

# Builder's MATE



FREE TO ALL BUILDERS



## Industry News

### End bad debt

Bad debt plagues the building industry – Auckland alone has amassed more than \$150 million in the past five years. Now high-risk builders and contractors with poor credit performances will come under the watchful eye of new technology backed by the Building Industry Federation. Credit Reference Industry Solution (CRISworks) provides a credit reference list for suppliers. Only those companies that contribute their own data are allowed access to consolidated debt information. For details call 0508 273 348.

### On course for safety

Site Safe has developed a Health and Safety Representative course especially for construction industry workers. It provides information, skills and the tools necessary to ensure a safe working environment. The two-day interactive course shows how to develop and implement hazard management systems that involve employees, foster good employment relations and meet legislative requirements. Courses begin in November. For information, call 04 499 2509.

## In support of reinforcing

### Why concrete cover is so important

You know all there is to know about reinforcing concrete, don't you? Yeah, right! Well here is a reminder of the importance of using the correct concrete cover when concrete is being poured directly against the ground.

Increase the cover from 50mm to 75mm minimum when concrete is being cast directly against the ground. This is to allow for the uneven surface of the excavated ground. The 75mm clearance also applies to the sides of any excavation if there is no formwork being used.

Remember to provide good support for the reinforcing, so it will sit at least 75mm from the excavated surface and make sure the reinforcing bars are held securely so they don't sag into the 75mm clearance zone. Without proper support, the reinforcing steel will be

displaced as the concrete is placed and without sufficient concrete cover it will corrode.

If water can get to the steel, it will rust and expand. This will cause the concrete to break away from the reinforcing, letting in more water and accelerating the whole rusting process.

For this reason the reinforcing steel should never be supported on bits of timber or held by steel off-cuts that have been driven into the ground to support the cages – this is a big no-no.

For a start, timber will rot and let water get at the reinforcing steel. So, too, will reinforcing steel that has been driven into the ground and used to support the main cages: it'll simply rust away, leaving a clear path for water.

Continued on p2

## HAMMER 'N' NAILS



Inside: Be in to win a Makita circular saw worth \$270



From p1

Use proprietary plastic chairs, polypropylene pegs or dense concrete blocks to hold reinforcing bars at the correct height and position while the concrete is being placed. Alternatively, hang the bars from overhead falsework to ensure that there is adequate support.

If you're placing concrete directly into an unlined trench, use excavation methods that will provide cleanly cut and stable sides. If you can't do this, then you must provide rigid formwork.

Make sure that there is a level and clean bottom to all the excavations. Debris or loose material will not provide good support for a footing.

There must never be a moisture pathway from the ground to the reinforcing. Remember, make sure there is always at least 75mm of concrete between the nearest reinforcing bar and the earth. This includes the sides of trenches as well as the bottom.

**Whether your reinforcing job is big or small, the requirements for maintaining sufficient concrete cover remain the same.**



Chocks of firewood and steel off-cuts are not acceptable supports for reinforcing!

The steel cage for the footing has been wire-tied to this rod to support the cage in position. A quick fix maybe, but not the right one.

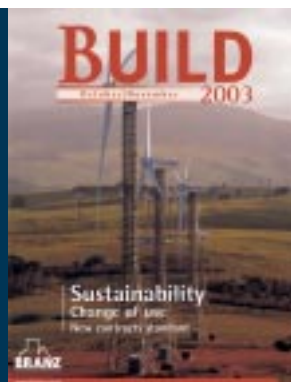
Proprietary bar chairs are supporting the reinforcing the correct 75mm above the ground.

**BUILD** magazine

*Want to know more?*

Our steel reinforcing feature is taken from one that first appeared in BUILD magazine. Published every two months, BUILD is the industry magazine for building-related issues. Subscriptions: \$54. Free to building company owners and sole building traders.

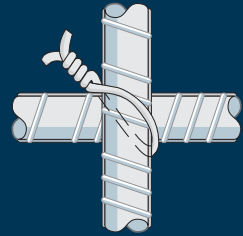
Visit [www.branz.co.nz](http://www.branz.co.nz) to find out more.



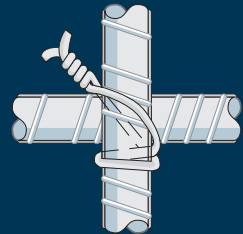
## Tied and tested

Whether it's a major project or a small house foundation, the reinforcing steel bars are generally hand-tied with wire. Even the big, pre-formed cages are made this way.

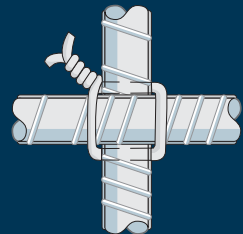
- 1) Slash, simple, or snap ties are most commonly used for infill ties. Often the wire ties are doubled for added strength.



