Traffic Controller Accreditation Scheme (TCAS)

Approved Procedure

January 2022

Queensland Government

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1 Introduction

A person authorised to control traffic in Queensland must be accredited by the Department of Transport and Main Roads (the department) under the *Traffic Controller Accreditation Scheme* (the Scheme).

Complying with the Traffic Controller Accreditation Scheme Approved Procedure (TCASAP) is a statutory condition of a traffic controller accreditation.

The Scheme, administered by the department, establishes:

- the functions, responsibilities, and operational requirements for traffic controllers
- the prerequisites for accreditation including mandatory training requirements, and
- the processes for accrediting traffic controllers and for amending, suspending, or cancelling accreditation.

The department administers the Queensland *Manual of Uniform Traffic Control Devices* (MUTCD) and the *Queensland Guide to Temporary Traffic Management* (QGTTM). These documents set out the principles for developing, installing, and operating a Traffic Guidance Scheme (TGS); the description and use of signs and devices and procedures for installing and operating traffic control devices.

A person accredited under the Scheme is authorised to control traffic:

- at roadwork sites where a road closure or part road closure is necessary
- at events where a road closure or part road closure is necessary, and
- in other circumstances where traffic control is required on a road (including a footpath).

1.1 Purpose of this document

The purpose of this document is to specify the operational procedures and other requirements that must be complied with by traffic controllers in performing their duties in Queensland. This includes the approved operational procedure for controlling traffic, including the approved use of the STOP / SLOW signs (R6-8 / T7-1) and the Traffic Controller Ahead / PREPARE TO STOP sign (T1-Q05) and Portable Traffic Control Devices (PTCDs).

In addition to setting out the mandatory requirements for competently performing the role, this document includes practical explanations to assist traffic controllers in making the right decisions in the course of their duties when faced with varying road and traffic conditions at each site.

This document also sets out the obligations on employers of traffic controllers and site supervisors to ensure that traffic controllers are being monitored and well supported in performing their role.

Accordingly, this document aims to assist traffic controllers to perform their role in the safest and most effective manner possible.

1.2 Authority and approvals

The authority to control traffic is set out in the following Act and Regulations:

Transport Operations (Road Use Management) Act 1995 (Qld)

- Chapter 3 Part 1A (Sections 17A to 19A) – ‘Approvals’
- Chapter 3 Part 2 (Section 21) – ‘Appointment of accredited persons’

- Chapter 3 Part 2 (Section 22) – ‘Powers’
- Chapter 3 Part 2 (Section 23) – ‘Appointment of conditions’
- Chapter 5 Part 2 (Section 72A) – ‘Way to install official traffic sign’
- Chapter 5 Part 5 (Section 96) – ‘Diversion of traffic’
- Chapter 6 (Section 166) – ‘Official traffic sign approvals’

Transport Operations (Road Use Management – Accreditation and Other Provisions) Regulation 2015

- Part 2 (Sections 4 to 10) – ‘Appointment as accredited person – Act, section 21'
- Part 2 (Sections 11 – 22) ‘General provisions for accreditations’
- Part 2 (Section 5 – 55) – ‘Traffic controllers'
- Part 2 (Section 56 – 69) – ‘Accreditation documents for accredited persons'
- Schedule 1 Section 10 – ‘Traffic controllers'.

Transport Operations (Road Use Management – Road Rules) Regulation 2009

- Part 8 (Section 101) – ‘Hand-held stop signs’.

Note: The above legislation and regulations can be viewed at *Queensland Legislation* by clicking on the letter matching the Act or Regulation then scrolling to the specific title.

1.3 Definitions

Table 1.3 lists definitions of terms used in this document.

Table 1.3 – Definitions

Term	Definition
Accredited Person	A person who holds an appointment as an accredited person under Section 21 of the *Transport Operations (Road Use Management) Act 1995* (Qld).
AGTTM	Austroads *Guide to Temporary Traffic Management* :a 10-part guide to temporary traffic management detailing contemporary temporary traffic management practice for application in Australia and New Zealand. The AGTTM provides guidance for planning, designing, and implementing safe, economical, and efficient temporary traffic management designs. AGTTM Part 7 relates to traffic controllers. The TCASAP has been revised to take into account AGTTM Part 7.
Approved Traffic Controller Training Course	The traffic controller training course approved by the department.
Authorised Officer	A person who holds an appointment as an authorised officer under Section 20 of the TO(RUM) Act (these include police officers; officers and employees of the public service as appointed by the Chief Executive; and other persons prescribed under a regulation).
Chief Executive	For the purpose of this document, the chief executive means the Director-General of the Department of Transport and Main Roads.

Term	Definition
Code of Practice	*Traffic management for construction or maintenance work Code of Practice 2008*, published by the Department of Justice and Attorney-General under the *Work Health and Safety Act 2011* (Qld).
Daytime	Any time between sunrise and sunset on the same day, providing there is sufficient daylight to see a person or vehicle clearly at a distance of 150 metres.
Disqualifying offence	An offence against the *Criminal Code Act 1899* (Qld); or an offence against Section 48 or Chapter 3, Part 5, Division 1 of the TO(RUM) Act, or a corresponding law, or an offence committed outside Queensland that would be a disqualifying offence if committed in Queensland.
Medical fitness	Section 3.0 of this Approved Procedure.
MUTCD	Queensland *Manual of Uniform Traffic Control Devices*: a document administered by the department, containing the design of, and the methods, standards and procedures in relation to signs, signals, markings, light or devices installed on a road. The Queensland MUTCD and QGTTM together outline the design of, and the methods, standards, and procedures in relation to signage, markings, light, or devices installed on a road for the purpose of signing at road works. They describe the sign, devices, and processes applicable to the development of Traffic Management Plans (TMPs) and Traffic Guidance Schemes (TGSs) for the installation, operation, and removal of temporary traffic management arrangements for work zones.
Official traffic sign	A sign, marking, light or device placed or erected to regulate, warn, or guide traffic in accordance with the Queensland MUTCD Part 3.
Periods of darkness	Any period where daylight is inadequate such that visibility is adversely affected. This includes night-time, dusk, and dawn, and in times of inclement weather when there is poor visibility.
Police officer	A person so defined under the *Police Service Administration Act 1990* (Qld).
PTCD	Portable Traffic Control Device.
QGTTM	*Queensland Guide to Temporary Traffic Management:* a series of Queensland-specific documents published by the department and designed to be read in conjunction with the AGTTM.
Queensland Traffic Controller Clothing Standard	Specifies the clothing that must be worn by Queensland accredited traffic controllers when performing traffic control functions.
Registered traffic management organisation	An organisation having registration under the department's *Traffic Management Registration Scheme*.
Registered training organisation (RTO)	A training organisation approved by the Australian Skills Quality Authority under the *National Vocational Education and Training Regulator Act 2011* (Cth) to deliver nationally recognised training.

Term	Definition
Road	Includes: (a) a busway under the *Transport Infrastructure Act 1994* (Qld); and (b) an area that is: 1. open to or used by the public and is developed for or has as one of its uses, the driving or riding of motor vehicles; or 2. dedicated to public use as a road. Example of an area that is a road – a bridge, cattle grid, culvert, ferry, ford, railway crossing, shopping centre car park, tunnel, or viaduct.
Road user	A driver, rider, passenger, or pedestrian, including a person in or on a wheelchair or a personal mobility device.
Roadworks	Any construction, augmentation, alteration, maintenance, or demolition on or affecting a road, including ancillary works and encroachments.
Scheme	*Traffic Controller Accreditation Scheme*.
Shuttle flow traffic control (single lane reversible flow)	A method of traffic control where a portion of the roadway is closed and a single lane must be used alternatively by traffic from opposite directions. A traffic controller may control traffic using the shuttle flow method.
STOP / SLOW bat	A hand-held device comprising a thin disc supported by a pole attached radially to the edge of the disc. The pole must be a minimum height of 1.8 metres above the ground. The diameter (450 mm or 600 mm) and surface on both sides of the disc should be suitable for displaying the STOP / SLOW sign.
Supervising traffic controller	A traffic controller responsible for the supervision of a traffic controller in training.
TCASAP	*Traffic Controller Accreditation Scheme Approved Procedure*.
The Act	*Transport Operations (Road Use Management) Act 1995* (Qld). TO(RUM) Act.
The department	Queensland Department of Transport and Main Roads.
The Regulation	Transport Operations (Road Use Management Accreditation and Other Provisions) Regulation 2015.
Traffic	As defined in the TO(RUM) Act: includes the use by any person of any road or off-street parking area, or the presence of any person, vehicle, tram, train, animal or other movable article or thing whatsoever.
Traffic controller	A person who holds an appointment as an accredited person under Section 21 of the TO(RUM) Act, to perform the functions of a traffic controller as prescribed by the Regulation.
Traffic controller in training	A person who is undertaking an approved traffic controller training course, but not yet an accredited traffic controller.
Traffic control station	The location where the traffic controller or the PTCD is located when controlling traffic.
VET system	National Vocational Education and Training system.

Term	Definition
Work Health and Safety	Obligations as defined under the *Work Health and Safety Act 2011* (Qld) (particularly but not limited to, Section 28) or any relevant superseding legislative amendments.
Worksite	Any construction, augmentation, alteration, maintenance, or demolition, including ancillary works, or any other event requiring traffic control by traffic controllers.

2 Functions and responsibilities

2.1 Application of the TCASAP (Target Group)

The Approved Procedure applies to all traffic controllers employed or otherwise, engaged in both the private and public sector. It also applies to employers of traffic controllers.

