

Builder's

MATE

January 2004

Issue 3



FREE TO ALL BUILDERS

Tie the lintels down, sport

Lintels must be tied down where they resist uplift and there are certain rules that you must follow to install them correctly.

Table 8.14 of NZS 3604 Timber Framed Buildings is a chart that defines which lintels need uplift fixings. You'll see from the chart that it depends on which wind zone the building is in, the roof weight and how much roof the lintel is supporting, as to whether uplift fixings are needed.

We won't cover the sizing of lintels here because this can be quite complicated and it should be sorted by a designer before the building consent is issued.

Points to be aware of, though, are the need for a doubling stud under the lintel if it is more than 150mm

deep, and the need to add in another full-height trimming stud when the bottom of a lintel is more than 400mm below the top plate. Take a look at Figure 8.5 of NZS 3604 – it illustrates these points well.

When a roof needs to be held down, there must be strong connections from the roof, through the top plate all the way down to the foundations:

- The top plate is fixed to the lintel and the lintel fixed to the doubling stud
- The doubling stud must also be fixed to the bottom plate
- The bottom plate must, in turn, have a fixing to the floor slab or foundation wall within 150mm of the doubling stud – just like a bracing panel.

Continued on p2



More fixings are needed at these two points if this lintel is to resist uplift

Industry News

Stucco success stories

If you didn't get all you wanted for Christmas then BRANZ just may be able to help with two new books. The latest addition to our stable of Good Practice Guides is Stucco (\$39.95). This updated version of a BRANZ bestseller incorporates the latest NZBC requirements and BRANZ recommendations – and is an invaluable how-to guide for professionals keen to ensure their work remains weathertight. As a companion publication, Weathertight Solutions Volume 2 – Stucco, provides an extensive range of details, covering most of the junctions and openings in stucco claddings likely to be encountered on buildings in New Zealand. Price: \$85. Special offer - buy both the Stucco Good Practice Guide and Weathertight Solutions for just \$100. Visit BRANZ Bookshop at www.branz.co.nz for more information.

All's well with Airwell

Airwell air conditioning systems have set up a free-call technical support line for help with service, parts, installation and operating queries. It caters for consumers and specialist Airwell technicians: 0800 180 094.

HAMMER 'N' NAILS

THINK ABOUT IT HAMMER-WARNING MUST BE GIVEN BEFORE EXPLOSIVE SHOTS ARE FIRED.

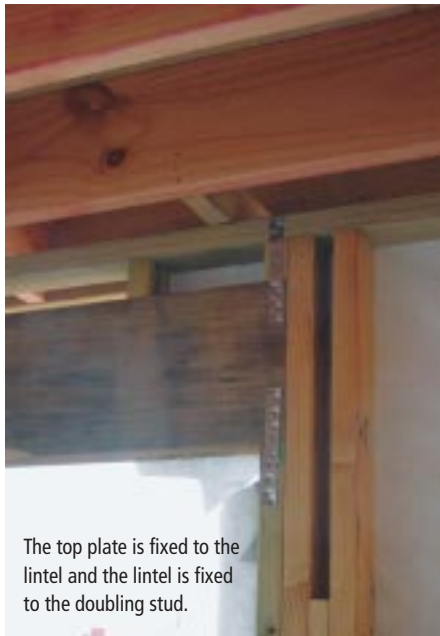


Inside: Win a Makita plunge router worth over \$500!





In bottom plate fixings the hold-down bolt must be within 150mm of the tied stud. Six nails must hold the strap to the stud and bottom plate on each side.



The top plate is fixed to the lintel and the lintel is fixed to the doubling stud.



Lintels less than 150mm deep can be checked into the trimming stud to resist uplift.

From p1

This way, the lintel is held securely all the way down to the foundation, as well as being supported from beneath to do its job of holding up the load above.

For a bottom plate fixed to a concrete floor, a strap fixing is used that goes beneath the bottom plate and up both sides of the trimmer stud.

For suspended timber floors, the strap fixing needs only be on one side, with 6/30 x 2.5mm nails on both the stud and floor joist.

The lintel only has to be strapped on one side. See figure 8.12 in NZS 3604. Although it's convenient to strap the lintel to the doubling stud on the inside of the framing, so that the building inspector can see it when he/she does the pre-line inspection, some builders prefer the strap on the outside so that the wall linings don't bulge.

Know your crane signals

Cranes should be directed (dogged) by competent, trained and authorised staff. OSH publishes standard hand signals and six of the common ones are shown here. For a full set of signals contact your nearest OSH office or visit their website www.osh.govt.nz. Alternatively, contact the Power Crane Association www.pca.org.nz.

- 1. Hoist:** This means lift the load. With your forearm vertical, forefinger pointing up, move your hand in horizontal circles. (If your free arm is held motionless across your chest, this means hoist slowly.)



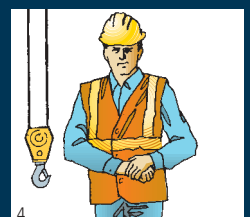
- 2. Lower:** With your arm extended downward, forefinger pointing down, move your arm in horizontal circles.



- 3. Slew:** Arm extended, point with finger in direction of swing of boom.



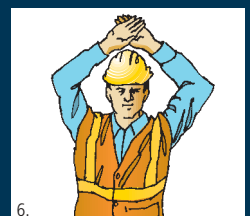
- 4. Hold everything:** Clasp your hands in front of your body. This is usually done to indicate a pause in proceedings, usually to check something.



- 5. Stop:** Extend one arm and hold up the palm of your hand. If both hands are extended in a similar fashion this calls for an emergency stop.



- 6. Finished with the crane:** Place your arms above your head and cross your hands. This signal releases the crane from the lifting tasks.



