Manual

Traffic and Road Use Management Volume 3 – Signing and Pavement Marking

Part 10: Signing and pavement marking for toll roads

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Contents

1	Purpose		.4
2	Definitions		.4
3	Design princi	ples	.4
3.1	General		4
3.2	Toll point and	toll payment information signs	5
	3.2.1 Sig	n colour	.5
	3.2.2 Sig 3.2.3 Sig	n location	.5
3.3	Direction signs	5	6
	3.3.1 Gei	neral	.6 6
3.4	Pavement mai	rking	6
4	Toll point and	d toll payment information signs	.7
4.1	Signs in advar	nce of a toll point	7
4.2	Signs close to	a toll point	7
4.3	Signs at a toll	point	8
4.4	TOLL EVASIC) N IS AN OFFENCE signs	9
4.5	Toll road paym	nent information signs on divided roads	9
4.6	Toll road price	information signs	9
5	Other toll roa	d information signs1	0
5.1	TOLL POINT >	x km AHEAD signs	0
5.2	LAST EXIT BE	EFORE TOLL POINT signs1	0
6	Example toll	point sign layouts	1
7	Toll road info	rmation on direction signs1	4
7.1	General		4
7.2	Colour scheme	es for direction signs with toll road information1	5
7.3	TOLL patch or	n direction signs	7
7.4	Determining th	ne direction sign main background colour for different sign styles	9
7.5	Stacked style	direction signs2	5
7.6	Diagrammatic	advance direction signs	6
7.7	Overhead lane	e designation style direction signs2	7
7.8	Exit direction s	signs	9
7.9	Direction sign	located some distance from a toll point	0
7.10	Destinations o	n a direction sign which are via a different route	51
7.11	Reassurance	direction signs	2
7.12	Direction signs	s for an EXIT to a non-tolled road, with a toll point on the exit ramp	3
7.13	Direction signs	s for an EXIT with the toll point located between the sign and the exit	5
7.14	Direction signs	s for an ENTRY to a toll road with a toll point on the on ramp	5
7.15	Intersection di	rection signs	6

7.16	Direction signs in tunnels for toll roads	36
8	Pavement marking and patches for toll roads	37
8.1	Purpose	37
8.2	General	. 38
8.3	Design and location	. 38
8.4	Examples of pavement patches to identify toll roads	40
8.5	High speed motorway example (M3 northbound approaching M7 exit)	40
8.6	Low-speed road example (Stafford Rd eastbound approaching Airport Link Tunnel entry)	43
9	Example layouts for direction signs in advance of or on a toll road	45
10	Further information or assistance	52

Tables

Table 7.4 – Example direction signs with explanatory notes	20
Table 7.11 – Reassurance direction signs	33

Figures

Figure 4.1(a) – Signs used in advance of a toll point7
Figure 4.1(b) – Extra signs used in advance of toll point7
Figure 4.2(a) – Signs used close to a toll point
Figure 4.2(b) – Sign used in close proximity to the toll point
Figure 4.3 – TC1754 series used at toll points
Figure 4.4 – TC1752 TOLL EVASION IS AN OFFENCE sign
Figure 4.6(a) – Static toll road price information sign
Figure 4.6(b) – Electronic panel for toll road price information
Figure 5.1 – TOLL POINT 'x' km AHEAD signs 10
Figure 5.2 – LAST EXIT BEFORE TOLL POINT sign
Figure 6(a) – Example signing for entry ramp within 1km of the toll point – tunnel (TC1971_1) 12
Figure 6(b) – Example signing for last exit prior to the toll point – tunnel (TC1971_2)
Figure 7.1(a) – Example, Toll road patch and colour scheme – immediate approach
Figure 7.1(c) – Example, Toll road patch and colour scheme, not on immediate approach14
Figure 7.2(a) – An exit to a toll road from a toll road 16
Figure 7.2(b) – An exit from a toll road to a non-tolled road
Figure 7.2(c) – An exit to a toll road from a non-tolled road
Figure 7.2(d) – Destinations via a toll road included on a sign which is not on or on the immediate approach to a toll road

Figure 7.2(e) – Exit destination via a toll road included on a sign which is not on or on the immediate approach to a toll road
Figure 7.3(a) – Example 1 of TOLL patch location for overhead lane designation type direction sign 18
Figure 7.3(b) – Example 2 of TOLL patch locations for overhead lane designation type direction sign19
Figure 7.5 – Examples of stacked style direction signs
Figure 7.6 – Examples of diagrammatic advance direction signs
Figure 7.7 – Examples of overhead lane designation style direction signs
Figure 7.8 – Examples of exit direction signs
Figure 7.9(a) – Example 1 direction sign located some distance from a toll road
Figure 7.9(b) – Example 2 direction sign located some distance from a toll road
Figure 7.10(a) – Destinations on an overhead direction sign which are via a different route
Figure 7.10(b) – Destinations on intersection direction signs which are via a different route
Figure 7.12 – Examples of direction signs
Figure 7.13 – Examples of direction signs
Figure 7.14 – Direction signs for an ENTRY to a toll road with a toll point on the on ramp
Figure 7.15 – Examples of intersection direction signs
Figure 7.16 – Examples of direction signs in tunnels for toll roads
Figure 8.4 – Toll road pavement patch examples 40
Figure 8.5 – Example of high speed motorway (M3 northbound approaching M7 exit) 42
Figure 8.6 – Example of low-speed road (Stafford Rd eastbound approaching Airport Link Tunnel entry)
Figure 9(a) – Example of Gateway Motorway (M1) southbound at Pine River Bridge
Figure 9(b) – Example of Pacific Motorway (M1 / M3) northbound at the Gateway Motorway (M1) diverge
Figure 9(c) – Example of Pacific Motorway (M3) northbound at the exit to the Clem Jones Tunnel (M7)
Figure 9(d) – Example of Pacific Motorway (M1) northbound at the exit to the Logan Motorway (M6) 49
Figure 9(e) – Example of Gateway Motorway (M1) northbound at the exit to Old Cleveland Rd (State Route 22)
Figure 9(f) – Example of Gateway Motorway (M1) Sir Leo Hielscher Bridge
Figure 9(g) – Example of Mt Gravatt Capalaba Road onto the Gateway Motorway (M1) 52

1 Purpose

This Part provides the requirements for the signing and pavement marking for toll roads. The signs and pavement markings included in this Part are used to provide direction signing for toll roads and shall be read in conjunction with the *Queensland Manual of Uniform Traffic Control Devices* (MUTCD) Part 15 *Direction signs, information signs and route numbering.*

This Part also includes additional signs which define the toll point or provide information on how to pay the toll, in addition to all the standard signs required in accordance with the MUTCD for the safe and efficient operation of the road network.

