

Information update

Temporary Traffic Management Update

July 2024



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Feedback

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Temporary Traffic Management (TTM) Update

Changes in the July 2024 publication cycle

The following documents will be updated:

- [Queensland Manual of Uniform Traffic Control Devices](#) (Queensland MUTCD) Part 3
- [Queensland Guide to Temporary Traffic Management](#) (QGTTM) Parts 1, 3, 4, 5 and 8
- [Guideline – Traffic Management at Works on Roads](#) (TMWOR), and
- [MRTS02 Provision for Traffic](#) suite, specifically (MRTS02, MRTS02 Annexure and CAC008M).

This *TTM Update* provides advance notice of forthcoming changes and provides the TTM industry time to plan and prepare for implementation of changes when the relevant source documents are published on 31 July 2024.

- Grey text boxes are a commentary about the changes.
- Yellow highlights are used to show the changes to existing Queensland MUTCD, QGTTM or MRTS02 *Provision for Traffic* suite clauses or sections.
- Unhighlighted clauses or sections indicate the whole clause or section is new information.
- Text that has a 'strikethrough' has been deleted.

This *TTM Update* provides information on changes in the Queensland MUTCD, QGTTM, and the MRTS02 *Provision for Traffic* suite prior to their republication on 31 July 2024 to allow industry time to prepare and plan for the upcoming changes which come into effect on 31 July 2024. This *TTM Update* supports, but does not replace, these source documents, which are issued under the *Transport Operations (Road Use Management) Act 1994* as the Queensland MUTCD and approved notices, and which take precedence over this document and advice published by Austroads or Standards Australia where Queensland exceptions are applied.

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing. Please email TrafficEngineering.Support@tmr.qld.gov.au regarding any discrepancy identified between this document and those primary documents.

Minor and editorial style changes have not been included in this document, which should be read in conjunction with the amendment registers (once published). Amendment registers for the Queensland MUTCD, QGTTM, and Transport and Main Roads Specifications detail the clauses and sections where changes have been made and provide a brief description of the change.

Queensland MUTCD Part 3

Add new lead in text to the second part of this clause, which identifies other roles that are not specifically linked to the role specific training courses in the first part of the clause.

See changes highlighted yellow following.

1 Scope and general

1.7 Prescribed training

New

A person is only authorised to perform the role in Queensland if the person holds an authority card that is applicable to that role (that is, where such an authority is a mandatory regulatory requirement). To obtain an authority card in Queensland, a person must undertake the relevant prescribed training course and meet any additional requirements relevant to the appropriate authority card. Prescribed training courses shall be those developed by the Department of Transport and Main Roads and delivered by approved registered training organisations.

Prescribed training courses are outlined following:

- a) [Working in proximity to traffic awareness Part 1](#): Required for persons who work on or adjacent to a road in accordance with the QGTTM Part 8 Table A7
- b) [Working in proximity to traffic awareness Part 2](#): Required for persons who have completed [Working in proximity to traffic awareness Part 1](#), and are required to select and implement work method practices as per the short-term, low-impact works provisions (with exceptions) in accordance with the QGTTM Part 8 Table A7
- c) [Traffic management implementation](#) (TMI): Required for persons implementing Traffic Management Plans (TMPs) and Traffic Guidance Schemes (TGSs) in accordance with the QGTTM Part 8 Table A5
- d) [Traffic management design](#) (TMD): Required for persons that design, develop, review and inspect TMPs and TGSs in accordance with the QGTTM Part 8 Table A3
- e) [Traffic Controller](#): Required for person who holds an appointment to perform the functions of a Traffic Controller (see Clause 1.3.19) in accordance with the QGTTM Part 8 Table A4, and
- f) [Event Traffic Marshal](#): Required for persons undertaking event traffic management in accordance with the QGTTM Part 8 Table A7.

Additional temporary traffic management (TTM) workers shall act in accordance with the following:

In addition to the prescribed training courses identified above, temporary traffic management (TTM) workers listed below shall also act in accordance with the relevant QGTTM requirements:

- g) *lookout person*: For persons who have completed *Working in proximity to traffic awareness Part 1* and *Part 2* and are required to act in accordance with the QGTTM Part 8 Table A7
- h) *roadworks pilot vehicle driver*: For persons who act in accordance with the QGTTM Part 8 Table A7
- i) *truck-mounted attenuator (TMA) vehicle driver*: For persons who have completed TMI and are required to act in accordance with the QGTTM Part 8 Table A7, and
- j) *authorised person*: For persons who act in accordance with the QGTTM Part 8 Table A7.

Add a reference to TTM risk assessment process in AGTTM.

See changes highlighted yellow following.

1.9 Variation to treatments and Registered Professional Engineer of Queensland certification

New

This Part of the *Manual* contains mandatory requirements (*shall*), recommendations (*should*) and options (*may*). The application of these mandatory requirements and recommendations is intended to provide the optimal level of safety and traffic efficiency. Variations to these treatments may be undertaken as follows:

- a) Where recommendations (*should*) are not adopted in preparing a TMP or TGS, a risk assessment, in accordance with the QGTTM shall be undertaken by a TMD.
- b) Where mandatory requirements (*shall*) are not adopted in preparing a TMP or TGS, a risk assessment, in accordance with the QGTTM, shall be undertaken by a TMD.

Both the risk assessment and the TMP or TGS shall be certified by a Registered Professional Engineer of Queensland (RPEQ) with at least a TMD competency.

Notifications of variations to mandatory requirements (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au for information purposes and for the benefit of identifying potential future practice changes – not for approval or endorsement.

These variations may include learnings that may be attributed to the variation of a *shall* requirement, such as operational, cost or safety impacts.

- c) Where innovative treatments (see Clause 1.5) that are outside the scope of the Queensland MUTCD are proposed to be adopted in a TMP or TGS, a risk assessment, in accordance with the QGTTM, shall be undertaken by a Competent Person with at least TMD competency. Both the risk assessment and the TMP or TGS shall be certified by an RPEQ who may be required to hold TMD competency.

All proposed innovative treatments require approval by Transport and Main Roads prior to their use or adoption. Requests for approval of innovative treatments (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au. As part of an approval to use or trial an innovative treatment, Transport and Main Roads may require that the applicant provides a detailed evaluation report on the performance and effectiveness of the treatment. Transport and Main Roads may use the results of the evaluation to identify potential future practice changes to this Part of the *Manual*.

- d) The use of options (*may*), when adopted in preparing a TMP or TGS, are not a variation to the optimal treatment and do not require certification by an RPEQ.

Very few roadworks sites should fall within scope of the RPEQ requirement in addition to subclauses (b) and (c). Examples include TMPs or TGSs which involve complex geometric changes that require the application of engineering design principles or complex diversions that might require detailed analysis (such as micro-simulation traffic modelling) to establish the network impacts.

Risk assessments for TTM activities shall be prepared in accordance with the requirements in QGTTM Part 10 Section 2 *Risk Management for TTM*.

Add a new clause about non-standard sign designs, including a reference back to Part 1 of the Queensland MUTCD.

1.10 Non-standard signs

New

Those responsible for the design and 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 these cases, refer to the guidance requirements in the Queensland MUTCD Part 1, Clause 1.8 for requesting special non-standard signs.

The 600 x 600 MMS version of ROAD CLOSED is a standard sign in AS 1743 (TM2-4A), however TM2-4A is not included in AS 1742.3 Clause 4.10.1 (a).

Add ROAD CLOSED (TM2-4A) to Clause 4.10.1 (a).

See changes highlighted yellow following.

4 Function, description and use of standard signs and devices

4.10 Signs and devices for road and lane closures

4.10.1 Signs

Difference

Replace the ROAD CLOSED row in Table 4.5:

Sign	Sign number	Size, mm
ROAD CLOSED	T2-4	1800 x 300
	TM2-4B	1200 x 300
	TM2-4C	1200 x 600

with:

Sign	Sign number	Size, mm
ROAD CLOSED	T2-4	1800 x 300
	TM2-4A	600 x 600
	TM2-4B	1200 x 300
	TM2-4C	1200 x 600

Addition

Add the following ROAD CLOSED sign option to item a)



TM2-4A

Addition

Where there is a need to advise drivers in advance of an upcoming road closure, the ROAD CLOSED X km AHEAD (T2-4-Q02) or ROAD CLOSED AHEAD (TM1-43A, TM1-43C) signs may be used. The ROAD CLOSED X km AHEAD sign should not be used as a substitute for detour provisions (see Clause 4.8), but rather as an additional advance measure to warn drivers of the upcoming road closure. The ROAD CLOSED X km AHEAD sign should be located X km ahead of the actual road closure point (where the ROAD CLOSED signs are located).

Inspection vehicles are listed under the provisions of a single lamp however, most inspection vehicles are also work vehicles and used for this activity on a regular basis and would also match the requirements for a pair of flashing lights. A single light should not be the default on a vehicle used regularly for an isolated activity.

Altered the requirements for flashing lamps for inspection vehicles which are normally used for inspection purposes.

Added an option for using LED light assemblies in lieu of flashing lamps.

Added the requirement for the pair of flashing lamps to be separated and placed as far apart as practical on the vehicle.

Added sight distance requirements for the vehicle mounted warning device.

Added a commentary regarding the implementation timeframe for the change to the flashing lamp requirements for inspection vehicles only.

See changes highlighted yellow following.

4.14 Vehicle mounted signs and devices

4.14.1 Vehicle mounted warning device

Difference

Replace:

- (a) A single flashing yellow lamp for emergency or other infrequent use on a vehicle not normally used for roadworks purposes, or for use on a plant item working within a static work area, or an inspection vehicle.
- (b) A pair of flashing yellow lamps for use on vehicles (e.g. patrol trucks) working on roads with traffic volumes up to 1500 vpd, and positioned on the vehicle so that at least one, and preferably both lamps are visible from any direction.

with:

- (a) A single flashing yellow lamp or LED light assembly
 - for emergency or other infrequent use on a vehicle not normally used for either roadworks or inspection purposes.
 - for use on a plant item working within a static work area.
- (b) A pair of separated flashing yellow lamps or LED light assemblies (placed as far apart as practical) for use on vehicles on all roads without the protection of a static roadworks site, and positioned on the vehicle so that at least one, and preferably both lamps are visible to all road users from any direction. Additional flashing yellow lamp(s) or LED assemblies may be required to be added on the vehicle to ensure visibility is provided to all road users in any direction.

