MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

Consultation Document

Proposed changes:
To update referenced standards and make minor amendments in the Acceptable Solutions and Verification Methods

Closing date for comment: **2 October 2013**

This submission was completed by:

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Introduction

The Ministry of Business, Innovation and Employment (the Ministry), taking account of recent changes to Standards, seeks your comment on proposals to update, replace or withdraw references to 31 Standards and make minor amendments to the Acceptable Solutions (AS) and Verification Methods (VM).

The Ministry will carefully consider all responses before making a final decision.

The Government's goal is a more efficient and productive building industry that builds it right the first time and stands behind the quality of its work. To help achieve this, the Ministry seeks to ensure that the Acceptable Solutions and Verification Methods reflect the latest research, knowledge and building practices. The proposed changes to update the references to the cited Standards and minor amendments are part of this work.

Background and reasons for proposal

Under the Building Act 2004 (the Act), buildings must be safe, not endanger health and must have features that contribute to the health, physical impendence and well-being of people who use them. The New Zealand Building Code (regulations made under the Act) provides functional requirements and performance criteria designed to achieve the purposes of the Act. The Building Code sets out basic criteria that all building work must meet.

Acceptable Solutions and Verification Methods are standardised solutions and design methods, published by the Ministry, and are one way of complying with the relevant clauses of the Building Code.

Standards are documents that define materials, methods, processes, practices or outcomes and can be used to set requirements, provide better practice, and deliver guidance. There are over 200 Australian and New Zealand Standards cited in the Acceptable Solutions and Verification Methods.

There are 31 Standards that are cited in the Acceptable Solutions and Verification Methods that have recently been revised. Having considered those revisions, the Ministry has reached the preliminary view that it is appropriate for the revised Standards to be incorporated into the relevant Acceptable Solutions and Verification Methods by updating the current references to those Standards. The Ministry is seeking feedback on that view.

Proposal

The proposed changes update, replace, or withdraw the references to the Standards cited in the following Acceptable Solutions and Verification Methods used to establish compliance with the Building Code.

Summary of proposed changes

- **B1 Structure.** Consulting on incorporating amendments to the definition of good ground, wind loadings, stress grading and timber treatment standards, a revised standard for concrete masonry buildings, and minor editorial changes. The standards for timber design and concrete design are modified. Changes apply to standards AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS/NZS 1748.1, AS/NZS 1748.2, NZS 3640, and NZS 4229 contained in B1/VM1, B1/AS1, and B1/VM4
- **B2 Durability.** Consulting on incorporating an amendment to timber treatment standard and updating the reference to the timber design standard. Standards relating to timber treatment are modified. Changes apply to standards NZS 3604 and NZS 3640 contained in B2/AS1
- **C Fire Safety.** Consulting on incorporating amendments to test standards for smoke release and recessed luminaires and a revised standard for gas installations. The changes apply to standards NZS 5261, NZS 5601.1, AS/NZS 3837 and AS/NZS 60598.2.2 contained in C/AS1-6
- **D2 Mechanical installations for access.** Consulting on incorporating revised standards for platform lift and escalators and moving walks. The standard for escalators and moving walks has been modified. Changes apply to standards NZS 4334 and EN 115 contained in D2/AS2 and D2/AS3
- **E1 Surface Water.** Consulting on incorporating amendments to standards for pipe materials, damp-proof courses and timber buildings. Minor technical changes are proposed to clarify proximity of trench to buildings and overflow from external gutters. The changes apply to standards AS/NZS 1254, AS/NZS 1260, AS/NZS 2280, AS/NZS 2904, NZS 3604 and AS/NZS 4130 contained in E1/AS1
- **E2 External Moisture.** Consulting on incorporating revised standards for sheet metal cladding and for weathertightness of concrete and masonry. The changes apply to standards AS 1379 and AS/NZS 2293.2, and to CCANZ CP 01 contained in E2/AS1 and E2/AS3
- **E3 Internal Moisture.** Consultation on minor technical changes for thermal breaks to metal framing and insulated wall cavities. The changes apply to E3/AS1
- **F6 Visibility in Escape Routes:** Consultation on incorporating amended standards for emergency escape lighting. The changes apply to standards AS 2293.1 and AS/NZS 2293.2 contained in F6/AS1
- **F8 Signs.** Consultation on incorporating amended standards for emergency escape lighting. The changes apply to standard AS2293.3 contained in F8/AS1
- **G4 Ventilation.** Consulting on incorporating updated standards for air and water systems in buildings, gas installations and minor technical changes to the figures. The changes apply to standards AS/NZS 3666.1, AS/NZS 3666.2, NZS 5261 and AS/NZS 5601.1 contained in G4/AS1

- **G7 Natural Light.** Consulting on incorporating an amended standard for lighting design. The changes apply to standard NZS 6703 contained in G7/AS1
- **G8 Artificial Light.** Consulting on incorporating an amended standard for lighting design. The changes apply to standard NZS 6703 contained in G8/AS1
- **G9 Electricity.** Consulting on incorporating an amended standard for electrical installations. The changes apply to standard AS/NZS 3000 contained G9/VM1
- **G10 Piped Service.** Consulting on incorporating updated standards for seismic resistance of engineering systems and gas installations. The changes apply to standards NZS 3502, NZS 4219, NZS 5261 and AS/NZS 5601.1 contained in G10/VM1 and G10/AS1
- **G11 Gas as an Energy Source.** Consulting on incorporating an updated standard for gas installations. The changes apply to standards NZS 5261 and AS/NZS 5601.1 contained in G11/AS1
- **G12 Water Supplies.** Consulting on incorporating updated and amended standards for hot and cold water plumbing design, heat pump design and construction and water heaters. The changes apply to standards AS/NZS 2712, AS/NZS 3350.2.35, AS/NZS 3500.1, AS/NZS 3500.4 and AS/NZS 4614 contained in G12/AS1 and G12/AS2
- **G13 Foul Water.** Consulting on incorporating updated and amended standards for sanitary plumbing and drainage design, onsite effluent disposal design, pipe materials and timber and concrete construction. The changes apply to standards AS/NZS 1260, AS/NZS 1547, AS/NZS 2280, AS/NZS 3500.2, NZS 3604 and NZS 4229 contained in G13/AS1, G13/AS2, G13/AS3 and G13/VM4
- **G14 Industrial Liquid Waste.** Consulting on incorporating updated and amended standards for seismic resistance of engineering systems and pipe materials. The changes apply to standards AS/NZS 1260 and NZS 4219 contained in G14/AS1

Options

Option One: Status Quo

The Ministry continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods. However, these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Effective date

It is proposed that the amendments to the Acceptable Solutions and Verification Methods will be published on, and have an effective date of on 29 November 2013.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

The table below illustrates how the proposed transitional provisions will work, with an explanation to follow:

	Before 29 November 2013 the proposed Effective Date	**Between 29 November 2013 (Effective Date)* to 28 February 2014 (Cessation Date)***	**From 1 March 2014 (the proposed Cessation Date)**
Existing Acceptable Solutions and Verification Methods	If used, will be treated as complying with the Building Code	If used, will be treated as complying with the Building Code	No longer available for use
Amended Acceptable Solutions and Verification Methods	Not available in this period	If used, will be treated as complying with the Building Code	Will be treated as complying with the Building Code

* The actual Effective Date and actual Cessation Date may change following the consideration of responses received.

Under the proposed transitional arrangements

- the existing Acceptable Solutions and Verification Methods, if used for building consent applications lodged before the Cessation Date, will be treated as complying with the relevant provisions of the Building Code;
- the amended Acceptable Solutions and Verifications Methods, if used for building consent applications lodged after the Effective Date, will be treated as complying with the relevant provisions of the Building Code; and
- to avoid doubt, in the period between the Effective Date and the Cessation Date, building consent applications will be treated by Building Consent Authorities as complying with the relevant provisions of the Building Code if they correctly use either i) the existing Acceptable Solutions and Verification Methods or ii) the amended Acceptable Solutions and Verification Methods

Access to cited standards

To find out more, or to make a comment, go to www.dbh.govt.nz/current-consultations and click on "Updating Standards".

Materials to be incorporated by reference described above are:

- available for inspection free of charge at the Ministry of Business, Innovation and Employment, Level 1, 33 Bowen Street, Wellington.

  or

- may be purchased from Standards New Zealand, Level 6, 8 Gilmer Terrace, Wellington or online at www.standards.co.nz

How to make a comment

Comments can be submitted:

Online at www.dbh.govt.nz/current-consultations and click on "Updating Standards" and completing the questionnaires associated with each Building Code clause

or

Email by commenting in the downloadable Consultation Document or the Summary of questions (both in Word Format) from www.dbh.govt.nz/current-consultations and emailing to buildingfeedback@mbie.govt.nz with 'Consultation feedback – Updating Standards' in the subject line,

or

Post or **courier** by commenting in the downloadable Consultation Document or the Summary of questions (both in Word Format) to:

Consultation feedback – Updating Standards
Ministry of Business, Innovation and Employment
Building System Performance
33 Bowen Street
PO Box 5488
Wellington 6145
Attention: Bruce Klein

Closing date for consultation

The closing date for submissions on the proposed changes is **2 October 2013.**

Important note

Please note that all responses will be public information. If requested, the Ministry may have to release your name and your response to other individuals or organisations under the Official Information Act 1982.

There might be grounds under the Official Information Act 1982 to withhold information provided in your response (such as privacy or commercial sensitivity).

If the Ministry decides to withhold any information, the requestor can ask the Ombudsman to review this decision.

B1: Structure

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update the definition of good ground
- update or replace with the latest editions of seven referenced standards
- include modification to four standards
- provide formula errata

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain modifications necessary for Canterbury foundations.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain modifications to align with Canterbury ground condition categories TC1, TC2, and TC3
- there is no confusion over which Standard to use for compliance with the Building Code.

