



Australian Government

FWPCOT4202 Design timber structures

Release: 2

FWPCOT4202 Design timber structures

Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 3.0.
Release 1	This version released with FWP Forest and Wood Products Training Package Version 2.0.

Application

This unit of competency describes the outcomes required to interpret plans, select options and detail designs of timber structures including roof truss, wall frame and floor components for solid brick, brick veneer and timber frame domestic houses and free-standing or attached timber structures such as pergolas. Work is completed in a timber and wood products production setting and includes providing production advice and explanation of designs.

The unit applies to Designer, Customer Service / Sales Assistant (Retail or Wholesale), Customer Service Officer, Sales and Merchandising Team Leader, Sales and Merchandising Team Leader (Timber Products), Timber Advisor.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Common Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Interpret plans and	1.1 Interpret and assess plans, drawing views and notes; identify

ELEMENTS	PERFORMANCE CRITERIA
loading conditions	<p>loading information, design requirements and restrictions.</p> <p>1.2 Obtain additional information and data from appropriate personnel or sources.</p> <p>1.3 Create functional and pictorial image of structure, trusses or frames based on design requirements.</p>
2. Develop and select truss, frame or floor component layout options	<p>2.1 Transfer fixed design details to component layout drawings.</p> <p>2.2 Nominate engineered or pre-assembled components in line with budgetary constraints.</p> <p>2.3 Define design sizes and spacing details in line with industry standards.</p> <p>2.4 Select layouts and spacing of individual structural members progressively to meet design requirements.</p> <p>2.5 Fix component sizes to clarify and firm design options.</p>
3. Detail truss, frame or floor component design	<p>3.1 Calculate, scale or extract physical dimensions for components from applicable code tables.</p> <p>3.2 Interpret effective lengths and spans for individual components from layout, and select cross-sections in line with applicable codes.</p> <p>3.3 Select material options for suitability, availability, cost effectiveness and use consistently throughout design.</p> <p>3.4 Detail component placement and spacing to site and customer standards.</p> <p>3.5 Provide design specifications for engineered or pre-assembled components in line with manufacturer's recommendations.</p> <p>3.6 Present detailed and accurate production information, dimensions and notes within drawing views.</p> <p>3.7 Complete and maintain design records and documentation in line with organisational procedures.</p>
4. Provide design and production advice	<p>4.1 Answer questions about designs and assembly requirements clearly and comprehensively.</p> <p>4.2 Use effective communication techniques to assist and develop production personnel.</p> <p>4.3 Provide alternative materials and sizes for components within scope of design and production requirements.</p>

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	<ul style="list-style-type: none"> interpret numerical data from designs involving height, length, angles, shape and load input complex numerical data into designs for layout, spacing and dimensions of structural members.
Oral communication skills to:	<ul style="list-style-type: none"> ask detailed open and closed probe questions and actively listen to clarify contents of designs, plans, drawings and notes provide clear unambiguous information about designs and assembly requirements negotiate solutions to site installation problems.
Reading skills to:	<ul style="list-style-type: none"> interpret detailed and unfamiliar designs and technical notes.
Writing skills to:	<ul style="list-style-type: none"> produce clear and detailed documents to support interpretation of drawings and assist with production and installation.
Planning and organising skills to:	<ul style="list-style-type: none"> plan and organise own work in logical sequence and manage own timing and productivity to complete plans, drawings and documents within deadlines.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT4202 Design timber structures Release 2	FWPCOT4202 Design timber structures Release 1	Minor typographical errors corrected	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>