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1 **Background**

South Wairarapa District Council (the 'Council') and Carterton District Council are developing a speed management plan with a 10-year vision and three-year implementation plan for both districts, as required by the Land Transport Rule: Setting of Speed Limits 2022. The plan includes short-term and long-term road safety goals; speed limit changes for the whole network, and future improvements to roads to support changes in speed limits if and when required.

Tonkin & Taylor Limited (T+T) was engaged by the Council to develop a technical assessment of the roads proposed for speed limit changes as part of the Speed Management Plan. These roads are around schools (including preschools) and marae, and roads with local priority that have been collated to form an implementation plan in the next three years (2024-2027).

Changes to speed limits will be on-going as development in the district continues and to achieve alignment with the Road to Zero Action Plan¹ with respect to speed management. This initial plan will provide guidance on when, how and why speed should be managed on each of the roads identified.

The Speed Management Plan provides the ten-year vision that contains objectives, principles and measures, aligns with the Government Policy Statement and Road to Zero road strategy and adopts the whole of network approach. The Speed Management Plan will be reviewed every three years in alignment with the National Land Transport Programme funding cycle to provide alignment with funding opportunities. The Speed Management Plan will also be reviewed when significant changes in development or funding occur, necessitating a change to the implementation plan.

Due to funding limitations those locations that require physical works will need to be prioritised. The initial ranking has been undertaken based on risk. However due to the legislative requirements for schools and marae, these locations are prioritised in the first instance along with those local priority roads identified by the Council.

By 2027, Council will be required to have reduced the speed limits in the vicinity of all 14 schools within both districts to a maximum of 30 km/hr for urban schools or 60 km/hr for rural schools as either variable or permanent. Roads around marae are one of the focuses for safe and appropriate speed to emphasise the site-specific needs on the corridor.

The intention is for the plan to be reviewed every three years in alignment with the National Land Transport Programme funding cycle to provide alignment with funding opportunities. The plan will also be reviewed when significant changes in development or funding occur necessitating a change to the implementation plan.

This document sets out the technical assessment undertaken on each of the roads identified for review in 2023. Summary tables of the proposed speed limit changes are available in the Speed Management Plan as Table 6.3 to Table 6.10.

1.1 Speed management reviews

Those roads considered as part of the development of the inaugural speed management plan for South Wairarapa District have been identified from the following sources:

- Roads within close proximity of a school.
- Roads with a frontage to a marae.
- Roads with local priority identified by the Council.

Tonkin & Taylor Ltd Speed Management Plan - Technical Assessment South Wairarapa District Council

Plan_Final.pdf

Setting safe speed limits around all schools and marae improves actual and perceived safety to encourage and enable more active travel to and from school which is important for healthy communities. It also reduces the risk to tamariki and whānau of being killed or seriously injured while travelling to or from school or participating events at the marae. The Council, as the road controlling authority, has the local knowledge of their road network and these roads are selected as the priority for implementation in the next three years.

Each of the roads / locations originally identified are listed below, with additional information and their assessment as well as details of any adjacent roads or sections of road that were included in the review. The methodology for the technical assessment can be found in the Interim Speed Management Plan.

1.2 Signs and road marking

A speed limit sign must be located on the left-hand side of a road at or near and not more than 20 m from the point on the road where a speed limit changes. Repeater signs are generally used where the speed limit is above 50 km/h and below 100 km/h. The recommended maximum intervals between speed limit signs are:

- 2.0 km when the speed limit is 60 km/h.
- 2.4 km when the speed limit is 70 km/h.
- 2.7 km when the speed limit is 80 km/h.
- 3.0 km when the speed limit is 90 km/h.

Each location will require site specific design but is unlikely to vary significantly to provide a degree of consistency for drivers as they travel throughout the district.

Other supporting infrastructure improvements (e.g., traffic calming and other engineering upgrades) have been identified for specific locations. Where traffic calming is recommended and for rural roads where the mean operating speed is higher than the proposed speed limit, the Waka Kotahi Standard Safety Intervention Toolkit² contains reference to detailed industry design resources for interventions that align to the appropriate treatments for Road to Zero funding.

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² The Standard Safety Intervention toolkit provides guidance for road safety practitioners on the effectiveness and valuefor-money cost range of proven safety interventions to reduce the number of people killed and seriously injured: https://www.nzta.govt.nz/resources/standard-safety-intervention-toolkit/

2 Schools and marae

There are eight schools and three marae in the South Wairarapa District Council area for which the speed limit needs to be lowered to comply with the Land Transport Rule: Setting of Speed Limits 2022. The following sections consider the current use of the roads around each school and marae and proposes speed limits and any other measures to assist with safety and accessibility.

2.1 Greytown School

Greytown School is a full primary school (Year 0-8) with a pedestrian crossing on East Street and pedestrian and vehicle access on Reading Street. Footpaths are provided on both sides of East Street and Reading Street. Construction of a wider footpath is underway to replace and extend the existing footpath on the western side (school side) on Reading Street. There are no cycle facilities in the area.



Figure 2.1: Greytown School access (Source: Waka Kotahi MegaMaps)

The speed information for roads near Greytown School from MegaMaps³ is shown in Table 2.1.

³ MegaMaps is a geospatial tool which contains speed management information and guidance for the road network of each road controlling authority. It is owned and managed by the NZTA. https://www.nzta.govt.nz/safety/partners/speed-and-infrastructure/safe-and-appropriate-speed-limits/mega-maps/

Table 2.1: Speed information for roads near Greytown School

	East Street (between 100m southwest of Church Street and 75m northeast of McMaster Street)	Reading Street (between Church Street and 75m northeast of McMaster Street)	Church Street	McMaster Street
AM peak mean speed	33 km/h	19 km/h	19 km/h	17 km/h
PM peak mean speed	36 km/h	19 km/h	19 km/h	16 km/h
Mean operating speed	39 km/h	20 km/h	20 km/h	19 km/h
Posted speed limit	50 km/h	50 km/h	50 km/h	50 km/h
Proposed speed limit	30 km/h	30 km/h	30 km/h	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, an impact speed of 30 km/h or below is considered to be the safe and appropriate speed for these vulnerable users. East Street between Church Street and McMaster Street has a high operating speed of 39 km/h while the operating speeds on all the other roads are below the 30 km/h threshold.

East Street is categorised as Activity Street in the One Network Framework (ONF). Activity Streets provide access to shops and services by all modes. They have a significant movement demand as well as place, so competing demands need to be managed within the available road space. The Safe and Appropriate Speed (SaAS) is 30 km/h. Given the high operating speed and high pedestrian activities on East Street, the existing speed limit is proposed to be reduced from 50 km/h to 30 km/h to align with the SaAS. The speed limits on the sections of Reading Street, Church Street and McMaster Street around Greytown School should also be lowered to 30 km/h permanently for consistency and to enhance the residential nature in the vicinity.

In order to ensure drivers to comply with the lowered speed limit, traffic calming features should be introduced to reduce the operating speed, such as raised pedestrian crossing or narrowing parts of the road.

2.2 Kuranui College

Kuranui College is a secondary school (Year 9-15) with accesses on Wakelin Street and Bidwills Cutting Road. Both roads are designed to prioritise vehicle movements. Footpaths are available along the eastern side (school side) of Bidwills Cutting Road between SH2 and Arbor Place. There are no footpaths or cycling facilities available on the rest of Bidwills Cutting Road or Wakelin Street. Footpaths are available on East Street but these terminate at the intersection with Wakelin Street and a formal pedestrian crossing is not available. Designated pick-up and drop-off areas for buses are located on both Bidwills Cutting Road and Wakelin Street.



Figure 2.2: Kuranui College access (Source: Waka Kotahi MegaMaps)

The speed information for roads near Kuranui College from MegaMaps is shown in Table 2.2.

Table 2.2: Speed information for roads near Kuranui College

	Bidwills Cutting Road (from SH2 to 240m south on Bidwills Road)	Bidwills Cutting Road (from 240m south on Bidwills Road to Kemptons Line)	Wakelin Street	East Street	Arbor Place
AM peak mean speed	51 km/h	65 km/h	16-17 km/h	21 km/h	-
PM peak mean speed	52 km/h	64 km/h	16-17 km/h	21 km/h	-
Mean operating speed	63 km/h	72 km/h	16-17 km/h	18 km/h	7 km/h
Posted speed limit	50 km/h	70 km/h	50 km/h	50 km/h	50 km/h
Proposed speed limit	30 km/h	60 km/h	30 km/h	30 km/h	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, impact speed of 30 km/h or below is considered to be the safe and appropriate speed for vulnerable users. Wakelin Street and East Street have operating speeds lower than 30km/h. The operating speed on Bidwills Cutting Road is much higher than the 30 km/h threshold. The high operating speed on Bidwills Cutting Road could be due to the straight road alignment, no cues of a lower-speed environment (e.g., lack of a pedestrian crossing, or medium to high density developments), lack of school zone speed limit sign and warning signs.