The Transport Operations (Road Use Management – Accreditation and Other Provisions) Regulation 2015 requires employers of traffic controllers to ensure traffic controllers comply with this Approved Procedure and Part 3 of the Queensland MUTCD.

The following individuals are exempt:

- authorised officers – as defined in Chapter 3 of the Act as follows – police officers, officers and employees of the public service as appointed by the Chief Executive, or other persons described under a regulation
- escort vehicle drivers accredited under Part 2 of the Regulation
- departmental school crossing supervisors
- anyone who has been directed by a police officer to assist police to direct or divert traffic
- State Emergency Service members working in an emergency or special situation authorised under *Disaster Management Act 2003* (Qld) provisions
- authorised officers under the *Ambulance Service Act 1991* (Qld)
- authorised officers under the *Fire and Emergency Services Act 1990* (Qld) including rural fire brigade volunteers conducting fire brigade duties
- anyone employed or volunteering as car park attendants who direct or divert traffic within a car park, and
- anyone controlling traffic outside of Queensland.

2.2 Conditions of accreditation

The Regulation provides that traffic controllers must comply with the conditions of their accreditation.

- A traffic controller must operate at the highest professional and safety standards in accordance with this Approved Procedure and work health and safety laws.
- To maintain traffic controller accreditation, a person must comply with any specific conditions of approval specified by the Chief Executive in connection with their accreditation.
- A traffic controller must renew their accreditation by the expiry date after having completed an approved traffic controller training course delivered by a department approved training provider.

- Traffic controllers are not authorised to undertake any on-site traffic controlling tasks unless they hold a valid accreditation as a traffic controller.
- A traffic controller must always keep their traffic controller's accreditation authority document with them on their person, indicating their accreditation details.
- Traffic controllers may only perform traffic control duties if they meet the physical and medical prerequisites for accreditation and are not suffering from fatigue, or any other condition that could impair their ability to perform their duties.

There is an onus on all employers of traffic controllers to ensure that their traffic controllers comply with their conditions of accreditation. Employers have an obligation to monitor traffic controllers at the worksite.

2.3 Function of a traffic controller

Section 51 of the Regulation provides that the function of a traffic controller is to direct traffic in a way stated in the Queensland MUTCD and this Approved Procedure.

Traffic controller functions include the following activities:

- STOP / SLOW traffic control duties on a roadway using a STOP / SLOW bat or a PTCD
- traffic control duties on a footpath
- implementing and removing signs and devices that are directly related to the traffic controller's operations
- supervision of a traffic controller in training in accordance with this Approved Procedure
- communication and reporting of incidents and road users who fail to follow directions, while at the road worksite, and
- monitoring of queue length.

Note: Traffic control involves the control of all vehicles and road users on a road (including people walking, people riding bikes, persons in a wheelchair or on a personal mobility device).

Traffic controllers can only legally STOP / SLOW traffic on a roadway where the traffic speed in advance of the traffic control station is 60 km/h or less.

2.4 Responsibilities of a traffic controller

Traffic controllers not only have a very important safety role on a worksite; they are also the front-line representatives of their organisation and conduct an important public relations role when interacting with road users.

Road worksites are particularly hazardous in comparison to normal road operations. Traffic controllers protect road workers and road users and, as such, the training, skills, and capability of traffic controllers are critical to the effective operation of worksites where they are engaged.

Traffic controllers are usually engaged when signs and devices for roadworks and events are considered insufficient to provide traffic control for safety, public convenience and efficient job control and management.

2.5 Professionalism

Traffic controllers must act professionally when exercising their authority and in their dealings with road users and other road workers.

Being professional entails:

- being polite and courteous at all times when interacting with road users and road workers
- being professional in their appearance and demeanour as an accredited person, and as a front-line representative at the worksite and of their employer
- being accurate, assertive, confident, and positive in giving directions to road users
- giving definite and clear signals when using a hand-held STOP / SLOW bat, hand signals, or PTCD, and
- not allowing themselves to be distracted while undertaking operational STOP / SLOW traffic control duties (such as taking phone calls or using mobile phone devices).

Note: As a traffic controller, being polite and courteous includes not getting involved in arguments with road users, remaining calm and not swearing or using abusive language. Traffic controllers should be brief if asked a question or when giving verbal directions and should avoid using jargon.

2.6 Drugs and alcohol

Traffic controllers must not perform their duties while adversely affected by drugs or other medication causing functional impairment.

A traffic controller must:

- maintain a 'zero per cent' blood alcohol concentration, while performing traffic control duties
- not perform traffic control duties while adversely affected by an illegal drug
- not perform traffic control duties while adversely affected by medication causing impairment
- not attempt to perform traffic control duties while suffering fatigue associated with heat exhaustion or other causes, and
- participate in on-site drug or alcohol testing programs when requested to do so at the worksite or by their employer.

2.7 Familiarity with work health and safety laws

Traffic controllers, their employers and site supervisors have a shared responsibility for the health and safety of workers at road work zones and should be familiar with their rights and obligations under work health and safety laws.

The *Work Health and Safety Act 2011* (Qld) (WHS Act) sets out the duties and responsibilities placed on managers, supervisors, and workers at a workplace. The WHS Act places a primary health and safety duty on the business owner or employer – referred to in the WHS Act as a person conducting a business or undertaking (PCBU).

The PCBU has a duty, under the WHS Act and the Work Health and Safety Regulation 2011, to ensure, as far as reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

The *Traffic management for construction or maintenance work Code of Practice 2008* (the Code) is an approved code of practice under Section 274 of the WHS Act. The Code was developed in consultation with the department.

Traffic controllers, their employers and site supervisors should be familiar with the Code. It gives practical advice and guidance on how to manage workplace health and safety risks posed by traffic to workers and other persons while construction or maintenance work is occurring on, or adjacent to roads.

2.8 Monitoring of traffic controllers by employers / site supervisors

Traffic controller employers and site supervisors have an obligation to monitor traffic control stations closely. They must ensure that the traffic controllers are well supported and are adequately equipped for the prevailing site conditions.

Traffic controller employers must ensure that traffic controllers are being provided with access to toilet facilities and that there are safe and adequate areas nearby to undertake breaks (for example, ample shaded areas on hot days).

Traffic controller employers must ensure that there are sufficient traffic controllers available at the site, to enable the traffic controller to take breaks from traffic control duties.

Traffic controllers must be made aware of any hazardous operations at the site, so that traffic control stations are not placed nearby.

No traffic controller is to perform STOP / SLOW traffic control duties in close proximity to hot asphalt operations, or to be placed in a situation that compromises their safety.

> Note: Fatigue management includes considering travelling time to and from the worksite. Management of fatigue and work arrangements (number of shifts breaks between shifts travel to and from sites) must be in accordance with the relevant legislation.
>
> Good planning and preparation should be encouraged by employers.

2.9 Breaks from traffic control duties

Where required to control traffic for more than two hours, traffic controllers must be relieved from their duty after not more than two hours for a period of rest or 'other duties' of at least 15 minutes.

'Other duties' do not include operation of a STOP / SLOW bat or a PTCD to control traffic, or any duties involving:

- standing still in one position, or
- continuing to control traffic in another manner (for example, be the lead traffic controller at an intersection under control and be instructing the other traffic controllers when to send or hold).

The intent of the 15-minute break from traffic control duties, is to reduce the likelihood of traffic controller error by giving the traffic controller:

- a physical break from controlling traffic using a STOP / SLOW bat or a PTCD (not from all traffic controller site duties), and
- a mental break from perpetual traffic controlling activity. This is particularly beneficial in multilane traffic control and heavy traffic volume situations.

Note: Longer rest / meal breaks are dealt with in accordance with relevant industry awards, industrial agreements and WHS legislation.

2.10 On-site supervision of traffic controller in training

A traffic controller in training is a person who has successfully completed the theory component of the approved traffic controller training course, prior to attending a worksite to obtain practical experience.

The role of a traffic controller in training is to gain practical experience in the workplace under direction, in order to complete the practical experience component of the training course.

A traffic controller in training is only authorised to control traffic while under the direct and close supervision of a traffic controller. The supervising traffic controller must be able to intervene should the trainee have questions requiring immediate responses, or should other intervention be required.

The supervising traffic controller is responsible for:

- monitoring the competency of the traffic controller in training, and
- stepping in (or having someone on-site who can step in immediately) to replace the traffic controller in training if the role is not being performed competently.

When supervising a traffic controller in training, the supervising traffic controller must not:

- devote attention to other tasks
- supervise more than one traffic controller in training at the same time, or
- ask the traffic controller in training to do anything that is outside the scope of the training agreement between the RTO and the worksite manager, or between the RTO and the registered traffic management organisation.

When a traffic controller in training is acquiring experience in using the STOP / SLOW bat in live traffic situations, the supervising traffic controller must stand within three metres of the trainee.

When a traffic controller in training is acquiring experience or demonstrating competency in PTCDs in live traffic situations, the supervising traffic controller is required to be present (in close proximity) and be able to intervene if required.

3 Medical fitness and suitability requirements

Traffic controllers interact with police, motorists, and other road workers in dynamic and high-risk road environments. Accordingly, traffic controllers are required to meet the medical fitness and 'suitable character' requirements to be accredited and to retain that accreditation.

Traffic controllers must not attempt to perform any traffic controller duties if they are not medically fit to perform the role.

When applying for accreditation, the traffic controller must declare their medical fitness to perform the role and provide any relevant medical certificates. The onus is then on the traffic controller to self-assess that they meet the medical fitness criteria throughout the period of accreditation.

