



Australian Government

CPCCST3022A Carry out profile work

Release 1

CPCCST3022A Carry out profile work

Modification History

This version first released with CPC08 Construction, Plumbing and Services Training Package Version 9.

- Changes to application, performance criteria, required knowledge, and critical aspects for assessment
- Range of other minor editorial changes

Not equivalent to CPCCST3005A Carry out profile work

Unit Descriptor

This unit specifies the outcomes required to produce templates for profiling work and to set up and use profiling machinery and equipment to profile edges of stone accurately and according to job specifications.

Application of the Unit

This unit of competency supports the work of stonemasons who finish edges of stone by profiling, using hand and power tools. The work may be completed individually or in a team.

Licensing/Regulatory Information

Check with relevant state and territory licensing and regulatory authorities. State and territory jurisdictions may have different regulatory requirements for work carried out on heritage structures.

Pre-Requisites

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
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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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 | Plan and prepare. | 1.1 | Work instructions are obtained using relevant <i>information</i> , confirmed and applied for planning and preparation purposes. |
| | | 1.2 | <i>Work health and safety (WHS) requirements</i> are followed according to safety plans and policies. |
| | | 1.3 | <i>Tools and equipment</i> selected to carry out tasks are consistent with job requirements, checked for serviceability, and faults are rectified and reported before work begins. |
| | | 1.4 | Material quantity requirements are identified and calculated according to plans, specifications and <i>quality requirements</i> . |
| | | 1.5 | Materials appropriate to the work application are obtained, prepared, safely handled and located ready for use. |
| | | 1.6 | <i>Environmental requirements</i> are identified for the project according to environmental plans and <i>statutory and regulatory authority</i> requirements, and are applied. |
| 2 | Transfer dimensions from an engineering drawing to work. | 2.1 | Stone is marked out for profile work requirements according to job specifications. |
| | | 2.2 | Datum points are correctly established on stone for application of profile set-out. |

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| 3 | Develop patterns. | <p>3.1 Dressing procedures are analysed and most appropriate development method is chosen and applied for type of stone.</p> <p>3.2 Calculations are carried out and used to develop true shape of profile mould.</p> <p>3.3 Patterns are set out accurately for profile mould, reverse mould and bed mould to dimensions and specified shapes.</p> <p>3.4 Allowances for fabrication processes with guide/roller working off template are correctly determined and transferred to bed mould.</p> |
| 4 | Use hand or hand-held power cutting tool. | <p>4.1 Tool is adjusted for operation in consideration of application work.</p> <p>4.2 Hand tool or power cutting tool is used safely and correctly to cut patterns for templates.</p> <p>4.3 Materials are cut to size according to drawing and job requirements, minimising wastage.</p> <p>4.4 Templates are trimmed to set-out, where required, to specifications.</p> |
| 5 | Shape and form stone. | <p>5.1 Equipment is set up and adjusted to meet job requirements and standard operating procedures.</p> <p>5.2 Stone is located and fixed into place on table ready for machine operation.</p> <p>5.3 Appropriate cutter is set to machine to carry out initial cutting processes and cutters are changed as required during profiling process.</p> <p>5.4 Bed template is located and aligned with stone and machine operation to requirements of job and manufacturer specifications.</p> <p>5.5 Machine is set up and operated with allowances for thickness of template and gauges.</p> <p>5.6 Machine is operated and stone is shaped and formed to specifications, with material checked for accuracy</p> |

against required dimensions and shape.

