

# Technical Direction

RTD 2019/001 | RMS.19.1272 – June 2019

## Installation of Pedestrian Fencing on New South Wales Classified Roads

Summary:	Audience:
The objective of this Technical Direction is to provide guidance on the warrant and placement of pedestrian fencing to maximise the safety of all road users.	<ul style="list-style-type: none"> <li>• Road Design Practitioners</li> <li>• Project Managers</li> <li>• Contract Managers</li> </ul>

### Introduction

The function of pedestrian fencing is to assist with the safe movement of roadside users. It acts as a physical barrier and is used to direct pedestrians to safe crossing areas, preventing them from inadvertently accessing areas of the road corridor where they may interact with vehicular traffic in an uncontrolled manner.

Pedestrian fencing is **not** a road safety barrier and cannot be used in lieu of a road safety barrier. It is not designed to deflect or arrest an errant vehicle or to prevent injury to pedestrians by errant vehicles.

### Background

The only pedestrian fencing type recommended by Roads and Maritime Services for use on the NSW classified road network, within the clear zone, is the type depicted on Roads and Maritime Standard (Road) Drawings R0800-10 to R0800-28, hereinafter referred to as the Pedestrian Fence.

The Pedestrian Fence was designed in the 1990's by Roads and Maritime, then the Roads and Traffic Authority. It was crash tested in 2002, 2003 and in 2018, and has been assessed as suitable for use in posted speed zones of up to 80km/h. The Pedestrian Fence should only be installed if a warrant has been established as, if a vehicle becomes errant and enters the roadside environment, there is an increased risk to pedestrians if a pedestrian fence is present due to debris scatter as witnessed in crash testing.

The Pedestrian Fence comprises panels that are designed to collapse as a whole panel when impacted, to minimise the detachment of individual elements, and features a staggered layout of the balusters allowing motorists and pedestrians approaching on opposite sides of the fence to see each other.

### Approvals:

<b>Owner:</b>	Michael Potts A/Director Road Design	<b>Review Date:</b>	June 2021
<b>Authorised by:</b>	Peter Ellis A/Director of Engineering	<b>Effective Date:</b>	June 2019

## Design Warrant

A warrant for the installation of pedestrian fencing needs to be established. It is recommended that alternative measures be considered in the first instance to reduce risk to roadside users. Such measures may include, but are not limited to:

- Speed limit reduction
- Traffic calming
- Relocation of a pedestrian crossing to better fit pedestrian desire lines
- Installation of a new pedestrian crossing at a desired location
- Footpath improvements and widening.

In general, pedestrian fencing shall only be used to deter pedestrians from crossing roads at inappropriate locations where the site:

- Has a crash history involving pedestrians crossing at inappropriate locations
- Has a high volume of vulnerable pedestrians
- Is a higher speed arterial road with consistent and substantial pedestrian presence

Pedestrian fencing can also be used to protect pedestrians from hazards such as steep drop-offs and large open drains.

While pedestrian fencing may be an appropriate treatment for managing pedestrians in medians at pedestrian crossings, it should be seen as a 'last resort' option and only used where it is anticipated that pedestrians would be unaware of how to use the crossing if it was omitted.

## Installation Considerations

The most effective location for pedestrian fencing is on the footway as it has the greatest potential to prevent pedestrians from entering the roadway. When installed on a footway, the distance between the travel lane and the fence should be a minimum of 200mm to prevent nuisance damage. For long lengths of fencing where there is a high risk that a pedestrian may become caught between the traffic and the fence, enough space should be provided for a pedestrian to shelter while not providing adequate space to encourage pedestrians to use this as a walkway.

Where it is inappropriate to install pedestrian fencing on footways, pedestrian fencing may be placed on a median. A minimum median width of 1.2 metres is required to shelter a centrally located fence.

While the Pedestrian Fence features a staggered layout of the balusters, allowing motorists and pedestrians approaching on opposite sides of the fence to easily observe each other, it can still restrict visibility at very acute approach angles. Consideration should therefore be given to sight lines, particularly when fencing is to be installed on a median and especially at intersections where right turning vehicles on the through road may temporarily lose sight of an approaching vehicle. Half height Pedestrian Fence is **not** to be used.

Pedestrian fencing should not be installed any closer than 1.0 metre to a traffic signal post. This clearance is required to allow for maintenance to the traffic signal lantern assembly and to discourage vandalism by preventing access to the signals via standing on the fence.

## References

R0800 Fencing Series:

<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/document-types/standard-drawings/road/fencing.html>