

Modification history

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

FWPTMM4XXX	Interpret details of timber roof trusses to inform design of plans and production documents
Application	<p>This unit of competency describes the skills and knowledge required to interpret and apply a broad range of information into the design of timber roof trusses.</p> <p>The unit applies to individuals who prepare timber roof truss drawings, production documents and installation instructions using custom software for residential or commercial construction.</p> <p>This unit of competency is suitable for individuals using their own judgment to deal with predictable and unpredictable problems and decide on solutions to a range of complex problems during the documentation preparation process.</p> <p>Work is completed in a timber production or design setting.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Timber Manufacturing Products (TMM)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for design of layout plans	1.1 Read and interpret building plans and specifications to determine and verify applied loads and other design factors 1.2 Interpret relevant building codes, regulations and standards 1.3 Apply and follow organisational quality requirements design of timber roof trusses 1.4 Consult with stakeholders/clients to clarify design requirements 1.5 Identify and resolve design, production and installation issues outside software limitations and seek appropriate advice 1.6 Design and draft a timber roof truss layout plan
2. Review and test design options	2.1 Review design meets client requirements and complies with appropriate building regulations, codes and standards 2.2 Test the quality, performance and reliability of production materials 2.3 Review layout produces optimal efficiency of materials
3. Design production and installation documentation	3.1 Check computer software for currency 3.2 Confirm dimensions, span measurements and timber floor sections from building plans and specification 3.3 Input applied spans, loads and data into software and create a timber roof truss layout 3.4 Prepare production and client installation documentation following organisational quality requirements 3.5 Certify timber floor design complies with relevant building regulation, codes and practices 3.6 Store drawings and documentation following organisational procedures

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Select and extract information from a range of documents and diagrammatic texts
Writing	<ul style="list-style-type: none"> Apply interrelationships between written and diagrammatic forms to produce installation documentation

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
FWPTMM4XXX Interpret details of timber roof trusses to inform design of plans and production documents	FWPTMM4205 Prepare and advise on a broad range of timber roof truss details using computers	Redesigned unit using content from FWPTMM4205 Prepare and advise on a broad range of timber roof truss details using computers FWPTMM3204 Interpret designs to prepare timber roof truss drawings and documents using computers Re-titled	No equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47
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TITLE	Assessment requirements for FWPTMM4XXX Interpret details of timber floor systems to inform design of plans and production documents
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has designed layout plans and developed production and installation documentation for a hip and valley roof:</p> <ul style="list-style-type: none"> • with a minimum area of 100 square metres • including one dutch gable. 	

Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • relevant building industry regulations codes and standards <ul style="list-style-type: none"> • National Construction Code (NCC) • organisational policies, procedures and processes: <ul style="list-style-type: none"> • outcomes and consequences of non-conforming design • types of roofs: <ul style="list-style-type: none"> • bell • bowstring • dual pitch • gabled • hipped • mansard • skillion • types of timber roof trusses <ul style="list-style-type: none"> • A type • truncated • girder • jack • rafter • gable • saddle • raking • factors that contribute to roof truss design: <ul style="list-style-type: none"> • climate zones • wind forces • timber grading • tie down requirements • roof lining materials • key features of plans, drawings and specifications <ul style="list-style-type: none"> • types and applications of plans and drawings • relating specified information with plan and drawing details • using computers and appropriate software to: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • flooring systems • wall frames • roofing systems 	

Knowledge Evidence	
<ul style="list-style-type: none">certifying timber roof truss design layoutsrelevant work health and safety and environmental requirements.	
Assessment Conditions	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none">physical conditions:<ul style="list-style-type: none">skills must be demonstrated in design or manufacturing workplace or an environment that accurately represents workplace conditionsresources, equipment and materials:<ul style="list-style-type: none">computers and software programsprinter/s and stationaryspecifications:<ul style="list-style-type: none">specific organisational policies, procedures and processesrelevant building regulations, codes and standardswork health and safety and environmental documentationsrelationships:<ul style="list-style-type: none">clients/stakeholders to discuss and confirm timber roof truss design <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47