

Construction Site Traffic and Mobile Plant Management

Business Name:		ABN:
Business Address:		
Contact Person:	Phone:	Email:

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

SAMPLE

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Traffic Management Planning and Governance	<ul style="list-style-type: none"> Absence of a formal traffic management plan for the construction site Traffic arrangements not aligned with WHS Act 2011, WHS Regulations and relevant Codes of Practice Inadequate consultation with workers, PCBUs and other duty holders on traffic risks Failure to coordinate traffic controls with principal contractor and other contractors on site Plans not updated when site layout, phases of work or workforce numbers change No clear allocation of roles, responsibilities and authority for traffic management decisions 	4A	<ul style="list-style-type: none"> Develop and implement a documented, site-specific Traffic Management Plan (TMP) covering all vehicle and mobile plant movements, reversing activities, loading/unloading, and interaction with pedestrians and public roads Ensure the TMP is prepared or reviewed by a competent person and approved by the principal contractor or PCBU with management and control of the workplace Align TMP with WHS Act 2011, WHS Regulations, relevant Australian Standards (e.g. AS 1742 series), and Safe Work Australia Code of Practice for Construction Work and Managing Risks of Plant Establish a formal governance structure for traffic management including a designated Traffic Management Coordinator with defined authority and responsibilities Implement a change management process requiring formal review and sign-off of TMP whenever site layout, access points, sequencing of works or workforce changes impact traffic flow Require regular consultation and coordination meetings between the principal contractor and all subcontractors to review traffic risks, incidents and near misses Integrate traffic management requirements into project WHS management plans, contractor agreements and site rules 	3H
2. Site Layout, Segregation and Pedestrian Interfaces	<ul style="list-style-type: none"> Inadequate separation between mobile plant and pedestrians leading to struck by incidents Pedestrian walkway routes through high-risk loading, excavation or timber yard areas Poorly designed access and egress points causing congestion and collision risks Insufficient planning for intersection between construction traffic and public or neighbouring workplaces Uncontrolled crossing points between pedestrian routes and vehicle paths Multiple contractors establishing ad hoc paths, creating conflicting traffic flows 	4A	<ul style="list-style-type: none"> Design the site layout to achieve physical separation between vehicles/mobile plant and pedestrians, including dedicated walkways, barriers and controlled crossings Develop a site traffic flow diagram showing one-way systems, access points, turning areas, reversing zones and pedestrian routes, and communicate this to all workers and contractors Install engineered separation using solid barriers, fencing, jersey kerbs or bollards between pedestrian areas and vehicle operating zones wherever reasonably practicable Limit pedestrian access into high-risk zones (e.g. loading bays, timber yards, excavation areas) through gated entry points and controlled access procedures Establish designated pedestrian crossing points with clear line-of-sight, signage, surface markings and where needed, a spotter or traffic controller Coordinate with adjacent businesses, public road authorities and other PCBUs to align entry/exit design and minimise conflicts at site interfaces Periodically review and update the site layout plan as construction phases change, ensuring segregation is maintained as structures, excavations and materials storage move 	2M
3. Vehicle and Mobile Plant Selection, Procurement and Engineering Controls	<ul style="list-style-type: none"> Use of unsuitable vehicles or plant for constrained construction areas Lack of safety features such as cameras, proximity sensors and reversing alarms 	3H	<ul style="list-style-type: none"> Establish procurement standards requiring all mobile plant and vehicles used on site to meet or exceed relevant Australian Design Rules and WHS plant requirements Specify mandatory engineering safety features such as reversing cameras, proximity detection, audible alarms, flashing beacons, load indicators and speed limiters appropriate to the site risk profile 	2M

