

builder'smate



LET'S GET THIS CLEAR

If the top of a concrete slab-on-ground floor is not high enough above the surrounding ground, there can be problems. The lack of clearance can increase the risk of water getting into a building and shorten the life of building materials. Here's a quick run-down on the clearances required for concrete slabs.

Houses with slab-on-ground floors that have inadequate ground clearance can face specific problems:

- Drainage slots for brick veneer wall claddings can get blocked or may even be sitting below ground level. Where this leads to water build-up, the result can be rot in timber framing and mould inside the wall and on interior surfaces.
- Drainage slots at the sill for low or floor-level aluminium joinery can get blocked by paving or soil. This can lead to water damage inside the house.
- Paving or concrete paths around the house that sit at the same level or higher than the floor increase the risk of water entering the house.
- Blocked or restricted drainage/ventilation for nominal 20 mm cavities behind lightweight claddings can lead to water damage.
- Water splash from the adjacent ground onto the base of the claddings can result in a dirty finish and shorter material lifespan. >



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INDUSTRY NEWS

Some standards now free

You can now download some building standards and a handbook for free from the Standards New Zealand website. This can save you hundreds of dollars! The freebies include:

- a simple building contract [NZS 3902:2004]
- barriers around swimming pools and hot tubs [NZS 8500:2006]
- thermal insulation in houses and small buildings [NZS 4218:2009]
- figures and tables around timber-framed buildings [extracts from NZS 3604:2011].

Find out more at www.standards.govt.nz.

BRANZ and CodeMark

BRANZ is now an accredited product certification body for CodeMark. Where building products/systems have a CodeMark certificate, building consent authorities must accept that they comply with the New Zealand Building Code when their use matches the certification.

Healthy rental homes

Regulations for healthy homes standards are coming for rental houses. These standards may cover things like indoor temperatures, moisture levels and ventilation. Back in 1991, around 26% of houses were rentals, but today that figure is over 35%.

HAMMER 'N' NAILS



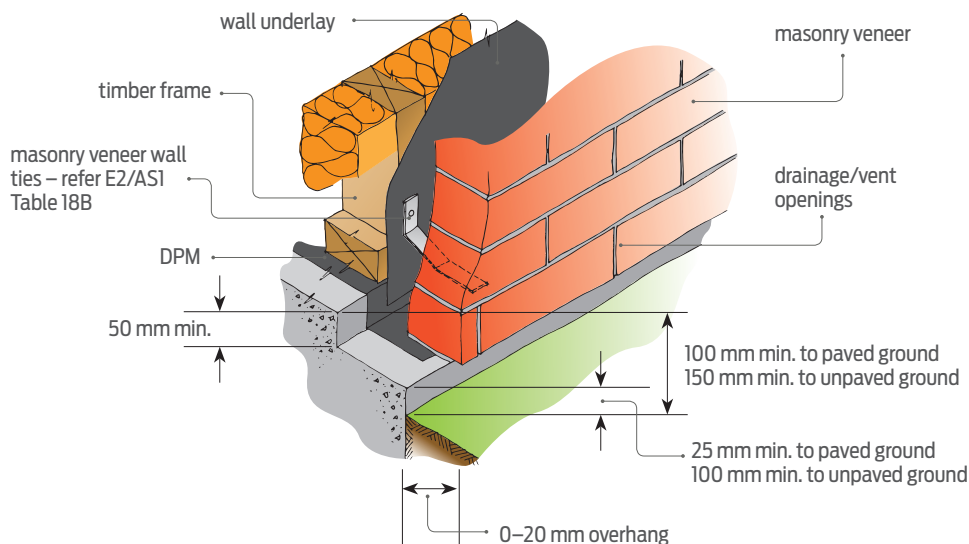


Figure 1. Masonry veneer detail showing clearances to paved and unpaved ground.

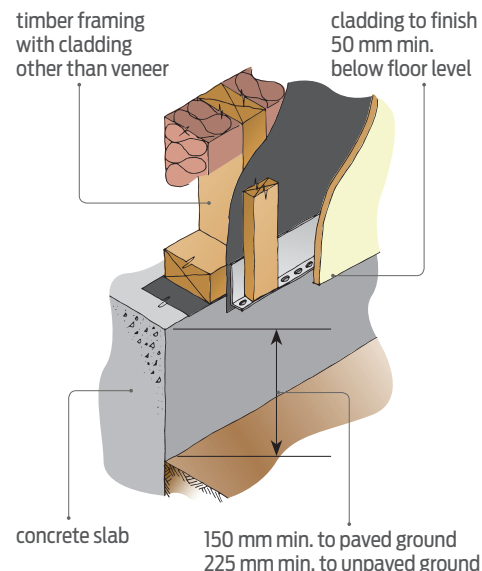


Figure 2. Minimum slab-to-ground clearances for other types of wall cladding.

