

# Timber Truss and Frame Estimating and Design

## Summary of Feedback, Responses and Actions



March 2020

This project includes the development of five new skill sets and one new unit of competency and the review of three qualifications and 25 units of competency within the FWP Forest and Wood Products Training Package.

Draft materials were made available on the Skills Impact website for stakeholder review from 12 Feb to 17 Mar 2020. Please visit the website to view a full list of the documents that were submitted for consultation during this phase.

Feedback was received from a variety of stakeholders around the country via phone, webinar, emails and online poll. The table below provides an overview of the groups and jurisdictions that have provided feedback during this phase of the project.

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	National
<b>Industry (employer / employee)</b>									
<b>Industry association</b>									
<b>Union</b>									
<b>Registered Training Organisation (RTO)</b>									
<b>Government department</b>									

Below is a summary of the issues raised for the qualifications, units of competency and skill sets developed and reviewed for the Timber Truss and Frame Estimating and Design project, and how these issues have been dealt with. This involves a consideration of the information provided, views of industry stakeholders and from people who are part of the Subject Matter Expert Working Group process. Resolutions are constructed to consider the needs and views of stakeholders to the extent possible, and to comply with the Standards for Training Package 2012. The resolutions may represent a compromise on one or more stakeholder views with the aim of a workable outcome for industry, State and Territory Training Authorities (STAs) and training providers.

**Acronyms - PC – performance criteria, PE – performance evidence, KE – knowledge evidence, AC – assessment conditions, TAC – Technical Advisory Committee**

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## Summary of feedback on draft revised qualifications

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>General</b>		
Industry, ACT	<p>My only issue is with the title, we are still going through the insurance problems.</p> <p>To have professional indemnity insurance as a "designer" you need to charge a design fee, as far as i know, no Fabricator charges the cost of detailing as a separate item on the jobs they supply. If the detailer makes a change to the plans, even when requested by the Builder, for insurance purposes he/she becomes a "designer". Changes can include things like a set down wet area in a Floor Truss detail, etc etc.</p>	<p>The qualification titles are 'Timber Systems Design' rather than 'designer', reflecting only a small change from the existing 'truss and frame design and manufacture'. Job roles within the qualification application wording (for example, 'Frame or Truss Designer', 'Estimator' or 'Detailer') are indicative but not prescriptive of job roles/titles in the industry.</p> <p>Wording has been included in specific design units of competency to include knowledge requirements of:</p> <ul style="list-style-type: none"> <li>• <i>organisational policies, procedures and processes:</i> <ul style="list-style-type: none"> <li>• <i>outcomes and consequences of non-conforming design</i></li> <li>• <i>responsibilities and limits of authority with regard to certifying and non-conforming design</i></li> </ul> </li> </ul>
Industry 1 National 7 NSW 10 QLD 2 SA 2 TAS 19 VIC 2 WA 1 (unidentified)	<p>Responses to online poll</p> <ul style="list-style-type: none"> <li>• 44 responses <ul style="list-style-type: none"> <li>• 42 'supported'</li> <li>• 2 'not supported'</li> </ul> </li> </ul> <p>Comments are provided below.</p> <ul style="list-style-type: none"> <li>• (VIC) Seem relevant</li> </ul>	<p>Thank you for all your feedback and comments.</p>
	<ul style="list-style-type: none"> <li>• (VIC) In addition to supporting the new qualifications, I would add that more tools need to be put in place for remote learning. To allow fabricators that are located in rural areas to receive training at a fair cost.</li> </ul>	<p>Thank you for your feedback and comment.</p> <p>Thank you for this feedback. It will be provided to the TAC, which includes industry associations and registered training organisations, to consider in implementing the training products.</p>
	<ul style="list-style-type: none"> <li>• (QLD) Training/learning pathways for Nationally recognised industry specific qualifications are an absolute must for the future of the frame and truss industry in Australia.</li> <li>• (VIC) The proposed standards make sense and national standards are always preferred. Will staff holding the qualifications that are being deleted automatically obtain competency in the new equivalent?</li> </ul>	<p>Thank you for your feedback and comments.</p> <p>As the qualifications are not a workplace or industry regulatory requirement, a person would not need to obtain the new qualifications.</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution	
<b>General</b>		
	<ul style="list-style-type: none"> <li>(VIC) Too (sic) much of our design is going off-shore due to the lack of skills here</li> </ul>	Thank you for your support and comment.
	<ul style="list-style-type: none"> <li>(VIC) "Knowledge is Power". You learn for as long as you live and yet you still die unknowledgeable, because there is always so much more to know.....</li> </ul>	Great comment! Thank you.
	<ul style="list-style-type: none"> <li>(NAT) I support these suggested changes</li> </ul>	Thank you.
	<ul style="list-style-type: none"> <li>(QLD) I have done original cert III (sic) in timber truss and frame design and manufacture and there was very little content for the actual truss and frame design</li> </ul>	Thank you. The separation of 'design' from the 'manufacturing' components and the designed pathway from a Certificate III to a Certificate IV specifically in design is hoped to strengthen the design outcomes.
	<ul style="list-style-type: none"> <li>(VIC) I have spoken with X and X regarding the proposal and agree with it as it provide a structure of skill sets for the industry</li> </ul>	Thanks for your support and comment.
	<ul style="list-style-type: none"> <li>(NSW) Well overdue</li> </ul>	Thanks for your support
	<ul style="list-style-type: none"> <li>(NSW) Who will be providing the training – TAFE?</li> </ul>	Training will be provided by training organisations who are registered by the Australian Quality Training Authority.
	<ul style="list-style-type: none"> <li>(QLD) this will not educate, create better workers or create better safety. Just more paperwork and more waste of time documentation</li> </ul>	Thank you for your comment.
	<ul style="list-style-type: none"> <li>(VIC) We have done this before and found that onsite training does not work for our company, ie Loss of time, employees not interested and the way it was handled with RTO, whom did not know our industry, made is very hard for all concerned. We tried this over a 5-year period, the only way it would work is if it was done through TAFE, for both Factory and Office.</li> </ul>	Thank you for your comment. It will be provided to the TAC, which includes industry associations and registered training organisations, to consider in implementing the training products.
RTO, WA	<p>Many thanks for sending through the drafts for the Timber Truss and Frame Estimating and Design Project. We distributed these to our network seeking feedback, however we have received no response, although you may have received feedback directly from individuals.</p> <p>There are no known issues with these draft training products to date.</p>	Thank you for this feedback and following up with your stakeholders.

