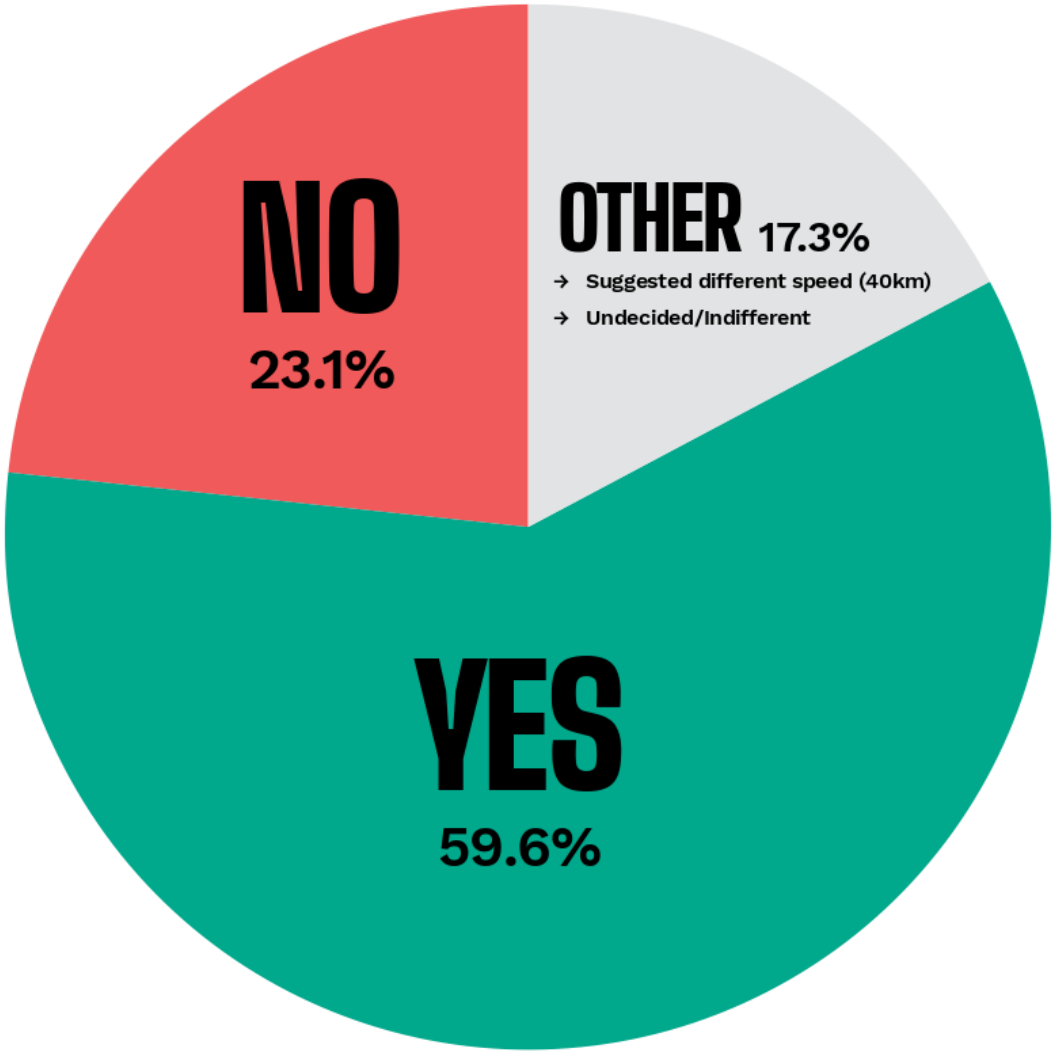
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RESEARCH FINDINGS.

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Do you support the proposed speed change to the Havelock North CBD?



SOURCE: FOLKL RESEARCH - N52

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Key Findings.

Support the Proposed Change.

F O L K L



A speed limit reduction is widely supported as people are currently speeding in the area.

