**Operational Instruction** 

# **KEEP CLEAR Pavement Markings**











#### **Road and Marine Service Division**



# TRAFFIC MANAGEMENT **Operational Instructions**

# **KEEP CLEAR Pavement Markings - 2.23**

#### AMENDMENT RECORD

Version	Date	Section/Figure/Table	Amendment Description
1	10/98	All	Original issue
1	05/01	All	ARR update, photos included
2	21/05/08	All	Format Changes
3	03/11/10	All	AS1742.2-2009
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5	10/12/20	All	Format changes; marking on three lane road example amended to be consistent with PMM
6	30/09/21	Sections 3.2, 5 & 9	Changes to Section 3.2, new Sections 5 & 9
7	27/02/23	Section 3.2	New Section 3.2 for unreasonable delay added; G9-SA140 sign added

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Stephen Pascale Manager, Traffic Services 27/02/2023

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For information regarding the interpretation of this document please contact:

Traffic Services, Road and Marine Services Division, DIT

Email: dit.tassadminsupport@sa.gov.au

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# 1. Scope

This Operational Instruction provides for the appropriate use of KEEP CLEAR pavement markings (KCPM) on roads with a speed limit less than 80 km/h. KEEP CLEAR pavement markings are not to be installed on roads where the speed limit is 80 km/h or greater.

This document shall be read in conjunction with Australian Standard AS 1742.2 - 2022 Manual of Uniform Traffic Control Devices Part 2: Traffic Control Devices for General Use.

When used in accordance with this Operational Instruction, these traffic control devices may be installed under the Minister's Instrument of General Approval and Delegation to Council, or the Instrument of Authorisation and Delegation to the Unit Manager, Traffic Solutions. Traffic control devices which vary from this Operational Instruction require the separate approval of the Manager, Traffic Services for each location prior to installation.

# 2. Background

Improved access from side roads onto a main road is one of the principal reasons for KCPM being requested, with apparent delays to side road traffic as the motivating factor. While it would be ideal for local traffic to have near immediate access to a main road, this is in practice an unrealistic expectation. At side roads near signalised intersections or crossings, it is common for drivers to inadvertently block the side road access. Drivers should be aware that this is illegal and enforceable (Australian Road Rule (ARR) 128).

Observation of driver behaviour suggests that generally the queued traffic on a main road will allow left turners from side roads to enter the main stream at regular intervals. Right turners or cross traffic may experience longer delays. However, driver recognition of their legal obligations and common courtesy will generally result in a gap being left to allow the side road driver access to the main road. Drivers from side roads use these gaps at their own risk, bearing in mind that under the ARRs they too must be able to successfully clear the intersection prior to entering it.

In these circumstances, the presence of KCPMs can introduce a problem with side road drivers mistakenly believing they have a right to move in front of the stopped main road traffic, using the clear space as a holding area. This is illegal and enforceable (ARRs 96 and 128).

The use of KCPMs raises a number of other considerations including:

- a) Using KCPM at some locations and not at others may confuse some drivers into believing that it is only illegal to block an intersection where KEEP CLEAR is marked, particularly if its use is too wide spread.
- b) There is a danger that KCPM may promote a false sense of security, or be interpreted as a "right of way" by drivers using the side road when it comes to crossing the opposing traffic flow on the main road, for example:
  - Right turners from the main road may cross in front of approaching traffic, expecting traffic to slow down and stop because of a KEEP CLEAR

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message. This is a concern particularly on multi-lane roads, where one lane of traffic stops clear of the markings, and the driver turning has the expectation that the other lane will also stop.

- Similarly, right turners from a side road may cross in front of a stopped vehicle on the main road, also expecting approaching traffic in the other lanes to slow down and stop because of the KEEP CLEAR message.
- Right turners from the main road may use the KEEP CLEAR message as a right of way turning path and fail to notice cyclists or pedestrians approaching on the inside.
- In each of the above cases, large vehicles queued on the main road exacerbate difficulties by creating significant obstructions to visibility.

In view of the above, KCPM should be limited to situations where traffic blocking unsignalised T-intersections or passive crossings (refer to Section 3) or driveways (refer to Section 4) has the potential to cause a hazardous situation, or unreasonable delay, to other road users.

