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Pedestrians Crossing Slip Lanes

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Authorisation

As Executive Director Road Network Services, I authorise the issue and use of this Policy on Pedestrians Crossing Slip Lanes on behalf of the Commissioner of Main Roads

EXECUTIVE DIRECTOR ROAD NETWORK SERVICES

Date: ___/___/___

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Pedestrians Crossing Slip Lanes

Preface:

This Policy and the accompanying Guidelines were developed by Main Roads Western Australia's Road Network Services Directorate with the assistance of experienced advice from both internal and external sources. They are a consequence of changes to road traffic regulations, which allocate right-of-way to pedestrians crossing slip lanes. Those changes were a result of the adoption of Australian Road Rules by Government and integration of those rules into the Road Traffic Code 2000.

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SECTION CONTENTS**PAGE**

1. POLICY	6
1.1 PURPOSE.....	6
1.2 SCOPE	6
1.3 BACKGROUND	6
1.4 DEFINITIONS	6
1.5 APPLICABLE TRAFFIC REGULATIONS (ROAD TRAFFIC CODE 2000)	7
1.6 POLICY STATEMENT	8
2. POLICY GUIDELINES	9
2.1 GENERAL LOCATION CRITERIA	9
2.1.1 <i>Types of Slip Lanes</i>	9
2.1.2 <i>Approach Paths, Kerb Ramps and Sight Distance</i>	9
2.2 TREATMENTS FOR PEDESTRIANS ON SLIP LANES.....	9
2.2.1 <i>Free Flowing Slip Lane</i>	9
2.2.2 <i>Slip lanes Controlled by a Give Way Sign at the Intersection</i>	11
2.2.3 <i>Traffic Signal Controlled Intersections with Audio-Tactile Push Buttons</i>	11
2.2.4 <i>Slip lanes With Heavy Vehicle Aprons</i>	12
2.3 LAYOUT OF PEDESTRIAN CROSSING SIGNS AND PAVEMENT MARKINGS	12
2.4 ROAD LIGHTING.....	13
2.5 APPLICATION OF POLICY AND GUIDELINES.....	13
2.6 APPROVAL	13
2.7 REFERENCES	13

1. POLICY

1.1 Purpose

The purpose of this document is to detail Main Roads Western Australia's policy on the treatments for pedestrians crossing slip lanes.

1.2 Scope

This policy is to be applied in conjunction with the policy guidelines to provide a consistent approach to the provision of pedestrian facilities across slip lanes on all roads in Western Australia.

1.3 Background

The safety of pedestrians crossing slip lanes was considered by the National Road Transport Commission's Australian Road Rules drafting committee during preparation of the Australian Road Rules. It was the majority view of the committee that pedestrian safety would be enhanced by allocating them right-of-way over vehicular traffic at these locations. This regulation was consequently included in the Australian Road Rules that were endorsed by all State and Territory Ministers for Transport. It is now included in Western Australia's Road Traffic Code 2000.

The Policy and Guidelines have been developed to ensure pedestrian treatments at slip lanes are consistently applied and complementary to regulatory requirements.

1.4 Definitions

Carriageway: A portion of a road that is improved, designed or ordinarily used for vehicular traffic, and includes the shoulders, and areas, including embayments, at the side or centre of a carriageway, used for stopping or parking of vehicles; and, where a road has 2 or more of those portions divided by a median strip, the expression means each of those portions, separately.

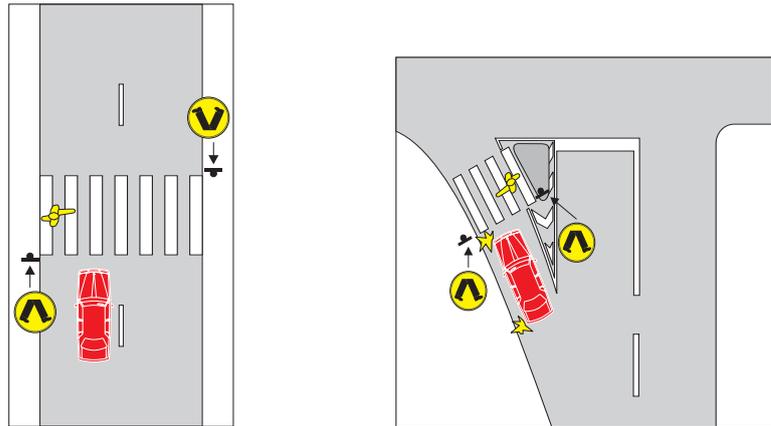
Intersection:

- (a) The area where two or more carriageways meet; or
- (b) The area within which vehicles, travelling by, on, or from, different carriageways may come into conflict.

