

Queensland Manual of Uniform Traffic Control Devices

Part 1: General introduction and sign illustrations

July 2018

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About this document

This document sets out the numbering system for signs. It also explains the basic elements of signs including shape, colour, lettering and dimensions.

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>.

References to this website appear throughout this document. This reference is repeated in sections and clauses where Queensland signs are used in addition to those stated in the Standard (for example, refer to clause 3.4.2).

How to use this document

This document is designed to be read and applied together with AS 1742.1-2014 *Manual of Uniform Traffic Control Devices Part 1* (AS 1742.1-2014). You must have access to the Australian Standard to understand what applies in Queensland.

This document:

- sets out how AS 1742.1-2014 applies in Queensland
- has precedence over AS 1742.1-2014 when applied in Queensland
- has the same section and clause numbering and headings as AS 1742.1-2014.

The following table summarises the relationship between AS 1742.1-2014 and this document:

Applicability	Meaning
Accepted	The Australian Standard section or clause is accepted.
Accepted, with amendments	Part or all of the section or clause has been accepted with additions, deletions or differences.
New	There is no equivalent section or clause in the Australian Standard.
Not accepted	The Australian Standard section or clause is not accepted.

Definitions

The following general amended definitions apply when reading AS 1742.1-2014.

Reference to...	Means
AS 1742.1-2014	<p>AS 1742.1-2014, as amended by this document</p> <p>For example, a reference to AS 1742.1-2014 means you must refer to the Australian Standard Part 1, and Part 1 of the Queensland Manual of Uniform Traffic Control Devices (Queensland MUTCD).</p> <p>Throughout AS 1742.1-2014, references are made to other parts of the Australian Standards (for example, when reading Part 1 you may be referred to Part 3 for further information.) In this case, you must refer to the equivalent Part within the Queensland MUTCD first. Check the applicability of the equivalent Part in the Queensland MUTCD before referring to the referenced Australian Standard Part.</p>
TRUM	Traffic and Road Use Management Manual
Queensland (Q) series / Traffic Control (TC) signs	<p>Queensland (Q) series signs can be found via:</p> <p style="text-align: center;">http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs</p> <p>It also provides some additional examples of the Australian Standard signs used for Queensland.</p>

Relationship table

Section	Clause	Description	Applicability
1	Scope and general		
	1.1	Scope	Accepted
	1.2	Referenced documents	Accepted, with amendments
	1.3	Definitions	
	1.3.1	<i>May</i>	Accepted
	1.3.2	<i>Shall</i>	Accepted
	1.3.3	<i>Should</i>	Accepted, with amendments
	1.3.4	<i>Traffic control devices</i>	Accepted
	1.3.5	<i>Official Traffic Sign</i>	New
	1.3.6	<i>Running lane</i>	New
	1.3.7	<i>Travelled path</i>	New
	1.4	Classification of signs	Accepted
	1.5	Number of signs and sign components	
	1.5.1	<i>Signs</i>	Accepted
	1.5.2	<i>Symbols for tourist service signs</i>	Accepted
	1.6	Basic elements of signs	
	1.6.1	<i>General</i>	Accepted
	1.6.2	<i>Shape</i>	Accepted
	1.6.3	<i>Colour</i>	Accepted
	1.6.4	<i>Lettering</i>	Accepted
	1.6.5	<i>Symbols</i>	Accepted
	1.6.6	<i>Reflectorization and illumination</i>	
	1.6.6.1	General	Accepted
1.6.6.2	Means of illumination	Accepted	
1.6.6.3	Means of reflectorization	Accepted	
1.6.7	<i>Distance indicator</i>	Accepted	
1.7	Sign size	Accepted, with amendments	
1.8	Non-standard signs	Accepted, with amendments	
1.9	Responsibility and authority for installation on public roads	Accepted, with amendments	
1.10	Private roads	Accepted	
1.11	Variable message signs	New	

Section	Clause	Description	Applicability
	1.12	Uniformity of location	
	1.12.1	<i>General</i>	New
	1.12.2	<i>Longitudinal placement</i>	New
	1.12.3	<i>Lateral placement and mounting height</i>	
	1.12.3.1	General	New
	1.12.3.2	Lateral placement – rural	New
	1.12.3.3	Lateral placement - urban	New
	1.12.3.4	Mounting height – rural	New
	1.12.3.5	Mounting height – urban	New
	1.12.3.6	Overhead mounting	New
	1.12.4	<i>Overhead signs</i>	New
	1.12.5	<i>Installation</i>	
	1.12.5.1	Side mounted signs	New
	1.12.5.2	Overhead signs	New
	1.12.5.3	Sign orientation	New
	1.12.5.4	Sign installation	New
1.13	Trials of traffic control devices	New	
2	Regulatory signs		
	2.1	General	Accepted
	2.2	Sign function	Accepted
	2.3	Shape, colour and message	Accepted
	2.4	Index of regulatory signs	
	2.4.1	<i>Movement series – R1</i>	Accepted
	2.4.2	<i>Direction series – R2</i>	Accepted, with amendments
	2.4.3	<i>Pedestrian series – R3</i>	Accepted, with amendments
	2.4.4	<i>Speed series – R4</i>	Accepted, with amendments
	2.4.5	<i>Parking series – R5</i>	Accepted, with amendments
	2.4.6	<i>Miscellaneous series – R6</i>	Accepted, with amendments
	2.4.7	<i>Exclusive-use lane series – R7</i>	Accepted
	2.4.8	<i>Bicycle / pedestrian series – R8</i>	Accepted
2.4.9	<i>Supplementary plates for general use – R9</i>	Accepted, with amendments	
3	Warning signs		
	3.1	General	Accepted
	3.2	Sign function	Accepted
	3.3	Shape, colour and message	Accepted, with amendments

