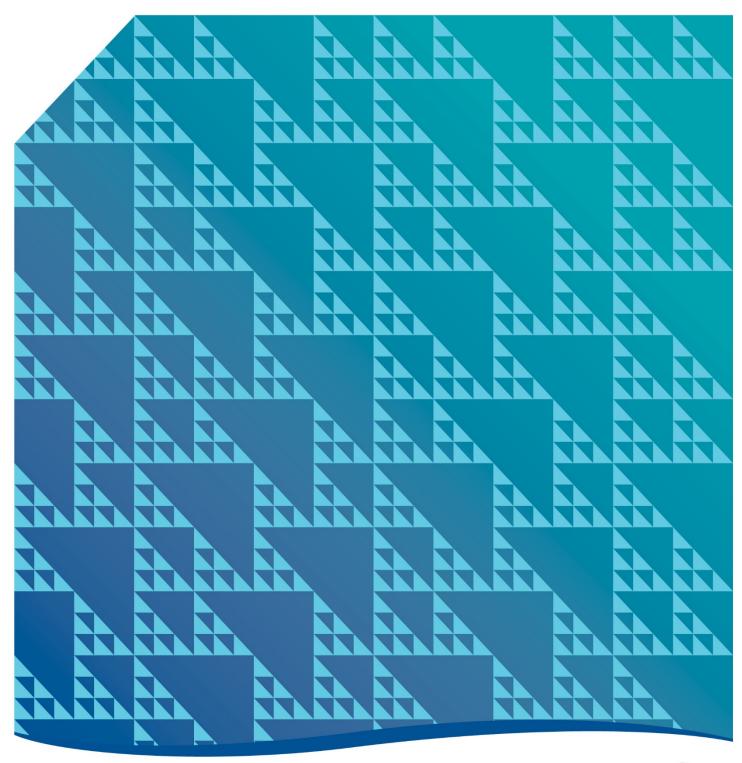
Tasmanian Speed Zoning Guidelines





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Introduction

These speed zoning guidelines provide technical advice for practitioners on the selection of permanent speed limits in Tasmania.

Other sources of technical advice include:

- Austroads Guide to Road Safety, Part 3: Speed Limits and Speed Management
- Austroads Guide to Traffic Management, Part 5: Link Management.

Advice on the signing of speed limits, including the type, size, layout and positioning of signs is contained in:

• Australian Standard AS1742 Manual of uniform traffic control devices, Part 4: Speed controls.

To the extent of any conflict with other sources, the advice contained in this document takes precedence.

Advice on speed zones associated with roadwork sites and other temporary events is provided in the Austroads Guide to Temporary Traffic Management.

Speed Limits in Tasmania

There are two types of speed limits – default speed limits and posted speed limits.

Default speed limits are set by legislation and apply when there are no speed limit signs. In accordance with the Road Rules 2019:

- urban roads (in built-up areas) have a 50 km/h speed limit
- sealed rural roads (outside built-up areas) have a 100 km/h speed limit
- unsealed rural roads (outside built-up areas) have an 80 km/h speed limit.

Posted speed limits are used when the default limits are considered to be inappropriate. In accordance with the *Traffic Act 1925*, posted speed limits in Tasmania need to be approved by the Transport Commission. This applies to all roads in Tasmania, whether they are owned by the State, Councils, or other bodies.

It is noted that speed limits are a maximum speed – not a target speed. Motorists have a responsibility to drive to the conditions. For example, slower speeds are appropriate on narrow winding roads, when the road is wet or icy, at night or in low light conditions and when the roads are busy and congested.

Tasmanian Road Safety Strategy

Establishing speed limits that are more appropriate to the safety features of individual roads is a key direction of the Tasmanian Road Safety Strategy 2017-2026.

The Strategy embraces the Safe System approach which recognises that human error is inevitable and aims to establish a road network system which allows for this and operates without any deaths or serious injuries.

Research indicates that a 10 km/h reduction in travelling speeds can lead to a 25 percent reduction in deaths and serious injuries.

