Asphalt Paver

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF 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:

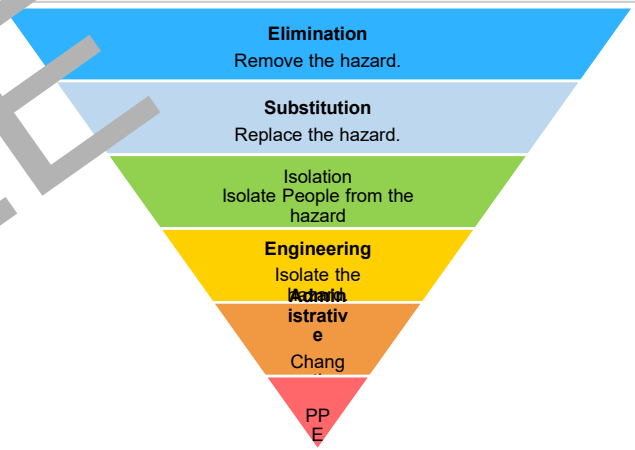
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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. Governance, Legal Compliance and WHS Due Diligence	• Lack of a documented WHS management system that addresses asphalt paving plant and bituminous products in line with WHS Act 2011 and WHS Regulations • Officers not exercising due diligence in relation to selection, deployment and oversight of asphalt pavers, bitumen sprayers and hot asphalt trucks • Failure to identify and manage PCBUs with overlapping duties (principal contractor, asphalt subcontractor, plant hire company, transport company) • Inadequate consultation with workers and health and safety representatives (HSRs) on risks associated with operating asphalt paving machines and associated plant • No formal process to review legislative changes, Australian Standards or industry guidance related to mobile pla and hot bituminous materials • Poor integration of W considerations into mmercial decisions (tenderi scheduling resourcing) leadin unac isk tolerance	High	• Establish and maintain a documented WHS anagement system aligned with WHS Act 2011, WHS Regulations and relevant Codes of Practice g. Managi Risks of Plant in the Workplace, Construction Work, Hazardous Chemicals) • Define WHS roles, responsibilities and accoun ilities for offi , managers, supervisors, plant coordinators and operators, w asphalt paving sp ific duti clearly described • Implement a due diligence fra work for officers, i ing regular WHS performance reporting, plant risk profile reviews udit comes nd corrective actions specific to asphalt pavers and bitumen equipment • Develop and aintain a l al and sta s register covering mobile plant, traffic management, hot bitum confin spac (where applicable), airborne contaminants and noise, with scheduled comp s revie • Form se nsulta procedures ensuring workers involved in adhering mastic asphalt, operating pavers, tum spray and hot asphalt trucks are consulted on changes to equipment, products, work ethods nd ro ers • In rat WHS risk criteria into procurement, tender assessment and contractor selection for asphalt works, ring evidence of compliant WHS systems and plant risk assessments • chedule periodic independent WHS audits targeting asphalt paving operations, with a structured pro ess to track, prioritise and close out findings • Include WHS performance and serious incident trends related to asphalt operations as standing items at executive and project leadership meetings	Medium
2. Plant Procurement, Design and Engineering Controls	• Selection of asphalt pavers, bitum sprayers and hot asphalt t ucks thout adequate guarding, emergency stops or fail-safe systems • Imported or hired plant that does not comply with Australian Standards or lacks documentation (plant registration, design verification where applicable) • Inadequate controls for entanglement, crush and run-over risks around moving parts, conveyors, augers and hopper areas of paving machines • Poor design of access systems (steps, handrails, platforms) increasing risk of	High	• Adopt a formal plant procurement standard that mandates compliance with WHS Regulations, relevant Australian Standards (e.g. AS 5327, AS 4024 series) and manufacturer specifications for asphalt pavers and associated equipment • Require documented plant risk assessments and design compliance statements from suppliers for all asphalt pavers, bitumen sprayers, hot asphalt trucks and ancillary plant before purchase or hire • Specify engineering controls such as fixed and interlocked guards, emergency stop systems, warning alarms, reversing cameras, proximity sensors and adequate operator visibility for all asphalt machines • Ensure plant design incorporates safe access and egress (non-slip steps, handrails, platforms, three-point contact, adequate lighting) for inspection, maintenance, cleaning and refuelling tasks • Require integrated fume and heat management features where practicable (e.g. heat shields, insulated tanks and lines, fume capture or deflection systems, temperature controls and auto-shutoff safeguards)	Medium

