

Editorial

Hello and welcome to Wairoa District Council's August edition of the Building Sector News.

In this issue we focus on:

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- Drying Times
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Upcoming Training

- **Brick Veneer Construction – Stage 1 & 2**
For building officials, bricklayers, builders, architects etc.
Venue: Landmarks Room, Hastings District Council
Stage 1: 1-4.30 Thursday 11 Sept
Stage 2: 1-4.30 Friday 12 Sept
Cost: \$165 + GST
We can give you a booking form if you wish to attend or phone John Oliver 09 624 4045.
This course may also be held in Gisborne but no dates confirmed as yet.

Stage 1: It has been designed to provide individuals who work in the building industry with an understanding of all aspects to do with brick.
Stage 2 - Particularly relating to 2 storey brickwork and other systems.
- **Under Tile Wet Area Waterproofing**
Cost: \$163
Duration: One and Half days- lunch provided
Venue: Napier Quayside Conference Centre 18-19th Sept 8.30am start.
Contact if you wish to attend: Jeremy Mallendar 021494446

Tiling over suspended timber floors

The BRANZ Good practice guide Tiling recommends that the maximum span of timber floor and deck or balcony joists allowed by NZS 3604 be reduced to 80% of the span allowed by the relevant floor joist table when a tiled floor finish is proposed. The reason for this is to keep deflection of the floor and the substrate at less than 1/360th of the span.

While span tables of NZS 3604 have been changed to accommodate current timber strength properties, designers should still apply the 80% rule as deflection was not a key consideration when the changes were formulated.

An old rule of thumb for tiling work on existing floors is that if a springiness is felt when the floor is walked on then it is not stiff enough for a tiled finish. In these cases avoid tiling or have the floor stiffened before tiling.

Brick veneer cavities – their function

Initial findings from BRANZ research into drying rates for water that gets behind wall claddings has shown quite clearly that for brick veneer claddings the movement of air behind the cladding, together with positive drainage down the back of the cladding, is critical to the cladding performance.

Brick veneer is a porous cladding – it readily allows water through the bricks and the mortar joints – and water running down the back face of the brick can occur quite quickly when the veneer is subject to an E2/VM1 test. Windows inserted into brick veneer are not sealed to the bricks, and water will pass through this junction. That is why jamb and sill back flashings are an integral part of detailing .

The accepted practice of constructing a brick veneer cladding with a cavity of not less than 40 mm, drainage slots along the bottom of the wall, and the positive ventilation provided by the open perpend along the top and bottom of the veneer, recognises the fact that water will be present and it must be allowed to drain and dry.

Exposure times

Building, when the weather is poor, can create a number of challenges for builders such as meeting construction programmes, not over-exposing building materials to the sun or rain and the impact of colder conditions on drying times and application of coatings and membranes.

Examples of material and finishes that have limited weather exposure periods are:

- particleboard – when wetted particleboard will swell (and the swelling is not reversible) and the surface will become much rougher. Span and shear properties also reduce
- flexible wall underlays (building papers/synthetic wraps) – can be degraded by UV, wind and water
- timber primers – can be degraded by UV
- kiln-dried timber
- polystyrene – has a risk of surface oxidation due to UV
- strippable films – if left in the weather too long they become difficult to remove.

Materials which have minimum temperature requirements during application include acrylic paints, adhesives and liquid-applied membranes.

Builders should have a copy of the manufacturer's specific exposure and application requirements.

Drying times

Construction during winter months brings with it a significant slow down in the rate at which materials dry or cure. Materials affected include concrete, concrete masonry, plasterboard stopping compounds, timber installed wet or wetted by the weather before the building is enclosed, paints and liquid applied membranes – to name a few.

Time must be allowed in construction programmes for drying to occur. There have been numerous reports of failure of materials and finishes as a result of being applied or fixed to a material that is not dry enough. One very common fault is not allowing slabs to dry before installing timber or wood-based overlay floors.

For example there are approximately 3400 litres of water in a 200 m² by 100 mm thick slab which must be dried. After one week of good drying this may have reduced to approximately 2400 litres.

Excessive construction moisture remaining within materials can cause deterioration in moisture susceptible material – the appearance and impact can be similar to damage from a water leak through the building envelope.

Importance of record-keeping for builders

BRANZ receives dozens of calls from contractors called back to correct some apparent fault allegedly caused by their actions during construction. Many call-backs relate to shrinkage and movement of timber framing, and a common question is - "what was the moisture content at time of lining-out?" Similarly, a frequent question is - "was there a damp-proof membrane (DPM) under the concrete slab and was the reinforcing properly supported?" The answers to these basic questions should be easy to supply and could prevent hours of expensive argument or even court action. However, many contractors fail to insure themselves against litigation by not keeping adequate site records. A simple site diary and a few photographs taken at the appropriate time can save hundreds of dollars!

Asbestos claddings

For your information any work which involves the drilling of asbestos cement sheet and plank claddings and subsequent filling and sanding of those holes creates potentially hazardous dust. This is notifiable work and must be carried out by a specialist contractor. It should not be carried out by just any building contractor or DIY person.

Subfloor foil durability

The Building Code durability requirement for subfloor foil insulation given in Table 1 of B2/AS1 is not less than 50 years. Designers and BCA's need to make sure that the specified material will meet this durability requirement, including the retention of the thermal performance over the life of the installation.

If you know of anyone who would like to receive these Newsletters please ring WDC Building Control Dept 838 7309 and give us your details.