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 efficiency for all users including heavy vehicles, motorcycles, emergency vehicles and buses.
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 Intersections

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
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.
## 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
- **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**
- **Callaway, L., Roper, P. & Germanchev, A.**
  - (2010) Trafficable easy access tram stop vehicle interaction study ARRB Group, Vermont South, Vic.
- **Pratt, K., Roper, P. & Wright, B.**
- **Pratt, K., & Aumann, P.**
  - (2014) Innovative Raised Stop Bars at Signalised Intersections ARRB Group, Vermont South, VICs
- **Department for Transport**

**FOR FURTHER INFORMATION**

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