Addition

If not specified elsewhere, the minimum sight distance from approaching road users to the vehicle mounted warning device shall be:

- 150 m if the speed is 60 km/h or less
- 250 m if the speed is more than 60 km/h.

While the requirements in this document apply once published

Transport and Main Roads recognises that making immediate changes to flashing lamps on inspection vehicles may require a greater lead in time to ensure compliance.

In recognition of this, inspection vehicles (other than those used for emergency or other infrequent use) shall comply with the requirements in item (b) by the 31st July 2027.

Add an option for the C Size 1200x600 MMS panel FOOTPATH CLOSED (TM8-4C).

4.17 Signs and devices for managing pedestrians

Difference

Replace the FOOTPATH CLOSED row in Table 4.10:

Sign	Sign number	Size, mm
FOOTPATH CLOSED	T8-4	900 x 600
	TM8-4A	600 x 600

with:

Sign	Sign number	Size, mm
FOOTPATH CLOSED	T8-4	900 x 600
	TM8-4A	600 x 600
	TM8-4C	1200 x 600

Addition

Add the following FOOTPATH CLOSED sign option to item c)



TM8-4C

Clarified the confusion with item (d) due to the wording of the “on” time per number of words.

Added brackets to time values as these times (effectively 0.5 to 0.7 seconds) were intended to be applied to each word.

4.22 Variable message signs used at roadworks

4.22.3 Message screens

Difference

Replace:

- (d) Where there are alternating screens the “on” time of each screen shall be 0.6 ± 0.1 s per word or number and the total time required to read the message on both screens shall be taken into account when determining message length and letter height.

NOTE A procedure for determining letter sizes for signs is given in AS 1742.2. The letter series that most nearly matches the on-screen fonts should be used in the calculations. It is recommended that the calculated letter height be doubled for this purpose.

with:

- (d) Where there are alternating screens the “on” time of each screen shall be (0.6 ± 0.1) s per word or number and the total time required to read the message on both screens shall be taken into account when determining message length and letter height.

NOTE A procedure for determining letter sizes for signs is given in AS 1742.2. The letter series that most nearly matches the on-screen fonts should be used in the calculations. It is recommended that the calculated letter height be doubled for this purpose.

Delete ROAD CLOSED 600 x 600 panel as this is now included in Clause 4.10.1

Add TUNNEL CLOSED panels.

Add TUNNEL CLOSED AHEAD panels.

Modify notes for REDUCE SPEED and DRIVE SAFELY panels.

See changes highlighted yellow following.

Appendices


Appendix A – Additional multi-message signs (normative)

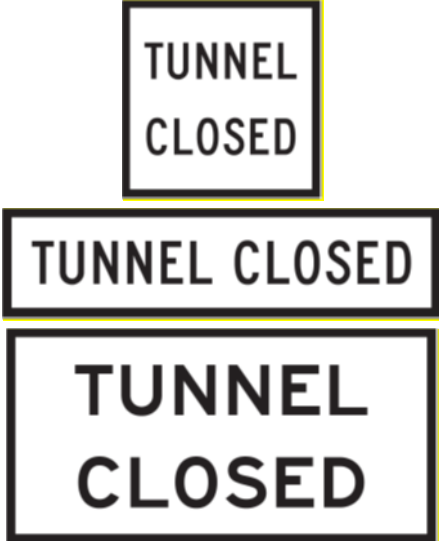

A.3 List of additional multi-message sign panels



Addition

The additional multi-message sign panels detailed in Table A.2 are accepted for use in Queensland.

Table A.2 — List of additional multi-message sign panels for use in Queensland

Sign	Sign number	Size (mm)	Figure	Notes
Regulatory				
ROAD CLOSED	TM2-4-Q01_4	600 x 600		See Clause 4.10.1(a) and Q-series sign notes.

Sign	Sign number	Size (mm)	Figure	Notes
<p>TUNNEL CLOSED</p>	<p>TM2-4-Q02A TM2-4-Q02B TM2-4-Q02C</p>	<p>600 x 600 1200 x 300 1200 x 600</p>		
Advance				
<p>TUNNEL CLOSED AHEAD</p>	<p>TM1-43-Q01A TM1-43-Q01C</p>	<p>600 x 600 1200 x 600</p>		

Sign	Sign number	Size (mm)	Figure	Notes
REDUCE SPEED	TM1-Q01_1 TM1-Q01_2	600 x 600 1200 x 300		<p>The REDUCE SPEED sign shall only be used to supplement: May be used to supplement a speed restriction (or Speed Limit AHEAD) panel and, when used, shall only be used:</p> <ul style="list-style-type: none"> • a Speed Restriction sign at the start of a reduced speed limit (temporary or permanent), or where a speed limit reduction is implemented (not on repeated Speed Restriction signs), or • on the first Speed Restriction sign on approach to the works (which may be a repeater Speed Restriction sign for the permanent speed zone), or- • a Speed Limit AHEAD sign.
Termination				
DRIVE SAFELY	TM2-Q06	1200 x 300		<p>The DRIVE SAFELY sign shall only May be used with the END ROADWORK, END DETOUR or END EVENT panels in place lieu of a yellow blank panel, and, when used, shall only be used with an END ROADWORK, END DETOUR or END EVENT panel.</p>

QGTTM Part 1

Added new definitions for QGTTM, RIM, TMD and TMI.

See changes highlighted yellow following.

3 Definitions / Glossary of terms

Addition

The following additional definitions apply:

Engineer	Refer to Clause 1.3.24 of the Queensland MUTCD Part 3.
Queensland Guide to Temporary Traffic Management (QGTTM)	The <i>Queensland Guide to Temporary Traffic Management</i> (QGTTM) document supplements and is designed to be read and applied together with the <i>Austrroads Guide to Temporary Traffic Management</i> (AGTTM). QGTTM provides only the differences or additions to the AGTTM requirements and recommendations and are specific to application in Queensland. The QGTTM takes precedence over the Austrroads Guide, except where the Austrroads Guide is 'accepted'.
Road Infrastructure Manager (RIM)	The Road Infrastructure Manager (RIM) is the defined authority (National, State or Local Government authority, or private road authority) who is responsible for roads within its jurisdiction.
Shall	Indicates that a statement is mandatory. Where certain requirements in the design or application of the device are described with the 'shall' stipulation, it is mandatory that, when an installation is made, these requirements be met.
Traffic Management Designer (TMD)	The Traffic Management Designer (TMD) is the person responsible for the design of the Temporary Traffic Management arrangements (including the Traffic Management Plan and associated Traffic Guidance Schemes).
Traffic Management Implementer (TMI)	The Traffic Management Implementer (TMI) is the person responsible for implementing the Traffic Guidance Scheme(s) as designed by the TMD.

Difference

The following different definitions apply:

Competent person	Refer to Clause 1.3.2 of the Queensland MUTCD Part 3.
May	Indicates the existence of an option. Where the word 'may' is used, it indicates that use of the device is conditional, or optional. Usually, no specific requirement for design or application is intended.
Must	Indicates that a statement is mandatory. Where certain requirements in the design or application of the device are described with the 'must' stipulation, it is mandatory that, when an installation is made, these requirements be met.
Portable Traffic Control Device (PTCD)	A traffic control device that either operates without the need for a traffic controller, or when operated in manual mode by a traffic controller, shall be operated by using a handheld remote control (wireless or wired) and the traffic controller shall be located a safe distance from traffic.

Should	Indicates a recommendation. Where the word 'should' is used, it is considered to be recommended use, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.
Traffic controller (TC)	Refer to Clause 1.3.19 of the Queensland MUTCD Part 3.

QGTTM Part 3

Current guidance was leading to a practice where long-term sites were not installing signs in a more permanent manner as it was just an option to do so.

Reverted to previous requirements where signs may be installed in a more permanent manner at any time, however it is now recommended that signs in place for longer than 14 days are installed in a more permanent manner (subject to a risk assessment justifying not installing in a more permanent manner when required for more than 14 days).

See changes highlighted yellow following.

2 Design process

2.5 Essential design principles

2.5.3 Signs

Difference

Replace:

Signs required for works which will be in progress for longer than 14 days may be installed in a more permanent manner on posts sunk into the ground. Check that underground utilities are not located below and making holes is approved by the relevant road authority. Ensure regular site inspection, maintenance and securing practices occur in these circumstances. In these situations, the installation height of all temporary signs mounted in a permanent manner must be based on the principles illustrated in AS 1742.2.

with:

While any sign may be installed in a permanent manner on posts sunk into the ground, it is recommended that signs required for works which will be in progress for longer than 14 days should be installed in a permanent manner on posts sunk into the ground. Check that underground utilities are not located below and making holes is approved by the relevant road authority. Ensure regular site inspection, maintenance and securing practices occur in these circumstances. In these situations, the installation height of all temporary signs mounted in a permanent manner must be based on the principles illustrated in AS 1742.2.

Difference

Replace the dot point:

- Signs should be placed on both sides of multilane and high-volume roads to effectively communicate relevant messages to road users. For temporary speed restriction signs, refer to section 5.5.1 for requirements to install on both sides of the road. If sign duplication is not possible (e.g. vegetation, barrier, inadequate width), the designer should document an alternative to ensure all road users are able to see signs. This may involve:
 - placing signs on high temporary frames
 - duplicating signs on one side of the road
 - closing one lane to be used for sign placement

- use of a variable message sign (VMS).

with:

- To effectively communicate relevant messages to road users, signs should be placed on both sides of all multilane roads and should also be placed on both sides of high-volume roads. For temporary speed restriction signs, refer to Section 5.5.1 for requirements to install on both sides of the road. If sign duplication is not possible (for example, vegetation, barrier, inadequate width), the designer should document an alternative to ensure all road users are able to see signs. This may involve:
 - placing signs on high temporary frames
 - repeating signs on one side of the road
 - closing one lane to be used for sign placement, and/or
 - use of a variable message sign (VMS).