Section	Clause	Description	Applicability
	3.4	Index of warning signs	
	3.4.1	<i>Alignment series – W1</i>	Accepted
	3.4.2	<i>Intersection series – W2</i>	Accepted, with amendments
	3.4.3	<i>Advance warning of traffic control device series – W3</i>	Accepted, with amendments
	3.4.4	<i>Road width, low and narrow clearance series – W4</i>	Accepted, with amendments
	3.4.5	<i>Road obstacle series – W5</i>	Accepted, with amendments
	3.4.6	<i>Pedestrian, bicycle and school series – W6</i>	Accepted, with amendments
	3.4.7	<i>Railway crossing series – W7</i>	Accepted
	3.4.8	<i>Supplementary plate series – W8</i>	Accepted, as amended
	3.4.9	<i>Modified intersection series – W9</i>	Accepted
4	Guide signs		
	4.1	General	Accepted
	4.2	Classification and numbering	Accepted
	4.3	Basic design	
	4.3.1	<i>Shape</i>	Accepted
	4.3.2	<i>Colour</i>	Accepted
	4.4	Index of guide signs	
	4.4.1	<i>Advance direction series – G1</i>	Accepted
	4.4.2	<i>Major intersection direction (Type 1) series – G2</i>	Accepted
	4.4.3	<i>Minor intersection direction (Type 2) and (Type 3) series – G3</i>	Accepted, with amendments
	4.4.4	<i>Reassurance direction series – G4</i>	Accepted
	4.4.5	<i>Street name and pedestrian direction series – G5</i>	Accepted
	4.4.6	<i>Geographical feature series – G6</i>	Accepted
4.4.7	<i>Service series – G7</i>	Accepted, with amendments	
4.4.8	<i>Route marker series – G8</i>	Accepted	
4.4.9	<i>Traffic instruction series – G9</i>	Accepted, with amendments	
4.4.10	<i>Kilometre posts – G10</i>	Accepted	
4.4.11	<i>Tourist series – G11</i>	Accepted, with amendments	

Section	Clause	Description	Applicability
	4.4.12	<i>Expressway direction series – GE</i>	
	4.4.12.1	Expressway advance direction series – GE1	Accepted, with amendments
	4.4.12.2	Expressway exit direction series – GE2	Accepted, with amendments
	4.4.12.3	Expressway reassurance direction series – GE4	Accepted
	4.4.12.4	Expressway information series – GE6	Accepted, with amendments
	4.4.12.5	Expressway service series – GE7	Accepted
	4.4.12.6	Expressway traffic instruction series – GE9	Accepted, with amendments
	4.4.12.7	Expressway tourist series – GE11	Accepted
5	Temporary signs		
	5.1	General	Accepted
	5.2	Sign function	Accepted
	5.3	Basic design	
	5.3.1	<i>Shape</i>	Accepted
	5.3.2	<i>Colour</i>	Accepted
	5.4	Index of signs for works on roads and temporary hazards	
	5.4.1	<i>Advance series – T1</i>	Accepted, with amendments
	5.4.2	<i>Position series – T2</i>	Accepted, with amendments
	5.4.3	<i>Road condition series – T3</i>	Accepted, with amendments
	5.4.4	<i>Special hazard series – T4</i>	Accepted, with amendments
	5.4.5	<i>Traffic diversion series – T5</i>	Accepted, with amendments
	5.4.6	<i>Vehicle mounted series – T6</i>	Accepted, with amendments
	5.4.7	<i>Hand banner series – T7</i>	Accepted
	5.4.8	<i>Pedestrian series – T8</i>	Accepted, with amendments
5.4.9	<i>Electric series</i>	New	
5.4.10	<i>Multi-message series</i>	New	
6	Hazard markers		
	6.1	General	Accepted
	6.2	Function	Accepted
	6.3	Basic design	Accepted
	6.4	Index of hazard markers	Accepted, with amendments

Section	Clause	Description	Applicability
Appendices			
A	Forms of letters and numerals (normative)		Accepted
B	Erection and removal of regulatory traffic control devices on roads controlled by Department of Transport and Main Roads		
	B1	<i>General</i>	New
	B2	<i>Example procedures for the erection or removal of permanent regulatory signs / devices (that is, for other than roadworks purposes)</i>	New
	B3	<i>Example procedures for variable speed limit and lane control signs</i>	New
C	Application of warrants and guidelines		New
D	Supplementary list of signs		New

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1 Scope and general

1.2 Referenced documents

Addition

The following referenced documents also apply in Queensland:

- AS 4852.1 Variable Message Signs – Fixed Signs
- AS 4852.2 Variable Message Signs – Portable Signs

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

1.3 Definitions

1.3.3 Should

Addition

Indicates a recommendation. Where the word 'should' is used, it is considered to be recommended usage, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.

1.3.5 Official Traffic Sign

New

A traffic control device in relation to which the methods, standards and procedures are prescribed in this manual or are approved by the Director-General, Transport and Main Roads.

1.3.6 Running lane

New

A portion of the roadway allotted for the use of a single line of vehicles.

1.3.7 Travelled path

New

The part of the roadway which is made available to vehicles and which may comprise of one or more traffic lanes.

1.7 Sign size

Addition

Unless special uses for some or all of the various sizes are specified in the text accompanying a particular sign, the following general principles should be observed when selecting sign size:

- a) For regulatory, warning and traffic instructions, the smallest designated available size should normally be used:
 - i. only where the 85th percentile approach speed is less than 70 km/h
 - ii. where prominence or conspicuity of the sign is not affected by competing visual stimuli, and
 - iii. where lateral displacement of the sign from the driver's path is not excessive.

- b) Progressively larger signs in these categories should be used:
- i. as approach speeds become higher
 - ii. where a greater need exists for sign prominence due either to competing visual stimuli or the need to emphasise the message, or
 - iii. where there is excessive lateral displacement of the sign.

The largest available sizes should be used on freeways.

Where one sign supplements another, the two signs should be the same width. With the exception of the Times of Operation supplementary plate (R9-1), this means that the same size designation; that is, A, B, C and so on, should be used for both signs. When the Times of Operation supplementary plate (R9-1) is used with Bus, Truck or Bicycle Lane (R7-1) signs, the former should be one size designation smaller than the lane sign so that the widths are equal.

1.8 Non-standard signs

Addition

Authorities responsible for the erection of signs are not encouraged to develop signs for their own particular use; however, there may be instances where no suitable standard sign exists. In such cases, the following procedures will apply to requests for special non-standard signs:

- a statement giving the detailed nature of the problem
- a description of the proposed sign, how it was developed, the manner in which it deviates from the Manual, and how it is expected to be an improvement over the existing standard
- an illustration of the proposed sign, taking into account the shape, colours, reflectorisation, size and series of letters, size of sign and legend.

Any sign developed in this manner should comply with the design requirements specified in this Manual for the particular sign classification.

