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Manual

# Queensland Guide to Temporary Traffic Management Part 2: Traffic Management Planning

November 2023



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#### Feedback

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### About this document

This document supplements the Austroads *Guide to Temporary Traffic Management Part 2 Traffic Management Planning*, which has been specifically prepared to assist with the preparation of traffic management plans (TMPs), in accordance with Austroads best practice. It provides general information about the context, components and format of a TMP.

#### How to use this document

This document is designed to be read and applied together with the Austroads *Guide to Temporary Traffic Management Part 2: Traffic Management Planning* (AGTTM02-21 Edition 1.1)). You must have access to the Guide to understand what applies in Queensland.

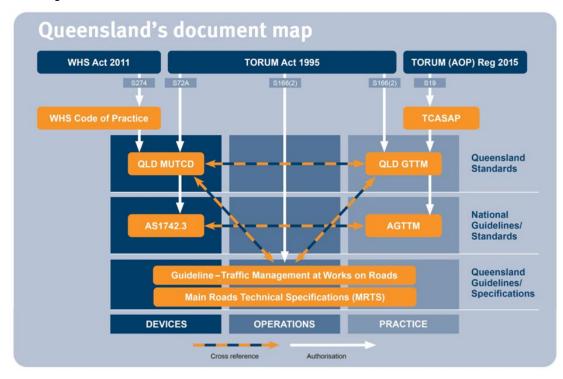
This document:

- sets out how AGTTM02-21 applies in Queensland
- has precedence over AGTTM02-21 when applied in Queensland
- has the same section and clause numbering and headings as AGTTM02-21.

The following table summarises the relationship between AGTTM02-21 and this document:

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

A summary of the documents relevant to TTM practice in Queensland, and their links, is provided following:



# References

The following references apply when reading AGTTM02-21.

Reference to	Means
AGTTM02-21	Austroads <i>Guide to Temporary Traffic Management Part 2: Traffic Management Planning</i> , as amended by this document: for example, a reference to AGTTM02-21 means you must refer to the <i>Queensland Guide to Temporary Traffic Management</i> (QGTTM) Part 2.
	Throughout AGTTM02-21, references are made to other parts of the Guide (for example, when reading Part 2 you may be referred to Part 3 for further information.) In this case, you must refer to the equivalent Part within the QGTTM. Check the applicability of the equivalent Part in the QGTTM <b>before</b> referring to the referenced Austroads Guide Part.
AGTTM	Austroads Guide to Temporary Traffic Management
AS 1742	Australian Standard AS 1742 Manual of Uniform Traffic Control Devices
Queensland (Q) series / Traffic Control (TC) signs	MUTCD (Q) series and TC signs.
Queensland MUTCD	Queensland Manual of Uniform Traffic Control Devices which supplements AS 1742.

Section		Description	Applicability
1	Introduc	tion to Traffic Management Planning	
	1.1	Purpose	Accepted
	1.2	Structure of AGTTM	Accepted
	1.3	Scope of Part 2	Accepted
	1.4	Definitions	Accepted
2	Objectiv Plans	es and principles of Traffic Management	
	2.1	Objectives	Accepted
	2.2	Contextualising Traffic Management Plans	Accepted
	2.3	Risk	Accepted
	2.4	Hierarchy of control	Accepted
	2.5	Policy and regulatory context	Accepted
	2.6	Review and approval	Accepted
	2.6.1	Minimum requirements for Traffic Management Plan	Accepted with amendments
	2.6.2	Principles for consideration in the preparation and review of a Traffic Management Plan	Accepted
	2.6.3	Timing of preparation	Accepted
	2.6.4	Submission to road infrastructure manager	Accepted with amendments
	2.7	Documentation	Accepted
	2.8	How the Traffic Management Plan is used	Accepted
	2.8.1	Decision making	Accepted
	2.8.2	Transparency	Accepted
	2.8.3	Duty of care	Accepted
3	Preparat	ion of a Traffic Management Plan	
	3.1	Approach to Traffic Management Plan preparation	Accepted
	3.2	Introductory activities	Accepted
	3.2.1	Identify project parameters	Accepted
	3.2.2	Break down project into stages	Accepted
	3.2.3	Conduct traffic assessment	Accepted
	3.3	Risk assessment	Accepted
	3.3.1	General	Accepted
	3.3.2	Identify risks of each stage	Accepted
	3.3.3	Analyse the risks	Accepted
	3.3.4	Identify treatment options	Accepted with amendments
	3.3.5	Evaluate each treatment option	Accepted