Addition

For merge tapers where the posted permanent speed limit of the road is 80 km/h or greater, the sign spacing between the lane status sign and the start of the merge taper may be increased to a distance of two sign spacings.

For merge tapers at any speed limit, where more than one lane is being closed, the sign spacing between the lane status sign and the start of the initial merge taper may be increased to a distance of two sign spacings.

A distance plate (TC2287) may be added to the lane status multi-message sign to indicate the distance from the lane status sign to the start of the merge taper.

Addition

Add the following to Figure 2.2:

Where a sign spacing is partially within the 200 m zone after a speed limit change, use the higher speed limit in determining the relevant full spacing (even though only part of this spacing may be within this zone).

Tapers which are partially within the 200 m zone after a speed limit change are to use the higher speed limit in determining the relevant full taper length (even though only part of the taper length may be within this zone).

The following figures illustrate the relationship between a speed zone change and the spacing / distance applicable to signs or hazards (such as a taper).

Where traffic speed is substantially different (+/- 10 km/h or more) to the posted or temporary speed zone values, refer to Section 2.5.9 for the speed value to use in the tables.

Figure 2.2(a) – Sign or hazard within 200 m of a speed zone change

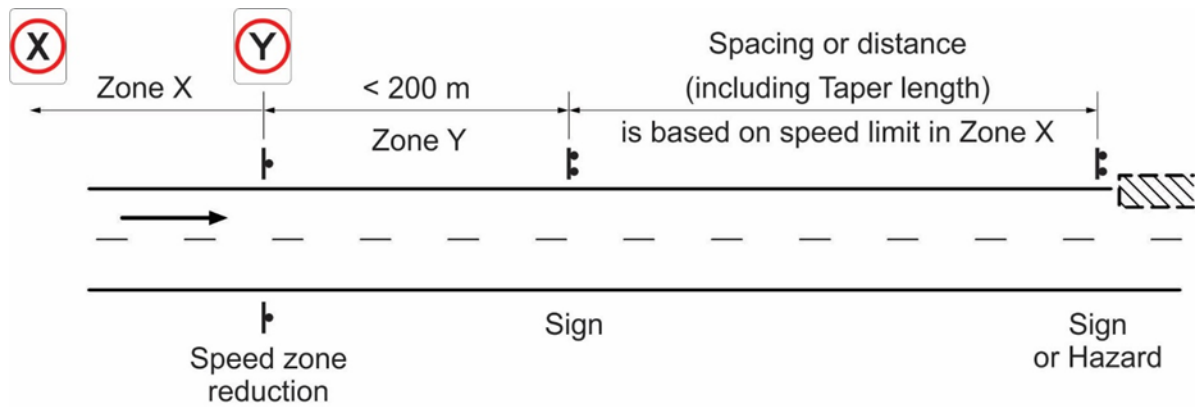
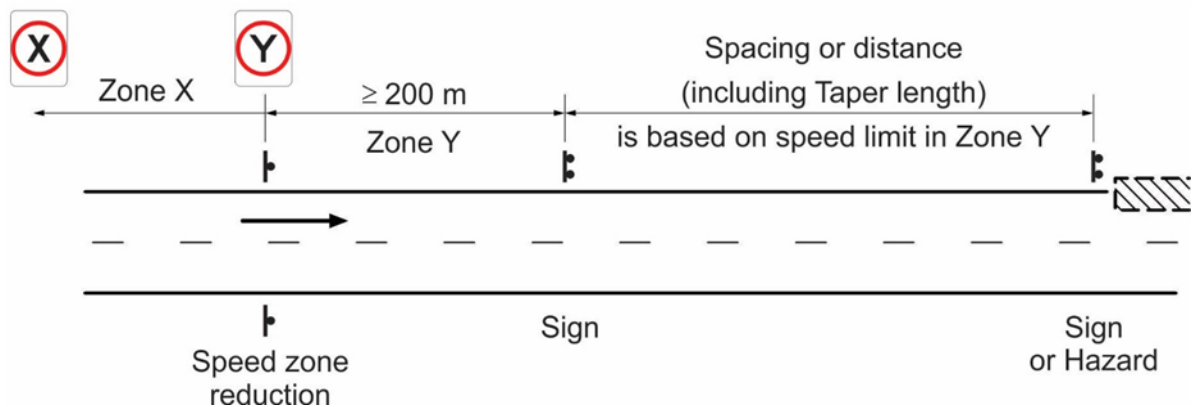


Figure 2.2(b) – Sign or hazard greater than or equal to 200 m from a speed zone change



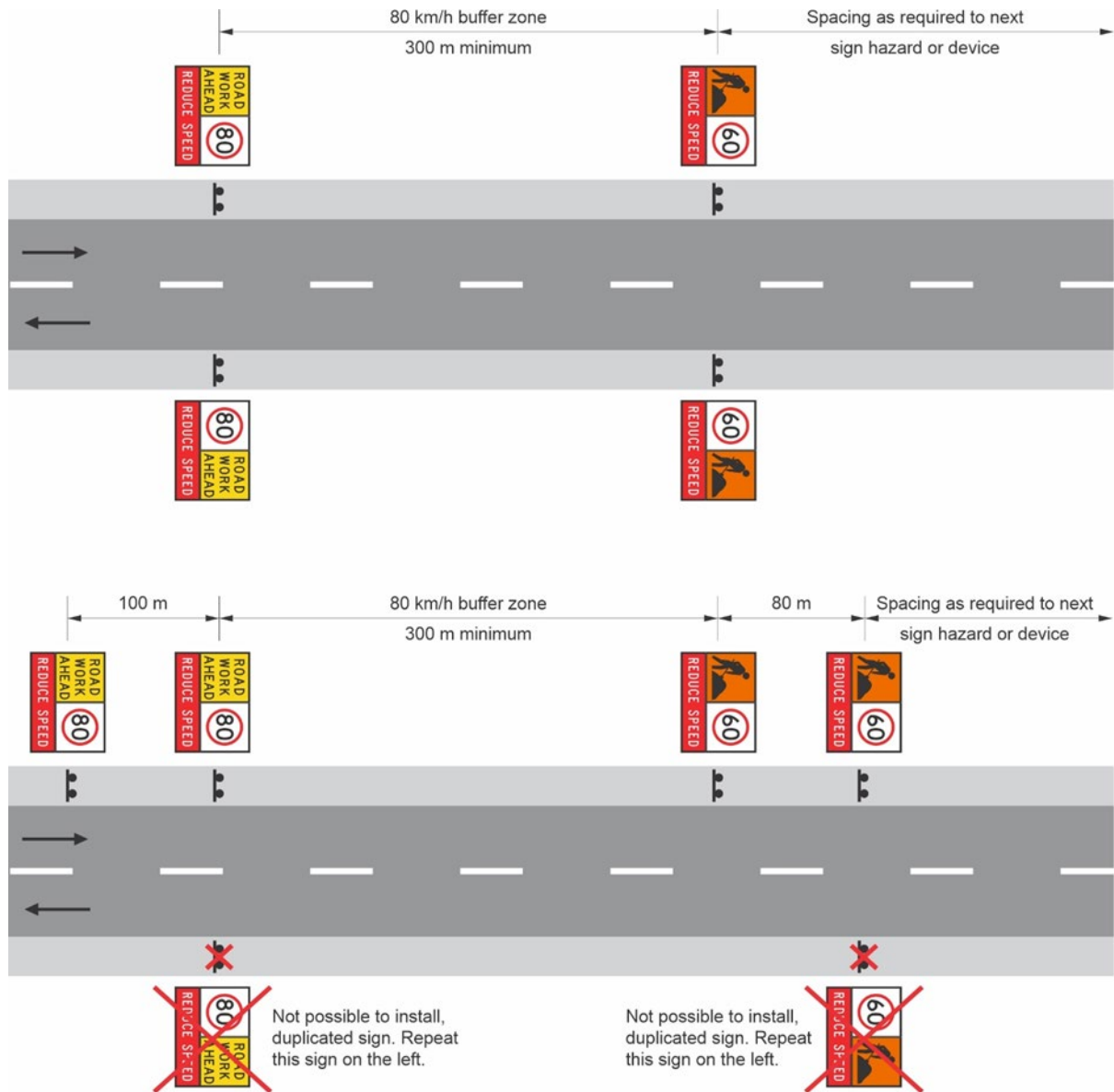
Addition

If sign duplication is not possible and the designer has chosen to repeat signs on the one side of the road, repeated signs are located a minimum of one sign spacing from the original sign.

If there are spacing requirements between the original sign being repeated and another sign, device, or hazard beyond the sign (in the direction of travel), then this spacing requirement will now apply to the repeated sign. Any spacing requirements between the original sign being repeated and another sign, device, or hazard prior to the sign (in the direction of travel), will remain as a requirement to the original sign being repeated.

See Figure 2.5.3 for an example showing signs for one direction of travel only on a two-way road. This figure does not include all traffic control devices required and is not to be used as a TGS diagram.

Figure 2.5.3 – Example showing duplicated signs and repeated signs when signs are not able to be duplicated



Adjusted requirements for signing detours at intersections from every intersection (regardless of distances travelled or the type of intersection) to signing changes of direction and intersections along the route where drivers may consider turning or where they may require reassurance that they are on the correct detour path.