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| 6 | Clean up. | 6.1 | Area is cleaned to specification. |
| | | 6.2 | Waste material is removed and placed into job waste bins. |
| | | 6.3 | Tools and equipment are cleaned, inspected, maintained and stored. |

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, and share information
 - follow instructions
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- innovation skills to select appropriate tools and equipment, respond to workplace challenges and put ideas into action
- numeracy skills to apply measurements and calculate material requirements
- planning and organising skills to identify requirements, apply relevant resources and sequence tasks
- problem-solving skills to recognise and take action to rectify minor faults and problems
- reading skills to read and interpret drawings and specifications
- teamwork skills to work with others to action tasks

Required knowledge

- drawing conventions and construction terminology used in plans and specifications
- job safety analyses (JSA) and safe work method statements
- measuring and marking techniques relating to stonemasonry work
- techniques for profiling stone
- types and uses of templates for stonemasonry work
- types of stone and their characteristics
- workplace and equipment safety requirements.

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.

Overview of assessment This unit of competency could be assessed in the workplace or simulated workplace setting. Assessment shall be while tasks are undertaken either individually or as part of a team under limited supervision.

Critical aspects for assessment and evidence required to demonstrate competency in this unit A person should demonstrate the ability to profile stone for three different job specifications, providing evidence of the ability to:

- comply with WHS requirements applicable to workplace operations
- comply with organisational policies and procedures
- select and use appropriate processes, tools and equipment to carry out tasks
- apply organisational quality procedures and processes within the context
- transfer critical dimensions and reference points to work accurately
- develop required patterns, accurate to job details
- accurately produce templates for job requirements
- apply correct procedures with use of templates to set up machines and equipment with stone to carry out machining processes
- adopt and use safe and effective procedures to cut and shape stone
- carry out safe and effective operations with use of equipment and machines
- complete profile work with accuracy of shape according to specifications
- identify typical faults and problems that occur and take necessary action to rectify them
- communicate with others to ensure safe and effective workplace operations.

Context of and specific resources for assessment Assessment of this unit:

- must be in the context of the work environment
- may be conducted in an off-site context, 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
- must meet relevant compliance requirements.

Resource implications for assessment may include:

- construction materials relevant to proposed activity
- documentation relevant to task
- tools, plant and equipment appropriate to installation processes
- work location for stone construction activity.

Method of assessment Assessment for this unit must verify the practical application of the required skills and knowledge, using one or more of the following methods:

- direct observation of tasks in real or simulated work conditions
- questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- review of relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Guidance information for assessment This unit could be assessed on its own or in combination with other units relevant to the job function.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Assessment processes and techniques should, as far as is practical, take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

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.

Information may include:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- memos
- regulatory and legislative requirements for handling stone
- current Australian standards relating to profiling stone
- safe work procedures relating to handling stone

Planning and**preparation** may include:

- safety data sheets (SDS)
- signage
- verbal, written and graphical instructions, including manufacturer specifications and instructions where specified
- work bulletins
- work schedules, plans and specifications.
- assessing conditions and hazards
- determining work requirements and safety plans and policies
- identifying equipment defects
- inspecting work sites.

Work health and safety requirements must

comply with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements, and evacuation procedures
- hazard control
- hazardous materials and substances
- personal protective equipment (PPE) prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.

Tools and equipment

may include:

- carborundum cutters
- clamps
- cutting and grinding machines, including:
 - power grinders
 - portable machines
- diamond cutters
- dividers and wing compasses
- jigs
- measuring tapes and rules
- power leads
- scribes
- squares

- Quality requirements** may include:
- travelling arm saws.
 - internal organisational quality policy and standards
 - manufacturer specifications
 - relevant regulations, including Australian standards
 - workplace operations and procedures.
- Environmental requirements** may include:
- clean-up management
 - dust and noise control
 - vibration management
 - waste management.
- Statutory and regulatory authority** includes:
- federal, state and local authorities administering applicable Acts, regulations and codes of practice.
- Type of stone** may include:
- igneous rock, including:
 - basalt (blue stone)
 - granite
 - marble
 - sandstone.
- Template** may be made of:
- aluminium sheet
 - cardboard
 - plastic sheet
 - plywood
 - zinalume sheet.

Unit Sector(s)

Construction

Custom Content Section

Not applicable.