



Supplement to AS 1742.10:2009  
Manual of uniform traffic control devices  
**Part 10: Pedestrian control and protection**

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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 Standards AS 1742.10:2009 - *Manual of uniform traffic control devices – Part 10: Pedestrian control and protection* 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 1742.10:2009. This document is the VicRoads supplement and shall be read in conjunction with AS 1742.10:2009.

## 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
5	Additional Information
5.4	Additional Information
6.2	Additional Information
6.3	Additional Information
7.2	Additional Information
7.4	Additional Information
8.1	Additional Information
8.2	Additional Information
8.5	Additional Information
9.4	Additional Information
11.1	Additional Information
11.2(b)	Additional Information
11.3	Additional Information
11.3(iii)	Additional Information

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

### 3. Details of Supplement Information

In this supplement the Road Safety Road Rules 2009 (Victoria) are referred to as 'the Road Rules'. References to a 'Rule' or 'Rules' are references to the relevant Rule(s) in the Road Safety Road Rules 2009.

#### Clause 5 – General Requirements

##### Principles for the selection of Pedestrian Facilities

When determining the most appropriate pedestrian crossing facility for a given location, the following principles may aid in the decision making process:

- Provide for pedestrians to cross roads while minimising the road safety risk involved (including for pedestrians with disabilities)
- Minimise delays to pedestrians and road vehicles
- Treatment to be consistent with the Network Operating Plan for the road section
- Treatments should be cost-effective therefore there needs to be a concentrated demand to justify the facility and the treatment needs to be safe and effective and the effectiveness of the facility needs to be consistent with its cost.

##### Examples of principle decision making

Matching the facility to the objectives for the section of road

- a pedestrian crossing (zebra) may be appropriate on low speed roads where pedestrians are a high priority
- a pedestrian crossing (zebra) may not be appropriate on high speed roads where the priority is for through traffic and zebra crossings on high speed roads are unlikely to be safe.

For assistance in developing / assessing pedestrian crossing facility options for a given location, practitioners are encouraged to use the Austroads online Pedestrian Facility Selection Tool, accessible via <http://www.abley.com/austroads-pedestrian-tool>.

The online tool assesses the viability of different types of pedestrian crossing facilities according to the physical and operational parameters of a site and its safety performance. It can be used to assess both mid-block and intersection locations.

Practitioners are required to enter a range of site variables into the tool including site information, physical / environmental variables, operational variables and safety performance. For each feasible option, the tool then evaluates pedestrian and vehicle delay, safe sight distances, pedestrian level of service and, using default economic parameters developed for each Australian jurisdiction, calculates a benefit cost ratio.

Pedestrian crossings used by school children may be eligible for a State Government subsidy to the local Council for a school crossing supervisor. Details of the assessment process, the training of supervisors and the associated administration arrangements are provided in Section 4 - Additional Information.

## Clause 5.4 – General Requirements, Signs

The VicRoads Standard Drawings include the following additional regulatory signs applicable to pedestrians detailed in Table 1.

**Table 1: Additional regulatory signs**

Sign	Sign number	Size, mm	Reference in this supplement
PEDESTRIANS GIVE WAY TO TRAMS	R3-V100	600 (w) x 600 (h)	Clause 5.4
PEDESTRIANS USE OVERPASS	R3-V102	900 (w) x 600 (h)	Clause 5.4

Sign R3-V100, PEDESTRIANS GIVE WAY TO TRAMS may be used at traffic instruction sign locations where pedestrian paths cross tram tracks that exist within the median of a road, in order to provide an instruction (and hence warning) to pedestrians. The signs **must** be used where pedestrian operated signals exist across roadways of a duplicated road, but no formal crossing is provided across the tram tracks.

Sign R3-V102 PEDESTRIANS USE OVERPASS should be used to instruct pedestrians to use a nearby overpass rather than attempt to cross a busy road at grade. The signs should be placed at the location corresponding to the desire line of the pedestrian movement. Where the route to the overpass is not obvious, an arrow may be included on the sign face to direct pedestrians toward the overpass.



**R3-V100**



**R3-V102**

## Clause 6.2 – Pedestrian Crossing (Zebra), Description

The installation of a pedestrian crossing with flashing lights may be appropriate where, for any one hour of an average weekday, the following apply:

- The number of pedestrians crossing within 20 m of the proposed site exceeds 60 persons per hour and
- The number of vehicles per hour which pedestrians have to cross in one bound exceeds 500.

