



Australian Government

Department of Education, Employment and Workplace Relations

CPCBC4001A Apply building codes and standards to the construction process for low rise building projects

Release: 1

CPCBC4001A Apply building codes and standards to the construction process for low rise building projects

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to access, interpret and apply relevant building codes and standards applicable to the construction processes of residential and low rise commercial buildings (low rise' licensing classification with reference to Class 1 and 10 construction and Classes 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction).

To successfully construct low rise buildings requires a thorough knowledge of the purpose and content of the Building Code of Australia (BCA), coupled with the ability to interpret other codes and standards related to a specific building.

Application of the Unit

Application of the unit

This unit of competency supports builders, site managers and related construction industry professionals responsible for ensuring compliance with building codes and standards in the residential and commercial construction industry.

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. Access and interpret relevant code and standard requirements.	<ul style="list-style-type: none">1.1. Relevant performance requirements from the BCA that apply to individual projects (described as <i>low rise</i>) are identified.1.2. Requirements of relevant BCA deemed-to-satisfy (DTS) provisions are determined.1.3. Requirements of relevant Australian standards referenced in the BCA are accessed and interpreted accordingly.
2. Classify buildings.	<ul style="list-style-type: none">2.1. Nature of a building is determined according to its use and arrangement.2.2. BCA criteria to determine the defined classification are applied.2.3. BCA requirements for multiple classification are identified and interpreted.
3. Analyse and apply a range of solutions to a construction problem for compliance with the BCA.	<ul style="list-style-type: none">3.1. Range of criteria that will ensure that construction methods comply with BCA performance requirements is determined.3.2. Alternative solutions to a design or construction problem that will comply with BCA requirements are discussed and proposed in accordance with company policies and procedures.3.3. Performance-based solutions are identified and documented in accordance with BCA requirements.3.4. <i>Assessment methods</i> referenced in the BCA to determine whether a building solution complies with <i>performance requirements</i> or DTS provision of the BCA are analysed and applied.3.5. Relevant documentation is identified and completed in accordance with BCA requirements.
4. Apply fire protection requirements.	<ul style="list-style-type: none">4.1. Passive and active fire control elements for low rise building required by the BCA and other legislation are identified and applied.4.2. Level of fire resistance required for the construction of various low rise buildings is determined.4.3. Check of existing buildings for compliance with passive and active fire protection requirements is carried out in accordance with BCA requirements.

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 referenced documents
- application of design concepts and principles in accordance with BCA, namely:
 - Class 1 and 10
 - Classes 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction
- attention to detail in applying building codes and standards
- communication skills to:
 - discuss and propose alternative solutions
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - read and interpret:
 - documentation from a variety of sources, including BCA and referenced documents
 - drawings and specifications
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication
 - written skills to complete documentation in accordance with BCA requirements
- numeracy skills to interpret and apply mathematical information included in building codes and standards.

Required knowledge

Required knowledge for this unit is:

- basic design principles and the behaviour of structures under stress, strain, compression, bending or combined actions
- BCA performance hierarchy
- definitions and common technical terms or usage specified under general provisions of BCA
- general nature of materials and the effects of performance
- relevant Australian standards
- relevant legislative and OHS requirements, codes and practices
- types of working drawings and specifications
- understanding of the BCA relating to:
 - Class 1 and 10
 - Classes 2 to 9 with a gross floor area not exceeding 2000 square metres, not

REQUIRED SKILLS AND KNOWLEDGE

including Type A or Type B construction.

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 the application of design principles and solutions specified in BCA performance requirements or DTS provisions applicable to a building project. 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 organisational quality procedures and processes
- apply and interpret relevant documentation and codes
- accurately apply BCA performance requirements relating to the design and construction of a building
- understand assessment methods available to determine compliance with the BCA
- identify faults and problems and proposed action to rectify.

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 or Australian standards' requirements.

Resource implications for assessment include:

- access to BCA and relevant documents referenced in the BCA
- access to relevant legislation
- project documentation, including design brief, design drawings, specifications, construction

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schedules and other supporting documents

- research resources, including product information and data
- relevant computer software package and suitable hardware.

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 learning experience must include a combination of direct, indirect and

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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.

Low rise is described as falling within the BCA classes:

- Class 1 and 10
- Classes 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction.

Assessment methods include:

- comparison with BCA DTS provisions
- evidence of suitability as described in the BCA
- expert judgement as defined in the BCA
- verification method as defined in the BCA.

Performance requirements include:

- performance requirements contained within other legislation applicable to a specific project
- performance requirements of the BCA determined to be relevant to a specific project
- performance-based contractual requirements that must be fulfilled by any party.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area