



Australian Government

Department of Education, Employment and Workplace Relations

BCGBC4012A Read and interpret plans and specifications

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit specifies the outcomes required to read and interpret plans and specifications applicable to medium-rise residential and commercial projects in order to inform estimation, planning and supervisory activities.

Employability Skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged, will assist in identifying employability skill requirements.

Application of the unit

This unit of competency supports the needs of site managers, forepersons, estimators, builders, managers and other building and construction industry personnel who have a responsibility for ensuring the currency of plans and specifications and for reading and interpreting these for application to estimation, planning and related supervisory activities.

Sector

Building and Construction

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Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Identify types of drawings and their purposes.	1.1 The purpose and advantage of different types of drawing are identified. 1.2 Different aspects of drawings are identified.
2 Apply commonly used symbols and abbreviations.	2.1 Commonly used symbols and abbreviations on drawings are identified, understood and applied. 2.2 Common building and construction terms used on drawings are identified, understood and applied.
3 Locate and identify key features on a site plan.	3.1 The building site is identified from location drawings. 3.2 True north and building orientation are identified from details provided on the site plan. 3.3 The key features of the site plan are identified.
4 Identify and locate key features on drawings.	4.1 The key features of plans, elevations and sections are identified. 4.2 Client requested variations to standard plans are identified on drawings.
5 Correctly read and interpret specifications.	5.1 PS and PC sums are identified and correctly applied. 5.2 Customer variations to standard specifications are identified.

- 5.3 Correct interpretations of essential elements are applied to estimation, planning and supervisory tasks and communicated.
- 5.4 Building codes or standards affecting the work to be undertaken are identified, including references to Australian standards and the Building Code of Australia.
- 6 Identify non-structural aspects to the specification.
 - 6.1 The key features of products included in the specification are identified, including the design, purpose, aesthetics and cost relationships.

Required Skills and Knowledge

This section describes the skills and knowledge, and their level, essential for this unit.

Required skills:

communication skills to interact effectively by telephone, facsimile, email and in writing with clients, organisational personnel and appropriate local authorities
translation of documented requirements into on-site activities and site and structural features from two dimensional to three dimensional formats.

Required knowledge:

building and construction practices
internal documentation systems
regulatory approvals processes and timeframes
relevant State/Territory building and construction codes, standards and regulations
types of building and construction drawings and drawing perspectives
types of building and construction industry contracts.

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Evidence Guide

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

Overview of assessment

This unit of competency could be assessed by reading and correctly interpreting a range of plans and specifications for activities relating to medium-rise residential and commercial construction projects.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of: the ability to read and interpret plans and specifications, including identification of key features, levels, contours, sections, service entry points, site features to be removed or retained and other details pertinent to the construction process

the ability to identify the characteristics and features of sites and structures pertinent to a construction project, including:

the correct orientation of structures on site

establishing the location of key on-site features in relation to building or other structures

identifying and incorporating customer variations to agreed plans and specifications

correctly interpreting essential elements and applying these to estimation, planning and supervisory tasks

effectively communicating changes to specifications to organisational personnel and confirming variations with the client.

Context of and specific resources for assessment

Resource implications for assessment include:

documentation that should normally be available in either a building or construction office
relevant codes, standards, government regulations

office equipment, including calculators, photocopiers and telephone systems

computers with appropriate software to view 2D CAD drawings, run costing programs and print copies

a technical reference library with current publications on measurement, design, building construction and manufacturer's product literature

a suitable work area appropriate to the construction process.

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. Assessment processes and techniques must be culturally appropriate, and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Validity and sufficiency of evidence requires that:

competency must be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace

where the assessment is part of a structured learning experience, the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice with a decision of competence taken only at the point when the assessor has complete confidence in the person's competence

all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence

where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time

assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit.

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Questioning will be undertaken in a manner appropriate to the oracy, language and literacy levels of the operator, and to any cultural issues that may affect responses to the questions, and reflect the requirements of the competency and the work being performed.

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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 in the performance criteria is detailed below. Add any 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.

Types of drawings include:

- sketch plans
- working drawings
- presentation drawings
- CAD drawings
- initial sketches
- preliminary and final drawings and plans however produced
- detailed amendment drawings
- construction information
- service details such as wiring, piping, ducts and waste disposal
- details of roads, pathways, parking areas, boundaries and landscaping.

Aspects of drawings include:

- plans
- elevations
- sections
- views in isometric projection and perspective.

Key features of the site plan include

- location and situation
- access and egress
- contours and slopes
- major geological and topographical features
- existing dwellings, buildings or other structures
- retaining walls
- drainage lines
- paving
- set backs
- service connection points
- easements
- storm water disposal
- trees and vegetation.

The **specification** may include:

- materials lists
- schedules of quantities
- performance data and material technical data
- levels and survey information
- stress, load and bearing calculations.

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Unit Sector(s)

Not applicable.