If, despite the applicant's declaration of suitability, the department has any doubt about the person's medical fitness, competence and/or suitability, the department can require the person to produce a medical certificate, or other verifying documentation, to support their application for accreditation.

If the department receives information that a traffic controller is not medically fit, competent, or otherwise suitable to be a traffic controller, the department may require the person to produce a medical certificate, or other verifying documentation or undertake an assessment, to support their ongoing accreditation.

At any stage, the traffic controller can be asked to show cause as to why they should not lose the accreditation.

Note: See Section 7 *Review of a traffic controller's accreditation*.

3.1 Eyesight

A traffic controller must:

- be able to distinguish a vehicle at a distance of approximately 150 metres
- have visual acuity of 6/12 which would allow a vehicle registration plate number to be read at a distance of up to 20 metres on a clear day
- be able to distinguish a red coloured disc from a yellow coloured disc (of 450 mm diameter) at a distance of 250 metres on a clear day, and
- have reasonable judgement of speed and distance, so that the traffic controller can decide when to exit the path of an oncoming vehicle that fails to stop or slow down as directed.

While performing traffic control duties, a traffic controller must be able to identify vehicle characteristics and provide information about vehicle colour, size and/or the registration plate number.

If the traffic controller requires a visual aid to meet the visibility standards for entry in the Scheme (such as spectacles or contact lenses), the person must wear these aids while performing traffic control duties.

Note: Any visual defect which has not been rectified by corrective lenses or surgery, should be considered by a doctor / optometrist in assessing the person's vision. If the person has mild colour blindness, this should not adversely affect performing traffic controller duties providing the person can pass the Ishihara Colour test.

3.2 Hearing and speech

A traffic controller must:

- be able to hear a supervisor's instructions, vehicle warning devices and emergency vehicle sirens above normal traffic noise
- be able to differentiate noises emanating from either side and behind the traffic controller, and
- have sufficient hearing and vocal skills to be able to communicate with other traffic controllers and road workers directly and via portable communication equipment.

If the traffic controller requires a hearing aid to meet hearing standards for entry in the Scheme, the person must wear these aids while performing traffic control duties.

3.3 Mobility, endurance, and concentration

A traffic controller must be capable of:

- moving quickly out of the path of an approaching vehicle that does not stop or slow down as directed
- giving approved traffic control signals while standing and holding a STOP / SLOW bat for periods of up to two continuous hours
- loading and unloading traffic signs and other equipment from traffic control vehicles and trailers
- setting up and removing temporary road signage at and around road worksites, and
- concentrating and maintaining focus for entire periods between rest breaks.

3.4 Learning, literacy, and numeracy skills

A traffic controller must have an appropriate level of learning, literacy, and numeracy skills sufficient to competently undertake the role (such as the ability to accurately interpret and report vehicle and road user information and to complete traffic incident reports).

> Note: An assessment of learning literacy and numeracy is conducted as part of the training to become an accredited traffic controller.

3.5 Character and suitability

A traffic controller must:

- be of good character and be a suitable person to be entrusted to exercise their authority in an honest, responsible and safety-conscious manner, and
- be of suitable temperament and disposition to act appropriately, professionally, and assertively in all circumstances.

Note: All applicants for accreditation must declare relevant offences at the time of their initial application and the renewal application. Traffic controllers are subject to offence history checks by the department.

See also Section 7 *Review of a traffic controller's accreditation*.

4 Safety attire and clothing

4.1 Clothing standard

A traffic controller must wear clothing specified within the *Queensland Traffic Controller Clothing Standard* when carrying out the duties and functions of a traffic controller. The standard can be found at *What are the traffic control clothing requirements?*

The specified clothing is intended to identify the person as an accredited traffic controller with an authority to perform specific traffic controller duties and functions.

The standard specifies the activities in which traffic controller specific garments must be worn; for example, they must always be worn when performing traffic controller STOP / SLOW duties, while operating a PTCD, and while supervising a traffic controller in training.

When performing traffic control duties, a traffic controller must wear clothing that is clean and has not deteriorated. The fluorescent and retro-reflective material on clothing must not be faded.

Refer to the *Queensland Traffic Controller Clothing Standard* for further information about appropriate personal protective equipment (PPE) for periods of darkness.

Note: Wearing an unauthorised police uniform, part of a police uniform, or any imitation of a police uniform, or imitation of part of a police uniform, is an offence under Section 10.19 of the *Police Service Administration Act 1990* (Qld).

4.2 Traffic controller garment selection and hydration

During the course of the traffic controller's shift, it is recommended that the traffic controller has appropriate garments on hand at the site to accommodate changing environmental conditions (such as rain).

It is suggested that the garments worn during hot days allow maximum air flow, are light-weight and able to accommodate a cooling pack harness if needed.

5 Operating procedure for controlling traffic

5.1 What to use

Traffic controllers may only use equipment specified in this Approved Procedure to control traffic.

It is imperative that traffic controllers familiarise themselves with the specified equipment, signs, and devices.

5.2 Portable traffic control devices (PTCDs)

PTCDs may be used in lieu of the STOP / SLOW bat.

- These devices are effective in physically separating traffic controllers from being in close proximity with moving traffic.
- Traffic control devices are to be operated in accordance with the manufacturer's operating procedures and instructions.
- Only a traffic controller is authorised to operate manually-controlled portable traffic signals, or a boom barrier.
- A traffic controller must not be placed in control of portable traffic control signals or a boom barrier unless the traffic controller has been trained and is competent in operating the device.

Examples of portable traffic signal unit mountings and a boom barrier are shown in Figure 5.2(a) and Figure 5.2(b) respectively.

PTCDs used in Queensland must be on the department's ITS Approved Products list available at *Intelligent transport systems and electrical*.

Additional guidance on using, installing, and operating a PTCD, including Type 1 and 2 portable traffic signal systems (PTSS) and boom barriers, is available in the Guideline – *Traffic Management at Works on Roads*.

Figure 5.2(a) – Example of portable traffic signal unit mountings (for illustrative purposes only)

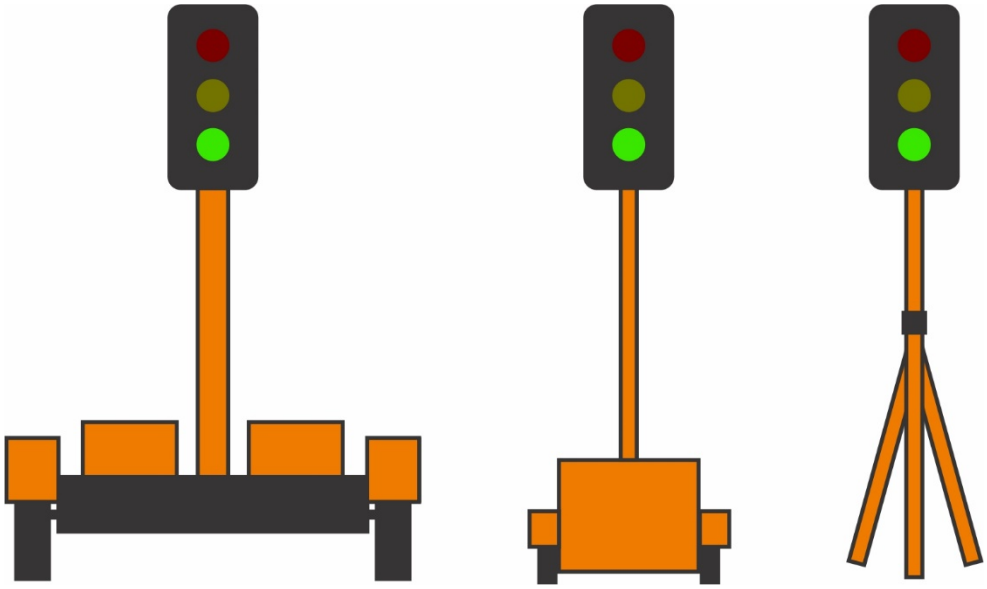


Figure 5.2(b) – Example of a boom barrier

5.3 Location and visibility of PTCD

Visibility of the PTCD is a key consideration when designing traffic guidance schemes.

The traffic management designer should consider the following during the development of the traffic guidance scheme:

- vehicle actuated, or fixed time operation of a portable traffic signal system should be visible to motorists at a minimum distance of 150 m
- a PTCD under manual operation by a traffic controller must have high visibility to motorists
- the PTCD is located no further than 1 m from the travelled path, mast is vertical, footing is stable and the traffic signal is weighted down if required
- the site is signed to 60 km/h maximum on approach to the PTCD (as nominated in QGTTM)
- the impact of work vehicles and plant on the visibility of the PTCD
- if the PTCD is to be used at night, consideration should be given to the potential for driver distraction (such as from retro-reflective stripes on the traffic controller uniform, light from the

traffic controller's illuminated wand, and the indicator lights on the hand-held remote controller),and

- vehicle-mounted warning devices can significantly diminish the visibility of the PTCD, especially when the vehicle is parked in the background.

5.4 Location of traffic controller operating the PTCD

The key factors in determining a safe location for traffic controllers when operating PTCDs include site geometry, traffic control device position, sight distance, roadside terrain / vegetation, the type of PTCD used, the vehicle mix and their approach speeds.

Environmental factors, (for example fog, rain, dust, or smoke) and time of day / night, also need to be considered.

Traffic controllers must occupy a position which:

- is clear of the travel path (the risk of being struck by passing vehicles is significantly reduced as the offset distance is increased)
- has an escape path
- has good visibility of approaching traffic.

