RIIWHS303

Position, Set Up and Program

Learner Guide Instructions

Who is this document for?

The learner.

What is in this document?

- Course information that matches the PowerPoint presentation.
- Review questions.
- Practical assessment instructions for learners.

What do you need to do before you use it for the first time?

1. Rebrand the document.
2. Review the document as part of your validation process.
3. Set the reading and test time limits that are highlighted in pink at the end of the document.

See the 'Read Me First' document for a complete set of instructions on how to use these resources.

LEARNER GUIDE

RIIWHS303 Position, Set Up and Program Portable Traffic Control Devices

Learner Name:	
Learner ID:	
Learner Contact Number:	
Learner Email Address:	
Date Training Commenced:	

This Book Contains:

☐ Course Information.

☐ Review Questions.

☐ Practical Assessment overview and Instructions.

Table of Contents

1.1 Introduction

This course is based on the national unit of competency **RIIWHS303 Position, Set Up and Program Portable Traffic Control Devices**.

You will learn how to:

- ◆ Prepare to use portable traffic control devices.

- ◆ Commission portable traffic control devices.

- ◆ De-commission and remove portable traffic control devices from site.

- ◆ Conduct housekeeping activities.

Portable traffic control devices (PTCDs) include:

- ◆ TVMS (Temporary Variable Message Signs).

- ◆ PTSU (Portable Traffic Signal Units).

- ◆ VSLS (Variable Speed Limit Signs).

- ◆ Boom barrier/barriers, including remote controlled booms.

- ◆ Arrow boards.

- ◆ Vehicle and trailer attenuators.

1.1.1 Common Terms and Definitions

There are acronyms and terms used in traffic management that you need to be aware of and understand. Some of these are explained in the table below.

Acronym or Term	Definition or Meaning
AADT	Average Annual Daily Traffic count – Total traffic passing an observation point over a period of a year, divided by number of days per year.
Advanced Signs	Signs and pictograms required before the work area to indicate traffic-controlled zone.
AGTTM	Austroads Guide to Temporary Traffic Management.
AS1742.3	Australian Standard – Manual of Uniform Traffic Control Devices Part 3: Traffic Control for Works on Roads.
ATAP	Australian Assessment and Planning.
AUSTROADS	Formerly National Association of Australian State Road Authorities (NAASRA).
Dimension 'D'	A distance expressed in metres, determined by the approach speed of traffic. Is used to position advanced signs.

Acronym or Term	Definition or Meaning
HRC	Handheld Remote Control.
PCBU	Person Conducting a Business or Undertaking (formerly Employer).
PFT	Provision for Traffic.
PTCD	Portable Traffic Control Device.
PTSS	Portable Traffic Signal System. A combination of traffic light signals and associated equipment that provides signalling for temporary control of traffic.
PTSU	Portable Traffic Signal Unit. An individual traffic signal unit with associated equipment.
PTW	Permit to Work.
Road Infrastructure	Permanent installations associated with roads, tunnels, bridges, interchanges and traffic signals.
Signal Lantern	Signal lanterns are the single light within a traffic light used to control traffic. They come in red, yellow, green, white and arrows, and include a means of connecting the light to a power source.
SSRM	Standard Specifications for Road Maintenance.
SSRW	Standard Specifications for Road Works.
TC	Traffic Controller.
TGS	Traffic Guidance Scheme is a visual representation of the traffic control devices to be implemented. It is an arrangement of temporary traffic control devices to warn traffic and guide it through or around/past a work site or temporary hazard.
TMD	Traffic Management Designer.
TMI	Traffic Management Implementer.
Traffic Calming	The means by which local streets are kept relatively free of through traffic by the implementation of traffic management devices.
Traffic Management Plan (TMP)	A document detailing all essential traffic management associated with roadworks or works on roads. Includes risk assessment, traffic demand, traffic routing.
Travelled Path	The part of the roadway which is made available to vehicles. It may consist of one or more lanes.
TTM	Temporary Traffic Management.
TTMW	Temporary Traffic Management Worker.
TVMS	Temporary Variable Message Sign.
Vehicle-actuated	Prompted or caused by a vehicle.
VMS	Variable Message Sign.
VSLS	Variable Speed Limit Sign.
WMS	Work Method Statement.
Work Area	Specific area where work is being done.
Work Site	An area which includes the work area and any additional length of road required for advanced signs, taper, side roads or other area needed for the associated purpose.

