



Safe movement of vehicles and mobile plant

Mobile plant and vehicle movement is one of WorkSafe’s priority areas as many serious and fatal incidents have occurred in Western Australia. This self-assessment tool is applicable to all industries and has been developed to assist you in identifying hazards and making your workplace safe.

Workplace traffic management planning

Planning is the first step to ensure work is done safely. A workplace traffic management plan details how the risks associated with plant and vehicle traffic are being managed in a workplace. Plans should be regularly monitored and reviewed to ensure they are effective and account for changes in the workplace. A traffic management consultative team consisting of management, safety and health representatives, safety advisors/officers, workers, contractors and others in the supply chain should be actively involved in planning, developing, monitoring and reviewing traffic management plans.

How to use this tool

This self-assessment tool will assist in reviewing the effectiveness and adequacy of your existing risk management approach for vehicle and mobile plant traffic movements at your workplace. It will also help generate ideas and opportunities to improve your practices.

The self-assessment should be undertaken in consultation with your traffic management consultative team (if any) or with your employees and safety and health representatives (if any).

Once you have completed the self-assessment, refer to **appendix one** for more information about safe movement of vehicles and mobile plant at workplaces, including links to guidance material that may assist in addressing any areas where you responded ‘no’. Alternatively, contact WorkSafe on **1300 30 78 77** for further information.

Workplace details

Date of assessment:	
Workplace location and area:	
Person/s conducting self-assessment:	

Understanding the site’s traffic needs	Yes	No	Comments/action required
<p>1. Have you consulted with workers, mobile plant operators and your supply chain (eg delivery drivers) to help understand all possible risks relating to the interaction of traffic and people on the site?</p> <p>Consider:</p> <ul style="list-style-type: none"> Types of vehicles and mobile plant accessing the site. Pedestrian access for people with a disability (eg wheelchairs). Work involving road closures. Environmental factors (eg road surfaces, shade, glare, lighting, weather and noise). Unexpected or changing circumstances (eg queuing of vehicles, peak traffic times, bottlenecks, intersections and blind corners). Work area design and layout. Overhead electrical lines and structures. Whether loading zones, parking and reversing areas are adequate and what happens with overflow traffic. Whether spotters are required Drug and alcohol policies and procedures. Work demands and fatigue management (eg shift work). Other traffic issues commonly encountered or reported by workers, pedestrians or visiting drivers. 			
<p>2. Have you reviewed previous incident or near-miss reports to better understand contributing factors and identify how the traffic management system could be improved?</p>			

Developing a workplace traffic management plan (TMP)	Yes	No	Comments/action required
<p>3. Is a TMP in place that outlines:</p> <ul style="list-style-type: none"> the desired flow of pedestrian and vehicle movements the expected frequency of interaction between vehicles and pedestrians how short term, mobile work or complex traffic situations will be managed roles and responsibilities of people in relation to traffic management. 			
<p>4. Does the TMP include a sketch or illustration of the worksite? This should show the location of:</p> <ul style="list-style-type: none"> traffic routes pedestrian walkways barriers and signage loading/unloading bays carparks maintenance bays, work areas and buildings. <p>The sketch should also include contact details to notify when arriving at the site.</p>			
<p>5. Is traffic management included in the following components of the work health and safety management system:</p> <ul style="list-style-type: none"> hazard identification risk management register site inspections/audits contractor management (eg codes of conduct and quality standards) procurement of new equipment (eg safety devices on mobile plant). 			
<p>6. Is there a documented communication and consultation method for coordinating significant traffic movements (eg deliveries and road closures) in advance, to assist with traffic management and work scheduling?</p>			
Managing the risk of people being hit by mobile plant or vehicles			
Level one – elimination controls	Yes	No	Comments/action required
<p>7. Are measures in place to eliminate the risk of being hit by mobile plant or vehicle traffic? For example:</p> <ul style="list-style-type: none"> physically separating pedestrian routes with overhead walkways or solid barriers scheduling activities involving mobile plant or vehicles 			
Level two – substitution, isolation and engineering controls	Yes	No	Comments/action required
<p>8. Are measures that substitute mobile plant and vehicles with a safer work system in place to minimise risk? For example:</p> <ul style="list-style-type: none"> replacing mobile plant with other loading equipment including conveyor systems, mobile walker stackers or pallet jacks. 			

