

## Flashing Details

One critical area of ensuring that buildings are weathertight is the correct design and installation of flashings. However, through the BRANZ helpline we are getting calls from builders who find that flashing details are not always being provided by designers, and this omission is not being identified either during pricing or consent processing.

Designers need to identify in their consent documentation the flashing profile or shape, cover dimensions, location, material and thickness. This is especially important where the flashing detail is to be consented as an Alternative Solution and details are not covered by an Acceptable Solution. Even if flashings are part of an Acceptable Solution, BRANZ recommends that the detail be included in the contract documents rather than simply referring to the Acceptable Solution, which many builders do not have a copy of.

For builders pricing jobs, check that all required flashings have been specified so you know what you need to price for. If they are not shown, ask for the detail. This also applies when consents are being processed.

One fault with flashing details has been for designers to reference flashings used in E2/AS1 when the design is clearly outside the scope of the Acceptable Solution – e.g. in a specific design wind zone. In these cases the designer needs to show to the BCA that the flashings proposed (cover, upstand etc.) will be sufficient for the higher wind speed.

## Uninsulated R-value

It is often necessary in renovation projects to determine what the R-value of the existing, usually uninsulated walls or ceilings might be. The BRANZ *House Insulation Guide* (Third edition) gives a value for uninsulated construction in the graphs for each construction type – typically it is the left hand side of the graph. The position at which the curved lines touch the vertical axis is the uninsulated R-value. (For those still using the First Edition of the *HIG*, it is the 'Nil' column).

## Veranda post anchorage

NZS 3604 *Timber framed buildings* Section 9 requires that the connection of veranda posts to the ground has a capacity of 36.4 kN to resist the uplift forces acting on the post. It also requires the designer to calculate the mass of concrete required in the footing to anchor the post to the ground. Figure 9.2 of NZS 3604 gives a solution for a bracket connection at the bottom of the post to the concrete footing.

The difficulty in showing compliance arises when the post is simply embedded into the concrete. How is the 36.4 kN requirement of the standard being met by the proposed detail? There are a number of possible detail options but verifying the performance is difficult.

Currently there is no reliable test data that supports an embedded detail. Relying on friction between a deeply embedded post and the concrete to resist the uplift is unproven as an option. A major drawback is that concrete will shrink on drying and the timber will change in dimensions as its moisture content changes, potentially negating the development of enough friction to resist uplift. Drilling the post and inserting horizontal dowels or rods to anchor the post into the concrete has unproven structural performance and durability; however the detail is likely to be comparable with the anchorage provided by currently available proprietary brackets illustrated in Figure 9.2.

Also when a post is embedded into concrete it needs to be treated to Hazard class H5 and the concrete needs to finish above ground level with the top surface sloped away from the post so that water is not trapped on the top.

## From Feb 09 Guideline

The information in the "Is a consent required for weathertightness remediation" article was reproduced from DBH publications regarding the changes. The key message is that the requirements have changed.

## NZS 3604 Tables 8.2 – applying Note 2

When reading note 2 to the Tables referenced as 8.2 in NZS 3604 regarding the substitution of timber sizes: 140 x 45 framing may be used instead of 90 x 90. However where 140 x 45 is required by the Tables the use of 90 x 90 at 600 mm centres is not permitted. The same rule applies to the substitution of 90 x 35 with 70 x 45.

Note that this rule must be applied to the framing selection during the design phase of the project. Such a change during construction would require the approval of the designer/client (because of the contractual requirement to build what is detailed) and the submission to and acceptance of the change by the BCA as an amendment to the consent before the work was carried out.

## New *Lintels and beams* calculation tool software

The cost, as a special introductory offer until the end of March, to print out a calculation from the BRANZ web-based *Lintels and beams* calculation tool for consent purposes will be \$25 plus GST – from 1 April the cost will be \$50 plus GST per beam calculation printout.

## BRANZ Seminars

### Water Efficiency

Registrations are open for this seminar aimed at architects and designers.

There is a range of demands on New Zealand's water: urban water supply competing with rural irrigation, the desire to have an untouched natural environment and the expectation that water be available whenever we want it. Restrictions on water use are likely to be tighter in the future. This means water is becoming a precious resource that we must consider when designing and constructing buildings.

The seminar will cover

- coming changes in legislation
- how we use water in our homes
- recent appliance developments
- building consent requirements
- options for using rain water
- using greywater and blackwater effectively.

Venues and dates are:

March 2009	
18	Auckland
19	Hamilton
20	Wellington

Visit our website for more details and to register online – [www.branz.co.nz](http://www.branz.co.nz) (click on seminars)

### 2009 Seminars

The second seminar for the 2009 year will be one covering compliance path options for those consent applications that fall outside the scope of Acceptable Solutions. Having Alternative Solutions consented has created some friction between designers and BCAs and this presentation, for both parties, has the aim of giving guidance on the submission and processing of these applications. The seminar will be presented during the middle of May 09 in Dunedin, Queenstown, Christchurch, Auckland, Hamilton, Tauranga, Palmerston North and Wellington.