For effective operation of a PTCD, the traffic controller should be positioned:

- so as not to distract drivers from focusing their attention on the PTCD
- to enable effective communication to both site workers and other traffic controllers (if applicable)
- to enable the traffic controller to identify the last vehicle before changing to STOP
- to be close enough to the PTCD to allow the traffic controller to commence STOP / SLOW bat duties in the event of a system failure; in the case of a single traffic controller operating two PTCDs, the traffic controller should be located near the traffic control station, which is on approach to the closed section of road (as this is the critical approach to control in the event of a failure), and
- to have visibility of the PTCD (either the front face or rear indicator light) and traffic queues. In the case of a single traffic controller operating two PTCDs, the traffic controller should be located to have visibility of both devices and traffic queues for each approach.

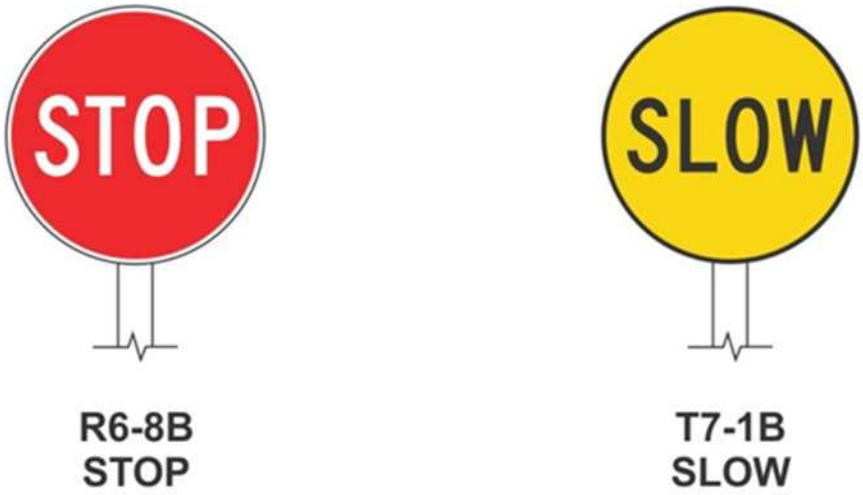
Note: If a single traffic controller is operating two PTCDs, an added consideration is that the operating range of the hand-held controller is not exceeded.

5.5 Approved equipment for STOP / SLOW bat traffic control

A hand-held STOP / SLOW bat measuring a minimum 1.8 m from the ground to the underside (bottom) of the STOP / SLOW sign must be used, except when a boom barrier or other traffic control devices are used.

A STOP / SLOW bat is to be used in conjunction with hand signals.

Figure 5.5 – Approved STOP / SLOW sign



When using the STOP / SLOW bat, the traffic controller must:

- ensure any inadvertent movement of the bat does not prevent the driver from seeing it clearly
- gain the driver's attention by using hand signals and making eye contact
- hold the bat in the hand closest to traffic, allowing the other hand to be free to give clear directions (this is also good practice in case the traffic controller is required to respond to an emergency), and
- take particular care to not make inadvertent errors such as momentarily displaying the incorrect side of the 'STOP' or 'SLOW' sign face to traffic.

5.6 Warning signs

The PREPARE TO STOP sign must be used in conjunction with the Traffic Controller (Symbolic) sign when using a STOP / SLOW bat, and, where possible, it is recommended these signs be positioned side-by-side.

When using a PTCD, the symbolic sign for a set of signals or a boom barrier is used instead of a Traffic Controller (symbolic) sign.

When used side-by-side in a multi-message situation, it is mandatory that the PREPARE TO STOP sign is placed closest to the traffic as a 600 x 600 sign.

The PREPARE TO STOP sign must be used where warranted as part of the advance signage on approach to the traffic control position. Refer to Section 4.8 and 5.10 of QGTTM Part 3 and Guideline – *Traffic Management at Works on Roads.*

The QUEUED TRAFFIC sign arrangement may be used where there is more than one PREPARE TO STOP sign to warn traffic approaching the end of the queue.

The STOP HERE-style signs are used to define the stopping location for traffic in advance of the traffic control station.

Figure 5.6 – Examples of multi-message sign configuration for traffic control

5.7 Communication devices

Portable two-way radios, or similar devices, are used for communication where traffic controllers are not in close enough proximity or cannot hear each other (other site workers also use two-way radios for communication at road worksites).

Traffic controllers must not use mobile phones to control traffic. Other than in emergency situations, traffic controllers are not to use mobile phones while performing operational traffic control duties.

Prior to commencing any duties, traffic controllers must ensure their portable two-way radio (or other device) is charged and operating correctly.

When using portable two-way radios (or other devices), traffic controllers must:

- ensure they know the relevant channel for the worksite (including any back up channels)
- speak clearly and slowly
- be accurate
- not use profanities or breach relevant Australian Communications and Media Authority communications standards
- provide enough information to communicate the message effectively

- use standard phrases as agreed in pre-start meetings and as instructed by employers, and
- keep dialogue relevant to the traffic control function.

Note: Traffic controllers receive training in the use of two-way radios when undertaking pre-accreditation traffic controller training courses. It is expected that traffic controller employers document company protocols and procedures for two-way radio communications and ensure that traffic controller employees are familiar with these.

5.8 Traffic controllers at the road worksite

Traffic controllers have responsibility for setting up and removing the designated traffic control signs and devices.

The traffic control station set-up and positioning must be undertaken in accordance with this Approved Procedure and the traffic guidance scheme (which has been designed to meet guidelines specified in Part 3 of the QGTTM).

If traffic control duties are taken over part-way through a shift, the incoming traffic controller must check that all signs and devices are properly set up before they commence controlling traffic.

It is the traffic controller's responsibility to set up the PREPARE TO STOP and the Traffic Control (symbolic) signs prior to works and remove them at the end of works.

5.8.1 Daily pre-start meetings

The site supervisor and/or the traffic management company must organise a pre-start meeting, to be attended by the traffic controllers before commencing traffic control duties. The meeting is vital to ensure traffic controllers and other on-site workers understand activities that are planned to occur. The pre-start meeting clarifies the responsibilities and roles of each person working on the site prior to work commencing.

Matters to cover off with traffic controllers during the pre-start meeting include:

- details of traffic guidance scheme, including traffic controller escape routes
- contact numbers and details of relevant people
- breaks (for example, toilet, water)
- traffic monitoring instructions
- details of the works being undertaken
- locations where workers are on foot
- site specific risks
- consideration of an exclusion zone, and
- incident management procedures specific to the site.

5.8.2 Risk management

Risk management entails identifying and analysing the safety risks likely to arise during works on roads.

Risks are taken into consideration by the traffic management designer in the development of the traffic management plan and traffic guidance scheme.

Risk factors for traffic control operations occur during site set up, implementation, operation and dismantling a traffic guidance scheme. Risk factors can change with varying road, traffic, and climatic conditions.

Traffic controllers should be aware of the importance of effective risk management. They should communicate any concerns they have to the site supervisor and other traffic controllers so that any new risk issues at the site can be assessed and managed.

On-site risk assessments must be documented. They include:

- description of the risk
- probability / likelihood of the risk occurring
- the consequences of the risk
- determining the appropriate measures to mitigate those risks and how they will be used, and
- how the effectiveness of the selected measures will be monitored.

Note: Also refer to Section 2.7 *Familiarity with work health and safety laws.*

5.8.3 Station set-up and positioning

The traffic control station position is established after the traffic controller determines that the location is safe, having regard to the following factors:

- the station must be clear of the travelled path
- the speed limit on approach to the traffic control station is 60 km/h or less
- the traffic controller has an escape route:
  - there must be a clear escape route to a non-trafficked (closed) section of the roadway, shoulder, footpath or median
- an area around the traffic control station must be kept clear in advance, behind and along the escape route
- the traffic controller has the required line of sight of approaching traffic
- the traffic controller is visible to approaching traffic
- the traffic controller must not be partially hidden by signs and/or devices and the traffic controller must not obstruct a road user's view of such signs and/or devices
- the station is positioned to allow effective communication to other traffic controllers (and to other site workers if applicable)
- the station allows the traffic controller to easily identify the last vehicles and their registration numbers, and
- the station allows the traffic controller good vision of all PTCDs in use and any traffic queues.

Once the traffic control station position is established, a traffic controller must ensure that their signs are set up correctly and (if used) the PTCD is set up correctly and operating properly.

The signs include:

- Traffic Controller (symbolic) or Signals Ahead (symbolic) and/or Boom Barrier Ahead (symbolic)
- PREPARE TO STOP
- STOP HERE ON RED SIGNAL, and
- STOP HERE WHEN DIRECTED.

When traffic controllers are not performing on-site traffic control duties, the abovementioned signs must be removed or covered.

5.8.4 Placement of sign and cones

- The STOP HERE ON RED SIGNAL or STOP HERE WHEN DIRECTED sign is placed where indicated on the traffic guidance scheme and, when used, is generally located 6 m in advance of the PTCD, unless otherwise determined by a site-specific risk assessment.
- Four traffic cones are to be placed on the centreline and spaced 4 m apart, starting adjacent to the STOP HERE ON RED SIGNAL or STOP HERE WHEN DIRECTED sign.
  - Traffic cones are used to highlight the traffic control position, where vehicles are to stop and for traffic management purposes.
  - A temporary hazard marker or KEEP LEFT DELINEATOR sign may be installed at the start of the row of four cones, to direct traffic to the correct travel path if needed.
  - The requirement for the four cones is not applicable if the traffic guidance scheme specifies otherwise, following a site-specific risk assessment.
- A PREPARE TO STOP sign, in conjunction with the Traffic Controller (symbolic) / Signals Ahead / Boom Barrier Ahead sign is installed at minimum distance from the predicted end of traffic queue (not the PTCD / traffic controller position). This distance is determined by the traffic management designer and is shown on the TGS for the site.