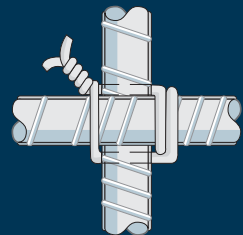
- 2) Ring slash or wall ties prevent bar displacement and are often used to tie smooth stirrups to main deformed bars.



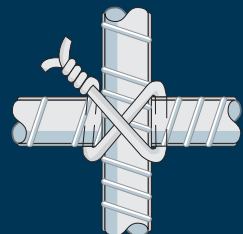
- 3) The hairpin or saddle tie is used as an alternative to the ring-slash tie and is excellent for key bars.



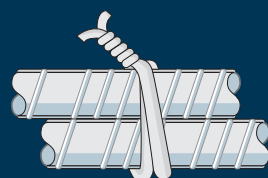
- 4) The ring hairpin or saddle tie with a twist is sometimes used to tie main bars and to prevent bar displacement.



- 5) Crown tie, cross tie or figure eight tie is a common tie used on main bars for setting-up and tying springy bars.



- 6) Splice tie is used when tying lapped lengths of rebar, etc.



**Next time Lintels – up or down?**  
**Builder's Mate issue 3 out January 3 2004**

# Fixed in a flash

It may seem like a pain, but adding a head flashing to windows means less chance of having to backtrack later to fix leaks.

Have you struggled getting the head flashing up behind the underlay lately? (By underlay, we mean any building paper or synthetic wrap or ply or fibre cement sheet – anything behind the cladding.)

Some claddings make it difficult – it looks terrible until covered up and is another potential tear in the secondary weather defence. It's recommended practice, but there's more than one way to skin a cat.

The point is to make sure any water that runs down the underlay is caught by the flashing and drained to the outside. The problem is that it's not always easy to do.

You can see how the problem arises in figure 1. The underlay has been turned in around the edges of the opening trimmers and taped. It doesn't make sense to then cut into the underlay for the head flashing.

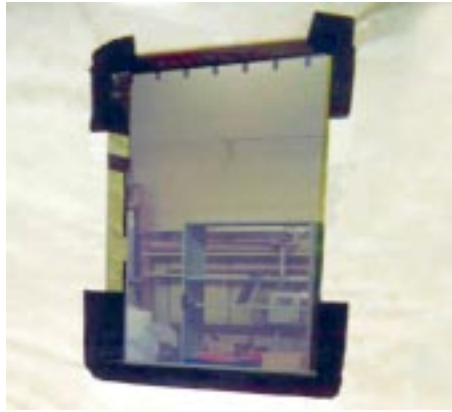


Figure 1: This window opening has had the underlay taped to the trimmers. This means any water running down it will go behind the flashing – not a good idea.

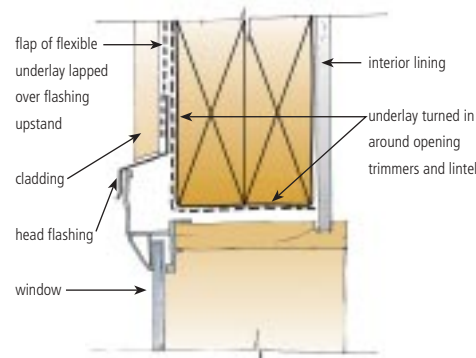


Figure 2: Window head detail (low wind zone).

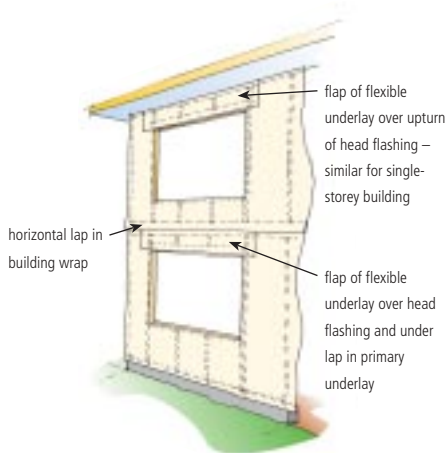


Figure 3: Position of underlay 'flaps' over window heads.

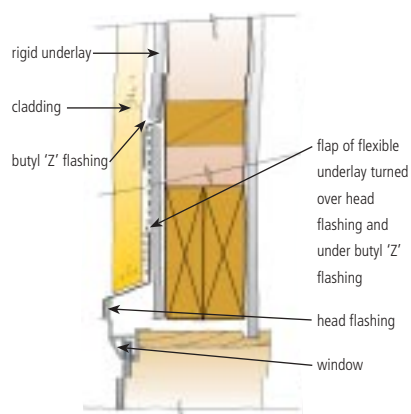


Figure 4: Window head – rigid underlay (low wind zone).

## In a flap

One way to solve this is to use a flap of underlay. It works for claddings fixed directly to the frame, as well as for cavities.