Speed zoning principles

Speed limits need to achieve a reasonable balance between road safety and local amenity concerns on the one hand, and traffic mobility expectations on the other. It is recognised that community views on the appropriate balance between these considerations continue to evolve over time.

In order to be effective, speed limits need to be realistic and credible. The speed limit should reflect the road's characteristics and environment so that its justification is self-evident to motorists.

Whilst it is noted that the effect of changed speed limits on the overall travel time of individual motorists tends to be small, experience has shown that arbitrarily low limits attract poor levels of compliance, even when subject to regular enforcement.

Speed limits are not always the most appropriate tool with which to address safety concerns – isolated hazards, such as a specific intersection or a tight bend are better addressed with physical works or the installation of warning signs, including speed advisory signs.

Motorists can become confused by too many speed limit changes along the same route. A balance needs to be achieved between matching the limit with the road characteristics at specific locations and avoiding excessive 'chop and change.'

Speed zones need to be clearly and regularly signed so that motorists are not confused about the limit which applies. These signs should be installed with accordance with AS1742.4.

Key factors in setting speed limits

The factors set out below are to be considered when determining the appropriate speed limit for a section of road. It is noted that every location has its unique characteristics and engineering judgment must be applied to select an appropriate speed limit based on site specific considerations.

• Road function and traffic volume.

Different roads are used for different purposes. Local roads are used by local traffic and vehicles turning in and out of roadside properties. Arterial roads and highways have a high proportion of through traffic and the traffic volumes tend to be higher. Local amenity, including interactions with pedestrians predominate on local roads, while traffic mobility expectations are more important on highways.

Roadside development

The level of roadside development is a primary consideration in speed limit setting. It can be assessed by counting the number of accesses and intersections along the road. (Accesses that are infrequently used, such as gates into paddocks, are not counted.) This provides an indication of the likelihood of through

traffic coming into conflict with vehicles turning on or off the road. The level of roadside development can be readily perceived by motorists and so is a good way of ensuring that the justification for the speed limit is self-evident to motorists.

Pedestrians and cyclists

The presence of vulnerable road users, such as pedestrians and cyclists, should be considered when setting speed. However, permanent speed limits should not be installed to address conditions that only arise for short or infrequent periods each day i.e. school or shopping zones.

Cross-section and road alignment

Lower speed limits should not be installed to compensate for isolated geometric deficiencies, such as a tight bend. This type of situation is better treated with physical works or the installation of warning and advisory speed signs.

It is recognised that there are many low-volume rural roads throughout Tasmania where the road alignment restricts vehicle speeds to well below the 100 km/h general rural default speed limit. However, where a posted speed limit is provided, it should be consistent with the majority of the road alignment.

It is inappropriate to install posted speed limits on rural roads with inconsistent alignments as there would be too many locations where the speed limit would be either significantly higher or lower than the operating speeds. When a non-default speed limit is installed, many drivers have an expectation that the road can be readily negotiated at that speed. This should be supported by appropriate road warning and speed advisory signs.

Crash history

Generally, established crash patterns are best addressed by road safety treatments that specifically mitigate the cause of the crashes. It is noted that crash history is not self-evident to a motorist travelling along a road.

Types of speed limits

Table I Typical speed limit applications

Speed limit (km/h)	Typical application
40	school zones (part time)
	local area traffic management
	high pedestrian activity areas
general urban default	
	shopping zones and town centres
60	urban arterials and main roads through rural towns
	rural residential
70	divided urban highway
	rural hamlets
80	general rural default for unsealed roads outside built-up areas
	ribbon development – sparsely built up route
	high standard divided urban highway
	good standard rural highway with elevated crash history
90	high standard rural highway with elevated crash history
100	general rural default for sealed roads outside built-up areas
	good standard rural highway
110	high standard rural highway
buffer zones	intermediate zone where a large speed reduction exists

Notes:

- I. Posted speed limits are not normally installed on unsealed roads because the condition of the road surface can vary significantly over time depending on weather and when the road was last regraded.
- 2. With the exception of buffer zones and some site-specific divided carriageway situations, the speed limit on a section of road is normally the same in both directions.

