Title	**Demonstrate knowledge of exterior cladding and weather proofing buildings**		
Level	**3**	**Credits**	**6**

Purpose	People credited with this standard can: • demonstrate knowledge of the effect of water penetration on buildings; • describe design elements used to prevent water penetration; • describe water penetration protection systems used in buildings; • describe exterior cladding; • describe how to install exterior cladding; and • demonstrate knowledge of health and safety for exterior cladding and weather proofing buildings.

Classification	Construction Trades > Carpentry

Available grade	Achieved

Guidance Information

1 Range

Evidence generated for assessment against this standard must reflect workplace and industry requirements specified in:

- documented worksite specifications, procedures, and practices;
- applicable manufacturer recommendations, specifications, and technical data sheets.

Evidence generated for assessment against this standard must reflect workplace and industry requirements specified in:

- documented worksite specifications, procedures, and practices;
- manufacturer recommendations, specifications, and technical data sheets;
- applicable material safety data sheets;
- *Acceptable Solution E2/AS1 for Clause E2 External Moisture*;
- NZS 3604:2011 *Timber Framed Buildings*;
- the New Zealand Building Code.

2 References

The New Zealand Building Code. (Building Act 2004). *Acceptable Solution E2/AS1*. Available from https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture/;
NZS 3604:2011 *Timber Framed* Buildings. Available from Standards NZ (http://www.standards.co.nz).

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Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the effect of water penetration on buildings.

Performance criteria

1.1 Describe how water penetration happens to buildings.

Range capillary action, gravity, wind pressure, airflows.

1.2 Describe the effects of water penetration on buildings.

Range mould, rot, high moisture content, ill health, damage to materials.

Outcome 2

Describe design elements used to prevent water penetration.

Range drying, deflection, drainage, durability.

Performance criteria

2.1 Identify and describe design elements used to prevent water penetration.

2.2 Describe how design elements contribute to preventing water penetration.

Outcome 3

Describe water penetration protection systems used in buildings.

Range water penetration protection systems include – flashings and trim, building wraps/membranes, overhangs, vapour barriers, rigid air barrier, cladding, roofing, sealants, drained cavity design.

Performance criteria

3.1 Describe how water penetration protection systems work.

3.2 Describe the limitations of each type of water penetration protection system.

Outcome 4

Describe exterior cladding.

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Performance criteria

4.1 Describe the properties and use of exterior claddings.

Range weatherboards (timber or fibre cement), plywood, fibre cement sheet, masonry veneers.

4.2 Describe the cladding requirements for wall framing members.

Range centres, fixings, tolerances.

Outcome 5

Describe how to install exterior cladding.

Range timber or fibre cement weatherboards.

Performance criteria

5.1 Describe the calculations for determining required quantity of underlay and wall cladding. Calculate a required quantity of underlay and wall cladding.

5.2 Describe how to set out, cut, and fix exterior claddings.

5.3 Describe how to cut, fit, and fix joints.

Outcome 6

Demonstrate knowledge of health and safety for exterior cladding and weather proofing buildings.

Range labour, identification of hazards and controls, plant;
plant includes – any machinery, vehicle, vessel, aircraft, equipment (including personal protective equipment), appliance, container, implement, or tool; any component of any of those things; anything fitted or connected to any of those things;
personal protective equipment includes – anything used or worn by a person (including clothing) to minimise risks to the person's health and safety; air supplied respiratory equipment.

Performance criteria

6.1 Identify and describe health and safety requirements for exterior cladding and weather proofing buildings.

Replacement information	This unit standard replaced unit standard 13017 and unit standard 21211.

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Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	30 September 2021	N/A

Consent and Moderation Requirements (CMR) reference	0048

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 at national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.

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