



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **RIICBS202A Hand spread asphalt**

**Release: 1**

## RIICBS202A Hand spread asphalt

### Modification History

Not applicable.

### Unit Descriptor

This unit covers the hand spreading of asphalt in the civil construction industry. It includes planning and preparing, spreading asphalt, and cleaning up. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

### Application of the Unit

This unit is appropriate for those working in an assistant role at worksites within:

- Civil construction

### Licensing/Regulatory Information

Refer to Unit Descriptor.

### Pre-Requisites

Not applicable.

### Employability Skills Information

This unit contains employability skills.

### Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	<ul style="list-style-type: none"><li>1.1. Access, interpret and apply <b><i>compliance documentation</i></b> relevant to the work activity</li><li>1.2. Obtain and confirm <b><i>safety requirements</i></b> from the <b><i>site</i></b> safety plan and organisational policies and procedures, and apply to the allotted task</li><li>1.3. Identify, obtain and implement signage requirements from the project <b><i>traffic</i></b> management plan</li><li>1.4. Select <b><i>tools and equipment</i></b> to carry out tasks consistent with the requirements of the job, check for serviceability and rectify or report any faults</li><li>1.5. Identify, confirm and apply <b><i>environmental protection requirements</i></b> from the project environmental management plan</li></ul>
2. Spread asphalt	<ul style="list-style-type: none"><li>2.1. Conduct hand <b><i>asphalt spreading</i></b> in safe proximity to the paver</li><li>2.2. Hand place <b><i>asphalt</i></b> to required level and line</li><li>2.3. Achieve even finish when raking and construct <b><i>joints</i></b> to correct level</li><li>2.4. Identify and repair low spots, high spots and <b><i>defects</i></b> in the mat</li><li>2.5. Identify and report faults in the mat detected prior to or during operations</li></ul>
3. Clean up	<ul style="list-style-type: none"><li>3.1. Clear work area and dispose of or recycle <b><i>materials</i></b> in accordance with project environmental management plan</li><li>3.2. Clean, check, maintain and store tools and equipment</li></ul>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to hand spread asphalt:

- apply legislative, organisation and site requirements and procedures for hand spreading asphalt
- organise work activities
- select and use relevant tools and equipment safely
- identify and report on hazards related to the worksite and work activity
- communicate effectively to receive and clarify work instructions

### Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to hand spread asphalt:

- site and equipment safety requirements
- equipment types, characteristics and limitations
- operational and maintenance procedures
- hand spreading asphalt
- site isolation and traffic control responsibilities and authorities
- the properties of asphalt
- the AAPA code of practice for working with SBS modified binders
- processes for the calculation of material requirements
- materials safety data sheets and materials handling methods
- project quality requirements
- civil construction terminology
- JSAs/safe work method statements

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> <li>• knowledge of the requirements, procedures and instructions for hand spreading asphalt</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient hand spreading of asphalt</li> <li>• working with others to undertake and complete the hand spreading of asphalt that meets all of the required outcomes</li> <li>• consistent timely completion of hand spreading of asphalt that safely, effectively and efficiently meets the required outcomes</li> <li>• a minimum of 5m<sup>2</sup> of asphalt (per patch) to line and level is to be hand spread without segregation:             <ul style="list-style-type: none"> <li>• two patches over 50mm thick, each with a different type of asphalt</li> <li>• two patches under 50mm thick, each with a different type of asphalt</li> </ul> </li> <li>• work with a paver to lay a minimum of 100 lineal metres of longitudinal joint and two transverse joints</li> </ul>
<b>Context of and specific resources for assessment</b>	<ul style="list-style-type: none"> <li>• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.</li> <li>• Assessment of this competency requires typical</li> </ul>

	<p>resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances.</p> <ul style="list-style-type: none"> <li>• The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.</li> <li>• Customisation of assessment and delivery environment to sensitively accommodate cultural diversity.</li> <li>• Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>• Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.</li> </ul>
<b>Method of assessment</b>	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> <li>• written and/or oral assessment of the candidate's required knowledge</li> <li>• observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>• consistent achievement of required outcomes</li> </ul> </li> <li>• first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• working with others to undertake and complete the hand spreading of asphalt</li> </ul> </li> </ul>
<b>Guidance information for assessment</b>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>



## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Relevant compliance documentation</b> may include:	<ul style="list-style-type: none"> <li>• legislative, organisational and site requirements and procedures</li> <li>• manufacturer's guidelines and specifications</li> <li>• Australian standards</li> <li>• Employment and workplace relations legislation</li> <li>• Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>
<b>Safety requirements</b> may include:	<ul style="list-style-type: none"> <li>• state or territory legislation and regulations, organisational safety policies and procedures, and project safety plan including protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control and hazardous materials and substances</li> <li>• safe spreading including procedures minimising strain and fatigue, adherence to site traffic plans, precautions taken when working close to traffic, awareness of rollers and other vehicles working in the area</li> <li>• safe operating procedures including recognising and preventing hazards associated with uneven/unstable terrain, trees, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working in proximity to others, worksite visitors and the public</li> <li>• recognising hazards and risks including uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials</li> <li>• emergency procedures related to equipment operation including extinguishing equipment fires, organisational First Aid requirements and evacuation</li> </ul>



<b>Site</b> may include:	<ul style="list-style-type: none"> <li>• car parks</li> <li>• airport runways</li> <li>• container yards</li> <li>• hard stands</li> <li>• footpaths</li> <li>• bikeways</li> <li>• roadway</li> </ul>
<b>Traffic</b> conditions may include:	<ul style="list-style-type: none"> <li>• congested urban environments</li> <li>• low traffic rural areas</li> <li>• off-road un-trafficked areas</li> <li>• buildings</li> <li>• parking sites</li> <li>• pedestrian areas</li> </ul>
<b>Tools and equipment</b> may include:	<ul style="list-style-type: none"> <li>• rakes</li> <li>• brooms</li> <li>• shovels</li> <li>• depth gauges and may include</li> <li>• straight edges</li> <li>• shovel baths</li> <li>• smart levels</li> <li>• string lines</li> </ul>
<b>Environmental protection requirements</b> may include:	<ul style="list-style-type: none"> <li>• organisational/project environmental management plan</li> <li>• waste management</li> <li>• water quality protection</li> <li>• noise</li> <li>• vibration</li> <li>• dust and clean-up management</li> </ul>
<b>Asphalt spreading</b> may include:	<ul style="list-style-type: none"> <li>• constructing new work</li> <li>• repairing surfaces</li> <li>• repair of defects</li> <li>• paver runs</li> <li>• joints</li> </ul>
<b>Asphalt</b> may include:	<ul style="list-style-type: none"> <li>• dense graded</li> <li>• open graded</li> <li>• stone mastic</li> </ul>
<b>Joints</b> may include:	<ul style="list-style-type: none"> <li>• longitudinal</li> <li>• transverse</li> <li>• hot to hot</li> <li>• cold to hot</li> </ul>

<b>Defects</b> may include:	<ul style="list-style-type: none"><li>• bumps</li><li>• segregation</li><li>• blemishes</li><li>• bony materials</li><li>• voids</li></ul>
<b>Materials</b> may include:	<ul style="list-style-type: none"><li>• asphalt and release agents including emulsion, slurry and Styrene Butadiene Styrene modified binders (SBS) handled and used in accordance with the Australian Asphalt Paving Association (AAPA) code of practice for SBS modified binders</li></ul>

## Unit Sector(s)

Bituminous Surfacing

## Competency field

Refer to Unit Sector(s).

## Co-requisite units

Not applicable.