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	<ul style="list-style-type: none"> Poor visibility from cabins, especially for articulated or long vehicles working within tight yard or excavation spaces Inadequate braking systems or stability controls for loaded mobile plant Failure to procure vehicles compliant with Australian Design Rules and relevant standards 		<ul style="list-style-type: none"> Select plant with cabins and configurations that provide maximum operator visibility for reversing, turning and operating in congested worksites, including articulated transport operating near workers Standardise fleet where possible to simplify training, maintenance and safe operation practices Require all hired plant and subcontractor vehicles to meet site traffic management and safety feature specifications as a condition of engagement Implement a formal technical review process for introducing new or specialised plant such as large cranes, dump trucks or long combination vehicles onto the site 	
4. Driver and Operator Competency, Licensing and Training	<ul style="list-style-type: none"> Unlicensed or inadequately trained operators controlling heavy vehicles and mobile plant Lack of competency in manoeuvring and reversing in confined work areas Poor understanding of site-specific traffic rules and exclusion zone protocols Inadequate assessment of subcontractor drivers' competency Failure to address language barriers literacy issues in traffic-related instructions 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M
5. Traffic Flow Design, Routing and Onsite Speed Management	<ul style="list-style-type: none"> Uncontrolled or conflicting traffic flows within the site leading to collision between vehicles and mobile plant Lack of clearly defined one-way systems causing head-on collision risks Inappropriate site speed limits for prevailing conditions and mixed traffic types Insufficient separation between heavy vehicles and light vehicles Drivers taking shortcuts through operational work zones or pedestrian areas 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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			[REDACTED]	
6. Reversing, Manoeuvring and Collision-Prevention Systems	<ul style="list-style-type: none"> • Being caught between reversing vehicles and fixed structures or materials stacks • Reversing heavy vehicles striking pedestrians or other plant due to blind spots • Collisions with stationary objects, structures or services during manoeuvring • Articulated vehicles tracking outside expected paths when turning in confined areas • Reliance on informal spotters without clear communication protocols 	4A	[REDACTED]	2M
7. Exclusion Zones and Work Area Isolation	<ul style="list-style-type: none"> • Uncontrolled entry of workers or operational mobile plant • Inadequate exclusion zone management around excavations, loading areas and crane operations • Multiple contractors establishing overlapping work fronts without coordinated exclusion boundaries • Visitors or delivery drivers entering high-risk zones without supervision 	4A	[REDACTED]	2M
8. Interaction with Public Roads, External Traffic and Other PCBUs	<ul style="list-style-type: none"> • Collisions between construction vehicles and public traffic at site access points • Insufficient sight distance for vehicles entering or exiting the site 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> • Uncoordinated traffic movements where multiple contractors share access roads or yards • Inadequate controls for traffic during construction works on or adjacent to live roadways • Unauthorised parking on public roads causing visibility obstructions 		[REDACTED]	
9. Traffic Control Signage, Line Marking and Communication Systems	<ul style="list-style-type: none"> • Workers, contractors and visitors not understanding site traffic routes and right-of-way rules • Absence of or inconsistent signage leading to confusion and unsafe manoeuvres • Poorly maintained line marking that no longer reflects current site layout • Inadequate communication tools for coordinating vehicle movements in yards and congested areas 		[REDACTED]	2M
10. Contractor Management, Coordination and Interface Risks	<ul style="list-style-type: none"> • Multiple contractors operating in shared zones without coordinated traffic arrangements • Inconsistent traffic rules between contractors leading to confusion • Subcontractors bypassing site controls or using unapproved access routes • Limited oversight of delivery contractors and external transport providers • Gaps in information sharing about changing work fronts and high-risk activities 	4A	[REDACTED]	2M

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11. Inspection, Maintenance and Pre-Start Verification Systems	<ul style="list-style-type: none"> • Vehicle and plant defects such as faulty brakes, lights, alarms or steering increasing collision risk • Tyre failures due to poor inspection and maintenance practices • Safety-critical devices (e.g. reversing cameras, proximity sensors) not functioning • Inadequate record keeping for maintenance history and defect rectification • Plant operated beyond safe service intervals in high-demand construction environments 	3H		2M
12. Supervision, Enforcement and Behavioural Expectations	<ul style="list-style-type: none"> • Non-compliance with permits, exclusion zones and traffic rules due to inadequate supervision • Normalisation of unsafe behaviour such as riding on plant, walking behind reversing vehicles or cutting through high-risk areas • Lack of consequences for repeated breaches of traffic rules • Supervisors not competent or resourced to enforce traffic controls 	3H		2M
13. Fatigue, Shift Work and Journey Management for Drivers	<ul style="list-style-type: none"> • Driver fatigue contributing to poor judgement, slower reactions and collisions on or off site • Long shifts and extended driving to and from remote construction sites 	3H		2M

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	<ul style="list-style-type: none"> Inadequate journey planning for heavy vehicles accessing the site, especially working within range of articulated road transport Pressure to meet delivery schedules leading to speeding or bypassing safety procedures 		[REDACTED]	
14. Environmental Conditions, Surface Management and Visibility	<ul style="list-style-type: none"> Poorly maintained road surfaces leading to loss of control, skidding or load instability Dust, rain, mud or inadequate drainage reducing traction and visibility for drivers and pedestrians Insufficient lighting in yards, excavated areas or reversing zones during early morning, night or low light conditions Temporary work stockpiles or stored materials obstructing views 		[REDACTED]	2M
15. Emergency Response, Incident Management and Reporting	<ul style="list-style-type: none"> Delayed response to struck-by or collision incidents due to unclear procedures Workers not knowing how to raise the alarm or secure the area after a traffic incident Failure to notify notifiable incidents as required under WHS legislation Ineffective learning from traffic-related incidents and near misses 	3H	[REDACTED]	1L

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			[REDACTED]	
16. Information, Consultation and Worker Participation in Traffic Management	<ul style="list-style-type: none"> Workers not being consulted on practical traffic risks and control effectiveness Changes to traffic routes or exclusion zones not communicated in a timely manner Limited worker ownership of traffic safety leading to poor compliance New or young workers unfamiliar with heavy vehicle and plant risks 	3H	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	2M

SAMPLE

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2011
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

Victoria

Occupational Health and Safety Act 2004
 Occupational Health and Safety Regulations 2017
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

New South Wales

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2025
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Western Australia

Work Health and Safety Act 2020
 Work Health and Safety Regulations 2022
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011
 Work Health and Safety (National Uniform Legislation) Regulation 2011
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

South Australia

Work Health and Safety Act 2012 (SA)
 Work Health and Safety Regulations 2012 (SA)
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

Tasmania

Work Health and Safety Act 2012
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012
 Work Health and Safety Regulations 2012
 Work Health and Safety (Transitional) Regulations 2012
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.