UFFI (Urea Formaldehyde Foam Insulation)
Following on from a determination by the DBH and many queries received within the industry, in late 2009 BRANZ, in conjunction with EECA, started researching the effects of retrofitting UFFI into homes (using the usual method of drilling holes through exterior cladding and pumping foam insulation into wall cavities).

During the research of a brick veneer wall panel, where the cavity had been filled with foam, we observed water transport through the foam to the internal lining when the sample was subject to moisture accessing the inside of the brick veneer.

BRANZ is concerned at this observation and is taking steps to determine whether this was a one-off occurrence or is a potential systemic defect. BRANZ is therefore beginning a longer term research study into the moisture effects and impacts of using UFFI product in walls and cavity spaces for both timber and brick cavities. As part of this study we would like to examine houses where UFFI has already been installed, particularly with brick veneer cladding. Please contact Tui MacDonald at tui.macdonald@branz.co.nz if you are aware of any properties we can investigate.

The research carried out by BRANZ also evaluated the thermal resistance properties of UFFI. This R-value report has been supplied to EECA who are discussing the results with the manufacturer.

The reports are available via BRANZ website or click here.

Waterproofing under exterior tiles
Exterior waterproof decks that have tiles adhered to the waterproofing membrane are outside the scope of Compliance Document E2/AS1. This means that all such installations must be submitted to the BCA to be consented as an Alternative Solution. Where such a system is proposed, the membrane specified must be:

- suitable for exterior use
- durable for not less than 15 years (but with a serviceability life equal to that of the tiles)
- suitable for use with directly adhered tiles
- compatible with the tile adhesive being used.

Timber-slatted decking – joist spacing
When designing and constructing a timber deck with a timber board walk-on surface, NZS 3604 requires that joists are at a maximum spacing of:

- 450 mm centres for 18 mm thick decking
- 600 mm centres for 32 mm thick decking.

BRANZ seminars 2010 – Are we there yet?
The current building control system has been in place since 1992, with a major shake-up in 2004, particularly for weathertightness. This seminar series will be presented at 23 centres around the country and aims to see how far we have come and look at where improvements are still able still be made.

This will be done by:

- looking at current and recently completed research and its application to the design and construction of today's buildings
- considering the current approach to building design, with an emphasis on keeping out water and how this can be achieved through design
- analysing performance of details on site during the construction phase.

This seminar series will be of interest to a wide cross-section of industry, especially builders, designers and building officials.

Dates and locations for this seminar are on our website – see www.branz.co.nz/seminar_venues.

Top of parapet details
Under E2/AS1, all parapets are required to be cap flashed with a metal flashing. The flashing must have a minimum cross fall of 5º – see Section 6 of E2/AS1. The side turn-downs must provide cover to the top of the cladding of 50 mm in low, medium or high wind zones and 70 mm in a very high wind zone.

Top of solid balcony walls
When using E2/AS1, the detail to the top of solid balcony walls must also incorporate either a cap flashing or an underflashing behind a textured finish. A cap flashing must have a minimum cross fall of 5º, while a 10º minimum cross fall is required where an underflashing is used and the top has a texture finish – see Figure 129 of E2/AS1.

Any handrail fixed to the solid balcony wall must be fixed to the side of the wall and not to the top.

Flashing reverse slope eaves/soffits
In BRANZ Weathertight Solutions Volume 5 *Roofing*, drawing 5.1.8 is a detail for the flashing of the soffit/wall junction with reverse slope eaves. Weathertight Solutions details are available for purchase individually – see 'What's new' on the right-hand side of the BRANZ home page.

Detail 5.1.10 also gives a detail for reverse slope eaves with exposed rafter, but this detail is limited to use in low and medium wind zones.

Nailing weatherboards
The nailing requirements for timber weatherboards and some proprietary fibre-cement weatherboards do differ:

- For timber weatherboards, the required fixing types, framing penetration and fixing location is given in E2/AS1 – all nail-fixed timber weatherboards require a single fixing at each stud with the fixing located 10 mm above the lap of the board below.
- For rusticated boards, there should always be a 2 mm gap between the boards to allow for movement, and successive boards must not be fitted tight to the preceding board.
- For proprietary systems, the manufacturer's instructions must be followed.

Lintels and Beams Calculator – use limitations
The BRANZ Lintels and Beams Calculator can only be used for buildings that use light weight framed construction. It is not to be used for light commercial or other situations, for example, where the designer wants to replace a concrete beam with a steel member. Such calculations are specific engineering design and require the services of a structural engineer.

ALF 3.2 and commercial buildings
The question has been asked if BRANZ ALF 3.2 can be used for commercial buildings, retirement homes and apartments. Clause H1 of the Building Code only allows ALF 3.2 to be used for housing – see clause H1.3.2E.

BRANZ Bulletin 522 gives the compliance options for clause H1.

Guideline *is a free monthly update on building issues prepared by BRANZ and funded by the Building Research Levy.*

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