



Australian Government

Department of Education, Employment and Workplace Relations

CPCCB6016A Assess construction faults in large building projects

Release: 1

CPCCB6016A Assess construction faults in large building projects

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to identify construction faults in large, high rise and complex buildings (open' licensing classification with special reference to Type A buildings). It includes the identification and evaluation of construction problems and determination of alternative methods in accordance with legislative requirements.

Builders and other related construction industry professionals for whom this unit is relevant, exercise personal judgement based on their knowledge, skills and experience. They must also coordinate the input and expertise of a range of other professionals in order to assess construction faults and determine appropriate responses.

Application of the Unit

Application of the unit

This unit of competency supports builders, project managers and related construction industry professionals responsible for assessing construction faults in large building projects, assembling the input of related professionals and determining appropriate responses.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills 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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse construction faults in large building projects.	1.1. Information is collected relating to specific construction faults. 1.2. Original specifications for the construction are analysed to identify potential causes of construction problem. 1.3. Construction problem is documented and communicated to relevant personnel in accordance with standard work practices. 1.4. Expert analysis and opinions are gathered as required from project team members and external professionals. 1.5. Problem solving techniques are used and typical faults and problems are identified and the action to rectify is deemed to be in accordance with the Building Code of Australia (BCA) open classification.
2. Analyse construction techniques, methods and materials.	2.1. Building terminology is used accurately in the communication of issues. 2.2. Working drawings and specifications are evaluated to identify any existing or designed in construction problems. 2.3. Alternative methods and materials to meet construction aims and objectives are prepared to the specification nominated in relevant legislation in the BCA (open classification) and Australian standards.
3. Evaluate alternative construction solutions.	3.1. Commonly occurring on-site problems with building materials and their causes are considered and evaluated. 3.2. Report identifying available alternative methods and materials available to meet the construction aims and objectives is prepared to specification. 3.3. Detailed sketches of available alternative methods and materials available to meet the construction aims and objectives are prepared to specification.
4. Resolve construction faults using alternative construction methods.	4.1. Suitable methods from the available alternative solutions are evaluated and recommended to resolve the problem, in accordance with project aims and objectives and using standard organisational processes. 4.2. Selected methods are integrated into the project in

ELEMENT**PERFORMANCE CRITERIA**

	order to resolve construction problems in accordance with project aims.
	4.3. Evaluation of the available alternative forms of construction are carried out in accordance with project aims.
5. Communicate preferred solution to construction problem.	5.1. Technical resolution to the identified problem is documented in accordance with project and organisational requirements. 5.2. Appropriate documentation is lodged with and communicated to appropriate project and other personnel. 5.3. Strategies are determined and put in place to monitor the implementation of corrective procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- analysis and interpretation skills relating to documentation from a wide range of sources, including BCA and Australian standards
- applying access requirements for people with a disability and requirements of the Disability Discrimination Act (DDA) with regard to access to building projects
- applying design concepts and principles in accordance with Australian standards
- applying structural principles to the construction process
- applying building codes and standards
- communication skills to:
 - communicate construction problems to appropriate personnel
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - read and interpret:
 - Australian standards
 - BCA
 - reports and legislation
 - working drawings and specifications

REQUIRED SKILLS AND KNOWLEDGE

- seek expert analysis and opinions
- use and interpret non-verbal communication
- use language and concepts appropriate to cultural differences
- written skills to:
 - record construction problem
 - prepare report identifying alternative methods and materials
- apply numeracy skills to workplace requirements.

Required knowledge

Required knowledge for this unit is:

- design and construction principles of buildings
- nature of materials and effect on performance
- processes for the administration and preparation of documentation
- processes for the interpretation of reports, working drawings and specifications
- relevant federal, state or territory legislation and local government policy and procedures
- research methods
- terminology, definitions and hazard identification.

Evidence Guide

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 by identifying construction faults and their correction to achieve, certification of compliance on the final outcome or authorisation for commencement by a competent authority.

This unit of competency can be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

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:

- comply with OHS regulations applicable to workplace operations
- apply organisational management policies and procedures, including quality assurance requirements where appropriate
- assess construction faults in buildings, determine a rectification strategy and consider alternative construction methods; and the associated reporting of data, findings, recommendations and strategies for at least one residential building project and one commercial building project or equivalent in compliance with relevant legislation
- provide reports to appropriate body or individual as determined by the project brief.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory

EVIDENCE GUIDE

or Australian standards' requirements.

Resource implications for assessment include:

- relevant Acts, Australian standards, regulations and codes of practice for building design
- plans, working drawings, specifications and material requirements for relevant buildings.

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.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to 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 on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured

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learning experience must include a combination of direct, indirect and supplementary evidence.

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.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

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.

Construction faults include those occurring in:

- initial constructions
- installations
- refurbishments
- renovations
- restorations.

Open classification within the BCA refers to:

- all classes of building and types of construction.

Australian standards may include:

- AS1288 Installation of glass in buildings
- AS1684 Residential timber framed construction
- AS2050 Fixing of roof tiles
- AS2180 Metal rainwater goods, selection and installation
- AS2208 Safety glazing materials for use in buildings
- AS3500 National plumbing

RANGE STATEMENT

- AS3600 Concrete structures
- AS3660 Protection of buildings from subterranean termites
- AS3700 Masonry
- AS3740: 2004 Waterproofing of wet areas in residential buildings
- AS4349 Inspection of buildings.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area