Instead of cutting into the underlay, leave the upturn of the head flashing on the outside of the underlay and lay another strip of underlay over it, (see figure 2).

For a single-storey building it's not far to extend the flap to the top of the wall. For a double storey (or higher) just extend the flap to the next lap in the underlay – see figure 3.

## Rigid underlays

If you're using a rigid underlay, fold in a Z flashing along the horizontal joins, using a strip of butyl. A flap of underlay can then be folded in under the butyl at the next convenient horizontal line above (see figure 4).

Make sure the flap extends beyond the end of the opening by a handspan or so, just to be on the safe side.

Can we fix it?  
Yes we can!

Have you got a building problem you want solved? Write to Builder's Mate at Freepost BRANZ, Private Bag 50 908, Porirua City.



## Dribblings from the old Beezer

Building sites are not for the faint-hearted. Before health and safety plans, the behaviour of site workers was even more cavalier and dashing than it is today.

The more daring workers rode the crane hooks; steelies walked girders unharnessed, ladders were balanced or leant against something, but never restrained, and workers swung down scaffolds like monkeys in a jungle.

Fortunately, we now take a more measured and formal approach to safety. A work plan is produced, hazards are identified and a (health and safety) plan is nussed out to manage those hazards for everyone who comes on to the site.

At least, that's what happens on commercial sites but is it happening at house-construction level? I'd say, no, not usually.

Please, always be vigilant on safety matters and always follow the health and safety guidelines to eliminate, isolate or minimise hazards.

Des Molloy, BRANZ Technical Writer

## Product information

### Timber fascia system

We're always on the lookout for nifty little products, and this one caught our eye. The BRANZ-appraised Bildon 2000 Solid Timber Fascia System includes timber

fascia and barge boards, metal fixing brackets, soakers and fastenings, used at the roof line of buildings that meet the scope of NZS 3604: 1999. The boards are H3-treated radiata pine; brackets: galvanised or stainless steel; nail and screw fastenings, soaker and joiner plates: stainless steel. For details, call 07 541 2580.





*win!*  
a Makita circular  
saw worth \$270

## Hurry – we want your best ideas!

What sort of features would you like to see tackled in Builder's Mate? Have you got a building problem you want fixed? Is there an issue that's bugging you? Or are you looking for a definitive answer on the right way to tackle a particular job?

Whatever it is, we want to hear from you. We're giving away a Makita 7¼" circular saw with carbide tipped blade, rip fence and wrench holder, to the builder who comes up with the most interesting feature suggestion and you don't have to limit yourself to one! So, get your mates together at smoko and send us a list!

Terms and conditions: Entry is open to all New Zealand residents, except employees and immediate families of BRANZ Ltd, BRANZ Inc, BRANZ Pty and Makita. The competition will close at 9am on Monday January 5. The prize is not transferable. The judge's decision is final. No correspondence will be entered into.

Write your ideas on the back of an envelope, together with your name and address, and post it, before Monday January 5, 2004 to:

Builder's Mate  
Freepost BRANZ  
Private Bag 50 908  
Porirua City.

The winner will be announced in the February/March 2004 edition of BUILD magazine, out on January 30. Subscribe today!

## Blockes on the job



### Mike Bleakley Building in Paramata

**Favourite tool** Likes his bradawl even though it is not often used.

**Favourite tip** Look after your tools. Mike has some electrical tools that are 25 years old.



### Chris Allwood Building in Whitby

**Favourite tool** Paslode nail gun.

**Favourite tip** The one room you must get perfect is the toilet because of the time the client spends in there, sitting and looking around!



### Gary Wearne Building in Whitby

**Favourite tool** Hitachi hand planer. It goes on every job he does.

**Favourite tip** Always finish the task in hand before going home so you don't start another task the next day and leave something half done.

## BRANZ Read all about us

BUILDING ON KNOWLEDGE

We're the Building Research Association of New Zealand, set up in 1969 by the building industry for the general development of building and construction in New Zealand. We're also a resource for independent, unbiased research, testing and information. We are here for you.

### BRANZ Advisory Helpline

If you want an answer to a question and you want it now get on the blower to the BRANZ Advisory Helpline: 0800 80 80 85. Eddie Bruce is the guy with all the answers – he'll sort you out.

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### Build Right

Build Right – a collection of the best and most popular features from BUILD magazine. A must-have guide for all those in the building industry. It's packed with easy-to-understand diagrams, full-colour photographs and illustrations that will guide you through each step of the building process. There are more than 60 features on everything from building controls, LIMs and PIMs to weathertightness – advice you can't afford to be without.



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Editor: Diane Robinson  
[dianerobinson@branz.co.nz](mailto:dianerobinson@branz.co.nz)



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Know a bloke on the job? Send his photo, tip and favourite tool to us at BRANZ and you could win a \$50 BRANZ book voucher.