Once the design of a non-standard sign has been determined, it shall be approved by the Director-General, Transport and Main Roads as an Official Traffic Sign prior to erection on a road.

Guidance on the trial application of traffic control devices in a manner contrary to the criteria outlined in this Manual is provided in Clause 1.13.

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

1.9 Responsibility and authority for installation on public roads

Addition

The *Transport Operations (Road Use Management) Act 1995* (Qld) provides that Official Traffic Signs shall be installed only by the authority of the Director-General, Transport and Main Roads or a local government. The Act also provides that any such sign shall be installed in accordance with the methods, standards and procedures prescribed in this Manual, or other duly approved documents.

1.11 Variable message signs

New

Variable Message Signs (VMS) are designed to have one or more messages that may be displayed or deleted as required. Such a sign may be changed manually, by remote control or by automatic controls that can 'sense' the conditions that require special sign messages.

VMS shall comply with the following standards:

- AS 4852.1 Variable Message Signs – Fixed Signs.
- AS 4852.2 Variable Message Signs – Portable Signs.

It is essential that variable message signs comply with the principles established in this Manual and, to the extent practicable, with the design requirements and applications prescribed herein.

1.12 Uniformity of location

1.12.1 General

New

Signs are normally erected on the left side of the roadway. In special circumstances, which are specified in this Manual, signs may be duplicated on the right side or mounted over the roadway.

Care is needed in locating signs to ensure that they do not obscure each other or otherwise generally obscure visibility of approaching traffic, pedestrians or cyclists, particularly at intersections. If the sign is located in an exposed position, consideration may need to be given to the use of a frangible or break-away type construction, or other means of safety protection for the road user at the sign supports (see Clause 1.12.5).

In addition to the principles set out in Clause 1.12.2 and Clause 1.12.3, principles which apply to the individual sign categories and to particular situations are given in the relevant clauses in this Manual.

1.12.2 Longitudinal placement

New

The longitudinal placement of certain signs is fixed by the nature of their message or their characteristic use. Special care is required when siting such signs to ensure that they are prominently displayed to approaching drivers or other road users.

Signs that give advance warning or information shall be located sufficiently in advance to enable the driver to react appropriately. Guidance on advance distances, shown in each of the relevant illustrations in this Standard as Dimensions A and B, is given in Table 1.12.2 (previously Table 1.3).

These dimensions are illustrated in Figure 1.12.2 (previously Figure 1) and are applied as follows:

- a) Dimension A: the primary advance warning distance to a hazard or action point from a single advance sign or the last of a series of advance signs
- b) Dimension B: the separation between successive advance signs where there are two or more.

Values for Dimension A in the distance ranges given for each speed range in Table 1.12.2 (previously Table 1.3) are intended to be applied generally in accordance with the speed at the location concerned: that is, longer distances towards the higher end of each speed range, but with some flexibility to optimise the longitudinal positioning of the sign.

Values for Dimension B are intended to be regarded as minimal but should never exceed the lowest value of A in the same speed range.

Generally, there should be not more than one sign of a particular type on each post, except where one sign supplements another. Where it becomes necessary to convey two or more different messages at the one location, separate signs located a minimum of $0.6V$ m apart (where V is the 85th percentile speed in km/h) should be used. For guide signs on freeways and other high speed roads, considerably greater distance may be required.

Parking control signs are erected at the extremities of the restriction indicated, unless regulations permit otherwise, and intermediate signs shall be provided where extremity signs are more than 75 m apart. Where two or more different types of control operate along a common section of roadway, all controls shall be included in every sign (for example, clearway panels shall be included in every parking control sign along a clearway). In areas of intense parking demands, statutory restrictions (for example, close to intersections) may also require signing.

Figure 1.12.2 – Advance distance dimensions (previously Figure 1)

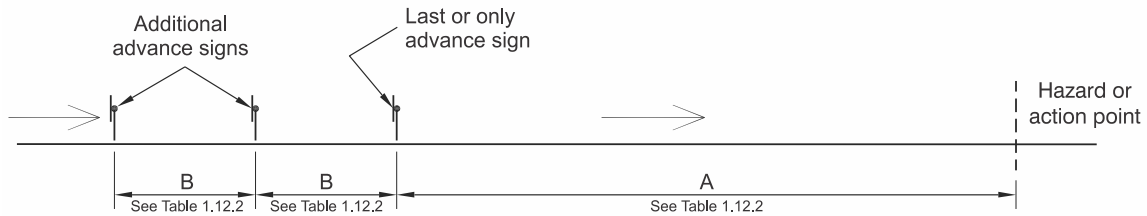


Table 1.12.2 – Location of warning signs in advance of a hazard (previously Table 1.3)

Dimension	Situation	V ₈₅ , km/h			Typical examples
		< 75	75 – 90	> 90	
Dimension A	i. Must or may need to stop	80–120	120–180	180–250	W3-2 Give Way Sign Ahead W3-1 Stop sign Ahead W2-3 T junction (sign on minor road) W5-7 FLOODWAY W4-8 LOW CLEARANCE _ · _ m
	ii. Significant speed reduction required	60–80	80–120	120–180	Signs in the Turn Sign Zone in Part 2 Figure 4.5 W5-20 Slippery W2-7 Roundabout ahead
	iii. Low to moderate speed reduction required – or no speed reduction	40–60	60–80	80–120	Signs in the Curve Sign Zone in Part 2 Figure 4.5 W5-3 Aircraft W4-4 Divided Road Intersection warning signs located on straight main road W4-6 End Divided Road
Dimension B	Position of any additional warning sign in advance of sign at Dimension A	50	60	70	

NOTE: Values for Dimensions A and B in this table are to be used unless a different value is specified elsewhere in this Standard in a particular case.

1.12.3 Lateral placement and mounting height

1.12.3.1 General

New

The following are general rules for lateral location of roadside signs and overhead sign structure supports, and for mounting heights of roadside and overhead signs. The lateral placement shall be measured from the edge of the sign nearest the road, and the height from the underside of the sign or the lowest sign in an assembly of signs.

The requirements apply to signs of a permanent nature, and include signs for roadworks and special purposes where these are mounted on posts set into the ground. Any variation in these requirements for a particular sign is given in the Clause relating to that sign.

There may, however, be exceptions where conditions do not permit these rules to be applied. In these cases, placement or height is adjusted to meet the special conditions; for example, mounting height of

a sign may be increased or decreased to avoid obstructing sight distance at an intersection. Lateral clearance and mounting height details for various situations are shown in Figure 1.12.4 (previously Figure 2).

