BRANZ

FREE TO ALL BUILDERS | ISSUE 95 | APRIL 2019

builder's mate

GOOD RIDDANCE TO RUN-OFF

Uncontrolled run-off from building sites that may contain chemicals or toxins can enter and clog waterways, drains and the stormwater system, killing plants and wildlife. It may also be carried onto nearby properties, upsetting neighbours. There are many practical ways to stop it.

Bare soil and loose materials on site can be swept up by heavy rain (or water from any other source) to become run-off. Where this runs down stormwater drains, it will flow straight into local streams or the sea. This can be seriously harmful, especially if the run-off carries concrete waste, paints or chemicals.

It's not just bad news for nature – under the Resource Management Act, those responsible could be fined up to $600,000 or face 2 years in prison.

Ways to prevent run-off include:

- scheduling earthworks for dry weather
- using tarpaulins or shotcrete to protect exposed soil
- removing the minimum amount of vegetation possible
- having just one stabilised accessway onto the site and putting down GAP 65 aggregate to stop drivers tracking dirt onto the road >

INDUSTRY NEWS

Safety efforts gradually paying off

Five people died on building sites in 2018, evidence of a slowly reducing trend. In the past 7 years, 40 workers have died. Recent deaths were from trench collapse, electric shock, solvent fumes, vehicles rolling onto workers, falls and being struck by machinery.

ACC puts up $22 million for workplace safety

Construction safety training courses and professional advice can be supported by new ACC funding. See www.acc.co.nz.

A new solution for light steel framing on the way

The Ministry of Business, Innovation and Employment is working on a design standard for light steel framing in low-rise buildings, making it easier to demonstrate Building Code compliance.

Building Basics *Lightweight Steel Framing*

BRANZ has released a second edition of Building Basics *Lightweight Steel Framing*. Order in printed and/or digital format at www.branz.co.nz or by calling 0800 80 80 85 (press 2).

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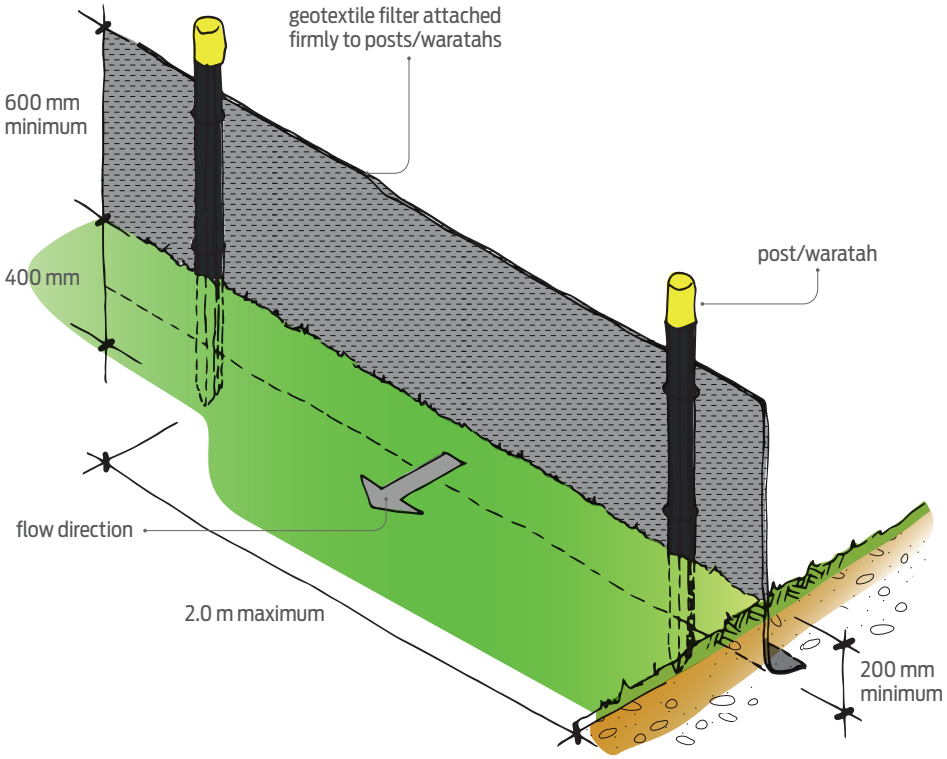


Figure 1. A silt fence reduces sediment run-off on sloping sites.

- diverting water (other than rain) away from earthworks and onto stable ground (grass, gravel or permeable paving)
- keeping as much existing grass coverage on site as possible and stabilising bare soil as soon as possible with mulch, gravel, planting or new grass
- controlling the flow of water with channels or contour drains.

Sediment control

Control sediment run-off with:

- vegetation
- silt fences on the downhill side of sloping sites to capture sediment run-off (Figure 1)
- hay or straw bales to trap sediment
- sediment ponds.