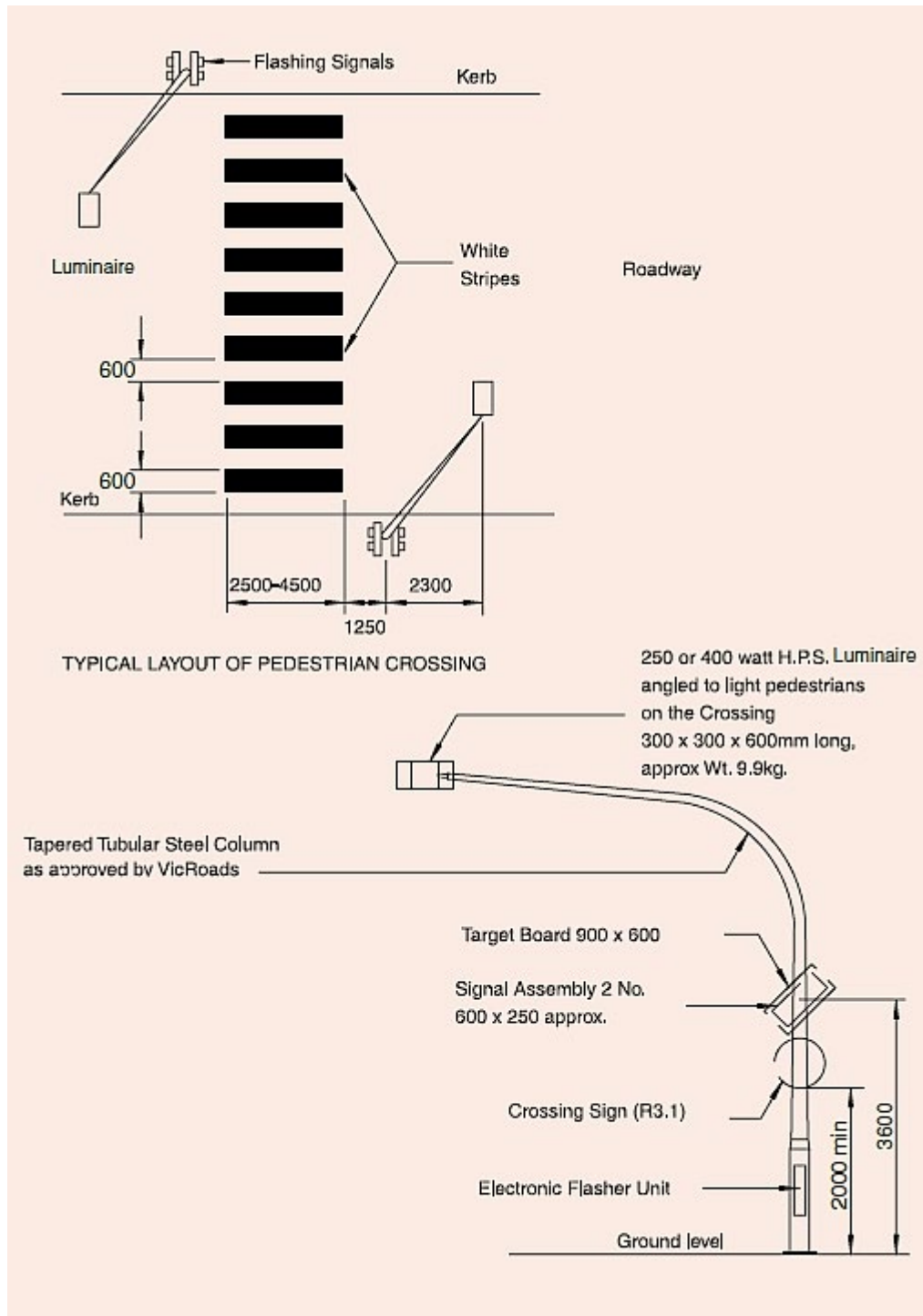
NOTE: In determining the pedestrian numbers, each older person, person with a disability and unaccompanied child of primary school age should count as two.

Pedestrian crossings with flashing lights are best used where traffic speeds are lower (due to congestion, traffic management devices or restricted carriageway widths). A typical situation would be in a shopping street or commercial area. Drivers are more aware of pedestrians in these situations. At locations where the above guidelines are met but traffic speeds are higher, pedestrian operated signals should be considered.

Pedestrian crossings give pedestrians priority over vehicles. Delays to both pedestrians and vehicles may be minimised compared with pedestrian operated signals, although vehicle delays can increase considerably when pedestrian flows become very high.

Road Rule 172 prohibits stopping within 20 m on the approach side and 10 m on the departure side of a pedestrian crossing, unless permitted by signs. In this case, permissive parking signs must be installed. The parking signs are Major Traffic Control Devices (MTCDs) that require appropriate authorisation in accordance with VicRoads *Traffic Engineering Manual Volume 3 Part 2.2 – Authorisation of Major Traffic Control Devices (2015)*. Refer to VicRoads Supplement to *Austrads Guide to Traffic Management Part 11 Parking (2008)*, Section 7.6.

It is a standard requirement that all pedestrian crossings with flashing lights be provided with supplementary lighting in accordance with AS/NZS 1158.4. Figure 1 shows a typical crossing layout. Also refer to *Austrads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings (2013) (AGTM6:2013)*.



