

Guideline

August 2020

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

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COVID-19 update

The scouting motto "Be prepared" applies

The recent change in alert level for COVID-19 caught many of us by surprise. It reinforces the idea that we should be prepared for any changes that may come – including possible lockdowns – by keeping up to date with what the rules are.

You can find the full details on the CHASNZ website.

BRANZ has also updated its information on the BRANZ website.

New charges for delayed projects

Buying more time

More building consent authorities (BCAs) are introducing charges for building projects that extend beyond 2 years from when a building consent was first issued. Until now, it has been common for an extension to be granted with a letter of explanation and no charge. The new charging comes in spite of the fact that sites were shut down through the higher level COVID-19 restrictions and subsequent delays getting everything back up and running. We have heard of charges of \$100 to \$250 with extensions of up to 12 months' additional time granted.

Don't confuse your studs

Trimming studs and doubling studs are not the same

While a BRANZ team were consulting on a document about wall framing, it became clear there was more than one interpretation of which wall stud was the "trimming stud" adjacent to a window rough opening.

NZS 3604:2011 *Timber-framed buildings* defines a trimming stud as "A stud located on the side of an opening." However, Figure 8.5 in the standard shows trimming studs going the full height from bottom plate to top plate, while a "doubling stud" from the bottom plate to the underside of the lintel actually forms the side of the window opening. BRANZ details take the same approach

(Figure 1). (No doubling stud is used if the lintel is notched into the trimming stud, but this is not common practice.)

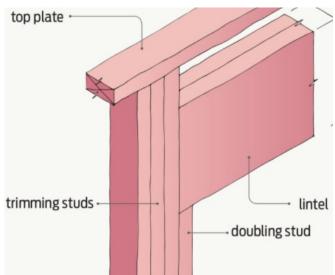


Figure 1. BRANZ drawing of trimming studs and doubling stud beside a rough opening.

Make sure you properly identify these members with the rough opening size for joinery (usually to the face of the doubling stud). Also be careful with the sill support bars that E2/AS1 requires to all doors and windows over 600 mm wide. They should finish no less than 100 mm from the rough opening but are often loosely described as 100 mm from the "trimmer" or "trimming stud".

Take care with repairs

They can be trickier than new building works

The Earthquake Commission's compensation for homeowners who found poor-quality post-earthquake repairs or undeclared damage only after buying their house ends this month. Over 500 homeowners have received compensation. The report of the Public Inquiry into the Earthquake Commission described the quality of repairs undertaken following the Canterbury earthquakes as "variable".

This is broadly similar to repairs done on leaky homes, where some work was well done while other houses received poor-quality repairs that only led to continuing problems.

Carrying out good-quality repairs in less than ideal circumstances can often be more difficult than ordinary new building work. It can require specific skills and experience. If you don't have the skills and experience, this type of work is best left to others.

LBP licences on site

Make some photocopies

It is a requirement under the Building Act 2004 (clause 289) that licensed building practitioners must produce their licence (or a copy of it) to anyone who asks to see it. We are aware that a number of BCAs are taking a harder line around ensuring compliance with this, even to the extent of placing a hold on booking inspections for builders who ignore the requirement.

The easiest option is for LBPs to leave a photocopy of their licence with their signature and details of the building consent number on site.

Drought an opportunity for water efficiency rethink

The 2020 drought hit hard. Many North Island locations had their driest start to the year since records began. NIWA research points to an increasing severity of drought in coming decades, with severe water shortages expected to increase in frequency and intensity in regions that are already drought-prone.

It is a good opportunity to ensure we are building water-efficient houses. With careful planning, it is possible to cut household water use by a third or even a half without anyone having to give up long hot showers. The BRANZ website www.level.org.nz has information. These are some of the most effective options:

- Tapware, washing machines, dishwashers, toilets and showers that are rated at least 4-star under the Water Efficiency Labelling and Standards (WELS) scheme.
- Low-flow showerheads that use around 7–9 litres of water per minute could potentially save a 3-person household 47,000 litres per year.
- Bathroom hand basin tap flow rates no greater than 6–8 litres per minute (relatively inexpensive aerators can be fitted).
- A 4.5-star washing machine rather than a 3-star model the difference can be a saving of 18,000 litres of water per year.
- Rainwater collection tanks. (In financial terms, these are most likely to be cost-effective in areas where reticulated water is metered and charged for.)

The opportunities are not just for new builds – the BRANZ Water End-use and Efficiency Project identified that, during retrofits, significant water savings could be achieved by installing low-flow showerheads and water-efficient washing machines.

Thermal bridges are worse than you think

Another way of doing the maths

Thermal bridges allow heat to flow more easily through them than adjacent materials or elements from the warmer interior to the colder exterior of a building. Timber wall framing is a classic example.

Let's say 80% of a wall is insulated with an R-value of R2.5, while framing makes up 20% of the wall with an R-value of just R0.75. A simple approach has been to calculate the total R-value of the wall as $(80\% \times R2.5) + (20\% \times R0.75) = R2.15$. This doesn't take full account of current knowledge in this area, however.

A more accurate way to determine the total R-value of the wall is:

Total R-value =
$$\frac{1}{(80\% / 2.5) + (20\% / 0.75)}$$

BRANZ offers a <u>thermal bridging calculation tool</u> that determines the thermal performance of cavity insulated timber-framed walls.

Technical writers needed – part-time contract roles

BRANZ is seeking part-time contract technical writers who can create practical, useable advice and solutions for the building and construction industry that incorporate our research findings where appropriate.

Your experience as an architect or designer and up to date knowledge of New Zealand building controls will be invaluable as you write Build magazine articles, BRANZ bulletins and much more.

Flexible hours. Variety of writing projects.

Download the role description.

Apply by sending your CV and a cover letter to Build@branz.co.nz by 3 September 2020.

News

- A panel appointed by Environment Minister David Parker to look at the Resource
 Management Act has <u>recommended that the RMA be repealed.</u> The panel recommends that
 two new laws be introduced: a Natural and Built Environments Act and a Strategic Planning
 Act.
- The government has released a <u>National Policy Statement on Urban Development 2020</u> that promotes higher-density housing in urban centres. The statement sets rules for what local councils can do in planning decisions around issues such as setting building height restrictions in city centres and enforcing minimum car parking requirements.
- The <u>number of new homes consented</u> in June 2020 was 3,477, around 20% more compared with June 2019. The number was boosted by a record number of new townhouses, flats and units.
- As part of its response to one of the most severe droughts in recent history, Auckland Council has developed an online tool – <u>Do I need a consent – Rainwater tank</u> – and removed resource consent fees for rainwater tank applications for residential properties.
- The Housing Foundation in Auckland and Queenstown Lakes Community Housing Trust are
 the first providers announced in the government's <u>Progressive Home Ownership Scheme</u>.
 The \$400 million fund is focused on areas where housing affordability is most severe, with
 a strong preference for new houses to build supply.
- The government has released the first <u>national climate change risk assessment</u> for New Zealand. The biggest issues facing the built environment are around risk to potable water supplies and risks from extreme weather events and sea-level rise.