These signing and pavement marking requirements will:

- a) enable road users to identify lengths of road as a toll road which may be subject to a toll
- b) identify the toll point locations
- c) reduce instances of motorists mistakenly travelling through a toll point
- d) provide information about how to pay a toll, and
- e) define the road signing and pavement marking treatments for toll roads.

This uniform approach to the road signs and pavement marking treatment options for all toll roads will enable the travelling public to identify toll roads easily and understand and identify the location of toll points and the toll payment options, all of which are desired outcomes for both road users and toll road operators.

Conformance with the requirements in this Part will require redesign, replacement or modification of existing signs on the road network. The requirements in this Part are to be applied to all new or replacement signs, with existing signs being replaced or modified over time as maintenance and other works dictate.

2 Definitions

Terms and definitions are typically as provided in the MUTCD.

The term 'toll road' is used in this Part to define a length of road operated under a franchisee arrangement by a toll road operator and along which travel may incur a toll.

3 Design principles

3.1 General

Toll point and toll payment information signs, direction signs, and pavement marking shall be designed in accordance with the principles in this Part and the MUTCD Part 15.

3.2 Toll point and toll payment information signs

3.2.1 Sign colour

The following colours apply to toll point signs:

- Information on how to pay the toll (phone numbers and web addresses) shall be a blue legend on a white background, with the remainder of the sign in the yellow and blue colour scheme.
- The TOLL EVASION IS AN OFFENCE sign shall be a black legend on yellow background.
- The LAST EXIT BEFORE TOLL POINT sign shall be a black legend on a white background.
- The TOLL POINT X km (or X m) AHEAD sign shall be a yellow legend on a blue background.
- If required at the toll point, the DO NOT STOP message shall be a black legend on a white background.
- The toll road price information sign shall be a yellow legend on a blue background, with any electronic price panels being a yellow legend on a black background.

Refer to sections 4 and 5 for specific sign design requirements and examples of toll point and toll payment information signs.

3.2.2 Sign size

All toll payment signs have been designed with at least two size options ('A' and 'B') with the larger B size for use in high speed (speed limit of 80 km/h or greater) areas and the smaller A size for use in low speed or constrained environments and on motorway ramps.

3.2.3 Sign location

Information about how to pay a toll shall only be installed once a driver is locked into passing a toll point or has passed a toll point and incurred a toll.

This is achieved by limiting the location of these signs to close proximity (generally within 250m) of the toll point. In constrained environments, it may be necessary to place this sign outside the immediate area near a toll point. In these cases:

- the signs could be installed further from the toll point, provided they are located where the driver has either passed a toll point incurring a toll or will pass a toll point and incur a toll, or
- the sign may be omitted prior to the toll point.

Informing drivers (that either have not or will not incur a toll) about how to pay the toll shall be avoided, as this may lead to confusion about whether or not they have actually incurred a toll.

3.3 Direction signs

3.3.1 General

In addition to the MUTCD Part 15 requirements, the following sign design principles apply to toll roads:

- the predominant colour scheme for direction signs located on or on the immediate approach to a toll road shall be yellow legend on a blue background except as follows:
 - the TOLL patch, if required, shall be included within the blue background area and shall be a blue legend on a yellow background
 - if required within a blue background, an exit number or road name(s) patch shall be a blue legend on a yellow background
 - the route identifiers (symbolic or alphanumeric) shall be in their standard colours regardless of the background colour of the direction sign, and
 - service and tourist information shall remain in their standard colours regardless of the colour of the background panel in which they are located; service and tourist symbols and facility names shall include a white border
- In all cases the alpha numeric route number shall be fluorescent yellow.
- Sign borders, text, arrows and diagrammatic representations shall be yellow when located within a blue background.
- A blue or green background patch containing direction sign information shall have a border.

Refer to Section 7 for specific direction sign design requirements and examples.

3.3.2 Sign size

The size of direction signs will be dependent on the location, speed environment and amount of information required / displayed.

3.4 Pavement marking

The following pavement marking design principles apply to toll roads:

- The pavement patches for a toll road route number or toll road identifier shall have a yellow legend with blue background colour scheme to provide a direct link with the toll road colour scheme used on direction signs.
- Route numbers for non-tolled routes (for example, M3) or other identifiers such as 'CITY' for non-tolled destinations are to have a white legend only (no background colour).
- Where applicable, the use of the Airport symbol (white symbol on a blue background) pavement patch (see TC1963 and Figure 8.4) may be installed to assist travellers select the correct route or traffic lane to the airport. The airport pavement patch may be incorporated within the toll road route number pavement patches.
- Pavement patches are located centrally in the traffic lane and the width of pavement patches has been kept to a minimum (see TC1963 and TC2055) to minimise, where possible, the effect of tyre wear and consequent patch maintenance requirements.

Refer to Section 8 for specific pavement marking and patch design requirements and examples.

4 Toll point and toll payment information signs

This section provides guidance on the design and application of signs regarding the payment of a toll.

Section 6 provides example layouts of signs near a toll point (from TC1971).

4.1 Signs in advance of a toll point

Generally, a sign is installed at about one kilometre from the toll point (but may be installed at an alternative distance – say, two kilometres – only if the one kilometre location is not suitable) to provide advance information to a driver on approach to a toll point.