#### 3. **Unsignalised T-Intersections**

The use of the KCPMs shall be reserved for locations where the below situations occur on a frequent basis (i.e., occurring numerous times during peak conditions) and have the potential to create a serious road safety hazard or unreasonable delay.

#### Regularly Blocked Right Turn Traffic 3.1

The installation of KCPM may be considered to assist those leaving the main road (as shown in Figure 3.1) where:

- A T-intersection is located near to a major traffic control point, such as an intersection controlled by traffic signals or a roundabout, a busy pedestrian crossing or a railway crossing, and
- Queued vehicles regularly block right turn traffic into the side road, resulting in real safety concerns on the main road (i.e., high potential for rear-end crashes and/or traffic queuing back into a major conflict point or across a pedestrian crossing)

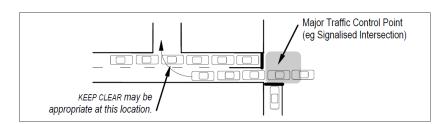


Figure 3.1: Regularly Blocked Right Turn Traffic

#### 3.2 Unreasonable delay

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The installation of KCPM may be considered to assist those accessing the main road from a side road where:

A T-intersection is located near to a major traffic control point, such as an intersection controlled by traffic signals or a roundabout, a busy pedestrian crossing or a railway crossing, and

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Queued vehicles regularly block the intersection such that a driver on the side road is regularly forced to wait for a period greater than two traffic signal cycle lengths or delayed over 3.5 minutes at a time.

Sites shall be assessed at a time nominated by the applicant and during peak traffic time to measure and log delays. Traffic modelling may also be used to assess this criteria.



At sites where this criteria is not met, but queued vehicles regularly block the intersection, the temporary "Remember - Keep Intersection Clear" (G9-SA140) sign may be installed for a period of up to six months. The sign shall be manufactured from corflute to enable it to be located on existing infrastructure at or in advance of the intersection without the need for temporary short-term installation of posts. Peak hour commuters tend to use the same routes and this sign is intended to remind regular drivers of their obligations under the road rules. If the issue persists during the period that the sign is installed, use of the KCPM may be considered and prioritised against other locations.

#### 3.3 Access to Right and U-turn Sheltered Lanes

KCPM may be installed to provide direct side road access to a sheltered right turn or u-turn facility (an example is shown in Figure 3.2) where:

- A T-intersection is located near to a major traffic control point, such as an intersection controlled by traffic signals or a roundabout, a busy pedestrian crossing or a railway crossing, and
- The main road has three (3) or more lanes that the driver would need to cross in order to access the sheltered right turn or u-turn facility (see Figure 3.2), and
- Queued vehicles regularly block side road traffic accessing the right or uturn facility, and
- Changes or amendments to the road layout prevent vehicles from performing a right turn from the side road directly onto the main road where they could previously.

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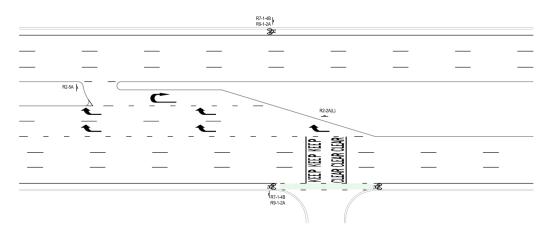


Figure 3.2: Side Road Access to a Right Turn and U-Turn Facility

#### 3.4 Access to Passive Crossings

KCPM at an intersection may be extended to also provide access to formalised passive pedestrian or bicycle crossings (an example of KCPM used at a bicycle crossing is shown in Figure 3.3) where:

 Queued vehicles regularly block direct access to the formalised passive crossing creating potential to cause a hazardous situation, or unreasonable delay, to the crossing user.

