APRIL 2015

Decks

Under NZS 3604:2011 *Timber-framed buildings*, the maximum loading for a timber-framed deck is 2 kPa. To select the appropriate subfloor framing, use:

- Table 6.4 (b) for bearers that are wet in service
- Table 7.1 (b) for joists that are wet in service.

Where the deck loading is above 2 kPa, the deck must use specific engineering design. While there are 3 kPa floor load tables for joists and bearers in NZS 3604:2011, these only apply to timber that is dry in service.

Metal ridge flashings

There are two key considerations when specifying and installing metal ridge flashings to a pitched roof – accommodating thermal movement and ensuring the flashing is folded to suit the roof pitch. To accommodate thermal movement, fixings must allow the flashing to expand and contract. Limiting the lengths of the flashing by having at least one lapped joint along the length of the flashing will also help accommodate movement without buckling. Buckling is also more likely where the flashing is not folded to suit the roof slope and has been bent to fit the slope on site, particularly on steeper roofs.

Other important considerations are:

- material compatibility of metals in contact or subject to run-off
- the environment and selected material/finish suitability.

Timber-framed garage floors

Vehicle garage floors constructed from timber are outside the scope of NZS 3604:2011 (as stated in the notes under Table 1.1 in the standard). They must be specifically engineered to accommodate the concentrated wheel loads from the vehicle(s).

Galvanising weight for fixings

Hot-dip galvanised fixings must have a minimum weight of galvanising to meet minimum durability requirements. These are:

- for nails – 320 grams per m^2
- for bolts – 600 grams per m^2
- for brackets – 390 grams per m^2 in sheltered areas and 600 grams per m^2 in exposed situations.

Stainless steel fixings

The minimum grade of stainless steel for fixings under NZS 3604:2011 is grade 304. Where the appearance of stainless steel is important, grade 316 should be specified as it will be more likely to retain the 'shiny' appearance. Tarnishing of grade 304 will be more noticeable in exposure zone E and to a lesser degree in exposure zone D. Care needs to be taken when driving stainless steel fixings to minimise the risk of damage to the original thin protective layer that provides the corrosion-resistance properties.

Floor joists supporting trimming studs for suspended floors

NZS 3604:2011 section 7.1 places restrictions on the location of trimming studs of a lintel in a braced or loadbearing wall relative to the location of a bearer/pile below. Explaining the requirements in words is not easy, so the next issue of *Build* (148) will have some drawings to clarify.

Retrofitted blown-in insulation

There is a range of blown-in insulation options (glass wool fibre, mineral wool fibre, cellulose fibre) for retrofitting insulation to existing walls. These are the key considerations when retrofitting blown-in insulation:

- A building consent must be obtained before the work is carried out.
- Only use this option if it is appropriate for the existing construction. For example, such products should not be installed into walls that do not have a flexible wall underlay (building paper or building wrap) installed behind the cladding.
- For brick veneer construction, the insulation must not fill the drainage and ventilation cavity between the bricks and the framing. It was common for brick veneer houses to be constructed without a flexible wall underlay fixed to the outer face of the framing. Where there is no underlay, blown-in insulation should not be installed.
- The installation direction – installing the insulation from the inside avoids puncturing the wall underlay and the risk of water entry through poorly repaired installation points.

Further guidance will be provided by NZS 4246:2015 *Energy efficiency – Installing insulation in residential buildings* when it is released around June this year.

Shower curtains

While this may seem a strange topic for BRANZ, we have had a Helpline question asking where a shower curtain should be located to comply with New Zealand Building Code water splash requirements. There is no guidance in E3/AS1. However, G1/AS1 Figure 5 shows the shower curtain installed within the intended shower floor area.

Interesting fact from G1/AS1

In a campground, no caravan or campsite site shall be more than 75 m from a toilet facility (clause 3.4.2).

Secondary glazing

In the February *Guideline,* our article on the thermal performance of a coating or film applied to existing single glazing is relevant only to a film that is adhered to the glass. Secondary glazing is where a translucent material or film is installed over the existing glass with an air gap between the two. Properly installed secondary glazing can easily meet the R-value requirements of NZS 4218:2009 *Thermal insulation – Housing and small buildings*.

BRANZ sponsored MBSc student Nick Smith to investigate this issue. His work, largely carried out at BRANZ, was published in the international magazine *Energy and Buildings* (Volume 54 (2012), pp 47–51). It found that an internal secondary glazing film with an air gap gave R-values from 0.36 to 0.57. These all met the R-value requirements of NZS 4218:2009.

Reminder

Some questions for builders and contractors as a result of the Building Act changes that came into force from 1 January this year:

- Have you got your contracts for work over $30,000 in place? This applies to any trade contracting directly with a client where the value of the work is over $30,000 including GST.
- Is your disclosure statement sorted?
- Do you know how to access the MBIE checklist that you need to direct your clients to?
- Are you aware of the default contract provisions that apply if you haven't got yourself sorted?

Find out more here: www.dbh.govt.nz/building-amendment-act-2013.

Coming events

Paradigm Shift 2015

BRANZ is a sponsor of Paradigm Shift, a free CPD event featuring London-based Usman Haque. Originally trained as an architect, Usman has designed and engineered many award-winning responsive

environments, interactive installations, digital interface devices and mass-participation initiatives across the globe. Paradigm Shift will be presented in Tauranga (4 May), Auckland (5 May), Wellington (6 May), Christchurch (7 May) and Queenstown (8 May). Click here for more details and to register. Buses will be provided from Dunedin for the Queenstown session and from Hamilton for the Auckland one.

CBANZ Conference free tradie expo

The Certified Builders conference at the Horncastle Arena in Christchurch is having a free open day from 3:30–5:30 pm on Thursday 21 May. This is an open invitation to visit the BRANZ display. More details are available here.

BRANZ YouTube channel – take a look

BRANZ has a its own YouTube channel – BRANZmedia. Current videos cover a range of topics. The most popular clip answers a number of common E2/AS1 questions. Other videos look at how to repair earthquake-damaged plasterboard and previews of recent issues of *Build* magazine.

These other online options will help you keep abreast of what is happening at BRANZ:

- LinkedIn
- Twitter – @BRANZlive
- Google+
- *Build* magazine
- www.branz.co.nz

BRANZ Seminars

The next BRANZ seminar will focus on building quality and will visit 22 locations during late June and July. More information will be provided soon.