Paths: A footpath, shared path, separated footpath or bicycle path as defined in the Road Traffic Code 2000.

Pedestrian crossing: A portion of carriageway –

- (a) at a place that has a pedestrian crossing sign; and
- (b) indicated by white stripes on the road surface that are:
 - (i) approximately parallel to each other; and
 - (ii) from one side of the carriageway completely; or
 - (iii) partly across the carriageway.



Road Traffic Code 2000: Regulations under the provisions of the *Road Traffic Act*.

Road: Any highway, road or street open to, or used by, the public and includes every carriageway, footway, reservation, median strip or traffic island thereon.

Slip lane: An area of carriageway for vehicles turning left that is separated, at some point, from other parts of the road by some form of painted island or traffic island.

1.5 Applicable Traffic Regulations (Road Traffic Code 2000)

Regulation 55(5) – Giving Way at an Intersection (Except a T Intersection or Roundabout) On or after 1 March 2001, if a driver at an intersection is turning left using a slip lane, the driver shall give way to any pedestrian on the slip lane.

Regulation 56(3)(b) – Giving Way at a T-Intersection If a driver at a T–intersection is turning left from the terminating road into the continuing road using a slip lane, the driver shall give way to any pedestrian on the slip lane.

Regulation 56(5)(b) – Giving Way at a T-Intersection If a driver at a T–intersection is turning from the continuing road into the terminating road using a slip lane, the driver shall give way to any pedestrian on the slip lane.

Regulation 62(1) – Pedestrian Crossings A driver approaching a pedestrian crossing shall drive at a speed at which the driver can, if necessary, stop safely before the crossing.

Regulation 62(2) – Pedestrian Crossings A driver shall give way to a pedestrian who is on a pedestrian crossing.

Regulation 62(4) – Pedestrian Crossings A driver shall not enter upon, or attempt to cross, a pedestrian crossing if the carriageway beyond it is blocked.

Regulation 199(1) – Crossing a Carriageway On or Near a Crossing for Pedestrians A pedestrian shall not cross a carriageway, or part of a carriageway, within 20 m of a children’s crossing, marked foot crossing or pedestrian crossing on the carriageway, except at the crossing or another crossing, unless.....

1.6 Policy Statement

Main Roads Western Australia will consider the safety of pedestrians crossing slip lanes and, where necessary, install and maintain treatments that enhance the requirement that vehicular traffic on the slip lane gives way to pedestrians crossing the slip lane.

2. POLICY GUIDELINES

These guidelines are to be applied at locations where pedestrians are required to cross slip lanes.

2.1 General Location Criteria

These criteria apply where slip lanes are not controlled by traffic signals. In the event that a slip road is converted to control by traffic signals, any *pedestrian crossing* markings required under these guidelines are to be replaced by dashed lines across the lane of a type indicated in paragraph 2.2.1.

2.1.1 Types of Slip Lanes

There are two types of slip lanes. One is where the slip lane terminates at an intersecting carriageway and the other is where a free flowing lane continues into the intersecting road as a lane separate to lanes on the intersecting road.

2.1.2 Approach Paths, Kerb Ramps and Sight Distance

The location where it is desirable for pedestrians to cross slip lanes is influenced by the location of approach paths and accompanying kerb ramps. Factors that need to be taken into consideration when determining the most appropriate crossing point are -

- Sight distance for traffic using the slip lane to the crossing point must be sufficient for vehicular traffic to stop if necessary prior to the crossing point.
- The position of the traffic island that separates the slip lane from another carriageway and connecting pedestrian crossing routes.
- Pedestrians should cross the slip lane by the shortest, practicable route that minimises their exposure time to vehicular traffic.

The standards of approach paths, kerb ramps and layout of intersection traffic islands are subject to separate policy, standards and design guidelines.

While the requirement that vehicles using slip lanes give way to pedestrians crossing them applies to any point on the slip lane, pedestrians do not have any legal right-of-way while crossing any other portion of a carriageway that is away from an intersection, apart from the slip lane itself. Therefore, the most appropriate place for pedestrians to cross a slip lane is as close to an intersection as possible.

2.2 Treatments for Pedestrians on Slip Lanes

Treatments for pedestrians vary according to the type of slip lane; whether it is a free flowing lane that does not terminate at an intersection, or it is one that terminates at an intersection. The latter is generally controlled by GIVE WAY signs.

2.2.1 Free Flowing Slip Lane

Since these slip lanes allow vehicular traffic to flow uninterrupted past other vehicular traffic through an intersection, pedestrian safety can be at greater risk than at other slip lanes due to the generally higher speeds involved.