Changed the requirement for installing the END DETOUR sign from must to should, to match the requirement in AS 1742.3

3 Around the worksite

3.8 Design and Traffic Management

3.8.1 Detours

Difference

Replace:

Detour markers must be erected at all subsequent changes of direction and intersections along the route to reassure road users they are on the correct path (e.g. detour in a built-up area through side streets) and they can continue their journey using permanent road sign information. This usually involves directing road users back onto their original route of travel at a point past the worksite. Signs must be erected for each direction of travel affected by the closure and checked to ensure all detour signs are prominently displayed with clear sight distance (see Section 2.5.3 Table 2.3).

with:

Detour markers must be erected at all subsequent changes of direction. Detour markers should also be installed at intersections along the route where drivers may consider turning or where they may require reassurance that they are on the correct detour path (e.g. detour in a built-up area through side streets) and they can continue their journey using permanent road sign information. This usually involves directing road users back onto their original route of travel at a point past the worksite. Signs must be erected for each direction of travel affected by the closure and checked to ensure all detour signs are prominently displayed with clear sight distance (see Section 2.5.3 Table 2.3).

Difference

Replace:

END DETOUR sign must be placed at the end of the detour, indicating to road users that they have returned to their original route and permanent signs can be followed.

with:

END DETOUR sign should be placed at the end of the detour, indicating to road users that they have returned to their original route and permanent signs can be followed.

Replaced text in the dot point referencing a “stopping distance” for cyclists with sight distance and sign spacing requirements as referenced elsewhere in AGTTM.

3.10 Vulnerable Road Users

3.10.2 Cyclists

Difference

Replace the sub-dot point:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant stopping distance in advance of the closed section of the bicycle lane.

with:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant distance (see Section 2.5.3) from the start of the closed section of the bicycle lane. Sufficient sight distance as per Table 2.3 must be provided for drivers and riders to sight the temporary signage on approach.

Added “Additional” to the section title.

See changes highlighted yellow following.

4 Through the worksite

4.8 Advance warning area

4.8.3 Additional end-of-queue protection

New

Traffic queues may form where vehicles are stopped or slowed by roadworks. This may be due to traffic control at the roadworks or congestion due to the roadworks, because of heavy traffic or lengthy delays, or a combination of the two. Depending on the speed of approaching traffic and sight distance to the end of a traffic queue, additional advance warning may be required to manage the risk of end-of-queue crashes.

End-of-queue risk control measures may also be considered where poor weather (for example rain or fog), poor road conditions, a downhill approach, vertical curves, night works (driver fatigue or visibility) or a slippery road surface are present.

Where traffic control is in use, end-of-queue risk control measures in accordance with Chapter 1, Clause 2 of the [Guideline – Traffic Management at Works on Roads](#) shall be used to manage the risk of rear end crashes in situations where either of the following apply:

- the speed limit is 80 km/h or higher (prior to any reductions for the roadworks), or

- where sight-distance to the end of the traffic queue is restricted (less than the value from Table 2.3).

End-of-queue risk control measures may also be triggered by the requirements in Clause 6.5.7 of the Transport and Main Roads Technical Specification, [MRTS02 Provision for Traffic](#) or nominated as mandatory control measures in Clause 5.8 of Annexure MRTS02.1.

For projects not subject to the requirements of MRTS02, the requirements in MRTS02 may be adopted.

Replaced text in the dot point referencing a “stopping distance” for cyclists with sight distance and sign spacing requirements as referenced elsewhere in AGTTM.

4.10 Vulnerable Road Users

4.10.2 Cyclists

Difference

Replace the sub-dot point:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant stopping distance in advance of the closed section of the bicycle lane.

with:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant distance (see Section 2.5.3) from the start of the closed section of the bicycle lane. Sufficient sight distance as per Table 2.3 must be provided for drivers and riders to sight the temporary signage on approach.

Added reference to the new Section 6.12 for star pickets.

5 Past the worksite

5.3 Separate the work area

5.3.2 Containment fence

Difference

Replace:

Note that metal star pickets should not be used in situations where they are directly exposed to traffic or any environment where they may be hit by a vehicle.

with:

The use of star pickets must be in accordance with Section 6.12.

Changed the title for Table 5.8 to Minimum distance between tapers to correct a mismatch between the text and the title for the table showing the required separation of tapers.

See changes highlighted yellow following.

Transition area

5.9.1 Tapers

Difference

Replace the title for Table 5.8:

Table 5.8: Distance between tapers

with

Table 5.8: **Minimum Recommended** distance between tapers

Difference

Replace the text following Table 5.8:

The speed to use in Table 2.2 and 5.8 must be as per Figure 2.2 of Section 2.5.3.

For details on how to use delineation devices see Section 5.4.

with

The speed value used in Tables 5.7 and 5.8 shall be as per Figure 2.2 of Section 2.5.3 – the 200 m zone in Figure 2.2 applies to the recommended length and recommended spacing of tapers.

For the spacing of delineation devices at tapers, see Section 5.4. The 200 m zone in Figure 2.2 does not apply to delineation spacing.

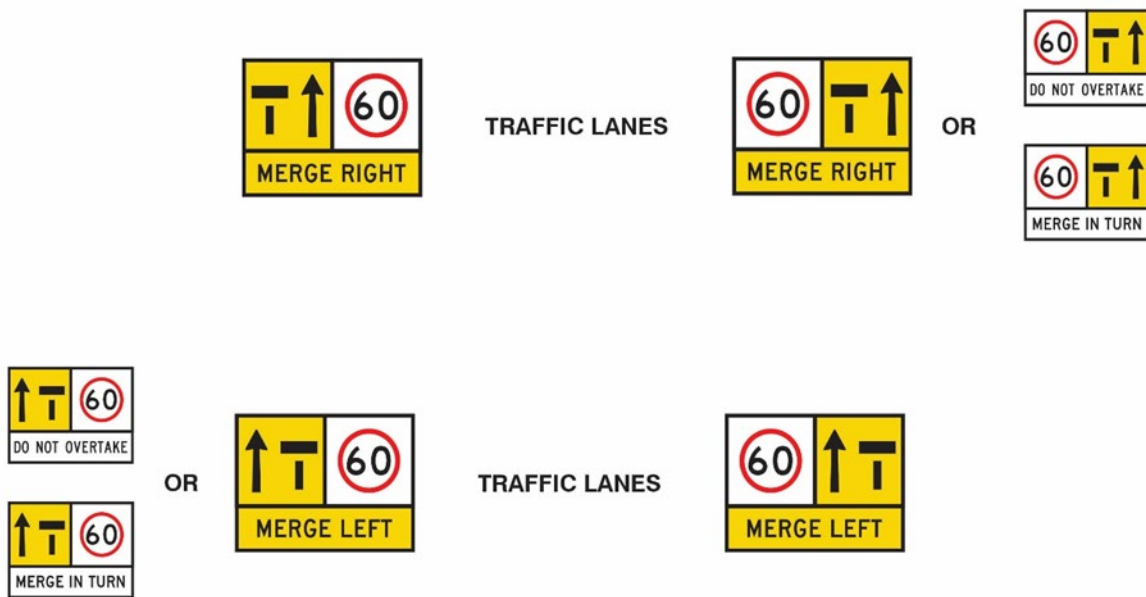
Where the posted permanent speed limit of the road is 80 km/h or greater, the recommended taper length for merge tapers (Table 5.7) and the recommended distance between merge tapers (Table 5.8) may be increased and be based on the posted permanent speed limit of the road.

Addition

In subsection '**Merge taper**', add the following:

When signing merge tapers, the multi-message signs on each side of the multilane road on approach to the merge taper may be different. The MERGE LEFT / MERGE RIGHT panel should be included with the lane status panel for the lane which is required to merge (must change lanes); however, for the lane where no action is required as this lane continues, the MERGE LEFT / MERGE RIGHT panel may be replaced with either a DO NOT OVERTAKE or MERGE IN TURN panel as shown in the following Figure 5.9.1(a).

Figure 5.9.1(a) – Lane status signs for merge tapers



Addition

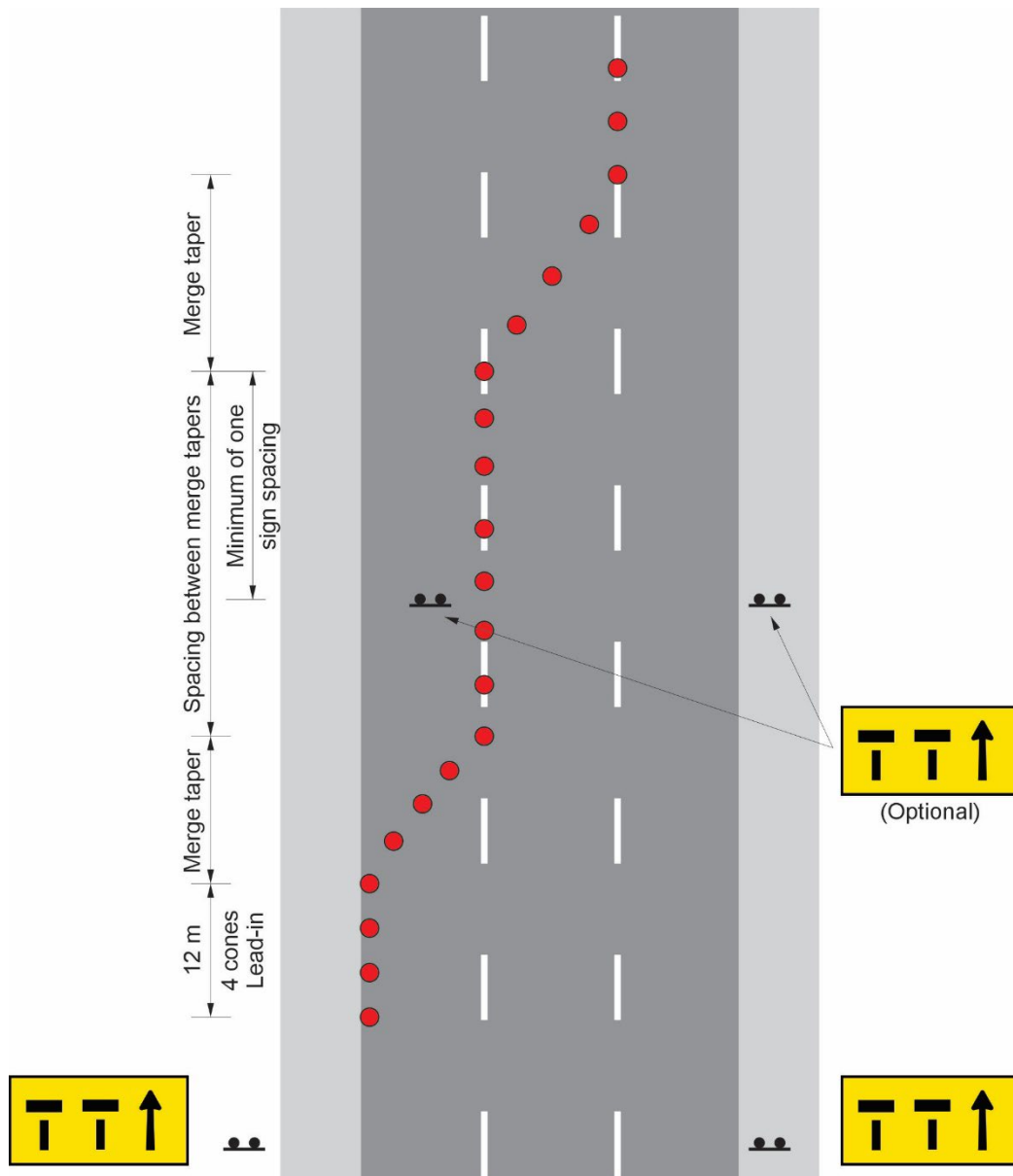
In subsection '**Multiple tapers**', add the following:

