

RTC3206A**Unit Descriptor****Unit Sector****Erect timber structures and features**

Erect timber structures and features

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

- | | |
|---------------------------------------|---|
| 1. Plan and prepare work | 1.1 Plans and specifications are interpreted and clarified with the supervisor.
1.2 The quantity and quality of materials are checked to ensure they conform to design drawings and specifications.
1.3 Tools and equipment are selected and checked for serviceability according to enterprise guidelines.
1.4 OHS hazards are identified, risks assessed, and controls implemented .
1.5 Environmental implications of erecting timber structures are identified and reported to the supervisor. |
| 2. Prepare the site for the structure | 2.1 Services are identified and located from site plans.
2.2 The position of the structure is marked out according to design drawings and specifications.
2.3 Profiles are established to conform to the tolerances nominated within the design drawings and specifications.
2.4 Footings are excavated and prepared according to the type of structure to be erected. |
| 3. Prepare and cut timber components | 3.1 Components are prepared for assembly to the requirements contained in the design drawings and specifications.
3.2 The length of components and the positions of cuts and joints are marked out with a pencil according to designated specifications in design drawings.
3.3 Cutting tools are selected, used and maintained according to manufactures recommendations and OHS specifications .
3.4 Components are cut, checked out and drilled accurately in preparation for joining and assembly.
3.5 Appropriate personal protective equipment is worn. |
| 4. Assemble and erect structure | 4.1 Timber components are assembled into position and fixed into place according to design drawings and specifications.
4.2 Remaining components are installed and fixed into position according to design drawings and specifications.
4.3 Structure is finished off to ensure all components are secure and complete.
4.4 Coatings are applied according to specifications, manufacturers recommendations and OHS guidelines. |

5. Check quality of work and clean up site
- 5.1 Quality of finished works is given a final check to ensure the standard of the finished structure or feature is in accordance with design drawings and specifications.
 - 5.2 Debris is cleaned from structure and site according to enterprise guidelines.
 - 5.3 Waste material is disposed of according to OHS and environmental requirements.
 - 5.4 Unused timber is **stored and stacked** for future re-use according to enterprise guidelines.
 - 5.5 Tools and equipment are cleaned and stored according to enterprise guidelines and OHS requirements.

KEY COMPETENCIES

What processes should be applied to this competency standard? There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

Key Competency	Example of Application	Performance Level
Communicating ideas and information	Information regarding timber selection may need to be discussed with suppliers, the client and other members of the work team.	2
Collecting analysing and organising information	The information on design drawings, specifications and site plans may need to be collected, analysed and then transferred to site.	2
Planning and organising activities	Activities on the work site may need to be planned and organised to ensure efficient use of time and resources.	2
Working with others and in teams	Team work may be required when assembling and erecting timber structures and features.	2
Using mathematical ideas and techniques	Mathematical techniques may be applied when calculating lengths of timber and marking out cuts and joints.	2
Solving problems	Problems may arise if calculations of timber lengths are inaccurate.	2
Using technology	The use of technology may be applied when using levelling equipment to mark out the structure site.	2

RANGE STATEMENT

What tools and equipment are likely to be used when erecting timber structures and features?	Tools and equipment may include levelling equipment, ladders, guy ropes, string lines, tape measures, marking gauges, spades, shovels, crow bars, chisels, hammers, spanners, nails, nail punches, planes, clamps, power tools such as electric drills and saws, handsaws, sanding blocks, paint brushes and putty knives.
What OHS hazards apply to this standard?	OHS hazards may include manual lifting, use of power tools, use of sharp hand tools, dust, sun exposure, working at heights, falling objects, overhead powerlines, and contact with treated timber.
What environmental implications are likely to be considered?	Consideration may be given to the impact of soil disturbance and the alteration to water flow during construction, and after the structure or feature has been erected, use and disposable of treated timbers.
What services are likely to be located on site?	Services may include power, gas, water, stormwater, sewerage or septic connections, phone and optical cables.
What types of footings are likely to be prepared for timber structures and features?	Footings may be concrete or in some case rammed earth. The depth of footings and timing of footing installation may vary according to the type of structure to be erected. Some structures (e.g., fences) need the post and footing installed at the beginning, others may be supported by bracing during assembly and when complete, the footings are filled.
What timber components are likely to be included in a timber structure or feature?	Timber components may include beams, rafters, joists, battens, slats, rails and planks.
How is the timber likely to be prepared before assembly?	Timber preparation may include planing arising from the identification of knots.
What cutting tools are likely to be used?	Cutting tools may include handsaws, electric saws and chisels.

What OHS specifications may be included for the use of power tools?	OHS specifications may include routine pre-start checks such as cleaning air filters, blades, brakes, safety bars, nuts, bolts and screws, and the operating of power tools according to manufacturers recommendations including correct handling, guards, electrical safety, the wearing of protective clothing, regular servicing, and safe storage when not in use.
What methods are likely to be used for joining timber?	Timber joints may include corner halving, tee halving, bevelled tee halving, stopped halving, cross halving, halved scarf, through dovetail halving and stopped dovetail halving.
How can timber components be fixed into place?	Timber fixing methods may include galvanised plates, saddles, nails, cup head bolts, coach screws, dyna bolts, timber glues or other fasteners.
How can a structure or feature be finished off to ensure completeness and security of components?	Finishing off may include the cutting off of overhangs, sanding, and the plugging of holes and any other cosmetic work that may be required.
What coatings are likely to be applied to timber structures and features?	Coatings may include paint, varnishes and lacquers.
How is unused timber likely to be stored and stacked?	Storing and stacking may include the use of ground sheets, chocks, waterproof covers and strapping in accordance with safe stacking procedures.

EVIDENCE GUIDE

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- Levelling principles and techniques.
- Timber properties and characteristics.
- Common timber joints.
- Timber fixing methods and product.
- Footings and their construction used for timber structures.
- OHS requirements associated with erecting structures and features.
- Environmental implications associated with excavation and construction activity.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- Interpret design drawings and specifications.
- Measure and mark lengths of timber accurately.
- Join timbers using a variety of recognised methods.
- Use some surveyors instruments.
- Use hand and power tools according to OHS requirements.
- Demonstrate safe working practices.

Are there other competency standards that could be assessed with this one?

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

Essential Assessment Information

There is **essential information about assessing this competency standard for consistent performance and where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.