Reinforcing 2 Carry out steel reinforcing installation tasks of standard complexity for concrete structures

Kaupae | Level	3
Whiwhinga | Credit	5
Whāinga | Purpose	This skill standard is intended for people working in or entering the construction trades. People credited with this skill standard have the skills to carry out steel reinforcing installation tasks of standard complexity for concrete structures under limited supervision. This skill standard aligns with the New Zealand Certificate in Concrete Construction Skills (Level 3) [Ref: XXXX] and may also contribute to other construction and infrastructure qualifications.

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

Hua o te ako | Learning outcomes	**Paearu aromatawai |** Assessment criteria
1. Prepare and tie reinforcing steel for installations of standard complexity.	a. Reinforcing steel specifications are interpreted to select the correct steel for cutting, bending, tying and placement.
	b. Reinforcing steel is cut and bent to required shapes and dimensions using safe methods.
	c. Reinforcing ties are completed using recognised methods to maintain centres and alignment and tie ends are secured safely.
2. Position, fix and assemble reinforcing steel for installations of standard complexity.	a. Reinforcing steel is placed and fixed to maintain cover, laps, and orientation in line with reinforcing steel plans and specifications.
	b. Supports are installed to ensure reinforcing is held securely and cover is maintained.
	c. Cages or beams are set out, assembled, and secured to meet specified requirements.
	d. Completed reinforcing work meets reinforcing steel plans and specifications and industry standards.

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

Assessment specifications:

To achieve this standard the candidate must carry out steel reinforcing installation tasks of standard complexity under limited supervision 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.

Plans and specifications can include working drawings, plan specifications, manufacturer specifications, installation instructions and demolition and project plans.

Under limited supervision refers to candidates carrying out the requirements of this skill standard with basic guidance and indirect supervision from a suitably skilled tradesperson. They are expected to source some information independently from plans, specifications, or relevant New Zealand Standards.

Concrete structures may include a range of building and civil construction works such as slabs, walls, beams, columns, foundations, footpaths, retaining structures, or other concrete elements.

Standard complexity refers to routine reinforcing work carried out under defined procedures and supervision. It includes preparing, cutting, bending, tying, placing, fixing, and assembling reinforcing steel for straightforward concrete elements, for example, slabs, beams, columns, walls, and foundations, using familiar tools, equipment and methods.

Evidence for this standard must be demonstrated:

- to current and relevant Legislation, Standards, and Codes (including safety),
- in an environmentally sustainable manner, and
- with acceptable behaviours.

***Ngā momo whiwhinga* |** *Grades available*

Achieved.

Ihirangi waitohu | Indicative content

Plans and specifications

- Reinforcing steel plans and specifications
- Dimensions, grades, diameters, abbreviations, symbols, codes
- Industry terminology (e.g., longitudinal, trans bars, stirrups, saddle bars, couplers)
- Cover, laps, spacings, orientation and placement requirements
- Tolerances and compliance with industry standards
- Cutting, bending, tying, placement requirements

Reinforcing steel

- Plain round bars, deformed bars, mesh, coils, grades such as 300E, 500E)
- Use of reinforcing steel in different structural elements (slabs, beams, walls, columns, foundations)

Preparation of reinforcing steel

- Selection of reinforcing steel
- Cutting and bending (e.g., manual tools, mechanical cutters, bending machines)
- Hazards and risk controls (e.g., sharp edges, powered equipment, PPE).

Tying reinforcing steel

- Box tie, figure-8, sash/loop
- Centres and alignment

- Safe finishing (trimming tie ends, removing wire waste)

Installing reinforcing steel

- Cover, laps, spacings, orientation
- Securing (wire, clips, tack welds)
- Supports (spacers, chairs, ties)

Assembling reinforcing cages

- Setting out cages or beams
- Assembly of bars, stirrups, fitments
- Securing assemblies for stability during concrete placement
- Visual checks of reinforcing placement and security
- Reporting issues

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	Concrete > Concrete Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0120

Hātepe | Process	**Putanga |** Version	**Rā whakaputa |** Review Date	**Rā whakamutunga mō te aromatawai |** Last date for assessment
Rēhitatanga | Registration	1	dd mm 2025	N/A
Kōrero whakakapinga | Replacement information	This skill standard replaced unit standards 33037 and 32667.		
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.