

## Temporary Traffic Management when working on or near public roads

### Background

This Guidance Note covers some of the requirements for work on or near ACT roads.

Section 19(1) of the *Work Health & Safety Act 2011* requires that a person conducting a business or undertaking (PCBU) [such as an employer] must, so far as is reasonably practicable, ensure that the health and safety of workers is not put at risk from work carried out as part of their business or undertaking.

Section 19(2) of the *Work Health & Safety Act 2011* requires that a PCBU must, so far as is reasonably practicable, ensure that the health and safety of other persons is not put at risk from work carried out as part of their business or undertaking.

Section 19(3)(f) of the *Work Health & Safety Act 2011* requires that a PCBU must, so far as is reasonably practicable, provide any training that is necessary to protect all persons from risks to their health and safety arising from work.

Section 291 of the *Work Health & Safety Regulation 2011* defines high risk construction work as including work that is carried out on, in or adjacent to a road or other traffic corridor that is in use by traffic other than pedestrians.

### What is Temporary Traffic Management?

Temporary Traffic Management (TTM) is a system for controlling traffic movement through or past a worksite to achieve a maximum of safety and a minimum of inconvenience for both the road worker and the road user. A TTM system is required when working on public roads, road verges, road medians, footpaths, bicycle paths, construction sites, at a wharf, pier or jetty, at the lake foreshores or any part of a park, reserve, recreational or sporting ground, racecourse or any other open place to which the public has access and where any work related activities require temporary traffic control.

### Why is a temporary traffic management system required?

The *Work Health and Safety Act 2011* places obligations upon a PCBU to take all reasonably practicable steps to eliminate or minimise risk and ensure that the workplace is safe. This includes preventing injury to workers due to hazards within the worksite, protection of workers from oncoming or passing traffic and the protection of road users from hazard within the worksite. Implementing a temporary traffic management system which is designed to protect workers and road users is a method of meeting your safety duty under work health and safety laws.

### When must a Temporary Traffic Management Plan be authorised?

A Temporary Traffic Management Plan (TTMP) is a diagram, which shows how the prescribed traffic control devices are to be installed or displayed. The *Road Transport (Safety and Traffic Management) Act 1999* requires a person to be authorised by the local road transport authority to install or display a prescribed traffic control device on, above or near a road or road related area; or on a vehicle on, above or near a road or road related area; or to interfere with, change or remove a prescribed traffic control device installed or displayed on, above or near a road or road related area; or on a vehicle on, above or near a road or road related area. A road related area includes a footpath, nature strip, median, shared use path and places open to and used by the public. For further information on the requirements to obtain TTMP authorisation, contact Roads ACT on 13 22 81 or visit Roads ACT's website at [www.tams.act.gov.au/roads-transport/traffic](http://www.tams.act.gov.au/roads-transport/traffic).

## What are the requirements for temporary traffic management?

A documented risk management assessment process must be undertaken for all work undertaken on public roads and road related areas, whether or not an authorised TTMP is required. Risk management involves identifying and assessing all workplace and public safety risks likely to arise during the roadwork including setting up, operating, changing and dismantling traffic control devices. Appropriate control measures must be determined and implemented to eliminate those risks or minimise the risks as far as reasonably practicable (see *What does risk control involve?* below).

The documented risk management process should be undertaken prior to starting the work. The control measures should be incorporated into the design of any TTMP.

## What does a risk assessment involve?

A risk assessment estimates the level of risk posed by hazards arising from an undertaking. In the case of working on or near a public road it involves analysing the likelihood and consequence of threats to the health and safety of workers and all road users (drivers, cyclists and pedestrians) which could result from the work in question. The following are some of the factors which should be considered in a risk assessment:

- scope and duration of the project
- site layout
- traffic density
- traffic flow and speed
- time required to perform activities
- time of day when tasks are to be performed
- specific hazards within the work site, such as excavations
- pedestrian movement
- environmental factors such as wet conditions or poor visibility
- risks associated with plant and equipment
- experience and training of workers
- alternate routes available for road users and pedestrians, should a road or footpath be partially or fully closed.

## What does risk control involve?

Control measures are set out in the hierarchy of control described below. Risks to work health and safety should be identified and eliminated. If it is not reasonably practicable to eliminate them, they should be minimised by implementing controls at the top of the hierarchy below before consideration is given to using lower order controls.