The speed limit for Wakelin Street and East Street around Kuranui College is proposed to be reduced to 30 km/h which aligns with the SaAS and enhances the residential nature. Bidwills Cutting Road from SH2 to 240 m south on Bidwills Road shall have a new speed limit of 30 km/h and from 240 m south on Bidwills Cutting Road to Kemptons Line to have a speed limit of 60 km/h. The new speed limit on Arbor Place shall be 30km/h to be consistent with the new speed limit of 30 km/h on Bidwills Cutting Road.

A speed limit and school warning sign on Bidwills Cutting Road, (example shown in Figure 2.3) would support lowered speed limits given the current high operating speeds.



Figure 2.3:W19-2.1 Warning – symbol illuminated when activated (Kura School) — Permanent warning⁴

2.3 St Teresa's School

St Teresa's School is a full primary school (Year 0-8) with the main access on Bell Street. This main access is for pedestrians only with no vehicle access. A pedestrian crossing is available outside this access. A designated school bus stop is also located next to this access. Footpaths are provided on both sides of Bell Street. The footpaths opposite the school entrance terminate at the vehicle crossing of 62 Bell Street, as indicated in Figure 2.4. There are no cycle facilities in the area.

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⁴ Waka Kotahi Traffic control devices manual: Warning – symbol illuminated when activated (Kura School) — Permanent warning from https://www.nzta.govt.nz/resources/traffic-control-devices-manual/sign-specifications/view/1207?category=&term=kura



Figure 2.4: St Teresa's School area (Source: Waka Kotahi MegaMaps)

The speed information for roads near St Teresa's School from MegaMaps is shown in Table 2.3.

Table 2.3: Speed information for roads near St Teresa's School

	Bell Street	Birdwood Street
AM peak mean speed	26 km/h	28 km/h
PM peak mean speed	25 km/h	28 km/h
Mean operating speed	30 km/h	37 km/h
Posted speed limit	50 km/h	50 km/h
Proposed speed limit	30 km/h	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, an impact speed of 30km/h or below is considered to be the safe and appropriate speed for these vulnerable users. There are signs near the school advising drivers to slow down but no formal roadside warning signs. The speed limit on the sections of Bell Street and Birdwood Street around the school shall be reduced to 30km/h to align with safe speeds around school and enhance the residential nature in the area. Warning signs (as shown in Figure 2.3) and new speed limit signs are recommended on Bell Street and Birdwood Street.

2.4 Featherston School

Featherston School is a full primary school (Year 0-8) with access near 10 Lyon Street. This access has a vehicle crossing and a separate pedestrian entrance. A designated school bus stop is outside this access. Footpaths are provided on both sides of Lyon Street. There are no cycle facilities in the area. There is no pedestrian crossing facility on Lyon Street.



Figure 2.5: Featherston School (Source: Waka Kotahi MegaMaps)

The speed information for road near Featherston School from MegaMaps is shown in Table 2.4.

Table 2.4: Speed information for road near Featherston School

	Lyon Street
AM peak mean speed	26 km/h
PM peak mean speed	28 km/h
Mean operating speed	30 km/h
Posted speed limit	50 km/h
Proposed speed limit	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, impact speed of 30km/h or below is considered to be the safe and appropriate speed for vulnerable users. The operating speed on Lyon Street is at the 30km/h threshold and the operating speed on Wallace Street is slightly above the 30km/h threshold. There is currently a sign on Lyon Street advising a speed limit of 40km/h when school children are present. The speed limit on Lyon Street shall be reduced to 30km/h to align with safe speeds around school and enhance the residential nature in the area. A warning sign, as shown in Figure 2.3, is also recommended on Lyon Street.

The width of Lyon Street is approximately 12.5 metres which is a long crossing distance for pedestrians. Therefore, it's recommended to review the pedestrian access to the school and consider formalising the crossing points (e.g., kerb buildouts or two-staged crossing) to reduce crossing distance and improve the safety for pedestrians.

2.5 Martinborough School

Martinborough School is a full primary school (Year 0 – 8) with two pedestrian entrances on Dublin Street and a pick-up and drop-off area on Roberts Street. A pedestrian crossing is available on Dublin Street near the southern entrance. A designated school bus stop is available on Dublin Street near the northern entrance. Footpaths are provided on both sides on Dublin Street. A footpath is only. available on one side on Roberts Street and Grey Street. There are no cycle facilities in the area.



Figure 2.6: Martinborough School area (Source: Waka Kotahi MegaMaps)

The speed information for road near Martinborough School from MegaMaps is shown in Table 2.5.

Table 2.5: Speed information for road near Martinborough School

	Dublin Street	Roberts Street	Grey Street
AM peak mean speed	31 km/h	27 km/h	26 km/h
PM peak mean speed	39 km/h	28 km/h	26 km/h
Mean operating speed	48 km/h	31 km/h	27 km/h
Posted speed limit	50 km/h	50 km/h	50 km/h
Proposed speed limit	30 km/h	30 km/h	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, an impact speed of 30km/h or below is considered to be the safe and appropriate speed for these vulnerable users. The operating speed on Dublin Street is above the 30 km/h threshold and there are likely more pedestrian activities on Dublin Street than Roberts Street and Grey Street. This is because there are more footpaths and pedestrian crossing available that are more attractive to users. There is a warning sign for the pedestrian crossing outside the school on Dublin Street but there are no speed limit signs nor any physical features to reduce the speed. The permanent speed limits on Dublin

Street, Roberts Street and Grey Street are proposed to be reduced to 30km/h to align with safe speeds around school and enhance the residential nature in the area. The erection of a warning sign (as shown in Figure 2.3) is recommended on Dublin Street. All the roads in the school zone should have new speed limit signs installed.

In order to support a lowered speed environment on Dublin Street, traffic calming features are recommended, such as raised pedestrian crossing or speed humps.

2.6 South Featherston School

South Featherston School is a full primary school (Year 0-8). The school access is located on South Featherston Road with parking and pick-up and drop-off area immediately outside. Footpaths are not available on South Featherston Road and there are no cycling facilities. The existing South Featherston School zone starts 20 metres south of Longwood East Road and ends at 160 metres south of Longwood East Road. The existing speed limit is 50 km/h with a variable speed limit of 40 km/h during pick-up and drop-off periods.

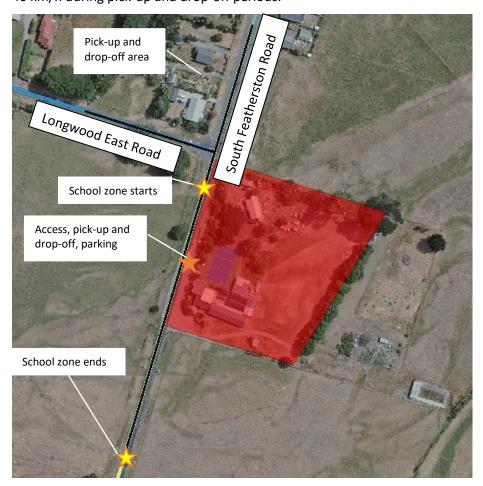


Figure 2.7: South Feasterston School area (Source: Waka Kotahi MegaMaps)

The speed information for roads near South Featherston School from MegaMaps is shown in Table 2.6.

Table 2.6: Speed information for roads near South Featherston School

	South Featherston Road between Longwood East Road and 160m south of Longwood East Road	South Featherston Road between Longwood East Road and 100m north of Longwood East Road	Longwood East Road between South Featherston Road and 90m west of South Featherston Road
AM peak mean speed	51 km/h	46 km/h	26 km/h
PM peak mean speed	52 km/h	46 km/h	26 km/h
Mean operating speed	48 km/h	48 km/h	26 km/h
Posted speed limit	50 km/h	50 km/h	50 km/h
Proposed speed limit	30 km/h (with a 200- metre section of 60km/h for transition between 30 km/h and 100 km/h)	30 km/h	30 km/h

To improve the survivability of crashes involving pedestrians and cyclists, impact speed of 30 km/h or below is considered to be the safe and appropriate speed for vulnerable users. The operating speed on South Featherston Road is very high which could be due to the straight road alignment, no cues of a lower-speed environment (e.g. pedestrian crossing, medium to high density developments), and lack of traffic calming features.