1.1.2 What is Traffic Management?

Traffic management involves controlling traffic through and around hazardous areas and protecting vehicles, pedestrians and workers.

All traffic management operations must follow a Traffic Management Plan (TMP). The plan normally includes a traffic guidance scheme, worksite hazard assessment and details of the works (where, what and how long, etc.).

A TMP is required by legislation whenever:

◆ Work affects traffic on public and private roads.

◆ Work affects parking areas.

◆ Access to construction sites needs to be restricted from public traffic.

Using signs and signals, traffic controllers can safely direct vehicles and pedestrians through and around these traffic hazards or work areas.

While temporary road signs on stands or poles and traffic controllers with Stop/Slow bats are often used, electronic and digital signs and remote-controlled systems can also be used alongside or in place of these signs and traffic controllers.

These electronic devices, such as VMS (Visual Message Sign) boards and other modern devices, can increase safety for road users and road workers, and can also reduce the operational cost of having additional staff and their associated resources.

The Australian Standards and the AUSTROAD Guides are promoting these devices as a safer approach to workplace safety whilst delivering harmonised traffic management and safety to all road users throughout Australia.

Review Questions

1.	What are three (3) examples of portable traffic control devices?	☐
1.		
2.		
3.		

2.	What are the definitions or meaning of the following acronyms? **a)** PTCD. **b)** PTSS. **c)** TC **d)** TMP. **e)** VMS.	☐

a)

b)

c)

d)

e)

3.	What is traffic management?	☐

1.2 Access and Interpret Documents and Instructions

All traffic control work needs to follow worksite, environment and company safety procedures.

Procedures and instructions help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations. They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

Procedures and instructions to follow when controlling traffic and implementing a traffic guidance scheme (TGS) may include the following:

- State/territory legislation (acts, regulations) and codes of practice.

- Australian Standards.

- Environmental Management Plans.

- Permits.

- TMP – Traffic Management Plan.

- TGS – Traffic Guidance Scheme.

- AUSTROAD guides.

- Workplace policies and procedures.

- Work Method Statements.

- Risk Assessment.

- Manufacturer's operating instructions.

- Work diaries.

- Incident report forms.

The processes and guidelines in your work instructions and worksite policies will be based on the requirements in these compliance documents.

1.2.1 Acts and Regulations for Traffic Management

All workplaces must follow laws and rules to keep everyone safe. There are 4 main types:

Laws/Guidelines	Explanation	Example
Acts	These are legal requirements that must be followed. Failure to meet these requirements can lead to prosecution.	Work Health and Safety Act.
Regulations	These are explanations of what the laws mean. These may be updated more regularly than the laws themselves, so it is important to check them regularly. Regulations can exist at both state and federal levels.	Work Health and Safety Regulations.
Codes of Practice	These are guidelines for applying the requirements of laws and regulations based on industry standards.	Code of Practice: Worksite Safety Traffic Management.
Australian Standards	These provide details and guidelines around the minimum requirements for a job, product or hazard control. They set out specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform the way they were intended to.	AS 4852.2: Variable message signs – Portable signs.

Work health and safety (WHS), called occupational health and safety (OH&S) in some states, outlines a series of requirements to keep everyone in the workplace safe. If you have any questions about safety rules, you should talk to your manager or supervisor.

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care.

To keep everybody safe workers need to:

◆ Follow instructions.

◆ Follow workplace rules.

◆ Make sure equipment is safe to use.

◆ Carry out their work safely.

◆ Report problems.

The placement and signage of a Temporary Traffic Management (TTM) zone is well planned and checked against road traffic laws for the relevant states or territories.

Traffic control personnel carry no power at law, they only implement the legal power of traffic management. This means the traffic controller is setting up a temporary traffic management zone which complies with road traffic legislation and Australia Standards.

To determine your regulatory requirements and codes of practice applying to your state or territory, visit the appropriate regulatory office for roads and traffic from the following websites:

State/Territory	Department	Website
ACT	ACCESS Canberra – ACT Government	www.accesscanberra.act.gov.au
NSW	Roads and Maritime Services	www.rms.nsw.gov.au
NT	Dept. of Infrastructure, Planning and Logistics	www.dipl.nt.gov.au
QLD	Dept. of Transport & Main Roads	www.tmr.qld.gov.au
SA	Dept. of Planning, Transport and Infrastructure	www.dpti.sa.gov.au
TAS	Dept. of Infrastructure, Energy & Resources	www.transport.tas.gov.au
VIC	VicRoads	www.vicroads.vic.gov.au
WA	Main Roads	www.mainroads.wa.gov.au

The setting out of work areas (control zone) with adjustments to speeds and any traffic redirections should be a consistent practice wherever you are in Australia. This approach of harmonisation and uniformity needs to be in place for the following three (3) reasons:

◆ Reduce avoidable delay to road users due to excessive and/or unnecessary temporary speed zone lengths.