Question B1 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Definitions

Current Text	Proposed Changes
Comment following the definition of Good Ground. Comment: Soils (excepting those described in a), b) and c) above) tested with a dynamic cone penetrometer in accordance with NZS 4402 Test 6.5.2, shall be acceptable as good ground for building foundations if penetration resistance is no less than: a) 3 blows per 75 mm at depths no greater than the footing width b) 2 blows per 75 mm at depths greater than the footing width Depths shall be measured from the underside of the proposed footing.	Comment following the definition of Good Ground Comment: Soils (excepting those described in a), b) and c) above) tested with a dynamic cone penetrometer in accordance with NZS 4402 Test 6.5.2, shall be acceptable as good ground for building foundations if penetration resistance is no less than: **a) 5 blows per 100 mm at depths down to twice the footing width** **b) 3 blows per 100 mm at depths greater than twice the footing width** Depths shall be measured from the underside of the proposed footing.
	Explanation: Amendment to the comment after the definition of good ground to align with new penetrometer requirements in NZS 3604.

Question B1 – 2
Do you agree with the proposed changes to the definitions?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 1170: Structural Design Actions Part 0: 2002 General principles Amend 1, 2 and 4	**AS/NZS 1170:** Structural Design Actions Part 0: General principles Amend 1, 2, 3, 4 and 5
	Explanation: Adding Amendments 3 and 5.
AS/NZS 1170: Structural Design Actions Part 1: 2002 Permanent, imposed and other actions Amend 1	**AS/NZS 1170:** Structural Design Actions Part 1: 2002 Permanent, imposed and other actions Amend 1 and 2

	Explanation: Adding Amendment 2.
AS/NZ 1170: Structural Design Actions Part 2: 2002 Wind actions Amend 1	**AS/NZ 1170:** Structural Design Action Part 2: 2011 Wind actions Amend 1, 2 and 3
	Explanation: Updating to the 2011 version and adding Amendment 1, 2, and 3.
AS/NZS 1748: 1997 Timber - Stress graded – product requirements for mechanically stress-graded timber	**AS/NZS 1748.1: 2011** Timber - Stress graded for structural purposes – General requirements Amend 1 **AS/NZS 1748.2: 2011** Timber - Stress graded for structural purposes – Qualification of grading method Amend 1
	Explanation: Replacing standard with two updated 2011 standards and adding Amendments 1.
NZS 3640: 2003 Chemical Preservation of round and sawn timber Amend 1, 2	**NZS 3640: 2003** Chemical Preservation of round and sawn timber Amend 1, 2, 3, 4, 5
	Explanation: Adding amendments 3, 4, and 5
NZS 4229: 1999 Concrete masonry buildings not requiring specific engineering design Amend: 1	**NZS 4229: 2013** Concrete masonry buildings not requiring specific engineering design
	Explanation: Updated to 2013 version

Question B1 – 3
Do you agree with the proposed changes to the references in B1 Structure?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

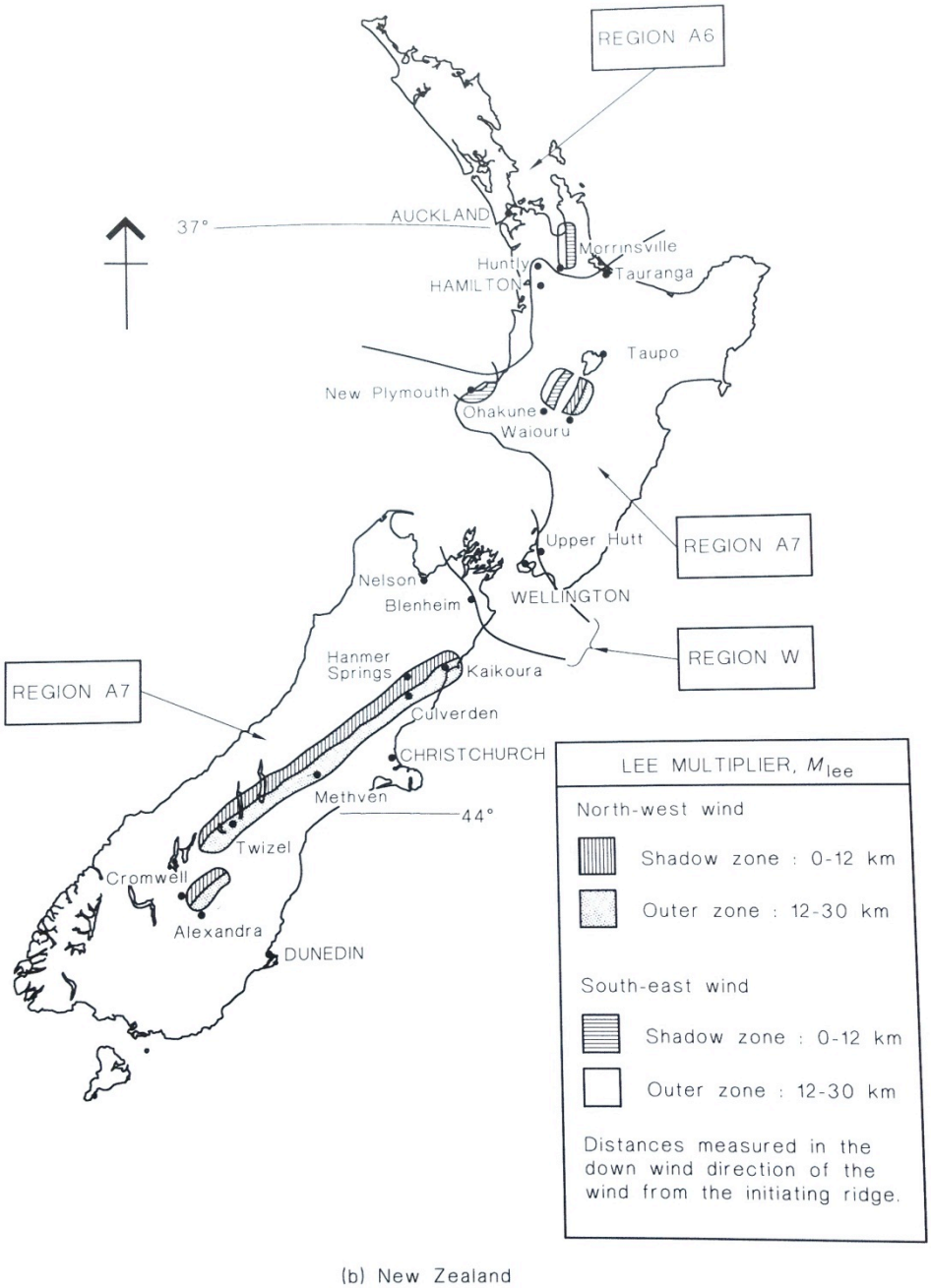
Comment/reason/proposed change

Click here to enter text.

Changes to Verification Method B1/VM1

Current Text	Proposed Changes
2.1 The requirements of the AS/NZS 1170 suite of Standards are to be complied with. These comprise: • AS/NZS 1170.0: 2002 including Amendments 1, 2 and 4 • AS/NZS 1170.1: 2002 including Amendment 1 • AS/NZS 1170.2: 2002 including Amendment 1 • AS/NZS 1170.3: 2003 including Amendment 1 • NZS 1170.5: 2004	**2.1** The requirements of the AS/NZS 1170 suite of Standards are to be complied with. These comprise: • AS/NZS 1170.0: 2002 including Amendments 1, 2, 3, 4 and 5 • AS/NZS 1170.1: 2002 including Amendments 1 and 2 • AS/NZS 1170.2: 2011 including Amendment 1, 2, and 3 • AS/NZS 1170.3: 2003 including Amendment 1 • NZS 1170.5: 2004.
	Explanation: Added amendments 3 and 5 to AS/NZS 1170.0. Added amendment 2 to AS/NZS 1170.1. Updated to the 2011 version of AS/NZS 1170.2, and added amendments 1, 2.and 3.
2.2.11 AS/NZS 1170 Part 2, Clause 4.3.1 General: Add the following to the end of Clause 4.3.1: "Account must be taken of combinations of isolated tall buildings placed together that lead to local and overall increases in wind."	**2.2.11 AS/NZS 1170 Part 2 Figure 3.1 (B)** Delete Figure 3.1 (B) Wind regions and replace with the alternative Figure 3.1(B) Wind Regions below. Comment: There is currently some debate about the applicability of the lee zones in Amendment 1 of AS/NZS 1170.2: 2011. Until it has been established that these lee zones are appropriate and they are verified the wind regions in the un-amended version of AS/NZS 1170.2: 2011 form part of the Verification Methods.
	Explanation: Existing paragraph 2.2.11 is deleted because it is now included in the standard. A new 2.2.11 paragraph referencing Figure 3.1 (below) has been added.

