KEEPING UP TO STANDARDS

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From time to time the industry is subjected to new codes of practice through the revision of Australian Standards or the introduction of completely new standards.

One "recent" example was the implementation of Limit State Design (LSD) methodology in the design of timber structures.

There was much publicity on the repercussions of the adoption of LSD and subsequent changes to truss design software.

There are a number of standards that affect our industry directly, and indirectly, so it is important to keep up to date, to implement changes that are required, and take advantage of new or revised practices when they improve the economics of your business.

The following are the main codes that you should keep up to date with:

AS 1684 – Timber Framing Code

Most will be aware that this was released a few years ago and replaced the various State based Framing Manuals.

There are four parts to the code – Part 1 is the theory behind the tables.

Part 2 sets out the detailed requirements for Non-Cyclonic structures and Part 3 provides details for Cyclonic Structures.

Part 4 is a simplified version of Part 2. In the main the certifiers use Parts 2 and 3, so these are very important documents for truss and wall frame manufacturers.

AS 1684 brought with it changes to bracing requirements and show a reduction of around 20 per cent compared with old Framing Manuals (in the Southern States).

Tie Down is stricter however, and buildings in N3 have needed significant changes, even for tile roofs.

What may not be well known is that there have been some amendments to this code.

The most recent amendment is of particular interest as it reduced the wind uplift requirements on N2 classified tile roof houses to Nominal connections rather than Specific, as they were in the original document.

This means that for tiled roofs in N1 or N2, top plate tie down straps are now only required with some types of braced panels.

MRTFC – Span Tables

These are available from Timber Development Association (TDA) in NSW and cover the use of timber in the lower storey of three storey structures.

At this stage there are only tables for the following grades – F5, MGP10, MGP12, and F17.

The TDA is keen for comment on the content and layout; you should contact them directly for a copy.

AS 4440 – Installation of nail-plated timber trusses

Again, this has been out for some time (three years now) but is not always well known or understood.

Certifying bodies do look at this code and often pull up builders, and sometimes fabricators, on its finer points.

This has been under review recently and a draft amendment released for public comment.

Watch out for a new version in the next couple of months. Most of the changes address alterations to wind classification, now referring to N1, N2 etc rather than W28, W33, etc.

However there are some good clarifications of ambiguous points such as how and when framing anchors are required to fix jacks to horizontal top chords of truncated trusses.

AS1684.5 – Design Criteria for Nail-plated Timber Trusses

This is coming. There are currently meetings being held over the finer points of this code that will provide some uniformity in the industry in a number of areas relating to the design of timber trusses.

There are also some new requirements proposed resulting from OH&S issues. Two preliminary drafts have been circulated in the last couple of years.

Members of the task force responsible assure me that the final draft is imminent.

AS3700 – Masonry Design Code

This may seem an odd item to add into this article, however it does have one very important section for domestic construction – wind bracing.

The new code (2001) specifies the bracing capacity of unreinforced masonry based on wall height and length.

This will allow the designer to take advantage of garage walls, where currently their contribution is often ignored.

There are also details on connection of framing timbers to masonry, both at the supports and to internal walls.

So keep an eye on the publicity releases from Standards Australia and from the company that provides your engineering support, as there are savings to be made and traps to be avoided.