



Supplement to AS/NZS 1428.4.1:2009
Design for access and mobility

**Part 4.1: Means to assist the orientation of people with vision impairment -
Tactile ground surface indicators**

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1. Introduction

1.1 General

All road agencies across Australia are working towards greater consistency between States/Territories in how road networks are managed. In order to achieve this, the Austroads Guide to Traffic Management and Australian Standards relating to traffic management have been adopted to assist in providing that level of consistency and harmonisation across all jurisdictions. This agreement means that these Austroads Guides and the Australian Standards are the primary technical references.

Australian Standard AS/NZS 1428.4.1:2009 – Design for access and mobility – Part 4.1: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators is a nationally agreed standards document outlining the use of traffic control devices on the road network and has been adopted by all jurisdictions, including VicRoads.

All jurisdictions will be developing their own supplement to clearly identify where its practices currently differ and to provide additional guidance to that contained within AS/NZS 1428.4.1:2009. This document is the VicRoads supplement and shall be read in conjunction with AS/NZS 1428.4.1:2009.

1.2 How to Use this Supplement

There are two key parts to this document:

Classification of Supplement Information: this table classifies supplement information as a Departure, Additional Information or both. This information assists with identifying its hierarchy in relation to the Australian Standard.

- **Details of Supplement Information:** this section provides the details of the supplement information.
 - **Departures:** where VicRoads practices differ from the guidance in the Australian Standard. Where this occurs, these differences or 'Departures' will be highlighted in a box. The information inside the box **takes precedence** over the Australian Standard clause. The Australian Standard clause is not applicable in these instances.
 - **Additional Information:** all information not identified as a departure provides further guidance to the Australian Standard and is read and applied **in conjunction** with the Australian Standard clause.

Where a clause does not appear in the body of this supplement, the Australian Standard requirements are followed.

2. Classification of Supplement Information

The classification of each clause as a Departure, Additional Information or both is shown in the table below.

Clause	Classification
1.2.1	Additional Information
Appendix A	Additional Information
Appendix A3.3	Additional Information
Appendix C	Additional Information
Appendix C3	Additional Information
Appendix C4	Additional Information
Appendix E1	Additional Information

Australian Standard requirements are followed for clauses not shown in this table.

3. Details of Changes

Clause 1.2.1 – General

Under Section 24 (1) of the (Commonwealth) Disability Discrimination Act 1992, it is unlawful to discriminate against people with disabilities when making facilities available. To comply with the requirement of this Act, VicRoads must give consideration to facilities for vision impaired pedestrians on all new works on declared roads.

VicRoads Regions are responsible for making the judgement on which facilities will have to be fitted to cater for vision impaired pedestrians. The advice of a disability support group and local council officers should be sought in determining the extent to which particular treatments are required at each location.

It should be noted that the local council is generally responsible for arranging for the installation of bus and tram stop infrastructure facilities on all local and main roads.

In addition to the above, the following guidelines outline the responsibilities of applicable authorities for the provision of facilities for people with a disability.

VicRoads

One of VicRoads' corporate aims is to "minimise the impact of roads and traffic on the community and enhance the environment through responsible planning and management of the transport system". An integral part of this aim is the progressive provision of fully accessible road infrastructure, buildings and transport services on freeways and arterial roads.

Under Section 24 (2) of the Disability Discrimination Act, is it not unlawful to discriminate against a person with disabilities if in making the facilities available, unjustifiable hardship is caused to the person providing the facilities.

Despite best intentions, situations may arise where space and/or funding is not available to provide facilities for people with disabilities to the desirable extent. Typical site or geometric constraints which may occur at a particular location may include:

- steep road or footpath grades
- narrow footpaths
- insufficient available road reserve

Whilst these are not strictly non-conformances, Project managers should document the reasons behind failing to provide the necessary DDA facilities, and present these as part of the project scope approval or scope variation process. Documentation should include any proposed alternative solutions, and the estimated costs to achieve full compliance.

Approval to omit specific DDA facilities from a project scope lies with the relevant delegation level for Project Approval and/or Scope or TEC Variations Approval, for the specific project. Refer to Sections A1 and A4 of VicRoads Authorisation Limits for further information.

