

Road Pavement Construction Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THE 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:	

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:								Notes on Hierarchy of Controls:	
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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. Eliminate	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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. Site Survey	Uneven terrain, Traffic exposure	3H	<ul style="list-style-type: none"> - Conduct a detailed site survey to identify uneven areas - Use signage to warn about traffic - Implement traffic control measures - Ensure all personnel wear high-visibility vests - Allocate designated crossing points - Brief workers on potential traffic hazards before starting work - Utilise barriers to separate work areas from traffic - Provide instruction on safe movement within the site - Ensure communication devices are operational for site communication - Rotate traffic control personnel to avoid fatigue 	2M
2. Equipment Delivery	Heavy lifting, Collision with vehicles	3H	<ul style="list-style-type: none"> - Use lifting equipment for heavy items - Schedule deliveries during low traffic periods - Ensure clear communication between delivery drivers and site personnel - Use spotters for vehicle movements - Provide training on manual handling techniques - Temporary barriers around delivery zones to prevent unauthorised access - Assign a supervisor to oversee all deliveries - Ensure vehicles' safety features are operational before entry - Provide adequate lighting for delivery zones - Establish a clear path and communication protocol for reversing vehicles 	1L
3. Equipment Setup	Unfamiliarity with equipment, Potential for equipment tip-over	3H	<ul style="list-style-type: none"> - Conduct training on equipment use and safety - Validate equipment stability before operation - Conduct pre-operational checks on all equipment - Ensure equipment is operated only by authorised personnel - Use stabilisers and ground guards for large machinery - Set up exclusion zones around operating equipment - Never leave equipment running unattended - Regularly review and update operation manuals 	2M

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			<ul style="list-style-type: none"> - Immediate reporting of faults to supervisors - Provide an on-site equipment specialist for guidance 	
4. Ground Preparation	Dust production, Noise pollution	3H	<ul style="list-style-type: none"> - Equip workers with dust masks - Equip workers with earplugs - Limit time spent working in dusty areas - Establish exclusion zones around noisy equipment - Post warning signs in exclusion zones - Schedule noisy work during off-peak hours - Use noise-reducing equipment where possible - Rotate workers between tasks to limit exposure - Monitor dust levels and noise levels regularly - Stop work if dust or noise levels become unmanageable 	2M
5. Compaction	Vibration exposure, Equipment failure	3H	<ul style="list-style-type: none"> - Limit time spent operating heavy machinery - Take regular breaks away from vibration - Perform pre-work checks on all equipment - Stop work immediately if equipment malfunctions - Repair faulty equipment before returning to work - Use vibration-dampening mats under equipment - Rotate workers between tasks to limit vibration exposure - Monitor equipment health throughout the day - Replace worn parts promptly - Avoid overloading equipment 	2M
6. Pavement Placement	Heat exposure, Burns from hot materials	3H	<ul style="list-style-type: none"> - Wear heat-resistant gloves - Use long-sleeved shirts and pants - Stay hydrated - Take frequent breaks in shade or air conditioning - Use protective blankets or covers for hot materials - Clearly mark hot material storage areas - Train workers on safe handling procedures - Have first aid kits readily available - Report burns or heat-related issues immediately - Adjust work schedule to avoid peak heat 	2M

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7. Rolling	Machine vibration, Operator fatigue	3H		1L
8. Joint Sealing	Contact with chemical sealants, trips, and falls	4A		2M
9. Line Marking	Toxic fumes, Chemical splashes	4A		2M

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			<div></div> <div></div> <div></div> <div></div>	
10. Clean-Up	Manual handling injuries, Exposure to debris	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
11. Demobilisation	Vehicle movement, Loss of equipment	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	1L
12. Quality Check	Rework due to defects, Exposure to unfinished areas	3H	<div></div> <div></div> <div></div> <div></div>	2M

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13. Waterproofing	Chemical exposure, Water ingress	4A		2M
14. Sign Installation	Working at heights, Tool-related injuries	4A		2M
15. Traffic Management	Collisions, Pedestrian risks	4A		2M

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16. Environmental Monitoring	Environmental spills, Dust emissions	3H		2M
17. Communication	Miscommunication, Emergency alerts	3H		1L
18. Emergency Response	Response delay, Inadequate first aid	4A		2M

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19. Documentation	Incomplete records, Data loss	2M		1L
20. Handover	Lack of information transfer, Unclear responsibilities	3H		1L

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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 IF 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>

New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

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>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 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>

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>

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.

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>

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>

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>

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