# Relationship table (harmonised to AGTTM02-21 Edition 1.1)

Section		Description	Applicability
	3.3.6	Speed management plan	New
	3.3.7	Speed enforcement	New
	3.3.8	End-of-queue treatment	New
	3.4	Plan and design	Accepted
	3.4.1	Plan and design selected risk treatment	Accepted
	3.4.2	Document in the Traffic Management Plan	Accepted
	3.4.3	Identify Traffic Guidance Schemes required	Accepted
	3.5	Ongoing activities	Accepted
	3.5.1	Communication and consultation	Accepted
	3.5.2	Monitoring and review	Accepted
	3.6	Summary	Accepted
4	Documer	nting Traffic Management Plans	
	4.1	General	Accepted
	4.2	Introduction	Accepted
	4.2.1	Purpose of a Traffic Management Plan including risk management	Accepted
	4.2.2	Traffic management objectives for the project	Accepted
	4.2.3	Statement of duty of care	Accepted
	4.2.4	Site inspection expectation	Accepted
	4.2.5	Site induction and training plan	Accepted
	4.3	Project overview	Accepted
	4.3.1	Project location	Accepted
	4.3.2	Project details	Accepted
	4.3.3	Site constraints / impacts	Accepted
	4.4	Project administration	Accepted
	4.4.1	Pre-start meeting	Accepted
	4.4.2	Communication of administrative procedures	Accepted
	4.4.3	Registers	Accepted
	4.4.4	Responsibilities	Accepted
	4.4.5	Work health and safety and occupational health and safety arrangements	Accepted
	4.4.6	Incident procedures	Accepted
	4.4.7	Consultation	Accepted
	4.5	Risk management	Accepted
	4.5.1	Risk management process	Accepted
	4.5.2	Future risks	Accepted
	4.6	Documenting the Traffic Assessment	Accepted
	4.7	Traffic management planning and design	Accepted

Sec	tion	Description	Applicability
	4.7.1	Staging of work	Accepted
	4.7.2	Night work provisions	Accepted
	4.7.3	Traffic Guidance Schemes	Accepted
	4.7.4	Documenting the risk assessments and options analysis	New
	4.7.5	Documenting the speed management plan, enforcement, & end-of-queue treatments	New
	4.8	Emergency arrangements and contingency planning	Accepted
	4.8.1	Emergency services access	Accepted
	4.8.2	Emergency arrangements	Accepted
	4.8.3	Contingency planning	Accepted
	4.9	Variations	Accepted with amendments
	4.9.1	Innovation	Accepted with amendments
	4.9.2	Evaluation of variations from this Guide and standards	Accepted
	4.9.3	Variation from approved traffic management plan	Accepted
	4.10	Notification requirements	Accepted
	4.10.1	Public notification	Accepted
	4.10.2	Notification of other agencies	Accepted
	4.10.3	Notification of emergency services	Accepted
	4.11	Monitoring	Accepted
	4.11.1	Specific monitoring requirements	Accepted
	4.11.2	Site inspections and record keeping	Accepted with amendments
	4.12	Management review	Accepted
	4.12.1	Traffic Management Plan review and improvement	Accepted
	4.12.2	Long term projects	Accepted
	4.13	Traffic Management Plan auditing	Accepted
	4.13.1	Audit types	Accepted
	4.13.2	Considerations for audits	Accepted
	4.14	Submission and approval process	Accepted
	4.14.1	Timeframes for review	Accepted
	4.14.2	Review requirements	Accepted
Appendi	ces		
А	Checklist	of Traffic Management Plan components	Accepted with amendments
В	Traffic Ma	anagement Plan risk considerations checklist	

Section		Description	Applicability
С		g, evaluating and selecting an option – Gympie eensland)	
	C.1	General	Accepted
	C.2	Identification and analysis of issues and risk	Accepted
	C.3	Identifying the options	Accepted
	C.3.1	Key site features	Accepted
	C.3.2	Identify all options	Accepted
	C.3.3	Evaluating each option	Accepted
	C.4	Final staging diagram	Accepted