When signing multiple merge tapers, the following lane status sign configuration and location requirements will apply:

- All lane status signs shall display the final lane configuration regardless of their location.
- A lane status sign shall be located a minimum of a single sign spacing prior to the start of the first merge taper; however, as more than one lane is merging, this spacing may be increased to a distance of two sign spacings (see Section 2.5.3).
- A repeater lane status sign may be installed in the area between the two merge tapers and, if used, should be located a minimum of a single sign spacing prior to the start of the second merge taper.

The following Figure 5.9.1(b) is an example of the lane status sign configuration and location for a road with multiple merge tapers. This Figure does not include all traffic control devices required and is not to be used as a TGS diagram.

Figure 5.9.1(b) – Lane status signs for multiple merge tapers



Difference

In subsection '**Designing a taper**', replace the fifth and sixth dot points:

- Tapers shall not start or end within 50 m of an intersection on Category 2 roads. In this case, the start of the taper is the point where the shift / merge finishes, and the end of the taper is where closed lanes are re-opened.
- Tapers shall not start or end within 100 m of an intersection or on / off-ramp on Category 3 roads. In this case, the start of the taper is the point where the shift / merge finishes, and the end of the taper is where closed lanes are re-opened.

with:

- Merge tapers shall not start or end:
 - within 50 m of an intersection (both approach and departure sides) on a controlled leg of an intersection on a Category 2 road

- within 100 m of an intersection (both approach and departure side) located on a ramp from / to a Category 3 road, or
- within 100 m of a ramp (on or off) on a Category 3 road.
- Merge tapers located on an uncontrolled leg of an intersection on a Category 2 road should not start or end within 50 m of the intersection (both approach and departure sides).
- Merge tapers shall not be implemented through / across an intersection or ramp.
- Lateral shift tapers (excluding at contraflow transition points) shall not be implemented through / across an intersection or ramp. Where provided at contraflow transition points, the management of the other approaches to the intersection will be critical.

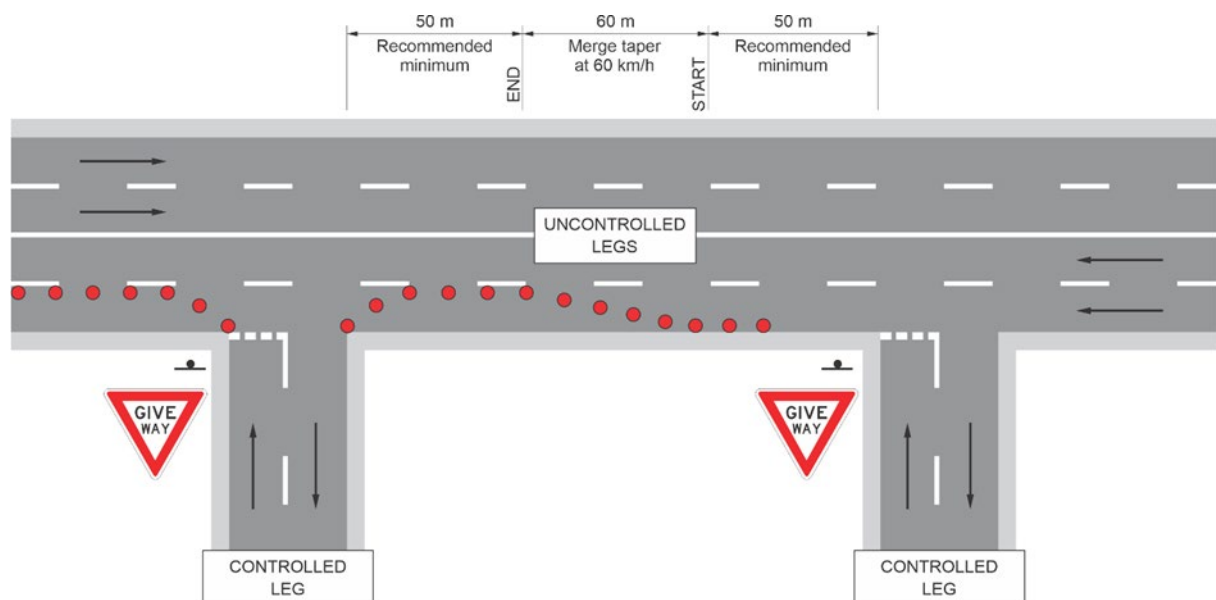
Addition

In subsection '**Designing a taper**', add the following:

When considering the space requirements for a merge taper, the terminology referring to a controlled leg or uncontrolled leg of an intersection on a Category 2 road is different to a controlled intersection. Controlled legs are those approaches to an intersection controlled by traffic signals, roundabout give way signs, give way signs, or stop signs. In some cases, a controlled intersection may have uncontrolled legs, which are not subject to any formal control method.

Figure 5.9.1(c) shows an example of a merge taper on a Category 2 road with a 60 km/h speed limit that includes intersections with minor side streets (GIVE WAY or STOP signs on the side streets only). The side street legs are controlled while the multi-lane road has uncontrolled legs through these controlled intersections.

Figure 5.9.1(c) – Controlled and uncontrolled legs on a multi-lane road



Clarified the requirements for doing a risk assessment when a PTCD is not being used as recommended.

See changes highlighted yellow following.

5.10 Traffic control

5.10.1 Portable traffic control devices

Difference

Replace Section 5.10.1 with the following:

PTCDs are used to enhance the safety and protection of road users and road workers, specifically traffic controllers.

When using PTCDs, and situations occur where vehicles can bypass the temporary traffic control station, the placement of additional cones along the centreline shall be installed to provide a sufficient distance to prevent the vehicle passing the PTCD. Prior to including a PTCD in a TGS, a risk assessment shall be undertaken to ensure the suitability and choice of PTCD. Other considerations are as follows:

1. impacts of equipment failure on road workers and road users; employ back-up traffic controllers in case of failure
2. background impacts on the visibility of the PTCDs for approaching road users
3. clear visibility and available sight distance (see Section 2.5.4); install PTCDs on the left-hand side of each approach – if they are not readily visible in that location, they should be placed in a more visible position
4. speed of traffic
5. traffic volumes
6. duration of works, and
7. can only be manually operated.

PTCD options include:

8. portable traffic signal systems (PTSS):
 - a) intended for shuttle flow (see Section 5.4.4) or gating (all stop) operation
 - b) available to provide control at intersections (see [Guideline – Traffic Management at Works on Roads](#) Chapter 5 Clause 2.5.3.1)
 - c) signals automatically respond to traffic demands via vehicle actuated operation (unmanned)
 - d) option of fixed time operation that used fixed timed cycles when traffic flow is relatively constant

- e) may be used in manual mode but require qualified operators (that is, traffic controller) – operators with two-way radio can monitor signal performance, warn the roadworks site and manage road users, and
 - f) do not use where side roads intersect the roadworks site and are not controlled by a traffic controller or other PTSS.
9. Portable boom barriers:
- a) are intended to stop traffic
 - b) manage shuttle flow or gating (all stop) operation, and
 - c) require qualified operators to operate in manual mode (that is, traffic controller).

When using PTCDs:

- 10. four cones should be placed on the centreline spaced 4 m apart starting from the STOP HERE ON RED SIGNAL or the STOP HERE WHEN DIRECTED sign position (downstream), and
- 11. undertake a risk assessment.

Consider the following when using PTCDs:

- 12. PTCDs require qualified operators (that is, traffic controller).
- 13. They are intended for traffic control of relatively short duration: for roadworks sites that will continue for a longer period without work area location changes, consider installing temporary, rather than portable, traffic signals (see AS 1742.3).
- 14. Where traffic is required to stop, temporary road markings may be installed 6 m in advance of the PTCD to indicate a stop line. The STOP HERE ON RED SIGNAL or STOP HERE WHEN DIRECTED shall be installed in accordance with the Queensland MUTCD Part 3.
- 15. Provide warning signs (for example, Signals AHEAD) an appropriate sight distance in advance of any PTCD as shown in Section 2.5.3 (see QGTTM Part 3 Section 4.8 for advance sign options). For PTCD, the Traffic Controller (symbolic) sign is replaced with the relevant PTCD (symbolic) sign.
- 16. Apply a temporary speed limit of 60 km/h or less if speed is above 60 km/h (see Section 5.5.1) on approach to the PTCD.
- 17. Regularly monitor PTCDs to ensure they are operating effectively and safely by checking that:
 - a) the settings are appropriate
 - b) the alignment of the signal displays is correct
 - c) the associated signs are intact and properly displayed
 - d) detectors are functioning correctly
 - e) there are no burnt out lamps, and
 - f) batteries are charged.

