



Australian Government

CPPBDN5102 Produce compliant designs for Class 1 and 10 buildings

Release: 1

CPPBDN5102 Produce compliant designs for Class 1 and 10 buildings

Modification History

Release 1 This version first released with CPP Property Services Training Package Release 11.0.
New unit.

Application

This unit specifies the skills and knowledge required to produce compliant designs for Class 1 and 10 buildings as defined by the National Construction Code (NCC). It includes developing design briefs, integrating client requirements, analysing sites, developing design concepts, refining designs and presenting to clients.

This unit is suitable for drafters and building designers who apply technical and theoretical knowledge and skills to building design work tasks.

This unit forms part of the licensing requirements for people engaged in building design in some states and territories. For further information, check with the relevant regulatory authority.

Pre-requisite Unit

Nil.

Unit Sector

Building Design

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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|--------------------------------------|---|
| 1 Develop and finalise design brief. | 1.1 Consult with client to clarify building design vision, preferences and budget to inform design brief. |
| | 1.2 Research applicable local authority requirements and perform a site analysis. |
| | 1.3 Review design requirements, challenges and planning constraints specific to project location. |

- 1.4 Research passive design principles and sustainability considerations.
 - 1.5 Document design brief according to client and workplace requirements.
 - 1.6 Confirm design brief with client to obtain consent to proceed to design stage.
- 2 Analyse project information to clarify design concept.
 - 2.1 Review design brief and site analysis for building and identify required additional information.
 - 2.2 Determine impacts of compliance requirements on design options according to classification and use of building.
 - 2.3 Analyse implications of preferred construction materials and methods on design options.
 - 2.4 Reconcile site analysis and compliance requirements with design brief to determine and resolve any conflict.
- 3 Produce design concept.
 - 3.1 Propose innovative and energy efficient design solutions that utilise sustainability principles to minimise environmental impact.
 - 3.2 Produce freehand diagrammatic drawings of space planning and organisation to demonstrate evolution of preliminary concepts.
 - 3.3 Prepare draft concept representations that are drawn to scale and test design ideas.
 - 3.4 Review draft concept design to ensure it meets requirements of design brief, site and compliance constraints.
 - 3.5 Apply rendering techniques to drawing views to enhance readability and depict light, shade and material finishes.
 - 3.6 Produce set of concept design drawings for presentation to client.

4 Consult with client to finalise design concept.	4.1	Present design concept to client.
	4.2	Outline design choices including energy efficient and sustainability considerations.
	4.3	Explain solutions developed to meet project requirements and record client feedback.
	4.4	Resolve issues and associated implications arising from client feedback and revise drawings accordingly.
5 Refine spatial, structural and technical elements of building design to complete drawings.	5.1	Review structural and services systems and incorporate appropriate systems into building design.
	5.2	Incorporate optimum, cost-effective and sustainable construction materials and methods into building design.
	5.3	Assess design drawings against client and compliance requirements and address anomalies.
	5.4	Present final building design drawings to client for approval.
	5.5	Save and file design documentation according to workplace requirements.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- reading skills to interpret and apply complex technical information in regulations, codes and standards
- numeracy skills to calculate optimum and cost-effective design solutions
- written and oral skills to communicate appropriately for the audience and situation.

Unit Mapping Information

No equivalent unit.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPBDN5102 Produce compliant designs for Class 1 and 10 buildings

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by producing compliant building design drawings and presenting designs to clients for:

- one two-storey Class 1 building
- one Class 1 building with an associated Class 10 building.

Class 1 and 10 buildings are as defined in the National Construction Code (NCC).

Knowledge Evidence

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

- architectural styles and building construction terminology relevant to working with building designs
- NCC building classifications
- requirements of relevant legislation, codes and standards for Class 1 and 10 building designs
- contextual and site constraints that place limits on design options
- features and impact of building life cycles
- design development and approval processes and implications of changes to design at each stage
- energy efficient design principles and sustainability considerations
- bushfire attack level rating
- scientific and social principles of human interaction with the built environment
- construction materials and methods
- principles of design
- design brief format
- sketches, including plans, elevations and three-dimensional views
- rendering techniques
- presentation techniques.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations. Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed. This includes access to:

- computer with internet access and building design software currently used in drafting and building design practice
- relevant legislation, regulations, codes and standards
- relevant client, site and project information.

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