1.12.3.2 Lateral placement – rural

New

On unkerbed roads in rural areas, the sign shall be at least 600 mm clear of the outer edge of road shoulder, line of guide posts or face of guardrail. The clearance should not be less than 2 m nor more than 5 m from the edge of the travelled way, except for large guide signs on expressways where greater clearances may be required in line with clear zone requirements.

1.12.3.3 Lateral placement – urban

New

On kerbed roads in urban areas, signs should be located back from the face of the kerb not less than 300 mm. Where mountable or semi-mountable kerbs are used – for example, on traffic islands – minimum clearance should be 500 mm. On urban roads which are unkerbed, bicycle paths and joint-use paths or on certain arterial roads designed for express traffic movement, the distances given in Clause 1.12.3.2 may be more appropriate. Placing signs on traffic islands or median ends in or near an intersection where they might cause intersection sight distance problems should be avoided. Where this cannot be avoided, special attention should be given to their positioning and mounting height.

1.12.3.4 Mounting height – rural

New

In rural areas, roadside signs should be mounted clear of roadside vegetation and clearly visible under headlight illumination by night. The height of the sign should normally be not less than 1.5 m above the nearest edge of travelled path, except that parking control signs should be mounted 2 m above the footpath or 2.2 m above the road surface (as appropriate). The mounting height for fingerboards and intersection direction signs should be increased to 2 m.

1.12.3.5 Mounting height – urban

New

In urban areas on kerbed roads, bicycle paths or joint-use paths, the sign should be mounted a minimum of 2 m above the top of the kerb to prevent obstruction to occasional pedestrians, or to reduce interference from parked vehicles. Where neither pedestrians nor parked vehicles have to be considered – for example, on a traffic island or median – the mounting height given in Clause 1.12.3.4 may be more appropriate.

Signs that may obscure sight distance – for example, on a median on the approach to an intersection – may need to be height adjusted so that road users can see under or over them. Lowering signs may have maintenance implications and may leave insufficient vertical space to fit the signs. Signs that overhang a footway or cycle path shall have a minimum height of 2.5 m above the level of the footway or cycle path.

1.12.3.6 Overhead mounting

New

Overhead signs should be mounted a minimum of 5.3 m above the highest level of the travelled path; this is particularly important if there is no alternative route for occasional high loads. Mounting height may be reduced to 4.6 m if the sign projects over a shoulder or lane which is used only for parking or emergency stopping. The greater height is preferred, where possible.

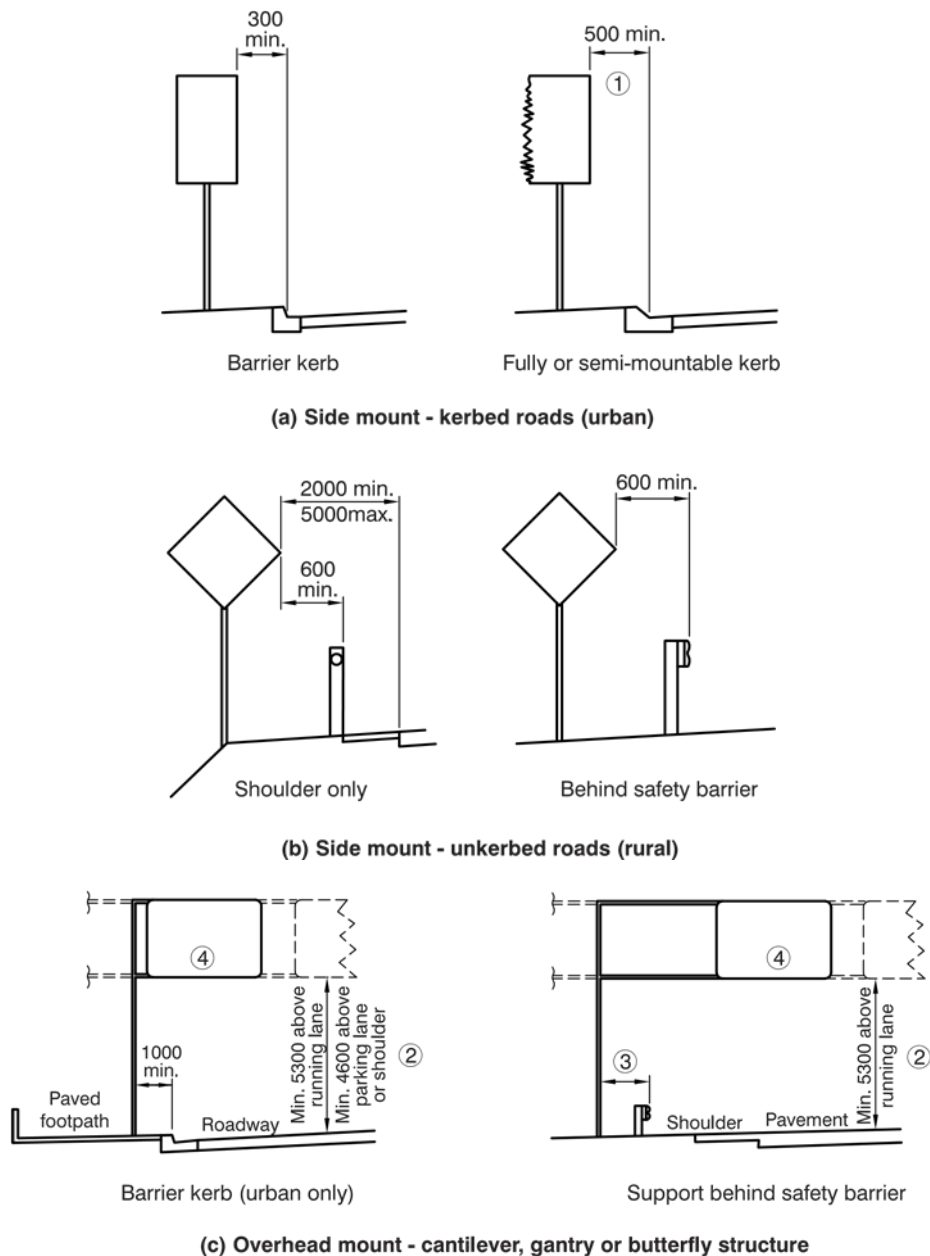
Where an allowance is made for pavement resurfacing or strengthening, a minimum mounting height of 5.5 m should be provided except on high clearance routes where at least 6.0 m is provided. The mounting height should be increased to 6.0 m for signs on expressways, and to 6.5 m for high clearance routes. The greater heights are preferred, where possible.

