

ANOTHER MITEK ADVANTAGE

DUTY OF CARE

Of the many site inspections I have conducted over the years, most problems encountered could have been easily addressed, or avoided, had the builder or the building supervisor executed their "DUTY OF CARE" in the final inspection process.

Understanding and allocating responsibility for the design and construction of a roof was well covered by Tim Rossiter in GN Guideline 65.

Here we will look at the responsibilities of the Licensed Builder and subcontractors when installing roof trusses in accordance with AS4440 'Installation of nail plated roof trusses'.

With tight schedules and increasing workloads it is not uncommon for a building supervisor to supervise and construct 15 to 20 houses at a time.

This sort of workload means mistakes can be made or the simple task of performing on-site checks easily overlooked, resulting in problems later on.

The following points outline areas that need to be addressed on site to ensure every roof truss has been installed correctly:

1) Make sure builders have a Truss Installation Check list - these are often provided by your nail plate supplier as part of their Fixing and Bracing Guidelines for Roof Trusses which should be supplied with every job that leaves the truss plant. This list gives the builder something to which he can refer to ensure all building practices required have been carried out correctly and all specifications for the site are included in the documentation. - including Truss Layout, Truss Certificate, Tie-Down schedule, and Truss Installation & Bracing Guidelines book.

2) Using the check list, see that trusses are installed in the correct location(s), are plumb and orientations of all trusses are also correct - particularly for internal load bearing walls, ensuring trusses are loaded correctly on load bearing points.

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3) Establish there are no defective or damaged truss members e.g. broken top or bottom chords or webs that may have been damaged during installation or transport. Also check quality of nail plate pressing, looking for any that may have been dislodged or not fully pressed from the truss plant.

4) Use the Tie-Down report & layout plan from the truss program to



■ Girder truss failure - top chord restraints not fixed when girder initially installed.



check all the correct tie-downs have been installed. Incorrect type and quantities of tie-down brackets & truss boots can happen so cross-checking with the tie-down schedule supplied will help to avoid any problems later on.

5) All truss boots must be securely installed with screws and bolts fully, before the roof is loaded. This is crucial to preventing the girder from sagging, in a truss to truss connection.

6) Check roof bracing has been installed correctly and as per the layout plan, and that it is in accordance with the fixing and bracing guidelines as supplied.

7) Do the roof trusses have adequate bottom chord lateral restraints? This is important for direct fixed plasterboard and more importantly, for suspended ceilings, where a combination of furring channels, bottom chord ties and bracing strap; are a requirement. This building practice has been very well illustrated in the Guideline No.'s 34 and 108.

8) The most important building practice, and one which is normally overlooked, is checking the top chord restraint of the roof trusses. Roofing battens perform this function and any checking must be done prior to the installation of the roof cladding. For multiple ply trusses, battens should be fixed securely to each ply of the truss top chord with one nail or another method of mechanical fixing. Also, battens must be arranged so that for any truss top chord, not more than one in three battens are spliced and no two splices are adjacent. Refer to the fixing and bracing guidelines for timber roof trusses for illustrations.

If these eight points are followed by the builder and are checked by the building supervisor, the number of on-site roof truss installation issues would be minimised.