◆ Encourage better compliance by road users to temporary speed limited areas.

◆ Educate road users by the standardised placement of speed zone signs.

1.2.2 Traffic Management Plan (TMP)

Traffic controls are required due to maintenance of roads and/or construction activities for short-term or long-term durations. Traffic management is usually planned and scheduled far in advance of the actual works.

Part of this planning involves the development and approval of a traffic management plan, often referred to as a 'TMP'.

The main aim of a TMP is to:

◆ Protect personnel.

◆ Protect road users and pedestrians.

◆ Reduce disruption and impact to road users.

◆ Guide road users safely through or around a worksite.

◆ Provide proper warnings of changed conditions or work ahead.

◆ Communicate details of work and possible impacts to traffic.
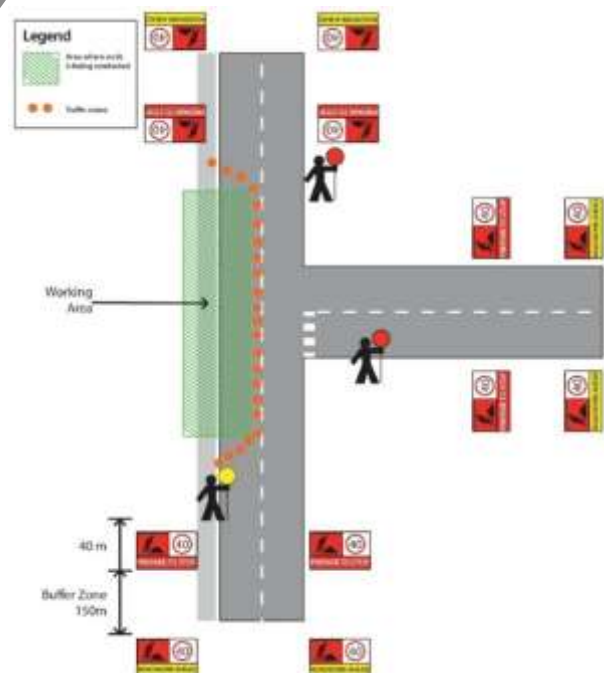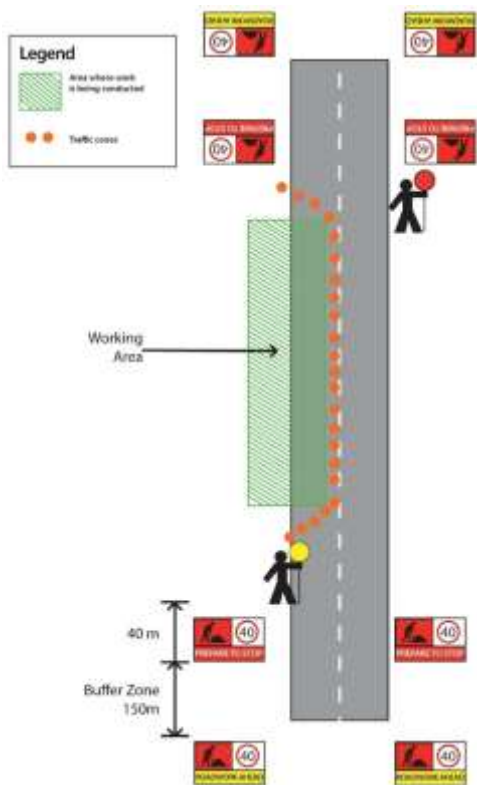
Considerations in creating a TMP may include:

- ◆ Timings, dates, hours of traffic controls.
- ◆ Traffic volume, number of vehicular and non-vehicular traffic uses.
- ◆ Traffic flow, peak times.
- ◆ 'Black spots', dangerous areas.

Details in a TMP typically include:

- ◆ Desired flow of vehicles and pedestrians.
- ◆ The expected frequency of vehicular and pedestrian interactions.
- ◆ Illustrations (plans) of the zone effected and the layout or position of barriers and signs.
- ◆ Coordination and timings.
- ◆ Approval and responsible parties/persons.
- ◆ A traffic guidance scheme, if required.

