GUIDELINE BRANZ
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Getting it right

Most of you reading this are likely to have a driver's licence, and it's likely most of you think you are a pretty good driver. But we still have a large number of accidents on the road even though our cars have become safer – maybe accidents only happen to others. Being a designer and a builder is much the same. We might be registered architects or licensed building practitioners, but it does not guarantee that we are perfect. This is evidenced by the plethora of media reports on the quality of our built work – leaking showers, inspection failures and the like. While much of the documentation of building work and the subsequent construction itself is of good quality, there are areas of poor performance that we need to address. One step on the path to better building is to come along to the next BRANZ seminar *Key to Quality*.

Making sure your BRANZ information is current

Occasionally, BRANZ may issue an amendment, correction or supplement to any one of our many publications. Typically, they are minor so do not warrant the withdrawal of the publication. A list of the current amendments is available on the BRANZ website here.

Wall bracing

When calculating wall bracing, the first step is to determine the type of floor construction the wall bracing element will be attached to and the rating that applies.

For concrete floor construction, the maximum bracing rating permitted under NZS 3604:2011 *Timber-framed buildings* is 150 bracing units (BU) per metre of wall length. For timber-framed floors, the permitted maximum capacity is 120 BU/m.

While the performance of the specified bracing element may be greater, the above maximums are all that can be claimed towards satisfying the bracing requirements along any bracing line. For example, a bracing element rated as 150 BU/m can contribute no more than 120 BU/m when attached to a timber-framed floor.

These limitations are imposed so that the capacity of the hold-down fixings will not be exceeded when the panel is loaded.

Modifications to NZS 3604:2011 by B1/AS1

In August 2011, Amendment 11 to B1/AS1 (the Acceptable Solution for clause B1 *Structure*) modified the requirements of NZS 3604:2011 section 3. However, it appears that a number of practitioners have not noted the changes on their copies of NZS 3604:2011.

These are the changes you should have recorded on your copy of NZS 3604:2011:

B1/AS1 clause 3.1.2

Amend Figure 5.4, Earthquake zones (in section 5 Bracing design), so that:

- all the area within the Christchurch City Council boundary is within Zone 2
- the lowest zone within the Selwyn or Waimakariri District Council boundaries is within Zone 2. Areas within Selwyn District that are designated as Zone 1 in NZS 3604 shall become Zone 2.

B1/AS1 clause 3.1.3

- Delete the text in clause 7.5.2.3 and replace with: "The combined foundation and edge details shall be constructed as shown in Figures 7.13(B), 7.14(B) or (C) (and Figures 7.15(B) and 7.16(B) or (C) for foundations supporting a masonry veneer)."

B1/AS1 clause 3.1.4

- Delete Figure 7.13(A) – Foundation edge details – In situ concrete – Dimensions & reinforcing for single storey.
- Amend title of Figure 7.13(B) to "Dimensions & reinforcing for 1 or 2 storeys".

B1/AS1 clause 3.1.5

- Delete Figure 7.14(A) – Foundation edge details – Concrete masonry – Single storey.
- Amend title of Figure 7.14(B) to "1 or 2 storeys", and add a note: "for a single storey foundation, 15 Series masonry may be used and the minimum footing width may be 190 mm".

B1/AS1 clause 3.1.6

- Delete NZS 3604 Figure 7.15(A) – Masonry veneer foundation edge details – Dimensions and reinforcement for single storeys.

B1/AS1 clause 3.1.7

- Delete NZS 3604 Figure 7.16 (A) – Masonry veneer foundation edge details – Concrete masonry – Single storey.

B1/AS1 clause 3.1.8

- Delete the text in clause 7.5.8.1 and replace with: "All slab-on-ground floors shall be reinforced concrete in accordance with Clauses 7.5.8.3, 7.5.8.4 and 7.5.8.6.4. All reinforcing steel, including welded mesh, shall be Ductility Class E in accordance with NZS 4671."

B1/AS1 clause 3.1.9

- Delete the text in clause 7.5.8.3 and 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 2.27 kg/m^2 welded reinforcing mesh sheets (1.14 kg/m^2 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 50 mm,
  - 150 mm or
  - the manufacturer's requirements.

  Slabs shall have a maximum dimension of 24 m between free joints."

B1/AS1 clause 3.1.10

- Delete clause 7.5.8.6.2.

B1/AS1 clause 3.1.11

- Delete the title for Figure 7.18 and replace with "Irregular slab (plan view) (see 7.5.8.6.4)".

B1/AS1 clause 3.1.12

- Delete clause 7.5.8.6.3.

B1/AS1 clause 3.1.13

- Add a new clause: "Clause 7.5.8.8 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."

