



The information in this supplement and James Hardie's technical literature is only intended for use in relation to the relevant James Hardie products

SECURA FLOOR DIAPHRAGM

GENERAL

The floors for buildings within the scope of NZS 3604 may require to be built as diaphragm floor to distribute horizontal loads within the braced wall lines.

The following general principles are to be followed when building a diaphragm floor:

- The length of a Secura diaphragm must not exceed 12m.
- The length of Secura diaphragm must not exceed 2.5 times its width for a single storey building, and 2 times its width for two storey building.
- Each edge of Secura diaphragm floor is directly connected to a bracing line having bracing capacity of $\geq 15\text{BU's/m}$ diaphragm dimension.
- When two diaphragms connect to one bracing line then the bracing capacity of this line must be more than the sum of BU's required for each diaphragm.
- The floor joists for Secura diaphragm must be laterally supported around the entire perimeter of diaphragm.

GROUND FLOOR DIAPHRAGMS

- The perimeter of ground floor diaphragms for a single or two storey building must be supported over a continuous foundation wall, or over an evenly distributed bracing line.

UPPER FLOOR DIAPHRAGMS

- Upper floor diaphragm must be supported over and connected to walls that have number of bracing units mentioned above.

Refer to Section 5.6 and Section 7.3 of NZS 3604 for further guidance and information regarding diaphragm construction.

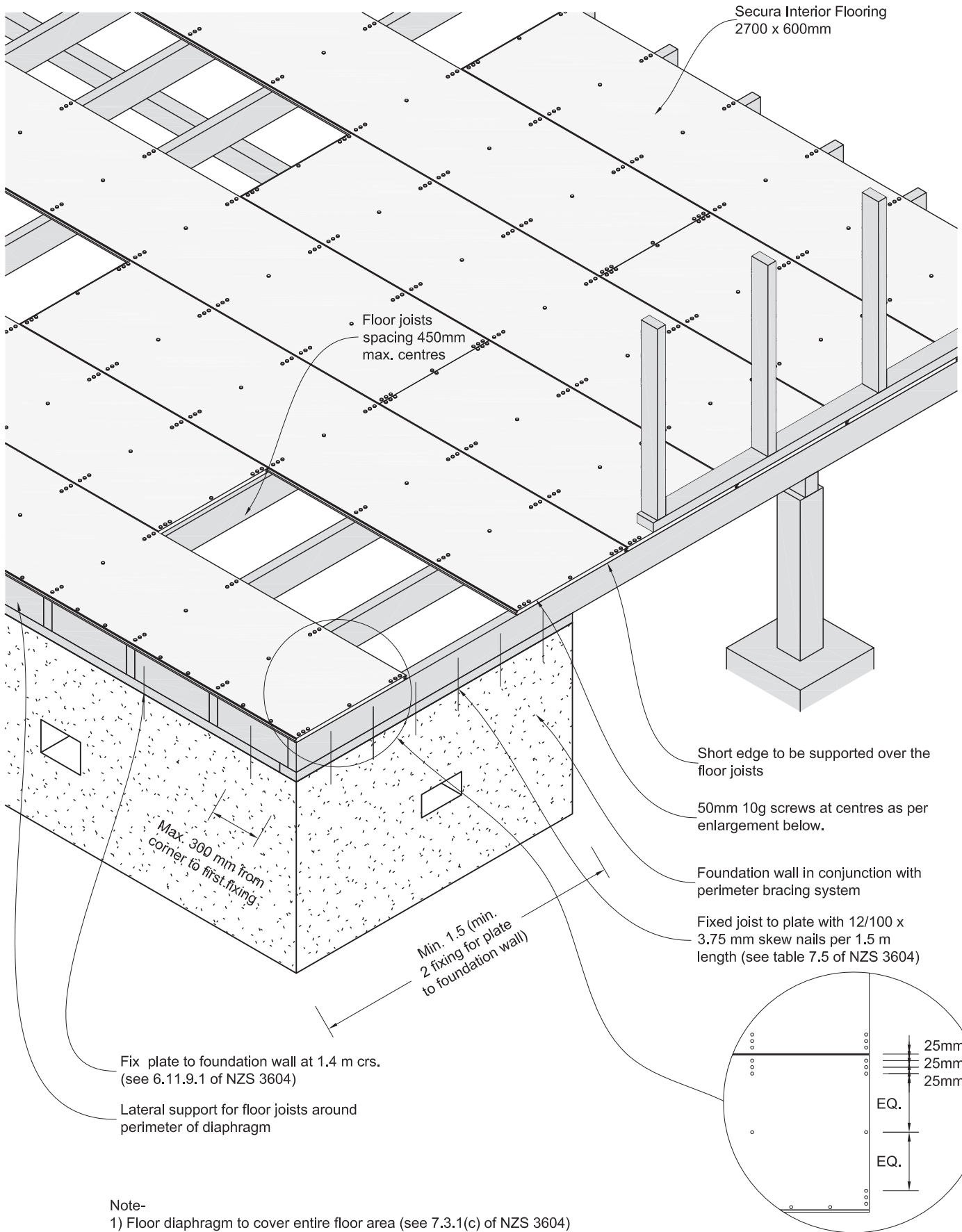
The specifier or other party responsible for the project must ensure that the details in this technical supplement is appropriate for the intended application and additional detailing is carried where needed to ensure the detail is fit for purpose. For further information, please visit www.accel.co.nz or Ask James Hardie™ on 0800 808 868.

INSTALLATION

Floor joist size and span must be in accordance with Section 7 of NZS 3604 or be as per SED and;

- They must be spaced no more than 450mm c/c for the installation of Secura floor diaphragm. The perimeter of diaphragm must have a lateral support along its perimeter.
- Secura flooring is laid across the floor joists and is fixed using a 10gx50mm Simpson Strong Tie Screw. Use 3 group screws at 25mm from sheet edge with 25mm spacing between them along the joist. Use 1 screw in the middle of sheet. Refer to Figure-1 of this manual for further guidance on the installation of Secura diaphragm.





Note-

- 1) Floor diaphragm to cover entire floor area (see 7.3.1(c) of NZS 3604)
- 2) Diaphragm size (see 7.3.1(b) of NZS 3604) for:
 - (a) Single storey maximum length shall not be greater than 2.5 times the width;
 - (b) Double storey maximum length shall not be greater than 2.0 times the width.
- (3) See section 4 of NZS 3604 for durability requirements.