- **Elimination:** Road, footpath and shared use path closures.
- **Substitution:** Program the work to be conducted when there is no risk or significantly less risk present.
- **Isolation:** Use approved temporary road safety barriers which meet the requirements of *AS/NZS 3845:1999: Road safety barrier systems* to isolate workers and work activities from road users.
- **Engineering controls:** Temporary by-pass roads
- **Administrative controls:** Traffic engineering, such as the use of directional signage (e.g. workmen ahead, speed reduction, lane status signs, as well as cones, bollards, delineators, barrier boards etc.); safe working practices put in place, training instruction and information provided to workers.
- **Personal protective and safety equipment:** High visibility garments worn when working in the vicinity of moving traffic (up to 5 m) or plant. When selecting high visibility garments consideration needs to be given to the time of day, colour of plant on site and the surrounding environment. High visibility vests should be fastened across the front to display a continuous reflective material around the torso. The garment should meet the requirements of *AS/NZS 4602.1:2011: High visibility safety garments - Garments for high risk applications*.
- **NOTE:** A combination of the above controls will often be appropriate.

Due to the nature of construction work and the constantly changing risks, the temporary traffic management system should be regularly reviewed and changes made to ensure that the risks to health and safety of workers and third parties are controlled. While minor changes (excluding changes to regulatory signs) can be done by a person with a 'Red Card' (see *Training* below) provided they record the changes made, more significant amendments including changes to regulatory signs require an amended TTMP to be submitted to Roads ACT for authorisation prior to the changes being made.

## What control devices are available for TTM systems?

*Australian Standard AS 1742.3-2009: Manual of uniform traffic control devices - Traffic control for works on roads* provides information and practical guidance on the types of traffic control devices available and how they are to be installed. The standard uses "may", "shall" and "should". "May" indicates the existence of an option, "shall" indicates that a statement is mandatory and "should" indicates a "recommendation".

## Examples of temporary traffic control devices

### 1. Road Safety Barriers

Road safety barriers are designed to provide a physical barrier between the travelled way and the work area, which will inhibit penetration by and redirect out of control vehicles. Protection using safety barriers is the preferred option for long-term jobs when the separation between the work area and traffic is less than 3m. They can also be used to separate opposing traffic.

Road safety barriers shall comply with *AS/NZS 3845:1999: Road safety barrier systems*, be endorsed by the Austroads National Safety Barrier Assessment Panel (ANSBAP) and be the appropriate test level described in AS/NZS 3845 to treat the identified risk. Road safety barriers listed in the Roads and Maritime Services NSW document "*Safety Barrier Products Accepted for use on Classified Roads in NSW as at 6 January 2014*" and subsequent amended versions of this document are accepted for use in the ACT.

When installing a road safety barrier system a clearance distance from the barriers to the edge of the traffic lane of between 0.3m and 2.0m (distance varies according to the traffic speed) shall be provided. A containment fence should be placed behind the safety barrier if the work area is close to the clearance distance to delineate the barrier deflection zone clearance line for workers.

When determining the likely deflection limits, consideration needs to be given to the road cross slope, angle of impact, speed of impact and the size of the vehicle. The manufacturer/supplier of the barriers should provide information to assist you in determining the likely deflection limits.

**Note:** Plastic water filled barriers that have not been endorsed by ANSBAP or are not listed in Roads and Maritime Services NSW document "*Safety Barrier Products Accepted for use on Classified Roads in NSW as at 6 January 2014*" as amended from time to time must not be used as a safety barrier in any situation.

### 2. Containment Fences

Containment fences may be used to provide visible separation between the travelled path of vehicles, pedestrians and the work area in situations where physical protection by use of a safety barrier is not reasonably practicable.

Where the edge of the work area is between 1.2m and 3m from the nearest edge of a lane carrying traffic and a road safety barrier system is not used the speed of traffic past the work area must be reduced to 60 km/hr or less and a containment fence should be provided along the edge of the work area if there is a risk of workers or small plant items infringing the clearance area.

Where the edge of the work area is less than 1.2m from the nearest edge of a lane carrying traffic, the speed must be reduced to 40km/h or less and a containment fence should be provided along the edge of the work area if there is a risk of workers or small plant items infringing the clearance area. The

containment fence may be omitted if there is insufficient space to place it. Use of containment fences to protect the safety of workers and road users in locations where traffic speeds exceed 60km/h is not recommended.