The table that is used by the traffic management designer to determine the relevant distances when preparing the TGS, is Table 2.3 in AGTTM Part 7. The table is reprinted in this document as Figure 5.8.4 for information purposes, as the distances are denoted on the TGS and not normally determined by the traffic controller.

Figure 5.8.4 – Distance between the PREPARE TO STOP / Traffic Controller (symbolic) sign and the end-of-traffic queue

Speed (km/h)*	Minimum Distance (m)
≤ 45	50
46 - 55	70
56 - 65	90
≥ 66	Two times the speed of traffic (km/h)

*The speed above refers to the posted speed for approaching vehicles.

Note: When there is the potential for long traffic queues, the traffic management designer will have given consideration to the use of repeater PREPARE TO STOP signs ahead of the worksite to inform road users of upcoming road conditions.

5.8.5 Sight distance considerations for traffic management designers

Traffic management designers will give consideration to sign locations and sign distances. Suitable sight distances enable road users enough time to perceive and react to a hazardous situation on the road ahead, resulting in safe and more efficient traffic management.

Sight distances are best when designed to be as long as practicable, but are often restricted by the following:

- curves in road
- crests in road
- obstructions (for example, safety fences, boundary fences, barriers, parked cars, street furniture, landscaping, signs)
- railway crossings
- bridges
- traffic queues
- weather (for example, line marking visibility in the rain, fog, smoke, dust)
- time of day (for example, night visibility, glare)
- sealed or unsealed roads
- type of road users at the site (for example, over-dimensional vehicles, motorcyclists), and
- other local site features.

The minimum sight distance for traffic approaching a PTSS, which is operating under vehicle-actuated, or fixed-time operation (no traffic controller) shall be 150 m as per QGTTM Part 7, Section 2.6.2.

5.9 Performing the traffic control function

5.9.1 Always be alert to changing conditions

When working on a site, the traffic controller should be aware that site conditions may change during the course of the day:

- over time, the angle of the sun may shade the traffic control station, making the traffic controller more difficult to see, or making signs more difficult to read – leading to confused road users
- signs may blow over in windy conditions, be vandalised, or become dirty and less readable
- peak hour traffic can cause longer queues, and
- changes in the road use mix (such as more heavy vehicles and pedestrians) at certain times.

Traffic controllers should inform their supervisors and other traffic controllers of any changed site conditions so that adjustments and remedy actions can be taken where needed.

5.9.2 Traffic signals, STOP and GIVE WAY signs

A traffic controller must not direct traffic through a STOP or GIVE WAY sign, without covering the sign first, nor can traffic be directed through operating traffic signals without having the relevant road authority switch them to flashing yellow or off.

Worksite supervisors must first gain the written approval of the relevant authority to cover a permanent fixture such as a STOP or GIVE WAY sign.

> Note: Refer to Section 5.17 for guidance on traffic controllers operating at or near traffic signals.

5.10 What to watch

Traffic controllers must primarily watch for approaching traffic and monitor changes in traffic patterns. They must look out for drivers who do not appear to be following signs or directions.

Although traffic controllers can only control a single lane of traffic in one direction, they need to be aware of activities occurring within the work zone that can directly impact on their role and the flow of traffic through the worksite.

This requires them to be observant to work progress and the movement of plant and machinery operating within the worksite.

Traffic controllers must also prioritise and facilitate emergency vehicles through the site when required.

5.11 Traffic control station operation

Traffic controllers are responsible for ensuring that traffic control stations are operated in a safe and orderly manner.

The traffic control station must be operated in accordance with this Approved Procedure.

Traffic controllers must remain at the traffic control station until directed by their supervisor to leave, or until they are relieved by another traffic controller.

Where more than one traffic controller is working at a particular location, the decision to change the direction of traffic flow rests with the traffic controller who is the next to stop the traffic (this being the traffic controller who has the SLOW sign facing the traffic).

It is recommended traffic controllers avoid stopping large vehicles at the front of the queue and ensure vehicles have a safe braking distance.

Figure 5.11(a) – Example: Changing from SLOW to STOP

When changing the bat from SLOW to STOP, the traffic controller must:

- stand facing the traffic, but just outside the path of vehicles
- wait for a safe break in the traffic
- turn the sign to 'STOP', signal with the free hand raised up, with the palm facing the traffic – see Figure 5.12(a)
    - give the next approaching vehicle enough time so the driver does not have to brake suddenly to stop. Where possible, avoid stopping large vehicles at the front of the queue.
- only after the traffic has stopped (and where it is safe to do so), change position as necessary to be clearly visible to drivers as they arrive at the end of the queue:
    - a good practice is to move to a position adjacent to the driver's side headlight of the first vehicle after two or three vehicles have stopped and it is safe to do so (while standing in that position, the traffic controller may turn their body at a slight angle to assist them to view approaching traffic from the rear while ensuring that the bat's STOP sign remains facing the stationary traffic)
- continue to monitor the stationary vehicles and vehicle approaches from the opposite direction (be cautious of vehicles approaching from both directions)
- make sure that there is still an escape route available, and
- communicate to the traffic controller at the other end of the worksite as required.

When holding vehicles, the traffic controller must:

- ensure that the bat's STOP sign faces the stationary traffic
- position themselves so that they can continue to watch for traffic approaching in both directions, and
- communicate with other traffic controller/s as required.

Figure 5.11(b) – Example: Changing from STOP to SLOW

When changing the bat from STOP to SLOW, the traffic controller must:

- check the other traffic controller is showing 'STOP' to their traffic
- check that the last vehicle has come through from the opposite direction (as has been communicated by the other traffic controller)
- check the work zone is clear to send traffic (including checking that no machinery or trucks are about to enter or turn into the traffic lane)
- move back to the side of the road, and stand clear of traffic
- recheck behind to ensure the work zone area is clear
- turn the sign to 'SLOW' and signal the traffic 'TO GO' with the free hand – see Figure 5.12(a), and
- communicate to the traffic controller at the other end of the worksite as required.

5.12 Approved signals for traffic controllers

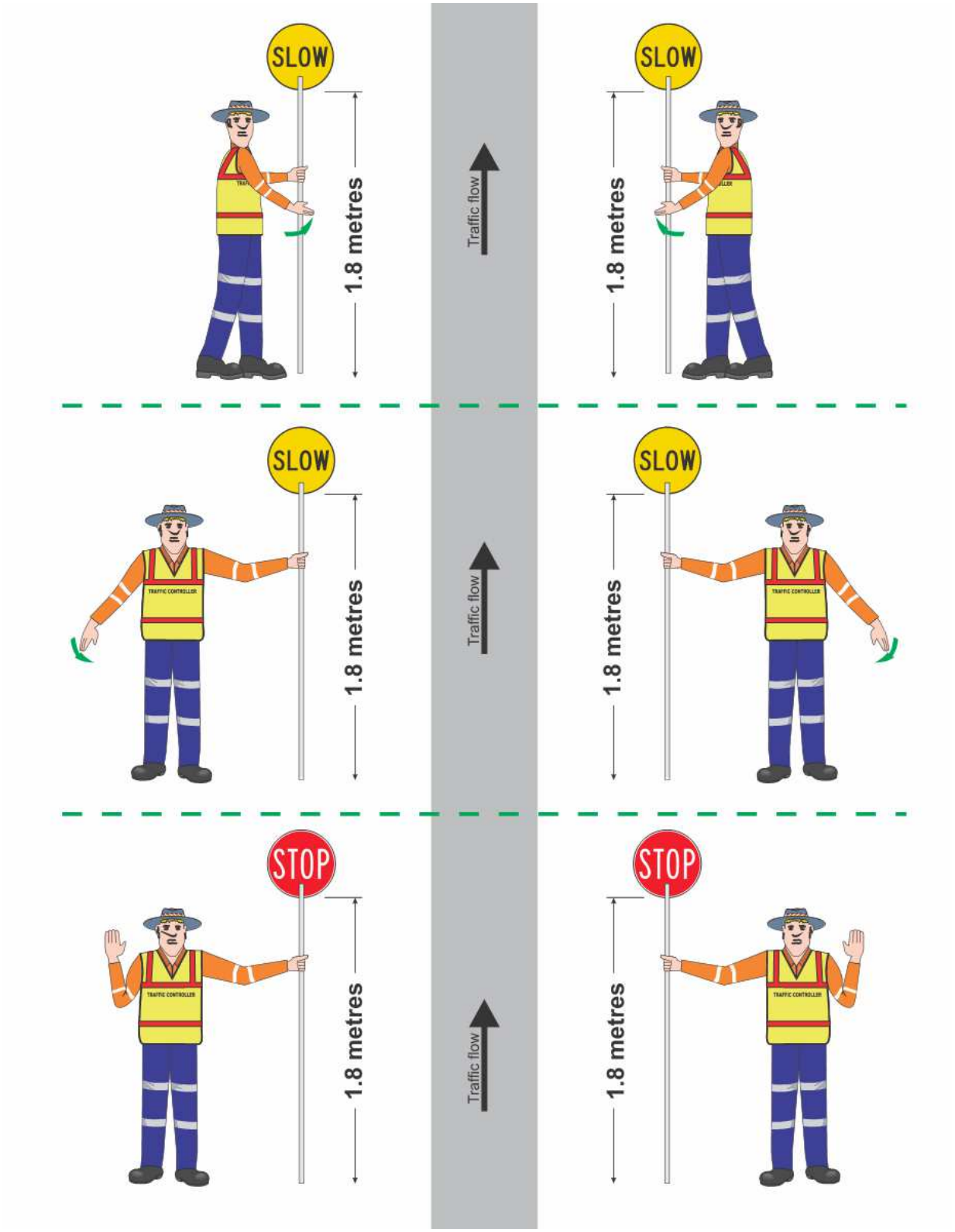
Figure 5.12(a) – Approved signals for traffic controllers

To stop traffic

To slow traffic

To direct traffic to go

Figure 5.12(b) – Traffic controller operations showing traffic flow direction



The bat should be displayed in the hand closest to the lane carrying traffic, unless otherwise determined by a site-specific risk assessment.

