

# Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B1 Structure

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All content related to B1 Structure (<https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/>)

## 1st edition, amendment 19

Current version: Effective from 28 November 2019

### 1st edition, amendment 19

[PDF 1.6 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-19.pdf>)

### 1st edition, amendment 19 replacement pages

[PDF 629 KB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-19-rp.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

## 1st edition, amendment 18

Effective from 27 June 2019 until 31 March 2020

### 1st edition, amendment 18

[PDF 1.5 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-18.pdf>)

### 1st edition, amendment 18 replacement pages

[PDF 679 KB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-18-rp.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

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## 1st edition, amendment 17

Effective from 30 November 2018 until 31 October 2019

### 1st edition, amendment 17

[PDF 1.4 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-17.pdf>)

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### 1st edition, amendment 17 replacement pages

[PDF 291 KB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-17-rp.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

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## 1st edition, amendment 16

Effective from 3 April 2018 until 31 March 2019

### 1st edition, amendment 16

[PDF 1.4 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-16.pdf>)

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### 1st edition, amendment 16 replacement pages

[PDF 748 KB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-16-rp.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

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B1/VM1 is amended to reference NZS 3101:2006 Amendment 3. Allowance is made in B1/VM1 for the continued use of cast iron anchors and couplers until 1 November 2018.

B1/VM1 modifies the citation of NZS 3404:1997 to update design and construction requirements for steel structures. Twelve Standards are referenced in B1/VM1 that provide these updated requirements.

Duplicate provisions are deleted from B1/VM1 and errors are corrected in B1/VM4.

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## 1st edition, amendment 15

Effective from 1 January 2017 until 30 June 2018

### 1st edition, amendment 15

<http://mbie5.cwp.govt.nz/building-code-compliance/b-stability/b1-structure/b1-acceptable-solutions-and-verification-methods/>

[PDF 1.4 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-15.pdf>

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**1st edition, amendment 15 replacement pages**

[PDF 754 KB]

<https://www.building.govt.nz/assets/Uploads/b1-structure-1st-edition-amendment-15-rp.pdf>

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

NZS 4223 Parts 1 to 4 are updated to the latest versions in B1/AS1, and the structural glass barrier requirements in Part 3 are modified.

Clause 7.4.1.3 and Figures 7.10(b) and 7.10(c) in NZS 3604 are modified to clarify the requirements (in accordance with the latest test data).

The modification in B1/VM1 on applying the hazard factor  $Z$ , to buildings with structure periods less than 1.5 seconds in the Canterbury earthquake region, is deleted.

The modification in B1/VM1 on applying a minimum risk factor for the serviceability limit state of  $R_s = 0.33$  in the Canterbury earthquake region is deleted.

Clause 9.3.9.4.13 in NZS 3101 is modified in B1/VM1 to limit the depth of precast units to 300 mm and the overall depth to 400 mm.

The formula in B1/VM4 paragraph 3.3.2b) is corrected.

Cited content in this document (<https://codehub.building.govt.nz/resources/1469/#resource-citations>) can be found on the Building CodeHub website.

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## 1st edition, amendment 14

Effective from 4 November 2016 until 1 January 2017

**1st edition, amendment 14**

[PDF 1.3 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/B1-Structure-Amendment14.pdf>

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**1st edition, amendment 14 replacement pages**

[PDF 216 KB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/B1-Structure-Amendment14-rp.pdf>

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

Amendment 14, 4 November 2016, to B1/VM1, B1/AS1.

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## 1st edition, amendment 13

Effective from 1 June 2016 until 30 May 2017

**1st edition, amendment 13**

[PDF 1.6 MB]

<http://mbie5.cwp.govt.nz/building-code-compliance/b-stability/b1-structure/b1-acceptable-solutions-and-verification-methods/>

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/B1-Structure-Amendment13.pdf>

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**1st edition, amendment 13 replacement pages**

[PDF 596 KB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/B1-Structure-Amendment13-rp.pdf>

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

Amendment 13, 1 June 2016 until 30 May 2017, to B1/AS1.