The following signs in Figure 4.1(a) (TC1968_1, TC1969_1 or TC1753_1) are examples which may be used in advance of a toll point.

Figure 4.1(a) – Signs used in advance of a toll point



If the toll road has entrances between the one kilometre advance signs and the toll point, an extra advance sign should be installed 300–500m in advance of the toll point, to provide advance information to drivers entering the toll road after the other advance signs, that they are approaching a toll point.

The following signs in Figure 4.1(b) are examples which may be used in this situation in advance of a toll point.

Figure 4.1(b) – Extra signs used in advance of toll point



4.2 Signs close to a toll point

Generally, these signs are installed in close proximity (generally within 250m) to the toll point (see Section 3.2.3) and inform motorists how to pay the toll. These signs may be located immediately prior to, after or both before and after the toll point (see TC1751 series).

The sign TC1752 may be installed as a supplementary sign.

Figure 4.2(a) – Signs used close to a toll point



TC1751_1 and TC1752 (optional)

As a variation to the '3 DAYS TO PAY' message, the following sign in Figure 4.2(b) may also be installed in close proximity (generally within 250m) to the toll point.

Figure 4.2(b) – Sign used in close proximity to the toll point



TC1965

4.3 Signs at a toll point

A sign identifying a toll point shall be installed at the toll point. This sign may include the name of the structure to which a toll applies. The sign may also include other messages to assist motorists going through the toll point.

The TC1754 series signs in Figure 4.3 may be installed at toll points.



TC1754_2

TC1754_1 and TC1752 (optional)

4.4 TOLL EVASION IS AN OFFENCE signs

If required, the 'TOLL EVASION IS AN OFFENCE' sign (TC1752) shown in Figure 4.4 may be used as a standalone sign and be installed in close proximity (generally within 250m) to the toll point. TC1752 has also been designed to be a supplementary sign and may be installed beneath other toll signs such as the TC1751 or TC1754 series, or TC1965.

Figure 4.4 – TC1752 TOLL EVASION IS AN OFFENCE sign



TC1752

4.5 Toll road payment information signs on divided roads

Toll road payment information signs on divided roads should be duplicated if practical. The smaller A size signs may be used in the median area if the larger B size signs are required but will not fit.

On divided multi-lane roads where it is not possible to duplicate signs on both sides of the road, consideration should be given to installing the larger size option (if possible) on only one side.

In very rare cases, where there are more than two traffic lanes and signs can only be located on one side of the road, it may be necessary to install a sign larger than B size so that drivers in all lanes can read the sign. In these cases, consideration could be given to installing a sign based on the A size design but increasing all dimensions threefold.

4.6 Toll road price information signs

The toll road price information signs for standard vehicles (cars) should be displayed at or near to the toll points or at other key locations as deemed applicable (such as at an appropriate location prior to making the choice to enter the toll road). When installed at a toll point, this sign should be installed below the toll point sign.

The static sign design in Figure 4.6(a) may be used; however, as the toll charge may change over time, the use of an electronic panel to display the toll price information would also be permitted as shown in Figure 4.6(b) or the entire sign could be electronic.

Figure 4.6(a) – Static toll road price information sign









5 Other toll road information signs

5.1 TOLL POINT x km AHEAD signs

Drivers may enter and travel along a section of toll road and exit before incurring a toll. So they understand they have not passed a toll point or incurred a toll, the TOLL POINT AHEAD sign (TC1753_1) may be used to indicate the toll point is still some distance ahead (and is located some distance beyond the point at which they are exiting).

If required, this sign is installed prior to the exit point (but after the first advance direction sign) and is used to advise drivers the toll point is still some distance ahead.

The use of this sign should be restricted to key locations where this may be or is an issue. Examples are locations that are the subject of enquiries from drivers who have travelled on the toll road and are unsure if a toll has been incurred (especially if they may exit prior to a toll point).

While TC1753_1 in Figure 5.1 is generally installed one kilometre in advance of the toll point, if installed in accordance with this section, insert the appropriate distance (for example, '5km') rounded to nearest whole kilometre.

Figure 5.1 – TOLL POINT 'x' km AHEAD signs



TC1753_1

5.2 LAST EXIT BEFORE TOLL POINT signs

The information sign TC1810 in Figure 5.2 shall be installed on a motorway (or highway) prior to the last exit before a toll point. Typically, this sign should be located a short distance (100–250m) after the first advance direction sign for the exit, to allow drivers to make a choice and take the exit if desired.

Figure 5.2 – LAST EXIT BEFORE TOLL POINT sign



TC1810

6 Example toll point sign layouts

Example layouts are shown in figures 6(a) and 6(b) as follows.







Figure 6(b) – Example signing for last exit prior to the toll point – tunnel (TC1971_2)

7 Toll road information on direction signs

7.1 General

This section provides guidance on the design of direction signs for toll roads.

The general design principles for direction signing of toll roads are mostly the same as for non-tolled roads.

Figure 7.1(a) provides an example of the toll road patch and colour scheme for direction signs located on or on the immediate approach to a toll road

Figure 7.1(a) – Example, Toll road patch and colour scheme – immediate approach



Figure 7.1(b) provides an example of the toll road patch and colour scheme for direction signs which are not on or on the immediate approach to a toll road, but which include information which would involve travel on a toll road.

Figure 7.1(c) – Example, Toll road patch and colour scheme, not on immediate approach



7.2 Colour schemes for direction signs with toll road information

A specific colour scheme (blue and yellow) is used to inform road users that a length of road is a toll road. A TOLL patch is also used with this colour scheme to indicate that travel along the toll road may be subject to a toll.