AS/NZ 1170.2:2011 – Figure 3.1 (B) Wind Regions (referenced from B1/VM1 2.2.11)



(b) New Zealand

FIGURE 3.1(B) WIND REGIONS

Question B1 – 4
Do you agree with the proposed changes to the Verification Method B1/VM1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution B1/AS1

Current Text	Proposed Changes
2.1.1 NZS 4229, Paragraph 1.3 Definitions Add (in the definition for Good Ground): "(liquefaction, lateral spread – for the Canterbury region only)" – after "subsidence" in subparagraph c.	**2.1.1 NZS 4229 Clause 7.8.3** Delete clause 7.8.3. Replace with: All slab-on-ground reinforcing shall extend to within 75 mm of the outside edge of the slab (including the foundation wall) and shall consist of a minimum 2.27kg/m2 welded Grade 500E reinforcing mesh sheets (1.14 kg/m2 in each direction), which shall be lapped at sheet joints such that the overlap measurement between the outermost cross wires of each fabric sheet is equal to the greater of one of the following: - the spacing of cross wires plus 50mm; - 150mm; or - the manufacturer's requirements. Slabs shall have a maximum dimension of 18m between free joints." **Explanation:** Modification to NZS 4229 to align with NZS 3101. Was previously paragraph 2.1.6.
2.1.2 NZS 4229, Clause 4.2.1 Earthquake Zones Add (as another paragraph to the end of this clause); "The Canterbury earthquake region shall be treated as Earthquake zone A for the purpose of determining the earthquake bracing demand."	**2.1.2. NZS 4229** Foundations in the Canterbury earthquake region only where good ground has not been established. Comments: Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside the scope of B1/AS1. Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the MBIE Guidance Document "Repairing and rebuilding houses affected by the Canterbury earthquakes" (refer to www.mbie.govt.nz). The foundation options in the MBIE Guidance Document apply to properties in the Canterbury Earthquake Region that have been categorised

	as Technical Category 1 to 3 (TC1,TC2 and TC3). For TC1 properties, provided the conditions for good ground in Section 3 of NZS 3604 are met, house foundations following B1/AS1 can be used. For TC2 and TC3 properties the MBIE Guidance Document provides a range of foundation solutions depending on expected ground movement and available bearing capacity. These parameters also determine the degree of involvement of structural and geotechnical engineers and the extent of specific engineering design. Further guidance is being developed for other New Zealand regions and it is expected that this will inform the wider building and construction sector in due course. In the meantime for properties outside the Canterbury earthquake region that have the potential for liquefaction, MBIE recommends that further engineering advice is sought. For these properties a foundation solution following those provided for TC2 in the MBIE Guidance Document may be appropriate.
	Explanation: Updated commentary for foundations outside NZS 4229. Was previously paragraph 2.1.10.
2.1.3. NZS 4229 Figure 4.1 Earthquake Zones On the map shown in NZS 4229 Figure 4.1 Earthquake zones, the area within the Canterbury earthquake region shall be interpreted as Earthquake zone A.	**2.1.3. NZS 4229 Figure 4.1 Earthquake Zones** 2.1.3 is deleted and replaced by new 2.1.1 and 2.1.2 above
	Explanation: Modification to reflect the latest version of NZS 4229
2.1.4 NZS 4229, Table 4.1 Earthquake zones Delete: "Christchurch and Lyttelton Earthquake zone B." Replace with: "Christchurch and Lyttelton Earthquake zone A."	**2.1.4 NZS 4229, Table 4.1 Earthquake zones** 2.1.4 is deleted and replaced by new 2.1.1 and 2.1.2 above
	Explanation: Modification to reflect the latest version of NZS 4229
2.1.5 NZS 4229, Clause 7.8.1 Delete: Clause 7.8.1(a) and (b) Replace with: "Clause 7.8.1(a) All slab-on-ground floors shall be reinforced in accordance with Clauses 7.8.3, 7.8.4 and 7.8.5.4. All reinforcing steel, including welded mesh, shall be Ductility Class E in accordance with NZS 4671."	**2.1.5 NZS 4229, Clause 7.8.1** 2.1.5 is deleted and replaced by new 2.1.1 and 2.1.2 above
	Explanation: Modification to reflect the latest version of NZS 4229

2.1.6 NZS 4229, Clause 7.8.3 Delete: Clause 7.8.3 Replace with: "Clause 7.8.3 All slab-on-ground reinforcing shall extend to within 75 mm of the outside edge of the slab (including the foundation wall) and shall consist of a minimum 2.27 kg/m2 welded reinforcing mesh sheets (1.14 kg/m2 in each direction), which shall be lapped at sheet joints by 225 mm or in accordance with the manufacturer's requirements, whichever is greater. Slabs shall have a maximum dimension of 18 metres between free joints."	**2.1.6. NZS 4229, Clause 7.8.3** 2.1.6 is deleted and replaced with new paragraph 2.1.1 above. **Explanation:** Modification to NZS 4229 to align with NZS 3101.
2.1.7 NZS 4229, Clause 7.8.5.2 Delete: Clause 7.8.5.2	**2.1.7 NZS 4229, Clause 7.8.5.2** 2.1.7 is deleted and replaced by new 2.1.1 and 2.1.2 above **Explanation:** Modification to reflect the latest version of NZS 4229
2.1.8 NZS 4229, Clause 7.8.5.3 Delete: Clause 7.8.5.3.	**2.1.8 NZS 4229, Clause 7.8.5.3** 2.1.8 is deleted and replaced by new 2.1.1 and 2.1.2 above **Explanation:** Modification to reflect the latest version of NZS 4229
2.1.9 NZS 4229, New Clause Add: New "Clause 7.8.5.5 Free Joints. At free joints, slab reinforcement shall be terminated and there shall be no bonding between vertical concrete faces (prevented by using building paper or a bituminous coating). R12 dowel bars 600 mm long shall be placed at 300 mm centres along the free joint and lapped 300 mm with slab reinforcement on both sides of the joint. All dowel bars on one side of the joint shall have a bond breaker applied, e.g. by wrapping dowel bars for 300 mm with petrolatum tape. Joint dowel bars must be installed in a single plane, in true alignment and parallel."	**2.1.9 NZS 4229, New Clause** 2.1.9 is deleted and replaced by new 2.1.1 and 2.1.2 above **Explanation:** Modification to reflect the latest version of NZS 4229
2.1.10 NZS 4229 Foundations in the Canterbury earthquake region only where good ground has not been established. Comments: 1. Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside	**2.1.10 NZS 4229** Deleted and replaced with new paragraph 2.1.2 above **Explanation:** Updated commentary for foundations outside NZS 4229.

the scope of B1/AS1. 2. Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the Department's "Guidance on house repairs and reconstruction following the Canterbury earthquake" as amended from time to time (refer to www.dbh.govt.nz). Note: The foundation options provided in the guidance do not apply in areas: (a) where there is the potential for lateral spreading of greater than 50mm over the property and not protected by perimeter ground treatment, or (b) where there has been severe ground damage during the 2010/11 earthquakes. This is in areas where the crust (the distance between the ground surface and the water table) is thin, generally occurring in low-lying coastal and estuarine areas. Further guidance is being developed and will be released following additional research. Foundation designs for houses built in areas (a) and (b), as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, need to be specifically designed following appropriate geotechnical investigations.	
3.1.9 NZS 3604 Clause 7.5.8.3 Delete: Clause 7.5.8.3 Replace with: "Clause 7.5.8.3 All slab-on-ground reinforcing shall extend to within 75 mm of the outside edge of the slab (including the foundation wall) and shall consist of a minimum 2.27kg/m2 welded reinforcing mesh sheets (1.15 kg/m2 in each direction), which shall be lapped at sheet joints by 225 mm or in accordance with the manufacturer's requirements, whichever is greater. Slabs shall have a maximum dimension of 24 metres between free joints."	**3.1.9 NZS 3604 Clause 7.5.8.3** Delete: Clause 7.5.8.3 Replace with: "Clause 7.5.8.3 All slab-on-ground reinforcing shall extend to within 75 mm of the outside edge of the slab (including the foundation wall) and shall consist of a minimum 2.27 kg/m2 welded reinforcing mesh sheets (1.15 kg/m2 in each direction), which shall be lapped at sheet joints such that the overlap measurement between the outmost cross wires of each fabric sheet is equal to the greater of one of the following: - the spacing of cross wires plus 50mm, - 150mm or - the manufacturer's requirements. Slabs shall have a maximum dimension of 24 metres between free joints." **Explanation:** Modification to NZS 3604 to align with NZS 3101.

3.1.14 NZS 3604 Foundations in the Canterbury earthquake region only where good ground has not been established Comment: 1. Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside the scope of B1/AS1. 2. Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the Department's "Guidance on house repairs and reconstruction following the Canterbury earthquake" as amended from time to time (refer to www.dbh.govt.nz). Note: The foundation options provided in the guidance do not apply in areas: (a) where there is the potential for lateral spreading of greater than 50 mm over the property and not protected by perimeter ground treatment, or (b) where there has been severe ground damage during the 2010/11 earthquakes. This is in areas where the crust (the distance between the ground surface and the water table) is thin, generally occurring in low-lying coastal and estuarine areas. Further guidance is being developed and will be released following additional research. Foundation designs for houses built in areas (a) and (b), as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, need to be specifically designed following appropriate geotechnical investigations.	**3.1.14 NZS 3604 Foundations in the Canterbury earthquake region only where good ground has not been established** Comments: Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside the scope of B1/AS1. Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the MBIE Guidance Document "Repairing and rebuilding houses affected by the Canterbury earthquakes"(refer to www.mbie.govt.nz). The foundation options in the MBIE Guidance Document apply to properties in the Canterbury earthquake region that have been categorised as Technical Category 1 to 3 (TC1,TC2 and TC3). For TC1 properties, provided the conditions for good ground in Section 3 of NZS 3604 are met, house foundations following B1/AS1 can be used. For TC2 and TC3 properties the MBIE Guidance Document provides a range of foundation solutions depending on expected ground movement and available bearing capacity. These parameters also determine the degree of involvement of structural and geotechnical engineers and the extent of specific engineering design. Further guidance is being developed for other New Zealand regions and it is expected that this will inform the wider building and construction sector in due course. In the meantime for properties outside the Canterbury Earthquake Region that have the potential for liquefaction, MBIE recommends that further engineering advice is sought. For these properties a foundation solution following those provided for TC2 in the MBIE Guidance Document may be appropriate. **Explanation:** Updated commentary for foundations outside NZS 3604.
4.1.5 NZS 4299 Foundations in the Canterbury earthquake region only where good ground has not been established Comment: 1. Foundations for houses built on ground that has the potential for	**4.1.5 NZS 4299 Foundations in the Canterbury earthquake region only where good ground has not been established** Comments: Foundations for houses built on ground that has the potential for liquefaction or lateral spread are outside the scope of B1/AS1.