Extending the school zone north of Longwood East Road to include the school drop-off and pick-up point will reduce the speed limit in the residential area of South Featherston. This will align with the residential nature of the area as there are more cues of a low-speed environment to drivers (e.g., increased number of driveway and more residential dwellings). The speed limits on the sections of South Featherston Road and Longwood East Road shall be reduced to 30 km/h to also align with safe speeds around schools. The erection of a warning sign (as shown in Figure 2.3) is recommended on South Featherston Road. New speed limit signs should be installed to replace the existing ones. A 200-metre section of 60 km/h is proposed for a transition between the 100 km/h and 30 km/h.

In order to ensure drivers to comply with the new speed limit and reduce the operating speed on South Featherston Road, traffic calming features are recommended to reduce the operating speed, such as a speed table at the intersection or speed humps.

2.7 Pirinoa School

Pirinoa School is a full primary school (Year 0-8). The access is located on Lake Ferry Road (opposite McDougalls Road) with parking and pick-up and drop-off area immediately outside. Footpaths are not available in this section of Lake Ferry Road and there are no cycling facilities. There is a warning sign and road marking south of the school on Lake Ferry Road. There is only road marking on Lake Ferry Road north of the school.



Figure 2.8: Pirinoa School area (Source: Waka Kotahi MegaMaps)

The speed information for road near Pirinoa School from MegaMaps is shown in Table 2.7.

Table 2.7: Speed information for the road near Pirinoa School

	Lake Ferry Road (between 70m northeast of McDougalls Road and 220m southwest of McDougalls Road)
AM peak mean speed	59 km/h
PM peak mean speed	55 km/h
Mean operating speed	73 km/h
Posted speed limit	70 km/h
Proposed speed limit	60 km/h (30km/h Variable Speed Limit (VSL) during pick- up and drop-off periods)

The surrounding lane use is primarily rural around Pirinoa School and there are no pedestrian and cycling facilities available on Lake Ferry Road. It is likely that all students travel to and from the school in vehicles. The existing speed limit is 70 km/h and the mean operating speed is 73 km/h.

Given the high operating speed and surrounding land use, a speed limit of 30 km/h is not appropriate and unlikely to have compliance. To achieve a speed environment of 30 km/h at school drop-off and pick-up times several features would be required such as gateway treatments on each approach with road narrowing, pedestrian crossings and potentially narrowing the road between the gateway treatment locations.

The existing operating speeds at both AM and PM peaks are close to 60 km/h. To comply with the speed limits around schools required in the Setting of Speed Limit Rule 2022, the proposed speed

limit is recommended to be 60 km/h with 30 km/h variable speed limit during school pick-up and drop-off periods. Traffic calming features are recommended to reduce the operating speed, particularly at school pick-up and drop-off periods.

2.7.1 Cambridge Road (between Memorial Square and Strasbourge Street)

Cambridge Road runs from Memorial Square to the intersection of Huangarua Road and Puruatanga Road. It is about 5.6 km long. The existing speed limit is 50 km/h.

The information from MegaMaps is shown in Table 2.8.

Table 2.8: Megamaps information for Cambridge Road (between Memorial Square and Strasbourge Street)

	Cambridge Road (between Memorial Square and Strasbourge Street)
Posted speed limit	50 km/h
Operating speed	35 km/h
SaAS	30 km/h
Infrastructure Risk Rating	Medium
One Network Framework	Activity Street
Proposed speed limit	30 km/h

MegaMaps indicates that this section of Cambridge Road should have a speed limit of 30 km/h. This speed limit is recommended due to the SaAS for Activity Street is 30 km/h and the surrounding land use for shops and services indicate the presence of all transport modes. This section of Cambridge Road has a low operating speed of 35 km/h which indicates the likelihood of compliance with the new speed limit. However, traffic calming features are needed to reduce the operating speed due to the straight alignment of this section of Cambridge Road, as shown in Figure 2.9. Reducing the speed limit to 30 km/h will also ensure the operating speed is better aligned with the speed limit.



Figure 2.9: Streetview of Cambridge Road between Memorial Square and Strasbourge Street (Source: Google Maps)

The following change is recommended for Cambridge Road (between Memorial Square and Strasbourge Street):

- Lower the speed limit from 50 km/h to 30 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.
- Consider implementing traffic calming features to reduce the operating speed.

2.8 Kahutara School

Kahutara School is a full primary school (Year 0 – 8). There are two main access to Kahutara School. One small gate for pedestrians is located at 75 m southwest from Pukio West Road and the pick-up and drop-off area is opposite Pukio West Road. Footpaths are not available in this section of Kahutara Road and there are no cycling facilities. There is a warning sign located 85m northeast of Pukio West Road on Kahutara Road. There is also an informal sign "Flashing Light! Caution Children" under the warning sign. Another informal sign is found at 240 m east of Pukio West Road without a warning sign.



Figure 2.10: Kahutara School area (Source: Waka Kotahi MegaMaps)

The speed information for roads near Kahutara School from MegaMaps is shown in Table 2.9.

Table 2.9: Speed information for the road near Kahutara School

	Kahutara Road between 250m west of Pukio West Road and 160m northeast of Pukio West Road	Pukio West Road between Kahutara Road and 90m south of Kahutara Road
AM peak mean speed	73 km/h	34 km/h
PM peak mean speed	74 km/h	34 km/h
Mean operating speed	78 km/h	34 km/h
Posted speed limit	100 km/h	100 km/h
Proposed speed limit	60 km/h (30km/h Variable Speed Limit (VSL) during pick-up and drop-off periods)	60 km/h (30km/h Variable Speed Limit (VSL) during pick-up and drop-off periods)

The surrounding land use is primarily rural around Kahutara School and there are no pedestrian and cycling facilities available on Kahutara Road or Pukio West Road. It is likely that all students travel to and from the school in vehicles. The existing speed limit on Kahutara Road is 100 km/h and the mean operating speed is 73 km/h.

Given the high operating speed and surrounding land use, a speed limit of 30 km/h is not appropriate and unlikely to have compliance. To achieve a speed environment of 30 km/h at school drop-off and pick-up times several features would be required such as gateway treatments on each approach with road narrowing, pedestrian crossings and potentially narrowing the road between the gateway treatment locations.

To comply with the speed limits around schools required in the Setting of Speed Limit Rule 2022, the proposed speed limit is recommended to be 60 km/h with 30 km/h variable speed limit during school pick-up and drop-off periods. The existing operating speeds at both AM and PM peaks are higher than the proposed speed limit of 60 km/h and variable speed limit of 30 km/h around this school. Traffic calming features are recommended to reduce the operating speed, particularly at school pick-up and drop-off periods.

2.9 Hau Ariki marae

Regent Street runs between Burgundy Drive and Puruatanga Road in Martinborough. The location is indicated in Figure 2.12. The Hau Ariki marae is located on Regent Street between New York Street and Puruatanga Road in Martinborough. There is no signage on the road to identify the marae nor any advance warning signage or directional signage to show the location of the marae.

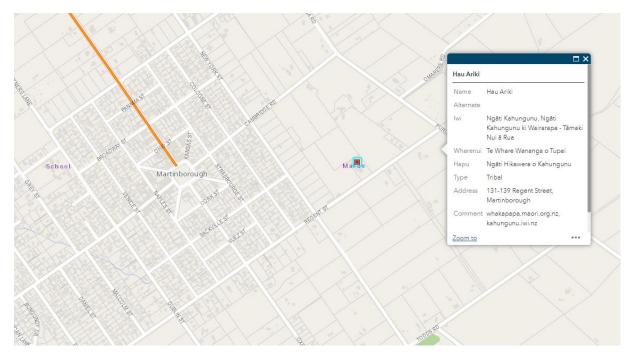


Figure 2.11: Location of Hau Ariki marae (Source: Waka Kotahi MegaMaps)

The information for the road near Hau Ariki marae from MegaMaps is shown in Table 2.10.

