Ex Joinery L4 Install exterior door and window joinery units

Kaupae | Level	4
Whiwhinga | Credit	
Whāinga | Purpose	This skill standard recognises the skills required to install exterior door and window joinery units. It contributes to the New Zealand Certificate in Carpentry (Level 4) with optional strand in Metal Roof Cladding Installation [Ref:2738].

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

Hua o te ako | Learning outcomes	**Paearu aromatawai** | Assessment criteria
1. Identify the types and requirements of exterior door and window joinery units.	a. Unit types, terminology and functions of exterior joinery are described and reflect industry standards
	b. Installation requirements of exterior joinery are identified and reflect plans, specifications and industry standards.
	c. Weather proofing requirements of exterior joinery units are identified and reflect plans, specifications and industry standards.
2. Install joinery units and integrate it with cladding.	a. Preparation of substrates and structure is carried out and reflects plans and specifications.
	b. Joinery units are installed to reflect plans and specifications.
3. Install flashings, seals, and trim to exterior joinery units.	a. Preparation of flashings is confirmed to reflect plans and job specifications.
	b. Flashings are installed to reflect plans and job specifications.
	c. Installation of seals and finishing external trims around doors and windows is carried out in relation to instructions and specifications.

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

Assessment specifications:

To achieve this standard the candidate must be capable of installing exterior door and window joinery units 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, work, demolition and project plans.

This standard must be assessed in the workplace.

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

Types of windows:

- Awning, stacker, hopper, fixed, casement, bay, sliding, fanlight, bi-fold.

Types of doors:

- Flush, French/patio, panelled, glazed, entrance, garage.

Materials and properties:

- Material types: aluminium, timber, uPVC, composite, steel.
- Key properties: finish, grade, treatment, weight, finishes/coatings, strength, colours, profiles, energy efficiency, durability, and maintenance requirements.

Types of glass:

- Safety glass, tempered glass, double/triple glazing, low-e glass, laminated glass, tinted glass, and frosted glass.

Heat transfer management:

- Materials and designs that contribute to thermal performance, including glazing options, thermal breaks, and insulated frames.

Parts of windows and doors:

- Jamb, rail, head, sash, sill, glazing bars, mullion, weather/drip grooves, transom, throatings, stile.

Preparing openings:

- Cutting and fixing underlay or building wrap to internal faces of framing.
- Applying flashing tape to ensure weathertightness.
- Installing flashings, cavity battens, sill supports, and cavity closers as required.

Weathertightness and water penetration:

- Methods to manage water ingress, such as proper installation of flashings, wraps, and sealants.
- Understanding ways water penetrates buildings and designing systems to mitigate risks.

Installation process for windows and doors:

- Pre-installation checks, including ensuring the opening is level, square, and correctly sized.
- Determining the sequence of cladding installation relative to joinery placement.
- Positioning and securing joinery using packers.
- Installing required flashings (e.g., sill and head flashings).
- Using backing rods and silicone sealant to seal gaps.
- Installing finishing trim, including facings, scribers, plugs, and undersill trims.

Sealants and silicone types:

- Specifications for silicone or sealants compatible with various materials and weathertightness requirements.

Finishing trim details:

- Facings, scribers, and undersill trims to complete the installation.

Regulatory requirements:

- Compliance with building code regulations for cavities and claddings.
- Ensuring installation meets local standards and guidelines for weathertightness and structural integrity.

Flashings:

- Correct installation of sill and head flashings to prevent water ingress.

Reference materials:

- Interpreting manufacturers' specifications, detailed plans, and drawings to ensure correct installation.

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.