liquefaction or lateral spread are outside the scope of B1/AS1. 2. Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the Department's "Guidance on house repairs and reconstruction following the Canterbury earthquake" as amended from time to time (refer to www.dbh.govt.nz). Note: The foundation options provided in the guidance do not apply in areas: (a) where there is the potential for lateral spreading of greater than 50 mm over the property and not protected by perimeter ground treatment, or (b) where there has been severe ground damage during the 2010/11 earthquakes. This is in areas where the crust (the distance between the ground surface and the water table) is thin, generally occurring in low-lying coastal and estuarine areas. Further guidance is being developed and will be released following additional research. Foundation designs for houses built in areas (a) and (b), as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, need to be specifically designed following appropriate geotechnical investigations.	Foundation designs for houses built in areas that have the potential for liquefaction, as defined by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council, may be in accordance with the MBIE Guidance Document "Repairing and rebuilding houses affected by the Canterbury earthquakes"(refer to www.mbie.govt.nz). The foundation options in the MBIE Guidance Document apply to properties in the Canterbury Earthquake Region that have been categorised as Technical Category 1 to 3 (TC1,TC2 and TC3). For TC1 properties, provided the conditions for good ground in Section 3 of NZS 3604 are met, house foundations following B1/AS1 can be used. For TC2 and TC3 properties the MBIE Guidance Document provides a range of foundation solutions depending on expected ground movement and available bearing capacity. These parameters also determine the degree of involvement of structural and geotechnical engineers and the extent of specific engineering design. Further guidance is being developed for other New Zealand regions and it is expected that this will inform the wider building and construction sector in due course. In the meantime for properties outside the Canterbury Earthquake Region that have the potential for liquefaction, MBIE recommends that further engineering advice is sought. For these properties a foundation solution following those provided for TC2 in the MBIE Guidance Document may be appropriate. **Explanation:** Updated commentary for foundations outside NZS 4299.

Question B1 – 5
Do you agree with the proposed changes to Acceptable Solution B1/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Verification Method B1/VM4 Appendix C

Current Text

In addition there is a small positive water pressure acting on the underside of the wall which reduces the vertical load applied to the foundation.

$u = 0.4 \times 9.81 = 3.92$ and $V_{drained} = 154.87 - 3.92 \times 2.65 = 144.48$

This has the effect of changing slightly X and e, hence B^l and q_d. We have from the first ultimate limit state the moment about the heel of the wall of the vertical forces = 131.29 kNm per metre length of the wall, so:

$X = (131.29 - 3.92 \times 2.65 \times 2.65/2)/144.48 = 0.813$

Eccentricity of load: $e = 70.47 \times 1.44/144.48 = 0.703$

$B^l = 2 \times (2.65 - 0.813 - 0.703) = 2.27$

Design bearing pressure: $q_d = V_{drained}/B^l = 144.5/2.27 = 63.7$ kPa

For ϕ equal to 25^O the bearing capacity factors are: $N_c = 21$, $N_q = 11$ and $N_\gamma = 9$.

Determine ultimate bearing strength:

$q_{u\_drained} = c^l\lambda_{cs}\lambda_{cd}\lambda_{ci}\lambda_{cg}N_c + q^l\lambda_{qs}\lambda_{qd}\lambda_{qi}\lambda_{qg}N_q + 0.5B^l\gamma^l\lambda_{\gamma s}\lambda_{\gamma d}\lambda_{\gamma i}\lambda_{\gamma g}N_\gamma$

Shape factors λ_{cs}, λ_{qs} and $\lambda_{\gamma s}$ shall be taken as 1.0 as foundation is assumed to be long compared to its width. Also ground inclination factors λ_{cg},λ_{qg} and $\lambda_{\gamma g}$ = 1.0 as the foundation is horizontal. Thus we need only to evaluate depth and load inclination factors.

Depth factors:

$\lambda_{qd} = 1 + 2\tan\phi^l(1 - \sin\phi^l)^2(D_f/B) = 1 + 2\tan(25)(1 - \sin(25))^2(0.4/2.27) = 1.05$

$\lambda_{cd} = \lambda_{qd} - (1 - \lambda_{qd})/N_q\tan\phi^l = 1.05 - (1 - 1.05)/11\tan(25) = 1.04$

$\lambda_{\gamma d} = 1$

Load inclination factors:

$\lambda_{qi} = (1 - 0.7H/(V_{drained} + c^lB^l\cot\phi^l))^3 = (1 - 0.7 \times 70.47/(144.48 + 12.5 \times 2.27 \times \cot(25)))^3 = 0.46$

$\lambda_{ci} = (\lambda_{qi}N_q - 1)/(N_q - 1) = 0.40$

$\lambda_{\gamma i} = (1 - H/(V_{drained} + c^lB^l\cot\phi^l))^3 = (1 - 70.47/(144.48 + 12.5 \times 2.27 \times \cot(25)))^3 = 0.28$

$q_{u\_drained} = c^lN_c\lambda_{cd}\lambda_{ci} + q^lN_q\lambda_{qd}\lambda_{qi} + 0.5B^l\gamma^lN_\gamma\lambda_{\gamma d}\lambda_{\gamma i}$

$= 12.5 \times 21 \times 1.04 \times 0.40 + 3.3 \times 11 \times 1.05 \times 0.46 + 0.5 \times 9 \times 2.27 \times 8.2 \times 1 \times 0.31 = 152.70$

$q_{dbs\_drained} = q_{u\_drained}\Phi_{bc} = 152.70 \times 0.45 = 68.7$ $q_d = 63.7$

Thus OK as $q_{dbs—drained} > q_d$

Proposed Changes

In addition there is a small positive water pressure acting on the underside of the wall which reduces the vertical load applied to the foundation.

$u = 0.4 \times 9.81 = 3.92$ and $V_{drained} = 154.87 - 3.92 \times 2.65 = 144.48$

This has the effect of changing slightly X and e, hence B' and q_d. We have from the first ultimate limit state the moment about the heel of the wall of the vertical forces = 131.29 kNm per metre length of the wall, so:

$X = (131.29 - 3.92 \times 2.65 \times 2.65/2)/144.48 = 0.813$

Eccentricity of load: $e = 70.47 \times 1.44/144.48 = 0.703$

$B' = 2 \times (2.65 - 0.813 - 0.703) = 2.27$

Design bearing pressure: $q_d = V_{drained}/B' = 144.5/2.27 = 63.7$ kPa

For ϕ equal to 25^O the bearing capacity factors are: $N_c = 21$, $N_q = 11$ and $N_\gamma = 9$.

Determine ultimate bearing strength:

$q_{u\_drained} = c'\lambda_{cs}\lambda_{cd}\lambda_{ci}\lambda_{cg}N_c + q'\lambda_{qs}\lambda_{qd}\lambda_{qi}\lambda_{qg}N_q + 0.5B'\gamma'\lambda_{\gamma s}\lambda_{\gamma d}\lambda_{\gamma i}\lambda_{\gamma g}N_\gamma$

Shape factors λ_{cs}, λ_{qs} and $\lambda_{\gamma s}$ shall be taken as 1.0 as foundation is assumed to be long compared to its width. Also ground inclination factors λ_{cg},λ_{qg} and $\lambda_{\gamma g} = 1.0$ as the foundation is horizontal. Thus we need only to evaluate depth and load inclination factors.

Depth factors:

$\lambda_{qd} = 1 + 2\tan\phi'(1 - \sin\phi')^2(D_f/B) = 1 + 2\tan(25)(1 - \sin(25))^2(0.4/2.27) = 1.05$

$\lambda_{cd} = \lambda_{qd} - (1 - \lambda_{qd})/N_q\tan\phi' = 1.05 - (1 - 1.05)/11\tan(25) = 1.06$

$\lambda_{\gamma d} = 1$

Load inclination factors:

$\lambda_{qi} = (1 - 0.7H/(V_{drained} + c'B'\cot\phi'))^3 = (1 - 0.7 \times 70.47/(144.48 + 12.5 \times 2.27 \times \cot(25)))^3 = 0.46$

$\lambda_{ci} = (\lambda_{qi}N_q - 1)/(N_q - 1) = 0.40$

$\lambda_{\gamma i} = (1 - H/(V_{drained} + c'B'\cot\phi'))^3 = (1 - 70.47/(144.48 + 12.5 \times 2.27 \times \cot(25)))^3 = 0.28$

$q_{u\_drained} = c'N_c\lambda_{cd}\lambda_{ci} + q'N_q\lambda_{qd}\lambda_{qi} + 0.5B'\gamma'N_\gamma\lambda_{\gamma d}\lambda_{\gamma i}$

$= 12.5 \times 21 \times 1.06 \times 0.40 + 3.3 \times 11 \times 1.05 \times 0.46 + 0.5 \times 9 \times 2.27 \times 8.2 \times 1 \times 0.28 = 152.29$

$q_{dbs\_drained} = q_{u\_drained}\Phi_{bc} = 152.29 \times 0.45 = 68.5$ $\quad q_d = 63.7$

Thus OK as $q_{dbs-drained} > q_d$

Explanation: Minor changes to the formula corrected.

Question B1 – 6
Do you agree with the proposed changes to Verification Method B1/VM4 Appendix C?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question B1 – 7
Do you agree with the proposed transitional arrangements for B1 Acceptable Solutions and Verification Methods?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

B2: Durability

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of two referenced standards
- include editorial changes to the citing of the two standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain editorial modifications to aid clarity.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option and is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain editorial modifications to aid clarity
- there is no confusion over which Standard to use for compliance with the Building Code.

Question B2 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 3604: 1999 Timber framed buildings Amend 1	**NZS 3604: 2011** Timber framed buildings
	Explanation: Updated to the 2011 version.