Table 2.10: Megamaps information for the road near Hau Ariki marae

	Regent Street
Posted speed limit	100 km/h
Operating speed	51-52 km/h
SaAS	60 km/h
Proposed speed limit	60 km/h (30 km/h variable speed limit (VSL))

When tangihanga, poukai or hui are held at the marae, the capacity of marae grounds to hold all parked vehicles may become insufficient. The demand for parking will overflow onto the road and participants need to walk from their cars to the marae ground which generate high pedestrian activities. Regent Street between New York Street and Puruatanga Road does not have any pedestrian facilities and activities at marae may occur at any time of the day. The speed limit on this section of Regent Street shall be permanently reduced to 60 km/h with a 30km/h variable speed limit at these times, due to high expected number of pedestrians. The operating speed is 51-52 km/h showing a high likelihood of compliance. This also aligns with the proposed speed limits on the connecting road (Puruatanga Road). A cultural marae sign and a marae warning and supplementary – pedestrians shall be erected, as shown in Figure 2.12.



Figure 2.12: Options of cultural marae sign (left) and W16-11 marae warning and supplementary – pedestrians (right)⁵

2.10 Pāpāwai marae

Pa Road runs between Burgundy Drive and Puruatanga Road in Martinborough. The Pāpāwai marae is located at 18 Pa Road, Pāpāwai. There is no signage on the road to identify the marae nor any advance warning signage or directional signage to show the location of the marae.

The information for the road near Pāpāwai marae marae from MegaMaps is shown in Table 2.11.

Table 2.11: Megamaps information for the road near Pāpāwai marae

	Pa Road
Posted speed limit	50 km/h
Operating speed	34 km/h
SaAS	60 km/h
Proposed speed limit	30 km/h

When tangihanga, poukai or hui are held at the marae, the capacity of marae grounds to hold all parked vehicles may become insufficient. The demand for parking may overflow onto the road and participants need to walk from their cars to the marae ground which generate high pedestrian activities. Pedestrian facilities are not available on Pa Road and the road is very narrow at 5.2 metres. Therefore, the speed limit on Pa Road shall be permanently reduced to 30 km/h due to expected high number of pedestrians. A cultural marae sign and a marae warning and supplementary – pedestrians shall also be erected, as shown in Figure 2.12.

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⁵ Source: Waka Kotahi Cultural marae sign: https://www.nzta.govt.nz/resources/cultural-marae- sign/#:~:text=The%20cultural%20marae%20sign%20depicts,a%20shade%20of%20red%20oche. Waka Kotahi Traffic control devices manual – Sign specifications: Sign specifications | Waka Kotahi NZ Transport Agency (nzta.govt.nz)

2.11 Tuhirangi – Kohunui marae

Lake Ferry Road is 33.8 km long and connects Martinborough and Lake Ferry near Palliser Bay. The Tuhirangi – Kohunui marae is located at 2417 Lake Ferry Road, Pirinoa. There is no signage on the road to identify the marae nor any advance warning signage or directional signage to show the location of the marae.

The information for the road near Tuhirangi – Kohunui marae from MegaMaps is shown in Table 2.12.

Table 2.12: Megamaps information for the road near Tuhirangi – Kohunui marae

	Lake Ferry Road (19.5km section)
Posted speed limit	100 km/h
Operating speed	92 km/h
SaAS	80 km/h
Proposed speed limit	30 km/h variable speed limit (VSL)

There are no pedestrian or cycling facilities on this section of Lake Ferry Road and the land use is predominantly rural. Table 2.12 also shows the operating speed is very high at 92km/h and there is no appropriate area on Lake Ferry Road for parking. However, it is likely that vehicles park on Lake Ferry Road when the demand overflows. Therefore, reducing the permanent speed limit for the marae is not considered as a feasible option. A variable speed limit of 30km/h is proposed to be installed. Given the activities may occur at any time on any day, a manual flip-down supplementary speed limit sign is recommended to allow the marae to apply variable speed limits at the time of activities. A cultural marae sign and a marae warning and supplementary – pedestrians shall also be erected for wayfinding and to raise awareness of drivers in addition to the variable speed limit sign, as shown in Figure 2.12.

3 Other local priority roads

3.1 Featherston township

3.1.1 Western Lake Road (between Moore Street and 200m south of railway crossing) and Cundys Road

Western Lake Road connects Featherston and Ocean Beach near Wharepapa River. The section of Western Lake Road (between Moore Street and 80m southwest of Woodward Street West) is included to change the location of the speed limit threshold of 50 km/h and 100 km/h on Western Lake Road. The threshold is proposed to shift the threshold of 50/100 to the rural urban boundary at the end of Moore Street. The new location of the speed limit threshold is where an obvious change in land use from residential to rural has occurred. Figure 3.1 shows the Streetview images at the existing and locations of speed limit threshold.





Figure 3.1: Existing location of speed limit threshold (top) and new location of speed limit threshold (bottom) looking south (Source: Google Maps)

It is also proposed to change the speed limit south of Woodward Street West and Cundys Road, which is a side road of Western Lake Road. The information from MegaMaps is shown in Table 3.1.

Table 3.1: Megamaps information for Western Lake Road and Cundys Road

	Western Lake Road (between Woodward Street West and 200m south of railway crossing)	Cundys Road
Posted speed limit	100 km/h	100 km/h
Operating speed	71 km/h	39 km/h
SaAS	60 km/h	60 km/h
Infrastructure Risk Rating	Medium	Medium High
One Network Framework	Stopping Place or Peri-urban Road	Rural Road
Proposed speed limit	60 km/h	60 km/h

Western Lake Road between Moore Street and 200m south of railway crossing is categorised as Stopping Place or Peri-urban Road in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Stopping Place and Peri-urban Road are both 60 km/h. The current operating speed in this section is higher than the proposed speed limit. The high operating speed could be due to the straight road alignment, no cues of a lower-speed environment (e.g., pedestrian crossing, medium to high density developments), and lack of traffic calming features. Overall, the speed limit is recommended to be 60km/h, same as the SaAS.

Cundys Road is categorised as Rural Road in the ONF. Megamaps recommends the speed limit to be 60km/h, due to the SaAS for Rural Road is 60km/h. The current operating speed in this section of Cape Palliser Road is higher than the proposed speed limit. Therefore, the speed limit is recommended to be 60 km/h, same as the SaAS.

The following change is recommended for Western Lake Road:

- Relocate the speed limit threshold sign to reflect the change
- Lower the speed limit on Western Lake Road (between Moore Street and 200 m south of railway crossing) from 100 km/h to 60 km/h.
- Lower the speed limit on Cundys Road from 100 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.
- Consider traffic calming features on the Western Lake Road sections to reduce operating speed.

3.1.2 Donald Street (between 40m south of SH53 and Longwood West Road)

Donald Street is approximately 1,600 metres long and runs between Waite Street and Longwood West Road. The selected section of Donald Street is between 40 metres south of SH53 and Longwood West Road and has an existing speed limit of 100 km/h.

The information from MegaMaps is shown in Table 3.2.

Table 3.2: Megamaps information for Donald Street (between 40m south of SH53 and Longwood West Road)

	Donald Street (between 40m south of SH53 and Longwood West Road)
Posted speed limit	100 km/h
Operating speed	28-33 km/h
SaAS	60 km/h
Infrastructure Risk Rating	Low Medium or Medium High
One Network Framework	Peri-urban Road or Rural Road
Proposed speed limit	60 km/h

MegaMaps indicates that this section of Donald Street should have a speed limit of 60 km/h. This speed limit is recommended due to the SaAS for Peri-urban and Rural roads is 60 km/h and the surrounding land use is predominantly rural. Reducing the speed limit to 60 km/h will ensure the speed limit is better aligned with the operating speed.

The following changes are recommended on Donald Street (between 40 m south of SH53 and Longwood West Road):

- Lower the speed limit from 100 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2 Martinborough township

3.2.1 Cork Street

Cork Street is about 1.2 km long and runs between Naples Street and Strasbourge Street. The existing speed limit is 50 km/h.

The information from MegaMaps is shown in Table 3.3.

Table 3.3: Megamaps information for Cork Street

	Cork Street (between Naples Street and Oxford Street	Cork Street (between Strasbourge Street and Oxford Street)	
Posted speed limit	50 km/h		
Operating speed	21 km/h 18 km/h		
SaAS	30 km/h		
Infrastructure Risk Rating	Medium		
One Network Framework	Activity Street	Local Street	
Proposed speed limit	osed speed limit 30 km/h 30 km/h		

MegaMaps indicates that Cork Street should have a speed limit of 30km/h. This speed limit is recommended due to the SaAS for Activity Street and Local Street is 30km/h and the surrounding land use for shops and services indicate the presence of all transport modes. Cork Street has low operating speed of 18-21 km/h which indicates the likelihood of compliance with the new speed limit. Reducing the speed limit to 30 km/h will also ensure the operating speed is better aligned with the speed limit.