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	falls while cleaning, inspecting or refuelling plant • Lack of engineering controls to manage fumes, heat, bitumen splash and burns during mastic asphalt and hot bitumen application • Insufficient visibility from operator station leading to blind spots and collision risk with workers, public or other mobile plant • Failure to specify compatible plant for integrated operations (e.g. paver and hot mix trucks not dimensionally matched, leading to unsafe loading and unloading practices)		• Standardise fleet where possible so that pavers, bitumen sprayers and hot asphalt trucks are dimensionally compatible, with systems to control hopper loading interfaces and minimise manual intervention • Ensure plant is fitted with compliant rollover and falling object protection where required, seatbelts, and operator presence controls to prevent inadvertent movement • Include requirements for lockable isolation points, labelled controls, clear operator instructions and load charts as part of the procurement specification for paving and bitumen plant	
3. Contractor Management and Labour Hire Controls	• Use of subcontractors and labour hire workers on asphalt paving crews without verification of WHS competence or training in hot asphalt and bitumen handling • Inconsistent WHS standards and procedures between principal contractor and asphalt subcontractors operating pavers and bitumen sprayers on the same site • Poor control of overlapping duties leading to confusion over who manages plant inspection, traffic control, bitumen deliveries and emergency response • Labour hire workers not inducted into site-specific risks such as working near live traffic, hot material burns and exposure to fumes • Subcontractors providing their own paving machines and hot asphalt trucks with unverified maintenance history or missing safety features	High	• Implement a formal contractor and labour hire prequalification process that assesses WHS management systems, asphalt-specific experience, training records and incident history • Require subcontractors providing asphalt pavers, bitumen sprayers or hot asphalt trucks to submit current plant risk assessments, maintenance logs and evidence of compliance with Australian legislation and standards • Develop written interface agreements or WHS coordination plans that clearly allocate responsibilities for plant safety, traffic management, deliveries, supervision and emergency response between PCBUs • Ensure all subcontractor and labour hire personnel attend site-specific and task-specific inductions addressing asphalt paving hazards, hot bitumen handling, fumes, noise and mobile plant traffic • Mandate that supervisors verify and document the competency of subcontractor operators for asphalt pavers, sprayers and trucks before they commence work on site • Include WHS performance criteria and right-to-stop-work clauses in contracts, enabling suspension of asphalt activities where contractors do not meet agreed safety standards • Conduct periodic joint safety walks and toolbox talks involving principal contractor, subcontractors and labour hire providers to review risks and corrective actions for asphalt operations	Medium
4. Competency, Training and Authorisation of Operators	• Operators of asphalt pavers, bitumen sprayers and hot asphalt trucks lacking formal competency, leading to unsafe operation and plant misuse • Supervisors unaware of specific risks associated with adhering mastic asphalt,	High	[redacted]	Medium

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	bitumen laying and temperature management • Inadequate refresher training resulting in skill fade, unsafe shortcuts and poor emergency response capability • Non-English speaking or low-literacy workers unable to understand plant manuals, safety data sheets (SDS) and WHS procedures • No system to restrict unauthorised personnel from operating or altering settings on asphalt paving machines and bitumen sprayers		[redacted]	
5. Maintenance, Inspection and Plant Integrity Systems	• Lack of a scheduled maintenance program for asphalt pavers, bitumen sprayers and hot asphalt trucks leading to mechanical failure or loss of control • Unreported defects such as faulty brakes, worn tyres, compromised guarding or leaking hydraulic lines remaining in use • Inadequate inspection of temperature control systems on bitumen tanks and mastic asphalt kettles causing overheating, fires or bitumen degradation • Ad-hoc repairs by unqualified personnel leading to non-compliant modifications or disabling of safety features • Inconsistent pre-start and post-use checks between shifts and crews operating the same machines	High	[redacted]	Medium

