



Certification Performance Criteria Guidance

B4.9 Structural Ties, Fixings and Connections

Performance Criteria

Certifiers shall satisfy themselves that adequate details have been prepared for all ties, fixings and connections and that there are adequate calculations or other evidence to demonstrate the adequacy of the details used.

Background

The performance of the building and of individual structural members is frequently dependent upon adequate tying to and support from other parts of the structure.

Also the provision of vertical and or horizontal ties within a building structure will frequently be required to meet the requirements for disproportionate collapse.

It is therefore important that structural ties, fixings and connections are designed to meet the requirements of Requirements 1.1, 1.2 and 1.3.

Guidance

Certifiers must see that the requirements for all structural ties, fixings and connections have been assessed in accordance with an accepted methodology, have been checked by a suitably experienced person and that they are properly reflected on the permit plans.

The requirements may be assessed by calculation or by reference to accepted guidance documents, standards, codes of practice, suppliers load tables, etc.

Examples of Major Non-conformances

The design of the ties fixings and connections clearly does not meet Requirements 1.1, 1.2 and 1.3.

Absence of suitably checked details.

Absence of suitably checked structural calculations, load tables, test certification or other justification for the design.

Calculations, etc. and/or details are grossly inadequate in relation to the size/complexity of the project.

Absence of evidence demonstrating that the certifier made adequate enquiry regarding the design of the steelwork connections and/or the experience of those undertaking the design where this was prepared by an external specialist/third party.

Examples of Improvement Issues

Deficiencies in the plans.

Inadequate or insufficient calculations, details, etc.

October 2016