The TOLL patch and specific colour scheme for direction signs on approach to, along, or towards a toll road shall be used as follows:

- on direction signs located on a toll road:
 - includes advance exit and exit direction signs, as part of the through direction information along the toll road
 - the direction signs immediately prior to the end of the toll road are excluded (provided they do not direct road users onto another toll road); as the road beyond this point is not a toll road, these signs are to be in the standard white and green colour scheme
- on direction signs located immediately in advance of a toll road:
 - on connecting roads in advance of an intersection or ramp which leads directly onto a toll road where the signs will alert road users in sufficient time to enable a choice to be made to either enter the toll road or not
 - on a road which becomes a toll road, where the signs will alert road users in sufficient time of their option of leaving this road before the toll road commences
- on direction signs which direct traffic toward a toll road:
 - this requirement is subject to the requirements in Section 7.9, which provides guidance about direction signs which are located away from the toll road but include direction information which would involve travel on a toll road; specifically, the distance from a toll road the colour scheme and TOLL patch shall be used.

This may create combinations of colours on direction signs along a road or within one direction sign dependant on circumstances.

See Section 3.2.1 for variations to the standard colours used for destinations and other information on direction signs on approach to, along, or towards a toll road.

The following examples in figures 7.2(a)-(e) show the different colour combinations for diagrammatic advance direction signs which may be applicable.

Figure 7.2(a) – An exit to a toll road from a toll road



Figure 7.2(b) – An exit from a toll road to a non-tolled road



Figure 7.2(c) – An exit to a toll road from a non-tolled road



Figure 7.2(d) – Destinations via a toll road included on a sign which is not on or on the immediate approach to a toll road



Figure 7.2(e) – Exit destination via a toll road included on a sign which is not on or on the immediate approach to a toll road



7.3 TOLL patch on direction signs

The TOLL patch shall be included on all direction signs leading to or along a toll road where the driver is likely to travel through a toll point and incur a toll. This patch consists of the word 'TOLL' in uppercase letters, in blue text on a yellow background.

The TOLL patch shall not:

- indicate tolling systems or toll brands, or
- include other text such as 'TOLL ROAD', 'TOLL TUNNEL' or 'TOLL BRIDGE'.

The legend height for the word TOLL shall be 7/8 of the legend height for the route number or destination.

The TOLL patch shall be located:

- within a blue background section of the direction sign.
- in a position which makes it clear which route(s) or destination(s) are tolled:
 - near the alpha numeric identifier (route number / shield), if the toll applies to the route.
 If possible, the TOLL patch is located between the route identifier and the road name patch in the one line, or
 - near the destination name(s) where only one or more destinations are via a toll (rather than the route being tolled). In these cases, the TOLL patch is placed above the destination name(s) inside the blue background patch but may be located to the right of the destination(s) if required to achieve sign balance or to minimise sign size.

Generally, the TOLL patch will appear in each of the blue panels on a direction sign; however, in some cases, where a direction sign is located on, or on the immediate approach to a toll road, and there are no toll points along the toll road in this direction, the TOLL patch is not required and is not included.

The relationship between the route number and the TOLL patch within a blue panel is often dictated by sign balance and readability (dependant on the direction sign type or size, layout and amount of information included), which is why its location may vary.

Figures 7.3(a) and 7.3(b) are two examples of the different TOLL patch locations for overhead lane designation type direction signs.

Figure 7.3(a) – Example 1 of TOLL patch location for overhead lane designation type direction sign



Figure 7.3(b) – Example 2 of TOLL patch locations for overhead lane designation type direction sign



7.4 Determining the direction sign main background colour for different sign styles

Direction signs which direct traffic toward, or are located on approach to, or along a toll road may have a number of different styles and arrangements. The main background colour for direction signs will be either green or blue, primarily dependent on the signs' locations:

- the main background colour of the direction sign is blue, if the direction sign is on the immediate approach to or is located on a toll road, excluding when:
 - the direction signs are immediately prior to the end of the toll road (provided they do not direct road users onto another toll road), as the road beyond this point is not a toll road, or
 - the direction signs only include information about an exit to a non-tolled road
- the main background colour of the direction sign is green, if the direction sign is NOT on the immediate approach to or is located on a toll road, including:
 - the direction signs immediately prior to the end of the toll road and the direction signs on a toll road which only include information about an exit to a non-tolled road (see previous point 'main background colour is blue').

The background colour for different direction sign styles shall be determined as follows:

- Stacked style signs may have different background colours for each panel which will be determined by the type of road they are directing traffic toward, on to or along.
- The main background colour on diagrammatic style signs shall generally be determined by the location; however, this may be overridden when the sign is on the immediate approach to a toll road by the type of road the sign is directing traffic on to or along in straight ahead direction of travel. This would be the case where a diagrammatic sign is used on a non-tolled road which includes exit direction information onto a toll road.
- Overhead lane designation style signs may have different background colours for each of the top panels related to the lanes (or groups of lanes) below, which will be determined by the type of road they are directing traffic toward, on to or along in those directions.
- The main background colour on exit style signs or overhead signs will be determined by the type of road they are directing traffic toward, on to or along (on each individual sign) in those directions.

This may mean that, along a length of road, the main background colour may change between blue and green, dependant on the signs' locations and the types of road they are directing traffic toward, on to or along in those directions.

The following Table 7.4 provides some example direction signs with notes on how the main background colour(s) and patch colours were determined.



