

2 Temporary traffic management policies

2.1 General

Transport has a primary duty of care to ensure the health and safety of all persons at Transport work sites. This extends to its employees, its contractors and members of the public.

To ensure the safety of people at work sites, a high standard of temporary traffic management and traffic control around, past or through those work sites must be provided. A site-specific plan for the management of traffic can be developed by considering the conditions that may be encountered at each site.

The design, selection and implementation of traffic control measures detailed in this Technical Manual are based on AS 1742.3, *Manual of uniform traffic control devices*, Part 3: *Traffic control for works on roads* and the Austroads *Guide to Temporary Traffic Management (AGTTM)*. If this Technical Manual does not contain advice on a particular aspect of traffic control then the latest version AS 1742.3 and the relevant Part of the AGTTM applies, if the required information is available.

This Section details the key policies that Transport applies to temporary traffic management on work sites.

2.2 Traffic management plan

The purpose of a TMP is to assist in providing a safe work environment while maintaining a safe and efficient journey for all road users.

In accordance with [Section 3 Traffic management planning process](#), a traffic management plan (TMP) must be developed for all temporary traffic management (TTM) works on Transport work sites, including maintenance work sites.

A TMP may be developed that applies to either of the following, depending on the nature of work to be completed, its risk profile and location:

- A specific road corridor; or
- A project or activity.

A TMP must ensure that works are arranged such that:

- Road workers are able to work safely;
- Road users are able to travel around, past or through the work site safely;
- Road workers and road users are separated wherever possible; and
- It does not impact or cause delay to road users or, if not reasonably practicable, it is minimised.

The TMP templates provided in [Appendix A – Traffic management planning templates and tools](#) can be used to assist in the collection of data and inform the development of TMP.

2.3 Traffic guidance scheme

In accordance with [Section 7 Traffic guidance schemes \(TGS\)](#), a TGS must be developed where the road environment is temporarily changed and the road users may be impacted. A TGS is a detailed layout of temporary signs and devices that communicate the TTM arrangement to guide traffic around, past or through a work site or temporary hazard. For the purposes of this document, a TGS is classified as one of the following:

- Generic;
- Site Suitable; or

- Site Specific.

Each TGS must be checked against risks identified in the TMP to ensure that the means of controlling or reducing these risks are in place.

This Technical Manual contains example work site layouts as diagrams throughout and in [Appendix D – Work type layout examples](#).

Note: *These diagrams outline the types of controls that may be applied in a particular situation and do not include all signs/devices required. The diagrams are intended only to assist in the design of TGSs.*

2.4 Personnel

2.4.1 General

The development, design and implementation of TMPs and associated TGSs must be undertaken by authorised and competent persons who are fit for duty in accordance with this Section.

2.4.2 Training

Personnel undertaking TTM in NSW must hold a valid traffic control qualification relevant to the type of work they are undertaking.

As of 1 July 2020, traffic control training in NSW is prescribed under the WHS Regulation 2017 and is managed by SafeWork NSW. As a requirement of the WHS Regulation 2017, a person undertaking traffic control work must hold the relevant qualification for the work they are performing. The three qualifications outlined in the WHS Regulation 2017 are as follows:

- Traffic Control (TC);
- Implement Traffic Control Plans (ITCP); and
- Prepare Work Zone Traffic Management Plans (PWZTMP).

For a list of SafeWork NSW approved training providers see the [Service NSW Public Register of Training Providers](#).

In this Technical Manual, all references to the training certification titled Implement Traffic Control Plans refers to the qualification currently recognised in NSW for implementing traffic guidance schemes.

[Table 2-1](#) provides a summary of the three traffic control training qualifications with requirements and restrictions for each of the qualifications.

In addition to holding the relevant qualification required by the WHS Regulation 2017, all personnel undertaking TTM on State roads, or on behalf of Transport, must have undertaken refresher training in the relevant competency in the preceding two years from the date of qualification.