**Figure 1: Pedestrian Crossing with Flashing Lights**

## Clause 6.3 – Requirements for Installation

Refer to Clause 5 of this Supplement for details of how to assess whether a zebra crossing is appropriate for a mid-block location. Refer to the Vic Roads Supplement to AGTM6:2013, Section 8.2.1 (g) for guidance on when to use zebra crossings (and other pedestrian crossing facilities) on slip lanes.

Figure 2 and Figure 3 provide details on the signs and layouts for pedestrian crossings at midblock locations and at slip lanes. Also refer to AGTM6.

### Design Details

- The signs should be manufactured using class 1 reflective material
- Pavement markings and sign location should comply with Figure 2 and Figure 3
- Street lighting to V3 level, *AS/NZS 1158 Lighting for roads and public spaces:2010 (AN / NZS 1158:2010)*, is required to sufficiently illuminate the crossing and the pedestrians on or about to enter the crossing. If street lighting is not provided, or it is not to V3 level, then flood lighting is required in accordance with *AS/NZS 1158:2010*
- Internally illuminated signs may be used to improve conspicuity
- When used at left turn slip lanes, the crossing should be applied to all slip lanes at the intersection
- Pedestrian crossings may be used in conjunction with flat top road humps (raised pavements) or kerb extensions. The pavement marking stripes must be white
- A high degree of conspicuity for these crossings is to be maintained at all times and care must be taken to ensure that drivers approaching the crossing have clear visibility of the signs, the crossing itself and the footpaths adjacent to the crossing.

### Pedestrian Crossings Without Flashing Lights

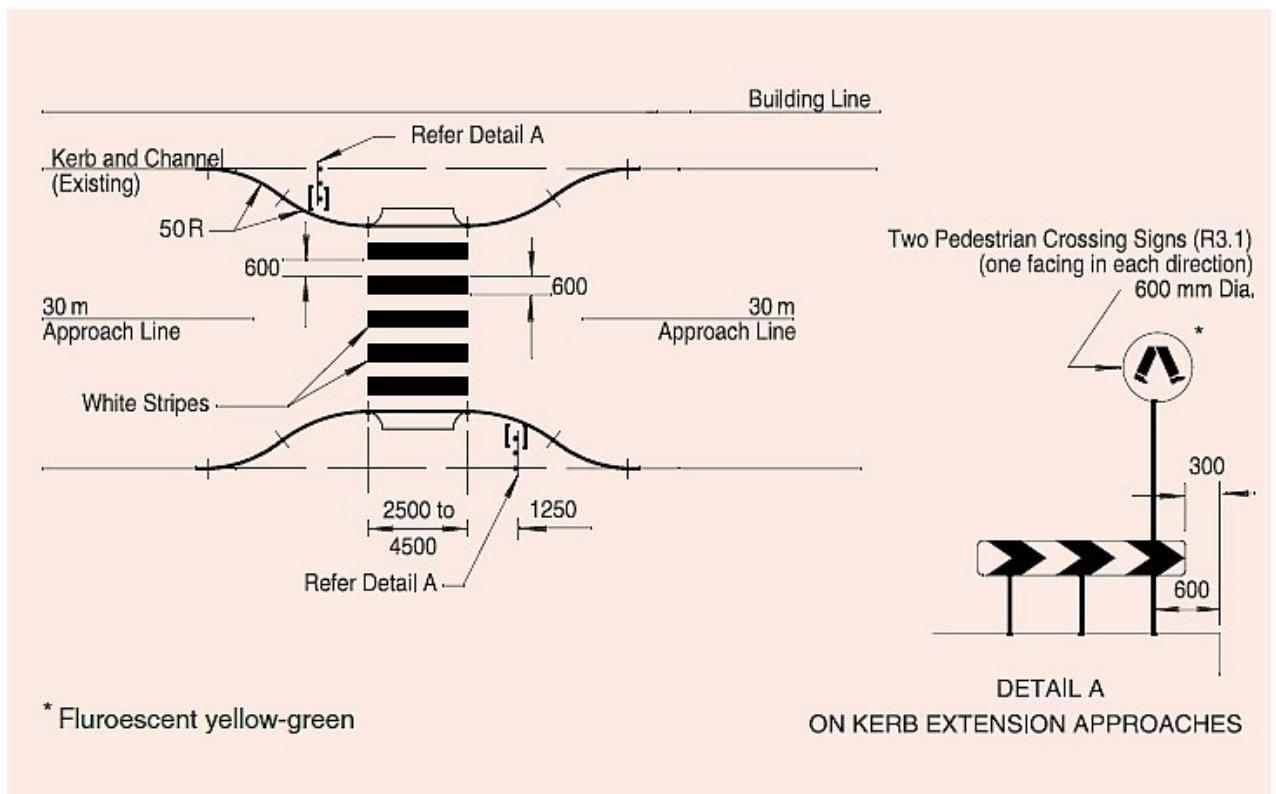
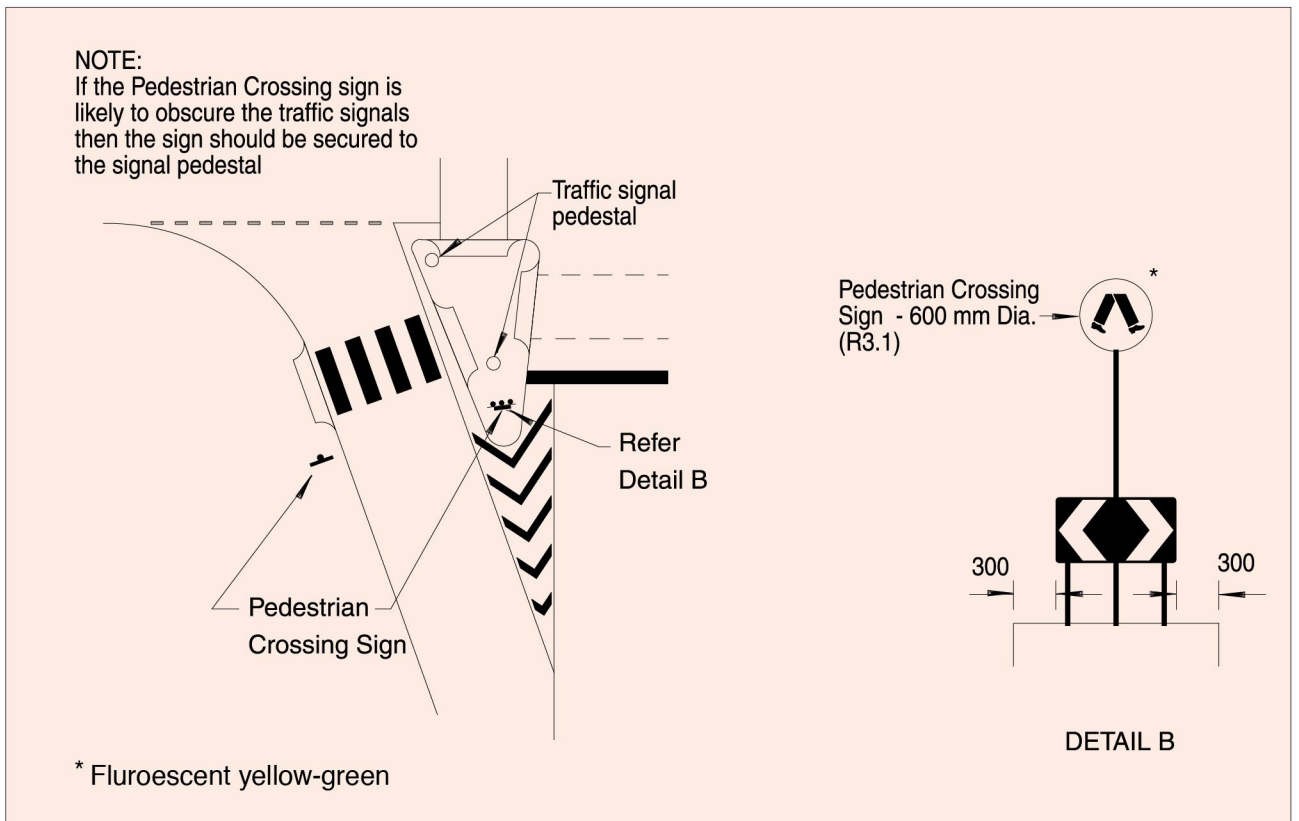