1.2.3 Traffic Guidance Scheme (TGS)

A traffic guidance scheme (TGS) is a visual representation of the traffic control devices to be implemented to change existing road/footpath conditions so that an area can be isolated for work to be carried out.

The TGS is a component of the TMP and may illustrate the following:

- ◆ Location and area of work.
- ◆ Distance of advanced signs from work site.
- ◆ Warning signs and speed controls.
- ◆ Cone and bollard placement.
- ◆ Barricade and/or barriers.
- ◆ Display boards.
- ◆ Road and or footpath closures.
- ◆ Detours and alternate paths.
- ◆ Traffic controllers.
- ◆ Delineators.

1.2.4 Work Instructions

Before starting your work, you need to make sure you have access to all work instructions or operations documentation for the job. This will help you to do your work in the safest way and make sure all work is compliant.

Work instructions should include information on the following:

Information Type	Explanation
Site Details	The information and safety requirements of the workplace environment (where you will be working).
Hazard Details	Any hazards in the work area or related to the work. This could also include instructions on how to control dangerous situations.
Task Details	Instructions of what the work is or what you will be doing. Also includes instructions on how to safely do the job.
Faulty Equipment Procedures	Isolation procedures to follow or forms to fill out for fault equipment.
Signage	Traffic control signage requirements and placement.
Emergency Procedures	Instructions on what to do in emergency situations.
Equipment and Work Instructions	Details of how to use equipment and the sequence of work to be done.
Communication Requirements	Methods and equipment used to communicate with personnel and public.

Your work instructions will tell you the safest way to do the job, and the equipment that you will need to use. It is a good idea to check your work instructions with your boss or supervisor to make sure you know exactly what you need to do.

If you don't know where to get your instructions or you can't understand them, you can ask your boss or supervisor. They will tell you where to find your work instructions and explain what they mean.

1.2.5 Work Method Statement (WMS)

Many worksites require a work method statement before any high risk or potentially dangerous work can start. A work method statement is a list of steps that outlines how a job will be done and includes details for any hazards that occur at each step, and what you need to do about them.

These statements can also be known as Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).

Make sure you understand all of the information in the work method statement before you start the work. It will help you to complete the work as safely as possible.

Traffic management organisations may have a pre-developed WMS for the positioning, setup and programming of portable traffic management devices, such as variable message sign (VMS) boards, porta-booms and temporary traffic signals.

These WMS will be generic to the positioning, set up and programming of portable traffic control devices and include information about the following:

- ◆ Preparation for transport of the portable traffic control device (PTCD).

- ◆ Transport/towing.

- ◆ Delivery, positioning, and parking.

- ◆ Unhitching and levelling.

- ◆ Setup and programming.

- ◆ Security.

- ◆ Pack up and removal.

The Person Conducting a Business or Undertaking (PCBU) must keep a copy of the WMS until all the work is finished. If a notifiable incident occurs during the work, the WMS must be kept for at least two years after the incident.

Keeping work method statements also allows for a process of continual improvement and referencing against similar past works.

1.2.6 Environmental Management

All worksites must comply with state and federal environmental management requirements. Make sure you check with your supervisor or manager about what environmental aspects need to be managed during your work.

Worksites should have an 'Environmental Management Plan'. This may include details for:

- ◆ Waste management.

- ◆ Water management.

- ◆ Noise control.

- ◆ Vibration control.

- ◆ Dust management.

The plan will outline measures in place to mitigate environmental impacts through the use of machinery and equipment.

1.2.7 Emergency Procedures

Emergency procedures will vary depending upon the worksite.

These procedures could include:

◆ Evacuation.

◆ First aid.

A site such as a **temporary traffic management work area** may not have a permanent designated muster/evacuation area. However, information should be given during shift briefings to include the following:

◆ Escape routes or current muster area.

◆ Site conditions to consider.

◆ Communication.

In case of an emergency, respond as follows:

1. Keep calm.

2. Warn and direct people away from the area.

3. Follow instructions from your supervisor.

4. Call emergency services in accordance with workplace procedures.

First aid is the initial care given to injured and or ill persons. Every workplace shall have a designated First aid officer.

If someone needs urgent first aid, you must tell your supervisor or contact the First Aid officer.

Do not apply first aid if you are not trained.