Keep silt control devices clear and ensure that cleared material cannot run into waterways or drains.

Concrete, asphalt and bitumen waste

Concrete wash water, cement slurry, asphalt and bitumen can join run-off when the materials

are laid, equipment is washed or concrete is waterblasted to expose aggregate. Concrete and cement products can change the pH levels of streams, killing wildlife. One bucket of concrete wastewater in a stormwater drain can kill hundreds of fish and eels. It takes 100,000 litres of freshwater to dilute just 1 litre of concrete slurry to safe levels.

Contain run-off from concrete, asphalt and bitumen on site by:

- dewatering pile holes and footing trenches before pouring concrete to stop slurry spilling out and into drains
- diverting it onto on-site grass or soil for later clean-up
- containing it in an appropriate storage tank if possible.

Talk to subbies and delivery drivers to make sure they wash concrete equipment on unsealed ground on site such as gravel or grass and they don't let washing water or concrete slurry run into stormwater drains.

BRANZ

Mouthpiece

New standards for rental homes

Nearly 600,000 households rent their homes, and BRANZ research has found the average rental property is of significantly poorer quality than owner-occupied housing.

Around 6,000 children go into hospital each year for health problems caused or made worse by poor housing. These kids are nearly four times more likely to return to hospital than the average and 10 times more likely to die in the following 10 years.

Government has acted to make rental homes safer and warmer. In 2016, smoke alarms became mandatory in rentals, and from 1 July this year, there are minimum requirements for ceiling and underfloor insulation where it can be practically installed.

The bar has just been lifted again, with new healthy home standards announced in February. Many rental properties will need upgrades in coming years.

Rental homes will need to have:

- a heater that can heat the main living area to 18°C in winter
- ceiling and underfloor insulation that either meets the 2008 Building Code insulation standard or (for existing ceiling insulation) has a minimum thickness of 120 mm
- extract fans or rangehoods in kitchens and bathrooms
- a ground moisture barrier to stop moisture rising into the home (for homes with an enclosed subfloor space)
- adequate drainage and guttering to prevent water entering the home
- blocks to prevent draughts that make a home harder to heat.

From 1 July 2021, rental homes must comply with these rules within 90 days of a new tenancy. By 1 July 2024, all rental homes must comply.

BUILT-UP MEMBERS

Bottom and top plates and jack studs must be solid timber, but elsewhere, NZS 3604:2011 *Timber-framed buildings* allows the use of up to six framing members nailed together. There are a few rules to follow, however.

Individual framing members that make up the built-up member must:

- be the same width and grade of timber as the member being substituted
- match or exceed the thickness required in NZS 3604:2011 when built up.

When the built-up member is made of up to three members:

- the spacing of the nails must not exceed six times the thickness of the thinnest member (Figure 2)
- all nails must penetrate at least three-quarters of the last framing member
- nails must be driven from alternate sides.

When members are 140 mm or more wide, at least two rows of nails are required (Figure 3).

Where the built-up member consists of more than three members, first assemble the first three as above. After that, nail additional layers with nails twice as long and spaced at six times the thickness of the member added (Figure 4).

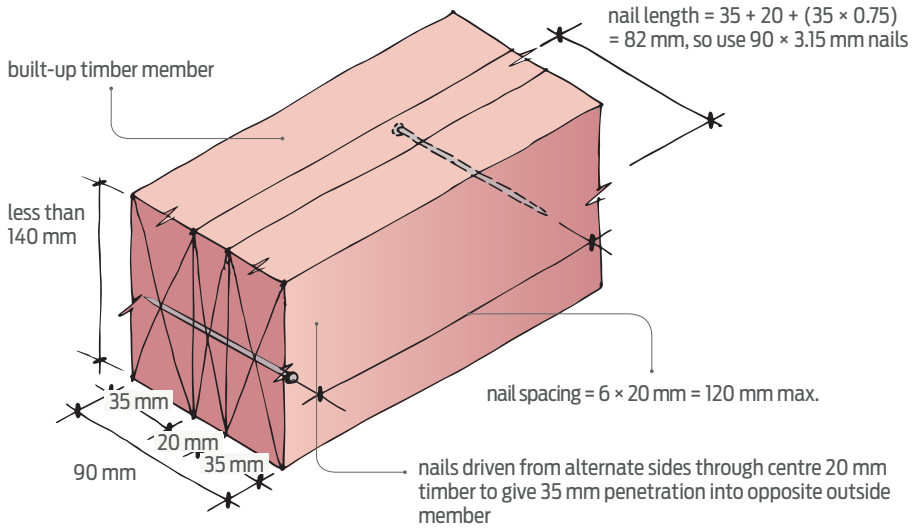


Figure 2. Built-up horizontal member under 140 mm deep (lintel or beam).