Figure 2: Typical Kerb Extension Treatment





**Figure 3: Typical Slip Lane Treatment**

**Clause 7.2 – Children’s Crossing, Description**

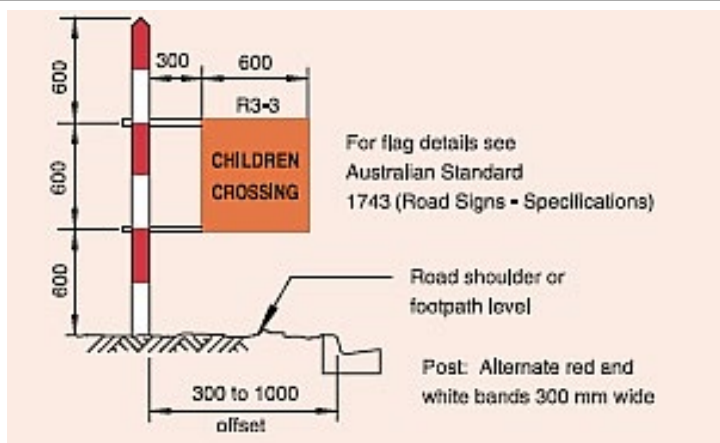
**DEPARTURE**

**Figure 3: Children’s Crossing – Type 1**

The dividing line in Victoria should be at least 10m long.  
Additional detail is provided in Figure 4 below on the post and flag arrangement used in Victoria.

**Figure 4: Children’s Crossing – Type 2**

Type 2 Children’s Crossings are not used in Victoria.



**Figure 4: Details of Post and Flag**

For (a)(i), the Stop line shall be 600 mm wide.