5.13 Two lanes, two-way roads

The following method must be used by traffic controllers to control traffic when operating a STOP / SLOW bat:

- **Changing from SLOW to STOP**
  - to stop vehicles, the traffic controller must turn the bat to the STOP sign and face oncoming traffic, while remaining outside the travel path (for example, on shoulder, closed lane(s), or footpath), and
  - the traffic controller must raise their free hand into the STOP signal position with the palm facing towards the traffic.
- **Holding vehicles**
  - the traffic controller must continue facing the stationary vehicles and, where possible, allow two to three vehicles to stop, before stepping in front of the stationary lane of traffic
  - the traffic controller must be positioned approximately 6 m in front of stationary vehicles just stopped, and
  - the traffic controller must ensure that the bat's STOP sign continues to face the stationary traffic.
- **Changing from STOP to SLOW**
  - to allow the stopped traffic to go slow, the traffic controller must wait until all traffic from the other end of the worksite has passed
  - the traffic controller must move to the side of the road (on shoulder, closed lane(s), or footpath) and clear of all traffic
  - recheck the work area is still clear, check with the other traffic controller prior to sending traffic through the work area
  - the traffic controller must turn and stand in a sideways position so that all traffic can be visually monitored, then turn the bat to the SLOW sign
  - with their free hand, the traffic controller must give the TO GO signal, and
  - to slow traffic further if required, the traffic controller must continue to show the SLOW side of the bat and, facing the traffic, give the TO SLOW signal, moving their free arm up and down, but not above shoulder level.
- **To detour traffic**
  - to detour traffic where stopping is not needed, the traffic controller must move to the side of the road (on shoulder, closed lane(s), or footpath) and clear of all traffic
  - the traffic controller must show the SLOW sign of the bat to the traffic, and
  - facing the traffic, extend their free arm and give the TO GO signal, indicating the intended direction of travel.

5.14 Multilane roads

Multilane roads are constructed with two or more lanes in one direction.

Multilane roads that require traffic control, must always have one traffic controller allocated for each lane that is open to traffic.

In some situations, lane closures can be implemented in advance of the traffic control point, to reduce traffic to one lane for the traffic controller to manage.

Where there is a concrete barrier dividing the road, there may be no escape route for the traffic controller, so extra caution must be taken when operating on such roads. Careful planning should first seek to mitigate these circumstances so traffic controllers are not placed on a worksite without there being a clear escape route.

> Note: There are no circumstances where a traffic controller may undertake traffic control without there being an escape route.

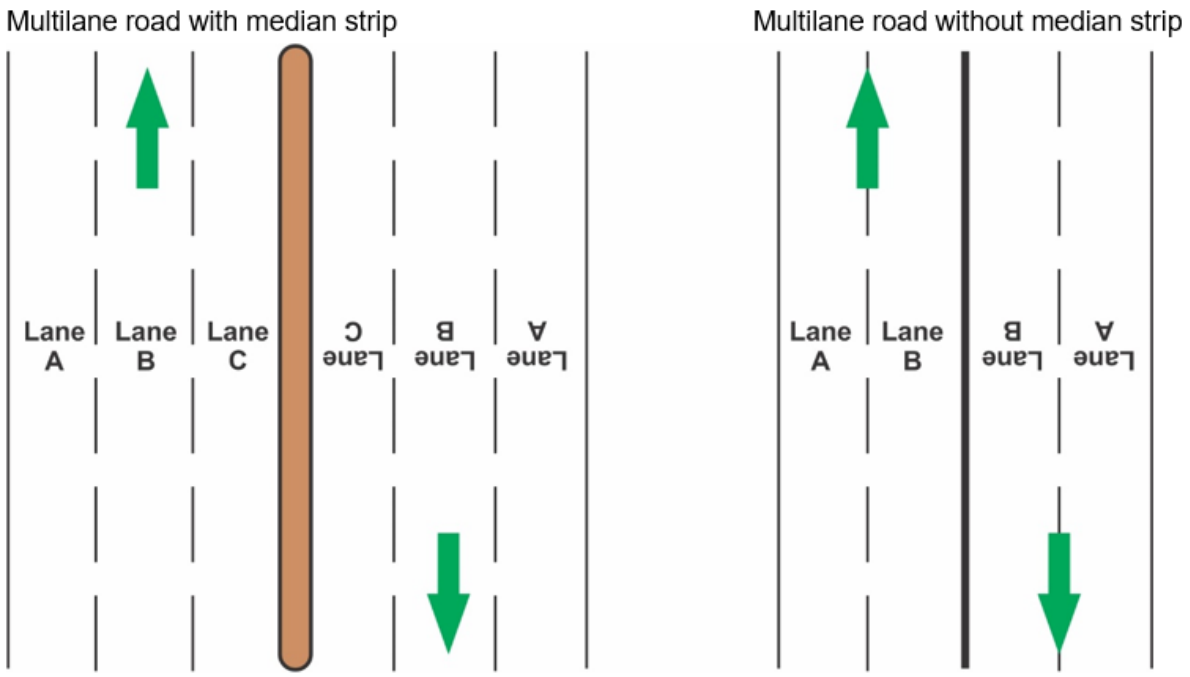


Figure 5.14 – Examples of multilane roads

> Note: The lanes in these diagrams are designed as LANE A, LANE B and LANE C for explanatory purposes only. They are all assumed to be open lanes for these explanatory purposes.

The following method must be used by traffic controllers to control traffic on multilane roads:

- **Changing from SLOW to STOP in LANE A**
  - to stop vehicles in LANE A, the first traffic controller must turn the bat to show the STOP sign and, while remaining outside the travel path (on shoulder, closed lane(s), or footpath), face the oncoming traffic, and
  - the first traffic controller must raise their free hand into the STOP signal position, with the palm towards the traffic.
- **Holding vehicles in LANE A**
  - the first traffic controller must keep facing the stationary vehicles and, where possible, allow two to three vehicles to stop before stepping in front of the stationary vehicles in LANE A
  - the first traffic controller must be positioned approximately 6 m in front of the first stationary vehicle in LANE A, and
  - the first traffic controller must ensure that the bat's STOP sign continues to face the stationary traffic in LANE A.
- **Stopping vehicles in LANE B**
  - the second traffic controller must move to a position alongside the first traffic controller who is situated in front of the traffic in LANE A
  - the second traffic controller must be nearer to the lane to be stopped next
  - the second traffic controller must ensure that the bat is indicating STOP to the stationary traffic in LANE A, and
  - while remaining outside the travel path of vehicles in LANE B, the second traffic controller raises their free hand into the STOP signal position, with the palm facing towards the traffic in LANES A and B.
- **Holding vehicles in LANE B**
  - where possible, the second traffic controller allows two to three vehicles to stop before stepping in front of the stationary vehicles in LANE B
  - the second traffic controller must keep facing the stationary vehicles with the bat displaying the STOP sign to the stationary vehicles in LANE B
  - the second traffic controller must be positioned approximately 6 m in front of the first stationary vehicle in LANE B, and
  - the second traffic controller must ensure that the bat's STOP sign continues to face the stationary traffic.

- **Stopping vehicles in LANE C** (if required)
  - the third traffic controller must move to a position alongside the second traffic controller, who is situated in front of the traffic in LANE B – the third traffic controller must be nearer to the lane to be stopped next
  - the third traffic controller must ensure that the bat is indicating STOP to the stationary traffic in LANE B, and
  - while remaining outside the travel path of vehicles in LANE C, the third traffic controller raises their free hand into the STOP signal position, with the palm facing towards the traffic in LANES B and C.
- **Holding vehicles in LANE C** (if required)
  - where possible, the third traffic controller allows two to three vehicles to stop before stepping in front of the stationary vehicles in LANE C
  - the third traffic controller must keep facing the stationary vehicles with the bat displaying the STOP sign to the stationary vehicles in LANE C
  - the third traffic controller must be positioned approximately 6 m in front of the first stationary vehicle in LANE C, and
  - the third traffic controller must ensure that the bat's STOP sign continues to face the stationary traffic.
- **Changing from STOP to SLOW**
  - Each traffic controller must check that the work area is clear behind them and that no vehicles or persons are turning into or approaching the respective lanes.
  - While keeping the STOP sign facing the stationary vehicles:
    - if relevant, the traffic controller in LANE C then moves to a position outside the travelled path and positions the bat so that the drivers cannot see the STOP / SLOW bat
    - the traffic controller in LANE B then moves to a position outside the travelled path and positions the bat so that the drivers cannot see the STOP / SLOW bat, and
    - the traffic controller in LANE A then moves to a position outside the travelled path and, facing the traffic, the traffic controller turns the bat to the SLOW sign and gives the TO GO signal, thus indicating to the drivers that the vehicles in all LANES may proceed slowly.

