

Dear Customer

Please find enclosed Amendment 13, effective 1 June 2016, to the Acceptable Solutions and Verification Methods for Clause B1 Structure of the New Zealand Building Code. The previous amendment to B1 was Amendment 12, February 2014.

Section	Old B1	June 2016 Amendments to B1
Title pages	Remove title pages and document history pages 1–4	Replace with new title pages and document history pages 1–4
References	Remove page 13/14	Replace with new page 13/14
B1/AS1	Remove page 23D/24	Replace with new page 23D/24



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

Acceptable Solutions and Verification Methods

For New Zealand Building Code Clause
B1 Structure



Status of Verification Methods and Acceptable Solutions

Verification Methods and Acceptable Solutions are prepared by the Ministry of Business, Innovation and Employment in accordance with section 22 of the Building Act 2004. Verification Methods and Acceptable Solutions are for use in establishing compliance with the New Zealand Building Code.

A person who complies with a Verification Method or Acceptable Solution will be treated as having complied with the provisions of the Building Code to which the Verification Method or Acceptable Solution relates. However, using a Verification Method or Acceptable Solution is only one method of complying with the Building Code. There may be alternative ways to comply.

Users should make themselves familiar with the preface to the New Zealand Building Code Handbook, which describes the status of Verification Methods and Acceptable Solutions and explains alternative methods of achieving compliance.

Defined words (italicised in the text) and classified uses are explained in Clauses A1 and A2 of the Building Code and in the Definitions at the start of this document.

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**Verification Methods and Acceptable Solutions
are available from www.building.govt.nz**

New Zealand Government

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Document Status

The most recent version of this document (Amendment 13), as detailed in the Document History, is approved by the Chief Executive of the Ministry of Business, Innovation and Employment.

The previous version of this document (Amendment 12) will cease to have effect on 31 May 2016.

People using this document should check for amendments on a regular basis. The Ministry of Business, Innovation and Employment may amend any part of any Verification Method or Acceptable Solution at any time. Up-to-date versions of Verification Methods and Acceptable Solutions are available from www.building.govt.nz

B1: Document History			
	Date	Alterations	
First published	July 1992		
Amendment 1	September 1993	p. ix–xii, References p. 1, 1.3, 1.4.1–1.4.3, 2.1, 2.2, 3.1–3.3, 4.1, 5.1 p. 2, 6.1, 6.2, 8.1, 9.1 p. 4, 11.1, 12.1 p. 5, 1.2, 2.1, 2.2, 3.1, 3.2,s 4.1, 4.2, 6.1, 6.2, 7.1	p. 9, 1.0.1, 1.0.5 b) c) p. 10, 2.3.5 p. 13, Figure 4 p. 14, 2.3.6 p. 16, 2.3.8, 2.3.9 p. 34, Table 1 p. 47, 1.0.1 pp. 49–54, Index
Amendment 2	19 August 1994	pp. i and ii, Document History pp. vii and viii, Contents pp. x and xi, References p. xiv, Definitions p. 1, 1.4.2, 5.1 p. 2, 6.1 p. 5, 1.3, 3.1, 4.1 p. 6, 7.1 p. 10, 2.3.5 p. 12, Figure 3 p. 13, Figure 4 p. 14, 2.3.6, 2.3.7	p. 15, Tables 4 and 5 p.16, 2.4.1 p. 21, Figure 2 p. 22, Figure 3 p. 32, 2.2.4 p. 33, 1.0.2 p. 34, 3.2.1, Table 1 p. 35, 4.1, 4.1.2, 4.1.3, 4.2.1, 4.2.2, 4.3, 4.3.1, 5.0.1, Table 2 p. 36, 6.1.2, 7.1, 7.1.1 p. 37, 7.3.4 pp. 49, 50, 51, 54, Index
Reprinted incorporating Amendments 1 and 2	October 1994		
Amendment 3	1 December 1995	p. ii, Document History p. ix, References p. 1, 3.1	p. 5, 6.2 p. 50, Index
Reprinted incorporating Amendments 1, 2 and 3	July 1996		
Amendment 4	1 December 2000	p. ii, Document History pp. vii and viii, Contents pp. ix – xii, Revised References pp. xiii and xiv, Definitions	pp. 1–4A, Revised B1/VM1 pp. 5 and 6, Revised B1/AS1 pp. 33–63, Revised B1/VM4 p. 65, Revised B1/AS4 pp. 67–72, Revised Index
Erratum	9 February 2001	p. 46, 4.3.2 a) i)	
Amendment 5 incorporating Erratum	1 July 2001	p. 2, Document Status p. 3, Document History p. 7, References	p. 41, 1.7.2 Comment p. 49, 2.2.4 p. 48, 1.9.1 b) i)
Amendment 6	1 March 2005	p. 11, References	
Amendment 7	1 April 2007	pp. 11–12, 14, References pp. 15–16, Definitions	p. 18, 6.1

