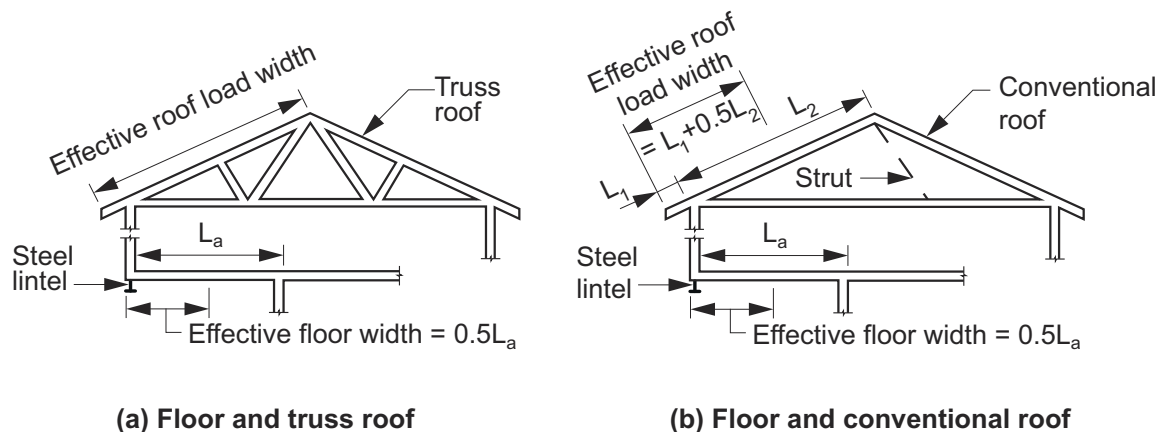


negative roof wind pressure of -1.49 kPa.

- (2) Load combinations included are $1.35G$, $1.2G + 1.5Q$, $1.2G + W_U + 0.4Q$, $0.9G + W_U$ for ULS $G + 0.7Q$, $G + W_S$.
- (3) $0.9G + W_S$ for SLS with a maximum deflection of span/300.
- (4) Lintels are assumed to be partially restrained at both ends with no rotational restraint and are designed as members without full lateral restraint.
- (5) A floor load of "0" must be used for lintels not supporting floor loads.

Figure 6.3.5: Lintels supporting roof, frames and timber floors



6.3.6 Columns

[2019: 3.4.4.3]

Structural steel columns must comply with the following:

- (a) Columns must support the maximum area provided for in—
 - (i) Tables 6.3.6a, 6.3.6b and 6.3.6c for columns supporting tiled floor and tiled roof load; and
 - (ii) Tables 6.3.6d, 6.3.6e and 6.3.6f for columns supporting timber floor and metal roof load.
- (b) The floor area to be supported is to be determined in accordance with Table 6.3.6g and Figure 6.3.6a.
- (c) The flooring system supported by structural steel columns must be fully braced to the footing level either by—
 - (i) subject to (d), adequately fixing the full height of the column to bracing walls of similar height in the two orthogonal directions of the building; or
 - (ii) a bracing system designed in accordance with AS 1684.2, AS 1684.3, AS/NZS 4600, NASH standard or AS 3700 as appropriate to the materials being used.
- (d) For the purposes of (c)(i), the bracing walls must be capable of resisting racking forces in each direction not less than a proportion of the building's racking force equal to the proportion of floor area that the column is supporting compared to the total floor area of the building.
- (e) Acceptable load eccentricity must not exceed 50% of the cross-sectional width plus 100 mm (see Figure 6.3.6b).
- (f) Have a minimum nominal yield strength of 250 MPa.

Table 6.3.6a: Required column section — columns supporting tiled floor and tiled roof load — roof load area = 0 m²

Column section	Effective height (mm)	Floor load area (m ²)		
		4	10	16
CHS 250	2400	60.3 x 4.5 CHS	88.9 x 5 CHS	114.3 x 4.5 CHS
CHS 250	2700	60.3 x 4.5 CHS	88.9 x 5 CHS	114.3 x 4.5 CHS
CHS 250	3000	60.3 x 4.5 CHS	88.9 x 5 CHS	114.3 x 4.5 CHS
CHS 250	3300	60.3 x 5.4 CHS	88.9 x 5 CHS	114.3 x 5.4 CHS