## Summary of feedback on qualifications proposed for deletion

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>General</b>		
Industry, QLD	I think it is a negative step to drop the Diplomas. I always saw these as being an advantage for our industry and recognition for those with amazing skills which are then backed up with a senior qualification. I think in a period where more questions are being asked by certifiers, the ability to show a qualification is extremely beneficial	Thank you for this feedback. As indicated in the briefing document, the TAC has proposed the deletion because of low demand for training at this level and the availability of alternative qualifications at Diploma level.

## Summary of feedback on draft Units of Competency

### New Units of Competency

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPXXXXX Work effectively in the timber systems design industry</b>		
RTO, VIC	Element 1 wording does not fit with PCs. Reword for clarity.	Element 1 reworded from 'Demonstrate an understanding of organisational requirements' to 'Research the timber systems design industry' to reflect the PCs of identifying organisational documentation, timber systems design regulations and standards, scope of work and roles and responsibilities of job roles in the industry and key stakeholders.
	Ref. Performance Evidence: <ul style="list-style-type: none"> <li>identifying and detailing own job role within the timber system design industry</li> <li>carrying out the duties of a timber systems designer effectively and efficiently</li> </ul> Isn't this part of working effectively?	Removed to avoid duplication.

### Revised Units of Competency

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>General</b>		
RTO, VIC	As discussed in the consultation meeting 2 March, the principles and practice of sustainability seems to be missing from some of the units and skill sets.	Discussion with industry confirms that selection and use of timber materials for design and manufacturing work, including chain of custody and certification of materials, is an organisation/management

