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| Title | Demonstrate knowledge of profiled metal and translucent roofing | | |
| Level | 4 | Credits | 5 |

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| Purpose | <p>This unit standard is for people who work in the plumbing industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> – roof structures; – preparations for installation of roofing; – roofing installation processes; and – regulatory requirements, selection of methods and materials, and underpinning concepts and principles, as applied to the installation of roofing. |
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| Classification | Plumbing, Gasfitting and Drainlaying > Plumbing |
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| Available grade | Achieved |
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Guidance Information

- 1 References

Building Act 2004;
 Health and Safety at Work Act 2015;
 Plumbers, Gasfitters, and Drainlayers Act 2006;
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 The following clauses, current versions, and any related compliance documents, which are available at <https://www.building.govt.nz>:
 New Zealand Building Code Clause E2 External Moisture,
 New Zealand Building Code Clause G11 Gas as an Energy Source;
 and all subsequent amendments and replacements.
- 2 Range

Profiled metal and translucent roofing.
- 3 This unit standard requires the application of theory as included in the Plumbers, Gasfitters, and Drainlayers Regulations 2010.
- 4 Definitions

Job requirements – specific requirements of the job at hand not covered by job specifications.

Job specifications – instructions (oral, written, graphic) and may include any of the following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in

conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.

Substrate and structure – refers, where applicable, to pitch, laps, junctions, fascia, framing, substrate, valley boards, purlin spacing.

- 5 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of roof structures.

Performance criteria

- 1.1 Identify roof styles and roofing terminology.
- Range hip, gable, mono-pitch, barge, trusses, rafters, purlin, valley boards, common material profiles, fixings.
- 1.2 Describe process to confirm substrate and structure meet the requirements of codes, standards, job specifications, industry requirements, and manufacturer instructions.
- Range includes new roof and re-roof or repair.
- 1.3 Describe requirements of roof layout for proposed roofing installation.
- 1.4 Describe process to confirm correct timber treatments with reference to installation of roofing materials.

Outcome 2

Demonstrate knowledge of preparations for installation of roofing.

Performance criteria

- 2.1 Describe height safety controls relevant to roofing.
- Range scaffolding, safety nets, harness systems, edge protection.
- 2.2 Describe process to determine materials and quantities required.
- 2.3 Describe processes for managing roofing materials on-site.
- 2.4 Describe processes for managing a re-roof or repair.

Outcome 3

Demonstrate knowledge of roofing installation processes.

Range profiled metal, translucent sheeting, pan deck;
 where an aspect of the installation is the same across different roofing
 materials, only a single example of that process is required.

Performance criteria

- 3.1 Describe process for installing underlay/vapour barrier.
- 3.2 Describe appropriate fixing patterns for different profiles and environments.
- 3.3 Describe process for installing and fixing roofing.
- 3.4 Explain how to determine appropriate flashing dimensions, materials, and
 quantities to meet job requirements.
- 3.5 Describe finishing processes for roof installation.

Range installing accessories, cleaning swarf and debris from work area,
 inspecting finished roof, correcting defects.

Outcome 4

Demonstrate knowledge of regulatory requirements, selection of methods and materials, and underpinning concepts and principles, as applied to the installation of roofing.

Performance criteria

- 4.1 Describe applicable sections of legislation, standards, and codes in terms of
 their application to the installation of roofing.

Range must include but is not limited to – licensing, limitations on scope
 of work.

- 4.2 Justify selection of methods and materials.

Range job specifications, operation of the installed system and
 components, prudent use and longevity of materials;
 may include job requirements.

- 4.3 Describe the implication of environmental factors for selection of materials.

Range must include but is not limited to – ventilation, exposure to
 weather, heat, moisture, airflow, wind loading, snow loading,
 corrosion zones, environmental conditions.

4.4 Describe purposes and processes of management of chemical properties of roofing materials.

Range must include but is not limited to – material compatibility, corrosion, capillary attraction, expansion and contraction, sealants and fixings, potential use of runoff for drinking water.

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| Replacement information | This unit standard, unit standard 30546, unit standard 30547, unit standard 30548, and unit standard 30549 replaced unit standard 21884. |
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| Planned review date | 31 December 2022 |
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Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
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| Registration | 1 | 26 October 2017 | N/A |

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| Consent and Moderation Requirements (CMR) reference | 0003 |
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.