For (a)(ii), two parallel cross walk lines shall be installed at all Children’s Crossings. These lines shall be in the broken line pattern as outlined in this subclause.

The following strategy has been adopted to transition to the broken line standard. Where an existing crossing is being resurfaced, which contains crosswalk lines of the previous continuous line pattern, the guidance below shall be followed:

- If the works involve the removal of both crosswalk lines entirely, then crosswalk lines in the new broken line pattern shall be installed.
- If only a portion of the crosswalk line is removed (e.g. only one of the two lines), then a crosswalk line using the previous continuous line pattern should be installed to match the rest of the existing line.

### Clause 7.4 – Children’s Crossing, Signs

At least one flag must be displayed for the crossing to be legally effective. Flags shall only be displayed when school children are likely to be proceeding to and from school.

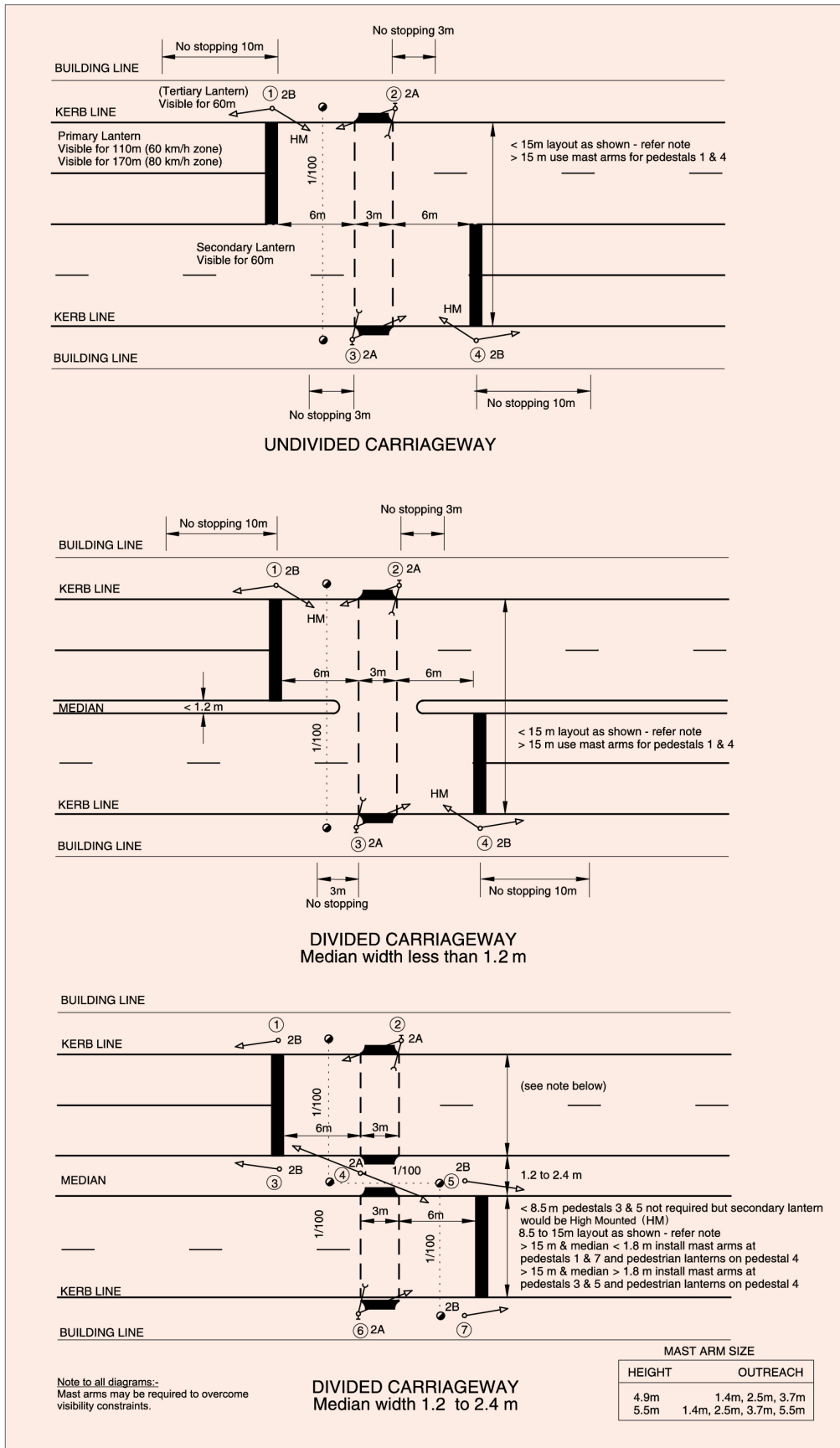
Hand held STOP sign (R6-7) (black STOP on orange background- shown incorrectly in AS 1742.12 as white on red) is used by a children crossing supervisor to control traffic during times when the children's crossing is operational.



