RACT SAFE SPEEDS POLICY

JUNE 2019

RACT POLICY – SAFE SPEEDS

Organisation	RACT
Business Unit	Advocacy Committee

Version	Author	Description	Date Revised	Review Date
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MOBILITY STRATEGY PILLAR: ROAD SAFETY

Road safety is the first component of RACT's mobility strategy. Within this pillar, RACT's goal is to increasingly improve Tasmania's roads so that they are safer, including the setting of appropriate speed limits.

1) SAFE SPEEDS POLICY STATEMENT

1.1 Safe Speeds Explained

- Safe Speeds involves reconsidering speed limits to reflect the road quality and its surroundings (Transport Accident Commission, 2019).
- As speed increases, so does the risk of crashing and being seriously injured or killed (Transport Accident Commission, 2019).

1.2 Purpose of this Policy

- As Tasmania's peak motoring body, RACT is an advocate for improvements to road safety, including through safe speeds.
- This policy will discuss RACT's position around safe speeds as a means to reduce Tasmania's road toll and serious injuries. It will explore the appropriate balance between safety and network efficiency.
- This policy will also inform how RACT will advocate for safe speeds in Tasmania through liaison with all levels of government, key transport stakeholders and the media.

1.3 Relevance to RACT

- RACT advocates for better road safety outcomes for all Tasmanians in order to reduce the state's road toll and serious injuries.

2) BACKGROUND, EVIDENCE AND POSITION

2.1 Background

- The National Road Safety Strategy was signed by all Australian State Governments in 2011 with the aim of reducing road deaths and serious injuries by at least 30% by 2020 (Australian Automobile Association, 2018).
- The NRSS is based on the Safe System approach to improving road safety and considers four key pillars: safe vehicles, safe roads, safe road users and safe speeds (Department of Infrastructure, Regional Development and Cities, 2018).

- The Safe Systems approach forms part of the Tasmanian Government's Towards Zero – Tasmanian Road Safety Strategy, which aims for no road user being seriously injured or killed as the result of a crash in Tasmania (Department of State Growth, 2018).
- Tasmania's default speed limits, set by Commissioner for Transport and the Tasmanian Government, include 100km/h on rural roads, 50km/h on urban roads and 80km/h on gravel roads (Department of State Growth, 2019).
- Tasmania's speed limits are based on the Hierarchy of Speed Limits table outlined in the Australian Standard: Speed Controls (Appendix A). The standards dictate that speeds will be determined by road function and application, in accordance with the Hierarchy of Speed Limits (Standards Australia, 2008).
- Speed reductions due to high serious casualty crash figures should only be allowed if other forms of road improvements cannot be undertaken, unless a substantial length of road is of poor quality (Standards Australia and Austroads, 2008).
    - Crash history can be evaluated in two ways: the risk faced by individuals (measured by the casualty crash rate per 100 million vehicle kilometres) and the collective risk (casualty crash rate per kilometre of road).
    - Improvements include remedial work, advisory speed limits, speed warning signs and safety barriers.
    - Safe facilities for pedestrians and cyclists must also be implemented before speed reductions.
    - Speed limits should not be lowered at intersections. Improved line of sight, design and warning signs are preferred.
- However, speed limit reductions can be based on the following (Standards Australia and Austroads, 2008):
    - Roadside access points to property, reduced standard of road width and construction, division of road and median width, median/roadside barriers, the number of lanes, a lack of edgelines, sealed shoulders and bus or cycle lanes, as well as increased bicycle or pedestrian activity.
- Speed reductions are limited to 10km/h, unless the function, application and features of the road (outlined in Appendix A) are reassessed, or 85% of motorists on a road are travelling more than 10km/h below the speed limit (Standards Australia, 2008).
- "Buffer zones" are used where there are speed limit reductions of more than 30km/h, but no less than 20km/h. The length of speed zones and buffer zones are outlined in Appendix B (Standards Australia, 2008).
- Variable speed limits, outlined in Appendix A, may be implemented during adverse weather and higher traffic volumes, as well as in school zones. They should be indicated through illuminated and flashing lights to alert drivers, as well as signage that dictates the reason for the variation (Standards Australia, 2008).
- Safe Speeds involves setting speed limits that reflect road quality, surroundings and driving to the conditions as well as human tolerances to external forces (Transport Accident Commission, 2019).
    - As speed increases, so does the risk of crashing and being seriously injured or killed. The effectiveness of programs implemented for roads and vehicles can help reduce road trauma.
- Reducing speed can result in a significant reduction in road trauma (TAC, 2019).

