

Concrete Works

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:	



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. WHS Governance, Duties and Consultation	<ul style="list-style-type: none"> Lack of clear allocation of WHS duties and due diligence obligations for concrete works under WHS Act 2011 Inadequate consultation, cooperation and coordination between PCBUs (principal contractor, concrete contractor, pump supplier, delivery companies) Insufficient worker participation in WHS decision-making, leading to unreported issues in concrete work systems Failure to integrate concrete works risks into the overall project WHS management plan Inadequate monitoring, review and continuous improvement of the WHS management system for concrete activities 	High	<ul style="list-style-type: none"> Establish and document a WHS governance framework that defines responsibilities, accountabilities and authorities for all roles involved in concrete works assigned to WHS Act 2011 and WHS Regulations Include concrete works as a distinct risk profile within the principal contractor's WHS management plan, with specific objectives, performance indicators and reporting requirements Implement formal consultation arrangements (e.g. WHS committee, HSRs, toolbox forums) that specifically address concrete work issues such as pump setup, formwork stability and traffic interface Develop and enforce a documented procedure for coordination between PCBUs (builder, concrete contractor, pump operator, ready mix supplier, traffic controller), including pre-pour coordination meetings and agreed lines of communication Require senior management to demonstrate due diligence by periodically reviewing concrete-related incident data, inspection reports and audit findings, and by verifying that adequate resources are allocated to control key risks Implement a scheduled WHS audit and inspection program focused on concrete works systems (e.g. review of permits, training, maintenance records, SWMS quality) and track corrective actions to closure Ensure change management procedures are in place so that any significant change to design, methodology, plant or sequencing of concrete works triggers a formal WHS review and, where required, revision of controls and SWMS 	Medium
2. Design, Engineering and Temporary Works Management	<ul style="list-style-type: none"> Inadequate structural design or verification of formwork, falsework and temporary supports leading to collapse during concrete placement Lack of integration between permanent works design and temporary works design, creating unbalanced load paths and instability Insufficient engineering consideration of construction loads, pour sequences, concrete pressure, vibration and environmental factors (e.g. wind, rain, heat) Inadequate engineering review of changes made on site to formwork, propping or reinforcement details Poor documentation control leading to use of superseded drawings or unapproved design changes for concrete works 	High	<ul style="list-style-type: none"> Implement a formal temporary works management procedure that defines design requirements, approvals, inspections and sign-off for all formwork, falsework and propping systems Require that formwork and temporary works for concrete are designed or verified by a competent engineer in accordance with relevant Australian Standards (e.g. AS 3610, AS 3600) and project specifications Establish a documented system to coordinate permanent works design and temporary works design, including early engineering input on pour sequencing, construction loads and staged stressing (if applicable) Mandate an engineering review and written approval process for any field changes to formwork layouts, propping arrangements, reinforcement configuration or pour sequence prior to implementation Adopt a controlled document management system ensuring only current, approved drawings, specifications and design calculations are accessible on site for concrete works Introduce pre-pour engineering checklists (management-level review) covering formwork capacity, back-propping, reshoring, access platforms and load limits rather than relying solely on field judgement Require formal completion certificates for temporary works (e.g. formwork inspection certificates) prior to authorising concrete placement, with clear roles for designer, installer and principal contractor 	Medium
3. Procurement and Contract Management	<ul style="list-style-type: none"> Engagement of concrete contractors, pump operators and suppliers without adequate WHS capability or licensing 	High		Medium