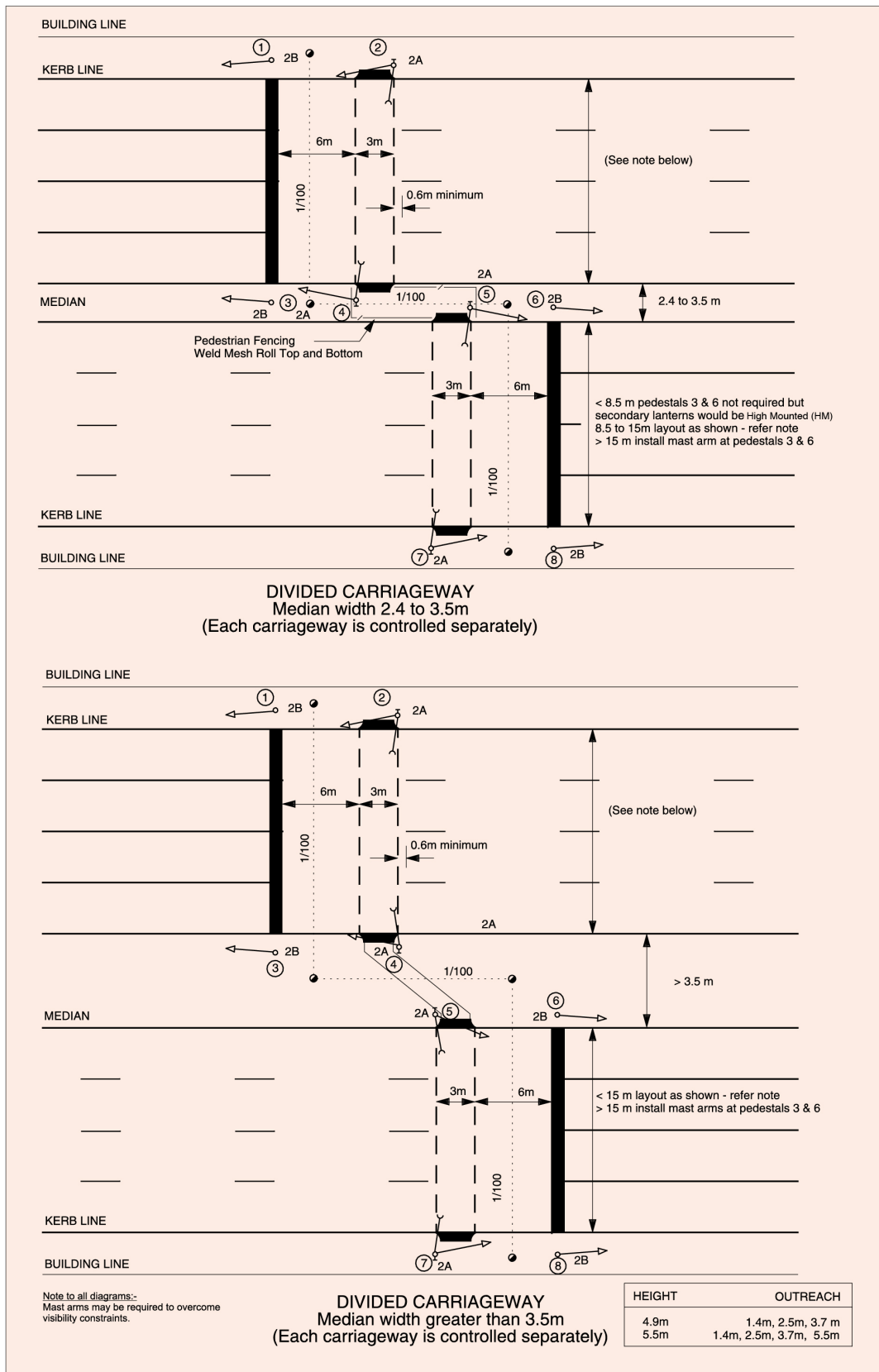
**R6-7**

### Clause 8.1 – Pedestrian Actuated Traffic Signals (Midblock), Description

When pedestrian signals are to be installed, Figure 5 and Figure 6 below shall be applied, as well as other requirements in Figure 5 and Figure 6 in AS 1742.10. Also refer to AGTM6.



**Figure 5: Typical Layouts for Pedestrian Operated Signals (1 of 2)**



**Figure 6: Typical Layouts for Pedestrian Operated Signals (2 of 2)**

## Clause 8.2 – Guidelines for installation

Refer to Clause 5 of this Supplement for information on how to determine when pedestrian actuated signals are warranted.

## Clause 8.5 – Pelican crossings

Sign R3-V101 **must** be used at all Pelican crossings to instruct drivers to give way to pedestrians who are on the crossing during the yellow flashing phase of the signal cycle.

The word PEDESTRIANS in full is preferred. However, if lateral space is limited, as it often is at Pelican crossings in shopping centres with verandas and other street furniture, then the short version PEDS is acceptable.

A sign must be placed on signal pedestals on both sides of the road. Where a mast-arm exists it is preferred that the sign is placed on the outreach of the mast-arm.