B1: Document History

Amendment 8	1 December 2008	p. 2, Document Status p. 3, Document History p. 9, Contents pp. 11–14, References pp. 15–16, Definitions	pp. 17–22B, B1/VM1 p. 51, B1/VM4 1.0.5, 2.0.1 p. 56, B1/VM4 Figure 2 p. 70, B1/VM4 B1.0.2 pp. 83–84, 86 Index
Amendment 9	30 September 2010	pp. 2–3, Document History, Status, pp. 11–14, References p. 20, B1/VM1 2.2.13 p. 21, B1/VM1 3.0, 5.1 pp. 22–22B, B1/VM1 11.0 pp. 23–24, B1/AS1 6.0, 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 7.3, 7.4	p. 27, B1/AS2 1.0.5 p. 44, B1/AS3 1.7.9 p. 47, B1/AS3 1.8.5, 1.8.6 p. 49, B1/AS3 2.1.1, 2.2.4 p. 63, B1/VM4 4.3.2 p. 67, B1/VM4 5.3.1
Reprinted incorporating Amendments 4–9	30 September 2010		
Erratum 1	30 September 2010	p. 21, B1/VM1 3.1	
Amendment 10 (Canterbury)	Effective from 19 May 2011 until 31 January 2012	p. 9, Contents p. 12–14, References p. 15, Definitions p. 17, B1/VM1	p. 20, B1/VM1 2.2.14A to 2.2.14D pp. 23–23C B1/AS1 1.4, 2.0, 3.0, 4.0 p. 48, B1/AS3 1.9.3 p. 84, Index
Amendment 11	Effective from 1 August 2011 until 14 August 2014	p. 9, Contents p. 11–14, References p. 17–22B, B1/VM1 1.0, 2.0, 2.2.9, 2.2.14c, 5.2, 6.1, 7.1, 8.1, 12.1, 13.0	pp. 23–24, B1/AS1 1.2, 2.0, 3.0, 4.0, 7.0, 8.0, 9.0 pp. 27–34, B1/AS2 pp. 83–87, Index
Amendment 12	Effective from 14 February 2014 until 31 May 2016	p. 9, Contents pp. 11–13, References pp. 15, 16, Definitions pp. 17, 18, 20, 22, 22A, 22B, B1/VM1 2.1, 2.2.6, 2.2.11, 5.2, 9.0, 12.1	pp. 23–23C, 24 B1/AS1 1.1, 1.2, 2.1.1–2.1.10, 3.1.9, 4.1.5, 8.0, 9.0 p. 79, B1/VM4 C11.0
Amendment 13	Effective from 1 June 2016	p. 13, References	p. 24, B1/AS1 7.3.3, 7.3.4

Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.

		Where quoted
	AS/NZS 3725: 2007 Design for installation of buried concrete pipes	VM1 11.1
Amend 8 Dec 2008		
	AS/NZS 3869: 1999 Domestic solid fuel burning appliances – Design and construction	AS3 2.1
Amend 9 Sep 2010		
	AS/NZS 4058: 2007 Pre cast concrete pipes (pressure and non-pressure)	VM1 11.1
Amends 10 and 11	NZS 4210: 2001 Code of practice for masonry construction: materials and workmanship	AS3 1.8.1, 1.8.3 (f and g)
Amend 9 Sep 2010	<i>Amend: 1</i>	
Amend 11 Aug 2011	NZS 4211: 2008 Specification for performance of windows	VM1 12.1
Amend 8 Dec 2008		
Amend 11 Aug 2011	NZS 4219 : 2009 Seismic Performance of Engineering Systems in Buildings	VM1 1.3.1
Amend 9 Sep 2010	NZS 4223:- Part 1: 2008 Glazing in buildings Glass selection and glazing Part 2: 1985 The selection and installation of manufactured sealed insulating glass units	AS1 7.1, 7.2.1, 7.3.7 AS1 7.2
Amend 13 Jun 2016	Part 3: 2016 Human impact safety requirements	AS1 7.3.3
Amend 9 Sep 2010	Part 3: 1999 Human impact safety requirements Part 4: 2008 Wind, dead, snow, and live actions	AS1 7.3 AS1 7.4
Amends 10 and 11	NZS 4229: 2013 Concrete masonry buildings not requiring specific engineering design	AS1 1.4, 2.1 AS3 1.1.1, 1.8.4, 1.9.2, 1.9.5, 2.2.1 b)
Amend 12 Feb 2014		
Amend 8 Dec 2008	NZS 4230: 2004 Design of reinforced concrete masonry structures <i>Amend: 1</i>	VM1 4.0
Amend 11 Aug 2011	NZS 4251:- Part 1: 2007 Solid plastering Cement plasters for walls, ceilings and soffits	AS1 5.1
Amends 10 and 11	NZS 4297: 1998 Engineering design of earth buildings	VM1 8.1
	NZS 4299: 1998 Earth buildings not requiring specific design <i>Amend: 1</i>	AS1 1.4, 4.1
	NZS 4402:- Part 2: Test 2.2: 1986 Methods of testing soils for civil engineering purposes. Parts 2, 4 and 5: 1986 and 1988 Soil classification tests Determination of liquid limit	VM1 11.1 Definitions