# Contents

Abo	About this documenti					
How	to use this	s document	.i			
Refe	rences		ii			
Rela	Relationship table (harmonised to AGTTM02-21 Edition 1.1)iii					
2	Objectives and principles of Traffic Management Plans1					
2.6	Review an	d approval	1			
	2.6.1 2.6.4	Minimum requirements for traffic management plan Submission to road infrastructure manager				
3	Preparatio	on of a Traffic Management Plan	1			
3.3	Risk asses 3.3.4 3.3.6 3.3.7 3.3.8	ssment Identify treatment options Speed management plan Speed enforcement End-of-queue treatments	1 3 3			
4	Documen	ting Traffic Management Plans	4			
4.7	4.7.4 4.7.5	nagement planning and design Documenting the risk assessments and options analysis Documenting the speed management plan, enforcement & end-of-queue treatments .	4 4			
4.9		· · · · · · · · · · · · · · · · · · ·				
4 11	4.9.1 Monitoring	Innovation				
	<i>4.11.2</i>	Site inspections and record keeping				
Арре	endix A	Checklist of Traffic Management Plan components	5			

### 2 Objectives and principles of Traffic Management Plans

#### 2.6 Review and approval

#### 2.6.1 Minimum requirements for traffic management plan

#### **Difference**

Replace guidance with following:

The checklist outlined in Appendix A provides an indicative list of requirements for consideration in developing a TMP. Where a requirement is not discussed in a TMP, explanation should be provided as to why.

#### 2.6.4 Submission to road infrastructure manager

#### **Difference**

Replace guidance with following:

The TMP may be reviewed by an appropriately competent and qualified person other than the person who prepared the TMP and submitted to the appropriate road infrastructure manager.

#### 3 Preparation of a Traffic Management Plan

#### 3.3 Risk assessment

#### 3.3.4 Identify treatment options

#### Addition

Add the following dot point to the treatment options to be considered:

• Mobile works – some work types and locations may be suited to implementation by a mobile works convoy. The controls applied and work arrangements for mobile work methods are set in QGTTM Part 4.

#### Addition

In the subsection 'Length of single-lane operation under reversible traffic flow', add the following:

Generally, when using Table 3.5, and where the lengths are within the maximum limits, single-lane operation using active control by portable traffic control devices or traffic controllers will lead to a relatively short and consistent or stable queue length; however, additional traffic engineering input and consideration (risk assessments) are required to support longer lengths of single-lane operation which will generally lead to longer maximum queue lengths and queue lengths that are not easily managed, or are variable and unstable. Contingency planning for longer than expected or continually growing queue lengths shall be included as part of the TGS design. End-of-queue protection measures (refer to QGTTM Part 3 Section 4.8.3) shall be considered.

#### **Difference**

Replace the following:

Traffic control may not be required if:

- there is clear visibility past the work area and beyond it for at least 75 m, or to the end of the road if less than 75 m away and the length of the shuttle lane does not exceed 60 m
- road users have clear visibility of the work area and the opposing approach for a distance greater than 150 m and either one of the following:
  - traffic volume in both directions is 40 vph or less, and the speed is 70 km/h or less, and the length of the single lane is 60 m or less
  - the length of the single lane is 100 m or less, and GIVE WAY and ONE LANE signs are provided at one end of the shuttle lane
  - it is a residential street and the length of the shuttle is 60 m or less.

#### with

Active traffic control (by traffic controllers or PTCDs) may not be required where:

- GIVE WAY and ONE LANE signs are provided at one end of the shuttle lane and the NO OVERTAKING OR PASSING sign is also to be erected at the start of the single lane for traffic in the opposite direction and all the following apply:
  - traffic volume in both directions is 150 vph or less
  - the traffic speed is 70 km/h or less
  - each entry to the work area is visible from the other
  - the length of the work area is 100 m or less, and
  - there is sight distance to opposing traffic of at least 200 m beyond the far end of the work area for traffic facing the GIVE WAY, ONE LANE assembly.
- No specific traffic control signs are required for the single lane section, and traffic operates under natural give and take using the one open lane and either one of the following applies:
  - it is a residential street (permanent posted speed is 50 km/h or less) and there
    is clear visibility past the work area and beyond it for at least 75 m, or to the
    end of the road if less than 75 m away and the length of the shuttle lane does
    not exceed 60 m, or
  - road users have clear visibility of the work area and the opposing approach for a distance greater than 150 m or to the end of the road if less than 150 m away, the traffic volume in both directions is 40 vph or less, the permanent posted speed is 70 km/h or less, and the length of the shuttle lane is 60 m or less.

