



Australian Government

**Assessment Requirements for
FWPTMM4209 Interpret details of timber
roof trusses to inform design of plans and
production documents**

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has designed layout plans and developed production and installation documentation using timber systems design software for each of the following:

- a hip and valley roof with a minimum area of 100 square metres that includes a dutch gable and a gable end
- a complex hip end
- a sloping ridge.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- building industry regulations, codes and standards relevant to design of timber roof trusses:
 - National Construction Code (NCC)
- risks of non-conforming design
 - responsibilities and limits of authority with regard to certifying and non-conforming design
- types of roofs:
 - bell
 - bowstring
 - dual pitch
 - gabled
 - hipped

- mansard
- skillion
- types of timber roof trusses:
 - A type
 - truncated
 - girder
 - jack
 - rafter
 - gable
 - saddle
 - raking
- interaction between roof truss types
- factors that contribute to roof truss design:
 - climate zones
 - wind forces
 - timber grading
 - tie down requirements
 - roof lining materials
- key features of plans, drawings and specifications:
 - types and applications of plans and drawings
 - relating specified information with plan and drawing details
- appropriate software, including custom software for timber systems design to:
 - research information
 - communicate with internal and external stakeholders
 - input and amend design factors and other data
 - produce drawings, plans and documents
 - store and retrieve documents
- types, functions, capabilities and limitations of drawing software
- application, characteristics and limitations of materials and components used for roofing systems
- certifying timber roof truss design layouts.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a design or manufacturing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - computers and software, including timber systems design software

- specifications:
 - access to workplace policies, procedures and processes relevant to designing timber roof trusses and providing design advice
 - access to building regulations, codes and standards relevant to timber roof trusses
 - access to workplace health and safety and environmental policies and procedures applicable to design of timber roof trusses.
- relationships:
 - clients/stakeholders to discuss and confirm timber roof truss design.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>