Australian Government

CPPBDN5108 Design timber-framed buildings

Release: 1

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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 design timber-framed buildings in accordance with AS 1684 *Residential Timber Framed Construction* (AS 1684), AS 4055 *Wind loads for housing* (AS 4055) and within the context of the National Construction Code (NCC). It includes designing timber-framed structures for one and two-storey buildings and selecting, sizing and positioning structural elements.

This unit is suitable for drafters and building designers who apply integrated technical and theoretical skills to determine framing requirements and apply compliant materials and processes to timber framing as part of a building design project.

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.
1 Determine building design compliance with standards.	1.1 Read and interpret preliminary plans and project brief to confirm timber framing requirements.
	1.2 Interpret terminology and definitions, scope and limitations of AS 1684 applicable to building design.
	1.3 Identify wind classification for building design in

		accordance with AS 4055.
	1.4	Identify forces and loads in timber-framed structure relevant to building design.
2 Determine specifications for timber framing elements.	2.1	Evaluate properties and stress grading of timber species commonly used in timber framing.
	2.2	Evaluate elements and properties of engineered timber to meet required application in timber-framed buildings.
	2.3	Specify selection, position and size of floor framing members for building design project.
	2.4	Specify selection, position and size of wall framing members for building design project.
	2.5	Specify selection, position and size of common rafters, ceiling joists and roof battens.
	2.6	Identify and locate hanging beams, ridgeboards and ridgebeams, collar ties underpurlins, struts and strutting beams.
3 Determine bracing and tie-down installation for building design.	3.1	Identify bracing requirements for the project according to building type and location.
	3.2	Specify bracing type and installation details to meet project requirements.
	3.3	Design the bracing layout for building design project.
	3.4	Calculate and specify fixing and tie-down requirements.
4 Prepare timber framing documentation.	4.1	Reconcile specifications to accord with preliminary drawings.
	4.2	Develop accurate drawings, annotations and schedules that incorporate timber framing specifications into design documentation.

Foundation Skills

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

- reading skills to interpret specialised vocabulary, abbreviations and acronyms specific to timber framing and building design
- numeracy skills to apply measurements and calculations to engineering principles of timber framing design.

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