NZS 3640: 2003 Chemical Preservation of round and sawn timber Amend 1, 2, 3, 4	**NZS 3640: 2003** Chemical Preservation of round and sawn timber Amend 1, 2, 3, 4, 5
	Explanation: Adding Amendment 5

Question B2 – 2
Do you agree with the proposed changes to the references in B2 Durability?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution B2/AS1

Current Text	Proposed Changes
3.2 Timber **3.2.1** The following Standards form an Acceptable Solution for B2/AS1 meeting the durability requirements of timber building elements, a) Part 1 of NZS 3602 for listed species, excluding radiata pine and Douglas fir solid timber b) NZS 3640 and Part 1 of NZS 3602 for radiata pine and Douglas fir solid timber, with the amendments set out in Paragraphs 3.2.2 and 3.2.3 c) NZS 3604, with reference to NZS 3602 (and NZS 3640) as amended in Paragraph 3.2.1 b).	**3.2 Timber** **3.2.1** The following Standards form an Acceptable Solution for B2/AS1 meeting the durability requirements of timber building elements: a) NZS 3602 Part 1 as modified by Paragraph 3.2.2. b) NZS 3640 as modified by Paragraph 3.2.3. c) NZS 3604, with reference to NZS 3602 (and NZS 3640), as modified by Paragraphs 3.2.1 a) and b) above.
3.2.2 Amendments to NZS 3602 for Paragraph 3.2.1 b) above. Text remains unchanged	**3.2.2 Modification to NZS 3602** (Heading only is changed, text remains unchanged)
3.2.2.3 Amendments to NZS 3602 sections 109, and 110 Text remains unchanged	**3.2.2.3 Modifications to NZS 3602 sections 109, and 110** (Heading only is changed, text remains unchanged)
3.2.3 Amendments to NZS 3640 for 3.2.1 b) above. **3.2.3.1** The following treatments listed in NZS 3640 shall not be used as framing preservative: Bis-(tri-n-butyltin) oxide	**3.2.3 Modifications to NZS 3640** **3.2.3.1** Delete comment C3.1 and replace with the following as normative text: 3.1.1 NZBC clause B2.3.1 refers to

(TBTO), Bis-(tri-n-butyltin) naphthenate (TBTN), and Iodo propynyl butyl carbamate (IPBC). **3.2.3.2** Table 4.4 – remove H1.2 from the hazard classes column in the Copper napthenate (CuN) line. **COMMENT:** Including H1.2 hazard class for CuN is inconsistent with H1.2 preservatives listed in Table 6.1. **3.2.3.2** Table 5.2 – Colour coding for timber to be used as framing shall be replaced with the following Table: **3.2.3.3** Table 6.1 – Minimum preservative retention in the H1.1, H1.2 analysis zone (sawn timber), shall be replaced with the following table: **3.2.3.4** Note (1) of Table 6.2 shall be deleted and replaced with the following: (1) Boron compounds are approved for H3.1 only for timber boards for fascia, cladding, joinery, cavity battens and other timber components less than 30 mm thick and only when an oil alkyd, modified acrylic or modified latex grey pigmented coating is applied to all timber surfaces, after treatment and before dispatch from the treatment plant.	minimum durability requirements for building elements. Timber used for structural purposes is required to be durable in-service for the life of the building, being not less than 50 years unless the building has a specified intended life. This is applicable to hazard classes H1.2, H3.2, H4, H5, and H6. Structural timber refers to timber that has been graded to characteristic strength and stiffness properties. The minimum requirement for a H1.2 treatment for timber framing is to provide protection in-service but the preservative treatment is not designed for extended exposure to elevated moisture content. Timber used for non-structural purposes, such as H1.1 and H3.1 is required to be durable in-service for a minimum of 5 years and 15 years respectively. **3.2.3.2** Delete clause 6.3.1.1 and replace with: **6.3.1.1** Complete sapwood penetration shall be achieved. **Explanation:** Editorial changes to aid clarity and include Amendment 5 to NZS 3640 (see References update for B2 Durability)

Question B2 – 3
Do you agree with the proposed changes to Acceptable Solution B2/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question B2 – 4
Do you agree with the proposed transitional arrangements for B2/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

C: Fire Safety

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of three referenced standards
- include editorial changes to citing of the three standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain editorial modifications to update paragraph referencing in the Standard.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option and is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain editorial modifications to update paragraph referencing in the Standard
- there is no confusion over which Standard to use for compliance with the Building Code.

Question C – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 3837: 1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter	**AS/NZS 3837: 1998** Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

	Amend: 1
	Explanation: Adding amendment 1
NZS 5261: 2003 Gas Installation Amend 1, 2	**AS/NZS 5601.1: 2010** Gas Installations; Part 1 General installations Amend 1
	Explanation: Replaces NZS 5261 effective from 31 December 2012
AS/NZS 60598.2.2:2001 Luminaires - Particular requirements - Recessed luminaires	**AS/NZS 60598.2.2:2001** Luminaires - Particular requirements - Recessed luminaires Amend: AA
	Explanation: Adding amendment AA

Question C – 2
Do you agree with the proposed changes to the references in C Fire Safety?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solutions C/AS1- 6

Current Text	Proposed Changes
7.2 Gas-burning appliances **7.2.1** For gas-burning appliances of not more than 250 MJ/H, NZS 5261 sections 2.6.11, 2.6.12 and 2.6.13 and Appendix F are Acceptable Solutions for the *construction* and installation of *flues* and sections 2.6.2, 2.6.3 and 2.7 are Acceptable Solutions for the installation of appliances, with the modifications given in Paragraph 7.2.2. **7.2.2** Modifications to NZS 5261 Delete paragraph 2.6.2.12 and substitute the following: "2.6.2.12 Seismic restraint The appliance shall be mechanically fixed to the building. The test seismic force shall be taken as the application of a horizontal force equal to 0.40 times the appliance weight acting at the centre of the appliance.	**7.2 Gas-burning appliances** **7.2.1** For gas-burning appliances AS/NZS 5601.1 sections 6.7, 6.8 and 6.9 and Appendix H are Acceptable Solutions for the *construction* and installation of *flues* and sections 5.11, 6.2, 6.3 and 6.10 are Acceptable Solutions for the installation of appliances, with the modifications given in Paragraph 7.2.2. **7.2.2** Modifications to AS/NZS 5601.1 Delete paragraph 6.2.11 and substitute the following: "6.2.11 Seismic restraint The appliance shall be mechanically fixed to the building. The test seismic force shall be taken as the application of a horizontal force equal to 0.40 times the appliance weight acting at the centre of the appliance. The appliance shall resist the seismic force with

The appliance shall resist the seismic force with no significant movement." Add a Note to 2.5.7 as follows: "Ventilation requirements are contained in Acceptable Solution G4/AS1. The ventilation requirements of this Standard may exceed the performance requirements of NZBC G4."	no significant movement." Add a Note to 6.4 as follows: "Ventilation requirements are contained in Acceptable Solution G4/AS1. The ventilation requirements of this Standard may exceed the performance requirements of NZBC G4."
	Explanation: Updated referencing of new clauses in AS/NZS 5601.1 in Acceptable Solutions C/AS1 to C/AS6.

Question C – 3
Do you agree with the proposed changes to Acceptable Solutions C/AS1-6?

☐ Agree ☐ Agree with comment change ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question C – 4
Do you agree with the proposed transitional arrangements for Acceptable Solutions C/AS1-6?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

D2: Mechanical Installations for Access

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of two referenced standards
- include modification to EN 115 standard to align with the New Zealand Building Code

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain modifications to align with the Building Code.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain modifications to EN 115 to align with the Building Code.
- there is no confusion over which Standard to use for compliance with the Building Code.

Question D2 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 4334: 2012 Rules for power lifts not exceeding 750 watts (one horsepower) 1985	**NZS 4334: 2012** Platform lifts and low-speed lifts
	Explanation: Ministry of Transport publication replaced with a new standard

EN 115: 1983 Safety rules for the construction and installation of escalators and passenger conveyors	**EN 115: 2008** Safety of escalators and moving walks Part 1 Construction and installation Amend: A1
	Explanation: Standard updated to 2008 version.

Question D2 – 2
Do you agree with the proposed changes to the references in D2 Mechanical Installations for Access?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution D2/AS2

Current Text	Proposed Changes
Delete existing Acceptable Solution D2/AS2	Add new: **Acceptable Solution D2/AS2** **Platform lifts and low-speed lifts** 1.0 Reference document NZS 4334 1.0.1 NZS 4334 is an Acceptable Solution for platform lifts and low-speed lifts.
	Explanation: New Acceptable Solution D2/AS2 to reference NZS 4334

Question D2 – 3
Do you agree with the proposed changes to Acceptable Solutions D2/AS2?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution D2/AS3

Current Text	Proposed Changes
Delete existing Acceptable Solution D2/AS3	Add new: **Acceptable Solution D2/AS3** **Escalators and Moving Walks**