Figure 5.23 illustrates an example of PTCD and sign placement. This diagram does not include all traffic control devices required and is not to be used as a TGS diagram (see Section 4.8 for avoiding end-of-queue collision options and placement of signs). Traffic must be reduced to a maximum of 60 km/h on the approach to a PTCD and an advance warning sign (ROADWORK AHEAD) is to be located in accordance with Section 4.8.

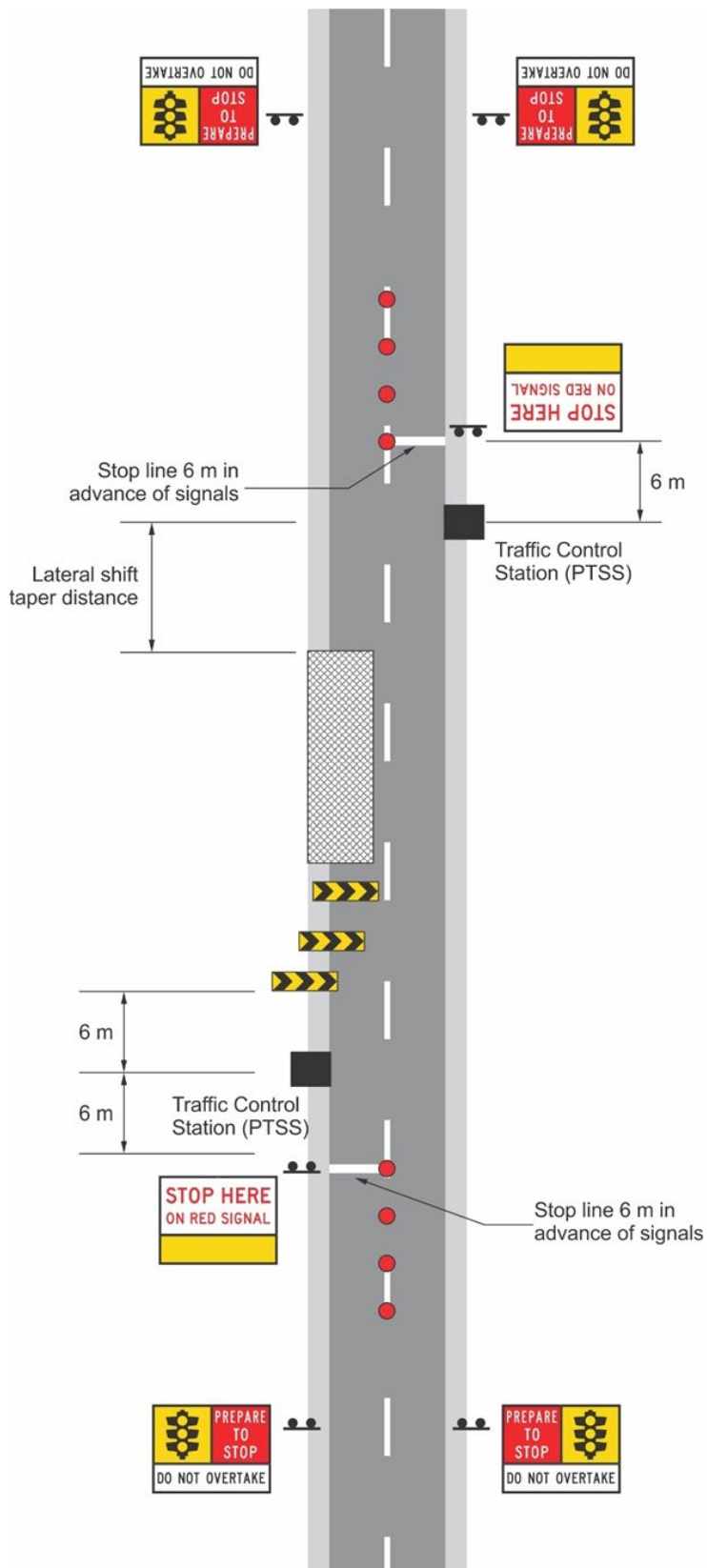
PTCDs may be used on any road environment; however, PTCDs should be used in lieu of traffic controllers using a STOP / SLOW bat on all roads with an annual average daily traffic (total vehicle count in both directions of travel per day) of over 500 vehicles per day and a permanent posted speed limit of 70 km/h or greater.

Where a PTCD is not used as recommended here, a risk assessment in accordance with the requirements of Clause 1.9 of the Queensland MUTCD Part 3 shall be undertaken will be required. See also the risk assessments requirements for using TC's in place of PTCDs, in the *Guideline – Traffic Management at Works on Roads Chapter 5 Section 2.2*.

Only PTCDs included on the current list of approved products in the Transport and Main Roads [ITS Approved Products document](#) shall be used at roadworks sites in Queensland.

Additional guidance on the use, installation and operation of PTCDs, including Type 1 and 2 PTSS and boom barriers, is available in the *Guideline – Traffic Management at Works on Roads*.

Figure 5.23 – Typical use of portable traffic control devices, 60 km/h road



Note:

1. Traffic speed must be reduced to a maximum of 60 km/h on the approach to a PTCD, and
2. An advance warning sign (ROADWORK AHEAD) or VMS shall be installed in accordance with Section 4.8.

Clarified the requirements in Section 4.8 are applicable for the advance warning signs in this section.

See changes highlighted yellow following.

5.11 Advance warning area

Addition

The advance warning area requirements, including estimating the end of queue position and calculation requirements in Section 4.8 (including subsections) also apply to the traffic control methods used in this section.

Difference

Replace:

For divided multilane roads, advance warning signs are usually only required in one direction unless the work is carried out in the median.

with

For divided roads, advance warning signs are usually only required in one direction, unless the work is carried out in the median.

Difference

Replace:

- Worker (symbolic) in advance of the worksite (if road workers or plant are visible to traffic)

with:

- Worker (symbolic) – see AS 1742.3.

Difference

Replace:

- space successive signs (after the primary sign) at a distance equal to those specified in Table 2.2

with:

- space successive signs at a distance equal to those specified in Table 2.2 and see Section 2.5.3.

Replaced text in the dot point referencing a “stopping distance” for cyclists with sight distance and sign spacing requirements as referenced elsewhere in AGTTM.

5.13 Vulnerable Road Users

5.13.2 Cyclists

Difference

Replace the sub-dot point:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant stopping distance in advance of the closed section of the bicycle lane.

with:

- additional signage should be placed to alert road users of merging cyclists. This signage must be placed at the relevant distance (see Section 2.5.3) from the start of the closed section of the bicycle lane. Sufficient sight distance as per Table 2.3 must be provided for drivers and riders to sight the temporary signage on approach.

Removed reference to “approved” road plating as Transport and Main Roads does not have an approved product category for road plating and there are no “approved” types of road plating for use in Queensland.

See changes highlighted yellow following.

6 Design for additional issues

6.8 Excavations

Difference

Replace the following:

Where an excavation is readily accessible to any person and likely to collect or retain water of such a depth as to constitute a danger, or is left unattended, it is required that:

- the excavation is fully covered, fenced or backfilled when the worksite is unattended.
- the excavation is covered, fenced or filled when work is completed.
- only approved skid resistant plating must be used to cover an excavation.
- fully enclose the excavation. Do not use barricades, traffic cones or plastic mesh fencing that is not supported by a solid frame as they are not sufficient to adequately protect road users from excavations.

with:

Where an excavation is readily accessible to vulnerable road users and is either likely to collect or retain water of such a depth as to constitute a danger, or is left unattended, it shall be protected by one of the following:

- the excavation is fully covered, fenced or backfilled when the worksite is unattended.
- the excavation is covered, fenced or filled when the worksite is attended and works on the excavation are not active.
- fully enclose the excavation.

Do not use barricades, traffic cones or plastic mesh fencing that is not supported by a solid frame as they are not sufficient to adequately protect vulnerable road users from excavations.

When excavations are covered with **road** plating, only ~~approved~~ skid resistant **road** plating shall be used.

Difference

Replace the lead-in sentence for the list:

Table 6.1 shows clearance between an excavation, or any ground level hazard associated with the excavation, and the nearest traffic lane, relative to speed and traffic volume. The delineation method is also shown as one of three options. These are as follows:

with:

Table 6.1 defines the recommended protection method for an excavation based on clearance between an excavation or any ground level hazard associated with the excavation, and the nearest traffic lane, relative to speed and traffic volume, and depth of excavation. The protection method which should be implemented is one of the three following options:

Addition

Designers should also consider the stability of the excavation face and material (angle of repose and zone of influence) for the depth of excavation. In addition, the proximity of load-bearing sources on the high side of excavations to items such as safety barriers, delineation, traffic, works vehicles or stored material may affect the stability of the excavation face. The presence of shoring as well as the strength of the shoring will also have an impact on the loads and proximity of loads to the excavated face. Greater clearances between the excavation and these items may be required.

Where safety barriers are provided to protect excavations, the requirements of Section 5.3.1 must also be considered. When excavations are located behind safety barriers, the designer is to consider the deflection zone behind the barrier which shall be clear of personnel, equipment, and materials at all times. The designer must also take into account the location and clearance to the excavated face and ensure the safety barrier, if impacted by traffic, does not encroach into the excavation or move close enough to the excavation such that the weight of the safety barrier system affects the stability of the excavated face.

Designers are only responsible for considering the temporary traffic management impact of excavations, such as proximity of temporary traffic management workers, traffic (road users including vulnerable road users) or other temporary traffic management measures (such as safety barriers) to ensure they do not negatively impact the excavated face or are negatively impacted by the excavation.