The following change is recommended for Cork Street:

- Lower the speed limit from 50 km/h to 30 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2.2 Huangarua Road

Huangarua Road is about 460 metres long and runs between Princess Street and Cambridge Road. The existing speed limit is 70 km/h.

The information from MegaMaps is shown in Table 3.4.

Table 3.4: Megamaps information for Huangarua Road

	Huangarua Road
Posted speed limit	70 km/h
Operating speed	60 km/h
SaAS	30 km/h
Infrastructure Risk Rating	Medium
One Network Framework	Activity Street
Proposed speed limit	60 km/h

MegaMaps indicates that Huangarua Road should have a speed limit of 30 km/h. This speed limit is recommended due to the SaAS for Activity Street is 30 km/h. Huangarua Road has a centreline, and the traffic volume is low at approximately 300 vehicles per day. The land sections are reasonably large and the density of vehicle crossing is low. There are no walking or cycling facilities on this road. Therefore, the speed limit of 30 km/h is considered too low for this road and changing the speed limit to 60 km/h will better align with the operating speed and more likely gain compliance.

The following changes are recommended for Huangarua Road:

- Lower the speed limit from 70 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2.3 Jellicoe Street and Campbell Drive

Jellicoe Street is about 1.80km long and runs between Memorial Square and Campbell Drive in Martinborough. The information from MegaMaps is shown in Table 3.5.

Table 3.5: Megamaps information for Jellicoe Street and Campbell Drive

	Jellicoe Street between Memorial Square and Naples Street	Jellicoe Street between Naples Street and Ferry Road	Jellicoe Street between Ferry Road and 75m southwest of Campbell Drive	Jellicoe Street between 75m southwest of Campbell Drive and White Rock Road	Campbell Drive
Posted speed limit	50 km/h	50 km/h or 70km/h	70 km/h	70 km/h or 100 km/h	50 km/h
Operating speed	37 km/h	46-59 km/h	69 km/h	71 km/h	22 km/h
SaAS	30 km/h	30 km/h	40 km/h	80 km/h	30 km/h
Infrastructure Risk Rating	High	High or Medium	Medium	Medium	Medium
One Network Framework	Activity Street	Activity Street	Urban Connector	Rural Connector	Local Street
Proposed speed limit	30 km/h	50 km/h	50 km/h	60 km/h (with a short section of 80km/h for transition between 60km/h and existing 100km/h)	40 km/h

Jellicoe Street between Memorial Square and Naples Street is in the CBD area of Martinborough. Megamaps recommends the speed limit to be 30 km/h, due to the SaAS for Activity Street of 30 km/h and the surrounding land use for shops and services indicate the presence of all transport modes. Therefore, the speed limit is recommended to be 30 km/h.

Jellicoe Street between Naples Street and Ferry Road is in the urban area of Martinborough. Megamaps recommends the speed limit to be 30 km/h, due to the SaAS for Activity Street of 30 km/h. However, the operating speed is high at 46-59 km/h which indicates low likelihood of compliance if implemented. Therefore, the speed limit for this section is recommended to be 50 km/h.

Jellicoe Street between Ferry Road and 75 m southwest of Campbell Drive is at the rural and urban transition. Megamaps recommends the speed limit to be 40 km/h which is the SaAS for Urban Connector. The characteristics of Jellicoe Street do not meet the criteria for a higher SaAS of 50 km/h or 60 km/h as it is not median divided, and the land use is primarily residential. Given the high operating speed of 69 km/h on this section of Jellicoe Street, the speed limit of 40 km/h is unlikely to be complied with. Therefore, the speed limit is recommended to be 60 km/h.

The surrounding land use around Jellicoe Street between 75 m southwest of Campbell Drive is primarily rural. Megamaps recommends the speed limit to be 80 km/h which is the SaAS for Rural Connector. However, this section of Jellicoe Street still provides a number of accesses to the properties (likely more than 10 per km or 5 per 500 m). Therefore, it meets the criteria for a lower speed limit of 60 km/h.

A short transition section of approximately 200 m, between White Rock Road and the access to the Martinborough Transport site, with the speed limit of 80 km/h is proposed on Lake Ferry Road. Then the speed limit changes to 100 km/h which is the existing speed limit.

Campbell Drive is categorised as a Local Street in the ONF. It provides access to new residential development at the urban fringe of Martinborough. The SaAS for local streets is 30 km/h. The speed limit is proposed to be 40 km/h and will be reviewed as the area intensifies over time.

The operating speeds on Jellicoe Street are all much higher than the proposed speed limits. In order to ensure drivers to comply with the speed limit, traffic calming features should be introduced to reduce the operating speed, such as speed humps and repeater speed limit signs.

The following changes are recommended for Jellicoe Street:

- Lower the speed limit on Jellicoe Street between Memorial Square and Naples Street from 50 km/h to 30 km/h.
- The speed limit on Jellicoe Street between Naples Street and Burgundy Drive remains at 50 km/h.
- Lower the speed limit on Jellicoe Street between Burgundy Drive and Ferry Road from 70 km/h to 50 km/h.
- Lower the speed limit on Jellicoe Street between Ferry Road and White Rock Road from 70 km/h to 60 km/h.
- Lower the speed limit on Lake Ferry Road between White Rock Road and the access to Martinborough Transport site from 100 km/h to 80 km/h to provide a transition between the proposed 60 km/h and existing 100 km/h.
- Lower the speed limit on Campbell Drive from 50 km/h to 40 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2.4 Kansas Street, Memorial Square, Ohio Street, Oxford Street (between Memorial Square and Cork Street), and Texas Street

Kansas Street, Memorial Square, Ohio Street, Oxford Street (between Memorial Square and Cork Street), and Texas Street are in the centre of Martinborough. The information from MegaMaps is shown in Table 3.6.

Table 3.6: Megamaps information for Kansas Street, Memorial Square, Ohio Street, Oxford Street (between Memorial Square and Cork Street), and Texas Street

	Kansas Street	Memorial Square	Ohio Street	Oxford Street (between Memorial Square and Cork Street)	Texas Street
Posted speed limit	50 km/h	50 km/h	50 km/h	50 km/h	50 km/h
Operating speed	26 – 28 km/h	27 km/h	22 km/h	33 km/h	19-29 km/h
SaAS	30 km/h	30 km/h	30 km/h	30 km/h	30 km/h
Infrastructure Risk Rating	High	High	Medium	Medium	High
One Network Framework	Activity Street	Main Street	Activity Street	Activity Street	Activity Street
Proposed speed limit	30 km/h	30 km/h	30 km/h	30 km/h	30 km/h

These roads can be categorised together as they have similar characteristics with each other. All the roads have low operating speed close to the SaAS of their respective ONF categories, Main Street or Activity Street. Therefore, drivers are more likely to comply with the new speed limit and the speed limit reduction will also ensure the operating speed is better aligned with the speed limit.

The following change is recommended for Kansas Street, Memorial Square, Ohio Street, Oxford Street (between Memorial Square and Cork Street), and Texas Street:

- Lower the speed limit from 50 km/h to 30 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2.5 Nelsons Road

Nelsons Road is a cul-de-sac about 300 metres long and runs northwest from the intersection with Princess Street, Ponatahi Road and Huangarua Road. The information from MegaMaps is shown in Table 3.7.

Table 3.7: Megamaps information for Nelsons Road

	Nelsons Road
Posted speed limit	70 km/h
Operating speed	25 km/h
SaAS	40 km/h
Infrastructure Risk Rating	Medium
One Network Framework	Urban Connector
Proposed speed limit	40 km/h

The surrounding land use on Nelsons Road is a mixture of residential and industrial. Megamaps recommends the speed limit to be 40 km/h which is the SaAS for Urban Connector. The characteristics of Nelsons Road do not meet the criteria for a 50 km/h SaAS as it is not median divided or multi-lane undivided, and the traffic volume is very low at approximately 120 vehicles per day. Therefore, the speed limit is recommended to be 40 km/h. Given the low operating speed, drivers are more likely to comply with the new speed limit and the speed limit reduction will also ensure the operating speed is better aligned with the speed limit.

The following change is recommended for Nelsons Road:

- Lower the speed limit from 70 km/h to 40 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.2.6 Princess Street (between 50m northeast of New York Street West and Nelsons Road)

Princess Street is a 1.25 km long road that runs between Vinters Lane and Nelsons Road. It is proposed to change the speed limit on Princess Street between 50 m northeast of New York Street West and Nelsons Road. The information from MegaMaps is shown in Table 3.8.