Table 2-1. Traffic control training qualifications, requirements and restrictions

Qualification	Requirements	Restrictions
<p><u>Traffic Controller</u> This qualification provides the necessary certification to control traffic with a prescribed traffic control device.</p>	<p>Persons holding this qualification are permitted or required to:</p> <ul style="list-style-type: none"> • Stop or direct road users using a STOP/SLOW bat or other accepted traffic control device; • Maintain traffic incident reports; • Operate a 2-way radio; • Understand the TGSs for the site; • Check traffic control signs are installed in accordance with the relevant TGS; • Assess and respond to changes in the environment, e.g. traffic volumes, weather conditions, road conditions, WHS and operational requirements; and • Carry out risk assessments for personal safety. 	<p>Persons holding this qualification must not:</p> <ul style="list-style-type: none"> • Select or adjust a site suitable TGS; • Implement a TGS; • Modify a TGS; or • Design a TGS.
<p><u>Implement Traffic Control Plans</u> This qualification allows for qualified personnel to set up and work with TGSs at a work site and complete safety inspections.</p>	<p>Persons holding this qualification are permitted to:</p> <ul style="list-style-type: none"> • Set up, monitor, and close down traffic control devices according to nominated TGS; • Identify safety implications of traffic control at roadworks; • Check, clean and store equipment on completion of work and close down a TGS; • Select an approved TGS to suit site conditions, traffic volumes and work activities; • Make adjustments to an existing TGS within the tolerances specified in <u>Section 7.10.3 Tolerances on positioning of signs and devices</u>; • Conduct an onsite check of a TGS to identify risks and hazards; • Ensure spacing between signs and traffic control devices is in line with a TGS; • Maintain traffic incident reports; and • Monitor traffic controllers. 	<p>Persons holding this qualification must not:</p> <ul style="list-style-type: none"> • Control traffic with a STOP/SLOW bat or other traffic control device; • Make adjustments to an existing TGS which exceeds the tolerances specified in <u>Section 7.10.3 Tolerances on positioning of signs and devices</u>; or • Design a TGS.
<p><u>Prepare Work Zone Traffic Management Plan</u> This qualification allows for qualified personnel to design and modify Traffic Management Plans (TMPs), Vehicle Movement Plans (VMPs) and traffic guidance schemes (TGSs).</p>	<p>Persons holding this qualification are permitted to:</p> <ul style="list-style-type: none"> • Prepare a Work Zone TMP; • Collect all required information about a given roadwork project to enable the preparation of a TGS; • Design a TGS, based on risk assessment, statutory and regulatory requirements, standards, road authority requirements and project brief; • Select and modify a TGS based on risk assessment, statutory and regulatory requirements, standards, road authority requirements and project brief; • Determine the recommended spacing between signs and traffic control devices in line with standards, measure width of trafficable surface and calculate edge clearances to barriers, cones and clearance to work personnel; 	<p>Persons holding this qualification must not:</p> <ul style="list-style-type: none"> • Control traffic with a STOP/SLOW bat or other traffic control device; or • Implement a TGS.

Qualification	Requirements	Restrictions
	<ul style="list-style-type: none"> Undertake safety inspections/checks on the effectiveness of TMPs and TGSs; Conduct an onsite check and inspection of the plan and to identify any hazards or risks; and Seek approvals required for a TMP and TGS 	

2.4.3 Fitness for duty

Workers performing TTM must be fit for duty when reporting for work and during working hours (including breaks and travel time). This includes being free from the adverse effect of prescribed, over-the-counter and alternative medication which might negatively affect the ability to perform duties and/or pose a risk to the safety of workers and/or others.

Alcohol or prohibited drugs must not be consumed on a Transport work site or workplace at any time. Refer to the Transport [Drugs and alcohol procedure](#) for more information. All workers when undertaking work for, or on behalf of Transport, must comply with this procedure at a minimum. If work is being undertaken on a site that is under the control of a Principle Contractor, the Drug and Alcohol requirements of that Principle Contractor prevail only if the standard exceeds that required by Transport.

Workers should inform their manager where there is reasonable suspicion that anyone working on a roadwork site may be under the influence of drugs or alcohol.

2.4.4 Personal Protective Equipment (PPE)

Workers performing TTM must wear approved high-visibility clothing, including wet weather clothing where appropriate, in accordance with Transport’s current [Personal Protective Equipment Procedure](#). PPE must be clean, bright and not obscured by or covered with other clothing.

Additional PPE such as hearing, eye and foot protection must also be worn as required by the relevant Safe Work Method Statement (SWMS) and in accordance with Transport’s current [Personal Protective Equipment Procedure](#).

