

<b>Title</b>	<b>Demonstrate knowledge of and create sketches and drawings for BCATS projects</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>6</b>

<b>Purpose</b>	<p>This unit standard has been designed to be achieved in a building, construction and allied trades skills (BCATS) programme.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of lines and symbols, and drawing and sketching methods required for BCATS projects; establish job requirements and create sketches; and convert sketches to formal drawings for BCATS projects.</p>
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<b>Classification</b>	Construction Trades > Building, Construction, and Allied Trades Skills
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<b>Available grade</b>	Achieved
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### Guidance Information

#### 1 Definitions

*BCATS environment* refers to any workplace or context where work or activities related to the building, construction and allied trades sector take place, such as school workshops, training establishments, outdoor areas and industry placement workplaces.

*BCATS project* refers to a project undertaken in a BCATS environment under general supervision, using a range of tools, equipment and materials, and involving standard processes.

*Drawing* means drawing with the aid of drawing instruments, which for the purposes of this unit standard can include, but does not have to include, computer-assisted design programmes.

*Sketching* means freehand sketching, unaided by drawing instruments.

*Workplace practice* refers to the procedures specific to a BCATS environment, which cover the standard and required practices of that environment.

2 Assessment against this unit standard may occur in any BCATS environment.

3 This unit standard may be assessed using design briefs or specific tasks.

4 Evidence for assessment against this unit standard must be related to two different BCATS projects. Examples of suitable projects include wooden garden furniture, a deck, a non-consent building, a dog kennel, a pergola, a fence and gate, a kitset garden shed, or projects of similar complexity.

- 5 Reference publication relevant to this unit standard:  
SAA/SNZ HB 1:1994 *Technical drawing for students*, available from Standards New Zealand (<http://www.standards.co.nz>).
- 6 Calculators and computers may be used in achievement of credit for this unit standard.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of lines and symbols, and drawing and sketching methods required for BCATS projects.

#### Performance criteria

- 1.1 Lines used on construction drawings are identified and their purpose described.
- 1.2 Symbols used on construction drawings are identified and their purpose described.
- 1.3 Drawing and sketching methods are identified and described in terms of their practical application.
- Range one-point perspective, two-point perspective, isometric, oblique; third angle orthographic projection.

### Outcome 2

Establish job requirements and create sketches for BCATS projects.

#### Performance criteria

- 2.1 Job requirements are obtained and verified, and sketching technique is selected in accordance with work place practice.
- 2.2 Sketching equipment is assembled and prepared in accordance with selected sketching technique.
- 2.3 Sketches are created in accordance with job requirements.

### Outcome 3

Convert sketches to formal drawings for BCATS projects.

Range third angle orthographic projections – elevations, plans, cross sections; pictorial projections – two of – isometric, oblique, one-point perspective, two-point perspective.

**Performance criteria**

- 3.1 Drawing equipment is assembled and prepared in accordance with selected drawing technique.
- 3.2 Drawings are created from sketches in accordance with the job requirements.
- 3.3 Drawings communicate all construction information relevant to the intended project in accordance with SAA/SNZ HB 1:1994.
- 3.4 Sketches, drawings, equipment and unused materials are stored in accordance with workplace practice.

<b>Replacement information</b>	This unit standard replaced unit standard 12941.
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<b>Planned review date</b>	31 December 2023
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	14 December 2007	31 December 2018
Rollover and Revision	2	20 October 2016	31 December 2020
Review	3	1 November 2018	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact the Building and Construction Industry Training Organisation [national.office@bcito.org.nz](mailto:national.office@bcito.org.nz) if you wish to suggest changes to the content of this unit standard.