Table 3.8: Megamaps information for Princess Street (between 50m northeast of New York Street West and Nelsons Road)

	Princess Street (between 50m northeast of New York Street West and Nelsons Road)
Posted speed limit	70 km/h
Operating speed	65 km/h
SaAS	40 km/h
Infrastructure Risk Rating	Medium
One Network Framework	Urban Connector
Proposed speed limit	60 km/h

Princess Street between 50 m northeast of New York Street West and Nelsons Road is at the rural and urban transition. Megamaps recommends the speed limit to be 40 km/h which is the SaAS for Urban Connector. The characteristics of this section of Princess Street do not meet the criteria for a 60 km/h SaAS as there are no footpaths, formal crossing and cycling facilities. However, the likelihood of compliance with 40 km/h is low due to the high operating speed and lack of cues for a low-speed environment. Therefore, the speed limit shall reduce to 60 km/h for compliance and consistency with the proposed speed limits on the adjacent road (i.e. Huangarua Road).

The operating speed on Princess Street is higher than the proposed speed limits. In order to ensure drivers to comply with the speed limit, traffic calming features should be introduced to reduce the operating speed, such as speed humps and repeater speed limit signs.

The following changes are recommended for Princess Street between 50 m northeast of New York Street West and Nelsons Road:

- Lower the speed limit from 70 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.
- Consider traffic calming features to reduce the operating speeds.

3.2.7 Puruatanga Road

Puruatanga Road is a 1.34 km long road that runs between Cambridge Road and Todds Road. The information from MegaMaps is shown in Table 3.9.

Table 3.9: Megamaps information for Puruatanga Road

	Puruatanga Road (between Cambridge Road and 35m northeast of Regent Street)	Puruatanga Road (between 35m northeast of Regent Street and Todds Road)	
Posted speed limit	70 km/h	100 km/h	
Operating speed	64 km/h	67 km/h	
SaAS	30 km/h	80 km/h	
Infrastructure Risk Rating	Medium	Medium	
One Network Framework	Local Street	Rural Connector	
Proposed speed limit	60 km/h	60 km/h	

Puruatanga Road between Cambridge Road and 35 m northeast of Regent Street is categorised as Local Street in the One Network Framework. Megamaps recommends the speed limit to be 30 km/h which is the SaAS for Local Street. Local Streets provide 'quiet and safe residential access for people

of all ages and abilities and foster community spirit and local pride.' However, this description of a Local Street does not match the characteristics of this section of Puruatanga Road. Even though this section of Puruatanga Road provides access to the residential dwellings, there are no designated crossing facilities or footpaths for pedestrians and the road prioritises vehicle movements. The likelihood of compliance with 30km/h is low due to the high operating speed and lack of cues for a low-speed environment. Therefore, the ONF category shall be reviewed and updated, and the speed limit shall reduce to 60km/h for compliance and consistency with the proposed speed limits on the adjacent roads (i.e. Huangarua Road).

The surrounding land use around Puruatanga Road between 35 m northeast of Regent Street and Todds Road is primarily rural. Megamaps recommends the speed limit to be 80 km/h which is the SaAS for Rural Connector. However, this section of Jellicoe Street still provides a number of accesses to the properties (likely more than 10 per km or 5 per 500 m). Therefore, it meets the criteria for a lower speed limit of 60 km/h.

The following changes are recommended for Puruatanga Road:

- Lower the speed limit on Puruatanga Road between Cambridge Road and 35 m northeast of Regent Street from 70 km/h to 60 km/h.
- Lower the speed limit Puruatanga Road between 35m northeast of Regent Street and Todds Roadfrom 100 km/h to 60 km/h.
- Review the One Network Framework category for Puruatanga Road between Cambridge Road and 35 m northeast of Regent Street.
- Install speed limit threshold signs and update other speed limit signs as required.

3.3 Greytown township

3.3.1 Hawke Street, Wilkie Street, Wood Street (between 125m northwest of Mole Street and the end of Wood Street) and Kuratawhiti Street (between 185m southeast of Hawke Street and the end of Kuratawhiti Street at Waihohine River)

Wood Street and Kuratawhiti Street are parallel and located in the western side of State Highway 2 in Greytown. Wilkie Street is a side road on Wood Street while Hawke Street is between Wood Street and Kuratawhiti Street. Since the speed limits on Wood Street and Kuratawhiti Street are proposed to change, the speed limits on these side roads should also be changed for consistency. The information from MegaMaps is shown in Table 3.10.

Table 3.10: Megamaps information for Hawke Street, Wilkie Street, Wood Street (between 125m northwest of Mole Street and the end of Wood Street), Kuratawhiti Street (between 185m southeast of Hawke Street and the end of Kuratawhiti Street at Waihohine River) and Humphries Street (between Wilkie Street and Woodside Road)

	Hawke Street	Wilkie Street	Wood Street (between 125m northwest of Mole Street and the end of Wood Street)	Kuratawhiti Street (between 185m southeast of Hawke Street and the end of Kuratawhiti Street at Wahihohine River)	Humphries Street (between Wilkie Street and Woodside Road)
Posted speed limit	100 km/h	100 km/h	100 km/h	100 km/h	100 km/h
Operating speed	33 km/h	22 km/h	46 km/h	30-33 km/h	29 km/h
SaAS	60 km/h	60 km/h	60 km/h	60 km/h	60 km/h
Infrastructure Risk Rating	Medium High	Medium	Medium	Medium High	High
One Network Framework	Rural Road	Rural Road	Rural Road	Rural Road	Rural road
Proposed speed limit	60 km/h	60 km/h	60 km/h	60 km/h	60km/h

These roads can be categorised together as they have similar characteristics with each other. All the roads have lower operating speed than the SaAS of 60 km/h for Rural Road. Therefore, drivers are more likely to comply with the new speed limit and the speed limit reduction will also ensure the operating speed is better aligned with the speed limit.

The following changes are recommended for Hawke Street, Wilkie Street, Wood Street (between 125m northwest of Mole Street and the end of Wood Street), Kuratawhiti Street (between 185 m southeast of Hawke Street and the end of Kuratawhiti Street at Waihohine River) and Humphries Street (between Wilkie Street and Woodside Road):

- Lower the speed limit from 100 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.4 Other local priority roads in South Wairarapa

3.4.1 Cape Palliser Road

Cape Palliser Road is about 35 km long and runs along the southern coast between Lake Ferry and Cape Palliser. The information from MegaMaps is shown in Table 3.11.

Table 3.11: Megamaps information for Cape Palliser Road

	Cape Palliser Road between Lake Ferry Road and 5.51km south of Whangaimoana Beach Road	Cape Palliser Road between 5.51km south of Whangaimoana Beach Road and 0.1km south of Te Miha Crescent	Cape Palliser Road between 0.1km south of Te Miha Crescent to 250m northwest of Tilsons Avenue	Cape Palliser Road between 250m northwest of Tilson Avenue and 105m south of Seaview Avenue	Cape Palliser Road between 105m south of Seaview Avenue and 100m south of Ben Avon Grove	Cape Palliser Road between 100m south of Ben Avon Grove and the end of Cape Palliser Road
Posted speed limit	100 km/h	100 km/h	100 km/h	50 km/h	100 km/h	100 km/h
Operating speed	76 km/h	59 km/h	80 km/h	45 km/h	38-57 km/h	25 km/h
SaAS	60 km/h	60 km/h	80 km/h	30 km/h	60 km/h	60 km/h
Infrastructure Risk Rating	Medium High	Medium High	Medium	Medium	Medium High	High
One Network Framework	Rural Road	Rural Road	Rural Road	Activity Street	Rural Road or Peri- urban Road	Stopping Place
Proposed speed limit	80 km/h	60 km/h	80 km/h	30 km/h	60 km/h	60 km/h

Cape Palliser Road between Lake Ferry Road and 5.51 km south of Whangaimoana Beach Road is categorised as Rural Road in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Rural Road of 60 km/h. However, this section of Cape Palliser Road meets the criteria for SaAS of 80 km/h because it is sealed and has a marked centreline and edge delineation (e.g. edge line pavement). Therefore, the speed limit is recommended to be 80 km/h which also aligns with the operating speed.