Low Pedestrian Usage

On slip roads where pedestrian volumes are less than 20 per hour and vehicle numbers using the slip road are less than 200 per hour, white coloured crossing markings shall be installed across the slip lane. The markings are nominally 2.5 metres apart with each line consisting of 80mm wide by 600mm dashed lines with 600mm gaps between line segments, and installed as per Figure 1.

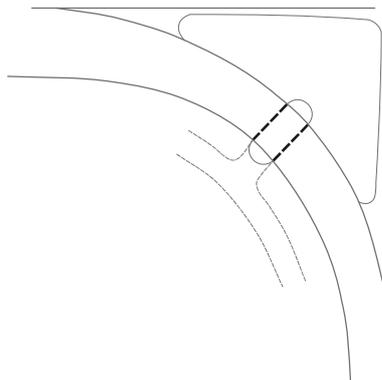


Figure 1 – Free Flowing Slip Lane with Low Pedestrian Usage

High Pedestrian Usage

Where the number of pedestrians crossing the slip lane exceed 20 per hour and in the same hour vehicle numbers exceed 200, a *pedestrian crossing* shall be installed. The exception is where the 85th percentile speed of vehicles using the slip lane is greater than 60 km/h, in which case the markings shown in Figure 1 above shall be installed.

The crossing must be located as close to the intersection as practicable on the approach to the intersection to ensure adequate sight distance to the crossing is available, as per Figure 2.

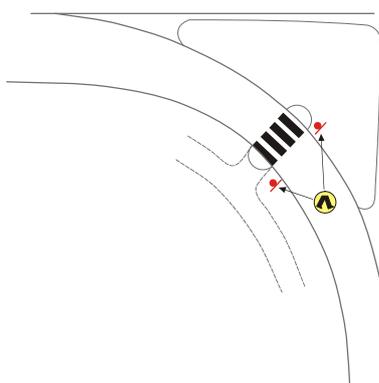


Figure 2 – Free Flowing Slip Lane with High Pedestrian Usage

2.2.2 Slip lanes Controlled by a Give Way Sign at the Intersection

Low Pedestrian Usage

Where pedestrian numbers crossing a slip lane are less than 10 per hour and vehicular traffic volumes are less than 100 per hour, no special line markings are necessary.

Medium Pedestrian Usage

If pedestrian volumes exceed 10 per hour and in the same hour vehicular traffic exceeds 100 per hour then crossing markings as described in 2.2.1 above, and as per Figure 3, shall be installed. In addition, if more than one slip lane exists at an intersection and one of the slip lanes meets requirements for crossing markings to be installed, then all slip lanes shall be provided with similar markings.

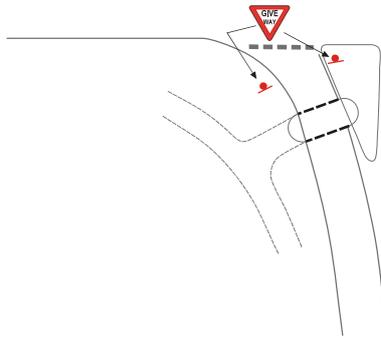


Figure 3 – Give Way Sign Controlled Slip Lane with Medium Pedestrian Usage

High Pedestrian Usage

Where pedestrian numbers crossing any slip lane at an intersection exceed 20 per hour and in the same hour at least 200 vehicles use a slip lane, then a *pedestrian crossing* shall be installed as per Figure 4. If more than one slip lane exists at the intersection and one slip lane qualifies for a *pedestrian crossing* to be installed, then all slip lanes shall be provided with *pedestrian crossing* markings.

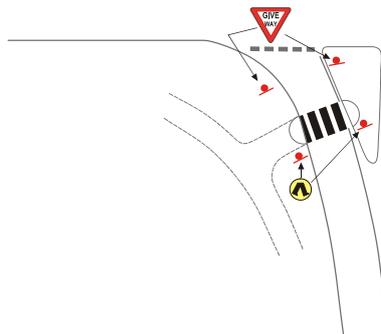


Figure 4 – Give Way Sign Controlled Slip Lane with High Pedestrian Usage

2.2.3 Traffic Signal Controlled Intersections with Audio-Tactile Push Buttons

In all cases where an intersection is controlled by traffic signals and pedestrians crossing at the signals are provided with audio-tactile push button facilities, a *pedestrian crossing* shall be installed on all slip lanes at the intersection.

2.2.4 Slip Lanes With Heavy Vehicle Aprons

Heavy vehicle aprons are installed at some slip lanes to cater for the wider swept path of large turning vehicles. There is a need to discourage pedestrians standing in the area of the apron due to the possibility of conflict with turning vehicles.

