SAFE SYSTEM SOLUTIONS
Road Safety | Auditing | Engineering | Assessments | Training

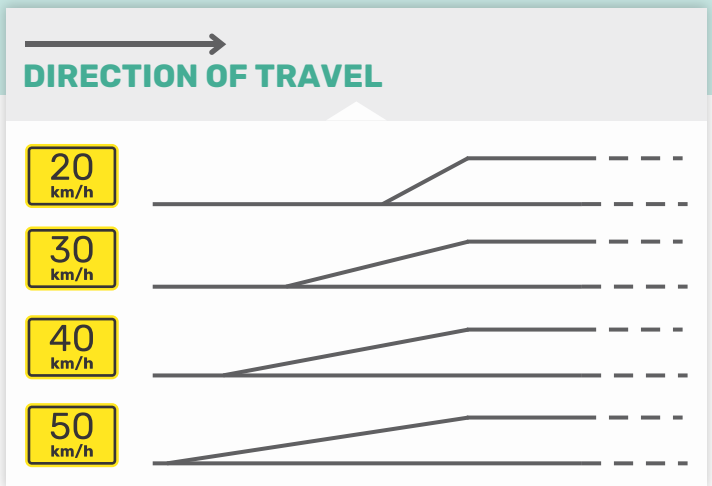
RAISED SAFETY PLATFORMS

What are Raised Safety Platforms?

Raised Safety Platforms (RSPs) are elevated sections of road that aim to reduce vehicle speeds on the approach to areas of higher risk, such as intersections.

RSPs are like speed humps, but having a much gentler gradient (ramp slope) means they can be safely used in higher speed environments.

The grade, or slope, of the ramps can be designed to achieve different travel speeds. The design takes into account travel comfort and effciency for all users including heavy vehicles, motorcycles, emergency vehicles and buses.



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What do Raised Safety Platforms do?

RSPs reduce crashes and road trauma. They slow vehicles down to a safer speed, so that:

- There is less chance of a crash happening, because people have more time to see and react; and
- The severity of a crash, should it occur, is reduced because impact forces are lower.

Where are Raised Safety Platforms used?

Raised Safety Platforms can be used at intersections:

- On the approach to the intersection, so that it works like a speed hump; or
- By raising the whole intersection, so that traffic slows to get onto the intersection.

Raised Intersection

At a raised intersection vehicles slow down to drive up onto the platform and maintain a lower speed until descending on departure from the intersection. Raised intersections reduce the risk of vehicle to vehicle crashes and create a more pedestrian friendly area. They can reduce casualty crashes by up to 40%.

Raised platform intersections can reduce casualty crashes by **up to 40%**

Source: International Road Assessment Program (iRAP) Road Safety Toolkit

Raised Safety Platforms can be used at mid-block locations (between intersections):

- As a traffic calming measure, similar to a speed hump; or
- As part of a pedestrian crossing

Raised Pedestrian Crossings (Wombat Crossings)

A raised pedestrian (zebra) crossing is called a Wombat Crossing. The raised aspect gives further prominence to pedestrians and encourages motorists to slow down on the approach to the crossing. A recent study showed that wombat crossings can lower casualty rates by over 60% by combining the advantages of a pedestrian crossing with the advantages of a raised platform. They are effective at reducing vehicle speeds and are an excellent road safety treatment.

Wombat Crossings reduce casualty crashes by **up to 60%**

Source: Makwasha, T & Turner, B, 2017

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QUICK FACTS

Pedestrians and cyclists

Lower speeds improve road safety, especially for vulnerable road users like pedestrians and cyclists.

Lower speeds help to make streets enjoyable places to be, rather than just thoroughfares for traffic.

Lower speeds encourage active transport and can reduce driver hoon behaviour.

Emergency vehicles

Emergency vehicles need to slow down at RSPs. But they also need to slow at roundabouts, traffic lights and other intersections.

RSPs on some of Melbourne's busiest emergency vehicle routes do not significantly affect response times.

Emergency services are consulted where RSP installation might affect their journeys.