As cyclists are prohibited under Road Rule 248(2) from riding on a marked foot crossing, it is inappropriate to provide a similar sign that includes the word CYCLISTS.



R3-V101



R3-V101

## Clause 9.4 - Physical Pedestrian Facilities- Loading islands and safety zones

Although for historical reasons the R3-2 sign is the same colours as warning signs, it is a regulatory sign. The coloured background of this sign shall be fluorescent yellow green.

The responsibility for the supply, erection and maintenance of this sign assembly lies with the relevant tram / bus authority.

## Clause 11.1 – Warning Signs, General

The VicRoads Standard Drawings include the following additional warning signs applicable to pedestrians, shown in Table 2.

**Table 2: Additional warning signs**

Sign	Sign number	Size, mm	Reference in this supplement
Pedestrian Crossing Ahead (Angle)	W6-V2-1 (L or R)	A - 600 x 600 B - 750 x 750	Clause 11.2(b)
Pedestrian Crossing Ahead (To side)	W6-V2-2 (L or R)	A - 600 x 600 B - 750 x 750	Clause 11.2(b)
School Bus Stop	W6-V106	A - 600 x 600 B - 750 x 750 C - 900 x 900	Clause 11.3
SCHOOL BUS STOP AHEAD	W8-V113	A - 600 (w) x 480 (h) B - 750 (w) x 600 (h) C - 900 (w) x 720 (h)	Clause 11.3
Rail Trail	W6-V9-2	750 x 750	Clause 11.3
Rail Trail Crossing Ahead	W6-V105	1800 (w) x 1100 (h)	Clause 11.3
CROSSING xxx m	W8-V106	A - 600 (w) x 400 (h) B - 750 (w) x 500 (h) C - 900 (w) x 600 (h)	Clause 11.3(iii)
NEXT xxx km	W8-V114	1000 (w) x 300 (h)	Clause 11.3(iii)

**Clause 11.2(b) – Warning signs for pedestrian crossings, Pedestrian Crossing Ahead (W6-2)**

Regardless of the alignment of the road, the sign shall incorporate the standard vertical arrow where the crossing is on the continuing road. Where the crossing is on a left turn slip lane at an intersection (and experience shows that sign W6-2 is necessary), the straight arrow on the sign should be rotated anti-clockwise 45 degrees (sign W6-V2-1). Where the crossing is immediately around a corner in a side street (which should be avoided if the road traffic is turning from a busy or arterial road), the straight arrow on the sign should be rotated to point horizontally (sign W6-V2-2). The use of supplementary sign ‘On Side Road’ (W8-3) may also be considered in this case. If a W8-3 sign is used in conjunction with a W6-2 sign, the supplementary plate colour is to match the fluorescent yellow-green of the warning sign.



**Clause 11.3 – Warning Signs for Pedestrians not at Crossings**

**School Bus Stop Ahead (W6-V106) and (W8-V113) Assembly**

Sign W6-V106 and supplementary sign W8-V113 SCHOOL BUS STOP AHEAD may be used where warning is required of school bus stops and the presence of school children on the road. Guidelines for the use of these signs shall be as follows:

- These signs may be used in rural environments with speed limits greater than 80 km/h on VicRoads B & C routes and local roads

- The signs may only be used for authorised school bus stops on designated school bus routes
- Use should be restricted to sites with sight distance or visibility problems
- Wherever possible, consideration should be given to upgrading or relocating the bus stop to a more favourable location rather than installation of signs at a lower standard site
- These signs should not normally be used on 'A' routes. Options to improve or relocate a bus stop should be investigated
- The coloured backgrounds of these signs shall be fluorescent yellow-green.

It is considered that use of these signs within urban areas and on major rural roads is not warranted as bus stops can be provided within bus bays or be located on shoulders clear of the through carriageways. This sign should only be considered where stops have deficiencies, such as inadequate visibility, narrow shoulders or carriageway, unsealed surface, poor longitudinal or vertical alignment, and cannot be relocated to a more suitable location. Installation of these signs should only be considered where adverse conditions apply, as indiscriminate use may encourage the installation of stops at unsuitable locations, and not improve road safety at school bus stops in general.



Sign W8-V113 shall only be installed in conjunction with the School Bus Stop Ahead sign W6-V106. These two signs shall always be installed together as a sign assembly.

### **Bicycle/Pedestrian Warning (W6-9)**

Sign W6-9 should be used where the presence of bicycles and pedestrians crossing the road may be unexpected.

It shall be installed in combination with the following supplementary signs:

- W8-23 (Crossing Arrows) in advance of the point where a footpath, footway or bicycle path crosses a road and a controlled crossing is not provided
- W8-V106 'CROSSING XXX m' in advance of Rail Trail crossing points.