Notes on typical applications

40 km/h - school zone (part time)

- Applied at schools where a Children's Crossing exists.
- The school zone typically extends 100 metres on either side of the crossing.
- Most school zone signs are electronic and are programmed to operate for a short period at the beginning and end of the school day.

40 km/h - local area traffic management

- Applied to streets which have been treated with traffic calming devices (such as road humps) which
 physically control operating speeds.
- Can be applied in beachfront areas with low traffic volumes and no formal footpath facilities.

40 km/h - high pedestrian activity areas

- Applied to streets through areas with high amounts of pedestrian activity or with an over-representation of pedestrian crashes.
- Depending on the nature of the pedestrian activity, these type of zones may be part-time.

50 km/h - general urban default

• Applies to all roads in built-up areas unless signed otherwise.

50 km/h – shopping zones and town centres

- Where urban arterials and main roads through rural towns pass through shopping zones, the speed limit can be reduced to 50 km/h (40km/h to be considered where pedestrian activity is high).
- Shopping zones are associated with elevated numbers of pedestrians crossing the road and increased parking / unparking manoeuvres from kerbside spaces.
- Shopping zones should only be installed where the activity occurs on both sides of the road and extends
 over a length of a least 300 metres.

60 km/h -urban arterials and main roads through rural towns

• These types of roads have a high proportion of through traffic and the traffic volumes tend to be higher.

60 km/h - rural residential

- These types of roads carry little or no through traffic and generally have residential houses which are located on comparatively large blocks of land and are set back from the edge of the road.
- Typically, there are no footpath facilities or kerb and channel along the road.
- For example: Acton Drive, Acton Park; and Devon Hills Road, Devon Hills.

70 km/h - divided urban highway

- These type of roads carry high volumes of through traffic.
- The main intersections along the roads are often controlled with traffic signals.
- For example: East Derwent Highway between Rose Bay and Geilston Bay; West Tamar Highway between Launceston and Riverside; and Bass Highway between South Burnie and Cooee.

70 km/h - rural hamlets

- The level of roadside development through rural hamlets is often quite sparse but the settlement can still have a distinct sense of place, sometimes focused around a local store or community hall. 70 km/h speed limits can be applied to rural hamlets with continuous roadside development over a distance of at least 700 metres.
- For example: Arthur Highway through Murdunna; Huon Highway through Waterloo; and Tasman Highway through Nunamara.

80 km/h - general rural default for unsealed roads outside built-up areas

• It is noted that speed limits are a maximum speed – not a target speed. There are many unsealed rural roads in Tasmania where the road cross-section and alignment do not allow drivers to travel at 80 km/h. Motorists have a responsibility to drive to the conditions.

• Default speed limits are generally not signed. Where it is necessary to sign the default limit, for example, on the departure from a town, a 'Changing Road Conditions' advisory plate is displayed beneath the 80 km/h speed limit sign to emphasise that motorists need to drive to the conditions.

80 km/h - ribbon development

- Can be applied to roads with continuous roadside development over a distance of at least 800 metres.
- A reasonable balance needs to be achieved between road safety and local amenity concerns on the one
 hand, and traffic mobility expectations on the other. Road function and traffic volume are important
 considerations.
- For example: Evandale Road between Midland Highway and Evandale; and Murchison Highway through Elliott.

80 km/h - high standard divided urban highway

- Applied to roads that carry high volumes of strategic traffic and the road cross-section and alignment have been constructed to a high standard.
- For example: Goodwood Road between the Brooker Highway and East Derwent Highway; and Bass Highway between Chasm Creek and South Burnie.

80 km/h – good standard rural highway with elevated crash history

- Only used in exceptional circumstances or where the road cross section and alignment does not support a higher speed limit.
- For example: Huon Highway at Vinces Saddle; and Boyer Road between Bridgewater and New Norfolk.