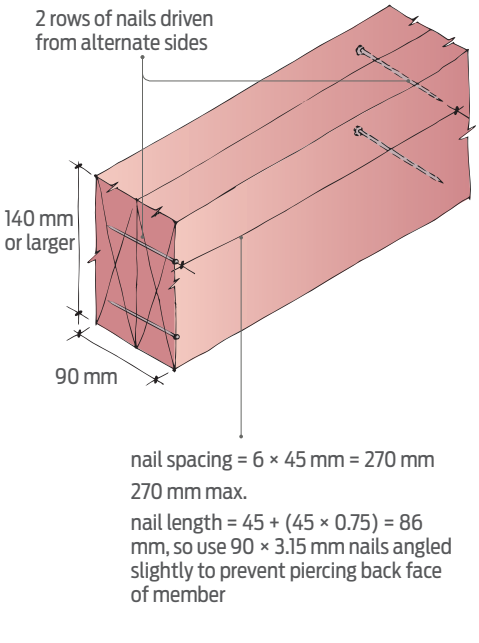


Figure 3. Built-up horizontal member 140 mm or deeper (lintel or beam) with two rows of nails.

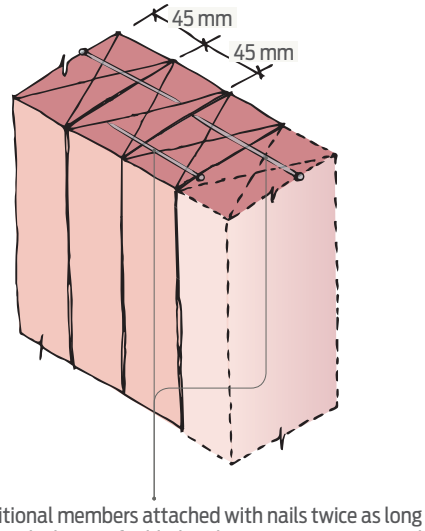
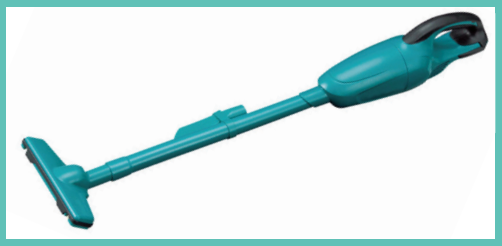


Figure 4. Built-up member with more than three vertical members (typical for trimming studs).

Competition

Here is a tool



What is it?

WIN!

A Makita bluetooth radio worth $299!

This great radio (digital AM/FM tuner and presets) connects wirelessly to your mobile to play music. Water resistant for outdoor use. Up to 42 hours on one battery. 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 17 May 2019. 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 2019.

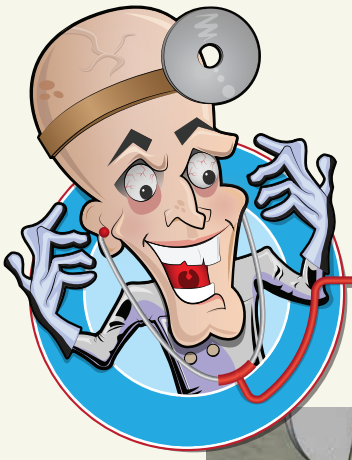
The ToolShed

Winner of ***Builder's Mate 94*** was Angela Peden of Botany, Auckland. Angela wins a Milwaukee 18v cordless hammer drill. The mystery tool was a tubing cutter.

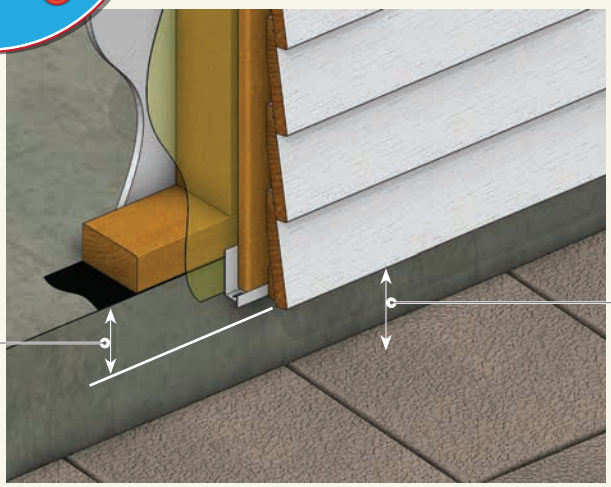
Pictured December winner Derek Kostelijk with his prize, a ToolShed rail saw.

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 17 May 2019. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into.



DR DETAIL



Cladding clearance

This is a common detail for lightweight claddings on a house with a concrete slab floor. Making sure you comply with the minimum clearances is important for the durability of materials and keeping the house weathertight.