The key ground clearance requirements for slab floors are found in Acceptable Solutions E1/AS1 and E2/AS1 and NZS 3604:2011 *Timber-framed buildings*.

E1/AS1 says that the floor level should be at least 150 mm above the finished level of the ground around the building. It gives two other requirements:

- Where the site is level with or above the road, the floor level must be at least 150 mm above the crown of the road (on at least one cross-section through the site).

- Where the site is below the road, the floor level must be at least 150 mm above the lowest point on the site boundary.

[E1/AS1 only applies to sites up to 2500 m² that are not low-lying, flood-prone, beside a watercourse or located where stormwater would flow if drainage systems became overloaded. Buildings in these areas require specific design.]

Figures 1 and 2 adapted from Acceptable Solution E2/AS1 show the minimum clearance requirements set out in that document.

E2/AS1 requirements for slab floors and brick veneer cladding [Figure 1] are:

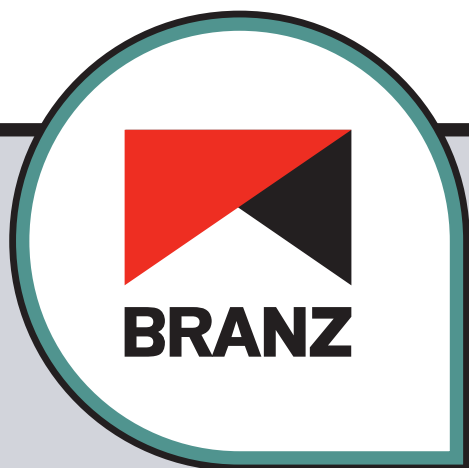
- floor levels that are:

- 100 mm minimum above paving
- 150 mm minimum above unpaved ground
- rebate level to floor level of 50 mm minimum
- rebate level 25 mm minimum above paved ground
- rebate level 100 mm minimum above unpaved ground.

The E2/AS1 requirements for houses with slab floors and other cladding types [Figure 2] are floor levels that are:

- 150 mm minimum above paving
- 225 mm minimum above unpaved ground.

When planning slab floors, take account of the intended finished landscaping around the house to avoid the minimum clearances not being met.



Mouthpiece

In past years, *Builder's Mate* asked tradies to identify their favourite tool. Overwhelmingly, the sabre saw was named as the favourite, probably because of its versatility.

While it may be stretching the definition of 'tool', there was one tool that never got a mention.

That tool is your eyes.

Without them, you can't:

- set out a building
- read plans and installation instructions
- measure anything
- cut a straight line
- check for level
- read delivery dockets to check the correct materials have been delivered
- identify a damaged power cord
- recognise a danger.

The two biggest industry groups with eye injuries in New Zealand over this time were building trades [18%] and metalwork/machinery industries [22%]. This is a disturbing figure as the majority of eye injuries are preventable.

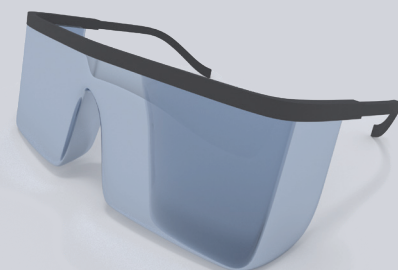
To make the correct decision on the type of protective eyewear to be worn, people in each workplace need a thorough understanding of the potential hazards. The key hazards on a building site are:

- projectiles [concrete, metal, wood, staples, nails and shards of broken material]

- chemicals [splashes and fumes]
- dust and other fine airborne hazards
- radiation [visible light, ultraviolet radiation, heat or infrared radiation, and lasers].

To ensure this essential tool remains in good working condition, look after your eyes by always having on hand safety glasses and the essential sunnies to use where necessary.

It is essential to your job and your future that your eyes are in good working condition. If at any time you believe your vision is affected, seek help immediately from an optometrist.



BUILDING WHAT IS SPECIFIED AND DETAILED

You've got a favourite flexible wall underlay (or building wrap). You can get it for a great price, it's easy to work with, you know exactly how to install it and it's never let you down. Makes sense to use it on all your jobs that need a flexible wall underlay, right?