90 km/h - high standard rural highway with elevated crash history

- Only used in exceptional circumstances or where the road cross section and alignment does not support a higher speed limit.
- For example: Midland Highway between Prospect and South Launceston; and Bass Highway in the vicinity of Don River

100 km/h – general rural default for sealed roads outside built-up areas

- It is noted that speed limits are a maximum speed not a target speed. There are many rural roads in Tasmania where the road cross-section and alignment do not allow drivers to consistently travel at 100 km/h.
- Default speed limits are generally not signed. Where it is necessary to sign the default limit, for example, on the departure from a town, a 'Changing Road Conditions' advisory plate is displayed beneath the 100 km/h speed limit sign to emphasise that motorists need to drive to the conditions.

100 km/h - good standard rural highway

- The 'Changing Road Conditions' advisory plate described above is not used when the road cross-section and alignment is of a sufficiently high standard that operating speeds for the majority of the road are close to 100 km/h and any hazardous locations have been highlighted with warning signs.
- For example: Bass Highway between Wynyard and Smithton; Bridport Road between East Tamar Highway and Bridport; and Esk Main Road between Midland Highway and St Marys.

110 km/h - high standard rural highway

- Can be applied to roads that carry high volumes of strategic traffic and the road cross-section and alignment have been constructed to a high standard. It is desirable for such roads to have divided carriageways or median barrier separation.
- For example: Tasman Highway, between Rosny and the Hobart airport; Midland Highway, between Bridgewater and Prospect, south of Launceston; and Bass Highway, between Prospect, south of Launceston and Heybridge, east of Burnie

Buffer zones

- A speed limit buffer is provided where there is a reduction in the speed limit of more than 30 km/h. For
 example, a 300-metre-long 80 km/h buffer zone is normally provided at locations where the speed limit is
 reduced from 100 to 60 km/h.
- Buffer zones are not generally required for speed limit reductions of 30 km/h or less. They may also be omitted where approach speeds are constrained by the road alignment.
- Buffer zones are not provided for speed limit increases.

Lengths of speed limits

Motorists are confused by too many speed limits changes along the same route.

A balance needs to be achieved between matching the speed limit with the road characteristics at specific locations and avoiding excessive 'chop and change'.

Setting speed limits along routes where the road characteristics are highly variable requires careful consideration. If the justification for the speed limit is not self-evident to motorists, there are likely to be ongoing compliance issues, even when subject to regular enforcement.

The desirable minimum length of a linear speed zone is specified in Table 2.

Short lengths of road where reduced speeds are needed for isolated hazards are better treated with warning signs and advisory speed plates.

Table 2 Desirable minimum length of speed zones

Speed limit (km/h)	Desirable minimum length (km)
40	0.4
	0.2 for school zones
50	0.5
	0.3 for shopping zones
60	0.6
70	0.7
80	0.8
90	0.9
100	2.0
110	10.0
Buffer zones	0.3

Signing of speed limits

Advice on the signing of speed limits, including the type, size, layout and positioning of signs is contained in Australian Standard AS1742 Manual of uniform traffic control devices, Part 4: Speed controls.

Some of the key aspects are:

- changes of speed limit are normally signed on both sides of the road
- for minor roads with no road markings, it is acceptable to only provide one sign on the left-hand side of the road
- the change of speed limit is typically located about 100 to 150 metres prior to the point where lower speeds are required.
- a sign with the name of the town can be displayed above the speed limit sign
- a supplementary plate describing the type of speed zone (for example, Shopping Zone) can be provided below the speed limit sign where this will help drivers to understand the justification for the speed limit, but this should not normally be required
- repeater speed limit signs are installed to remind drivers of the prevailing speed limit. Repeater signs:
 - o are particularly important where the justification for the speed limit may not be immediately apparent to the average driver
 - o are normally only signed on the left-hand side of the road but signs are also required on the right-hand side of multi-lane roads
 - o are placed at regular intervals along the road and on the departures from busy intersections
 - o are installed at intervals of around 600 metres in urban areas and about 2 kilometres in rural
 - can be installed along roads where there is demonstrated poor compliance with the speed limit.



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