 Table 7.4 – Example direction signs with explanatory notes

Example direction sign	Colour determination
GYMPIE ARTERIAL RD M 3 Brisbane	This diagrammatic direction sign is not located on a toll road and the straight ahead direction is not to a toll road (there are no toll points in this direction), so the main background colour is green.
BRISBANE AIRPORT Gold Coast 1 km	The Gateway Motorway is not a toll road at this point, so all the information about this exit is also shown in a green background; however, while the Gateway Motorway is not a toll road from this point, the direction sign does include information which involves travel on a toll road. As the Gold Coast destination shown in this panel is reached by travelling through a toll point, it is included in a blue background patch which also includes the TOLL patch.
GATEWAY MWY M1 Gold Coast ipswich TOLL EXIT 92 MT GRAVATT CAPALABA RD 2	This diagrammatic direction sign is located on a toll road with the straight ahead direction along the toll road, so the main background colour is blue.
	There is no toll point ahead on the M1, so the TOLL patch is not located with the M1 route identifier; however, Ipswich is reached by travelling along a different route some distance ahead that is a toll road, and which involves travel through toll points, so the TOLL patch is located next to this destination. Mt Gravatt Capalaba Road is not a toll road (there are no toll points in this
	direction), so all the information about this exit is shown in a patch with a green background.
M 1 GATEWAY MWY	This reassurance direction sign is not located on or on the immediate approach to a toll road, so the main background colour of the top panel is green.
Brisbane 22 TOLL	As the Gold Coast destination shown in this panel is reached by travelling through a toll point, it is included in a blue background patch which also includes the TOLL patch.
VIA M 2 TOLL Ipswich 68 Toowoomba 155	Note that this sign is also located after the direction signs which include 'Gold Coast' as a destination and which use the TOLL patch and colour scheme for this destination (see Section 7.9).
	Both Ipswich and Toowoomba are accessed via a different route some distance ahead (the M2) which is also a toll road and involves travel through toll points, so are included in a separate panel with a blue background and the TOLL patch. The message 'VIA M2 TOLL' is used as a heading for this panel.

Example direction sign	Colour determination
M1 GATEWAY MOTORWAY Logan 5 Gold Coast 66 Ballina 179 Sydney 921	This reassurance direction sign is located on a toll road, so the main background colour is blue. While the Gateway Motorway is a toll road, there are no toll points in this direction along the M1, so the TOLL patch is not included on this sign.
NUDGEE RD Nudgee Beach Nudgee Beach TO M1 GATEWAY MWY Image: Brisbane Arrows Image: Brisbane	This stacked direction sign is NOT located on a toll road. The top panel with a straight ahead direction arrow is not to a toll road (there are no toll points in this direction), so the main background colour of this panel is green; however, the M1 is accessed in this direction and, while not a toll road from this point, it does include information which involves travel on a toll road. As the Gold Coast destination shown in this panel is reached by travelling through a toll point, it is included in a blue background patch which also includes the TOLL patch. The bottom panel with a right direction arrow is to a section of the Gateway Motorway which is not a toll road (there are no toll points in this direction), so the main background colour of this panel is green.
SANDGATE RD (23) Nundah Redcliffe M7 TOLL AIRPORT LINK TUNNEL City Everton Park EAST WEST ARTERIAL RD M7 BRISBANE	This stacked direction sign is NOT located on a toll road. The top panel with a straight ahead direction arrow is not a toll road (there are no toll points in this direction), so the main background colour of this panel is green. The middle panel exit has a blue main background colour as it is an exit which leads directly to a toll road. All information related to this exit (including the TOLL patch as there is a toll point in that direction) is included in this blue background. The bottom panel with a right direction arrow is not to a toll road (there are no toll points in this direction), so the main background colour of this panel is green.

Example dire	ection sign	Colour determination
M 2 TOLL GATEWAY MWY K BRISBANE Sunshine Coast	M2 TOLL LOGAN MWY Ipswich Toowoomba	This overhead lane designation style direction sign is located on a toll road with the straight ahead direction continuing along the toll road, so the main background colour above the straight ahead arrows is blue. The Gateway Motorway is a toll road at this point and this exit leads directly to the toll road, so all the information about this exit is also shown in a blue background above the left exit arrow. As there is a toll point in both directions, the TOLL patch is included and positioned next to the M2 route identifier in both panels. The bottom panel with the lane designation arrows always has a green background colour.
M 1 GATEWAY MWY BRISBANE Gold Coast TOLL S	EXIT 127 A 3 GYMPIE ARTERIAL RD Brisbane T T	This overhead lane designation style direction sign is not located on a toll road. The straight ahead direction is not to a toll road (there are no toll points in this direction), so the main background colour above the straight ahead arrows is green. The Gateway Motorway is not a toll road at this point, so all the information about this exit is also shown in a green background above the left exit arrows; however, while the Gateway Motorway is not a toll road from this point, the direction sign does include information which involves travel on a toll road. As the Gold Coast destination shown in this panel is reached by travelling through a toll point, it is included in a blue background patch which also includes the TOLL patch. The bottom panel with the lane designation arrows always has a green background colour.

Example direction sign	Colour determination
Image: Construction of the construc	This diagrammatic direction sign is not located on a toll road. While it is located immediately prior to a toll road, the straight ahead direction on this diagrammatic direction sign is not to a toll road (there are no toll points in this direction), so the main background colour is green. The Gateway Motorway is a toll road, and both exits lead directly to this toll road, so all the information about each exit is shown in a blue background patch. The exit to the right has a toll point in this direction so the TOLL patch is included within this blue patch and positioned next to the M1 route identifier. The exit to the left does not have a toll point in this direction on the M1; however, there are toll points on the M2, and the destination of Ipswich is reached by travelling along the M2 and through the toll points. The TOLL patch is included in this blue background patch next to the destination of Ipswich. The destination of the Gold Coast is reached by travelling along the M1, which is a toll road but is reached without travelling through a toll point; therefore, the TOLL patch is not applicable to this destination or the M1 route identifier. If Ipswich was not included as a destination in this direction, the TOLL patch would not be shown within this patch.
M 1 GATEWAY MWY Sunshine Coast	This diagrammatic direction sign is not located on a toll road and the straight ahead direction is not to a toll road (there are no toll points in this direction), so the main background colour is green. The Gateway Motorway is not a toll road at this point, so is also shown in a green background; however, while the Gateway Motorway is not a toll road from this point, the direction sign does include information which involves travel on a toll road. As the Ipswich and Gold Coast destinations shown in this panel are reached by travelling through a toll point, they are included in a blue background patch which also includes the TOLL patch. BOONDALL WETLANDS is a tourist destination, so is included in a brown patch with a white border.