1.12.4 Overhead signs

New

Overhead signs provide means of displaying essential traffic information on wide multilane roads, where some degree of lane use control is required, or where space at the roadside is insufficient to accommodate a road sign. It may also be the only means of providing adequate viewing distance.

Figure 1.12.4 – Lateral clearance and mounting height (previously Figure 2)



DIMENSIONS IN MILLIMETRES

NOTES:

1. At traffic islands additional clearance may be required to allow for overhang of turning vehicles.
2. Minimum clearance applies to lighting brackets or other fixtures when these project below the sign.
3. Clearance behind safety barrier to take account of dynamic deflection of barrier and body roll of high vehicles in a collision, see AS/NZS 3845.
4. For cantilever or butterfly mounted signs, desirably the centre of the sign should be located above the kerb or edge line.

Overhead signs may also be desirable where the environmental background would detract from the essential message of a roadside sign. Composition and speed of traffic may also be influencing factors.

On expressways, overhead signs are especially suitable for complex or closely spaced interchanges, multi-lane exits, or exits which leave the freeway from the right hand side.

Overhead signs are generally of the directional and lane control types, and are generally supported on cantilever, butterfly or gantry structures, or on overbridges.

1.12.5 Installation

1.12.5.1 Side mounted signs

New

Signposts of strength equivalent to a standard 60.3 x 2.9 C350 grade (50LT) steel pipe or less are not considered to be a roadside hazard on higher speed roads. Signs supported by these will not generally require protection. Where signposts of greater strength are used, consideration may need to be given to the use of breakaway supports unless the sign is located:

- a) behind guard fence or safety barrier
- b) on a cut batter slope 2:1 or steeper, with the base of the post not less than 1.2 m vertically above the shoulder or verge level
- c) in any other location where it is unlikely that the posts could be struck by an out-of-control vehicle
- d) more than 9 m offset from the nearest edge of the running lane.

In addition to any other mounting height requirements, signs on breakaway supports should be mounted a minimum of 2.2 m above the level of the top of the lower base plate of the sign support, to allow an impacting light vehicle to run under the sign.

1.12.5.2 Overhead signs

New

Supports for overhead signs cannot be made breakaway, and must be either protected or located so that they will not be a hazard to out-of-control vehicles. Supports located as indicated in sub-paras (a) to (d) of Clause 1.12.5.1 would meet this requirement. In addition, the following should be observed:

- a) Supports for large butterfly or cantilever signs should not be located in the gore of exit ramps unless protected by a properly designed crash cushion. Alternative forms of sign structure which avoid this – for example, gantry in lieu of butterfly – are preferred.
- b) Where supports for overhead signs are located in medians, they should be shielded by a safety barrier and satisfactory terminal treatments. On high volume freeways, as the median width becomes progressively narrower, crash cushions may be required.

1.12.5.3 Sign orientation

New

Signs should be oriented at approximately right angles to, and facing, the traffic they are intended to serve. At curved alignments, the angle of placement should be determined by the course of approaching traffic rather than by the road edge at the point where the sign is located.

In rural areas, night-time specular reflection from traffic signs can be troublesome. To eliminate or minimise the effect, signs should be set at angles so as to face slightly away from the beam direction of headlights from approaching vehicles.

On a straight length of road, the horizontal axis of a sign should be set at an angle of five degrees away from the normal to the left-side edge of the roadway on the approach

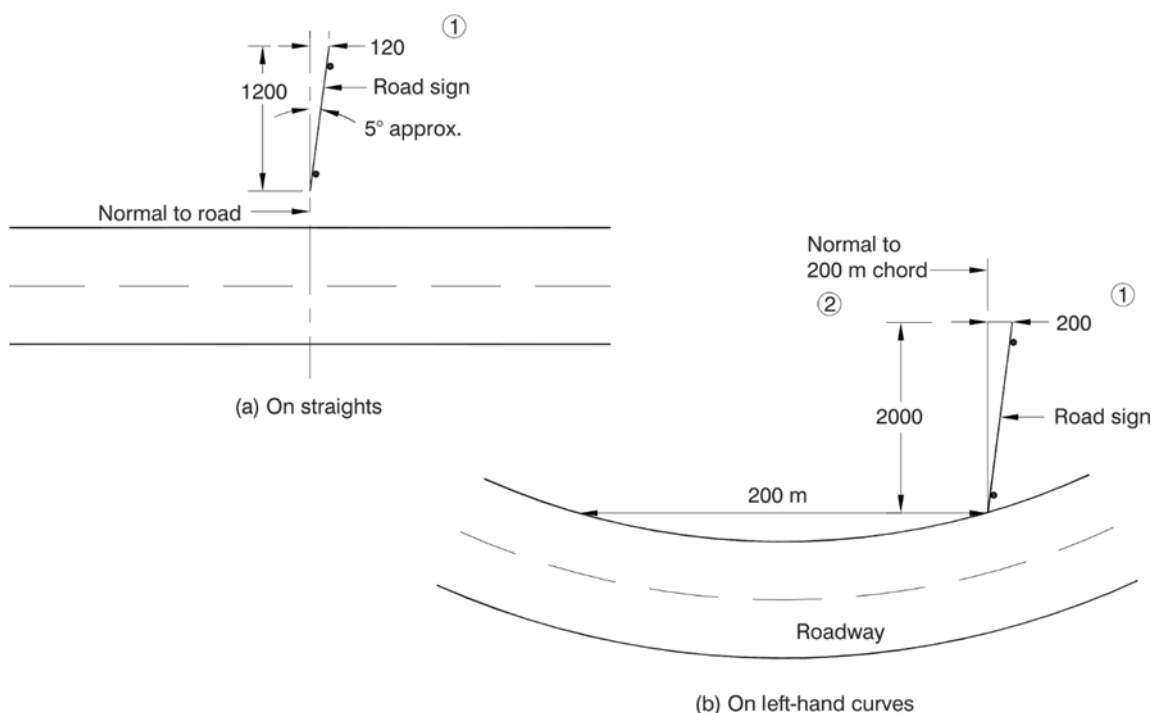
side (see Figure 1.12.5.4(a)) (previously Figure 3(a)). On some bends and complicated winding alignments, compromise solutions may have to be adopted but generally it will be adequate on a right-hand bend for a sign to be set parallel to the normal to the left-hand edge of the roadway at the point where the sign is erected. Signs sited on the left side of the road at left-hand bends should be set at an angle of five degrees away from the normal to a line joining the edge of the roadway at the sign with a point on the same edge of roadway 200 m in advance of the sign (see Figure 1.12.5.4(b)) (previously Figure 3(b)).

