

Demolition Of Concrete

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			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> 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.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

  

Risk Rating & Required Action:	
<b>4A</b>	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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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. Governance, Legal Compliance and PCBU Duties	<ul style="list-style-type: none"> <li>Inadequate understanding of primary duty of care and due diligence obligations under WHS Act 2011 by Officers and senior management</li> <li>Absence of a documented demolition-specific WHS management plan aligned to legislative and Australian Standard requirements (e.g. AS 2601 Demolition of Structures)</li> <li>Failure to consult, cooperate and coordinate activities with other PCBUs on site (client, principal contractor, other trades)</li> <li>Lack of formal process to identify whether work is 'high risk construction work' and whether a compliant SWMS is in place and implemented</li> <li>Poor document control leading to out-of-date procedures, policies and licences being used on site</li> <li>No formal process for review of incidents, near misses or regulatory changes that affect demolition of concrete activities</li> </ul>	High	<ul style="list-style-type: none"> <li>Develop and implement a demolition-specific WHS management system that references the WHS Act 2011, WHS Regulation and AS 2601 for all concrete demolition activities</li> <li>Define and document Officer due diligence responsibilities, including regular WHS performance reviews, resource allocation and verification activities specific to demolition work</li> <li>Establish a documented consultation, cooperation and coordination procedure with all PCBUs involved in the demolition project, including pre-start coordination meetings and interface agreements</li> <li>Implement a mandatory process to classify demolition of concrete as high risk construction work where applicable and ensure SWMS are prepared, reviewed, authorised, communicated and periodically audited</li> <li>Introduce a control and document management system (version control, review dates, approvals) for all WHS policies, demolition procedures, SWMS and permits</li> <li>Schedule periodic management reviews (at least annually or per project) of the demolition WHS system, including legal register updates, audit findings, incident trends and improvement actions</li> <li>Maintain a legal and standards register covering WHS Act 2011, WHS Regulation, Codes of Practice and AS 2601, with a nominated responsible person to monitor and implement changes</li> </ul>	Medium
2. Demolition Planning and Design Risk Management	<ul style="list-style-type: none"> <li>Insufficient pre-demolition structural assessment of concrete elements, load paths and stability</li> <li>Failure to obtain and review as-built drawings, engineering reports and services plans prior to demolition planning</li> <li>Inadequate identification and management of pre-existing structural defects, deterioration or modifications that may affect demolition sequence</li> <li>Lack of formal design consultation between structural engineer, demolition designer and site management</li> <li>No structured process to assess and control the impact of demolition on adjacent structures, public areas and neighbouring properties</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a formal pre-demolition planning procedure that mandates structural assessments by a competent structural engineer for all significant concrete demolition activities</li> <li>Require collection, review and retention of relevant documentation (as-built drawings, design calculations, structural reports, service plans) before finalising the demolition methodology</li> <li>Integrate a design risk management process where demolition methods and sequences are reviewed by an engineer and documented in a demolition plan, including concrete cutting, breaking and removal stages</li> <li>Establish mandatory design coordination meetings between the structural engineer, demolition supervisor and WHS representative to review hazards and agree on control strategies before work commences</li> <li>Include in the demolition plan a documented assessment of effects on adjacent structures, public areas, underground/overhead services and property boundaries, with defined protection measures (e.g. exclusion zones, hoardings, monitoring)</li> <li>Ensure the demolition plan documents requirements for temporary works design (propping, bracing, shoring) with sign-off by a competent engineer and a system for verification prior to each major stage</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>Poor planning for progressive stability, propping, bracing and collapse prevention during concrete removal</li> </ul>		<ul style="list-style-type: none"> <li>Adopt a management procedure requiring review and re-approval of the demolition plan whenever site conditions, design assumptions or sequences change</li> </ul>	
3. Contractor, Subcontractor and Supplier Management	<ul style="list-style-type: none"> <li>Engagement of demolition contractors or subcontractors without verification of competence, licences, insurances and WHS performance history</li> <li>Inadequate pre-qualification process for plant hire companies providing demolition equipment (excavators, breakers, saws, crushers)</li> <li>Lack of clear WHS responsibilities and performance expectations in contracts and purchase orders</li> <li>Poor coordination between multiple contractors leading to overlapping work areas and increased exposure to falling concrete or mobile plant</li> <li>No systematic monitoring of subcontractor compliance with SWMS, site rules and permit conditions</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a formal contractor pre-qualification system that assesses demolition experience, licences, training records, incident history, WHS systems and references before engagement</li> <li>Develop standard contract clauses that define WHS obligations, requirement for compliant SWMS, adherence to the principal contractor's WHS management system, and right of audit/stop work</li> <li>Require all demolition contractors to submit project-specific WHS documentation (SWMS, plant risk assessments, training matrices, emergency procedures) for review and approval before mobilisation</li> <li>Establish a coordination procedure for multiple contractors that includes area allocation, time separation, communication protocols and use of a coordination plan</li> <li>Assign a competent site representative to conduct regular documented inspections of subcontractor activities focusing on compliance with SWMS, use of controls and condition of plant</li> <li>Introduce a performance review process for contractors (KPIs, incident trends, audit scores) to inform future engagement decisions and corrective actions</li> <li>Maintain a preferred supplier list for demolition-related services and plant hire based on demonstrated WHS performance and compliance history</li> </ul>	Medium
4. Competency, Training and Supervision	<ul style="list-style-type: none"> <li>Workers and supervisors performing concrete demolition without appropriate licences, high-risk work authorisations or recognised demolition experience</li> <li>Insufficient competence including reading structural drawings, understanding load paths and recognising signs of instability in concrete elements</li> <li>Lack of training in the safe use of specialised demolition equipment (hydraulic breakers, concrete saws, crushers, high-reach excavators)</li> <li>Inadequate supervision ratios for high-risk concrete demolition tasks, especially during critical stages of structural removal</li> <li>No formal verification of understanding of SWMS, demolition plans and emergency procedures by workers</li> <li>Failure to provide refresher training or competency reassessment after</li> </ul>	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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	incidents, near misses or changes in equipment or methods		[REDACTED]	
5. Plant, Equipment and Maintenance Management	<ul style="list-style-type: none"> <li>• Use of unsuitable or poorly maintained demolition plant for breaking and removing concrete, increasing risk of mechanical failure or loss of control</li> <li>• Lack of a formal plant selection process considering load capacity, reach, vibration, noise, dust generation and stability</li> <li>• Inadequate inspection and maintenance regime for hydraulic breakers, concrete saws, dust suppression systems and associated attachments</li> <li>• Absence of standardised plant risk assessments addressing demolition-specific hazards (falling debris, structural interaction, proximity to edges)</li> <li>• Failure to ensure guarding, emergency stop devices and safety interlocks are functional and maintained</li> <li>• Use of handheld tools for extended periods without controls for vibration and noise exposure</li> </ul>	High	[REDACTED]	Medium
6. Structural Stability, Collapse and Falling Concrete Management	<ul style="list-style-type: none"> <li>• Uncontrolled collapse of concrete elements due to poor sequencing or inadequate temporary supports</li> <li>• Falling concrete debris impacting workers, plant or public areas due to insufficient exclusion zones and barriers</li> <li>• Progressive collapse triggered by removal of key structural elements (columns, shear walls, slabs) without engineering assessment</li> <li>• Inadequate monitoring of structural behaviour during demolition (cracking, deflection, noise, movement indicators)</li> <li>• Lack of clearly defined roles and authority to stop work if structural instability is suspected</li> </ul>	Extreme	[REDACTED]	Medium