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6. Planning, Scheduling and Fatigue Management	• Night works, long shifts and irregular rosters for asphalt paving leading to operator fatigue and reduced vigilance around mobile plant and hot material • Compressed project timeframes encouraging rushing, short-cutting WHS procedures and inadequate job planning • Inadequate planning of interface between hot asphalt deliveries, paver operations and bitumen spraying, creating congestion and collision risks in work zones • Insufficient allowance for plant warm-up, temperature stabilisation and cool-down periods resulting in unsafe handling of bitumen and mastic asphalt • Lack of consideration for extreme weather (heat, cold, rain) affecting bitumen curing, fume levels and worke heat stress during paving operations	High	[redacted]	Medium
7. Traffic Management and Worksite Layout	• Asphalt pavers, bitu n sprayers and hot asphalt trucks erating in close proximity to worke on foot wit defined exclusion z • Interaction between construction tr ic and public vehicles in live traffic environments around roa g sites • Poorly planned worksite layout causing reversing, blind spots and plant cross-overs in confined areas • Inadequate signage, delineation and lighting for night-time paving and bitumen spraying works • Failure to coordinate traffic management plans between principal contractor, road authority and asphalt subcontractor	High	[redacted]	Medium

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			[redacted]	
8. Hazardous Chemicals, Bitumen and Fume Management	• Exposure to bitumen fumes, diesel fumes and solvents used in priming, cleaning or adhering mastic asphalt leading to respiratory irritation or long-term health effects • Burns from contact with hot asphalt, mastic asphalt or hot bitumen during laying, spraying or cleaning activities • Inadequate storage, labelling and handling systems for bitumen products, primers and additives • Lack of current Safety Data Sheets (SDS) and misunderstanding of health, fire and reactivity hazards associated with bituminous materials • Uncontrolled release or spill of hot bitumen or primer into the environment, stormwater or public a[redacted]	High	[redacted]	Medium
9. Heat Stress, Manual Handling and Ergonomics	• Combined exposure to hot asphal[redacted] surfaces, radiant heat fro[redacted] high ambient temperatures causing heat stress or heat stroke • Repetitive manual tasks around pavers and screeds including raking, shovelling and hand placing of mastic asphalt leading to musculoskeletal disorders • Poor ergonomic design of operator stations (controls, seating, vibration) on asphalt pavers and bitumen sprayers contributing to fatigue and injury • Inadequate systems for hydration, shade and rest breaks for crews working near hot bitumen and heated equipment	High	[redacted]	Medium

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			[redacted]	
10. Emergency Preparedness and Incident Management	• Lack of coordinated emergency response procedures for burns, bitumen splash, fire, plant rollover or collision during asphalt operations • Inadequate first aid resources and trained personnel on sites where hot asphalt and bitumen spraying are undertaken • Confusion between PCBUs regarding who leads emergency response for incidents involving mobile plant or hazardous chemicals • Delayed communication with emergency services due to remote locations, night works or poor communication systems • Failure to investigate incidents and near misses to identify systemic issues in asphalt paving operations	High	[redacted]	Medium
11. Documentation, Communication and Consultation	• Critical WHS infor[redacted]bout asphalt pavers and bituminous products not communicated effectively to worker[redacted] supervisors and contractors • Outdated or inconsistent procedures for plant operation, maintenance and emergency response remaining in circulation • Lack of structured consultation on changes to asphalt paving technology, materials or work methods (e.g. new mastic asphalt formulations or sprayer systems) • Poor recordkeeping preventing effective trend analysis for incidents, defects and health complaints related to asphalt operations	Medium	[redacted]	Low

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			[redacted]	

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

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-of-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/forms-and-resources/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