At present some road users are speeding through the Havelock North CBD, and people are noticing this.

Participants considered the proposed reduction of the speed limit in the area to be a positive step toward changing this behaviour.

Some participants mentioned that vehicle size, and in particular the presence of large SUVs, exacerbated the issue.



The current speed limit is at odds with the urban environment.

Participants describe the Havelock North CBD as an environment where pedestrian presence and movement is considerable and of paramount importance.

Having the current 50 km/h limit in what is deemed to be a busy pedestrian area is viewed as being at odds with the nature of the urban environment as it makes it unsafe for those on foot.

There were instances where participants mentioned that they actively take increased caution when walking in the CBD with anecdotal evidence of witnessed accidents and near-misses as a result of speed.



Presence of children adds a heightened sense of urgency for the change.

Young families and children are considered to be a substantial section of the pedestrian traffic in the Havelock North CBD.

This, combined with the close proximity of local schools to the area, is seen as a pertinent reason for speed limit reduction in the interests of improving safety.

SOURCE: FOLKL RESEARCH

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Sound bites.

F O L K L

“Most people drive too fast in the area.”

“I do a lot of walking, and I see people speeding a lot, there are a lot of children and families in this area.”

“Lots of children on skateboards and bikes around, people are driving too fast at certain times of day when there is more foot traffic.”

“I have a kid, drivers are really rude, especially around the park and schools, there are so many kids running around.”

“With the new huge retirement village going in, there are a lot more elderly people in the village, who don’t drive well or get around the streets as well so I think it would be a very good idea for everyone’s safety.”

“I drive a small car and I find people are always pulling out in front of me going very fast, as everyone has SUVs now.”

“Most places with this level of pedestrian traffic in Wellington have 30km/h limit and it seems to work well so it should be the same here. Wouldn’t do any harm.”

“I have 4 children, so I would feel more comfortable knowing the speed wasn’t 50km/h along here. Such a small condensed area with the school and everything.”

“Feels very unsafe biking with my children in these areas. People will slow down (with the change) and allow people to walk over the unmarked crossings more easily.”

“A lot of children and families in the area, feel most people should be driving that speed anyway near parks and shopping areas.”

SOURCE: FOLKL RESEARCH

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F O L K L

Key Findings.
Do Not Support the Proposed Change.



**Those who do not support
the proposed change
say ‘it’s fine as it is’.**

Participants who did not support the proposed change deemed the status quo to be sufficient. Perceived high volumes of vehicle traffic are seen to regulate the speed limit in the Havelock North CBD as the level of congestion forces people to drive slowly.



A drop to 30km/h is too slow.

Some participants viewed the proposed drop to 30km/h as being too drastic, and favoured a reduction to 40km/h if change was required. 30km/h was considered to be too slow given the current high levels of traffic in the Havelock North CBD, and those with this stance thought the proposed change would have further negative effects on congestion and traffic flow.

SOURCE: FOLKL RESEARCH

FOLKL: PROPRIETARY AND CONFIDENTIAL

Sound bites.

F O L K L

“Not needed, as the traffic is governed by what is happening in the village, and people end up going 30km/h anyway.”

“People are already doing that speed anyway, already very conscious of the crossings and that there is a school close by.”

“Don’t feel people drive much faster than 30k in this area anyway, so wouldn’t be much point.”

“30km/h is a bit too slow. Also they are bringing in the rule where If you exceed the limit by one km/h you will be fined so that should keep people slowing down.”

“I live close to the village, and have never noticed any problems with speeding or accidents so not sure why it should change. 30km/h seems like snail’s pace to me.”

“Don’t see much point as people go pretty slow around here with the fake pedestrian bumps. Will always get the odd person going a bit faster.”

“Don’t see a problem with speeding, because of the traffic, it self regulates.”