1.12.5.4 Sign installation

New

Further information relating to the size and number of posts is available in the *Design Guide for Roadside Signs* published on the Department of Transport and Main Roads website.

Figure 1.12.5.4 – Method of avoiding specular reflection on a road sign (previously Figure 3)



DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN

NOTES:

1. Sign is rotated away from the normal approximately five degrees or one tenth of the width of the sign.
2. On RIGHT-HAND curves the sign is placed ON the normal to the road at the sign position.

1.13 Trials of traffic control devices

New

Trials of new traffic control devices or the application of existing devices in a manner contrary to the criteria in this Manual can be undertaken in accordance with this Clause.

The Department of Transport and Main Roads may issue an 'approved notice' under Section 166(2) of the *Transport Operations (Road Use Management) Act 1995* to install and maintain a traffic control device for trial purposes. An application for a trial must encompass sufficient information to allow an informed decision to be made, including:

- a) the purpose of the trial
- b) the place where the trial is to be held
- c) the period of the trial (not exceeding two years)
- d) the terms and conditions of the trial, and
- e) details of the proposed traffic control devices to be used (traffic control devices developed for use in the trial must comply with the design and location principles outlined in Clauses 1.7, 1.8, 1.9 and 1.12 of this Manual).

The department may impose any other terms and conditions that are considered necessary, including, for example, a requirement to advertise details of the trial in a local newspaper in which the trial is to be held.

2 Regulatory signs

2.4 Index of regulatory signs

2.4.2 Direction series – R2

Deletion

The following signs are **not used** in Queensland:

R2-20	Left Turn on Red Permitted after Stopping
R2-21	Hook Turn Only

Addition

The following sign may be used in Queensland:

R2-3-Q01	Keep Left
R2-Q02	Through Traffic Keep Left

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

2.4.3 Pedestrian series – R3

Deletion

The following sign is **not used** in Queensland:

R3-4	Children Crossing 40, when lights flashing
------	--

Addition

The following sign may be used in Queensland:

R3-Q01	Walk To Island and Wait for Further Signal
--------	--

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

2.4.4 Speed series – R4

Addition

The following signs may be used in Queensland:

R4-Q01	SCHOOL ZONE Speed Limit
R4-Q03	SCHOOL ZONE AHEAD
R4-Q05	ROAD TRAIN SPEED LIMIT
R4-Q06	END ROAD TRAIN SPEED LIMIT
R4-Q07	HOSPITAL ZONE

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

2.4.5 Parking series – R5

Addition

The following signs may be used in Queensland:

R5-Q01	Tow- away zone
R5-Q04	Special Loading Zones (Passenger 2mins max)
R5-Q05	Special Loading Zones (Commercial 20mins max)

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

2.4.6 Miscellaneous series – R6

Deletion

The following sign is **not used** in Queensland:

R6-26	TRAMWAY CROSSING Position
-------	---------------------------

Addition

The following signs may be used in Queensland:

R6-Q01_1	NO...BEYOND THIS POINT (Type 1)
R6-Q01_2	NO...BEYOND THIS POINT (Type 2)
R6-Q01_3	NO...BEYOND THIS POINT (Type 3)
R6-Q01_4	NO...BEYOND THIS POINT (Type 4)
R6-8-Q01	STOP Banner
R6-Q03A	AUTHORISED BUSES ONLY BEYOND THIS POINT

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

2.4.9 Supplementary plates for general use – R9Addition

The following signs may be used in Queensland:

R9-Q01	BUSES TAXIS EXCEPTED
R9-Q02	TRUCKS EXCEPTED
R9-Q03	POLICE EXCEPTED

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3 Warning signs**3.3 Shape, colour and message**Addition

As warning signs are placed primarily for the protection of the driver who is not familiar with the road, it is very important that proper judgment be exercised in their location and erection. Warning signs should generally be placed in advance of the hazard as specified in the typical arrangement diagrams included in this Manual. Elsewhere, they should be located a distance A in advance of the hazard.

V_{85} (km/h)	A (m)
<75	80–120
75–90	120–180
>90	180–250

However, in urban areas (for example, where cross streets are closely spaced) this distance may be reduced to a minimum of 30 m. The actual advance warning distance will be determined by factors such as legibility of the sign, nature of the hazard and the prevailing speed. These factors relate to the time available to the driver to comprehend and react to the message and the time needed by the driver to perform any necessary manoeuvre. Test runs should be made by day and by night to check the location and mounting of each installation.

3.4 *Index of warning signs*

3.4.2 **Intersection series – W2**

Addition

The following sign may be used in Queensland:

W2-Q01	Successive Side Road Junction
--------	-------------------------------

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3.4.3 **Advance warning of traffic control device series – W3**

Addition

The following sign may be used in Queensland:

W3-Q01	Signals Ahead – Ramp Metering
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For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3.4.4 **Road width, low and narrow clearance series – W4**

Addition

The following sign may be used in Queensland:

W4-Q01	S-Lanes
--------	---------

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3.4.5 **Road obstacle series – W5**

Addition

The following signs may be used in Queensland:

W5-Q01	CANE RAILWAY CROSSINGS FOR ...km
W5-Q02	END OF CANE RAILWAY CROSSINGS
W5-Q04	DRIFT SAND
W5-Q05	SOFT EDGES
W5-Q07	CANE HAULING AHEAD
W5-Q09	RUMBLE STRIPS
W5-Q10	UNFENCED ROAD, WATCH FOR WANDERING ANIMALS

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3.4.6 **Pedestrian, bicycle and school series – W6**

Addition

The following signs may be used in Queensland:

W6-Q01	NATIONAL TRAIL Crossing
W6-Q02	National Trail ROAD CROSSING

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

3.4.8 Supplementary plate series – W8

Addition

The following signs may be used in Queensland:

