



Australian Government

FWPCOT3214 Take off material quantities

Release: 1

FWPCOT3214 Take off material quantities

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3214B Take off material quantities, 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 determine correct material quantities and pricing from completed designs that estimate requirements. It involves itemising materials, detailing material sizes and quantities, and calculating quantity pricing. Work is completed in a forest products factory setting.

The unit applies to Designer (Timber Truss & Frame), Production Fabricator (Timber Truss & Frame), Timber Manufactured Products Technician

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

<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. Itemise materials	1.1 Obtain and interpret production specifications to determine material types and job costing requirements. 1.2 Identify components to be listed; integrate general detailing and dimensioning systems. 1.3 Prepare tables for listing, list and categorise items in line with

	industry standards. 1.4 Complete itemised list of all materials in line with order requirements and organisational procedures. 1.5 Select common industry materials where no specific information is provided and material is not critical to design.
2. Detail material sizes and quantities	2.1 Calculate, scale or extract physical dimensions for components from tables in line with order requirements. 2.2 Estimate material quantities and express as industry standard lengths or sheet sizes, allowing for wastage. 2.3 Accumulate multiple requirements for identical material and document total quantities. 2.4 Complete and maintain detailed notes and records of material usage, and cutting and machining requirements.
3. Calculate quantities and prices	3.1 Calculate and document total requirements for each line item in take-off. 3.2 Express quantities in measurement units that match item type, order and production requirements. 3.3 Calculate total order costs from item rate. 3.4 Complete and maintain accurate records of pricing in line with organisational requirements.

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 detailed in-house material specifications involving codes, dimensions and pricing - complete complex calculations involving dimensions, quantities, scales and unit price costs - record precise numerical details of measurements, quantities and costs.
Reading skills to:	- interpret detailed and unfamiliar production specifications - interpret detailed and familiar: - organisational procedures for preparing and documenting material quantities and pricing - material description sheets.

Writing skills to:	• record clear and unambiguous information about material use and cutting requirements • develop detailed records of final material quantities and pricing.
Planning and organising skills to:	• complete work orders in logical sequence and manage own timing and productivity to complete pricing within deadlines.
Technology skills to:	• use a computer, keyboard and software to prepare and document quantities and pricing.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3214B Take off material quantities

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for FWPCOT3214 Take off material quantities

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- determine final material quantities and pricing from at least two original designs in line with an individual set of specifications for each job
- for each of the above jobs, complete and maintain accurate records of all calculations, material quantities, usage and pricing.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- typical categories of different timber based construction materials listed in itemised tables and applicable terminology
- range of industry standard lengths and sheet sizes and applicable terminology
- methods used to calculate:
 - wastage
 - lineal metres
 - cubic metres
 - unit numbers
- industry and specific organisational:
 - quantifying processes

- sources of costs for materials
- formats for tables for listing and categorising materials
- organisational procedures for preparing and documenting material quantities and pricing.

Assessment Conditions

The following resources must be made available:

- computers, keyboards and printers
- industry current software programs used to determine final material quantities and pricing from estimates
 - initial designs and production specifications on which to base final material requirements and prices:
 - sketches, drawings and notes
 - components lists
 - dimensional and detailing data
 - customer requirements
- in-house material price lists, product description sheets or manuals; either electronic or hard copy
- template tables for listing and categorising materials
- organisational procedures for preparing and documenting material quantities and pricing:

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.
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