



Australian Government

FWPTMM4201 Construct prototypes and samples

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPITMM4201B Construct prototypes and samples, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to construct prototypes and samples in a production setting, in line with established plans, drawings or other specifications for the purpose of testing the viability of construction methods. Work involves making recommendations for changing designs and methods of construction.

The unit applies to timber fabricators, supervisors and designers of timber structures, including timber trusses and frames

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

Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products

Timber Merchandising

Elements and 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. Prepare for construction	1.1 Review prototype or sample purpose, work order and construction plans and where required clarify requirements with appropriate

	personnel. 1.2 Obtain type and quantity of material to be assembled and hardware in line with prototype construction plan and specifications. 1.3 Select appropriate tools and equipment and check for operational effectiveness in line with manufacturer's recommendations. 1.4 Plan and document stages of the construction process.
2. Set up components	2.1 Follow workplace health and safety procedures throughout production activities. 2.2 Select and prepare set-up jigs required for construction. 2.3 Select timber components, check for compatibility with specifications and cut in line with the prototype or sample plans. 2.4 Position and clamp components in jigs ready for joining with allowable faults, joints and grain in line with construction standards and grading rules. 2.5 Identify defective components, incorrect timber cuts and off-cuts; dispose of or recycle in line with environmental protection practices. 2.6 Staple components to maintain temporary alignment during assembly.
3. Construct and review prototypes and samples	3.1 Follow construction plan throughout assembly and conduct checks at designated points. 3.2 Position and install hardware on joints to prototype specifications. 3.3 Nail or staple temporary bracing to product in line with construction standards. 3.4 Identify required modifications to designs and plans; document and follow recommended changes. 3.5 Correct construction faults in line with recommendations. 3.6 Review prototype or sample for effectiveness of purpose and efficiency of construction methods. 3.7 Record prototype or sample construction processes, problems and recommendations for change and report to appropriate personnel. 3.8 Store temporary bracing, prototypes and samples; dispose of when not required in line with environmental protection practices.

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:	- interpret production data from construction plans to: - count quantities of timber and hardware components and select appropriate sizes - complete calculations from plans - accurately measure dimensions and angles.
Oral communication skills to:	ask open and closed probe questions and actively listen to clarify purpose of product and contents of constructions plans.
Reading skills to:	- interpret detailed familiar and unfamiliar: - WHS and other organisational procedures, construction standards and grading rules - construction plans - manufacturer's instructions.
Writing skills to:	- complete detailed and accurate reports on construction processes and problems - clearly represent details of and rationale for recommended changes to designs and construction plans.
Planning and organising skills to:	plan and organise own construction activities in line with plan and complete assembly in a logical sequence.
Problem-solving skills to:	diagnose production problems involving design failures and construction difficulties and resolve by modification and reporting.
Teamwork skills to:	work as part of a team to develop fit for purpose products and appropriate construction methods.
Technology skills to:	select and use appropriate machinery, tools and personal protective equipment used to assemble the product.

Range of Conditions

Not Applicable

Unit Mapping Information

FPITMM4201B Construct prototypes and samples

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>