W8-Q01	Cane Railway
W8-Q02	Crossing 300 m
W8-Q03	BUS STOP
W8-Q05	WAIT TILL ROAD CLEAR
W8-Q06	WATCH FOR TRAFFIC
W8-Q09	SCHOOL ZONE

For details regarding traffic signs only used in Queensland, refer:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4 Guide signs

4.4 Index of guide signs

4.4.3 Minor intersection direction (Type 2) and (Type 3) – G3

Difference

The following signs may be used in Queensland

G3–4–Q01	Overhead sign on structures
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4.4.7 Service series – G7

Addition

The following signs may be used in Queensland:

S14-Q01	Parking Area – Train
S14-Q02	Parking Area – Bus
S14-Q03	Parking Area – Ferry
S14-Q04	Parking Area – Light Rail
SQ01	Train
SQ02	Bus
SQ03	Ferry
SQ04	Visitor information centre

SQ06	UNSUITABLE FOR CARAVANS
SQ07	ELECTRIC VEHICLE CHARGING STATION
SQ08	LIGHT RAIL

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.9 Traffic instruction series – G9

Addition

The following signs may be used in Queensland:

G9-Q03	SUGAR CANE AREA
G9-Q05-1	Rest Area NOTICE
G9-Q05-2	Rest Area NOTICE
G9-Q09	FASTEN SEAT BELTS
G9-Q10	(Pedestrians) CROSS WITH CARE
G9-Q11	END ROCKFALL AREA
G9-Q12	LANE UNDER 'X' CLOSED

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.11 Tourist Series – G11

Addition

The following signs may be used in Queensland:

G11-Q01	National Trail Direction Sign
G11-Q02	Special Tourist Sign

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.12 Expressway direction series – GE

4.4.12.1 Expressway advance direction series – GE1

Addition

The following signs may be used in Queensland:

GE1-Q01	Freeway Approach
GE1-Q02	Freeway Approach
GE1-Q03	Freeway Approach
GE1-Q09	Interchange sequence, Service centre

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.12.2 Expressway exit direction series – GE2Addition

The following signs may be used in Queensland:

GE2-3-Q01	FREEWAY EXIT NUMBER GORE SIGN
GE2-6-Q01	EXIT ... (No.) Supplementary Plate

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.12.4 Expressway information series – GE6Addition

The following signs may be used in Queensland:

GE6-Q01	Prohibited on Freeway
GE6-Q08	Freeway service centres Next Exit / Next service ...km

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

4.4.12.6 Expressway traffic instruction series – GE9Addition

The following signs may be used in Queensland:

GE9-Q02	FREEWAY ENTRY RESTRICTED WHEN FLASHING
GE9-Q03	ONE VEHICLE ONLY ON GREEN SIGNAL
GE9-Q04	ONE VEHICLE PER LANE ON GREEN SIGNAL

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5 Temporary signs

5.4 Index of signs for works on roads and temporary hazards

5.4.1 Advance series – T1

Addition

The following signs may be used in Queensland:

T1-16-Q01	ROADWORK 500 m AHEAD
T1-23-Q01	CHANGED TRAFFIC CONDITIONS
T1-Q05	Traffic Controller Ahead / PREPARE TO STOP
T1-Q06	ROADWORK AHEAD
T1-Q07	ROADWORK ON SIDE ROAD (arrow)
T1-Q08	LINEMARKERS ON ROAD
T1-Q09	MOBILE LINEMARKING AHEAD
T1-Q10	Tractor / Slasher Mowing
T1-Q11	DRIVER UNDER INSTRUCTION
T1-Q12	STOP HERE WHEN DIRECTED
T1-Q13	PILOT VEHICLE IN USE
T1-Q14	CHANGED LINE MARKING
T1-Q15	QUEUED TRAFFIC AHEAD

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.2 Position series – T2

Addition

The following signs may be used in Queensland:

W8-5-Q01	'X km' Supplementary Plate
T1-Q02	PROBABLE DELAY 15 MINUTES
T1-Q17	Boom Barrier AHEAD
T2-4-Q01	ROAD CLOSED
T2-20-Q01	EXIT CLOSED
T2-21-Q01	...EXIT CLOSED - ALTERNATIVE
T2-4-Q02	ROAD CLOSED ...km AHEAD
T2-Q03	END ROADWORK
T2-Q06	SURVEYORS AHEAD
T2-Q07	Lane Status (4 lane)
T5-Q02	Chevron Delineator
T6-Q02	KEEP CLEAR with Chevrons WET PAINT with Chevrons
T6-Q06	LINE MARKING with Chevrons
T6-Q07	LINE MARKING

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.3 Road condition series – T3

Addition

The following signs may be used in Queensland:

T3-Q02	Traffic Signal NOT IN USE
T3-Q03	SIGNALS UNDER REPAIR

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.4 Special hazard series – T4

Addition

The following signs may be used in Queensland:

T4-Q03	DANGER GAS NO SMOKING
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For SMOKE HAZARD, the Queensland sign T4-6-Q01 is used.

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.5 Traffic diversion series – T5

Addition

The following signs may be used in Queensland:

T5-3-Q01	ROAD FLOODED BEYOND... ALTERNATIVE ROUTE VIA
T5-Q01	ROAD CLOSED BEYOND ... ALTERNATIVE ROUTE VIA ...
T5-Q02	Temporary Collapsible Chevron Delineator
T5-Q03	DETOUR REASSURANCE

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.6 Vehicle mounted series – T6

Addition

The following signs may be used in Queensland:

T6-Q01	ROAD TRAIN
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For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.8 Pedestrian series – T8

Addition

The following signs may be used in Queensland:

T8-4-Q01	FOOTPATH CLOSED
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For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

5.4.9 Electronic series

New

The following signs may be used in Queensland.

Electronic Signs	
TC1785	Speed limit
TC2210	NO ENTRY
TC2260	ROAD CLOSED – NO ENTRY
TC2272	WORKMAN symbolic
TC2273	NO RIGHT / NO LEFT TURN
TC2274	MERGE LEFT / RIGHT
TC2275	NO U-TURN
TC2276	Lane Status signs
TC2277	REDUCE SPEED
TC2278	PREPARE TO STOP

5.4.10 Multi-message series

New

For multi-message signs at roadworks, refer to Tables D1 to D8 in Part 3 of MUTCD.

