

Unit of Competency CPCPCM2040

Read plans, calculate quantities and mark out materials

Application

This unit specifies the skills and knowledge required to read and interpret construction and plumbing plans and specifications and obtain dimensions to calculate material quantities and mark out materials.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

CPCPCM3024 Prepare simple drawings

Elements and Performance Criteria

1. Establish job requirements.	<ul style="list-style-type: none">1.1 Access, read and determine requirements from plumbing plans and specifications, relevant Australian Standards, codes, manufacturer's specifications and jurisdictional requirements.1.2 Obtain, interpret and follow organisational work health and safety (WHS) and environmental requirements.1.3 Identify amendments to ensure plans and specifications are the most current version.1.4 Confirm drawing conventions used and their application.1.5 Select appropriate tools and equipment.1.6 Determine type of materials.1.7 Calculate dimensions and material quantities.1.8 Document materials list to workplace requirements.
2. Mark out job.	<ul style="list-style-type: none">2.1 Read and determine job dimensions from relevant plans and specifications.2.2 Mark out materials using appropriate marking tools.2.3 Check markings for accuracy and compliance with planned dimensions.
3. Clean up.	<ul style="list-style-type: none">3.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state/territory legislation and workplace policies and procedures.3.2 Clean tools and equipment, check for serviceability and report any damage, and store and secure.

Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is non-equivalent to CPCPCM2040A Read plans and calculate plumbing quantities, and CPCPCM2050A Mark out materials.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPCM2040

Read plans, calculate quantities and mark out materials

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by referring to plans and specifications for at least three different plumbing or plumbing services tasks to:

- develop a full materials and specifications list, including lengths, diameters and quantities
- transfer requirements from the plans to accurately mark out materials.

Knowledge Evidence

To be competent in this unit, a person must demonstrate knowledge of:

- types of plans and their purpose
- parts of a plan and their function
- conventions and scales used in plans and specifications
- calculation principles used in the plumbing sector:
 - converting millimetres to metres
 - converting metres to millimetres
 - length
 - perimeter
 - circumference
 - area
 - volume
 - pressure
 - addition, subtraction, multiplication and division
 - ratio
 - percentage
- how to access relevant information, including codes and standards
- tools, materials and equipment used to read plans, calculate quantities and mark out materials
- work health and safety (WHS) requirements for reading plans, calculating quantities and marking out materials.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

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