Designers are not trained to calculate or determine elements related to excavations such as the angle of repose, zone of influence, shoring requirements, or the stability of an excavated face. It is the responsibility of others (such as the Person Conducting a Business or Undertaking (PCBU)) to supply the designer with the necessary input data for excavations, so that the designer may then adequately design the temporary traffic management measures for sites with excavations.

Corrected table and figure numbers. Changed Table 6.1 to Table 6.2 and changed Figure 6.2 to Figure 6.1.

6.10 Placement and operation of Portable Variable Message Sign (VMS)

6.10.2 Aiming distance

Difference

Replace:

Wherever practicable, a VMS should be aimed to the centre of the nearest lane for approaching traffic, using the desirable aiming distance specified in Table 6.1 below, and as shown in Figure 6.2. If the VMS displays two screens, more distance is required for motorists to read and comprehend the sign.

with:

Wherever practicable, a VMS should be aimed to the centre of the nearest lane for approaching traffic, using the desirable aiming distance specified in Table 6.2 below, and as shown in Figure 6.1. If the VMS displays two screens, more distance is required for motorists to read and comprehend the sign.

Added new Section 6.12 for star picket use in Queensland (based on the previous requirements in the fact sheet).

6.12 Star pickets

New

Star pickets have many uses at roadwork sites, including:

- as supports for temporary fencing and flagging
- as supports for delineators (reflectors), and
- as sign supports or to stabilise temporary signs.

It is important that careful consideration is given to how star pickets are used because if used incorrectly they may present a safety hazard.

The use of star pickets must be supported by a risk assessment.

In addition, the use of star pickets is subject to the following:

- Star pickets must not be used within 1 metre of the edge of the traffic lane in any speed environment.
- Star pickets must be fitted with end caps to reduce the potential of piercing injuries.
- Star pickets must be inspected regularly as per the inspection requirements for temporary traffic management devices, and if they are bent or damaged, they must be replaced or repaired immediately.
- Star pickets must be installed vertically, as installing them at an angle may result in a spearing hazard.
- Star pickets are generally black but may be any colour.
- The presence of underground services must be checked before installing star pickets.
- Star pickets must not be used to support standard signposts by placing a post over the top of an installed star picket.

QGTTM Part 4

Added the requirement for double sided arrow boards in the text.

While shown in the diagrams and always shown in the old Australian Standard and MUTCD, the requirement had not been included in the text.

3 TGS Design for Mobile Works

3.7 Step 5 – Determine the Signs and Devices to Use

3.7.2 Signs mounted on vehicles

Addition

In subsection **Vehicle mounted warning device**, add the following:

On two-way roads, vehicle mounted warning devices fitted with illuminated arrow signs must be visible to road users from both approaches where warning for both approaches is required (see Figure 3.9).

QGTTM Part 5

Inspection vehicles are listed under the provisions of a single lamp however, most inspection vehicles are also work vehicles and used for this activity on a regular basis and would also match the requirements for a pair of flashing lights. A single light should not be the default on a vehicle used regularly for an isolated activity.

Altered the requirements for flashing lamps for inspection vehicles which are normally used for inspection purposes.

Added an option for using LED light assemblies in lieu of flashing lamps.

Added the requirement for the pair of flashing lamps to be separated and placed as far apart as practical on the vehicle.

Added a commentary regarding the implementation timeframe for the change to the flashing lamp requirements for inspection vehicles only.

See changes highlighted yellow following.

3 General considerations

3.4 Vehicle Mounted Warning Device

Difference

Replace items 1 and 2:

1. A single flashing yellow lamp
 - for emergency or other infrequent use on a vehicle not normally used for roadworks purposes
 - for an inspection vehicle
 - for use on a plant item working wholly within a static work area (see AGTTM Part 3)
2. A pair of flashing yellow lamps
 - for use on vehicles (e.g. patrol trucks) working on roads with traffic volumes up to 1500 vpd
 - positioned on the vehicle so that at least one (preferably both) lamps are visible from any direction

with:

1. A single flashing yellow lamp or LED light assembly
 - for emergency or other infrequent use on a vehicle not normally used for either roadworks or inspection purposes
 - for an inspection vehicle, or
 - for use on a plant item working within a roadworks site.

2. A pair of **separated** flashing yellow lamps **or LED assemblies (placed as far apart as practical)**
 - for use on work vehicles on all roads without the protection of a static roadworks site (see QGTTM Part 3)
 - positioned on the vehicle so that at least one (preferably both) lamps are visible to all road users from any direction, and
 - additional flashing yellow lamps **or LED assemblies** may be required to be added on the vehicle to ensure visibility is provided to all road users in any direction.

While the requirements in this document apply once published, Transport and Main Roads recognises that making immediate changes to flashing lamps on inspection vehicles may require a greater lead in time to ensure compliance.

In recognition of this, inspection vehicles (other than those used for emergency or other infrequent use) shall comply with the requirements in item (b) by the 31st July 2027.

QGTTM Part 8

Under the activity of providing direct supervision and instruction, the additional information includes reference to “Working Safely Near Traffic training unit competency”. This training unit does not exist. In Queensland, this would be the Working in Proximity to Traffic Awareness Part 1 competency.

See changes highlighted yellow following.

Appendix A TTM Roles – Additional tasks and activities

Addition

The tables following outline the various TTM duties in relation to the selection, design, implementation, monitoring or modification of a Traffic Management Plan (TMP) or a Traffic Guidance Scheme (TGS) which may be performed based on the competent person definitions in Clause 1.3.2 Queensland MUTCD Part 3.

A competent person shall only undertake activities relevant to their temporary traffic management role.

A person holding multiple competencies (qualifications) may apply all of the relevant sections for those competencies (or qualifications) as identified in the table following. If an activity is not listed for a given competency, then that activity cannot be conducted under that competency.

Difference

In Table A5 replace:

The person under instruction should have the Working Safely Near Traffic training unit competency.

with:

The person under instruction must be a Working in Proximity to Traffic Awareness Part 1 Competent Person or a Queensland accredited traffic controller.

Difference

Replace Table A7 with the following:

Table A7: Traffic management worker

Competent person – Working in Proximity to Traffic Awareness – Part 1	
Task – Implementation	
Activity	Additional Information
Install or remove signs under direct supervision and instruction by a <i>Working in Proximity to Traffic Awareness – Part 2</i> Competent Person, where those devices are part of a work method practice or TGS developed in accordance with the short-term, low-impact works in QGTTM Part 5, excluding works involving: <ul style="list-style-type: none"> a) grading, or b) protection by a shadow vehicle with (or without) a truck-mounted attenuator, or c) the use of sections 4.1, 4.4 or 4.5. 	Direct supervision requires the supervising <i>Working in Proximity to Traffic Awareness – Part 2</i> Competent Person to be present (in close proximity) and able to intervene if required.
Install or remove signs and other devices included on a TGS under direct supervision and instruction by a TMI Competent Person	Direct supervision requires the supervising TMI to hold the Traffic Management Implement competency at the appropriate road category, and be present (in close proximity) and able to intervene if required
Cover or uncover signs	Generally, at the end or start of a shift. Instruction must be included on the TGS that the signs can be covered or uncovered and at what times or under what conditions.
Record Keeping	Daily record of installed traffic management signs and devices in accordance with QGTTM Part 6 Section 7.
Task – Implementation	
Activity	Additional Information
Modify the TGS on site in response to an emergency event	In accordance with QGTTM Part 10 Section 5.2 <i>Initial Response</i> only.
Competent person – Working in Proximity to Traffic Awareness – Part 2	
All of the Tasks and Activities for a <i>Working in Proximity to Traffic Awareness Part 1</i> Competent Person, in addition to the following.	
Task – Selection and Implementation	
Activity	Additional information
Select, design and implement a work method practice (including the installation or removal of signs) in accordance with the short-term low-impact works in QGTTM Part 5, excluding works involving: <ul style="list-style-type: none"> a) grading, or b) protection by a shadow vehicle with (or without) a truck-mounted attenuator, or c) the use of sections 4.1, 4.4 or 4.5 	Develop a simple sketch as part of the on-site record keeping requirements for short-term low-impact works in accordance with QGTTM Part 5. Signs applicable for installation or removal by a <i>Working in Proximity to Traffic Awareness – Part 2</i> Competent Person are only those required for compliance with the relevant sections of the short-term low-impact works in QGTTM Part 5, including: <ul style="list-style-type: none"> • Workers (symbolic) • SURVEYORS AHEAD • LINE MARKERS AHEAD • MOWING AHEAD or Mowing (symbolic) • ROAD PLANT AHEAD • NEXT x km / NEXT 500 m