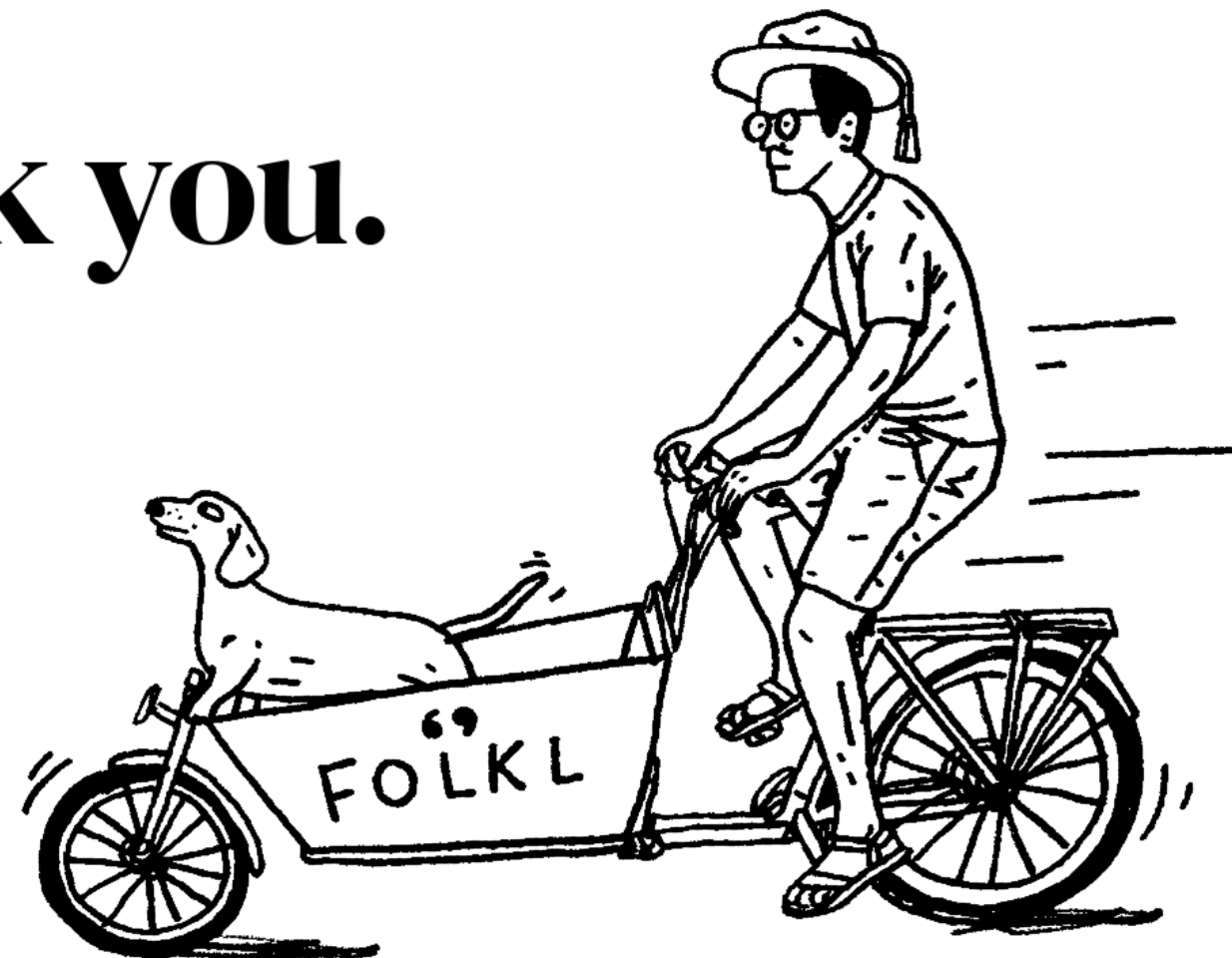
“30km/h is a really slow speed and will feel like you are just crawling.”

“Don’t think people will take any notice of it any way, people will speed anyway.”

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F O L K L

Ngā mihi | Thank you.



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