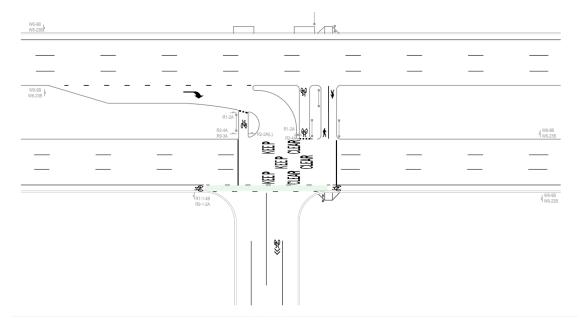


Figure 3.3: Access to a bicycle crossing

**Note:** Where a KCPM includes a passive bicycle crossing, consideration may be given to extending the marking to include the pedestrian crossing to avoid pedestrians using the bicycle facility.

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# 4. Driveways

#### 4.1 Guidelines to the Use of KCPM

In general, KCPM should not be installed at driveways to private residences.

The markings should not be installed for businesses (car parks) unless there is a need to ensure the driveway remains clear to resolve a serious road safety issue for road users on the main road.

They should not be used as a device to minimise delays to drivers entering or leaving private business properties, particularly where adequate queuing space is available on the main road or within the property.

### 4.2 Emergency Service Access

Adjacent to an emergency service facility, where there is potential for vehicles to queue across the driveway to the facility, KCPM may be installed as a minimum treatment for providing emergency access to the road. Similarly, KCPM may also be installed where an emergency service facility is located on a side road and there is potential for vehicles on the main road to queue across that side road.

# 5. Markings on opposite side of the main road

The KCPM shall only be marked on the side of the road closest to the access or side road. It **shall not** be marked on the opposite side of the road to facilitate a right turn out of an access or intersection onto the main road.

At locations where queued vehicles on the opposite side of the road prevent drivers from being able to perform a right turn to enter the main road from an access or side road, the use of a KCPM would encourage drivers performing this manoeuvre to store on the KEEP CLEAR marking, in breach of ARR Rule 96.

A driver performing a right turn from the main road in to the side road or access would also be likely to store on the KEEP CLEAR marking while waiting to perform this manoeuvre. Stopping in an intersection while waiting to perform a right turn is not a breach of ARR Rule 128, but a driver is not permitted to stop on a KEEP CLEAR marking for any reason under ARR Rule 96.

The "Do Not Queue Over Intersection" G9-SA120 sign may be used as an alternative in this situation. This sign is not a regulatory sign, however it may be used to reinforce ARR Rule 128. Refer Section 9 of this document.

## 6. Installation

Pavement markings shall be installed in accordance with AS 1742.2 and the DIT Pavement Marking Manual (PMM) (<a href="http://www.dit.sa.gov.au/standards/tass">http://www.dit.sa.gov.au/standards/tass</a>).

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# 7. Approvals

The KCPM shall be shown on the appropriate traffic control drawings and shall be approved in accordance with the requirements of the relevant Instrument of Approval. The traffic impact statement shall document the need for the marking in accordance with this Operational Instruction.

If the situation arises where a KEEP CLEAR message is required and does not conform to this Operational Instruction, the matter should be discussed with the Manager, Traffic Services.

# 8. Legal enforcement

KCPM at intersections reinforces the legal requirement of drivers not to block intersections. ARR Rule 96 contains provisions for KCPM stating that drivers are not permitted to stop on an area of a road marked with the words KEEP CLEAR marked across all or part of a road, with or without continuous lines marked across all or part of the road.

## 9. Related devices

Where egress from a side street onto an arterial road is difficult, e.g., due to congestion on the arterial road or proximity to another intersection, a "Do Not Queue Over Intersection" sign may be installed as a reminder for traffic using the arterial road to provide a space across the side street opening. This would provide reinforcement of ARR 128, which states:

"A driver must not enter an intersection if the driver cannot drive through the intersection because the intersection ...is blocked."



Consultation with Traffic Services should be undertaken to determine the appropriateness of the use of this sign prior to any installation.

See also Section 5, and the use of the temporary "Remember Keep Intersection Clear" (G9-SA140) sign under Section 3.2.

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# 10. References

- South Australian Road Traffic Act 1961
- Australian Road Rules
- Australian Standards AS 1742.2 Manual of Uniform Traffic Control Devices Part 2: Traffic Control Devices for General Use
- DIT Pavement Marking Manual

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