



Australian Government

Department of Education, Employment and Workplace Relations

FPITMM2203A Read and interpret timber truss, floor and/or frame fabrication plans

Release: 1

FPITMM2203A Read and interpret timber truss, floor and/or frame fabrication plans

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to read and interpret truss, floor and/or frame fabrication plans showing construction details and component specifications. General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication.

Application of the Unit

Application of the unit

The unit involves reading and interpreting truss, floor and/or frame fabrication plans in a forest products factory setting to produce prefabricated trusses, floors and/or frames to specifications. The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Clarify and review fabrication plans	<p>1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to reading and interpreting timber truss, floor and/or frame fabrication plans are identified and followed</p> <p>1.2. Work order and fabrication plans are reviewed and clarified with appropriate personnel</p> <p>1.3. Drawing views and notes are interpreted and design requirements and restrictions are identified and complied with</p> <p>1.4. Additional information and data is obtained from appropriate personnel and sources if required</p> <p>1.5. Communication with others is established and maintained in line with OHS and organisational requirements</p>
2. Interpret and read fabrication plans	<p>2.1. Plans, work requirements and sequencing are identified, interpreted and applied to assembling components</p> <p>2.2. Layouts, spacing and sizing of individual structural members are confirmed in line with work order requirements</p> <p>2.3. Quantities for bracing and ancillaries for trusses or frames are allowed for</p> <p>2.4. Timber component information and details are interpreted from plan documentation</p> <p>2.5. Hardware information and details are interpreted from plan documentation</p> <p>2.6. Bracing points are correctly identified, located and labelled from plan documentation</p> <p>2.7. The need for camber is established and identified</p>
3. Confirm work order and fabrication plan	<p>3.1. Set-up jigs required for construction are identified and prepared</p> <p>3.2. Truss, floor or frame types are identified and timber type and species selected in line with work order</p> <p>3.3. Assembly hardware is located and selected in line with the fabrication plans and standards</p> <p>3.4. Characteristics and design details of material are</p>

ELEMENT

PERFORMANCE CRITERIA

visually assessed against work order

ELEMENT**PERFORMANCE CRITERIA**

- | | | |
|-----|--------------------------------------|---|
| 4. | Confirm products to fabrication plan | 3.5. Sub-standard materials are rejected and disposed of in line with site requirements to minimise wastage |
| | | 3.6. Common site problems are discussed and prevention strategies examined and adopted to ensure future site practice meets design requirements |
| | | 4.1. Components are set to include camber adjustments, overhang and other design requirements |
| | | 4.2. Hardware is positioned on joints and installed in line with design specifications |
| | | 4.3. Assembly faults are corrected in line with site procedures |
| | | 4.4. Finished product is assessed for quality against assembly drawing and labelled in line with the work order |
| | | 4.5. Assessment outcomes and distribution problems are recorded and reported in line with workplace procedures |
| | | 4.6. Records and reports are accurately completed, processed and maintained in line with workplace procedures |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |
| 17. | | |
| 18. | | |
| 19. | | |
| 20. | | |
| 21. | | |

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to measure and check length and angle of components; identify a range of timber products, sizes and specifications; and identify a range of nail plate products, sizes and specifications
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to read and interpret timber truss, floor and/or frame plans
- Numeracy skills sufficient to measure and calculate length and angles including basic addition and subtraction
- Problem solving skills sufficient to identify and resolve potential fabrication plan problems
- Planning and organisational skills sufficient to develop a logical construction sequence to construct trusses, frames and/or floors from the plan

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for reading and interpreting timber truss, floor and/or frame plans
- Organisational and site standards, requirements, policies and procedures relevant to reading and interpreting timber truss, floor and/or frame plans
- Environmental protection requirements, including the safe disposal of waste material
- Knowledge of a range of appropriate truss, floor and/or frame types and components
- Understanding of relevant abbreviations and symbols and industry terminology used in fabrication plans
- Workplace communication channels to resolve any potential fabrication issues
- Appropriate units of measurement and component tolerances in use at the work site
- Industry standard cross sections and lengths
- Characteristics of timber and timber defects
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment for reading and interpreting truss, floor and frame fabrication plans and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can read and interpret a range of timber truss, floor and/or frame fabrication plans

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to reading and interpreting timber truss, floor and/or frame plans
- following organisational policies and procedures relevant to reading and interpreting timber truss, floor and/or frame plans
- development of a logical construction sequence for a range of products from the fabrication plans
- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Context of and specific resources for assessment

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with

EVIDENCE GUIDE

application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements: are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include:

RANGE STATEMENT

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- manual handling including shifting, lifting and carrying

RANGE STATEMENT

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste disposal, recycling and re-use guidelines)

Work order is to include:

- instructions for the assembly and despatch of timber and timber products from the work site

and may include:

- fabrication plans or drawings
- type of product
- size
- quantity
- grade

Appropriate personnel may include:

- supervisors
- suppliers

RANGE STATEMENT

- clients
- colleagues
- managers

RANGE STATEMENT

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice and body language

Assembling components

for timber truss, floor and frame may include:

- design assumptions regarding supporting and tying components

Timber components

- are the sections of timber or timber product which have been pre-cut in readiness for assembly and have been cut to comply with the fabrication plans and cutting list

Hardware may include:

- nailing plates
- floor truss plates
- bracing
- supplementary fittings and fixings

Bracing points

- are the points at which timber, ply or metal are attached to truss or frame to prevent lateral movement

Camber

- is an upward curvature built into a truss to compensate for roof load

Set-up jigs may include:

- enterprise manufactured templates which assist in the positioning of components to corresponding work order during the assembly process

Design details may include:

- timber component species
- type
- cross-section
- grade
- length and cutting angles
- nail plate and other joining hardware sizes and marking requirements

Records and reports may include:

- product type
- size
- inspection
- grading and labelling outcomes

RANGE STATEMENT

- storage locations
- quality outcomes
- hazards
- incidents or equipment malfunctions

and may be:

- manual
- using a computer-based system
- other appropriate organisational communication system

Unit Sector(s)

Not Applicable

Competency field**Competency field**

Timber Manufactured Products and Timber Merchandising