

<b>Title</b>	<b>Demonstrate knowledge of structural principles for building work</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of structural principles for building work.
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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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### Explanatory notes

For assessment against evidence requirement 1.1, experiments may be physical or computer simulations.

### Outcomes and evidence requirements

#### Outcome 1

Demonstrate knowledge of structural principles for building work.

#### Evidence requirements

1.1 Basic structural principles are derived and described from experimentation.

Range beam depth relative to span, compression/tension/neutral axis, characteristics of pin joints and rigid joints, the effects of point loads and uniformly distributed loads, cantilevers, methods of bracing including triangulation, element failure including buckling.

1.2 The effect of loading of common building elements is described in accordance with basic structural principles.

Range beam, column, cantilever, wall, floor, truss.

1.3 The effect of loading of common building materials is described in accordance with basic structural principles.

Range reinforced concrete beams, structural steel sections, timber.

<b>Planned review date</b>	31 December 2015
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	18 March 2011	N/A

<b>Accreditation and Moderation Action Plan (AMAP) reference</b>	0048
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This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Consent requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

**Comments on this unit standard**

Please contact the Building and Construction Industry Training Organisation [national.office@bcito.org.nz](mailto:national.office@bcito.org.nz) if you wish to suggest changes to the content of this unit standard.