	1.0 Reference Document 1.0.1 EN 115 is an Acceptable Solution subject to the following modifications: a) Where the Standard uses the word 'shall' this refers to requirements that are essential for compliance with the Standard; while the word 'should' refers to practices that are advised or recommended. A 'Normative' appendix is an integral part of the Standard and contains requirements; an 'Informative' appendix contains recommendations only. b) Where this Acceptable Solution does not nominate the specific details of what is required for an escalator or moving walk component or feature but instead describes the required performance or is otherwise non-specific (such as where provisions are required to be appropriate or suitable) the details of the component or feature, along with justification of its adequacy, shall be included on plans and specifications for consideration by Council as part of the normal building consent process. c) Where escalators or moving walks are provided an alternative Building Code compliant non-mechanical means of access, such as stairs or ramps, shall also be provided. Escalators and moving walks shall not comprise part of an escape route. d) Escalators shall not be used on accessible routes. e) Moving walks on accessible routes shall meet the following requirements: (i) the maximum slope shall be 1 in 10 (5.7 degrees) **Comment** *A maximum slope of 1 in 14 (4.1 degrees) is recommended* ii) the width of the pallet or belt shall be no less than 900mm and no greater than 1200mm iii) the pallets or belt shall move horizontally for at least 1200mm before entering the combs iv) the handrails shall extend 300mm beyond the combs f) The structural adequacy of the escalator or moving walk, its supports and of the building supporting the escalator or moving walk, to withstand all likely loads including earthquake, shall be demonstrated by a suitably qualified structural designer. The person proposing to install the escalator or moving walk shall supply

	to the structural designer all necessary information to enable the design to be carried out, including weights of escalator or moving walk components and all working tolerances necessary for safe operation. ***Comment*** *It is expected that evidence would be furnished to the Building Consent Authority (BCA) with the building consent application showing that a competent structural designer, Chartered Professional Engineer (CPEng) or other, has designed or otherwise checked the proposed escalator or moving walk, and the building supporting it, and considers the proposals to be adequate. The evidence about the escalator or moving walk itself could, depending on circumstances, be either specific engineering calculation or it could be a consideration of a design carried out overseas by others. It is envisaged that most BCAs would accept the advice of a CPEng working within a known area of expertise.* g) All glazing associated with the escalator or moving walk installation shall be Grade A safety glass complying with NZS 4223.3. h) The electrical requirements of the Standard are additional to the normal requirements for an electrical installation. All wiring shall comply with NZBC Clause G9 'Electricity'. i) Signs complying with F8/AS1 may be used instead of those required by the Standard. Where moving walks are intended for transporting trolleys safety signs describing safe and correct use shall be provided. j) For building consent purposes the person proposing to install the escalator or moving walk shall supply the following information: (i) Drawings and specifications detailing the escalator or moving walk installation (including the circuit diagram) and its attachment to the building (ii) Demonstration of structural adequacy – see f) above (iii) Justification for components or features meeting performance or other unspecific requirements of the Standard – see b) above (iv) The specific data, test reports and certificates noted in Clause 6.2 of the Standard (v) Details of inspections and tests to be performed on behalf of the owner during installation of the escalator or moving walk and on completion of the work

	(vi) Requirements for inspection and routine maintenance for inclusion in the building's compliance schedule. ***Comment*** *This information comprises 'plans and specifications' as defined in the Building Act. It is expected that the person proposing to install the escalator or moving walk will receive the above information from the escalator or moving walk manufacturer or supplier, the structural designer, and others.*
	Explanation: New Acceptable Solution D2/AS3 to reference updated EN 115.

Question D2 – 4
Do you agree with the proposed changes to Acceptable Solution D2/AS3?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question D2 – 5
Do you agree with the proposed transitional arrangements for D2/AS2 and D2/AS3?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

E1: Surface Water

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of six referenced standards
- include minor amendments to E1/AS1 for proximity of trenches to buildings and overflow from external gutters

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain minor amendments to proximity of trenches to buildings or overflow from external gutters.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain minor amendments to proximity of trenches to buildings or overflow from external gutters
- there is no confusion over which Standard to use for compliance with the Building Code.

Question E1 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment change ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 1254: 2002 PVC pipes and fittings for stormwater and surface water applications	**AS/NZS 1254: 2010** PVC-U pipes and fittings for stormwater and surface water applications Amend 1 (2011)

	Explanation: Updating reference to the 2010 version plus Amendment 1 (2011).
AS/NZS 1260:2009 PVC-U pipes and fittings for drain, waste and vent application	**AS/NZS 1260:2009** PVC-U pipes and fittings for drain, waste and vent application A1 (2011)
	Explanation: Adding Amendment 1
AS/NZS 2280: 2004 Ductile iron pressure pipes and fittings Amend 1	**AS/NZS 2280: 2012** Ductile iron pressure pipes and fittings
	Explanation: Updated to the 2012 version
AS/NZS 2904: 1995 Damp-proof courses and flashings	**AS/NZS 2904: 1995** Damp-proof courses and flashings Amend 1
	Explanation: Adding Amendment 1
NZS 3604: 1999 Timber framed buildings Amend 1, 2	**NZS 3604: 2011** Timber framed buildings
	Explanation: Updated to the 2011 version
AS/NZS 4130:2003 Polyethylene (PE) pipes for pressure applications Amend 1	**AS/NZS 4130:2009** Polyethylene (PE) pipes for pressure applications
	Explanation: Updated to the 2009 version

Question E1 – 2
Do you agree with the proposed changes to the references in E1 Surface Water?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution E1/AS1

Current Text	Proposed Changes
3.9.7 Proximity of trench to building For light timber frame and concrete masonry *buildings* founded on *good ground* and constructed in accordance with NZS 3604 or NZS 4229, pipe trenches which are open for	**3.9.7 Proximity of trench to building** For light timber frame and concrete masonry *buildings* constructed to NZS 3604 or NZS 4229 in accordance with B1/AS1, pipe trenches which are open for no longer than 48 hours shall be located no closer than

no longer than 48 hours shall be located no closer than distance 'V' (see Figure 14) to the underside of any *building* foundation. Where the trench is to remain open for periods longer than 48 hours, the minimum horizontal separation shall increase to 3V in all ground except rock.	distance 'V' (see Figure 14) to the underside of any *building* foundation. Where the trench is to remain open for periods longer than 48 hours, the minimum horizontal separation shall increase to 3V in all ground except rock.
	Explanation: Updated to align with B1/AS1.
No existing text. An additional paragraph and comment added about overflow from external gutters.	**5.5.2** External gutters do not require overflow outlets but shall be installed to ensure any overflow from the gutter spills to the outside of the building. COMMENT: Although specific overflow provision is not necessary it is nevertheless important to ensure any overflowing water cannot track back inside the building where it could cause problems.
	Explanation: Considered necessary to ensure against poor design and installation practices which enable water overflowing external gutters to enter the building fabric leading to dampness and deterioration.

Question E1 – 3
Do you agree with the proposed changes to Acceptable Solution E1/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question E1 – 4
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

E2: External Moisture

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of three referenced standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question E2 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS 1397: 2001 Steel sheet and strip – Hot-dip zinc-coated or aluminium/zinc coated	**AS1397: 2011** Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium Amend 1
	Explanation: Updated to the 2011 version that includes zinc/aluminium/magnesium alloy coating.

AS/NZS 2728: 2007 Prefinished/prepainted sheet metal products for interior/exterior building applications – performance requirements	**AS/NZS 2728: 2013** Prefinished/prepainted sheet metal products for interior/exterior building applications – performance requirements
	Explanation: Updated to the 2013 version
CCANZ CP 01 Code of Practice for Weathertight Concrete and Concrete Masonry Construction	**CCANZ CP 01: 2013** Code of Practice for Weathertight Concrete and Concrete Masonry Construction
	Explanation Update to the 2013 version. The 2013 version of the CCANZ Code of Practice for Weathertight Concrete and Concrete Masonry Construction (CCANZ CP 01) introduces four significant changes from the 2011 version that forms E2/AS3. 1. Standard high build acrylic coatings have been added to the weathertight wall solutions for concrete masonry walls. The requirements that no less than two coats are applied and that the dry film thickness must be at least 180 microns apply to the standard high build acrylic coatings, as they currently apply to elastomeric high build acrylic coatings. 2. The procedure for testing the permeability of clear coating systems has been better defined in section 4.4.1. The conditioning of the masonry blocks prior to testing and the application of the clear coat are now detailed. Another type of clear coating system has been added, which allows the use of clear coat impregnations that comply with EN 1504-2:2004 Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Part 2: Surface protection systems for concrete. 3. The requirements for weathertight concrete have been modified to provide two alternative options for weathertight concrete walls. The first option for weathertight concrete specifies the minimum concrete strength, the maximum water/cementitious ratio and requires a permeability reducing admixture. The second option specifies the minimum concrete strength and compliance with a permeable void test. The concrete strength requirements have been reduced from 50 MPa to 40 and 30 MPa, for options one and two respectively. 4. Requirements for masonry veneer wall coverings have been added to weathertight systems for walls, in a new

	section 4.6. This new section sets out the specification and construction of masonry veneer wall coverings, including specification of the drainage cavity, brick ties, tie spacing and veneer lintels. It is based on, and is intended to ultimately replace, the masonry veneer requirements in NZS 4229:2013, Appendix E. A number of minor changes have also been made to clarify aspects of CCANZ CP 01, incorporate errata and update some referenced Standards.

Question E2 – 2
Do you agree with the proposed changes to the references in E2 External Moisture?

☐ Agree ☐ Agree with comment change ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question E2 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

E3 Internal Moisture

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions to:

- include minor amendments to avoid confusion and allow a range of insulating materials

Options

Option One: Status Quo

The Ministry could continue to reference the existing Acceptable Solution that allows the possibility of misinterpretation limits material choice for thermal breaks and does not allow for current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions to be clearer and avoid misinterpretation, and allow material choice for thermal breaks. The advantages of this option are that:

- allow a range of material for thermal breaks
- there is no confusion over the application of the Acceptable Solution

Question E3 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution E3/AS1

Current Text	Proposed Changes
1.1.4 b) Insulated cavities shall be enclosed with no ventilation	**1.1.4 b) text deleted**
	Explanation: Text removed to avoid confusion between construction spaces containing insulation and drained and ventilated cavities used to ensure weathertightness.
1.1.4 d) Where steel studs are used, a thermal break shall be provided for each steel member. Wood fibre insulating board or expanded polystyrene (EPS) strips, 12 mm minimum thick and fixed directly behind the external cladding	**1.1.4 d)** Where a steel framing is used, a thermal break with a minimum R-value of 0.25 $m^2\,^oC/W$ shall be provided at the outside face of each steel framing member. Expanded polystyrene (EPS) strips, minimum 10mm thick provide an R-value of 0.25 $m^2\,^oC/W$. Other materials or methods may

provide an effective thermal break.	be used to provide the minimum R-value of 0.25 m^2 °C/W.
	Explanation: Increasing the ability to use a wider range of material, other than wood fibre insulating board and expanded polystyrene.