Managing the risk of people being hit by mobile plant or vehicles

Level two – substitution, isolation and engineering controls	Yes	No	Comments/action required
<p>9. Are measures that isolate mobile plant and vehicles from people (eg workers, visitors and pedestrians) in place to minimise risk?</p> <p>For example:</p> <ul style="list-style-type: none"> • separate entries and exits for vehicles and pedestrians • dedicated areas for loading/unloading, hitching/unhitching trailers, maintenance and reversing vehicles away from people and walkways • physical isolation or separation by distance, guardrails, lock out/ tag out procedures, safety cones or fences • wide traffic routes so that vehicles or plant do not encroach on pedestrian areas • one-way drive-through systems to reduce the need to reverse • exclusions zones where workers might be exposed to a risk of falling objects (eg crane lifts) • barriers, fences or exclusion zones isolating workers or pedestrians from roads or railways, demolition work, excavations or trenches. 			
<p>10. Are engineering and plant design measures in place to minimise risk?</p> <p>For example:</p> <ul style="list-style-type: none"> • speed limiters • presence sensing devices • interlocking gates to restrict access to areas during traffic movement • traffic signal lights (portable or permanent) • speed bumps • convex mirrors to avoid blind spots • warning lights and reversing alarms on mobile plant • adequate lighting for various times of day. 			
Level three – administrative controls	Yes	No	Comments/action required
<p>11. Is work scheduled to minimise the interaction of mobile plant and vehicle traffic and people in the same area at the same time?</p> <p>For example:</p> <ul style="list-style-type: none"> • coordinating deliveries and unloading to occur when workers and pedestrians are unlikely to be present. 			
<p>12. Are spotters used to assist manoeuvring vehicles?</p> <ul style="list-style-type: none"> • Are there systems to ensure spotters do not stand within any potential impact zone, fall zone or blind spot? • Do drivers and spotters maintain visual contact at all times? • Is high visibility clothing provided and worn? • Is training in the role and responsibilities of a spotter provided? 			
<p>13. Is there a uniform line demarcation colour coded system in place across the work area?</p> <p>For example:</p> <ul style="list-style-type: none"> • Red demarcation - restricted or no pedestrian access zones, restricted/exclusion zones and loading/unloading zones. • Yellow and/or white demarcation - pedestrian walking zones and crossings. • Green demarcation - operator or safe zone, no access for vehicles or mobile plant. 			

Level three – administrative controls cont...	Yes	No	Comments/action required
<p>14. Are there signage and road markings in place to help manage vehicle and pedestrian traffic according to the TMP?</p> <p>For example:</p> <ul style="list-style-type: none"> • speed limits • driver directions (eg stop, give way, no entry, caution) • pedestrian crossings and walkways • parking and delivery areas • drop-off and set down points • steep gradients • start and end of road works • hazard-specific (eg biosecurity). 			
Managing the risk of people being hit by mobile plant or vehicles			
Level three – administrative controls	Yes	No	Comments/action required
<p>15. Is signage:</p> <ul style="list-style-type: none"> • adequately distributed across the work area and leading up to the site • in good condition (eg not visibly damaged, not faded and easy to read from a distance) • subject to regular inspection and maintenance • in accordance with AS 1319:1994 Safety signs for the occupational environment based on design, size, format and fixture (if required). 			
<p>16. Are mobile plant operators and pedestrians provided with correct personal protective equipment (PPE) for the work area?</p> <p>For example:</p> <ul style="list-style-type: none"> • high visibility clothing in high risk work or restricted work areas • safety toe enclosed shoes • hard hats in areas where there is a risk of falling objects. 			
Providing information, training, instruction and supervision			
17. Do mobile plant operators, vehicle drivers and traffic controllers (if required) hold the relevant licences to perform their work?			
18. Has the competency of mobile plant and vehicle operators been verified and documented?			
19. Is information and instruction about safe traffic and pedestrian movement around the workplace provided in advance to visitors, contractors and external delivery drivers?			
<p>20. Is everyone entering the workplace informed, and their understanding checked, of the content of the TMP (eg via a site induction)?</p> <p>This includes:</p> <ul style="list-style-type: none"> • their obligations • pedestrian walk areas • restricted areas and lifting/loading zones • specific hazards • speed limits • signage. 			
<p>21. Does the workplace have adequate supervision in place for the work area?</p> <p>This includes:</p> <ul style="list-style-type: none"> • observing traffic and pedestrian behaviour – see next section • ensuring an adequate number of supervisors or managers available • having procedures for supervising contractors and visitors. 			

Providing information, training, instruction and supervision	Yes	No	Comments/action required
22. Have mobile plant operators completed a documented pre-operational inspection on the plant/equipment they are using to ensure its safe?			
23. Are only trained licenced operators using mobile plant or vehicles? Swipe cards, fob activation, key registers or removing keys when not operating are methods to help ensure only licenced operators are able to use plant or vehicles.			
24. Are mobile plant operators performing their activities in a safe manner? For example: <ul style="list-style-type: none"> • following site procedures and the TMP • not smoking, not using mobile devices or being distracted in other ways • wearing seat belts correctly where fitted. 			
Observing traffic and pedestrian behaviour	Yes	No	Comments/action required
25. Are workers and pedestrians using designated walkways and obeying site procedures (eg crossing at designated points)?			
26. Are operators, drivers and pedestrians wearing appropriate PPE where required?			
Preparing for an emergency	Yes	No	Comments/action required
27. Are there control measures or procedures in place that aim to isolate hazardous areas and redirect traffic in the event of an emergency?			
28. Are there communication systems and signage available for traffic management in the event of an emergency? For example: <ul style="list-style-type: none"> • intercom/loud speaker • two way radios • traffic signal lights (portable or permanent) • hand signals • other equipment (eg temporary signage, bollards or safety cones). 			
Construction specific work	Yes	No	Comments/action required
29. Are the following in place for building and construction work, where required? <ul style="list-style-type: none"> • Traffic controllers and/or police controlling traffic. • Road closures, footpath closure and detours. • Appropriate lane configurations and approach speeds for the type of work being performed. • Dedicated mobile plant haul routes. • Temporary lighting for night works. • Exclusion zones around mobile plant performing slewing or overhead load movements (eg mobile cranes). • Temporary signs and signalling devices. • Safe work method statement for high-risk construction work. • Access for oversized vehicles, emergency vehicles, bicycles, local residents, people with disabilities, elderly and school children. 			
Additional comments or recommendations:			