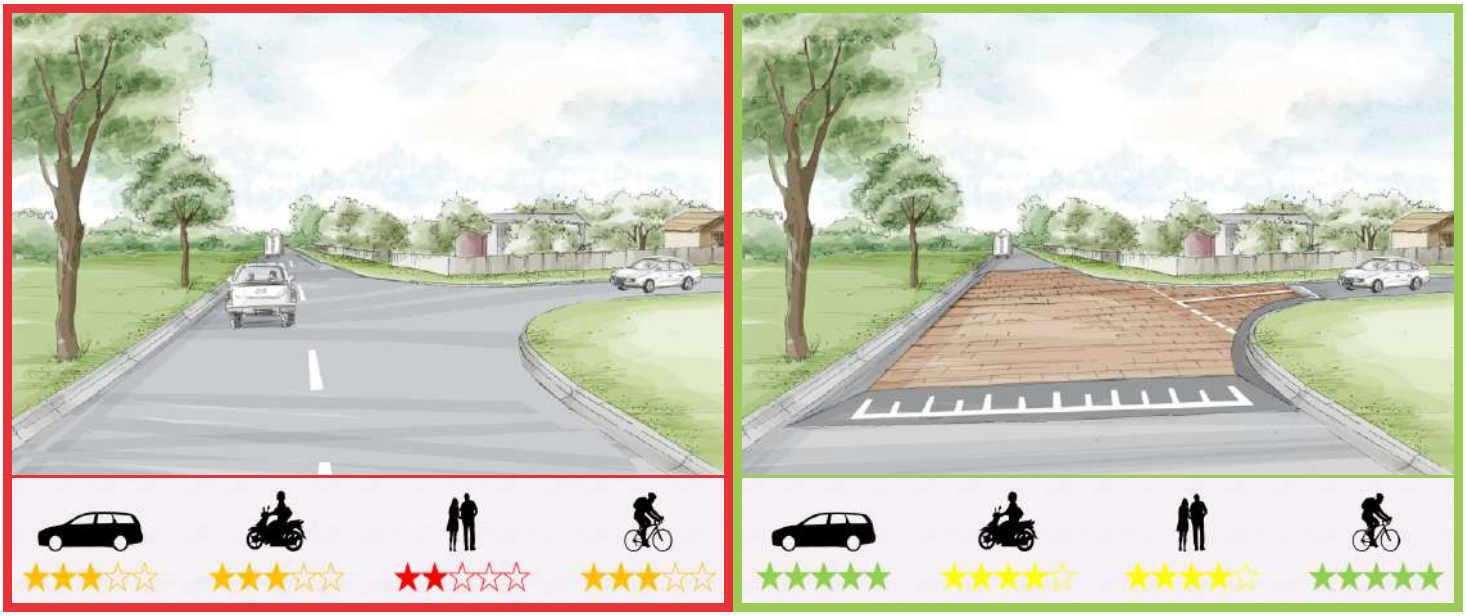
Heavy vehicles

RSPs are designed so that large vehicles are not destabilised or damaged.

Ramp slopes and height are adjusted to suit the vehicles that will travel over them.

There are RSPs working successfully on major arterial freight routes in Victoria such as the Surf Coast Highway Belmont and Bass Highway Wonthaggi.

Safety Rating (iRAP)[1]



1. Based on a modified iRAP scenario for demonstration purposes see **www.iRAP.org** for details

Travel time / congestion

Evaluations of recently installed ramps have shown little evidence of any significant impact on intersection capacity.

Journey times are hardly affected because speed reductions are focused on a short length of road (the point of risk) rather than over a wide area.

Vehicle speeds

RSPs can be designed to reduce speeds to desired levels. Evaluations of implemented RSPs show they generally reduce approach travel speeds by up to 28%.

Noise

Community concerns about noise from vehicles crossing the platform have not played out in recent installations.

A small increase in noise is often offset by less noise from speeding and hoon behaviour.

Recent tests have shown a decrease in noise, mainly due to road resurfacing at the approaches to some RSPs.

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CASE STUDIES

Surf Coast – Kidman Avenue

Road class:	Arterial
Traffic Volume:	20,000 vehicles per day
Commercial vehicles:	12%
Speed limit:	60km/h
Bus route:	Yes
Emerg. vehicle route:	Major
Installation year:	2015
Safety:	Post opening 85th percentile speed is 53km/h
Noise:	No lasting community concerns
Other issues:	Some debris near the platform needs sweeping occasionally

Rundle Street and The Parade West in Kent Town

Road class:	Arterial
Traffic Volume:	~7000 vehicles per day
Commercial vehicles:	1.5%
Speed limit:	50km/h
Bus route:	Yes
Emerg. vehicle route:	Medium
Installation year:	2015
Safety:	Reduced crashes, however still some cyclist/vehicle and vehicle/vehicle crashes
Noise:	No lasting community concerns
Other issues:	None

The Boulevard, Ivanhoe East

Road class:	Tourist route/local collector
Responsible agency:	Banyule City Council
Traffic Volume:	2,500 vehicles per day
Commercial vehicles:	4%
Speed limit:	50km/h
Bus route:	Yes
Emerg. vehicle route:	Minor
Installation year:	2012
Safety:	Performing very well
Noise:	No lasting community concerns
Other issues:	None known

WANT MORE INFO

Austroads
(2020) Effectiveness and Implementation of Raised Safety Platforms

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Pratt, K., Roper, P. & Wright, B.
(2015) Innovative Safety Platform Trials ARRB Group, Vermont South, VIC

Pratt, K., & Aumann, P.
(2014) Innovative Raised Stop Bars at Signalised Intersections ARRB Group, Vermont South, VICs

Department for Transport
(1998) Traffic advisory leaflet 1/98 Department for Transport, London, UK.