Question E3 –2
Do you agree with the proposed changes to Acceptable Solution E3/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question E3 –2
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

F6: Visibility in Escape Routes

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of two referenced standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question F6 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS 2293: Part 1: 2005 Emergency escape lighting and exit signs for buildings. Part 1 System design, installation and operation Amend 1	**AS 2293: Part 1: 2005** Emergency escape lighting and exit signs for buildings. Part 1 System design, installation and operation
	Explanation: Reference to Amendment 1 removed as it does not exist.
AS 2293: Part 2: 1995 Emergency escape lighting and exit signs for buildings. Part 2	**AS/NZS 2293: Part 2: 1995** Emergency evacuation lighting for buildings. Part 2

Inspection and maintenance A1, A2	Inspection and maintenance A1, A2, A3
	Explanation: Incorrect reference as should be AS/NZS, name change, and adding amendment 3

Question F6 – 2
Do you agree with the proposed changes to the references in F6 Visibility in Escape Routes?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question F6 – 3
Do you agree with the proposed introductory period?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

F8: Signs

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of one referenced standard

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question F8 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment change ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS 2293. Part 3: 2005 Emergency escape lighting and exit signs for buildings. Part 3 Emergency escape luminaries and exit signs	**AS 2293. Part 3: 2005** Emergency escape lighting and exit signs for buildings. Part 3 Emergency escape luminaries and exit signs A1
	Explanation: Referencing Amendment 1

Question F8 – 2
Do you agree with the proposed changes to the references F8 Signs?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question F8 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G4: Ventilation

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of three referenced standards
- include editorial change to Figures

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G4 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 3666 Part 1 : 2002 Air-handling and water systems of buildings - microbial control - Part 1: Design, installation and commissioning	**AS/NZS 3666.1: 2011** Air-handling and water systems of buildings - microbial control - Part 1: Design, installation and commissioning
	Explanation: Update to 2011 version
AS/NZS 3666 Part 2: 2002 Air-handling and water systems of buildings -	**AS/NZS 3666.2: 2011** Air-handling and water systems of buildings -

microbial control - Part 2: Operation and maintenance	microbial control - Part 2: Operation and maintenance
	Explanation: Update to 2011 version
NZS 5261: 2003 Gas Installation Amend 1, 2	**AS/NZS 5601.1: 2010** Gas Installations; Part 1 General installations Amend 1
	Explanation: Replaces NZS 5261 effective from 31 December 2012

Question G4 – 2
Do you agree with the proposed changes to the references in G4 Ventilation?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G4/AS1

Current Text	Proposed Changes
Figures 2, 3, 4. Opening windows or trickle ventilators in outside wall.	**Figures 2, 3, 4.** Opening windows and trickle ventilators in external wall.
	Explanation: To align with the text that requires opening windows and trickle ventilators.

Question G4 – 3
Do you agree with the proposed changes to Acceptable Solution G4/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G4 – 4
Do you agree with the proposed introductory period?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G7: Natural Light

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of one referenced standard

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G7 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 6703: 1984 Code of practice for interior lighting design	**NZS 6703: 1984** Code of practice for interior lighting design C1: 1985
	Explanation: Referencing Corrigendum

Question G7 – 2
Do you agree with the proposed changes to the references in G7 Natural Light?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G7 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G8: Artificial Light

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of one referenced standard

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G8 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 6703: 1984 Code of practice for interior lighting design	**NZS 6703: 1984** Code of practice for interior lighting design C1: 1985
	Explanation: Referencing Corrigendum

Question G8 – 2
Do you agree with the proposed changes to the references in G8 Artificial Light?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G8 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G9: Electricity

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of one referenced standard

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G9 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 3000: 2007 Electrical installations Amend 1	**AS/NZS 3000: 2007** Electrical installations Amend 1, AA, 2
	Explanation: Adding Amendments AA and 2

Question G9 – 2
Do you agree with the proposed changes to the references in G9 Electricity?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G9 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G10: Piped Services

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of two referenced standards
- include editorial changes to citing of the three standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain editorial modifications to update paragraph referencing in the Standard.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain editorial modifications to update paragraph referencing in the Standard
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G10 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 4219: 1983 Specification for seismic resistance of engineering systems in buildings Amend 1, 2	**NZS 4219: 2009** Seismic performance of engineering systems in buildings
	Explanation: Updated to the 2009 version

NZS 5261: 2003 Gas Installation Amend 1, 2	**AS/NZS 5601.1: 2010** Gas Installations; Part 1 General installations Amend 1
	Explanation: Replaces NZS 5261 effective from 31 December 2012

Question G10 – 2
Do you agree with the proposed changes to the references in G10 Piped Services?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Verification Method G10/VM1

Current Text	Proposed Changes
1.0.1 NZS 5261 Appendix D describes acceptable test methods to establish that piping systems will withstand a foreseeable pressure without significant leakage.	**1.0.1 AS/NZS 5601.1** Appendix E describes acceptable test methods to establish that piping systems will withstand a foreseeable pressure without significant leakage.
	Explanation: Change to cite the correct part of AS/NZS 5601.1

Question G10 – 3
Do you agree with the proposed changes to Verification Method G10/VM1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G10/AS1

Current Text	Proposed Changes
Table 1 Copper NZS 3502 Specification for copper and copper alloy tubes for general engineering purposes	Remove NZS 3502 from Table 1
	Explanation: Delete reference to Standard from G10/AS1 Table 1 as it is withdrawn and no longer available.
5.0.1 NZS 5261: Part 2 is another Acceptable	**5.0.1 AS/NZS 5601.1** Sections 1, 3, 4, 5, 6 and

Solution for Paragraphs 1.0 to 4.0.	Appendices A – M is another Acceptable Solution for paragraphs 1.0 to 4.0
	Explanation: Change to cite the correct parts of AS/NZS 5601.1

Question G10 – 4
Do you agree with the proposed changes to Acceptable Solution G10/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G10 – 5
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G11: Gas as an energy source

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of one referenced standard
- include editorial changes to citing of the standard

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice and do not contain editorial modifications to update paragraph referencing in the Standard.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- contain editorial modifications to update paragraph referencing in the Standard
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G11 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 5261: 2003 Gas Installation Amend 1, 2	**AS/NZS 5601.1: 2010** Gas Installations; Part 1 General installations Amend 1
	Explanation: Replaces NZS 5261 effective from 31 December 2012

Question G11 – 2
Do you agree with the proposed changes to the references in G11 Gas as an energy source?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G11/AS1

Current Text	Proposed Changes
1.2.2 Acceptable methods for sizing pipes are given in NZS 5261, section 2.4.2 and Appendix E.	**1.2.2** Acceptable methods for sizing pipes are given in AS/NZS 5601.1, section 5.2 and Appendix F.
	Explanation: Changes resulting from citing AS/NZ 5601.1
1.3.2 Acceptable methods for sizing pipes are given in NZS 5261, section 2.4.2 and Appendix E.	**1.3.2** Acceptable methods for sizing pipes are given in AS/NZS 5601.1, section 5.2 and Appendix F.
	Explanation: Changes resulting from citing AS/NZS 5601.1
5.0.1 Materials for *flues* shall comply with NZS 5261, section 2.6.11.	**5.0.1** Materials for *flues* shall comply with AS/NZS 5601.1, section 6.7.
	Explanation: Changes resulting from citing AS/NZS 5601.1
9.0.1 NZS 5261: Part 2 is another Acceptable Solution to Paragraphs 1.0 to 8.0.	**9.0.1** AS/NZS 5601.1, Sections 1, 3, 4, 5, 6 and Appendices A – M is another Acceptable Solution for paragraphs 1.0 to 8.0.
	Explanation: Changes resulting from citing AS/NZS 5601.1

Question G11 – 3
Do you agree with the proposed changes to Acceptable Solution G11/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G11 – 4
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G12: Water Supplies

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of five referenced standards
- include minor amendment to clarify the testing of pipes carrying potable water
- include editorial changes to citing of Standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G12 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 2712: 2007 Solar and heat pump water heaters - design and construction	**AS/NZS 2712: 2007** Solar and heat pump water heaters - design and construction Amend 1, 2
	Explanation: Adding Amendment 1 and 2.
AS/NZS 3350.2.35: 1999	**AS/NZS 60355.2.35:2004**

Safety of household and similar electrical appliances - Particular requirements - Instantaneous water heaters Amend 1, 2	Safety of household and similar electrical appliances - Particular requirements - Instantaneous water heaters Amend 1, 2
	Explanation: Updated to the 2004 version plus the two amendments
AS/NZS 3500 Part 1: 2003 Plumbing and drainage - Water services Amend 1	**AS/NZS 3500.1: 2003** Plumbing and drainage - Part 1: Water services Amend 1, 2
	Explanation: Adding Amendment 2
AS/NZS 3500 Part 4: 2003 Plumbing and drainage - heated water services Amend 1	**AS/NZS 3500.4: 2003** Plumbing and drainage - Part 4: Heated water services Amend 1, 2
	Explanation: Adding Amendment 2
NZS 4614: 1986 Installation of Domestic Solar Water Heating Systems	**NZS 4614: 1986** Installation of Domestic Solar Water Heating Systems Amend 1 (1986) Erratum
	Explanation: Adding Amendment 1

Question G12 – 2
Do you agree with the proposed changes to the references in G12 Water Supplies?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G12/AS1

Current Text	Proposed Changes
Table 5 **AS 1056:** Part 1	**Table 5** Delete "AS 1056: Part 1" in G12/AS1 Table 5
	Explanation: Editorial change. Remove as cited in error
7.5.2 Another Acceptable Solution for testing uPVC water piping systems is given in Section 9 of NZS 7643	**7.5.2** Another Acceptable Solution for testing PVC–U water piping systems is given in Section 7 of AS/NZS 2032.

	Explanation: Editorial change to citation only
2.1.2 Non-metallic components complying with BS 6920 or AS/NZS 4020 materials complying with Table 1 shall be acceptable.	**2.1.2** Water supply materials and components shall comply with: a) BS 6920 if non-metallic b) AS/NZS 4020 if metallic or non-metallic.
	Explanation: Change to clarify which test standard applies to metallic and non-metallic pipes and components.