Cape Palliser Road between 5.51 km south of Whangaimoana Beach Road and 0.1 km south of Te Miha Crescent is categorised as Rural Road in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Rural Road of 60 km/h. The characteristics of this section of Cape Palliser Road do not meet the criteria for an 80 km/h SaAS as the road alignment is curved. Therefore, the speed limit is recommended to be 60 km/h which also aligns with the operating speed.

Cape Palliser Road between 0.1 km south of Te Miha Crescent to 250 m northwest of Tilsons Avenue is categorised as Rural Road in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Rural Road of 60 km/h. However, this section of Cape Palliser Road meets the criteria for SaAS of 80km/h because it is sealed and has a marked centreline, and the alignment is relatively straight. Therefore, the speed limit is recommended to be 80 km/h which also aligns with the operating speed.

Cape Palliser Road between 250 m northwest of Tilson Avenue and 105m south of Seaview Avenue is categorised as Rural Road in the ONF. This section of Cape Palliser Road traverses through the Ngawi village. Megamaps recommends the speed limit to be 30 km/h, due to the SaAS for Activity Street of 30 km/h. Warning signs of pedestrians and speed hump are present on Cape Palliser Road near Tilsons Avenue. Given the higher operating speed of 45 km/h, more traffic calming features are

needed to further reduce the operating speed. Overall, the speed limit is recommended to be 30 km/h, same as the SaAS.

Cape Palliser Road between 105 m south of Seaview Avenue and 100 m south of Ben Avon Grove is mostly categorised as Rural Road in the ONF. The section between Mangatoetoe Grove and Ben Avon Grove is categorised as Peri-urban roads in the ONF. Megamaps recommends the speed limit to be 60km/h, due to the SaAS for Rural Road and Peri-urban Road of 60km/h. The current operating speed in this section of Cape Palliser Road is lower than the proposed speed limit. This indicates the likelihood of compliance is high. Therefore, the speed limit is recommended to be 60km/h, same as the SaAS.

Cape Palliser Road between 100 m south of Ben Avon Grove and the end of Cape Palliser Road is categorised as Stopping Place in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Stopping Place is 60 km/h. The current operating speed in this section of Cape Palliser Road is much lower than the proposed speed limit. However, this section of Cape Palliser Road does not meet the criteria for a SaAS of 40 km/h as pedestrians are not expected on the road side or crossing the road. Therefore, the speed limit is recommended to be 60 km/h, same as the SaAS.

The following changes are recommended for Cape Palliser Road:

- Lower the speed limit on Cape Palliser Road between Lake Ferry Road and 5.51 km south of Whangaimoana Beach Road from 100 km/h to 80 km/h.
- Lower the speed limit on Cape Palliser Road between 5.51 km south of Whangaimoana Beach Road and 0.1 km south of Te Miha Crescent from 100 km/h to 60 km/h.
- Lower the speed limit on Cape Palliser Road between 0.1 km south of Te Miha Crescent to 250 m northwest of Tilsons Avenue from 100 km/h to 80 km/h.
- Lower the speed limit on Cape Palliser Road between 250 m northwest of Tilson Avenue and 105 m south of Seaview Avenue from 50 km/h to 30 km/h.
- Lower the speed limit on Cape Palliser Road between 105m south of Seaview Avenue and 100 m south of Ben Avon Grove from 100 km/h to 80 km/h.
- Lower the speed limit on Cape Palliser Road between 100 m south of Ben Avon Grove and the end of Cape Palliser Road from 100 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.
- Consider traffic calming features on Cape Palliser Road between 250 m northwest of Tilson Avenue and 105 m south of Seaview Avenue to reduce the operating speeds.

3.4.2 Whangaimoana Beach Road, Te Miha Crescent, Ben Avon Grove and Mangatoetoe Grove

Whangaimoana Beach Road, Te Miha Crescent, Ben Avon Grove and Mangatoetoe Grove are the side roads on Cape Palliser Road. The speed limit on these side roads shall not have higher speed limits than those on Cape Palliser Road. Since the speed limits on Cape Palliser Road are proposed to change, the speed limits on these side roads should also be changed for consistency.

The following changes are recommended:

- Lower the speed limit on Whangaimoana Beach Road from 100 km/h to 60 km/h.
- Lower the speed limit on Te Miha Crescent from 100 km/h to 30 km/h.
- Lower the speed limit on Ben Avon Grove from 100 km/h to 30 km/h.
- Lower the speed limit on Mangatoetoe Grove from 100 km/h to 30 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.4.3 Ngawi village (Hemi Street, Seaview Avenue and Tilson Avenue)

Ngawi is a small fishing / holiday village within five kilometres of Cape Palliser. The roads in Ngawi are Hemi Street, Seaview Avenue and Tilson Avenue. The information from MegaMaps is shown in Table 3.12.

Table 3.12: Megamaps information for Hemi Street, Seaview Avenue and Tilson Avenue

	Hemi Street	Seaview Avenue	Tilson Avenue
Posted speed limit	50 km/h	50 km/h	50 km/h
Operating speed	17 km/h	22 km/h	28 km/h
SaAS	30 km/h	30 km/h	30 km/h
Infrastructure Risk Rating	High	High	Medium
One Network Framework	Activity Street	Activity Street	Activity Street
Proposed speed limit	30 km/h	30 km/h	30 km/h

These roads can be categorised together as they have similar characteristics with each other. All the roads have low operating speed lower than the SaAS of the Activity Street category. Therefore, drivers are more likely to comply with the new speed limit and the speed limit reduction will also ensure the operating speed is better aligned with the speed limit.

The following change is recommended for Hemi Street, Seaview Avenue and Tilson Avenue:

- Lower the speed limits from 50 km/h to 30 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.4.4 Lake Ferry Road (Pirinoa and Lake Ferry)

Lake Ferry Road is 33.8 km long and connects Martinborough and Lake Ferry near Palliser Bay. The information from MegaMaps is shown in Table 3.13.

Table 3.13: Megamaps information for Lake Ferry Road (between 640m southwest of Raho Ruru Road and the end of Lake Ferry Road)

	Lake Ferry Road between Whakatomotomo Road and 230m southwest of McDougalls Road (Pirinoa)	Lake Ferry Road between 2.34km southwest of Cape Palliser Road and 2.48km southwest of Cape Palliser Road (Lake Ferry)	Lake Ferry Road between 2.48km southwest of Cape Palliser Road and the end of Lake Ferry Road (Lake Ferry)
Posted speed limit	100km/h or 70 km/h	100 km/h	50 km/h
Operating speed	60 km/h	69 km/h	29 km/h
SaAS	80 km/h	80 km/h	40 km/h
Infrastructure Risk Rating	Low or Low Medium	Medium High	Medium
One Network Framework	Peri-urban Road	Rural Connector	Urban Connector
Proposed speed limit	60 km/h	Move speed limit threshold sign	30 km/h

Lake Ferry Road between 640m southwest of Raho Ruru Road and Whakatomotomo Road is categorised as Peri-urban Road in the ONF. Megamaps recommends the speed limit to be 80km/h. However, the speed limit of 80km/h is considered too high for this section of Lake Ferry Road as there are shops and Pirinoa School in this section. Therefore, the speed limit is recommended to be 60km/h which aligns with the operating speed and safe speed limits around rural schools.

Lake Ferry Road between 2.34 km southwest of Cape Palliser Road and 2.48 km southwest of Cape Palliser Road is included to extend the 30km/h speed limit, before the warning sign for speed hump.

Lake Ferry Road between 2.48 km southwest of Cape Palliser Road and the end of Lake Ferry Road is categorised as Urban Connector in the ONF. Megamaps recommends the speed limit to be 40 km/h, which is the SaAS for Urban Connector. However, this section of Lake Ferry Road also provides access to services for all modes rather than moving people and goods between regions. There are also speed humps in place to slow vehicles down. Therefore, the speed limit is recommended to be 30km/h which also better aligns with the operating speed.

The following changes are recommended for Lake Ferry Road:

- Lower the speed limit on Lake Ferry Road between 640 m southwest of Raho Ruru Road and 230 m southwest of McDougalls Road from 100 km/h or 70 km/h to 60 km/h.
- Move the speed limit threshold sign on Lake Ferry Road from 2.48 km southwest of Cape to 2.34 km southwest of Cape Palliser Road.
- Lower the speed limit on Lake Ferry Road between 2.48 km southwest of Cape Palliser Road and the end of Lake Ferry Road from 50 km/h to 30 km/h.
- Review the One Network Framework category for Lake Ferry Road between 2.48 km southwest of Cape Palliser Road and the end of Lake Ferry Road
- Install speed limit threshold signs and update other speed limit signs as required.

