Guideline

August/September 2019

Welcome to this update on technical and informative advice for the building and construction industry on issues relating to building controls and good construction practices.

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Pipes through framing

When is a hole too big?

A penetration through framing can weaken the structural integrity of the framing and should be avoided. Good design can help to overcome these challenges. If a pipe such as a vent pipe or stack has to be installed through framing, Figure 8.4 of NZS 3604:2011 *Timber- framed buildings* specifies that the maximum diameter for a pipe through a 90 mm stud is 25 mm. Proprietary products are available that provide stiffening of the framing to allow holes up to 60 mm diameter. Check the manufacturer's instructions for correct installation. Also see NZS 3604:2011 Figure 8.20 for strengthening requirements where top plates are cut for vent pipes or similar.

For permitted holes and notches in top plates, see NZS 3604:2011 clause 8.7.5 and Figure 8.19. For permitted sizes and locations of holes and notches in floor joists, see Figure 7.8. Note that no holes are permitted in trusses or lintels or in the middle third of trimming studs (NZS 3604:2011 clause 8.5.2.3).

Rigid wall underlays

Do they also need flexible wall underlays?

E2/AS1 paragraph 9.1.7.2 contains generic options for a rigid wall underlay. These comprise minimum 7 mm H3 plywood or 6 mm fibre-cement. These generic options must be overfixed with flexible wall underlay if they are to comply with the Acceptable Solution.

Proprietary systems generally do not require the layer of wall underlay but have their own specific installation instructions that must be followed. The sheet materials may be primed or treated to resist water penetration, and the system may include flashing tapes to provide continuity at the joints. These systems are outside the generic nature of E2/AS1 and are therefore alternative methods.

Roofing tile battens

Rough-sawn versus dressed

What are the dimensions for roof tile battens? NZS 3604:2011 specifies that tile battens can be 50 x 50 mm rough-sawn wet or 45 x 45 mm rough-sawn dry or 45 x 45 mm D4S dressed four sides. NZS 3604:2011 Table 10.12 specifies other sizes as well, but these are less common.

Nailing timber weatherboards
Will any nail do?

Timber weatherboards are traditionally fixed by hand, using rosehead or jolthead nails. Normal nail guns with D-head nails cannot be used to nail timber weatherboards. D-heads have more head area than joltheads, but this makes a bigger hole to fill and depth is harder to control with gun nails. However, a specialised nail gun can be used if it uses coil nails that are rosehead or jolthead.

BRANZ seminars
The Building Envelope

The building envelope plays the critical function of separating the outside environment from the inside environment. The elements within the building envelope provide a weathertight defence and regulate the indoor environment, including air quality and thermal efficiency.

This seminar provides an overview of roof and wall assemblies with a focus on walls and the installation requirements and performance of the current commonly used wall cladding systems. It covers the weathertightness performance of wall assemblies and claddings for mid-rise buildings and compares these requirements with typical low-rise residential buildings. The seminar will also look at airtight versus breathable wall and roof assemblies, the required ventilation requirements of building interiors with airtight assemblies and ventilation for roof assemblies.

Presenters
Greg Burn – NZCD (Arch), Dip Bus (Marketing) – Structure Ltd
Des Molloy – Building Consultant

Dates and venues

Wed 2 Oct	Hamilton
Thu 3 Oct	Rotorua
Fri 4 Oct	Tauranga
Wed 9 Oct	Invercargill
Thu 10 Oct	Queenstown
Fri 11 Oct	Dunedin
Wed 30 Oct	New Plymouth
Thu 31 Oct	Whangarei
Fri 1 Nov	Auckland – South
Wed 6 Nov	Christchurch 1
Thu 7 Nov	Hokitika
Fri 8 Nov	Nelson
Wed 13 Nov	Napier
Thu 14 Nov	Upper Hutt
Fri 15 Nov	Auckland - Central
Wed 20 Nov	Timaru
Thu 21 Nov	Christchurch 2
Fri 22 Nov	Blenheim
Wed 27 Nov	Auckland – North Shore
Thu 28 Nov	Palmerston North
Fri 29 Nov	Wellington

All seminars are 3 hours long and run from 1.00pm–4.00pm

Online registration is available now.