



Guideline

July 2020

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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Refreshed BRANZ website

Easier navigation and a better user experience

The [BRANZ website](#) has been relaunched with a completely refreshed and updated design. All the important information from the old site has been brought across, with some new content as well. The new site has been designed to provide a faster and easier experience for visitors. Note that the MyBRANZ login details you used on the old site will not work with the new one – when you log in to the new site for the first time, you will need to sign up.

The limits of channel drains

Need adequate ground clearance

A number of building consent authorities report that building consent applicants are trying to use channel drains to achieve minimum ground clearance, sometimes with new builds and sometimes with recladding projects.

Relying on channel drains around a building is not good practice. In Acceptable Solution E2/AS1, there is a limit on the length of channel drains. With concrete slab floors, where level access is required from the floor to exterior paving, channel drains can be no more than 3.7 m long (E2/AS1 clause 7.3.2.1).

Adequate ground clearance from cladding and framing is a key component of weathertightness. Where sufficient ground clearance hasn't been achieved, by far the best solution is to lower the surrounding ground level, including installing appropriate drainage. Another option is lifting the cladding and framing using a nib wall or other support, but this is likely to be more expensive.

Remember too that the required height of slab-on-ground finished floor level is 150 mm above adjacent ground level (if protected by permanent paving) as per NZS 3604:2011 clause 7.5.2.1.

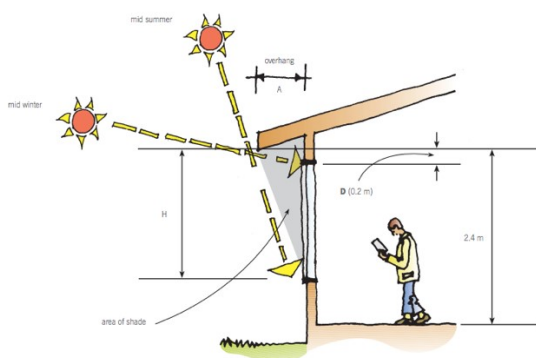
New houses are overheating

And climate change will only make things worse

Discussions about the temperatures inside our houses often focus on how cold they are, but BRANZ research projects are finding that overheating is also a problem in many new-build houses and is likely to get worse.

BRANZ modelled indoor temperatures in 70 randomly selected consented Christchurch houses. The median time of overheating (over 25°C in the lounge) was more than 400 degree-hours per year, with some houses double this figure. Separate calculations based on forecast increases in temperature due to climate change suggest the periods when homes overheat will increase significantly in just the next 10 years. Looking out to 2080, overheating times will more than double in Auckland and Hamilton.

While going well beyond Building Code minimums for thermal insulation is a good idea, thinking more carefully about external shade devices is also important for comfortable homes. The BRANZ Level website gives some useful guidance [here](#).



Starting building work before building consent comes through

Don't jump the gun

BCAs, the LBP Board and other bodies report that it is not uncommon for building work to be started before the building consent has been issued. The rule is simple: you cannot do anything defined as "building work" until consent comes through.

There are some things you can do without building consent, however, including:

- erecting temporary fences and establishing site facilities, including sorting bins for waste materials
- demolishing an existing detached building not more than 3 storeys (but note that, with some exceptions, partial demolition is not exempt)
- minor site clearance (but not earthworks) and work to avoid run-off.

Clients may be keen for you to get cracking on the structure itself, but the consequences could be tough if you do.

Consent exemption for sleepouts sparks interest

But there are limits in how far the exemption applies

The government's announcement that it intends adding single-storey detached buildings up to 30 m² to the list of work that doesn't need a building consent has sparked considerable comment around the country. There are some key limits to bear in mind, however.

The proposed 30 m² exemption has three options:

- Kitset/prefab buildings designed or reviewed by a chartered professional engineer.
- Buildings where an LBP with the appropriate licence carries out or supervises design and construction.
- Building with only lightweight materials used where structural components comply with B1/AS1.

The “lightweight materials” in the third option will be those fitting the definition of “light wall cladding” and “light roof” in NZS 3604:2011 *Timber-framed buildings*, such as weatherboards and profiled steel.

Sleepouts up to 30 m² will only be exempt from consent requirements where the sleepout is used in connection with a dwelling that is used for sanitation. A “dwelling” here isn’t just any building with a kitchen, bathroom and bedrooms where people live. MBIE defines a dwelling by its occupants, who must be a household or family. Determination 2016/029 gives a more detailed explanation. The new exemption is therefore only likely to be applicable for domestic circumstances and not for religious, sporting, educational or other groups that own property.

Note that these structures may have district plan implications, such as recession planes and site coverage, so check with your local council before building. A resource consent may still be required in some circumstances.

For the current exemption around 10 m² detached buildings, the building must be at least a distance equal to its height away from any residential building or legal boundary (so a 3.5 m high sleepout must be at least 3.5 m away from the boundary or the house).

True north vs magnetic north

There are two north poles – don’t mix them up

The common advice is for houses to be oriented so living areas face north to take advantage of solar passive heating. Installers of solar photovoltaic panels or solar water heating panels also aim for the panels to face north where possible for maximum benefit.

We have heard several stories recently where the north direction has been determined using a compass. Unfortunately, this is a mistake that will result in sub-optimal performance.

There are two norths – true north, which is the recommended orientation and the magnetic north (east of true north) that a compass shows. The difference (called the “declination value”) can be significant – from around 19° in Northland to 26° in Southland.

Beware the 5% ventilation compliance method

Some new accommodation buildings can’t use it

The Building Code requires buildings to maintain air purity by a flow of outdoor air through the building envelope. In Acceptable Solution G4/AS1, a net openable area of windows or other openings to the outside of at least 5% of the floor area meets this requirement.

This compliance method, however, cannot be used on an increasing number of buildings – those household and accommodation units where there is only one external wall with opening windows. For those apartments, hotels and other buildings where rooms have windows on just one wall, the 5% rule cannot be used and another means of demonstrating compliance must be found. You can find the details in G4/AS1 clause 1.2.2.

Recent news

- The government has announced a Building for Climate Change programme to reduce greenhouse gas emissions from the construction and operation of buildings. The first Building for Climate Change initiatives, to extend insulation and glazing requirements in new homes, are expected to be consulted on in early 2021.
- Around 13,000 small and medium-sized construction firms have accessed the government's small business cash flow loan scheme since it was launched in May, borrowing more than \$216 million.
- Small construction firms have contributed more to construction industry profit growth in recent years than medium or large businesses, Stats NZ figures show.
- The Resource Management Amendment Bill passed into law at the end of June. Content added while the Bill was in progress includes giving local decision makers the ability to consider climate change mitigation under the RMA.
- After a student's finger was partially amputated during a pre-trade carpentry course, Otago Polytechnic was not fined but must spend \$275,000 on health and safety measures and initiatives. This is the first time a court has imposed an enforceable undertaking under the Health and Safety at Work Act 2015.
- Environmental Choice New Zealand has granted the country's first construction and demolition waste management ecolabel to Christchurch-based Taggart Earthmoving Limited.