3.4.5 Western Lake Road (between 6.46 km south of Cross Creek Road to 8.47 km northwest of East-West Access Road)

Section 3.1.1 proposes to move the speed limit threshold to the intersection with Moore Street and Woodward Street and lower the speed limit between Woodward Street West and 200m south of the railway crossing. This section proposes to change the speed limit on sections of Western Lake Road southwest of Featherston township. The information from MegaMaps is shown in Table 3.14.

Table 3.14: Megamaps information for Western Lake Road (between 6.46km south of Cross Creek Road to 8.47km northwest of East-West Access Road)

	Western Lake Road (between 6.46km south of Cross Creek Road to 8.47km northwest of East-West Access Road)
Posted speed limit	100 km/h
Operating speed	72 km/h
SaAS	60 km/h
Infrastructure Risk Rating	Medium High
One Network Framework	Rural Road
Proposed speed limit	60 km/h

Western Lake Road between 6.46 km south of Cross Creek Road to 8.47 km northwest of East-West Access Road is categorised as Rural Road in the ONF. Megamaps recommends the speed limit to be 60 km/h, due to the SaAS for Rural Road is 60 km/h. The current operating speed in this section is higher than the proposed speed limit. The high operating speed could be due to the straight road alignment, no cues of a lower-speed environment (e.g., pedestrian crossing, medium to high density developments), and lack of traffic calming features. Overall, the speed limit is recommended to be 60km/h, same as the SaAS.

The following changes are recommended:

- Lower the speed limit on Western Lake Road (between 6.46 km south of Cross Creek Road to 8.47 km northwest of East-West Access Road) from 100 km/h to 60 km/h.
- Install speed limit threshold signs and update other speed limit signs as required.

3.4.6 **Unsealed roads**

Following community consultation, it is proposed that all unsealed roads (identified by the National Road Centreline Dataset 6) in the South Wairarapa District that meet the minimum length requirement⁷ are reduced to 80 km/h speed limits. Where an unsealed road has sections of sealed road (or vice versa) a sense check has been completed and the lower of the two speed limits is proposed e.g., The impacted roads are listed in the table below.

June 2024

⁶ Derived from: National Road Centreline Road Controlling Authority data | National Road Centreline Road Controlling Authority data | Waka Kotahi open data (arcgis.com), accessed May 2024

⁷ The setting of speed limits rule 2022, NZ Transport Agency Waka Kotahi, accessed: May 2024.

It is recommended that speed limit threshold signs be installed as required. Considering that the majority of these roads have closed ends, it is anticipated that signage will primarily be needed only at the entrances of the unsealed roads.

Table 3.15: Unsealed roads with a proposed 80km/h speed limit

Unsealed Road		
Backwater Rd	Hinekura Rd	Riverside Rd
Backwater Road East Leg	Humes Rd	Ruakokoputuna Rd
Beach Rd	Humphries St	Shooting Butts Rd
Bicknells Rd	Judds Rd	Southdown Dr
Bidwills Rd	Kaiwaka Rd	Summerhill Rd
Blue Rock Rd	Kemptons Line	Sutherland Dr
Bucks Rd	Kumenga Rd	Tauherenikau Div. Rd
Buicks Rd	Lagoon Hill Rd	Te Awaiti Rd
Bush Gully Rd	Longwood Rd West	Te Hopai Rd
Cannock Rd	Mahaki Rd	Te Muna Rd
Cape River Rd	Maramamau Rd	Te Rata Rd
Chishams Rd	Moeraki Rd	Tilsons Rd
Clarks Rd	Moiki Rd	Tora Farm Sett Rd
Clay Creek Rd	Moroa Road	Tora Rd
Cross Creek Rd	Ngakonui Rd	Underhill Rd
Dry River No. 2 Rd	Ngapotiki Rd	Underhill Rd (Extension @ Wakefield
Duddings Line	Pahaoa Rd	Warrens Rd
Fenwicks Line	Papatahi Rd	Wainuioru Rd
Georges Rd	Parera Rd	Waiohine Rd
Glendhu Rd	Paruwai Rd	Wairio Rd
Glendryneoch Rd	Paruwai Rd (Sth)	Western Bay Rd
Glenmorven Rd	Pharazyns Rd	Whakarua Rd
Greytown-Woodside Rd	Phillips Line	Whakatomotomo Rd
Harris Road North	Pouawha Rd	Wharekauhau Rd
Haurangi No. 1 Rd	Pukio East Rd	Whareroto Rd
Haurangi No. 2 Rd	Pukio West Rd	White Rock Rd
Hikawera Rd	Raho Ruru Rd	Yeronga Rd
Hikinui Rd	Range Rd	

Note: Source: National Road Centreline Dataset

4 Engagement and consultation

Changing a speed limit is a legal process that includes a formal consultation step. Consultation on the draft SWDC Speed Management Plan was undertaken between 23 June and 23 July 2023 using the Special Consultative Procedure (Section 82 of the Local Government Act). This provided an opportunity for submitters to present their submissions orally and a total of 183 submissions were received⁸.

The Māori Standing Committee and Community Boards were actively invited to participate in the consultation process, and two community boards made submissions to the Speed Review.

The majority of respondents supported proposed school speed limits and most supported the proposed limits around marae. In contrast, a significant proportion of respondents opposed the proposals on high-priority roads and requested modifications. A summary of submission trends is shown in the table below.

These have been considered when setting the proposed speed limits.

Table 4.1: Consultation results

Proposal	Result
Councils' proposed approach and principles around Schools	73.6% in support
Councils' proposed approach and principles around marae	51.8% in support
Councils' proposed approach to the high priority roads.	73.6% in opposition

Source: Hearings-Committee-Agenda-Pack-16Aug23-Final.pdf (swdc.govt.nz), accessed May 2024

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⁸ Hearings-Committee-Agenda-Pack-16Aug23-Final.pdf (swdc.govt.nz)

5 Applicability

We have been engaged by our client South Wairarapa District Council to complete this report. The report has been prepared for use by both South Wairarapa District Council and Carterton District Council with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than South Wairarapa District Council and Carterton District Council, without our prior written agreement.

We understand and agree that this report will be used by South Wairarapa District Council in undertaking its regulatory functions in connection with the speed limit changes in South Wairarapa District.

Tonkin & Taylor Ltd	
Environmental and Engine	eering Consultants

Report prepared by: Report reviewed by:

Molly Hoggard Alan Gregory

Transport Planner Principal Transport Planner

Authorised for Tonkin & Taylor Ltd by:

Chris Perks

Sector Director - Transport

 $\label{thm:converse} $$ \operatorname{Local}\subset \operatorname{Local}\subset$

Appendix A Methodology for filtering the roads and road sections

The selection of other roads consists of two sources, local knowledge and filtered roads based on criteria. A list of roads with local priority is obtained from the engineer at both SWDC and CDC. These roads are reviewed for compliance likelihood and public acceptance with additional measures identified to ensure compliance and acceptance. All other roads will be filtered based on the following criteria to identify the roads with the highest risks:

- Personal or Collective Risk: medium or above.
- Infrastructure Risk Rating: medium-high or above.
- Difference between the posted speed limit and SaAS more than 30 km/h (inclusive).

Figure Appendix A.1 shows the entire process for assessing the proposed speed limit changes in Carterton and South Wairarapa.

Process for assessing the proposed speed limit changes in Carterton and South Wairarapa

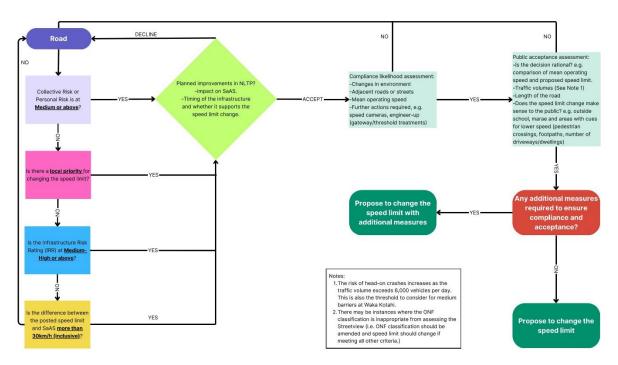


Figure Appendix A.1: Flowchart for assessing the proposed speed limit changes

For this technical assessment, the selected roads and road sections have been identified from the following sources:

- Roads within close proximity of a school.
- Roads with a frontage to a marae.
- Roads with local priority identified by the Council.

