



Australian Government

FWPTMM5207 Assess timber product designs for feasibility

Release: 1

FWPTMM5207 Assess timber product designs for feasibility

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 4.0.

Application

This unit of competency describes the skills and knowledge required to systematically analyse, assess and determine the feasibility of timber product designs for use into a commercially viable production.

The unit applies to individuals who work as timber designers and production managers in a timber manufacturing facility. They generally demonstrate autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters.

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

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. Analyse design objectives	1.1 Identify design purpose and investigate potential market for the product 1.2 Analyse intended production materials and processes
2. Determine design assessment criteria	2.1 Establish criteria for assessment of product material options 2.2 Establish criteria for assessment of product functionality

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.3 Establish criteria for assessment of production process options, considering the impact of these on production operations 2.4 Establish criteria for assessment of safety and potential liability issues 2.5 Establish criteria for assessment of costs and marketability 2.6 Determine weighting of scores for each criterion according to the importance of the issue
3. Apply the assessment criteria	3.1 Select potential and actual products competing in the marketplace for comparative purposes 3.2 Score and grade design against established criteria and record results 3.3 Score and grade competing products against the established criteria and record results 3.4 Record overall assessment results
4. Establish feasibility and options	4.1 Analyse assessment results for the design and competing products 4.2 Reject designs that show poor assessment results and provide no potential for variation 4.3 Identify designs that show poor assessment results but provide potential options for variation, and refer to appropriate personnel 4.4 Identify designs that satisfy criteria and indicate the potential for success 4.5 Conditionally endorse feasible designs, record conditions and refer to appropriate personnel 4.6 Record assessment outcomes and maintain and process reports according to workplace procedures

Foundation Skills

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.

Skill	Description
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Skill	Description
Writing	Document qualitative and quantitative assessment criteria
Numeracy	Calculate the total score for the assessment through simple addition
Navigate the world of work	- Source, collect and organise data to inform design assessment - Efficiently and logically manage operational logistics for the assessment process
Interact with others	Use modes of communication suitable for the purpose to confirm and clarify understanding
Get the work done	Use a computer, keyboard and software to prepare assessment documents and reports

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPTMM5207 Assess timber product designs for feasibility	FWPTMM5201 Assess product feasibility of designs	Updated range of products in performance evidence and foundation skills; clarified the intent of unit; updated frequency and volume of the performance evidence; changed unit title and code for consistency with the updates and compliance.	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>

Assessment Requirements for FWPTMM5207 Assess timber product designs for feasibility

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Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that, on at least one occasion, the individual has:

- assessed and determined the feasibility of designs for three or more of the following product types:
 - pallets
 - crates
 - trellises
 - stairs
 - doors
 - windows
 - frames
 - beams
 - roof trusses
 - floor systems
 - wall frames
 - panelised and modular prefabricated timber building systems
- developed a set of assessment criteria and weighted scoring system to include details of:
 - functionality
 - safety
 - environmental impacts of product use
 - environmental impacts of product production
 - cost-effectiveness of production
 - marketability
 - competitiveness with similar products on the market
- completed a detailed and accurate report for each assessment providing the outcomes.

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:

- product feasibility issues, including:
 - environmental impacts of product use and potential to minimise those impacts
 - functionality (ease of use and application together with its relevance for the desired purpose)
 - safety (potential to cause danger to someone or something and possibility for litigation against the enterprise)
 - environmental impacts of product production and the associated cost to the business
 - cost-effectiveness of the production
 - marketability (the potential for sale of the product)
 - competitiveness with similar products on the market
- sources of information on competitors' current products and price structure
- features, at an in-depth level of understanding, of production processes:
 - options for materials
 - construction methods and sequence
 - types of tools and equipment used for construction
- format, content and use of criteria for assessing the feasibility of designs:
 - qualitative and quantitative assessment criteria
 - scoring systems
 - weighting of scores according to the importance of the issue
- workplace procedures for:
 - determining design assessment criteria and completing assessments
 - communication reporting lines
 - recording and reporting assessment outcomes.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - computers, keyboards and software programs used to produce assessment documents and reports on assessment outcomes
 - workplace procedures for design assessment activities
 - comprehensive information about the design concept
 - templates for assessment documents and reports on assessment outcomes.

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

Links

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