**W6-9**



**W8-V106**

## Rail Trail Signs Crossing Ahead (W6-V105), Rail Trail Signs Crossing (W6-V9-2)

Where it is deemed necessary to warn drivers of a crossing with a mixed-use trail (e.g. a rail trail or a shared path with a significant volume of pedestrians, cyclists and horse riders), the following signs should be considered for use:

- Sign W6-V9-2 is used on low speed approaches (less than 80 km/h). The supplementary plate W8-V106 'CROSSING XXX m' may be used in conjunction with this sign
- Sign W6-V105 is used on high speed approaches (80 km/h or greater) to mixed-use trails. The sign is generally installed between 120 m and 200 m in advance of the crossing.



**W6-V9-2**



**W6-V105**

Where only pedestrians and / or cyclists use this facility, signs W6-1, W6-7 or W6-9 shall be used instead.

### Clause 11.3(iii) – Warning Signs for Pedestrians not at Crossings, Supplementary Plates

The following additional supplementary plates may be used in conjunction with warning signs in the Pedestrian series.

- NEXT XX km (W8-17-1)
- CROSSING ARROWS (W8-23)
- CROSSING XXX m (W8-V106)
- NEXT XX km (W8-V114)
- ON SIDE ROAD (W8-3)
- NEXT XX m (W8-17-2).



## **4. Additional Information - School Crossing Supervisors**

### **a) School Crossing supervisors**

State Government subsidies are provided to municipalities for adult supervision of pedestrian crossings used by school children. The following guidelines specify requirements for sites to be eligible for subsidy, and the administrative arrangements for the scheme.

The appointment of a school crossing supervisor is not dependent on a Government subsidy and a Council may appoint a supervisor at any time, on a voluntary or paid basis, provided the person is properly trained and equipped.

Safety needs for children at specific locations should be considered as part of a comprehensive management plan for child safety in the surrounding area. A 'Safe Routes to School' approach is recommended. Councils should ensure that the management plans include appropriate engineering solutions to provide a safe environment for children at all times of the day.

### **b) Crossings Eligible For Subsidy**

Accident risk to children crossing the road at a particular site is dependent on traffic volumes, vehicle speeds, visibility and the number of children crossing. Primary school aged children are particularly at risk. Therefore supervised children's crossings, pedestrian crossings, signalised pedestrian crossings and pedestrian crossings at signalised intersections will be eligible for subsidy under this scheme if the following warrants are met:

- Children's crossings for primary school children - where the number of children (minimum 20) multiplied by the number of vehicles in the hour (minimum 100) exceeds 5,000.
- Children's crossings for secondary school children - where the number of children (minimum 20) multiplied by the number of vehicles in the hour (minimum 250) exceeds 25,000.
- Pedestrian operated signals - more than 20 primary school children per hour.
- Other crossings - where the Council obtains VicRoads' agreement to the need for supervision on account of special needs (eg. children with disabilities) or other factors affecting safety, such as excessive vehicle speed, road geometry, limited sight distance, volume of heavy vehicles or road width.

Crossings that traverse dual carriageways may operate more effectively with two supervisors, particularly where there is an existing left turn slip lane or where other circumstances would not allow adequate supervision from the central median.

### **c) Training of Supervisors**

A condition of the subsidy is that supervisors be trained before or very soon after taking up duties. Training is to cover the procedures to be adopted by supervisors and the traffic laws relating to supervisors and crossings generally.

The training of supervisors is to be arranged by Councils. The training package distributed to all Councils by VicRoads has been developed to assist. The package includes supervisors handbooks, an instructors handbook and a training video.

### **d) Administrative Arrangements**

The total funds available under the scheme will be determined by the Government as part of the budget process.

Subsidies for eligible crossings within each municipality will be paid in December and June as a block grant on submission of a Tax Invoice. The grant will be calculated annually by distributing the total funds available between municipalities, in proportion to the number of supervisors at eligible crossings.

Councils are required to review the eligibility of all crossings each year and provide VicRoads with a certified listing of eligible crossing locations and the number of supervisors required at each crossing by the end of November as a basis for determining the grant for the following financial year. The submission should include new sites where it is expected that warrants will be met in the new school year (for example, if a new school is to be established, or enrolments are expected to substantially increase). Pedestrian and vehicle counts should be conducted at new sites within the first two weeks of the school year to confirm their eligibility for a subsidy.

Applications should be forwarded to the relevant VicRoads' regional office. Once the application has been submitted and budget determined, any supplementary sites are to be funded within the allocation provided, or funded fully by Council, until the next financial year.

Councils may use other sources of funding to supplement the Government subsidy.

Where commercial sponsorship is provided, the display of advertising material on uniforms shall be restricted to a decal emblem attached to the front of the uniform / vest, with area not exceeding 150 square centimetres (A6 paper size). Advertising must not be attached to the back of the uniform / vest as this would reduce the vest's high visibility characteristics.

Random audits may be undertaken by an independent auditor to ensure that crossings meet the warrants for supervisor subsidies.

Questions about the children's crossing supervisor subsidy scheme may be directed to the relevant VicRoads' regional office.

## 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](mailto:tem@roads.vic.gov.au) or 9854 2417.