

Keep Left Unless Overtaking





TRAFFIC MANAGEMENT Operational Instructions

Keep Left Unless Overtaking - 2.29

AMENDMENT RECORD

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Manager, Traffic Services Section
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1. Scope

This Operational Instruction sets out general requirements for the installation of “KEEP LEFT UNLESS OVERTAKING” (KLUO) signs on multi-lane roads. This Instruction applies only to 80 km/h speed zones on roads under the care and control of the Department for Infrastructure and Transport (DIT). The objective of this instruction is to provide consistency in applying the restriction to keep slower moving vehicles to the left of the road where appropriate, which in turn should reduce unnecessary traffic delays and driver frustration.

This instruction also expands on the Australian Standard *AS 1742.2 Manual of Uniform Traffic Control Devices, Part 2: Traffic Control Devices for General Use* (AS1742.2-2009 clause 4.13.5) and Australian Road Rules, Part 11 – Rule 130.

These signs are listed in Appendix A of the DIT Code of Technical Requirements and are excluded from the general approval granted to Councils by the Minister’s Instrument of General Approval and Delegation to Council. Installation of these signs requires approval of Unit Manager, Traffic Solutions, or the Manager, Traffic Services.

2. Background

The Australian Road Rules state that a driver on a multi-lane road must not drive in the right hand lane where the speed limit is over 80 km/h, unless turning right, making a U-turn, overtaking, avoiding an obstruction or if traffic is congested (refer to Australian Road Rules, Rule 130).

Furthermore, to allow jurisdictions some flexibility, the rule can be extended where appropriate to roads of lower speed limits by the use of KLUO signs.

3. Criteria of Sign Installation

The KLUO sign (R6-29) is to be used in accordance and in conjunction with the Australian Road Rules. It is clear that the rule is not intended to apply to all roads. However, under certain conditions it may be appropriate to apply the rule to some 80 km/h roads. It is not proposed to apply the rule to roads zoned less than 80 km/h speed in South Australia.



Figure 1: R6-29

The conditions under which the rule may be applied on roads with 80 km/h speed limits are discussed below.

3.1 Length of Speed Zone

KLUO signs shall not be installed on sections of 80 km/h speed zones of less than 2 km (ie, approximately one and a half minutes driving). Lengths of road less than 2 km are not considered to be of a sufficient length to provide the

necessary space and time for drivers to re-position their vehicles and satisfy the road rules.

3.2 Traffic Volumes

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Traffic volumes play an important role in determining whether drivers in an 80 km/h speed zone should be required by law to keep left unless overtaking. Traffic volumes fluctuate depending on the times of the day hence both peak hour and business hour traffic volumes should be considered (uninterrupted flow traffic volumes are calculated theoretically from AADT data, when requested). It should also be noted that there will be situations where KLUO signs are installed but will not have much effect during certain times of the day (in particular during peak times – 7am to 9am, and 4pm to 6pm). The following should be considered:

- During peak hours, traffic volumes are considered low if the Volume Capacity Ratio (v/c) is less than or equal to 0.67. It is likely that the majority of vehicles will keep to the left unless overtaking or positioning vehicle for a right turn. For the purpose of the exercise Level of Service (LOS) A and LOS B ($v/c < 0.67$) are considered to be in this category. In such cases, the KLUO signs are not recommended.
- KLUO signs have merit in situations where the Volume Capacity Ratio (v/c) on each lane is greater than 0.67 but less than 1.0 on a multi-lane road, as slow moving vehicles shall be regulated to the left to allow faster moving traffic past. For the purpose of the exercise LOS C ($0.67 < v/c < 0.83$) to LOS D ($0.83 < v/c < 1.00$) are considered to be in this category. The KLUO signs are therefore recommended.
- Once the left hand lane exceeds theoretical capacity (ie, $v/c > 1.00$), then it is questionable if the KLUO signs will have any effect, because lane changing becomes more difficult and drivers are increasingly unwilling to leave the right hand lane, as they may not be able to rejoin it later. For the purpose of the exercise LOS E ($v/c = 1.00$) and LOS F ($v/c > 1.00$) are considered to be in this category (for left lane only). Therefore, the KLUO signs are not recommended in this category.
- The proportion of slow moving (heavy) vehicles should also be considered in the analysis, particularly if the section of 80 km/h zone is uphill or downhill and/or winding (poor sight distance). Heavy vehicles are likely to be moving slower where grades become “specific” (0-3% for more than 1.6 km or > 3% for more than 800 m). KLUO signs have merit in these situations because the rule should reduce unnecessary delays on these multi-lane roads. In such cases, the KLUO signs are recommended.

3.3 Right Turn Opportunities

If the distance between right turn opportunities is short (particularly if the right turns are at major intersections), it is likely that there will be traffic in the right lane anticipating a right turn in that section of 80 km/h zone. Right Turn Opportunities (RTOs) are considered as intersections, right hand slip lanes, and median openings for right turns or U-turns.

For practical reasons, if the average distance between right turn opportunities is less than 700 m (less than 30 seconds travel time) then it is likely that there will be traffic in the right hand lane anticipating a right turn. If this distance is greater than 700 m (ie, greater than 30 seconds travel time) it is considered that the section of road is a candidate for KLUO signs.

In some cases (for example, Tapleys Hill Road) the opportunity to turn right varies significantly in opposing directions. Roads that fit into this category shall have KLUO signs in both directions if one direction meets the average distance between RTO criteria.