7.5 Stacked style direction signs

For a stacked style direction sign:

- the main background colour of each sign panel shall be determined in accordance with Section 7.4, based on the direction of travel in each panel
- if the main background colour of a panel is green and this panel includes a destination(s) which is reached by travelling on a toll road and through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch) blue patches shall have a yellow border, and
- the border between a blue background panel and a green background panel shall be yellow.

Figure 7.5 shows some examples.







7.6 Diagrammatic advance direction signs

For a diagrammatic advance direction sign:

- The main background colour of a diagrammatic advance direction sign shall be determined in accordance with Section 7.4 based on the straight ahead direction of travel.
- If the main background colour is green and includes a destination(s) which is reached by travelling on a toll road and through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch). Blue patches shall have a yellow border.
- If the main background colour of the direction sign is blue and includes an exit destination(s) which is reached without travelling on a toll road (and through a toll point), all information relating to this destination(s) shall be in a white on green patch. Green patches shall have a white border.
 - If, within this white on green patch, there is a destination(s) which is reached by travelling on a toll road, all information relating to this destination(s) shall be in a yellow on blue patch (including the TOLL patch) within the background green colour patch. The blue patch shall have a yellow border.
- See sections 7.12 and 7.13 for information when a toll point is located on or near an off ramp and Section 7.14 where a toll point is located on an on ramp.

Figure 7.6 shows examples.





7.7 Overhead lane designation style direction signs

For an overhead lane designation style sign:

- The main background colour of each of the sign panels (above the lane arrow panel) shall be determined in accordance with Section 7.4, based on the direction of travel in each panel.
- If the main background colour of a panel is green and this panel includes a destination(s) which is reached by travelling on a toll road and through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch). Blue patches shall have a yellow border.
- The border between a blue background panel and a green background panel shall be yellow.

Figure 7.7 shows examples.



Figure 7.7 – Examples of overhead lane designation style direction signs

7.8 Exit direction signs

For exit-style direction signs (including advance exit, exit direction, supplementary exit, overhead exit signs and exit signs at the gore):

- The main background colour shall be determined in accordance with Section 7.4, based on the direction of travel indicated.
- See sections 7.12 and 7.13 for information when a toll point is located on or near an off ramp and Section 7.14 where a toll point is located on an on ramp.
- If the main background colour of the sign is green and this sign includes a destination(s) which is reached by travelling on a toll road and through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch). Blue patches shall have a yellow border.
- For overhead direction exit signs on the one gantry, the background colour of each individual sign is based on the direction of travel indicated.

Figure 7.8 shows examples.





7.9 Direction sign located some distance from a toll point

For a direction sign which is located some distance from a toll road, which includes a destination(s) which, to reach in this direction would involve travelling on a toll road and through a toll point, the use of the yellow on blue colour scheme and TOLL patch should be determined with the following considerations:

- the location of the key decision point where, in all likelihood, a driver making the choice of travelling to that destination(s) along this route will travel on a toll road and through a toll point
- the key decision point is generally located at major highway / road junctions
- the toll road colour scheme and TOLL patch applicable to the destination(s) shall be used immediately in advance of this decision point and then consistently along the route, and
- destination(s) reached by travelling on a toll road and through a toll point, shall be in a yellow on blue patch with a yellow border and includes the TOLL patch.

Two examples shown in figures 7.9(a) and 7.9(b) with notes follow.

Figure 7.9(a) – Example 1 direction sign located some distance from a toll road



Note:

Gold Coast as a destination southbound on the M1 north of Brisbane will be signed as a tolled destination from the Pine River Bridge diverge (including direction signs immediately in advance of this point). This is the key decision point for travelling to the Gold Coast using the M1 route which includes travel through a toll point.

Figure 7.9(b) – Example 2 direction sign located some distance from a toll road



Note:

Sunshine Coast as a destination northbound on the M1 south of Brisbane will be signed as a tolled destination from the Gateway Diverge at the M1 / M3 interchange (including direction signs immediately in advance of this

point). This is the key decision point for travelling to the Sunshine Coast (or the Brisbane Airport) using the M1 route which includes travel through a toll point.

7.10 Destinations on a direction sign which are via a different route

If one of a number of destinations shown on a direction sign is via a different route which branches off some distance ahead (see Figure 7.10(a)), and it is desired to indicate this on the direction sign, then the term 'VIA' (all in upper case) shall be used and located between the destination(s) and the applicable route identifier.

If this destination(s) also involves travelling along a toll road and through a toll point, this destination(s) shall be included in a patch which has a yellow legend and border on a blue background and also includes the TOLL patch.

In most cases, it would be sufficient to indicate that one of a number of destinations is via a different route which branches off some distance ahead on a reassurance direction sign only (see Section 7.11).



Figure 7.10(a) – Destinations on an overhead direction sign which are via a different route

This overhead lane designation style direction sign is located on a toll road with the straight ahead direction continuing along the toll road, so the main background colour above the straight ahead arrows is blue.

There is no toll point ahead on the M1, so the TOLL patch is not located with the M1 route identifier; however, Ipswich is reached by travelling along a different route (M2) some distance ahead, which is a toll road, and which involves travel through toll points, so the TOLL patch is located next to this destination. It is desired to show Ipswich as via the M2 so 'VIA M2 TOLL' is used.

The Port of Brisbane Motorway is not a toll road (there are no toll points in this direction), so all the information about this exit is shown in a patch with a green background.

The bottom panel with the lane designation arrows always has a green background colour.





7.11 Reassurance direction signs

Reassurance direction signs are also subject to the toll road colour scheme where applicable:

- The main background colour of reassurance direction sign shall be determined in accordance with Section 7.4, based on the straight ahead direction of travel.
- If the main background colour is green and includes a destination(s) which is reached by travelling through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch). Blue patches shall have a yellow border.
- Destinations included on a reassurance direction sign which are likely to be accessed via a toll point which is remote of the reassurance sign location are to be treated in a similar manner to Section 7.9.
- Generally, a TOLL patch will not be used on a reassurance sign until the TOLL patch has also been used on the direction signs in advance of the reassurance sign for those destination(s).
- If one of a number of destinations shown on a reassurance direction sign is via a different route which branches off some distance ahead, and it is desired to indicate this on the direction sign, then the term 'VIA' (all in upper case) shall be used.
- It is advisable to include these destinations in a separate panel and include the applicable route number within this panel: for example, 'VIA M2'.
- The term 'VIA' shall be in upper case and located to the left of the route identifier.
- The border between a blue background panel and a green background panel shall be yellow.

