

<b>Title</b>	<b>Determine and describe construction of small buildings</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	People credited with this unit standard are able to, for a small building, determine and describe: the foundations and substructure; the structure, the envelope, and the interior.
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<b>Classification</b>	Construction > Core Planning and Construction
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<b>Available grade</b>	Achieved
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### Guidance Information

#### 1 Definitions

*Alternative construction materials* are materials other than those traditionally used for building, such as rammed earth, cob, straw bale, mud brick, and/or polystyrene blocks.

*Design requirements* refer to requirements for sustainability, durability, appearance, maintenance, practicality for intended use, general cost implications and water/weathertightness.

*Small buildings* are small scale, light weight buildings, generally of non-specific design, and of domestic scale with lightweight framing and/or concrete or concrete masonry construction.

*Buildability* refers to – ease of construction, availability of plant, equipment and materials, site access, and construction sequence.

2 It is expected that the candidate will demonstrate an understanding of the concept of *buildability*.

3 Evidence should include sketching whenever possible.

4 Assessment of this unit standard can be by simulation using given site information, and/or observation.

5 Legislation and publications relevant to this unit standard include: Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995; Resource Management Act 1991; Building Act 2004; New Zealand Building Code; NZS 3604:1999 *Timber framed buildings*, and NZS 4229:1999 *Concrete masonry buildings not requiring specific engineering design*, available from Standards New Zealand (<http://www.standards.co.nz>).

6 It is recommended that the outcomes of this unit standard be achieved in conjunction with Unit 9663, *Demonstrate knowledge of a research/feasibility study of a site*.

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## Outcomes and performance criteria

### Outcome 1

Determine and describe the foundations and substructure for a small building.

#### Performance criteria

- 1.1 Description addresses geotechnical factors.
- 1.2 Description is in accordance with building use and design requirements.
- 1.3 Construction process is explained in terms of site constraints, materials, and time and general cost implications.

Range materials – timber, concrete, steel.

### Outcome 2

Determine and describe the structure of a small building of non-specific design.

#### Performance criteria

- 2.1 Description includes provision for services, materials, cladding and finishes.
- 2.2 Description is in accordance with building use and design requirements.
- 2.3 Construction process is explained in terms of site constraints, materials, and time and general cost implications.

Range materials – timber, in-situ reinforced concrete, concrete masonry blockwork.

### Outcome 3

Determine and describe the structure of a small building of specific design.

#### Performance criteria

- 3.1 Description includes provision for services, materials, cladding and finishes.
- 3.2 Description is in accordance with building use and design requirements.
- 3.3 Construction process is explained in terms of site constraints, materials, and time and general cost implications.

Range materials – timber, structural steel, reinforced concrete, steel stud, concrete masonry blockwork, any alternative construction materials.

## Outcome 4

Determine and describe the envelope of a small building.

### Performance criteria

- 4.1 Selection and design for wall and roof claddings and openings matches the characteristics of the required structure.
- Range materials, four of – timber, rendering, metal sheet, cellulose cement, masonry, concrete, glass.
- 4.2 Design principles of typical cladding jointing systems are described in terms of sealants, flashings, and compatibility and jointing between systems.
- 4.3 Description includes provision for services, materials, and finishes.
- 4.4 Description is in accordance with building use and design requirements.
- 4.5 Construction process is explained in terms of site constraints, materials, and time and general cost implications.
- Range materials, four of – timber, rendering, metal sheet, cellulose cement, masonry, concrete, glass.

## Outcome 5

Determine and describe the interior of a small building.

Range linings, joinery, fitments.

### Performance criteria

- 5.1 Selection of the interior matches the characteristics of the required structure.
- 5.2 Description matches or exceeds the regulatory requirements that apply to the approved solutions.
- 5.3 Description includes provision for services, materials, and finishes.
- 5.4 Construction process is explained in terms of site constraints, materials, and time and general cost implications.

<b>Replacement information</b>	This unit standard replaced unit standard 9671.
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**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	18 March 2011	31 December 2024
Review	2	25 August 2022	31 December 2024

<b>Consent and Moderation Requirements (CMR) reference</b>	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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