5.15 Additional traffic controllers

During single lane shuttle control, an additional traffic controller is required when:

- the two traffic controllers cannot see each other (and two-way radios are not operational), or
- traffic is approaching too fast or a traffic queue gets so long that it approaches a blind corner or crest and vehicles may not have sufficient opportunity to stop in time.
  - In these circumstances, an additional traffic controller will signal approaching vehicles to slow down by using the SLOW sign facing the traffic, extending the free arm, and waving it up and down, but not extended above shoulder level.

Additional traffic controllers are required to:

- control traffic at a T-junction or 4-way intersection, and
- provide breaks for traffic controllers.

5.16 Managing queueing issues

Queueing and delays may be expected at locations where traffic controllers are stopping traffic.

Surges in traffic demand can occur at various times of the day, so adequate monitoring of traffic queues and active adjustment to sign positioning, can mitigate risks in real time.

It is recommended that a marker (for example, traffic cone or bollard) is placed at the predicted end of queue to assist the traffic controller to monitor the end of queue.

Traffic controllers should observe the end of the queue, and consider whether additional warnings may be required. The traffic controller must report any issues with queue length to the site supervisor (the traffic management designer should provide appropriate layout for additional signs in these circumstances).

Where sight distance is limited, it may be necessary to have another traffic controller positioned in advance of the traffic control station for the purpose of slowing down or stopping traffic that is approaching the end of a queue. If, in these circumstances, the traffic controllers are unable to signal each other directly, another means of contact, such as using portable communications equipment, or an intermediate traffic controller, should be used.

If there are long queues, the position of the PREPARE TO STOP sign may need to be adjusted to provide adequate warning. It is not the responsibility of the traffic controller who is controlling traffic to move this sign during the shift. If an adjustment of the sign is needed, the traffic controller must notify another appropriate person on site to move the sign, in accordance with the contingency plan prepared by the traffic management designer.

When the traffic queue approaches the predicted end of queue location, the traffic controllers should consider options provided in QGTTM Part 3 Section 4.8 (Item 7), reprinted following:

> *Surges in traffic demand can occur so adequate monitoring of the queue shall be undertaken to minimise the risk of end-of-queue collision. If the end of queue extends beyond the estimated end-of-queue position, adequate warning of the end of queue shall be provided.*
>
> *The options available include:*
>
> *a) initially, when traffic queues are approaching the estimated end-of-queue position, the traffic controllers should advise the site supervisor that traffic queues are approaching their maximum length and contingency planning may need to be implemented*
>
> *b) as an interim measure, the traffic controllers may adjust their timing or give priority to one approach to minimise queuing from the key direction*
>
> *c) if adjusting timings is not successful in managing queue lengths, implement a pre-designed contingency plan to cater for the longer queue lengths being experienced – this will need to be completed by the traffic management implementer while traffic controllers continue to control traffic, and*
>
> *d) if a pre-designed contingency plan is not provided, seek urgent advice from the traffic management designer for the works.*

5.17 Operating at or near traffic signals

A traffic controller must not direct traffic contrary to an operating traffic signal.

A traffic controller must not direct traffic through traffic signals, without having the relevant road authority switching the traffic signals to flashing yellow or off.

Where a traffic controller is to control traffic within 100 m of a signalised intersection with traffic signals operating in normal mode (not flashing yellow or switched off), the traffic controller station must be positioned a safe distance from the operating traffic signals.

Generally, a safe distance would be within the range of 50 m to 100 m but, in exceptional circumstances, it may be safe at less than 50 m, subject to a site-specific risk assessment.

A risk assessment should be undertaken when a traffic controller is in view of traffic signals, to ensure there is no conflict between the traffic controller's directions and the traffic signals.

If there is a risk of motorists departing the traffic-controlled section and ignoring nearby traffic signals after reading the hand-held SLOW sign, the traffic signals must be switched off or to flashing yellow.

When a traffic controller is operating at or near traffic signals, the following conditions also apply:

- when signals are switched off or flashing yellow, traffic is controlled manually by traffic controllers stationed at each intersection approach, releasing traffic one approach at a time
- if the conditions only allow one traffic controller to work on a multilane road, the approach must be reduced to a single lane for traffic control, and
- traffic controllers operating between 50 m and 100 m of a signalised intersection should consider the impact of the signals on their operations and the impact of their operations on the signals.

5.18 Night works

Compared to works during daytime, night works are significantly more hazardous.

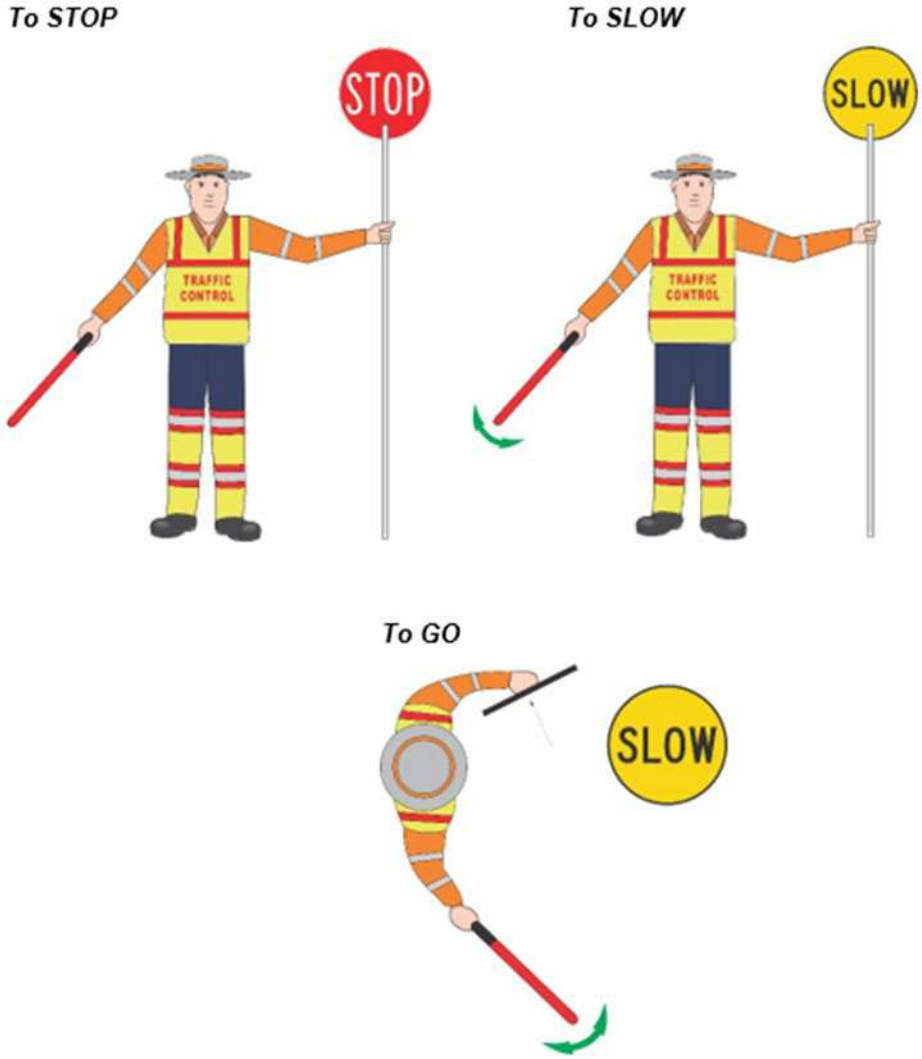
Traffic controllers must use PPE, devices, signs and signals that are appropriate for 'periods of darkness'.

The traffic control station and devices used are to be well illuminated, for example, by portable floodlights or street lighting.

While conducting night works, the following devices are applicable:

- high visibility safety garments suitable for night-time use (as specified in the traffic controller clothing standard)
- a retro-reflective hand held STOP / SLOW bat or PTCDs
- retro-reflective signs, traffic cones and bollards, and
- a red or red / orange illuminated wand to supplement the STOP / SLOW bat.

Figure 5.18 – Example of luminous wand signals for night-time traffic control



5.19 Traffic control using hand signals only

Traffic controllers are also often engaged to manage pedestrian activity across a roadway or on a footpath.

Traffic controllers managing pedestrian activity are not required to use STOP / SLOW bats or a PTCD.

Traffic controllers may use other methods such as direct communication, or hand signals to manage pedestrian movements and access.

Where pedestrians are to be directed to the other side of the roadway and crossing facilities are not available, traffic controllers may be engaged to enhance pedestrian safety, by controlling traffic at these locations. Accordingly, a traffic controller, while displaying the STOP sign of the STOP / SLOW bat to vehicular traffic, may use hand signals to direct pedestrians to cross a roadway where it is safe to do so.

The use of hand signals, only, in lieu of a STOP / SLOW bat, may be also applied by a traffic controller when potential lightning strikes are imminent, subject to certain conditions (refer to Section 5.20 *Operational traffic control in heavy storm conditions*).

Note: In certain circumstances boom barriers are useful in managing pedestrian access.

5.20 Operational traffic control in heavy storm conditions

Traffic controllers are not to be placed at risk by controlling traffic where lightning is occurring in the immediate vicinity of the worksite.

When controlling traffic in adverse weather conditions such as heavy storms (including, for example, heavy rain, reduced visibility, hail, and high winds), an on-site risk assessment must be conducted to assess the safety of continuing to control traffic at the site.

Where storm conditions include imminent lightning strikes, consideration in the first instance should be given to suspend works expeditiously to allow all site workers and traffic controllers to seek safe shelter from these conditions.

In the event that active traffic control must continue temporarily for reasons of public or road worker safety, traffic controllers (if not using PTCDs) may cease using STOP / SLOW bats and control traffic instead using approved hand signals only.