2.5 Traffic control

Traffic control is any direction of traffic around, past or through a roadwork site, accident, hazard or other disruption. A summary of the key policies contained in [Section 5.4 Traffic control](#) are as follows:

- Traffic control must be used if road users are to be directed to deviate from a traffic regulation, such as crossing a barrier line;
- The implementation of traffic control must be conducted in line with the hierarchy of controls with the elimination of harm to workers and the travelling public considered in the first instance;
- Where traffic control is required, a portable traffic control device (PTCD) must be used rather than using a manual traffic controller when the existing permanent speed limit is greater than 45 km/h, see [Section 5.4.2 Traffic control types](#). [Section 5.4 Traffic control](#) provides the conditions under which a manual traffic controller may be used;
- Where PTCDs or traffic controllers are used, approach speeds of traffic must be reduced to less than 65 km/h; and
- All persons operating a portable traffic control device or performing manual traffic control must be:
 - Qualified with ‘Traffic Control’ training; and

- Authorised by the relevant road authority.

Section 5.4 Traffic control permits the use of a manual traffic controller provided all of the following conditions are met:

- The use of a PTCO is demonstrated to not achieve the safest outcome;
- The decision to use a manual traffic controller instead of a PTCO is documented; and
- Approval is granted by the one-up manager of the PWZTMP qualified person or the nominated divisional representative.

Additionally, a manual traffic controller may be used in instances of emergency response.

If a manual traffic controller has been justified and approved in the TMP, the manual traffic controller must have four (4) cones placed at 4 m spacing at a safe location immediately preceding the location of the traffic controller on the edge line, centre line or both, and the appropriate signage in accordance with Section 5.4 Traffic control.

2.6 Signs and devices

Signage must be installed in accordance with Section 6 Signs and devices. When using signs they must be:

- Placed before the roadwork begins and be removed as soon as they are no longer required;
- Regularly checked to ensure they are still relevant, in good mechanical condition, have not moved, rotated or blown over, are clean, not faded and have good night-time visibility as necessary; and
- Inspected to ensure they remain clearly visible and command attention to road users and are not obscured by vegetation, vehicles, plant or other signs and devices, and are displayed in the correct sequence.

2.7 Work sites

The work site is the length of road which includes the area where the work is being undertaken and any additional length of road used for traffic control including signs, tapers, traffic lights and other devices. The work site is made up of five smaller areas detailed in Section 7.6.2 Components of the work site.

A work area is a component of a work site and is occupied by workers, plant and materials. Work areas must be:

- Designed so that the minimum length and width of a road is closed at each stage to minimise disruption and inconvenience to road users while maintaining work site safety and efficiency;
- Staged to ensure minimum disruption to traffic especially at peak times, nights, weekends, holiday periods and during special events; and
- Monitored with action taken if lengths of traffic queues or delays occur which are greater than those predicted and allowed for.

2.8 Departures from this Technical Manual

2.8.1 General

It is acknowledged that during the planning or implementation of TTM, there might be instances where the mandatory, minimum requirements contained in this Technical Manual are not achievable, or are not achieving the required level of risk management. In these instances, a variation to a requirement or a

departure developed and approved in accordance with this Section, may provide a better outcome. The rationale for all such decisions must be documented.

There are three broad categories of departures shown in *Table 2-2*. Departures must be managed according to the processes within the relevant category to allow for the effective management of risk.

None of the processes contained within this Section enable departures from Road Occupancy Licence (ROL) requirements.

Table 2-2. Departure categories

Departure	Examples	Section
Use of unapproved signs—includes variation to existing sign designs or the introduction of a sign that is not contained with the Traffic Signs Register	<ul style="list-style-type: none"> Modification of an existing sign design within the Traffic Signs Register; or Development of a new sign specific to site activity 	Section 2.8.2 Use of unapproved signs
Use of unaccepted device—includes the introduction of a device or innovative process that is not already accepted for use via this Technical Manual	<ul style="list-style-type: none"> Use of a new or varied device for controlling traffic; or Use of new or varied to delineation method 	Section 2.8.3 Use of unaccepted devices
General departures—refers to a variation to a mandatory requirement in this Technical Manual that does not fall into a 'sign' or 'device' category	<ul style="list-style-type: none"> Variation to the approved minimum lane width; or Variation to the approved minimum edge clearance/shoulder width 	Section 2.8.4 General departures

The requirements of this Section apply to all TTM planning or implementation being undertaken for or on behalf of Transport, including works managed by a Principal Contractor or Industry Partner, in consultation with the relevant Transport representative for the project.