Table 7.11 following shows examples with notes.



Table 7.11 – Reassurance direction signs

7.12 Direction signs for an EXIT to a non-tolled road, with a toll point on the exit ramp

If an exit from a toll road has a toll point located on it (for example, some distance down the exit ramp but still on the exit ramp) but this exit does not lead to a toll road, the direction signs for this exit will be designed as an exit to a non-tolled road with a white legend on green background. Justification for this approach includes:

- This departure from the normal approach to determining colours in sections 7.4 and 7.8 is due to the toll point being attached to the toll road which is being exited and not to the exit destination reached by taking the exit.
- To provide a blue background and TOLL patch for this exit would indicate to drivers they would be exiting one toll road and entering another toll road. If this exit leads to another toll road, then the direction signs for this exit would generally be all blue (with no green patches or information) as this toll point would be relative to the road being entered (or possibly both roads).
- In addition, drivers would have made a prior decision to use the toll road and incur a toll.

The signs following in Figure 7.12 provide examples of the direction signs required on the Logan Motorway on approach to the Stapylton Road and Loganlea Road exits which have a toll point located on the exit ramp.





7.13 Direction signs for an EXIT with the toll point located between the sign and the exit

If an exit from a toll road is positioned a short distance beyond a toll point (for example, an off ramp after the toll point on the through lanes) but the exit does not lead to a toll road, and the advance direction signs for that exit are positioned in advance of the toll point, the direction signs for the exit will be designed as an exit to a non-tolled road with a white legend on green background patch within a blue background sign.

Refer to the commentary in Section 7.12

The signs following in Figure 7.13 provide examples of the direction signs required on the Gateway Motorway on approach to the Compton Road exit and the Logan Motorway on approach to the Loganlea Road exit which both have a toll point located between the advance direction signs and the exit ramp.





7.14 Direction signs for an ENTRY to a toll road with a toll point on the on ramp

If an entry to a toll road has a toll point located on it (for example, on the on ramp), the direction signs for that entry point will be designed in accordance with Section 7.4 and the other requirements for the specific sign type. The toll point is for the toll road the driver is entering and will be signed as such. Figure 7.14 shows an example.

Figure 7.14 – Direction signs for an ENTRY to a toll road with a toll point on the on ramp





7.15 Intersection direction signs

For intersection direction (single direction advance and chevron style) signs:

- The main background colour shall be determined in accordance with Section 7.4, based on the destination(s) and the direction of travel indicated.
- If the main background colour of the sign is green and this sign includes a destination(s) which is reached by travelling through a toll point, the destination(s) shall be in a yellow on blue patch (including the TOLL patch). Blue patches shall have a yellow border.

Figure 7.15 shows examples.





7.16 Direction signs in tunnels for toll roads

Direction signs within tunnels for toll roads are to be designed with the special colour scheme for toll roads (as per the previous sections); however, they may require special design considerations with respect to reducing their size, due to the space constraints typical inside a tunnel environment.

These considerations / relaxations are only applicable to direction signs located within the tunnels and not for direction signs on approach to tunnels.

The relaxations are primarily applied to reduce the space (size) requirements of the direction sign design without limiting the effect of the white on green and yellow on blue colour schemes. The following direction sign design relaxations may be considered (as appropriate for the location and space constraints):

- the coloured border around patches within other coloured backgrounds may be omitted; for example, just a blue patch with yellow text and no yellow border within a green background and the reverse for a green patch with white text and no border within a blue background
- the TOLL patch within the toll coloured panel may be omitted
- the route identifier may be omitted
- the inclusion of both the destination(s) and the street name(s) for exits or destinations through the tunnel may be relaxed, such that either (rather than both) may be displayed (whichever is more applicable at that location) – in some cases, the information on consecutive signs may alternate between the destination(s) and the street name(s), and
- exit numbers may be omitted from direction signs within tunnels.

Figure 7.16 shows examples.

Figure 7.16 – Examples of direction signs in tunnels for toll roads



8 Pavement marking and patches for toll roads

8.1 Purpose

The purpose of pavement patches for toll roads is two-fold:

- 1. to provide supplementary guidance for drivers seeking to access the toll road, by reassuring drivers they are in the correct lane, and
- 2. to warn drivers who do not intend to enter the toll road and provide them with an opportunity to change lanes, particularly when placed in a lane that goes exclusively to a toll road (a 'trap lane').

8.2 General

To further highlight the entrances to toll roads, a pavement marking option has been developed which comprises the route number (for example, M7) or an identifier for the toll road. Refer to TC1963 and TC2055 respectively for detailed patch design requirements and Section 3.3 for design principles.

Pavement marking (yellow on blue patch) shall be placed in a lane that goes exclusively to a toll road (a 'trap lane').