Question G12 – 3
Do you agree with the proposed changes to Acceptable Solution G12/AS1?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G12/AS2

Current Text	Proposed Changes
3.1.1 Solar *water heaters* must comply with one of the following: • AS/NZS 2712: 2007, or • AS/NZS 2712: 2002 (up to 1 July 2009), or • NZS 4613 (up to 1 July 2008).	**3.1.1** Solar water heaters must comply with AS/NZS 2712.
	Explanation: Delete as the transitional provision for the citing of this standard has ended.
3.2.1 Where a solar *water heater* has a controller, the controller must meet the requirements specified in AS/NZS 2712: 2007 clause 6.3.	**3.2.1** Where a solar *water heater* has a controller, the controller must meet the requirements specified in AS/NZS 2712 clause 6.3.
	Explanation: Editorial change removing the year as is no longer required because only AS/NZS 2712: 2007 is now cited
3.6.1 For protection from freezing, collectors installed in climate zones 1 and 2 (as shown in Figure 1) must: a) pass the level 1 test described in AS/NZS 2712: 2007 Appendix E, or b) have an automatic drain-down system.	**3.6.1** For protection from freezing, collectors installed in climate zones 1 and 2 (as shown in Figure 1) must: a) pass the level 1 test described in AS/NZS 2712 Appendix E, or b) have an automatic drain-down system.
	Explanation: Editorial change removing the year as is no longer required because only AS/NZS 2712: 2007 is now cited
3.6.2 For protection from freezing, collectors installed in climate zone 3 (as shown in	**3.6.2** For protection from freezing, collectors installed in climate zone 3 (as shown in Figure 1) must:

Figure 1) must: a) pass the level 2 test described in AS/NZS 2712: 2007 Appendix E, or b) have an automatic drain-down system.	a) pass the level 2 test described in AS/NZS 2712: Appendix E, or b) have an automatic drain-down system.
	Explanation: Editorial change removing the year as is no longer required because only AS/NZS 2712: 2007 is now cited

Question G12 – 4
Do you agree with the proposed changes to Acceptable Solution G12/AS2?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G12 – 5
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

G13: Foul Water

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of six referenced standards
- include modification to one standard
- include minor change relating to proximity of trench to buildings
- include editorial changes to the citing of Standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G13 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
AS/NZS 1260:2009 PVC-U pipes and fittings for drain, waste and vent application	**AS/NZS 1260:2009** PVC-U pipes and fittings for drain, waste and vent application Amend 1
	Explanation: Adding Amendment 1
AS/NZS 1547: 2000	**AS/NZS 1547: 2012**

On-site domestic wastewater management	On-site domestic wastewater management
	Explanation: Updated to the 2012 version
AS/NZS 2280: 2004 Ductile iron pressure pipes and fittings Amend 1	**AS/NZS 2280: 2012** Ductile iron pressure pipes and fittings
	Explanation: Updated to the 2012 version
AS/NZS 3500 Part 2: 2003 Plumbing and drainage - Sanitary plumbing and drainage Amend 1	**AS/NZS 3500.2: 2003** Plumbing and drainage - Part 2: Sanitary plumbing and drainage Amend 1, 2, 3, 4
	Explanation: Adding Amendments 2, 3, and 4
NZS 3604: 1999 Timber framed buildings Amend 1, 2	**NZS 3604: 2011** Timber framed buildings
	Explanation: Updated to the 2011 version
NZS 4229: 1999 Concrete masonry buildings not requiring specific engineering design Amend: 1	**NZS 4229: 2013** Concrete masonry buildings not requiring specific engineering design
	Explanation: Updated to 2013 version

Question G13 – 2
Do you agree with the proposed changes to the references in G13 Foul Water?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G13/AS2

Current Text	Proposed Changes
5.6 Proximity of trench to building **5.6.1** For light timber framed and concrete masonry *buildings* founded on good ground and constructed in accordance with NZS 3604 or NZS 4229, pipe trenches which are open for no longer than 48 hours shall be located no closer than V to the underside of any *building* foundation, as shown in Figure 8. Where the trench is to remain open for periods longer than 48 hours the minimum	**5.6 Proximity of trench to building** **5.6.1** For light timber framed and concrete masonry *buildings* constructed to NZS 3604 or NZS 4229 in accordance with B1/AS1, pipe trenches which are open for no longer than 48 hours shall be located no closer than V to the underside of any *building* foundation, as shown in Figure 8. Where the trench is to remain open for periods longer than 48 hours the minimum horizontal separation shall increase to 3V in all ground except rock.

horizontal separation shall increase to 3V in all ground except rock.	**Explanation:** Aligning structural requirements of drains with B1/AS1

Question G13 – 3
Do you agree with the proposed changes to Acceptable Solution G13/AS2?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Acceptable Solution G13/AS3

Current Text	Proposed Changes
1.0.3 Modifications to AS/NZS 3500.2	**1.0.3 Modifications to AS/NZS 3500.2**
Clause 2.2 Delete and replace with	**Clause 2.2** Delete and replace with
"Materials and products shall comply with NZBC B2 and G13/AS1 Paragraph 2.0 Materials".	"Materials and products shall comply with NZBC B2 and G13/AS1 Paragraph 2.0 Materials".
Clause 2.8.7 Delete clause.	**Clause 2.8.7** Delete clause.
Clause 3.5.1 (d) Delete and replace with "Drains shall not be installed in water courses".	**Clause 3.5.1 (d)** Delete and replace with "Drains shall not be installed in water courses".
Clause 3.16 Delete "(a) Mortar jointed vitrified clay pipes shall not be re-used".	**Clause 3.16** Delete "(a) Mortar jointed vitrified clay pipes shall not be re-used".
Section 3.19 Delete section.	**Section 3.19** Delete section.
Section 4.4 Replace "inspection shafts" with "access point" in this section.	**Section 4.4** Replace "inspection shafts" with "access point" in this section.
Clause 4.6.6.1 This applies only to Housing.	**Clause 4.6.6.1** This applies only to Housing.
Clause 4.8.3 Delete and replace with "Access and inspection chambers shall be as required by G13/AS2."	**Clause 4.8.3** Delete and replace with "Access and inspection chambers shall be as required by G13/AS2."
Clause 5.6 Delete and replace with "Drains in other than stable ground shall be subject to specific design."	**Clause 5.6** Delete and replace with "Drains in other than stable ground shall be subject to specific design."
Clause 6.9.1 Delete "and to ventilate branch drains".	
Clause 11.2 Replace "AS 1428" with "NZBC G1 or NZS 4121".	**Clause 11.2** Replace "AS 1428" with "NZBC G1 or NZS 4121".
Clause 11.3.7 Replace "AS/NZS 3500.1" with "G12/AS1 or AS/NZS 3500.1".	**Clause 11.3.7** Replace "AS/NZS 3500.1" with "G12/AS1 or AS/NZS 3500.1".
	Explanation: Removal of the requirement to have open vents on branch drains over 10 metres in length but not modifying clause 6.9.1.

	Excessive costs on large commercial jobs, where there are multiple open vents to ventilate the plumbing system and the Network Utility Operator's sewer.

Question G13 – 4
Do you agree with the proposed changes to Acceptable Solution G13/AS3?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Changes to Verification Method G13/VM4

Current Text	Proposed Changes
1.1.2 A design method, given in Part 4 of AS/NZS 1547, for the treatment of *foul water* for flow rates up to a maximum 14,000 litres/week from a population equivalent of up to 10 persons, may be verified as satisfying the performance criteria of G13 Foul Water.	**1.1.2** A design method and construction details given in sections 5.1 to 5.5 and 6.1 to 6.2 of AS/NZS 1547 (and the appendices referred to in these sections) for the treatment of domestic *foul water* for flow rates up to a maximum 14,000 litres/week from a population equivalent of up to 10 persons, may be verified as satisfying the performance criteria of G13 Foul Water.
	Explanation: Updating reference to the 2012 version of AS/NZS 1547.

Question G13 – 5
Do you agree with the proposed changes to Acceptable Solution G13/VM4?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G13 – 6
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.

G14: Industrial Liquid Waste

Reasons for proposal

The Ministry proposes to amend Acceptable Solutions and Verification Methods to:

- update or replace with the latest editions of two referenced standards

Options

Option One: Status Quo

The Ministry could continue to reference the existing editions of Standards in the Acceptable Solutions and Verification Methods, but these Standards do not contain current knowledge and practice.

Option Two: Amend Acceptable Solutions and Verification Methods

The preferred option is to amend the Acceptable Solutions and Verification Methods to include the latest Standards available, along with any amendments. The advantages of this option are that:

- the latest Standards represent current best practice
- there is no confusion over which Standard to use for compliance with the Building Code.

Question G14 – 1
What are your comments on the options?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

References

Current Text	Proposed Changes
NZS 4219: 1983 Specification for seismic resistance of engineering systems in buildings Amend 1, 2	**NZS 4219: 2009** Seismic performance of engineering systems in buildings
	Explanation: Updated to the 2009 version
AS/NZS 1260:2009 PVC-U pipes and	**AS/NZS 1260:2009** PVC-U pipes and fittings for drain, waste and vent application

fittings for drain, waste and vent application	A1 (2011)
	Explanation: Adding Amendment 1

Question G14 – 2
Do you agree with the proposed changes to the references in G14 Industrial Liquid Waste?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change

Click here to enter text.

Transitional arrangements

It is proposed that the changes will come into effect on 29 November 2013 (the proposed Effective Date). It is also proposed that the existing Acceptable Solutions and Verification Methods will remain in force, as if not amended, until 28 February 2014 (the proposed Cessation Date), a period of three months.

Question G14 – 3
Do you agree with the proposed transitional arrangements?

☐ Agree ☐ Agree with comment ☐ Disagree with reason/proposed change

Comment/reason/proposed change:

Click here to enter text.