<p>Install or remove signs on a TGS developed by a TMD in accordance with the short-term low-impact works in QGTTM Part 5, excluding works involving:</p> <p>a) grading, or</p> <p>b) protection by a shadow vehicle with (or without) a truck-mounted attenuator, or</p> <p>c) the use of sections 4.1, 4.4 or 4.5.</p>	<p>Signs applicable for installation or removal by a <i>Working in Proximity to Traffic Awareness – Part 2</i> Competent Person are only those required for compliance with the relevant sections of the short-term low-impact works in QGTTM Part 5 and as listed previously.</p>
<p>Select an appropriate generic TGS (from a system designed by a TMD), assess as site suitable and implement.</p> <p>The generic TGS must be developed in accordance with the short-term low-impact works in QGTTM Part 5, and excludes works involving:</p> <p>a) grading, or</p> <p>b) protection by a shadow vehicle with (or without) a truck-mounted attenuator, or</p> <p>c) the use of sections 4.1, 4.4 or 4.5.</p>	<p>Selection and implementation of the generic TGS must be performed in accordance with the established protocol or procedure as documented by the TMD Competent Person when developing the generic TGS.</p> <p>Signs applicable for installation or removal by a <i>Working in Proximity to Traffic Awareness – Part 2</i> Competent Person are only those required for compliance with the relevant sections of the short-term low-impact works in QGTTM Part 5 and as listed previously.</p>
<p>Competent person – Lookout person</p>	
<p>Activity</p>	<p>Additional information</p>
<p>Perform lookout activity as required in the QGTTM Part 5.</p>	<p>Must have good eyesight, hearing and be competent to perform lookout activities.</p>
<p>Competent Person – Roadworks pilot vehicle driver</p>	
<p>Activity</p>	<p>Additional information</p>
<p>Drive a pilot vehicle on a worksite working with the Traffic Controllers in attendance for the purpose of traffic management at that worksite only.</p>	<p>Must have a current driver's licence and be competent to perform roadwork pilot vehicle driver duties.</p> <p>NOTE: This task is separate to and different from the requirements for pilot vehicles for heavy vehicles in general traffic situations.</p>
<p>Competent Person – Truck-mounted attenuator (TMA) vehicle driver</p>	
<p>Activity</p>	<p>Additional information</p>
<p>Drive a vehicle fitted with a truck-mounted attenuator (TMA) on a worksite</p>	<p>TMA driver must have a current and valid Heavy Vehicle drivers' licence of a suitable class to operate the TMA vehicle.</p> <p>Completed specific training and is deemed competent in the operation of a TMA.</p> <p>The TMA operator / driver must also hold the TMI competency at the appropriate road category.</p>
<p>Display text messages or electronic signs on VMS screens mounted on the TMA vehicle.</p>	<p>In accordance with requirements and instructions on the TGS.</p>
<p>Display of direction arrow(s) on arrow boards mounted on the TMA vehicle.</p>	<p>In accordance with requirements and instructions on the TGS.</p>
<p>Competent person – Authorised person</p>	
<p>Task – Install and remove</p>	
<p>Activity</p>	<p>Additional information</p>
<p>Install and remove advance warning signs in accordance with procedures nominated in permits; for example, 'Smoke Hazard', 'Stock'.</p>	<p>An example of a procedure would be Queensland Fire and Emergency Services gazette notice for cane burning.</p>
<p>Competent Person – Event Traffic Marshal (ETM) for Special Events (In accordance with the Traffic Marshal – Special Event Approved Procedure)</p>	

Task – Implement (ETMs are not to be used at roadworks or workplaces)	
Activity	Additional information
Only the signs and devices specifically nominated by the TMD on the TGS (for a permitted Special Event) as able to be installed and removed by an ETM.	Signs and devices to be installed by ETMs will be located in simple low-speed, low-risk traffic environments for the duration of a permitted Special Event. A TC may also install devices nominated on the TGS for an ETM.
Control traffic only at locations specifically nominated by the TMD on the TGS (for a permitted Special Event) as appropriate for an ETM.	ETMs may control traffic in low-speed, low-risk traffic environments for the duration of a permitted Special Event. A TC may also control traffic at a location nominated on the TGS for an ETM.

Transport and Main Roads Specification - MRTS02 Provision for Traffic

Added references to the MRTS specifications for temporary and permanent VMS devices.

See changes highlighted yellow following.

6 Traffic guidance scheme (TGS)

6.5 Traffic guidance provisions

6.5.2 Additional optional traffic control devices

6.5.2.1 Variable Message Signs (VMS)

VMS devices (both transportable VMS and existing permanent VMS) may be used to supplement other traffic control devices, particularly in communicating complex arrangements to drivers. Their need should be determined through a risk assessment, either to supplement other traffic control devices, or as an alternative traffic control device when site conditions constrain a preferred TGS layout.

The Contractor shall comply with the requirements for the use of transportable and existing permanent VMS installations stated in Clause 5.2 of Annexure MRTS02.1.

Where they are used, the Contractor shall coordinate the operation of existing permanent temporary VMS, with the operations of operators in the traffic control room or traffic management centre as appropriate. The Contractor shall comply with the requirements for VMS installations stated in Clause 5.2 of Annexure MRTS02.1.

Prior to the operation of the transportable VMS at the site, the Contractor shall ensure that any previous messages on the VMS have been deleted and only messages, symbols and time schedules that have been approved for the site are programmed into the VMS.

Refer to MRTS202 *Variable Message Signs* for the technical specification requirements for permanent VMS and to MRTS262 *Transportable Variable Message Signs* for transportable VMS.

Corrected reference in the "Decommissioning" subheading for surplus material to Clause 10 (not Clause 11).

See changes highlighted yellow following.

6.5.3 Traffic route alterations

6.5.3.3 Specific requirements for side-tracks

Where redirecting traffic onto a side-track is permitted by Clause 3.8 of Annexure MRTS02.1, construction of the side-track shall comply with the requirements set out in this document and any additional requirements stated in Clause 5.7 of Annexure MRTS02.1. All aspects of the side-track design shall be signed off by an appropriately experienced RPEQ.

Design and construction – design and construction of side-tracks shall comply with the QGTTM Part 3. Materials for construction of side-tracks shall comply with the provisions of the relevant Technical Specification.

Location and route – the location and route of side-tracks shall be in accordance with the details provided in Clause 5.7 of Annexure MRTS02.1 and/or as shown on the drawings.

Surface and clearing – the ground surface of the areas on which a side-track is to be constructed shall be cleared, grubbed and stripped of vegetation and any other undesirable matter. Such operations shall extend for not less than the full width of the surface formation of the side-track. Any tree, or other object within three metres of the edge of the side-track shall be removed, shielded or delineated.

Alignment – side-tracks shall be aligned, formed, graded, drained and maintained so as to provide for safe, comfortable passage of vehicles at the indicated speed limit. In general, not more than four per cent surface cross-fall shall be provided.

Surface – the requirements for paving and/or sealing of a side-track, shall be as stated in Clause 5.7 of Annexure MRTS02.1, or the QGTTM Part 3. Where paving and/or sealing of a side-track is required, the Contractor shall prepare the side-track formation and carry out the paving and/or sealing operations in accordance with the requirements of the relevant Technical Specification and such other requirements as may be stated elsewhere in the Contract. Materials for construction of side-tracks shall comply with the provisions of the relevant Technical Specification.

Geometric requirements – the minimum geometric standards of a side-track shall be as specified in Clause 5.7 of Annexure MRTS02.1.

Where a side-track is used as a part of an overnight road occupancy (for example, crossovers on motorways between divided carriageways) only, the side-track may be designed for a lower posted speed. The Contractor shall ensure that the length of road, which the reduced speed is applied to, is as short as possible according to the QGTTM Part 3.

Width – the width of a side-track shall be as specified in Clause 5.7 of Annexure MRTS02.1. If the normal width of the road is less than six metres, suitable passing facilities, not less than 30 metres in length and providing an available width inclusive of the normal width of the road of not less than six metres, shall be located at minimum intervals of 800 metres along the side-track and at locations where sight distance is less than 100 metres.

Waterway crossings – unless the construction of special waterway crossings has been provided for elsewhere in the Contract, the form and design of waterway crossings along the route of a side-track, shall be determined through an appropriate risk assessment provided by the Contractor and approved by the Principal.

The risk assessment shall consider the consequences of flooding, the time of year and the traffic impact of road closures. When the waterway crossing design is based upon a rainfall Average Recurrence Interval that is lower than the current crossing, the Contractor shall advise this in their Offer.

The waterway crossing shall be constructed for the full width of the side-track. The edges of waterway crossings shall be signed and delineated effectively both day and night, in accordance with the requirements of the Queensland MUTCD, QGTTM and MRTS14 *Road Furniture*.

Traffic control – side-tracks shall be signed and delineated to ensure the clarity of the route.

Lighting – side-tracks shall be lit at the points of divergence from the existing roadway to comply with Clause 5.7, or at any other points where the driving task may be more difficult to comply with.

Reuse of side-tracks – where a side-track is to be reused, all temporary pavement markings shall be updated and/or removed as necessary to comply with the Contract.

Maintenance – side-tracks shall be maintained to the standard to which they were built and to always ensure safety of users. They shall be maintained such that:

- a) pavement markings or delineation is clearly visible at all times, and
- b) lane closures on the side-tracks only occur when maintenance is undertaken or traffic control devices are being moved.

Decommissioning – after a side-track has been used for the last time during construction, it shall be completely removed and rehabilitated. All temporary line marking used on any permanent road surface, including tie-ins on the approach / departure to the works that becomes obsolete, shall be obliterated from the permanent road surface and the site shall be restored to a condition equivalent to that existing before the side-track was constructed.

Any removed materials shall be disposed of in accordance with Clause 4410 of MRTS01 *Introduction to Technical Specifications*.

Technical Specification Annexure - MRTS02.1 Provision for Traffic

Added references to transportable and existing permanent VMS.

See changes highlighted yellow following.

5 Traffic Guidance Provisions (Clause 6.5)

5.2 Variable Message Signs (VMS) (Clause 6.5.2.1)

VMS (transportable and/or existing equipment) shall be used in the following situations:



Technical and Main Roads Checklist – CAC008M

Correct reference errors.

See changes highlighted yellow following.

Reference	Requirements	Addressed	Comments / Observations
MRTS02 Clause 5.4 (a)	<p>Have the following elements been included in the TMP?</p> <ul style="list-style-type: none"> • traffic demand • traffic routing • traffic control • special vehicle requirements • site conditions including property accesses and roadside facilities <p>See full list in QGTTM Part 2 Section 4 Clause 4.3.</p>		
MRTS02 Clause 5.4 (a)	<p>Does the TMP include planning for vulnerable road users (VRUs) (pedestrians, cyclists, motorcyclists etc) and include the following elements relating to their management:</p> <ul style="list-style-type: none"> • VRU demand • VRU routing • VRU control • High VRU generators (public transport, events, places of worship, sporting facilities etc) • site conditions including property accesses and roadside facilities <p>See full list in QGTTM Part 2 Section 4 Clause 4.3.</p>		