8.3 Design and location

The design and location requirements for the use of pavement marking to assist driver navigation onto or away from toll roads include:

- pavement marking messages (including toll road patches) are in addition to any direction signs and standard arrow markings required
- a choice of destination(s), road names, route numbers or other relevant symbols may be used as appropriate pavement marking or patches, however:
 - the preference is that route numbers should be used if appropriate, and
 - it is recognised that, in some cases, 'CITY' or other short key destination message would be equally effective as the route number and may be used as appropriate
- providing pavement marking in lanes other than a trap lane is useful to provide additional reassurance for drivers who wish to either use or not use the toll road of which lane they should be travelling in
- an arrow should be provided within the pavement patch at the location where drivers enter the toll road— this patch (with arrow) is only located at or just in advance of:
 - the commencement of the continuity line at the exit point
 - the start of the continuity line if an exit to a non-tolled road is possible at the gore point for a trap lane, and
 - the start of a trap lane (change in lane line marking) to a toll road
- if a pavement patch is provided in a lane that has a dual destination, consider also marking the alternative destination on the pavement:
 - where the alternative destination is marked along with a toll road patch, at the location where the lanes diverge laterally and both lanes are fully developed, the driver should see the toll patch in one lane and the alternative destination patch in the other (at roughly the same time), and
 - typically, these are located just past the gore point
- spacing between dual patches or patches and legend shall be 12–24m on high-speed roads and 1.25–2.5m on low speed roads the order of the patches is not critical; however, in the interest of consistency, the toll patch should be installed prior to the other patches / legend
- if standard pavement arrows are required or installed, locate the toll road patches prior to the pavement arrows with a separation to the pavement arrows of 12–24m on high-speed roads and 1.25–2.5m on low-speed roads

- on high-speed (80 km/h or greater speed limit) roads, the patches are to be placed approximately 120m beyond each advance direction sign, to allow drivers to comprehend the sign message first and then link the message to the patches on the road located approximately four seconds of travel beyond the signs:
 - if standard pavement arrows are required or installed at this location, locate the patches prior to the pavement arrows with a separation to the pavement arrows of 12–24m, and
- on low speed (less than 80 km/h speed limit) roads, the patches are to be placed a short distance (12–24m) beyond each advance direction sign:
 - if standard pavement arrows are required or installed at this location, locate the patches prior to the pavement arrows with a separation to the pavement arrows of 1.25–2.5m.

8.4 Examples of pavement patches to identify toll roads

A number of different toll road pavement patch examples are provided following in Figure 8.4.

Figure 8.4 – Toll road pavement patch examples



8.5 High speed motorway example (M3 northbound approaching M7 exit)

Toll road pavement patches in motorway environments are generally located with the associated direction signs and at the lane change / exit locations. Figure 8.5 shows the pavement marking for the Pacific Motorway (M3) northbound on approach to the exit ramp for the Clem Jones Tunnel (M7) which is a toll road and could be adapted to suit any standard motorway exit.

The following is a descriptive sequence along the Pacific Motorway from the initial advance exit direction signs to the tunnel through to the exit ramp:

- 1st advance direction sign (at 2km from the exit ramp)
 - M7* patch and CITY legend in M3 RH (right hand) lane 120m downstream from the direction sign with a spacing of 12–24m between the patch and the legend
- 2nd advance direction sign (at 1km from the exit ramp)
 - M7* patch and CITY legend in M3 RH lane 120m downstream from the direction sign with a spacing of 12–24m between the patch and the legend
- 3rd advance direction sign (at 500m from the exit ramp)
 - M7* patch and CITY legend in M3 RH lane 120m downstream from the direction sign with a spacing of 12–24m between the patch and the legend
- 4th direction sign (at the exit point start of continuity line)
 - M7* patch with arrow adjacent to start of the exit continuity line
- At the point at which the full off-ramp lane width is developed (at the exit gore)
 - M7* patch in the fully developed off-ramp lane and CITY legend in the continuing M3 RH lane.

The M7 Patch in the previous example is yellow legend on a blue background inside a yellow border, while the CITY legend is white only.

*Note: In the previous example, CLEM7 was permitted to be used in lieu of M7 as an interim measure until the route identifier M7 becomes more widely known as the route through the tunnel under the river. At a point in the future when these CLEM7 patches require maintenance and replacement, these patches should be updated to the route identifier M7.





8.6 Low-speed road example (Stafford Rd eastbound approaching Airport Link Tunnel entry)

Toll road pavement patches in lower speed environments are generally located with the associated direction signs, pavement arrows and at the lane change / exit locations. Figure 8.6 shows Stafford Road (Metroad 5) eastbound on approach to the Airport Link tunnel (M7) which is a toll road and Gympie Road (A3). This example could be adapted to suit any standard low speed road.

The following is a descriptive sequence along Stafford Road from the initial advance exit direction signs to the tunnel through to the exit ramp.

- 1st advance direction sign (at approximately. 300m from the tunnel entry ramp)
 - M7 patch and A3 symbol in RH (right hand) lane 12–24m downstream from the direction sign with a spacing of 1.25–2.5m between the patches
- 1st Pavement Arrows (at 170m from the tunnel entry ramp) not shown in Figure 8.6
 - no patches at this location
- 2nd Pavement Arrows (at 120m from the tunnel entry ramp)
 - M7 patch and A3 symbol in RH lane 1.25–2.5m prior to the pavement arrows with a spacing of 1.25–2.5m between the patches
- 3rd Pavement Arrows (at 60m from the tunnel entry ramp prior to start of continuity line)
 - no patches at this location
- At the exit point to the tunnel entry ramp start of continuity line
 - M7 patch with arrow adjacent to start of the continuity line
- At the point at which both the tunnel entry ramp and the alternative route lane widths are fully developed (at the exit gore)
 - M7 patch in the fully-developed tunnel entry ramp RH lane and A3 symbol in the LH lane.

The M7 Patch in the previous example is to be a yellow legend on a blue background inside a yellow border, while the A3 symbol will be in a white legend only.

Stafford Road (Metroad 5) finishes at the Gympie Road intersection (a short distance ahead); however, if Metroad 5 was to continue beyond this point, the A3 symbols would be replaced with the Metroad 5 symbol.





9 Example layouts for direction signs in advance of or on a toll road

The following example direction sign layouts illustrated in figures 9(a)-(g) have been selected to provide guidance on the implementation of the new signage scheme.

















Figure 9(e) – Example of Gateway Motorway (M1) northbound at the exit to Old Cleveland Rd (State Route 22)











10 Further information or assistance

If further information or assistance with the interpretation of this Part is required, please contact TrafficEngineering.Support@tmr.qld.gov.au for advice.