

1 Sketching Produce technical sketches by hand

Kaupae Level	4
Whiwhinga Credit	5
Whāinga Purpose	<p>This skill standard recognises the skills required to produce technical sketches using manual techniques.</p> <p>It may contribute to the New Zealand Diploma in Detailing (Structural) (Level 5) with strands in Light steel, Structural steel, Precast concrete, and Reinforcing steel [Ref:4515].</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Sketch basic construction shapes in 3D isometric views.	a. The construction shapes produced demonstrate efficient application of sketching conventions.
	b. Sketched 3D object represents isometric and oblique views of construction shapes.
2. Produce 2D sketches of basic construction shapes in 3rd angle orthographic projections.	a. Sketched 2D views reflect 3D construction shapes efficiently.
	b. Sketched 3D objects are shown in 3 rd angle orthographic projection.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

The set of technical sketches produced by hand represent a range of basic construction shapes.

A set of technical sketches includes a title page and index, plan, elevation and side elevation in 3rd angle projection, detail views and 3D view of the object.

A basic construction shape is one that represents a structure, connections and components.

Ngā momo whiwhinga | Grades available.

Achieved

Ihirangi waitohu | Indicative content

Sketching

- Intent, purpose, and conventions
- Conversion - 2D views to 3D views, 3Dviews to 2Dviews

Drawing techniques

- Isometric view and orthographic projection.
- 1st and 3rd angle orthographic view arrangements.

- Sketch view referencing symbology.
- Scales – types and application.
- Dimensions - dimensioning techniques to indicate the size and location of various elements
- Title block – purpose and components.
- Drawing layout – planning layout and placement and arrangement of different views.
- Formatting – understanding industry and organisational standards for formatting.

Rauemi | Resources

Programme guidance available from qualifications@waihangaararau.nz

AS/NZS 1100.501:2002 Technical drawing - Structural engineering drawing

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council.
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Planning and Construction > Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0048

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	<type here>	[dd mm yyyy]	[dd mm yyyy]
Arotakenga Review	<type here>	[dd mm yyyy]	[dd mm yyyy]
Kōrero whakakapinga Replacement information	<type here>		
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaararau.nz to suggest changes to the content of this skill standard.