Title	**Demonstrate knowledge of sign installation equipment, fastenings, techniques, and safely install signs**		
Level	**4**	**Credits**	**30**

Purpose	This unit standard is for people working in the signmaking industry. People credited with this unit standard are able to, for sign installation, demonstrate knowledge of: height access equipment; bonding tapes, adhesives, mechanical fastenings used; freestanding sign installation; and sign installation on building interiors and exteriors. They are also able to install signs using safe work practices.

Classification	Sign Making > Sign Making - Core

Available grade	Achieved

Guidance Information

1 Reference
Health and Safety at Work Act 2015.

2 Definition
Workplace procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.

3 Assessment information
All performance criteria must be performed in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of height access equipment for sign installation.

Range ladders, mobile scaffold towers, fixed scaffolding, scissor lifts, cherry pickers, boom lifts, swinging stages.

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Performance criteria

1.1 Height access equipment is identified and its safe use, advantages, and disadvantages are explained for sign installation.

1.2 Equipment use requirements are identified.

1.3 Equipment maintenance and storage requirements are explained in accordance with manufacturer requirements.

Outcome 2

Demonstrate knowledge of bonding tapes used for sign installation.

Performance criteria

2.1 Advantages and disadvantages of the use of high bond tapes are explained for sign installation.

Range includes suitability for substrate.

2.2 Pre-bonding surface preparation requirements are explained in accordance with tape manufacturer specifications.

2.3 Tape quantity determination and application methods are explained.

Range includes tape orientation.

Outcome 3

Demonstrate knowledge of adhesives used for sign installation.

Performance criteria

3.1 Advantages and disadvantages of adhesives compared to mechanical fastenings are explained for use in sign installation.

3.2 Surface preparation requirements are explained in accordance with adhesive manufacturer specifications.

3.3 Adhesive clamping and cure times are explained in accordance with adhesive manufacturer specifications.

3.4 Adhesive quantity determination and application methods are explained.

Outcome 4

Demonstrate knowledge of mechanical fastenings used for sign installation.

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Performance criteria

4.1 Fastening types are identified and explained in terms of use suitability, installation tools, and head type.

Range types – screws, bolts, coach screws, blind rivets, nylon masonry anchors, wedge and sleeve masonry anchors, concrete screws, gib anchors;
installation tools – power and hand drivers, rivet gun, socket set, spanners;
head types – countersunk, pan, round, cheese, raised countersunk, button, socket;
head drive types – hex, allen, slot, pozi drive, square, phillips, wing, socket, star/6 lobe.

4.2 Fastener materials and coating types are identified and their use, advantages, and disadvantages are explained in terms of durability, strength and practicality.

Range plain steel, stainless steel, zinc plated, galvanised, aluminium, nylon.

4.3 Tool use, selection, and techniques are explained for drilling holes in signmaking materials.

Range wood, steel, aluminium, acrylic, concrete.

4.4 The advantages and use of proprietary fixings is explained for signmaking installation.

Range stand offs, letter mounts, sign-fix systems.

4.5 Hidden fixing methods are explained for signmaking installation.

Range split battens, hidden proprietary fixings.

Outcome 5

Demonstrate knowledge of freestanding sign installation.

Performance criteria

5.1 Installation considerations are explained to meet freestanding sign strength and durability requirements.

Range wind loading calculation requirements, foundation design options, foundation hole size and depth requirements, concrete options, bolt cage detail, timber treatment requirements.

Outcome 6

Demonstrate knowledge of interior sign installation.

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Performance criteria

6.1 Types of interior substrate and fastening options are explained for interior sign installation.

Range gib board walls, concrete;
options – hidden fixings, fixing aesthetics.

6.2 Techniques for locating studs and wall framing are explained for the purposes of identifying structurally strong fastening points.

Outcome 7

Demonstrate knowledge of exterior sign installation on buildings.

Performance criteria

7.1 Sign fixing methods are identified in accordance with building cladding type and building envelope waterproofing requirements.

Range cladding – aluminium composite material (ACM), fibre cement sheet, brick, concrete, plywood, steel, glass, concrete block, rendered polystyrene, timber.

7.2 Thermal expansion requirement allowances are explained in accordance with manufacturer specifications.

Outcome 8

Install signs.

Range one high bond tape, one adhesive use, one interior, one exterior, one freestanding;
attachment types – two types of mechanical fastening;
includes one full standard sheet and at least one multi panel installation.

Performance criteria

8.1 Sign specification is verified prior to installation.

8.2 Installation requirements are planned and materials and equipment selected in accordance with job requirements.

8.3 Fixing methods are appropriate to sign and substrate and meet strength and aesthetic requirements.

8.4 Sign installation meets specification.

8.5 Worksite is cleaned and left tidy.

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Outcome 9

Use safe working practices for sign installation.

Performance criteria

9.1 Cones and barriers are used to cordon sign installation work areas.

9.2 Edge railings are used when working on roofs.

9.3 Harnesses and fall arrestors are used when working at heights.

9.4 High visibility clothing is used in public areas and on building sites.

9.5 Traffic management procedures are in place when working on and around roads.

9.6 Personal Protective Equipment (PPE) is used in accordance with job requirements.

9.7 Residual Current Device (RCD) protected power tools are used when working outside.

Replacement Information	This unit standard was replaced by unit standards 33065 and 33066.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 April 2017	31 December 2025
Review	2	29 September 2022	31 December 2025

Consent and Moderation Requirements (CMR) reference	0013

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

This unit standard is expiring

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