In periods where daylight is compromised due to storm conditions, the traffic controller must use approved hand signals together with an illuminated wand, or a torch fitted with a luminous cone attachment. The illuminated wand or torch with luminous cone is to be weatherproof and made of non-conductive material.

Where an illuminated wand or torch with luminous cone is used in these circumstances, it is held in the upright position to indicate STOP and moved in a sweeping sideways motion to indicate SLOW.

Where the imminent risks posed by the abovementioned hazards no longer exist, the traffic control is to revert to normal operating procedure – that is, controlling traffic using STOP / SLOW bats and where appropriate, with the continued use of illuminated wands or torches with luminous cone.

5.21 Departures from standards and innovation

Where designers propose variations to the mandatory requirements of the Queensland MUTCD Part 3 or the QGTTM, or where the use of innovative treatments are proposed to be adopted for use by traffic controllers, a documented risk assessment certified by a Registered Professional Engineer Queensland (RPEQ) may be required.

Note: Information about variations to treatments and RPEQ certification is at Clause 1.9 of the Queensland MUTCD Part 3.

6 Incident management – when things do not go to plan

6.1 Incidents including near misses

An incident is an occurrence that, in the opinion of the traffic controller, affects the operational safety and/or effectiveness of a traffic controller at a worksite and could be caused by anyone interacting with the worksite, including road users, pedestrians and construction workers.

An incident can involve actual damage occurring, or no actual damage, such as a near miss.

Examples of incidents include:

- accidents / crashes occurring within the designated worksite or roadworks
- physical contact or impact with a traffic controller, worker or other road user, or impact with equipment or vehicles
- physical assault directed towards a traffic controller by road users
- unsafe or dangerous actions of road users within a worksite, or at roadworks causing impact or injury
- difficulties experienced with stopping certain vehicle types where damage or impact is caused
- other actions that result in physical contact or injury to a traffic controller
- abusive / insulting / threatening language directed towards a traffic controller, and
- road users disobeying a direction or signal given by a traffic controller.

Examples of incidents that are near misses include:

- potentially unsafe actions of road users which only narrowly avoid resulting in a crash
- difficulties experienced with stopping certain vehicle types where no damage results, but could have, and
- vehicles speeding through a worksite or past a traffic controller.

Note: Near misses are an indicator of perception of risk. Reporting near misses assists with identifying events that may result in a future incident (for example: serious injury or fatality) and can lead to improved practices to prevent this from occurring. It is important that any reports of near misses have a description of the ‘potential damage scenario’; for example, a vehicle has travelled past a traffic control station and may have caused actual or potential injury to people, damage to plant / equipment, environment, reputation, or the project.

Incident or near miss reports can include a matrix showing the actual and potential impacts. An incident can be a combination of incidents, as illustrated in Figure 6.1 following.

Figure 6.1 – Combinations of incidents

	People	Plant/ Equipment	Environment	Reputation	Process / Project
Actual damage to …	✓ or ✗	✓ or ✗	✓ or ✗	✓ or ✗	✓ or ✗
Potential damage to …	✓ or ✗	✓ or ✗	✓ or ✗	✓ or ✗	✓ or ✗

Source: AGTTM Part 7 Table 2.4.

6.2 Incident management

If a driver disobeys a traffic controller's instruction, a traffic controller must:

- prioritise personal safety
- use the pre-determined escape route, if necessary, and
- warn other members at the worksite as early as possible.
  - A warning system must be agreed upon beforehand. It may include shouting, use of a whistle, use of the two-way radio to communicate with other traffic controllers.

The following actions must be taken if a minor incident occurs within the traffic controller's operational area:

- call for assistance if needed
- notify the worksite supervisor or team leader
- maintain effective traffic control
- if necessary, move the traffic control station to a suitable location that includes the accident site, within the traffic control operational area, and
- record sufficient notes of the incident, including observations, and complete an incident report.

If the incident is more serious or poses further risk of injury to persons or damage to property, the traffic controller must:

- contact, or ensure another person contacts the relevant emergency service (by calling 000 or 112 (mobile phones only))
- notify the worksite supervisor immediately and act on instructions
- if necessary, relocate the traffic control station to a safe position, clear of any real or potential danger, and
- record sufficient notes of the incident, including observations, and complete an incident report.

6.3 Incident details

When completing incident reports, at a minimum, it is important to consider the following information:

- time, date, and location of incident
- type of incident, and
- incident identification, including:
  - vehicle type and colour
  - vehicle registration number, including registered state or territory
  - direction of travel
  - description of driver, other road users and occupants
  - full and accurate description of the incident, and
  - witness details.

Traffic controllers must ensure that details of incidents requiring further investigation or attention by a police officer are reported and forwarded to their supervisor or employer.

It is expected that these incidents are reported immediately. Other types of incidents (including near misses) can be reported before the end of the shift.

6.4 Incidents involving hazardous loads

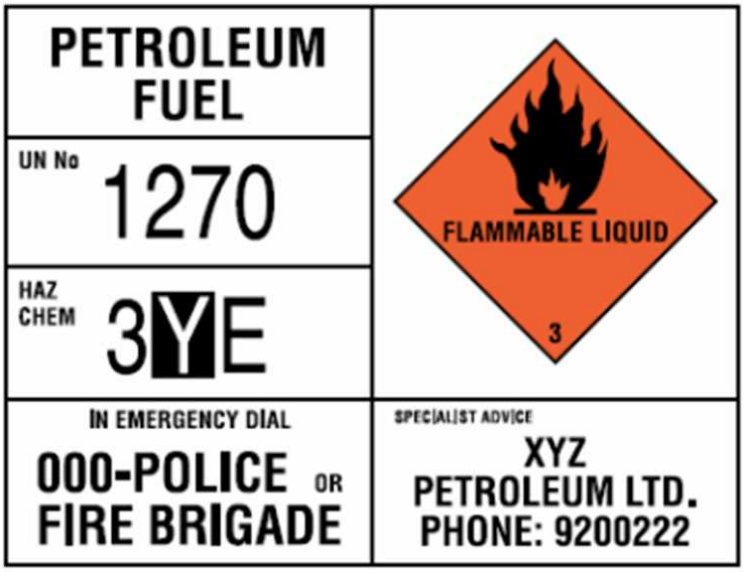
All hazardous or explosive loads are required by law to display the emergency information panel on the vehicle, as illustrated in Figure 6.4.

The traffic controller must take extra care in an incident involving a vehicle carrying a hazardous load.

The traffic controller must determine the type of load and relay the details to the site supervisor as soon as possible, so that appropriate emergency action plans can be implemented.

The traffic controller acts on directives given by the site supervisor and/or emergency services personnel.

Figure 6.4 – Example of emergency information displayed on hazardous or explosive loads



7 Review of a traffic controller's accreditation

7.1 Amending, suspending, and cancelling an accreditation

The Act provides the following are grounds for amending, suspending, or cancelling a traffic controller's accreditation:

- if the traffic controller commits an offence of a serious nature where public safety has been endangered or is likely to be endangered; or it is in the public interest
- if the traffic controller breaches their statutory conditions of accreditation, or
- if an accreditation was issued by the department because of a document or statement that is false and misleading.

The department follows the procedures set out in the Act for amending, suspending and/or cancelling approvals, including issuing show cause notices.

7.2 Suitability checks and disqualifying offences

The department may review the suitability of a traffic controller to remain accredited at any time throughout the period of their accreditation.

Offence and incident reports and information received from the Queensland Police Service (QPS); registered traffic management organisations; employers; local governments; authorised officers; and departmental roadwork inspectors can be taken into consideration by the department in evaluating a person's suitability for ongoing accreditation.

If, during the period of accreditation, the traffic controller is charged or convicted with a disqualifying offence, the traffic controller must give written notification of the matter to the Chief Executive within 14 days of the charge or conviction occurring. Notification to the Chief Executive should be directed to the attention of the department's customer service centre at which the traffic controller normally makes application for accreditation.

When applying for accreditation as a traffic controller, the person must provide information about their relevant traffic and criminal offence history. For new Scheme entrants, a national criminal history report is obtained from the QPS.

In determining a person's suitability for accreditation as a traffic controller, the department takes the following offence history factors into consideration:

- nature of the offence(s)
- the relevance of the offence(s) to the role requirements
- when the offence(s) occurred, and
- nature of the penalty applied.

The purpose of taking into consideration criminal history when deciding a person's suitability, is not to re-penalise the person, but instead to look objectively at the associated risk implications to the public and other road workers, should the person be granted traffic controller accreditation.

Disqualifying offences that would generally make a person unsuitable for traffic controller accreditation include:

- offences of a violent nature such as assault, rape, attempted homicide, homicide, manslaughter, burglary, and major drug offences
- offences such as fraud, assault, drug possession, theft and break and enter, and
- relevant offences under the Act.

7.3 Compliance and enforcement

Authorised officers are authorised by law to issue a penalty infringement notice (on-the-spot fine) or initiate prosecution action by way of complaint and summons:

- to a traffic controller for failing to comply with a statutory conditions of their accreditation
- to a person found performing traffic control duties while not being the holder of a current traffic controller accreditation, and
- to an employer of a traffic controller for failing to ensure that the traffic controller complies with a statutory condition of their accreditation.

A police officer has the power to shut down a worksite if it is deemed unsafe, or the actions of a traffic controller make it unsafe. A WH&S Queensland Inspector also has the power to shut down a worksite.

Note: Other enforcement action may be taken by a WH&S Queensland Inspector if a road worksite is deemed unsafe, or if it is established that safety requirements are not being adhered to in accordance with the *Traffic Management for Construction or Maintenance Work Code of Practice 2008* or WHS Act.