    - At higher speeds people require more distance to stop and avoid a crash, have less time to react to changes in the road, traffic conditions and other motorists, and are at a greater risk of losing control.
    - Crashing at higher speeds causes the human body to be subjected to greater force, reduces the effectiveness of seatbelts and airbags and causes almost certain death to pedestrians and cyclists.
- Human crash tolerances vary depending on the type of crash or vehicle, whether someone is on a motorcycle, on a bicycle or walking (Towards Zero Foundation, 2019).
    - In the road environment, vulnerable road users such as pedestrians are most at risk of sustaining injury in the event of a crash
    - While a vehicle can help reduce crash forces and help protect the occupant, speed remains a critical factor in crash outcomes.
- Local traffic precincts can be dangerous for vulnerable road users such as pedestrians and cyclists – particularly the elderly and children (TAC, 2019).
    - Traffic calming infrastructure such as median strips and roundabouts are used to help manage speed and safety of these road users.
- Speeding is also addressed in RACT's Safe Road Users policy.

2.2 Evidence

- Human tolerances in different crash types vary. An individual's head-on crash tolerance is 70km/h, while 50km/h is the tolerance for side-impact vehicle crashes (NRSS, 2011).
    - A pedestrian's crash tolerance with a vehicle is 30km/h. A person's side-impact crash tolerance with a tree or pole is also 30km/h.
    - A motorcyclist's crash tolerance with a vehicle is also 30km/h and a car driver's tolerance on impact with a tree or pole is 40km/h.
- Pedestrians have a 90% chance of survival if hit by a car travelling at a speed of 30km/h or below, but less than a 50% chance of surviving an impact at 45km/h or above (World Health Organisation, 2019).
    - Pedestrians have little chance of survival after being hit by a car travelling at 60km/h, but this increases to a 60% chance of survival in the car is travelling at 50km/h (TAC, 2019).
- Australian research shows that with each 5km/h increase in speeds above 60km/h on urban roads, and 10km/h increases on rural roads, the risk of a crash resulting in death or serious injury doubles (TAC, 2019).
    - Reducing speed by 5km/h can result in a 20% reduction of fatal crashes and 15% decrease in serious injury crashes.
- Research also indicates that a 10km/h in average travel speeds can lead to a 25% reduction in fatal and serious injury crashes (Department of State Growth, 2019).
- In average conditions, a car travelling at 60km/h will take 45 metres to stop in an emergency braking situation. A car braking from 65km/h will still be moving at close to 32km/h over the same distance (TAC, 2019).
- A number of countries such as the UK and Sweden have applied 30km/h speed zones in high pedestrian areas to improve survival rates in the event of a crash (Towards Zero Foundation, 2019).

- Sweden is setting lower speed limits on new roads and modifying speeds on existing roads based on newer limits. Currently, 80km/h is the maximum speed for an undivided road unless there are low traffic volumes (World Road Association, 2019).
- Speeding is the leading cause of fatal and serious injury crashes in Tasmania, listed as a contributing factor in 29% of these crashes each year (Department of State Growth, 2018).

2.3 Position

RACT

- Maintains in principle support for the Tasmanian Government's default speed limits, which include 100km/h on rural roads, 50km/h on urban roads and 80km/h on gravel roads.
- Maintains in principle support for the setting of speed limits to be in accordance with the Hierarchy of Speed Limits table outlined in the Australian Standards (Appendix A).
    - Changes to speed limits must comply with the standards, or be applied following a thorough reassessment of the standards with specific consideration for Tasmanian roads as well as crash and risk data.
- Urges all levels of government, as a first priority, to upgrade all highways to an AusRAP 3 star safety rating, and other roads to improved standards, to enable safe and efficient travel speeds, rather than lowering speed limits to cater for substandard infrastructure.
    - This could include road duplication or regular overtaking lanes to improve traffic flow and reduce risky overtaking manoeuvres.
    - Other options include: widening/re-aligning roads, widening and sealing shoulders, wire and steel safety barriers, improving visibility and line of sight, advisory speed limit and warning signs and separated cycleways and walkways for pedestrians and cyclists.
    - Temporary speed limit reductions are warranted if the condition of a road requires an immediate reduction on safety grounds, but only until improvements are made.
- Encourages the Tasmanian Government to consider speed limit reductions of 10km/h on Tasmanian roads and highways if the improvement of road standards fails to increase safety outcomes, based on:
    - Serious casualty crash history, risk data, high risk junctions/intersections, roadside access points, traffic volumes, standard of road width and construction, number of lanes, road and median width, presence of median/roadside barriers, edgelines, sealed shoulders as well as bus or cycle lanes, and bicycle or pedestrian activity.
    - This must be backed by an evidence-based review of roads that have become a safety concern. Limits should only be reduced when necessary.
    - Speed limit reductions greater than 10km/h must be based on a reassessment of Appendix A, or if 85% of traffic is travelling more than 10km/h under the limit.
- Urges relevant authorities to clearly sign speed limits at regular intervals and to allow for speed limit "buffer zones" when there is a significant reduction in speed limits.
- Urges the Tasmanian Government to implement 40km/h speed limits along all school access roads, defined by variable signage during school drop off and pick up times. This should be where there is pedestrian activity.
    - Encourages the Tasmanian Government to also consider 30km/h speed limits through school zones or in areas of high vulnerable road user activity. This should also be based on evidence relating to this activity, crash data and risk.

