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MISSING LINKS IN ROOF BRACING

From time to time during my site inspections, I will find a builder that seems oblivious to any bracing requirements beyond that on a sloping top chord.

Often missing are additional bracing on the vertical faces of cut-off/half trusses and northlights, and on the underside of cantilevers.

Even if the carpenters do install stock standard bracing on top of their trusses, the trouble is that the bracing forces which accumulate at both ends of the Speedbrace are left to disappear into

required to transfer the roof bracing forces to the bottom of the truss where the supporting structure takes over.

Northlights present a similar vertical face that should also have to transfer bracing from the upper roof down to the lower roof plane.

The second area where I occasionally find inadequate bracing is in a cantilevered situation.

The builder either terminates the Speedbrace prematurely on the top chord above the supporting wall (see photo) or bends it down steeply towards

indicate these details and their location on the truss layout wherever they are required.

A reference to the page number in the accompanying fixing & bracing guidelines is also acceptable.

A general note on the side is the least effective method as the carpenter may not see it or appreciate when it is required.

Ensure that you supply a "Fixing and Bracing Guidelines" booklet with every job and that the edition is up-to-date.



■ Roof bracing not connected to supporting structure.



■ No connectivity between roof and wall bracing.

fibro sheeting and somehow reappear again at the top plate level.

If I were an anthropologist, I would describe these as the "Missing Links".

AS 4440:2004, the Australian Standard for Installation of Nailplated Timber Roof Trusses states that roof bracing is required "to transfer forces generated in the top chord restraints (i.e. roof battens or purlins) back to the supporting structure."

So let us have a look at how this works in situations where the heel of a truss does not sit directly above the wall.

The most common area where this occurs is in cut-off or half trusses.

Where Speedbrace is anchored to the apex of a half truss, additional cross bracing on the vertical end face is then

the top plate at that point. Neither is acceptable.

The former does not transfer forces down to the supporting wall and the latter exerts an excessive lateral force sideways on the truss. The proper method is to extend the Speedbrace right to the cantilevered heel end of the truss and then to brace it back to the top plate at a bottom chord level.

So how can we make sure that adequate bracing is installed in these areas?

Here are a few suggestions:

Truss detailers normally show top chord bracing on their truss layouts. However, the additional bracing details mentioned above are not often indicated on the same drawing.

My recommendation is to always

Talk to your nailplate supplier about running a truss installers course for your customers.

This course can also be used to promote any new products or services that you offer because it is run specifically for you.

It may also assist your customers accumulate (CPD) compulsory professional development hours.

A mail out of this Guideline to your local certifiers will also help ensure that they are aware of this requirement.

They are a great asset in educating the wider industry during their inspections on compliance with the Australian Standards.

Don't leave these bracing details to chance.