



Fixing of wall top plates



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HOW TO USE NZS 3604:2011 TABLE 8.18 REMAINS A COMMON QUESTION TO THE BRANZ HELPLINE, EVEN THOUGH IT'S BEEN TOUCHED ON IN SEVERAL *BUILD* ARTICLES. THIS TIME, WE WORK THROUGH IT STEP BY STEP.

TO PREVENT UPLIFT, some top plates only require 0.7 kN Type A fixings attaching the top plates to studs and lintels. However, in other cases, additional securing is needed to studs and lintels (see Figure 1).

When are extra uplift fixings required?

Where lintels in NZS 3604:2011 *Timber-framed buildings* Figure 8.12 require uplift fixings at the ends to trimming studs, the studs and lintels will almost certainly require securing to top plates at 600 mm centres with a 4.7 kN Type B fixing (see Table 8.18).

For lintel to trimming stud requirements, see NZS 3604:2011 Figure 8.12 and Table 8.14, and *Build* 138 pages 33–34, Lintel fixings.

Example 1

In the first example of how to use Table 8.18, the parameters are:

- light roof
- rafters or trusses at 900 mm centres (spacing actually makes no difference to the top plate to studs and lintel fixing requirements)
- low wind zone
- loaded dimension of 4 m.

Using Table 8.18, work through the steps (see Figure 2):

- Step 1 – Choose the roof (light).
- Step 2 – Choose the wind zone and the correct roof member spacing (900 and low).
- Step 3 – Choose the loaded dimension (4 m).
- Step 4 – Align steps 2 and 3 to determine the fixing type required (Type A)
- Step 5 – Read off the fixing that is required at 600 centres maximum.

For this example, 2/90 × 3.15 mm end nails or an alternative fixing that provides 0.7 kN in tension are required. It is likely the nails will be used.

Fixings required from Table 8.18

Fixings required from Table 8.12

Fixing as per Table 8.18 or strap fixings 0.7/4.7 kN capacity. (A continuous strap over the jack stud from top plate to lintel may be used.)

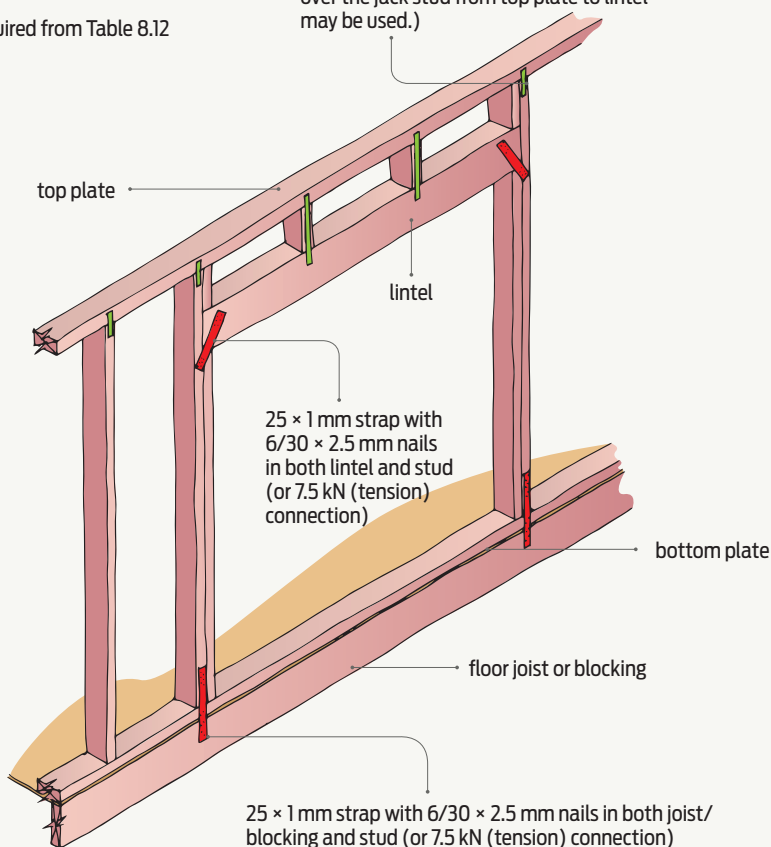


Figure 1 Location of additional fixings required in frames.

Example 2

With our second example, we have:

- heavy roof
- rafters or trusses at 900 mm centres
- high wind zone

loaded dimension of 4 m.
Using Table 8.18, work through the steps again (see Figure 3):

- Step 1 – Choose the roof (heavy).
- Step 2 – Choose the wind zone (high).