Wrong. Consider some of the risks you run if you don't use the flexible wall underlay specified in the drawings and documents:

- Using a different material could be a breach of your building contract with the property owner.
- The building consent authority (BCA) may refuse to issue a Code Compliance Certificate until the material is replaced, which may need to be done at your cost and inconvenience. Other building work may need to stop in the meantime.
- Worst case, you may be taking on the legal liability for the performance of that material. For example, E2/AS1 has a few cases such as unlined gable ends where only a few flexible wall underlays comply. If the product you install doesn't perform, the costs could come back to you – and they could be big.

The simple fact in 2018 is that building consents shouldn't be issued unless the designer has identified materials such as wall and roof underlays by product name in the drawings and specifications.

The best approach for builders is to price based on the materials in the drawings and specifications and then build what is detailed.

There are plenty of reasons why you may want to use a different material to the one specified. It may not be available or another product may have better performance or price. Changes to specified products happen all the time, but there is a right way to do it:

- Make sure everyone knows about and accepts the change you want to make – the designer, owner and (in many instances) the building consent authority.
- Get everything recorded in writing. A quick chat on the mobile isn't enough.
- Some changes will affect the building consent. With minor variations, the BCA just adds a note to the file. Major variations need to be consented.

build

"Do you get your free *Build* magazine?"



All building contractors who are in the business of building and have paid a Building Research Levy in the current year can receive BRANZ's *Build* magazine for free. This Levy is paid as part of the building consent fee on all construction projects over \$20,000. If you are missing out on your free copy of *Build*, call 0800 80 80 85 (press 2) or email buildsubs@branz.co.nz.

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Competition

Here is a tool



What is it?

WIN!



**A Makita
bluetooth radio
worth \$287**

This great radio connects wirelessly to your mobile to play music. Weather-resistant and water-resistant for outdoor use. Up to 42 hours on one battery charge. Brilliant!

The prize is provided courtesy of The ToolShed.

All you need to do is tell us the name of the mystery tool at the top of the page.

Email your answer to **buildersmate@branz.co.nz**. Put "April Competition" in the subject line. The message should include your answer, your name, postal address and phone number. One entry per entrant please.

Don't forget to tell us where you picked up your copy of **Builder's Mate**! The winner will be the first correct entry drawn at 9 am on Friday 11 May 2018. Details will be posted on the BRANZ Ltd website (www.branz.nz) and in the next edition of **Builder's Mate** due out on 1 June 2018.



Winner of **Builder's Mate 88** is Ian Lake of Waipu. Ian wins a ToolShed chainsaw worth \$299. The mystery tool was a portable power board with a built-in RCD.

Pictured: December winner Zaida Dimaun of Auckland with her prize.

Terms and conditions:

Entry is open to all New Zealand residents except employees and immediate families of BRANZ and The ToolShed shops. The competition will close at 9 am on Friday 11 May 2018. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into.

+ BUILDERS' APPS

In this series, we introduce some great apps and tools for your smartphone. The apps can be found in the iPhone store and/or the Android store. If you know any you'd like to recommend, email us the details at buildersmate@branz.co.nz.



PASSWORD MANAGER

A password manager app creates and stores secure and unique passwords for all your apps and services. All you need to do is remember one master password.



GOOGLE PHOTOS

Google Photos can store all your photos in the cloud and cleverly organises them to make searches easier. Can sync to all your devices.



BRANZ Facts

BRANZ Facts are a quick way for the construction industry to access key information about topical building issues and related BRANZ research.

Concise and easy to read, these fact sheets are a great way to stay across industry changes, saving time to focus on important tasks. There are seven BRANZ Facts series to date:

- Achieving good affordable rental homes
- Medium-density housing
- Mid-rise buildings
- Roof design
- Seismically resilient non-structural elements
- Sustainable construction
- Valuing sustainability

More fact sheets and series will be added as new research is undertaken.

branz.nz/branzfacts

Free to download

branz.nz/branzfacts | Technical Helpline 0800 80 80 85 | branzfind.co.nz

Inspiring the industry to provide better buildings for New Zealanders

Although BRANZ has made every attempt to ensure the accuracy of its information, it provides generic advice only, and BRANZ accepts no liability for any loss or damage incurred. Opinions expressed in *Builder's Mate* do not necessarily reflect the views of BRANZ. Standards referred to can be purchased from Standards New Zealand. Tel: 0800 782 632 or www.standards.co.nz.

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