30 November 2016: Amendment 13 is confirmed in accordance with section 30 of the Building Act 2004. Amendment 13 was introduced on 1 June 2016 without prior public consultation, which subsequently occurred from 20 July to 31 August 2016. After considering feedback from this consultation, MBIE confirms Amendment 13 will continue in force. Reasons for this are:

- the potential for injury when structural glass barriers break unexpectedly
  - an increasing use of structural glass barriers.
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## 1st edition, amendment 12

Effective from 14 February 2014 until 31 May 2016

**1st edition, amendment 12**

[PDF 1.3 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-amendment-12.pdf>

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**1st edition, amendment 12 replacement pages**

[PDF 667 KB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-12-rp.pdf>

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

## Overview

All of the Acceptable Solutions and Verification Methods relating to B1 are contained in one document.

- B1/VM1 sets out general means for the design of structures to meet the performance requirements of B1 Structure. It includes modifications to the structural design actions Standards AS/NZS 1170 and the relevant materials Standards.
  - B1/AS1 references NZS 3604 Timber-framed buildings that if followed provides one way of demonstrating compliance with B1. It gives information on designing for masonry, earth buildings, stucco, drains, and glazing. About NZS 3604 provides an overview of the Standard referenced in B1/AS1.
  - B1/AS3 contains information on the structural requirements for small chimneys.
  - B1/VM4 covers the limit state design of foundations, including those of earth retaining structures.
  - Appendices A - C provide informative guidance on site investigation, determining foundation settlement and retaining wall foundations.
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## 1st edition, amendment 11

Effective from 1 August 2011 until 14 August 2014

### 1st edition, amendment 11

[PDF 1.5 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-11.pdf>

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### 1st edition, amendment 11 replacement pages

[PDF 179 KB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-11-rp.pdf>

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Amendment 11, 1 August 2011 until 14 August 2014, to B1/VM1, B1/AS1, B1/AS2.

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## 1st edition, amendment 10

Effective from 19 May 2011 until 31 January 2012

### 1st edition, amendment 10

[PDF 1.4 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-10.pdf>

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Reprinted incorporating Amendment 9, 30 September 2010, to B1/VM1, B1/AS1, B1/AS2, B1/AS3, B1/VM4.

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## 1st edition, amendment 9, erratum 1

Effective from 30 September 2010 until 18 May 2011

### 1st edition, amendment 9, erratum 1

[PDF 1.3 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-amendment-9-errata.pdf>

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

Reprinted incorporating Amendment 9, 30 September 2010, to B1/VM1, B1/AS1, B1/AS2, B1/AS3, B1/VM4.

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## 1st edition, amendment 9

Effective from 30 September 2010 until 19 May 2011

### 1st edition, amendment 9

[PDF 1.6 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-1st-edition-amendment-9.pdf>)

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B1 Structure – B1/AS1, B1/VM1, B1/AS3, B1/VM4, First edition, Amendment 9. 30 September 2010.

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## 1st edition, amendment 8

Effective from 1 December 2008 until 29 September 2010

### 1st edition, amendment 8

[PDF 2.5 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-amendment-8.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

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## 1st edition, amendment 7

Effective from 1 April 2007 until 30 November 2008

### 1st edition, amendment 7

[PDF 1.4 MB]

(<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-amendment-7.pdf>)

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Acceptable Solutions and Verification Methods (<https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/acceptable-solutions-and-verification-methods/>) (AS and VMs) were called compliance documents. Some still have the “compliance document” title but the AS or VMs they contain are valid and unaffected by the name change.

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## 1st edition, amendment 6

Effective from 1 March 2005 until 31 March 2007

**1st edition, amendment 6**

[PDF 1.2 MB]

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1-structure-amendment-6.pdf>

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