#### **Difference**

#### In the subsection 'Other traffic assessment elements - Lane widths'

Replace Table 3.6 with the following:

#### Table 3.6 – Lane widths

Criteria	Lane width (m)		
General lane widths			
≤60 km/h	Minimum 3.0*		
70, 80 or 90 km/h	Minimum 3.2*		
≥100 km/h	Minimum 3.4*		
Curve with radius 100–250 m	Add curve widening of 0.5 m per lane		
Curve with radius <100 m	In addition to the curve widening of 0.5 m per lane, consider the swept path of long vehicles (for example, buses, trams)		
Two-way residential street	Minimum of 5.5 (sum both ways)		
Shuttle flow operation			
Shuttle flow with active control (by traffic controllers or PTCDs)	Minimum 3.0*		
Shuttle flow, without active control on residential streets, includes no control or the use of GIVE WAY and ONE WAY signs (see Section 5.4.4).	Minimum 3.0* and Maximum 3.5 to ensure vehicles take turns using a single lane		

\* Temporary minimum lane widths are not to be greater than existing lane widths. This minimum temporary lane width does not apply to curves of radius 250 m or less, or locations where there are fixed vertical obstructions such as fences or safety barriers within 30 cm of the edge of the lane on one or both sides. Where these conditions apply, consider widths wider than those listed previously to accommodate large vehicles. The speed to be used when considering lane width requirements is the speed limit (permanent or reduced) which is applicable to that length of road.

#### 3.3.6 Speed management plan

#### New

Requirements for a speed management plan are included in the Transport and Main Roads Technical Specification <u>MRTS02 Provision for Traffic</u>, and for projects not subject to the requirements of MRTS02, the requirements of MRTS02 may be adopted.

#### 3.3.7 Speed enforcement

<u>New</u>

Requirements for planned speed enforcement are included in the Transport and Main Roads Technical Specification <u>MRTS02 *Provision for Traffic*</u>, and for projects not subject to the requirements of MRTS02, the requirements in MRTS02 may be adopted.

Also consider the specific signing requirements for speed enforcement activities in QGTTM Part 3 Section 5.5.4 *Speed enforcement*.

#### 3.3.8 End-of-queue treatments

New

End-of-queue risk control measures, in accordance with Chapter 1, Clause 2 of the <u>Guideline – Traffic</u> <u>Management at Works on Roads</u> shall be used if required by QGTTM Part 3, Section 4.8.3.

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, <u>MRTS02 *Provision for Traffic*</u> 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.

## 4 Documenting Traffic Management Plans

#### 4.7 Traffic management planning and design

#### 4.7.4 Documenting the risk assessments and options analysis

<u>New</u>

The material discussed at Section 3.3 (Risk Assessment) including subsections 3.3.2 (Identify risks of each stage), 3.3.3 (Analyse the risks), 3.3.4 (Identify treatment options) and 3.3.5 (Evaluate each treatment option) shall be included in the TMP.

#### 4.7.5 Documenting the speed management plan, enforcement & end-of-queue treatments

<u>New</u>

The material discussed in Sections 3.3.6 (*Speed management plan*), 3.3.7 (*Speed enforcement*) and 3.3.8 (*End-of-queue treatments*) shall be included in the TMP.

#### 4.9 Variations

Addition

Refer to Clause 1.9 of the Queensland MUTCD Part 3.

#### 4.9.1 Innovation

Addition

Refer to Clause 1.5 and Clause 1.9 of the Queensland MUTCD Part 3.

#### 4.11 Monitoring

#### 4.11.2 Site inspections and record keeping

#### **Difference**

Replace the subsection 'Inspections' with:

Inspections should be undertaken:

- at least daily (for attended sites), or more frequently depending on location and likelihood of traffic management being disturbed
- before work starts each day
- immediately following the installation of a TGS

- before the start of work activities on site
- during the hours of work
- closing down at the end of the shift period
- periodic inspections after work hours and at night, and at unattended sites. For unattended sites, see QGTTM Part 6 Section 7.4 for requirements
- after any change in the traffic management arrangement on site, and
- following any environmental or weather events.

Provide templates for inspection registers allowing indication of:

- when traffic controls were erected
- when changes to controls occurred and why the changes were undertaken, and
- any significant observations associated with the traffic controls and their impacts on road users or adjacent properties.

Collecting information is particularly important in the event of an incident, in case legal proceedings result.

#### Appendix A Checklist of Traffic Management Plan components

#### Addition

Add the following elements to the checklist in Table A1:

- Risk management
  - analysis of the risks
  - identify treatment options
  - evaluate each treatment option, and
  - identify the selected option
- speed management plan
- speed enforcement, and
- end-of-queue treatments.

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