BUILD magazine

Want to know more?

BRANZ Guide to Lintels and Beams provides a design basis for a broad range of lintels and beams which support light timber-frame constructions. Available online from BRANZ Bookshop, www.branz.co.nz, or phone our customer services manager on **0800 80 80 85**. Price: \$18, incl gst, plus \$4 p&p.

BUILD magazine is the industry magazine for building-related issues. Subscriptions: \$54. Free to building company owners and sole traders. Visit www.branz.co.nz to find out more or call **0800 80 80 85**.



Next time Construction Contracts Act
how to make it work for you
Next issue out March 1

Step on up

There are clear requirements for the ground floor slab of a building to be higher than the ground level outside. But currently there is no similar requirement for doors on to a balcony - and this is an area where many leaks can begin. Having a step goes a long way towards keeping water out.

Slope the balcony

To work effectively, balconies need to be lower than the adjacent floor (ideally 100mm or more). Balconies should slope with a fall of at least 25mm for every metre. They need to have a clear slope to the drain point, which must be of a size that will handle extreme weather conditions. There should also be an overflow that is 50mm lower than the inside floor level, to stop water flowing back into the building.

Keep wall claddings clear

Wall claddings coming down to balcony deck areas need to have a clearance of 50mm so surface moisture can't wick back up the wall cladding and into the wall framing. The balcony floor material must turn up behind the cladding at least 100mm to allow this clearance gap.

Use air seals

On exposed sites it's a good idea to incorporate air seals right around the door frame, including under the sill, to stop the passage of air. No air flow means no opportunity for the air to bring moisture in with it.

For waterproof decks, the waterproof membrane should be turned up, not only behind the cladding but up and under the door sill to form a watertight flashing. This way any water leakage at the door sill or splashes from the deck, or water entering the jambs, will be caught and directed out.

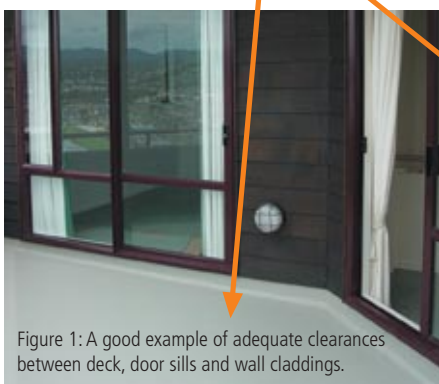


Figure 1: A good example of adequate clearances between deck, door sills and wall claddings.



Figure 2: Drain point with overflow.



For a FREE copy of BRNZ weathertightness poster, phone our customer service manager on 0800 80 80 85, press 3.



Dribblings from the old Beezer

How are frontline builders and site workers keeping up with industry initiatives and requirements?

A flippant answer could be to say 'They aren't!' Many builders belong to the Master Builders or Certified Builders associations, which distribute relevant information and advise their members of seminars and the like. But most builders are just out there doing their best to make a living in a hard industry.

I would say that a lot of the knowledge about new construction developments and initiatives comes from the bottom because - typically - it's our apprentices who are getting the most up-to-date information. This filters its way back to the site and up to the bosses - sometimes to be met with resistance and derision.

Don't knock the junior woodchuck - he just might be right. And remember, he does hold the key to the future of our industry.

Des Molloy, BRNZ Technical Writer

Product information

Cool for Bobcats

The latest in big boys' toys: the new Bobcat S150 Skid Steer Loader. We're told its Kubota engine produces plenty of breakout force for excavating and handling large loads. Comfort factors include a long wheelbase for a smoother ride, good visibility, rear pivot seat bar and fully-adjustable suspension seat. Talk to Bobcat New Zealand on 0508 262 228.





We had such a great response to our mystery tool competition in our first issue, we're going to give it another go!

This month you've got the chance to win a Makita plunge router worth over \$500! The Makita plunge router features an electric brake for fast stopping of bit; a 0-2 3/8" plunge depth capacity for easy penetration; multiple depth adjustments; a shaft lock for quick and easy bit changes and accepts 1/2" and 1/4" shank bits.

Write your answer on the back on an envelope, tell us where you picked up your copy of Builder's Mate, and post it, before March 1 2004, to:

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

The winner will be announced on March 1 on BRANZ website and in the April/May 2004 edition of BUILD magazine, out on March 31 2004. Subscribe today!



To be in with a chance to win, just write and tell us what this tool is and what it's used for.

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 March 1 2004. The prize is not transferable. The judge's decision is final. No correspondence will be entered into. BRANZ may, from time to time, send you information about our products. You can contact us at any time if you do not wish to receive this information.

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.

BRANZ Bookshop

Browse the BRANZ online bookshop for our latest books, Good Practice guides, technical bulletins, conference papers – and more. Order online at www.branz.co.nz or phone our customer services manager on 0800 80 80 85 press 3. Be sure to ask for a copy of our free BRANZ Publications Catalogue.

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.

Buy any BRANZ publication online and be in with a chance to win \$100 worth of BRANZ publications of your choice. Just go to www.branz.co.nz and follow the shopping trolley icon.

Blockes on the job



Gordon Hirtzel recently framed up a house above the Hutt Valley

Favourite tool the Paslode nail gun. Without it, he says, the job would have taken three times as long – and he would have been knackered at the end!



Phil Winyard pictured in his mobile smoko shed, building in Whitby

Favourite tool His 2.4 m level. He has used it every day since buying it. He says that on windy days in Wellington you can't use a plumbob.



Tai building in Whitby

Favourite tool his alarm clock! He says that without it he'd never get to the site!

Editor: Diane Robinson
dianerobinson@branz.co.nz



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: 04 598 5991 or www.standards.co.nz.

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.