Public Transport Operators

The Commonwealth Attorney General's Department, under the Disability Discrimination Act 1992 has prepared the Disability Standards for Accessible Public Transport 2002. The standards assume certain rights and responsibilities for public transport operators, providers and passengers. Road authorities, councils and public transport operators and providers are required to comply with Australian Standard AS 1428.4 on accessibility, which is referred to in the standards. Tram operators, bus operators, Road Authorities and Councils may choose to exceed the Accessible Public Transport Disability Standards in the provision of services, premises and infrastructure and private transport vehicles to allow for innovation beyond the standards. Public transport is expected to become accessible by replacement or upgrading of public transport vehicles, premises and infrastructure.

Local Councils

Whilst VicRoads guidelines are not intended to cover obligations of local councils, they highlight certain responsibilities of a local council as follows:

- responsibility for footpath areas on arterial roads
- to fund treatments (e.g. tactile ground surface indicators (TGSIs) on kerb ramps) where these are applied to particular interface situations between municipal roads and arterial roads
- responsibility for identification, implementation of treatments and funding of works on all municipal roads
- council funded works on arterial roads.

In the interest of uniformity, local councils are invited to apply the requirements of these guidelines to municipal roads.

Appendix A – INFORMATION ON DESIGN AND INSTALLATION

Existing pit covers and lids within the surface area to be treated with TGSIs can prove difficult as tiles cannot be cut into the surface. After first trying to avoid such items, the use of adhesive TGSIs products would be the preferred application in these instances.

Appendix A3.3 – Directional indicators

Other uses of directional TGSIs:

- To give directional orientation to a road crossing point within a traffic island.
- At taxi ranks to enable people with disabilities to access taxi vehicles at ranks. TGSIs should direct vision impaired pedestrians to the head of the rank.

Appendix C – KERB RAMPS, MEDIANS AND MULTIPLE ENTRY POINTS

The pedestrian push-button assembly locations shown in the Appendix C Figures are indicative only. Exact signal pedestal and push-button assembly locations shall be in accordance with VicRoads 'TC' series Standard Drawings.

Appendix C3 – KERB RAMPS

The minimum kerb ramp width of 1000 mm shall now be used as per the figures in Appendix C.

There should be no bull nose on the line of kerb, in order to allow for easy access/egress on the ramp for pedestrian movement, especially those in wheelchairs. Where possible, existing bull noses should be removed.

Appendix C4 – MEDIANS

Centre median and traffic island pedestrian openings are desirable at road surface level as this allows easy access for wheelchair users. This also provides an edge guide to users.

A desirable median width of 2.4 m or more will enable two sections of warning TGSIs to be placed within the opening (one adjacent to each carriageway and each set back 300 mm from the line of kerb).

On narrower median widths (1.2 to 2.4 m), the two 600 mm sections of TGSIs may be closer together or combined, but still maintaining 300 mm setback from each line of kerb. It is generally not feasible to provide TGSIs on median widths of less than 1.2 m.

Appendix E1 – GENERAL

The luminance contrast relates to the light differential emitted from the surface of two adjoining surfaces. This aspect is important for pedestrians who have a visual impairment, as they are able to see to some degree.

The selection of appropriately coloured TGSIs is important to ensure good contrast between the tiles and surrounding surfaces, and consideration should be given to the long-term effects of ageing on the surfaces. For example, pale coloured TGSIs may contrast well with freshly placed concrete, but will lose effectiveness over time as the concrete fades. Figure 1 shows how changes in surface colours for both pavement and TGSIs over time can affect colour contrast.

As a general guide, the following TGSIs colours provide a high level of contrast on the following surfaces:

- yellow TGSIs – on a white coloured surface (e.g. concrete).
- ivory TGSIs – on a dark / black coloured surface (e.g. asphalt).



Figure 1: Examples of how changes in surface colours can affect colour contrast

Document Information

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Previous versions of this document are available on request by contacting the VicRoads – Network Standards team.

For enquiries regarding this supplement, please contact the VicRoads – Network Standards team via tem@roads.vic.gov.au or 9854 2417.