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<b>General</b>	
	<p>It is a question for industry - whether this knowledge and knowledge of schemes such as FSC is required for the selection of timber materials, design work etc.</p> <p>decision and function of procurement and applicable to timber merchandising, with materials for design selection limited to, and controlled by the configuration of the system design software, with subsequent manufacturer use specified by the organisation via timber procurement practices and fabrication plans.</p> <p>Some elective units of competency (for example, but not limited to FWPCOT2241 Apply wood and timber product knowledge proposed in the Certificate III in Timber Systems Design and FWPCOR3XXX Conduct quality and product care procedures proposed in the Certificate III in Truss or Frame Manufacture) do include knowledge of:</p> <ul style="list-style-type: none"> <li>• <i>certification and chain of custody schemes and their purpose in the forestry industry</i></li> <li>• <i>life cycle of forests and forest products and how this impacts on sustainability</i></li> <li>and</li> <li>• <i>maximising product or resource use</i></li> <li>• <i>assessing timber for recovery</i></li> <li>• <i>relevant quality systems that would apply to product care and quality:</i> <ul style="list-style-type: none"> <li>• <i>second party certification</i></li> <li>• <i>third party certification</i></li> </ul> </li> </ul>
New unit and revised units – no major issues. I have attached units with comments.	Thank you for the feedback. Feedback on individual units and actions taken have been listed below.
As discussed in the meeting 2/3, will any units be effectively orphaned by the deletion of these qualifications- FWP20716, FWP40316, FWP50216 and FWP50316?	<p>The proposed deletion of the FWP20716 Certificate II in Timber Truss and Frame Design and Manufacture and the FWP40316 Certificate IV in Timber Truss and Frame Manufacture will not result in any 'orphaned' units.</p> <p>Two units from the Diploma qualifications proposed for deletion and two elective units from the current Certificate III in Timber Truss and Frame Design and Manufacture have been identified as not required or suitable for the revised qualifications and are proposed to be added as electives to existing Timber Processing and/or Forest and Forest Products qualifications.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOR2XXX Communicate and interact effectively in the workplace</b>		
RTO, VIC	<p>Ref. Element 2: Carry out oral communication. If this is a core unit to a qualification, would this unit present an access and equity issue (e.g. requires oral communication and PC (sic) 2.2 to speak)</p>	<p>Discussion with industry confirms that communication, including oral communication, in the timber industry is an essential requirement, including for WHS, clarifying workplace instructions and for interactions within workplaces.</p> <p>Oral communication is a key foundation skill in a number of other core and elective units within the proposed qualifications and skill sets.</p> <p>Minor change has been made to Element 2 to replace 'carry out oral communication' to 'Communicate with others in the workplace'. PC 1.1 amended to remove specific reference to oral communication, instead referral to 'Interact and communicate with others according to workplace practices' and PC 2.2 remove 'speak clearly' to 'Use questioning to clarify information'</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOT2XXX Use hand-held tools</b>		
RTO, VIC	<p>Ref. Performance Evidence:</p> <ul style="list-style-type: none"> <li>• safely used: <ul style="list-style-type: none"> <li>• handsaws</li> <li>• knives</li> <li>• chisels</li> <li>• hammers</li> <li>• hand drills</li> <li>• files</li> <li>• rasps</li> </ul> </li> <li>• safely used power and battery operated: <ul style="list-style-type: none"> <li>• drills</li> <li>• grinders</li> <li>• sanders</li> <li>• saws</li> <li>• nail guns</li> </ul> </li> </ul> <p>All these items are listed as plural. Does that mean a minimum of two different types of each?</p>	<p>Performance evidence wording has been clarified to:</p> <ul style="list-style-type: none"> <li>• safely used at least three of the following tools</li> <li>• safely used each of the following power or battery operated tools</li> </ul> <p>Plural references have been removed.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOT3XXX Assemble timber roof trusses</b>		
RTO, VIC	Should the various truss types (required to be assembled in PE) be included in the KE?	Knowledge of truss types has been added.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOT3XXX Assess timber for manufacturing potential</b>		
RTO, VIC	<p>Ref. Performance Evidence. There must be evidence that the individual has assessed timber for manufacturing potential for a minimum of one timber frame and one timber truss project, and has assessed:</p> <ul style="list-style-type: none"> <li>• native timber species</li> <li>• imported timber species</li> <li>• dressed timber</li> <li>• in-the-rough timber</li> <li>• stress and non-stress graded timber</li> <li>• preservative treated timber</li> </ul> <p>Assessed all of these types for the purpose of manufacturing each of the timber frame and timber truss projects?</p>	<p>Industry has confirmed that timber is visually assessed for defects, size and grade that may affect manufacturing potential.</p> <p>Performance Evidence wording has been clarified to:</p> <p>There must be evidence that the individual has visually assessed at least three different types of timber for manufacturing potential for one timber frame and one timber truss project, and has:</p> <ul style="list-style-type: none"> <li>• used at least two of the following tools in assessments: <ul style="list-style-type: none"> <li>• charts</li> <li>• gauges</li> <li>• picture cards</li> <li>• measuring equipment</li> </ul> </li> </ul>
	Is the assessment against standards and guidelines or a particular assessment system? How to assess not explicit in KE. Clarification required.	Knowledge evidence of 'visual assessment techniques' has been added.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOT4XXX Design timber structures</b>		
RTO, VIC	<p>Ref. Performance Evidence:</p> <ul style="list-style-type: none"> <li>• developed and selected truss, frame and floor layout options – a near repeat of element 2</li> <li>• provided design and production advice - repeat of element 4</li> </ul>	PE bullet points have been removed to avoid duplication.



Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPCOT4XXX Design timber structures</b>		
	<p>Ref. Assessment Conditions:</p> <ul style="list-style-type: none"> <li>resources, equipment and materials: <ul style="list-style-type: none"> <li>construction plans and specifications</li> <li>computer and drawing programs</li> </ul> </li> </ul> <p>No mention of technology in the unit. Should it be included?</p> <p>Same question. The unit is about being able to design timber structures. I assume that this could be achieved with or without a computer software program. Is an awareness of software programs that could be used in the design process essential to the unit? If so, then it should be included in the unit, not just ACs. Otherwise remove from AC.</p>	<p>Industry has confirmed that designing can be undertaken without computer technology. Removed from Assessment Conditions.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPTMM4XXX Interpret details of timber floor systems to inform design of plans and production documents</b>		
RTO, VIC	<p>Ref. Performance Criteria</p> <p>PC 1.6 is more than just prepare. Could Element 1 be 'Prepare a layout plan design'</p>	<p>PC 1.6 (designing and drafting a layout plan) has been moved to PC 2.1 and element 2 reworded to 'create and review design options'</p>
	<p>PC 3.1, software generally or should this be more specific?</p>	<p>PC 3.1 (re checking currency of software) has been reworded and moved to 1.6 as part of preparation for design.</p>
	<p>Ref. Knowledge Evidence, using computers and appropriate software to - does this list include the using custom software for residential or commercial construction?</p>	<p>Reference to 'software' has been amended to include 'timber systems design' software throughout the unit for clarification.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPTMM4XXX Interpret details of timber roof trusses to inform design of plans and production documents</b>		
RTO, VIC	<p>Ref. Performance Criteria</p> <p>PC 1.6 is more than just prepare. Could element 1 be 'Prepare a layout plan design'</p>	<p>PC 1.6 (designing and drafting a layout plan) has been moved to PC 2.1 and element 2 reworded to 'create and review design options'</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPTMM4XXX Interpret details of timber roof trusses to inform design of plans and production documents</b>		
	PC 3.1, software generally or should this be more specific?	PC 3.1 (re checking currency of software) has been reworded and moved to 1.6 as part of preparation for design.
	Ref. Knowledge Evidence, using computers and appropriate software to - what about the custom software? Could it read '... custom and other software appropriate for residential or commercial construction'?	Reference to 'software' has been amended to include 'timber systems design' software throughout the unit for clarification, but is not limited to the custom software, as could include communication and other software (eg. email)
	Ref. Assessment Conditions: <ul style="list-style-type: none"> <li>resources, equipment and materials: <ul style="list-style-type: none"> <li>computers and software programs</li> </ul> </li> </ul> Is the custom software essential here?	Assessment conditions has been reworded to 'computers and software, including timber systems design software' in all relevant units to provide clarification.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<b>FWPTMM4XXX Interpret details of timber wall frames to inform design of plans and production documents</b>		
RTO, VIC	Ref. Performance Criteria PC 1.2 - Interpret and apply?	PC 1.2 has been amended to include 'apply'
	PC 1.6 - This is beyond preparation (Element 1). Perhaps reword element to include 1.6	PC 1.6 (designing and drafting a layout plan) has been moved to PC 2.1 and Element 2 reworded to 'create and review design options'
	PC 3.1 - 'Computer software' - could be more specific. Assume it is the custom software for residential or commercial construction. Should use of this custom software be mentioned in the PCs of element 1?	PC 3.1 (re checking currency of software) has been reworded and moved to 1.6 as part of preparation for design.
	PC 2.2 - No mention the knowledge required for PC 2.2 in the knowledge evidence	Element 2 of each unit has been amended to clarify the requirements.
	Ref Performance Evidence: Would this evidence include the use of custom computer software?	PE of all three units has been amended to clarify the inclusion of the use of timber systems design software.