2.8.2 Use of unapproved signs

All signs used to direct or warn traffic at a roadwork site must be approved, designed and used in accordance with this Technical Manual and the Transport electronic [Traffic Signs Register](#).

When it is determined that a work site requires a new sign, or modification to a standard sign, an Innovative/Non Standard Sign Design Request must be completed and submitted to Traffic.Engineering@transport.nsw.gov.au.

Design and approval of a non-standard sign are undertaken by the Guidance and Delineation team within Traffic Engineering Services.

If a sign design is determined to be of benefit to Transport on an ongoing basis, it may be considered for inclusion on the [Traffic Signs Register](#).

2.8.3 Use of unaccepted devices

Under the Road Transport Act 2013, a prescribed traffic control device must not be installed, displayed on, above or near a road without appropriate authority. Devices detailed in this Technical Manual and the

relevant specifications where required, provide the authorisation and conditions for use by which those devices may be installed on a Transport work site.

All traffic control devices, including road markings, traffic signals, or any other device used to direct or warn traffic at a roadwork site must be accepted for use in accordance with this Technical Manual or another Transport standard, Technical Manual or specification.

Any device that is not approved for use by Transport must not be used without the appropriate written authorisation as per the Roads Transport Act 2013.

Written authorisation for the conditional use of a device for the purposes of TTM may be granted by the Director, Traffic Engineering Services via an application to Traffic.Engineering@transport.nsw.gov.au.

Once submitted, the Traffic Engineering Services team will review the application and make an assessment for use considering:

- Existing standards and approvals required;
- Alternative solutions available;
- Safety and operational benefits;
- Constraints and risks; and
- Justification for its use.

In some cases, for authorisation to be granted, a field trial may be requested prior to or during its use as described in the application.

Any such trial will be requested by the Director, Traffic Engineering Services in consultation with the applicant. The purpose of the trial is to determine the safety, efficacy, operational requirements and suitability of the device for its use in this and other similar applications. The outcomes of trials may result in the integration of the device into this Technical Manual or other relevant documentation.

2.8.4 General departures

Where a mandatory requirement of this Technical Manual cannot be achieved or does not achieve an acceptable level of risk management, the following process must be followed:

1. Following the framework of Section 3.3.4 Risk assessment, the PWZTMP qualified person must undertake a risk assessment which includes:
 - a. Description of the work where departure is required;
 - b. Mandatory requirement not being met with detailed description why it cannot be met;
 - c. Options investigated
 - d. Proposed variation to the requirement, including if the variation is:
 - Aligned with an accepted and existing national practice document, such as AS 1742.3 or the AGTTM;
 - Aligned with an accepted and published standard of another Australian road authority; or
 - A risk based departure with no alignment to another standard or practice.
 - e. Risks introduced as a result of the proposed variation;
 - f. Additional controls needed to manage the introduced risks; and
 - g. The residual risk after the proposed variation and mitigation measures are applied.

2. Based on the anticipated residual risk and proposed standard applied, the PWZTMP qualified person must seek approval for the variation from the relevant Transport representative. Where the residual risk is determined to be:
 - a. **Low to Medium**—a Transport representative with authority at least Delegation 5 or higher (4, 3, 2 or 1) is required to approve the variation;
 - b. **High**—a Transport representative with authority at least Delegation 4 or higher (3, 2 or 1) is required to approve the variation.
3. After approval, the PWZTMP qualified person must update the TMP and other relevant documents such as traffic staging drawings and TGS in accordance with Section 8.2 Record keeping of TTM documentation. The TMP must include:
 - a. A copy of the approved risk assessment;
 - b. A summary of the departure including:
 - i. Description of the work where departure is required;
 - ii. Mandatory requirement not being met;
 - iii. Detailed reason for the requirement not being met;
 - iv. Options investigated;
 - v. Approved variation;
 - c. Minimum controls needed to manage the introduced risks; and
 - d. Supporting information such as drawings and correspondence etc.

Throughout the process, consultation should be undertaken with relevant subject matter experts where required, such as Traffic Engineering Services, Road Design or other specialists. Any changes to the TMP must be approved in accordance with Section 3.3.6 TMP approval and review scheduling.

Appendix A – Traffic management planning templates and tools contains a template that may be used to capture this information for inclusion in the TMP.