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	<ul style="list-style-type: none"> • Procurement decisions driven solely by cost and schedule, leading to under-resourced supervision and poor safety systems • Contracts that fail to allocate WHS responsibilities clearly between principal contractor, subcontractors and suppliers • Use of unsuitable concrete mixes, additives or formwork systems due to lack of technical and safety criteria in purchasing processes • Inadequate vetting of plant hire providers (e.g. concrete pumps, placing booms, hoists) regarding maintenance, inspection and operator training systems 		<ul style="list-style-type: none"> • Embed WHS competency and system requirements into procurement prequalification for all concrete-related contractors and suppliers, including evidence of safety management systems, licences and incident history • Include detailed WHS clauses in contracts that specify responsibilities for plant, equipment, training, SWMS preparation, supervision levels, inspection regimes and incident reporting for concrete works • Establish a structured contractor evaluation process that weighs WHS performance and technical competence at least equally with price and profit for concrete service providers • Define minimum technical and WHS specifications for concrete supply (e.g. mix designs, handling properties, curing requirements) and formwork/falsework systems within purchasing documentation • Require plant hire providers for concrete pumps and placing booms to submit up-to-date maintenance logs, inspection certificates, third-party verifications and operator competency records before mobilisation • Implement a performance review regime for concrete contractors and suppliers, using WHS leading indicators (e.g. quality of SWMS, compliance with permit conditions, audit scores) to inform ongoing engagement decisions • Ensure contracts require participation in site-wide coordination processes (e.g. pre-start meetings, design reviews, incident investigations) so that WHS obligations are integrated across all PCBU's 	
4. Planning, Scheduling and Pour Management	<ul style="list-style-type: none"> • Poor planning of concrete pour sequences creating excessive time pressure, congestion and concurrent high-risk activities • Inadequate assessment of site conditions (e.g. access, ground bearing capacity, edge protection) prior to scheduling major concrete pours • Lack of structured planning for high-risk concrete activities such as night pours, large deck pours, post-tensioned elements or pours near live services • Insufficient consideration of weather and environmental conditions affecting concrete works, including extreme heat, rain and wind • Failure to coordinate concrete deliveries, pump availability and workforce capacity, leading to ad hoc decision-making and unsafe shortcuts 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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5. Competency, Training and Supervision	<ul style="list-style-type: none"> Inadequate competency of supervisors and workers involved in concrete works, formwork, reinforcement fixing and pumping operations Lack of training on site-specific procedures, SWMS and emergency responses for concrete incidents (e.g. line blockage, formwork movement, chemical exposure) Insufficient supervision during critical stages such as formwork inspections, initial pours, pump setup and finishing works Inconsistent understanding of roles and authority to stop work when unsafe conditions arise during concrete activities Failure to maintain current evidence of licences, high risk work permits and verification of competency for concrete-related tasks 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium
6. Plant, Equipment and Maintenance Systems	<ul style="list-style-type: none"> Use of poorly maintained or unsuitable concrete pumps, placing booms, vibrators and mixers leading to mechanical failure and uncontrolled movement Lack of systematic inspection and testing for critical lifting and supporting equipment used in concrete works Inadequate control of modifications or repairs to plant, potentially compromising structural integrity or safety systems Insufficient management of plant guarding, emergency stop systems and pressure relief devices on pumping equipment Poor record-keeping for maintenance, inspections, defect rectification and out-of-service tagging for concrete-related plant 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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			[REDACTED]	
7. Traffic, Delivery and Site Access Management	<ul style="list-style-type: none"> Uncontrolled interaction between concrete trucks, pumps, workers and public traffic at site entries and pour locations Inadequate traffic management planning for concrete deliveries, leading to congestion, reversing and queuing on public roads Insufficient assessment of ground conditions and bearing capacity where concrete trucks and pumps are positioned Lack of access controls leading to unauthorised persons entering concrete work zones during pours Poor communication between delivery drivers, pump operators and site supervision regarding access constraints and changes 	High	[REDACTED]	Medium
8. Safe Work Method Statements and Procedural Controls	<ul style="list-style-type: none"> SWMS for concrete works that are generic, incomplete or not tailored to actual site conditions and methods Lack of management review and authorisation of SWMS for high risk construction work related to concrete (e.g. work at height, near traffic, near services) Failure to communicate SWMS requirements to workers and subcontractors, resulting in inconsistent understanding and implementation Inadequate monitoring of SWMS compliance during concrete activities, leading to gradual erosion of safe systems of work No formal process for updating SWMS when work methods, plant or site conditions change 	High	[REDACTED]	Medium

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			[REDACTED]	
9. Health Risks, Hazardous Substances and Ergonomics	<ul style="list-style-type: none"> Exposure to hazardous substances associated with concrete works (e.g. cement dust, crystalline silica, admixtures, curing compounds) Lack of systems to manage skin contact, eye exposure and inhalation risks from wet concrete and related chemicals Inadequate management of noise and vibration exposure from concrete pumps, vibrators and cutting equipment Poor ergonomic design of work methods leading to repetitive strain injuries and manual handling risks during concrete placement and finishing Insufficient health monitoring and surveillance for workers regularly exposed to concrete related hazards 	High	[REDACTED]	Medium
10. Environmental and Site Condition Management	<ul style="list-style-type: none"> Uncontrolled runoff of concrete slurry and washout water causing slips, environmental harm and regulatory breaches Unstable or poorly prepared work platforms and access ways for concrete works, including temporary ramps and decks Inadequate lighting for early morning, night or enclosed area pours leading to misjudgement of hazards Adverse weather (heat, rain, wind, storms) not effectively managed in 	Medium	[REDACTED]	Low

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	<ul style="list-style-type: none"> relation to concrete placement, curing and worker safety Poor housekeeping around concrete work zones, including trip hazards, debris and unmarked edges 		[REDACTED]	
11. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> Lack of specific emergency response procedures for concrete-related incidents (e.g. formwork collapse, pump line burst, concrete engulfment) Inadequate planning for access and egress of emergency services during major concrete pours Insufficient first aid resources and training related to chemical burns, eye contamination and crush injuries associated with concrete works Failure to capture, investigate and learn from concrete-related incidents and near misses across the project or organisation Poor communication systems for raising alarms and coordinating responses during busy and high risk concrete operations 	High	[REDACTED]	Medium
12. Monitoring, Review and Continuous Improvement	<ul style="list-style-type: none"> Failure to systematically monitor the effectiveness of WHS controls for concrete works over the life of the project Inadequate data collection on leading indicators such as inspections, non-conformances and training gaps related to concrete activities Lack of senior management visibility of concrete-related risks and performance trends No structured process to capture lessons learned from previous projects 	Medium	[REDACTED]	Low

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	or stages and apply them to future concrete works • Complacency developing over time as routine concrete activities are perceived as low risk		[REDACTED] [REDACTED] [REDACTED]	

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.