Amendment 11 to B1/AS1 also modified the requirements of NZS 4229: 2013 *Concrete masonry buildings not requiring specific engineering design* and NZS 4299:1998 *Earth buildings not requiring specific design*.

MBIE website update

The www.dbh.govt.nz website has been replaced by www.building.govt.nz. All previous content has been migrated to the new site. Using the previous www.dbh.govt.nz web address will still take you to the information you are seeking on the new site.

New MBIE guide to tolerances

MBIE has released new technical guidance, the *Guide to tolerances, materials and workmanship in new residential construction 2015*. The guide supports the new consumer protection measures in Part 4A of the Building Act, which came into law on 1 January 2015. Download the document here.

New books from BRANZ

The following new publications have just been released by BRANZ:

- *Designing for Maintenance*
- Good Practice Guide: *Timber Cladding* (3rd edition)
- Good Practice Guide: *Tiling* (3rd edition)
- Good Repair Guide: *Driveways and Paths*
- Good Repair Guide: *External Timber Steps*

All are available as a hardcopy or epub – visit the online BRANZ Shop.

BRANZ Find

BRANZ Find is a new free digital search and locate tool available on the BRANZ website. BRANZ Find brings together a comprehensive, searchable directory of New Zealand building and construction information, linking you straight to that information. Links are included to:

- all current BRANZ information
- standards
- MBIE websites and acceptable solutions
- relevant industry organisations
- *Build* magazine
- other BRANZ websites such as www.level.org.nz, www.weathertight.org.nz, www.renovate.org.nz and www.maintainingmyhome.org.nz.

BRANZ seminar: *Key to Quality*

Media reports and anecdotal evidence backed by recent BRANZ surveys highlight a number of documentation, quality and performance issues with new housing. These reports have increased in recent times with rising workloads, time constraints and decreasing skill levels in the industry.

NZIA President Pip Cheshire says, "It is time that we, the building industry, showed confidence and a commitment to ensuring the products of our labours are the best that science, industry and creative endeavour can deliver."

But how bad is it really? How are we seen by our customers? Can we do better?

This seminar is primarily based on two BRANZ research projects designed to better understand the client and designer/builder relationships so that clients make better decisions. The first is a regular survey of new house owners' levels of satisfaction, and the second has inspected 225 houses under various stages of construction. Problem areas and defects were recorded for each house and classified as either a performance defect or an aesthetic or finish defect. 81% of houses were considered to have performance defects, and 95% of houses had an identified quality defect.

This seminar will use a number of the real defects highlighted during the inspection survey to explore these issues:

- Why did the situation arise?
- How might you deal with the end result?
- What was actually wanted/specified/acceptable?
- Was what was specified buildable?
- Was sufficient detail provided?
- Did you have sufficient time?
- Who was responsible?
- What steps should you take to avoid it happening in the future?
- How prepared are you to effectively deal with building quality?

This *Key to Quality* seminar is a must for you if you are a designer, architect, builder, painter or other subtrade, building inspector or contract supervisor/manager.

Dates and locations:

Mon 29 Jun	Palmerston North	Distinction Palmerston North Hotel
Tue 30 Jun	Wanganui	Kingsgate the Avenue
Wed 1 Jul	New Plymouth	Quality Hotel Plymouth International
Mon 6 Jul	Invercargill	Ascot Park Hotel
Tue 7 Jul	Queenstown	Crowne Plaza Queenstown
Wed 8 Jul	Dunedin	Dunedin Centre
Mon 13 Jul	Gisborne	Quality Hotel Emerald
Tue 14 Jul	Napier	Napier War Memorial Conference Centre
Wed 15 Jul	Upper Hutt	Silverstream Retreat
Mon 20 Jul	Timaru	Landing Service Conference Centre (was The Function Centre)
Tue 21 Jul	Christchurch	Addington Events Centre
Wed 22 Jul	Wellington	InterContinental Wellington
Mon 27 Jul	Tauranga	Trinity Wharf Tauranga
Tue 28 Jul	Rotorua	Rydges Rotorua
Wed 29 Jul	Auckland – Central	Crowne Plaza Auckland
Thu 30 Jul	Auckland – Mt Wellington	Waipuna Hotel & Conference Centre
Wed 5 Aug	Christchurch	Addington Events Centre
Thu 6 Aug	Hokitika	Order of St John Hokitika-Hire Facility
Fri 7 Aug	Nelson	Rutherford Hotel Nelson
Mon 10 Aug	Whangarei	Forum North
Tue 11 Aug	Hamilton	Claudelands Conference & Exhibition Centre
Wed 12 Aug	Auckland – North Shore	QBE Stadium

Online registration is available now.