Containment fences can also be used to delineate “no go” areas for workers.

### 3. Reduced Speed Zones

Reduced speed zones can be used as a control measure to treat a risk identified in the risk assessment and to satisfy the requirements of AS1742.3. If a reduced speed zone is used as a control measure, but is ineffective due to vehicles not slowing down to the reduced speed limit, additional control measures should be implemented such as speed monitoring boards, temporary traffic lights, pilot vehicles or traffic controllers. The Police may also provide assistance in enforcing road work speed limits. Ultimately, responsibility for ensuring compliance with the posted speed rests with the contractor and the TTM should be designed to meet this responsibility.

### 4. Signs

There are varying signs for different conditions. For guidance on types of signs, size of signs and mounting requirements refer to *AS 1742.3-2009: Manual of uniform traffic control devices - Traffic control for works on roads*.

Temporary traffic management signs need to be displayed at different heights for different situations. It is important that anyone travelling along the road or footpath is fully aware that there is work on the road ahead and knows exactly what path to follow and how fast he or she is supposed to travel through the worksite. Signs placed on the ground should be clear of obstructions. Signs should not be placed in the shade as this may affect their visibility to road users. Generally, signs should be placed one metre clear of the travelled path, where they will not be a hazard to workers, pedestrians and road users.

Some signs such as the road worker and truck entering signs must not be displayed when either workers are not on site or are not visible to drivers, or when trucks are not entering or leaving the work site. Signage that is not authorised for display outside the authorised hours of work must be removed or covered.

Environmental conditions such as wind and rain must be taken into account when installing TTM signage or other prescribed traffic control devices.

## Training

Persons designing a TTMP, or installing, removing or altering prescribed traffic control devices or performing traffic control duties must be competent to correctly perform the specified task.

*AS 1742.3-2009 : Manual of uniform traffic control devices – Traffic control for works on roads* Appendix C outlines the minimum required competencies for persons working as traffic controllers. Only competent persons who possess an appropriate state certification should be appointed as traffic controllers.

While there is no certification available in the ACT, certification from another Australian state or territory road transport authority or accredited training organisation will be recognised as meeting the competency requirements in *AS 1742.3-2009*.

For traffic controllers, WorkSafe ACT would accept a current RMS NSW **Blue Card**, or some equivalent level of training / competency, as evidence that these persons have been appropriately trained.

For workers responsible for set up and work with Traffic Control Plans, WorkSafe ACT would accept a current RMS NSW **Yellow Card**, or some equivalent level of training / competency, as evidence that these persons have been appropriately trained.

For workers responsible for selecting and making minor modifications to existing TTMPs, WorkSafe ACT would accept a current RMS NSW **Red Card**, or some equivalent level of training / competency, as evidence that these persons have been appropriately trained.

For workers responsible for designing new Traffic Control Plans, WorkSafe ACT would accept a current RMS NSW **Orange Card**, or some equivalent level of training / competency, as evidence that these persons have been appropriately trained.

RMS training is available from a number of training providers. A list of training providers is available on the RMS NSW website at <http://www.rms.nsw.gov.au/doingbusinesswithus/index.html>.

## Keeping records

A logbook should be kept on site for recording any activities and amendments involving the TTM system, including accidents/incidents within the TTM system, when TTM signs are displayed/covered or removed from the work site. The record should also state the time, date and location where these activities occurred.

## Specific requirements for construction work

The *Work Health and Safety Act 2011* requires that where high risk construction work is carried out, a safe work method statement (SWMS) must be prepared before the work commences. High risk construction work includes construction work that is carried out:

- in an area of a workplace in which there is any movement of powered mobile plant
- on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians.

The SWMS must identify the high risk construction work, specify hazards, and describe measures to control risks and how this will be implemented. Information and instruction for workers involved in construction work must include the contents of SWMS and workers must have easy access to the relevant SWMS at the workplace.

Temporary traffic management planning and SWMS should be incorporated into the site WHS Management Plan.

## Further Information

For further information on this subject contact WorkSafe ACT on 02 6207 3000, by email to [worksafe@act.gov.au](mailto:worksafe@act.gov.au) or by accessing the WorkSafe ACT website at [www.worksafe.act.gov.au](http://www.worksafe.act.gov.au).