

APPENDIX A - EVALUATION OF BUILDING SYSTEM, CONCEPT AND DESIGN OF LIGHT STEEL FRAME SYSTEMS



This appendix is intended to give guidance to Assessors responsible for assessing whether the light steel frame system or structural elements meet all the relevant requirements in terms of their concept and design.

1. REVIEW OF SYSTEM MANUAL

The system manual will be reviewed by an Assessor who is a professionally qualified and appropriately experienced engineer to ensure that:

- a) The claimed range of uses is covered by the manual;
- b) The structural design philosophy is valid and has been followed and any project specific requirements such as the need for supplementary calculations are clearly described;
- c) The instructions regarding the need for, and usage of the various components in the system are clearly described;
- d) The applicability of different cladding systems and constraints on the use of the system are clearly described;
- e) Any special fixing requirements or additional components which do not form part of the supplier's system are explained, e.g. timber wall plates, timber roof trusses, brick ties etc.
- f) The appropriate load factors and limiting serviceability criteria are clearly described;
- g) The limitations and scope of the system are clearly described.

SASFA will have the right to consider any relevant information from any reliable source in evaluating an application.

2. TEST REGIME

Where the system relies on testing, the reports on the test procedures will be reviewed against the following criteria:

- a) The appropriateness and independence of those carrying out or supervising the test work;
- b) The conformity of the test conditions in representing the intended conditions of use;
- c) The completeness of the test programme to cover the relevant claimed range of use in terms of
 - i. Spans range
 - ii. Section range
 - iii. Support conditions
 - iv. Cladding and fixings
 - v. Load conditions
 - vi. Wall heights
 - vii. Bracing configurations

- viii. Holding down mechanisms
- d) The accuracy of the measurement of
 - i. Loads
 - ii. Deflections
 - iii. Materials, including strength and section properties
- e) Calibration records of equipment

3. DERIVATION OF DESIGN DATA FROM TEST RESULTS

The treatment of the test results will be reviewed to ensure that:

- a) The results have not been extrapolated to extend the design data beyond the limits of the test programme.
- b) The design expression(s) derived take all significant factors into account.
- c) An appropriate statistical method has been used in deriving the design data from the test results. Compliance with the rules given in a recognised standard applicable to light steel frame building will be deemed to satisfy this requirement.
- d) Where calculations have been used in addition to, or in place of test results, these are appropriate and accurate.
- e) All significant parts of the system have been evaluated.