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			[REDACTED]	
7. Hazardous Substances, Silica Dust and Environmental Controls	<ul style="list-style-type: none"> <li>• Generation of respirable crystalline silica dust during cutting, grinding and breaking of concrete</li> <li>• Exposure to other hazardous substances such as cement dust, fuel, oils, hydraulic fluids and chemical surface treatments during demolition</li> <li>• Lack of a formal process for identifying hazardous materials in or on concrete (coatings, sealants, residues) prior to demolition</li> <li>• Inadequate planning for environmental controls relating to dust, noise, vibration and waste concrete disposal</li> <li>• Insufficient health monitoring arrangements for workers exposed to respirable crystalline silica</li> </ul>	High	[REDACTED]	Medium
8. Traffic, Mobile Plant and Public Interface Management	<ul style="list-style-type: none"> <li>• Interaction between demolition plant and pedestrians, including workers, other contractors and members of the public</li> <li>• Uncontrolled movement of trucks and machinery transporting demolished concrete and equipment</li> <li>• Inadequate traffic management planning for site access, egress and delivery routes</li> <li>• Insufficient separation between demolition zones and live workplace areas, roads or footpaths</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>Poor communication systems between plant operators and spotters during concrete demolition and removal</li> </ul>		[REDACTED]	
9. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> <li>Inadequate site-specific emergency response planning for structural collapse, entrapment, plant incidents or exposure to hazardous dusts</li> <li>Lack of clearly defined roles, responsibilities and communication pathways during emergencies in demolition areas</li> <li>Insufficient rescue capability and equipment for incidents involving partial collapse or working near edges and openings</li> <li>Inadequate training and drills for foreseeable emergency scenarios specific to concrete demolition</li> <li>Poor incident reporting and investigation systems leading to repeated systemic failures</li> </ul>	High	[REDACTED]	Low
10. Consultation, Communication and Worker Engagement	<ul style="list-style-type: none"> <li>Insufficient involvement of workers identifying hazards and developing controls for concrete demolition activities</li> <li>Poor communication of changes to demolition sequencing, structural conditions or equipment to affected workers and contractors</li> <li>Lack of effective consultation mechanisms (HSCs, HSRs, toolbox talks) to capture and address worker concerns</li> <li>Language, literacy or cultural barriers leading to misunderstanding of demolition hazards, controls and emergency procedures</li> </ul>	Medium	[REDACTED]	Low

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11. Monitoring, Auditing and Continuous Improvement	<ul style="list-style-type: none"> <li>• Failure to verify that WHS procedures, SWMS and demolition plans are being implemented as intended on site</li> <li>• Lack of measurable WHS performance indicators specific to demolition of concrete work</li> <li>• Infrequent or ineffective WHS inspections and audits focused on system-level controls rather than paperwork only</li> <li>• No structured process to capture lessons learned and integrate them into future demolition projects and procedures</li> </ul>	Medium	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Low

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/factsheets-and-resources/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.