6 Hazard markers

6.4 Index of hazard markers

Addition

The following signs may be used in Queensland:

D4-1-2-Q01	Unidirectional Hazard Marker
D4-2-2-Q01	Bidirectional Hazard Marker

For additional Queensland signs, refer to:

<http://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TC-signs>

Appendices

Appendix B – Erection and removal of regulatory traffic control devices on roads controlled by Department of Transport and Main Roads

B1 General

New

An essential adjunct to the erection or removal of any regulatory sign / device, is the recording and filing of the circumstances for use in connection with any prosecutions or litigation resulting from traffic offences, or traffic accidents, in the area of the particular sign / device. This procedure particularly applies when regulatory signs / devices are used as a traffic control aid at, or adjacent to, road construction and maintenance work sites.

This Appendix outlines example procedures for the erection and removal of permanent signs and devices. Variations to these procedures can be implemented to address Quality Management and Administration Practices. Procedures for the erection and removal of temporary signs and devices are given in Part 3 of this Manual, *Works on Roads*.

B2 Example procedures for the erection or removal of permanent regulatory signs / devices (that is, for other than roadworks purposes)

New

The example procedures are as follows:

- a) Prior to the placement or removal of regulatory signs / devices, a Form M994 should be completed.
- b) The original Form M994 should be filed on a Region Register.
- c) A Form M994 is not required when a damaged or deteriorated sign / device is removed and replaced by a new one of the same size and type, providing the replacement is erected in the same location as the old sign / device.

NOTES:

1. Permanent signs and markings plans for a project, suitably annotated, may be used in lieu of Form M994.
2. Permanent speed limit changes and other regulatory signs and devices may alternatively be recorded on the authority's road database system, where appropriate. Time and date of installation is required.

B3 Example procedures for variable speed limit and lane control signs

New

The example procedures are as follows:

Initial installation

- a) A Form M994 should be completed covering the multiple devices at each location.
- b) The form should record the speed limits capable of being displayed.
- c) The form should be filed on a Region Register.

Operation

- a) A Form M994 is not required for every speed limit or lane control change. Some form of data recording is still required for evidentiary purposes.

Appendix C – Application of warrants and guidelines

New

Traffic operation is facilitated by efficient control devices, but these devices must be selected and used following scientific investigation, not subjective assessment.

A proper evaluation embraces the measurement of certain factors, such as traffic volume, and a close engineering study of the environment to ascertain firstly, if there is a need for control in a particular situation, and secondly, the type of control device which should be used.

Long experience has established the respective conditions under which the many traffic control devices are justified. These conditions, called warrants or guidelines, may comprise quantitative figures or other general requirements at the site concerned. Established warrants and guidelines for the installation of control devices are prescribed in the Manual.

The use of warrants and guidelines is to ensure that:

- a) control devices are installed where the need has been proven, and only in such situations
- b) the most efficient treatment is provided for any given set of conditions, and
- c) standard treatment is employed at similar situations.

However, even if a formal warrant or guideline is satisfied in a particular instance, it does not necessarily follow that the relevant traffic control device should be installed on that basis alone. The justification for the installation of a particular device often involves a number of elements; some incapable of being expressed in quantitative terms. To attempt to include all such elements in formal warrants or guidelines would be impractical, and therefore the final decision must involve proper engineering judgement.

There will occur, in practice, many cases where a particular form of control would be best suited to the local conditions, although the requirements of the formal warrant or guideline may indicate otherwise. In some cases, it may be advisable to refrain from imposing a particular type of control, although the prescribed warrant or guideline may be met. In other instances, some form of control may be justified where there is no applicable warrant or guideline. Indeed, objective investigations will, in practice, frequently indicate that the most effective treatment should be constructional works, such as improvement to visibility or widening of pavement.

In all cases, engineering judgement must be used in assessing the need for treatment at any location. Warrants and guidelines set out in the Manual should be regarded as the means of exercising this judgment and selecting the proper treatment, rather than as a substitute for it.

However, it is emphasised that warrants and guidelines have been established after long experience and careful study, and should not be departed from unless the necessity to do so can be fully substantiated.

Warrants and guidelines for particular traffic control devices are included in the relevant Part of this Manual.


Appendix D – Supplementary list of signs

New


The signs shown below are used for specific situations throughout the State. Their use, however, is not considered to be sufficiently frequent for them to be included in the relevant Part of the Manual at this time. Further details of the design of the signs and devices listed may be obtained from the Department of Transport and Main Roads, Brisbane.

Regulatory signs

- a) Walk to island and wait for further signal (R3-Q01)


	R3-Q01	This sign may be used where pedestrians at signalised crossings must make the crossing in more than one stage.
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- b) Stop bat (R6-Q02)


	R6-Q02	This sign is only used in accordance with the Transport Operations (Road Use Management) Regulations. Drivers are required to stop their vehicle when indicated by the R6-Q02 display of sign R6-Q02. The sign has a diameter of 300 mm. Vehicle mounted flashing magenta coloured lights may be displayed in conjunction with the -Q02 sign to assist in attracting the driver's attention.
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Warning signs

a) W4-Q01

	<p>W4-Q01</p>	<p>The S-lanes sign is used on multilane divided roads with restricted width where the left lane is terminated and the remaining lanes are deviated to the left to allow the provision of a right turn lane. The sign is used in advance of the end of the terminating lane and is followed by the LEFT LANE ENDS (W-49) / MERGE RIGHT (W8-15) signs and the FORM 1 LANE sign (G9-15) or FORM 2 LANES sign (G9-16), as appropriate.</p>
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b) End rockfall area (G9-Q11)

	<p>G9-Q11</p>	<p>The END ROCKFALL AREA (G9-Q11) sign may be used to indicate the end of a rockfall area.</p>
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Temporary signs

a) Road flooded beyond ... alternative route via ... (T5-3-Q01)

b) Road closed beyond ... alternative route via ... (T5-Q01)

	<p>T5-3-Q01</p>	<p>The ROAD FLOODED BEYOND ... ALTERNATIVE ROUTE VIA ... sign is used to indicate the reason for closing the road and a suitable detour.</p>
	<p>T5-Q01</p>	<p>Where a road is closed for reasons other than flooding, the ROAD CLOSED BEYOND ... ALTERNATIVE ROUTE VIA ... sign is used.</p>