4. Unsuitable Locations for KEEP LEFT UNLESS OVERTAKING Sign

The KLUO sign will not be installed along a section of road under the following circumstances;

- Where the speed limit is other than 80km/h, unless it has more than 2 lanes in one direction, for example the Southern Expressway.
- The road is not multi-lane, or duplicate lanes merge into a single lane within the 80km/h zone, or a traffic sign or road marking on the road that indicates that the road is no longer a multi-lane road.
- The length of 80km/h section is less than 2km in both directions.
- Level of Service for the road is LOS D ($0.83 < v/c \leq 1.00$) or LOS E ($v/c = 1.00$) in business hours.
- Level of Service for the road is LOS A or LOS B ($v/c < 0.67$) in peak hours.
- Distance between right turn opportunities is 690m or less in both directions
- If the road ends at a T-intersection or the end of the road at less than 500m.

5. Installation of Signs

5.1 KEEP LEFT UNLESS OVERTAKING sign (R6-29)

On 80 km/h speed zone roads which meet the criteria in Section 3, signs shall be installed as follows;

- To provide clear vision of the signs, signs shall be installed after the end of a merge lane or an acceleration lane, and not be installed on a curving section or road.
- A minimum clearance of 50 m should be kept between KLUO signs and other traffic control devices (eg signs, traffic lights etc).
- Signs shall be installed within 60 m to 100 m after the 80 km/h speed restriction (R4-1) signs consistently, duplicated if possible (refer Figure 3). If this is not achievable for example there are pedestrian crossings,



Figure 2: R4-1(80)

rail crossings, other signs, etc within this section, then KLUO signs shall be installed either at the minimum distance of 40 m prior to the speed restriction sign or as close as reasonably achievable 100 m after the speed restriction sign.

- If the start of the 80 km/h speed zone is located within 300 m in advance of a signalised intersection, the KLUO signs shall not be installed on the approach to the intersection. This measure aims to increase lane storage at a signalised intersection. The KLUO signs shall instead be installed after the speed restriction repeater sign location beyond the intersection, in accordance with the above sign location requirements.

5.2 END KEEP LEFT UNLESS OVERTAKING sign (R6-32)

Duplicated END KLUO signs shall be installed where;

- The speed limit is reduced to less than 80km/h. END KLUO signs shall be placed between 60m and 100m after the speed restriction sign (R4-1(70) or R4-1(60)) (refer to Figure 3).

END KLUO signs are not required where;

- The section of 80km/h road is terminated, such as at the T-intersection with another road where the other road takes priority.
- The speed limit is increased to greater than 80km/h.
- A multi-lane road merges to form a single lane road in one direction.

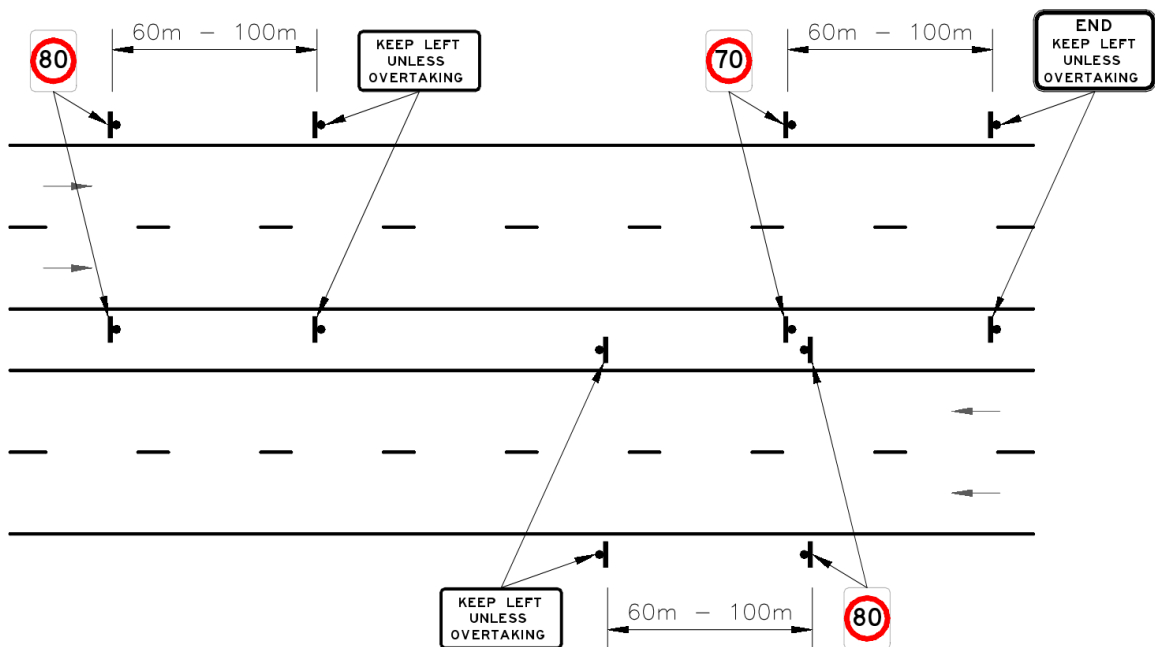


Figure 3: Placement of KLUO & END KLUO signs on a multi-lane road

5.3 Size and Manufacture

Signs KLUO (R6-29) and END KLUO (R6-32) shall comply with Australian Standard AS 1743:2018 Road Signs - Specifications for size, shape and colour.