		Where quoted
	Test 2.6: 1986 Determination of the linear shrinkage	Definitions
	Part 4: Soil compaction tests	
	Test 4.2.3: 1988 Relative densities	VM4 4.1.1
	NZS 4431: 1989 Code of practice for earth fill for residential development <i>Amend: 1</i>	VM1 10.1
Amends 10 and 11	AS/NZS 4600: 2005 Cold-formed steel structures	VM1 5.2
	AS/NZS 4671: 2001 Steel Reinforcing Materials <i>Amend: 1</i>	AS1 2.1.5, 3.1.8 AS3 1.8.5
	AS/NZS 4680: 2006 Hot-Dip Galvanised (zinc) Coating	AS3 1.8.6
Amend 9 Sep 2010		
Amend 8 Dec 2008		
	SNZ HB 8630: 2004 Tracks and outdoor visitor structures	VM1 2.2.9
	The National Association of Steel Framed Housing Inc (NASH)	
Amend 11 Aug 2011	NASH Standard: Residential and Low Rise Steel Framing Part 1 2010 Design Criteria	VM1 5.3
	British Standards Institution	
	BS 8004: 1986 Code of practice for foundations	VM4 4.0.3
	Standards Australia	
Amend 9 Sep 2010	AS 1397: 2001 Steel sheet and strip – Hot-dipped zinc-coated or aluminium/zinc-coated	AS3 1.7.9
Amend 11 Aug 2011		
	AS 2159: 1995 Rules for the design and installation of piling (known as the SAA Piling Code) <i>Amend: 1</i>	VM4 4.0.3
	American Society of Testing and Materials	
	ASTM D1143: 1981 Test method for piles under static axial compressive load	VM4 4.0.3
	New Zealand Geomechanics Society	
	Guidelines for the field descriptions of soils and rocks in engineering use. Nov 1988	VM1 11.1
Amend 8 Dec 2008	New Zealand Legislation	
	Chartered Professional Engineers of New Zealand Act 2002	VM1 1.0

6.0 Drains

6.1 AS/NZS 2566.1

6.2 AS/NZS 2566.2

6.3 AS/NZS 2032

6.4 AS/NZS 2033

Amend 9
Sep 2010

7.0 Glazing

Amend 11
Aug 2011

7.1 NZS 4223.1 subject to the following modifications:

Clause 1.2(e) Reword to read:

“For framed, unframed, and partly framed glass assemblies in buildings up to 10 m high, glass shall be selected in accordance with section 5.”

7.2 NZS 4223.2

7.2.1 201 Selection and installation of sash and frames

Delete Clause 201.1 (b)

Replace with: “Clause 201.1(b). They must allow for contraction and expansion of the building and comply with relevant clauses of AS/NZS 1170 and NZS 4223.1 section 3.5.”

7.3 NZS 4223.3

7.3.1 Related documents, New Zealand Standards

Delete NZS 4203: 1992 General structural design and design loadings for buildings

Replace with: “AS/NZS 1170 Structural Design Actions.”

7.3.2 Clause 310.1

Delete Clause 310.1

Replace with: “Glazing used in any building in situations that require protection for occupants from falling 1000 mm or more from the floor level shall meet the barrier requirements of AS/NZS 1170 as modified by B1/VM1.”

7.3.3 NZS 4223: 1999 Part 3 Clause 312 Balustrades and fences

Delete Clause 312

Replace with: “Glass balustrades and fences that are fully framed, unframed or partly framed or structural shall comply with section 22 of NZS 4223.3: 2016.”

Amend 13
Jun 2016

7.3.5 NZS 4223: Part 3 Section 313 Stairwells and Porches

Delete Clause 313.1

Replace with: “Glazing in stairways within 2000 mm horizontally or vertically, from any part of a stairway or landing shall be Grade A safety glass in accordance with Table 3.1. Stairways include stairwells, landings and porches and comprise at least two risers. All glazing in stairways protecting a fall of 1000 mm or more shall also meet the barrier requirements of AS/NZS 1170 as modified by B1/VM1.”

7.3.6 Table 3.7 Glazing protecting a difference in level in any building.

Delete Table 3.7

7.3.7 Table 3.8 Unframed or partly framed balustrades and fences.

Delete Table 3.8

Appendix 3.E

Delete Appendix 3.E

Replace with: “Refer to NZS 4223 Part 1 Section 5.4”

7.4 NZS 4223.4

8.0 Small Chimneys

See Acceptable Solution B1/AS3.

Amend 12
Feb 2014

Amend 11
Aug 2011

Amend 12
Feb 2014

Amend 13
Jun 2016