For slip lanes controlled by Give Way signs, Figures 5 and 6 show the required layout of pedestrian treatments. The criteria for these treatments are as described in 2.2.2 above. (Generally, heavy vehicle aprons are not required in free flow slip lanes due to the more generous geometric conditions normally available.)

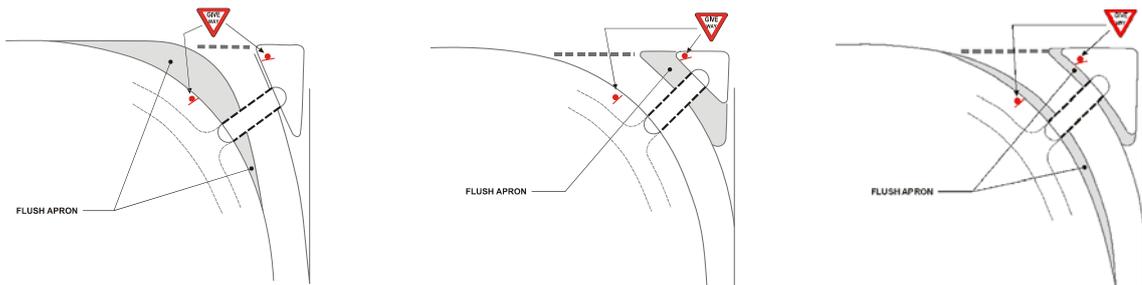


Figure 5 – Slip Lanes with Heavy Vehicle Aprons and with Medium Pedestrian Usage

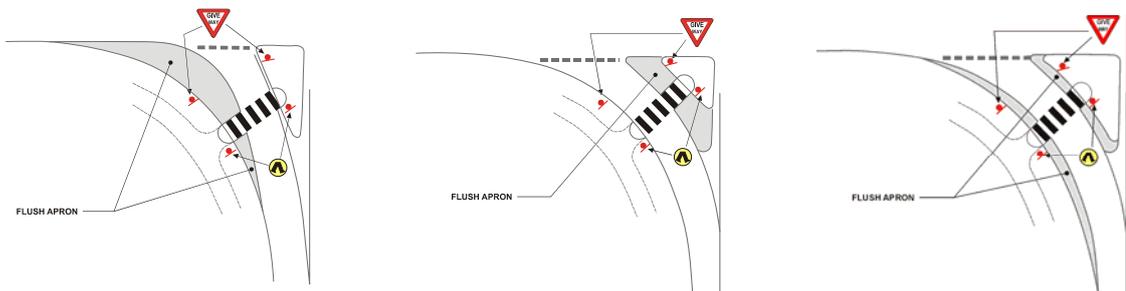


Figure 6 – Slip Lanes with Heavy Vehicle Aprons and with High Pedestrian Usage

2.3 Layout of Pedestrian Crossing Signs and Pavement Markings

Pedestrian crossing signs and pavement markings should generally conform to Australian Standard AS1742 Part 10 – 1990, Pedestrian Control and Protection.

Where, due to obstructions or insufficient space on the verge or traffic island, it is impracticable to install two pedestrian crossing (R3-1) signs as shown, a single sign can be installed.

At least five bars should be marked at the crossing, or for narrow slip lanes, an absolute minimum of four bars shall be installed. For slip lanes less than 5.4 metres wide, the width of the bars can be reduced to 500mm, and the width of the gap reduced to 450mm, to ensure the minimum number of bars is displayed.

2.4 Road Lighting

Adequate road lighting should be installed to improve the safety of pedestrians crossing slip lanes during hours of darkness. Road lighting should be installed in accordance with Main Roads Western Australia's Road Lighting Policy and Guidelines (draft Document 37/21/01).

2.5 Application of Policy and Guidelines

The policy and guidelines are required to be applied to existing intersections and all future projects. Road inventory data should be used and consultation undertaken with local governments to identify existing locations that may meet requirements for pedestrian treatments to be installed. Those locations should be treated on a priority basis.

2.6 Approval

As an officer delegated to authorise the installation of regulatory signs and road markings on behalf of the Commissioner of Main Roads, the Executive Director Road Network Services' formal approval shall be obtained to install *pedestrian crossing* signs and road markings.

2.7 References

- Road Traffic Act 1974
- Road Traffic Code 2000
- Discussion Paper on *Zebra Pedestrian Crossings on Left-slip Lanes*, Klyne Consultants for MRWA, November 1997.
- AS1742 Manual of Uniform Traffic Control Devices, Part 10 – 1990, *Pedestrian Control and Protection*.
- Draft *Road Lighting Policy and Guidelines* (Document 37/21/01) – Main Roads Western Australia