Appendix 1

How to manage occupational safety and health risks

Vehicles and mobile plant moving in and around workplaces are a cause of occupational injuries and deaths in Western Australia. This self-assessment tool provides information and assistance on the safe movement of vehicles and mobile plant at workplaces. Effectively managing risks associated with traffic moving in and around a workplace should start with identifying the hazards and assessing the risks so effective control measures can be implemented. This tool assists with the risk management process and provides example control measures to provide a safe working environment in line with the hierarchy of control.

Hierarchy of control

The hierarchy of control can be used as an effective tool to deal with health and safety issues at work.

Preferred order of control measures to eliminate or reduce the risk of injury or harm	
<p>Elimination - removing the hazard or hazardous work practice from the workplace. For example, eliminating vehicle movement where possible, or removing the need for reversing.</p>	
<p>Substitution - substituting or replacing a hazard or hazardous work practice with a less hazardous one. For example, substituting unsafe vehicles, loading facilities, road signage or road surfaces with safer ones.</p>	
<p>Isolation - isolating or separating the hazard or hazardous work practice from people involved in the work or people in the general work area. For example, isolation of vehicles from pedestrians at traffic areas or vice versa.</p>	
<p>Engineering controls - if the hazard cannot be eliminated, substituted or isolated, an engineering control is the next preferred measure. For example, installing pedestrian barriers, handrails and separate access ways for pedestrians and vehicles.</p>	
<p>Administrative controls - this includes introducing work practices that reduce the risk, such as implementing measures to ensure procedures, instruction and training are provided. For example: providing information, training, supervision and safe procedures on vehicle movement at workplaces; restricting pedestrian access in certain areas or at certain times; preventing reversing in certain areas or at certain times; providing designated parking for work and private vehicles; and monitoring risks to ensure they remain as low as possible.</p>	
<p>Personal protective clothing and equipment - these should be considered only when other control measures are not practicable or to increase protection. While essential for some work practices, these should be the last in the list of priorities. For example, providing safety boots, helmets and reflective jackets</p>	

Use the type of control suggested above to deal with the hazard. Aim to use control measures from as high on the hierarchy of control list as possible. If that is not possible the next option down the list or a combination of the measures should be implemented.

The least effective control measure is the use of personal protective equipment (PPE) and it should

be used as a last resort or a support to other control measures. Information and training should be integrated with all levels of control to explain how controls work.

In most instances, a combination of control measures may be appropriate.

Legislative requirements

Western Australia's occupational safety and health laws cover all individuals at workplaces, including vehicles and mobile plant.

The safe movement of vehicles and mobile plant self-assessment tool has been designed to assist employers, persons having control of workplaces and other duty holders with their primary duty of care requirements under the *Occupational Safety and Health Act 1984*.

It also aims to assist employers with meeting their duty to consult with workers and other duty holders (eg suppliers and contractors) about OSH matters.

The Occupational Safety and Health Regulations include a number of sections relevant to the movement of vehicles at workplaces.

Regulation 3.1 requires employers, main contractors and self-employed people and those in control of workplaces or access to workplaces to conduct a three step risk management process.

Regulation 3.6, 'Movement around workplaces' requires employers, main contractors, self-employed people or those in control of workplaces, ensure workplace are arranged so that:

- people are able to move safely within the workplace; and
- passages for the purpose of enabling people to move within the workplace are at all times kept free of obstructions.

Regulation 3.22 requires employers, main contractors and those in control of workplaces to ensure the movement and speed of vehicles and plant at the workplace are managed in a way that minimises the risk of injury to pedestrians and people operating vehicles.

Reference material and further resources:

- [Occupational Safety and Health Act](#)
- [Occupational Safety and Health Regulations](#)
- Guidance note: [General duty of care in Western Australian Workplaces](#)
- Guidance note: [Safe movement of vehicles](#)
- Guidance note: [Working safely with forklifts](#)

This document is based on Office of Industrial Relations Workplace Health and Safety Queensland's document [Onsite traffic management self-assessment tool](#)

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