

Concrete wall L4 Identify pre-cast concrete wall construction requirements

Kaupae Level	4
Whiwhinga Credit	
Whāinga Purpose	<p>This skill standard recognises the skills required to identify pre-cast concrete wall construction requirements.</p> <p>It contributes to the New Zealand Certificate in Carpentry (Level 4) with optional strand in Metal Roof Cladding Installation [Ref:2738].</p>

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Identify pre-cast concrete wall construction requirements.	a. Types, properties and characteristics of pre-cast concrete walls systems are identified.
	b. Techniques to construct formwork and prepare for the placement of precast concrete walls and other prebuilt panels are identified and reflect workplace procedures.
	c. Techniques to erect and prop precast concrete walls and other prebuilt panels are identified and reflect workplace procedures.
	d. How to erect and prop precast concrete walls and other prebuilt panels, and tie into the rest of the structure is identified.

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

Assessment specifications:

To achieve this standard the candidate must be capable of identifying pre-cast concrete wall construction requirements to industry standards.

Industry standards must reflect industry best practice, workplace procedures, and be within acceptable tolerances as defined in New Zealand codes, standards and regulations.

This standard may be assessed in the workplace or a simulated work environment.

Evidence for this standard must be:

- to current and relevant Legislation, Standards, and Codes (including safety),
- in an environmentally sustainable manner,
- within an acceptable timeframe,
- in different and unfamiliar contexts,

- with acceptable behaviours.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Wall structures and their composition

- Types of wall structures and their makeup:
- Framed timber walls and light gauge steel walls.
- Solid walls: Concrete and block.
- Panelled walls, structural steel, infill framing, and fire systems.

Components of timber wall frames

- Structural components and their purposes:
- Top and bottom plates, lintels, studs/double studs, dwangs/nogs, jack studs.
- Raking plates, trimming studs, blocking, sill trimmers, ribbon boards.
- Supplementary framing, bulkhead framing, shear wall framing.
- Double walls for fire-rated cell walls.
- Fixings and connectors.

Timber used in framing

- Types, properties, and considerations:
- Planer gauged and engineered timber.
- Sizes, finishes, defects (e.g., knots, warping, splits, and decay), and treatments (e.g., chemical or fire-resistant).

Prefabricated beams and lintels

- Types and applications of prefabricated structural elements:
- Materials, finishes, and design considerations for beams and lintels.

Engineering and design requirements

- Overview of design requirements and compliance:
- Load-bearing considerations, fire resistance, and integration with other building systems.

Tilt slab walls

- Key processes and requirements:
- Lifting and handling techniques, including crane use and safety considerations.
- Fixing tilt slab walls in place, including alignment and connection methods.

Calculating quantities

- Estimating material requirements for pre-cast concrete walls:
- Methods for calculating volumes, lengths, and numbers of components.

Rauemi | Resources

Programme Guidance information available from qualifications@waihangaararau.nz.

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 Trades > Carpentry
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	1	[dd mm yyyy]	N/A
Kōrero whakakapinga Replacement information	This skill standard replaces unit standards:		
Rā arotake Planned review date	31 December 2029		

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.