

#### **GUIDE TO THE USE OF AS 1684**

## **Fixing of Top of Bracing Walls**

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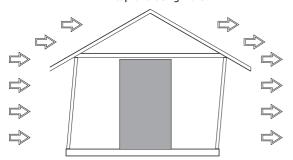
June 2012

(The Code clause and table references given below apply to Part 2 and Part 3 unless specifically noted)

#### **Background**

The tops of internal bracing walls are required to be fixed to the floor, ceiling or roof diaphragm (or more correctly, the floor/ceiling/roof diaphragm is required to be fixed to the tops of bracing walls) to enable lateral loads (racking forces) which occur on the external walls and roof, to be evenly distributed into all the bracing walls, including the internal bracing walls.

Ceiling diaphragm not connected to top of bracing walls

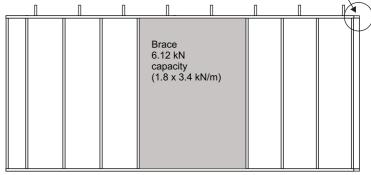


Internal bracing walls can be connected to the floor/ceiling/roof diaphragm either directly (a connection at the actual position of the bracing wall) or at some other position in the same wall but away from the actual brace. For this latter case, the top plate in the wall will need to provide a continuous tie from the braced section of wall to where the top plate is connected such as at an external wall.

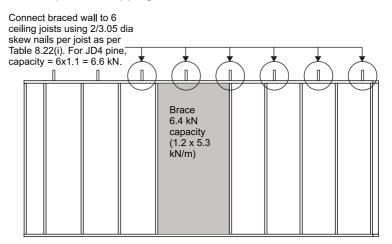
#### **Examples of Acceptable Procedures**

The following examples are provided to illustrate acceptable methods for connections at the top of bracing walls, that satisfy the requirements of **Clause 8.3.6.9** of AS 1684 Part 2 and Part 3.

Connect braced wall to external wall using 2 straps as per Table 8.22 (k). For JD4 pine, 4/2.8 dia nails required each end of each strap to achieve 6.6 kN.

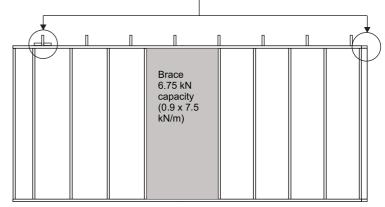


Example 1 - Strapping to external walls



Example 2 - Nailing joists to walls

Connect braced wall to ceiling joists or truss bottom chords with blocking as per Table 8.22(j) 4/3.05 dia nails to each block + one strap to the external wall with 4/2.8 dia nails each end of strap. For JD4 pine, capacity = 3.6 + 3.3 = 6.9 kN.



**Example 3 - Combinations** 









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