- Supports the use of variable speed limits in key locations to facilitate safer traffic flow during periods of high traffic volumes or wet and frosty weather conditions, as an alternative to blanket speed reductions.
    - These would be communicated by digital signage and allow for slower speeds in peak hour times and default speeds in off-peak times.
    - This could also include speed-activated warning signs.
- Strongly supports the introduction of Slow Down Move Over laws in Tasmania that require motorists to reduce speed to a maximum of 40km/h when passing emergency and incident response vehicles, including RACT Roadside Assist vehicles.
- Supports temporary speed management at roadwork sites to protect workers, provided these measures are in line with Australian Standards: Traffic Control for Works on Roads and are audited regularly.

3) SCOPE

3.1 Policy Application and Ownership

This policy applies to:

- Tasmanian road users
- The Department of State Growth
- Local government
- Tasmanian Government policy makers and ministers
- Australian Government policy makers and ministers

The ownership and responsibility of this policy is with the RACT Board.

4) APPROVALS

4.1 Date of approval: [insert date]
4.2 Date of review: [insert date]
4.3 Signature of CEO: [insert signature]

APPENDIX A – HIERARCHY OF SPEED LIMITS

Speed limit (km/h)	Road Function	Typical Application	Key Features
10	Shared zone	Pedestrian mall, car park.	Confined areas where movement of pedestrians and cyclists has priority over motor vehicles.
20	Off-street areas	Car parks, access driveways.	Confined areas where pedestrians and cyclists intermingle with motor vehicles.
30	Local	Recreational area, car park.	Open areas where pedestrians and cycles intermingle with motor vehicles.
40	Local	Residential streets or areas. Commercial streets or areas.	Streets provided with local area traffic management devises to physically control speeds to the limit.
40	Any	School zones.	Variable school zone speed limit with timed signage. Speed limit for a school zone within an 80km/h area or more is 60km/h.
50	Local	Default urban speed limit.	Residential, commercial and other property access roads that are not primarily traffic routes.
60	Traffic	Urban arterial road.	Traffic route in a fully built-up area: residential, business or industrial development extending along at least 90% of the road on both sides. Includes schools, shops, and playing fields.
70, 80	Traffic	Urban arterial road.	Traffic route in a partially built-up area: residential, business or industrial development extending along at least 25-90% of road on both sides. Typical of an urban fringe area or a rural township.
80,90	Traffic	Urban or rural arterial road.	Traffic route in a sparsely built-up area: residential, business or industrial development extending along at least 25% of the road or on one side of the road. Typical of a small rural village.
100	Traffic	Rural arterial road. Default rural speed limit.	Traffic route in a farmland: No more than 20 residences per kilometre on both sides of the road, set well back from road.
90, 100	Traffic	Urban expressway.	Full control of access and grade separated interchanges. Variable speed changes may apply during wet weather and traffic volume increases.
100, 110	Traffic	Rural arterial road or expressway.	Traffic route in undeveloped areas: No development on either side of the road except for isolated houses set well back from road and less than five access points per kilometre.

Notes:

1) These suggested speeds under the Australian Standards apply to undivided roads with lanes 3m or wider and shoulders 80cm or wider (Standards Australia, 2008).
2) A ***built up area,*** in relation to a length of road, is an area where either of the following is present for a distance of 500m or less along the road (Tasmanian Road Rules, 2009).
    - buildings, not over 100 metres apart, on land next to the road.
    - street lights not over 100 metres apart.

Source: Standards Australia (2008)

APPENDIX B – MINIMUM LENGTH OF SPEED ZONES

Speed limit (km/h)	Minimum length of zone (km)
40	0.4
40 (school zone)	0.2
60	0.6
70	0.7
80	0.8
90	0.9
100	2.0
110	10.0
Speed limit buffer zone	0.3-0.4 (max)

Source: Standards Australia (2008)