

National Certificate in Building, Construction and Allied Trades Skills (BCATS)

Teacher Information & Resources

Construct a spaced residential timber deck up to one metre high as a BCATS project

Unit Standard – 12935

Level 2, Credit 8





Teaching and assessment tips

Intent – The intent of the unit standard is that the learner is able to construct a spaced residential timber deck up to one metre high including:

- calculating quantities,
- excavating the holes,
- preparing an order,
- placing the piles, and
- positioning the piles,
- fixing the bearers & joists.

It is also intended that the learner can cut, and fix and finish the decking.

The skills required for this unit standard are assessed using the Assessor Observation sheet, a copy of the learner's order form, and evidence of the timber deck.

An order form template may be sourced from the internet or you can design your own or use a facsimile of your school or business order form. The completed order must be attached to the assessor observation sheet.

Calculation of quantities and the order form must include: piles, bearers, joists and decking.

Evidence to show that the timber deck has been finished must also be attached to the assessor observation sheet. This may be in the form of a verified photo.

Assessment



Assessment of this unit standard consists of:

- Completion of an order, including calculations of materials quantities and
- Completion of the Assessor Observation sheet
- Completion of a spaced residential timber deck (and verified photo(s) of it)

Examples of oral assessment questions

1. Which deck design will require a building consent from the local territorial authority?

Any deck from which a person may fall more than one metre.

2. Calculate the anchor pile length for a deck 500mm above ground level.

Anchor pile length = deck height + footing depth - footing base thickness

$$= (0.500 + 0.900) - 0.100$$

$$= 1.3m$$

3. What are the two sizes of timber decking generally available?

88 x 32mm and 88 x 21mm.

4. What does joist spacing depend on?

The decking thickness used.

5. What is the required height for a handrail to be fixed to a deck?

For domestic use, the height of the railing should be a minimum of 1.000m above the decking.

6. What is the maximum spacing allowable between the balusters supporting a deck handrail?

The gap must not exceed 100mm.

7. What is the purpose of the concrete pad under a deck pile?

To prevent the pile from subsiding into the ground.

Assessor Observation Sheet – Timber deck

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Student Name:
Deck Location:

Assessor observation:

Assessment criteria: <i>This unit standard requires the completion of a spaced residential timber deck up to one metre high.</i>	Comments and/or notes
Calculations of material quantities (including piles, bearers, joists and decking) attached <input type="checkbox"/>	
Order form for materials (including piles, bearers, joists and decking) attached <input type="checkbox"/>	
Pile positions are set out, holes excavated and piles placed <input type="checkbox"/>	
Bearers and joists are set out, cut and fixed <input type="checkbox"/>	
Decking is cut, fixed and finished <input type="checkbox"/>	
Work is in accordance with job specifications <input type="checkbox"/>	
All operations completed safely and according to site/workplace practices <input type="checkbox"/>	
Tools are looked after and put away correctly <input type="checkbox"/>	
Verified photo(s) of finished project attached <input type="checkbox"/>	
Assessor name: Assessor signature: Date:	RESULT: A = Achieved, N = Not Yet Achieved

Assessment Schedule

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Outcome 1	Calculate quantities and prepare an order for materials for a spaced residential timber deck up to one metre high.	Assessment evidence and judgement
ERER 1.1	Quantities of materials are calculated from working drawings and job specifications.	Evidence gathered from students calculations and the assessor observation sheet showing; <ul style="list-style-type: none"> Quantities of timber for piles, bearers, joists, and decking are calculated correctly.
ERER 1.2	An order for materials is prepared in accordance with workplace practice.	Evidence gathered using order list; <ul style="list-style-type: none"> Order list for deck is correct.
Outcome 2	Set out and construct a spaced residential timber deck up to one metre high.	Assessment evidence and judgement (photos to be attached)
ER 2.1	Pile positions are set out and holes excavated in accordance with working drawings and job specifications.	Evidence gathered from the deck project and the assessor observation sheet showing; <ul style="list-style-type: none"> Set out and excavation is neat and accurate.
ER 2.2	Piles are placed in accordance with working drawings and job specifications.	Evidence gathered from the deck project and the assessor observation sheet showing; <ul style="list-style-type: none"> Piles are placed correctly with uncut end in ground.
ER 2.3	Bearers and joists are set out, cut and fixed in accordance with working drawings and job specifications.	Evidence gathered from the deck project and the assessor observation sheet showing; <ul style="list-style-type: none"> Bearers and joists are set out, cut and fixed correctly.
ER 2.4	Decking is cut, fixed and finished in accordance with working drawings and job specifications.	Evidence gathered from the deck project and the assessor observation sheet showing; <ul style="list-style-type: none"> Decking is cut, fixed and finished correctly.
Outcome 3	Complete work operations.	Assessment evidence and judgement
ER 3.1	All operations are safely completed in accordance with workplace practice.	Evidence gathered from the deck project and the assessor observation sheet showing; <ul style="list-style-type: none"> Appropriate PPE selected and used. Tools used correctly and safely. Personal safety and safety of others observed.
ER 3.2	Workplace, tools, plant and equipment are cleaned, and tools, plant and equipment stored in accordance with workplace practice.	Evidence gathered from the deck project and the assessor observation sheet showing <ul style="list-style-type: none"> Work area cleaned. Waste disposed of. Tools, plant and equipment cleaned and stored correctly.