

What is a Standard and how does it fit in with the building code?

- The building control framework comprises mandatory (Building Code) and non-mandatory (Compliance) documents.
- Standards, which are created by the organisation Standards New Zealand, come into the **non-mandatory** category. Many **Compliance Documents** refer to them in Acceptable Solutions or Verification Methods.
- When a Standard is published or revised, the Department reviews it to determine whether it is suitable to be used in the Compliance Documents. Depending on the outcome of the review, the Department may cite the entire Standard or parts of it in a Compliance Document. It may also cite the Standard subject to certain modifications.
- NZS 3604 is an example of a Standard referenced in full as an Acceptable Solution

What is NZS 3604?

- sets a minimum standard for the design and construction of timber framed buildings
- used by architects, designers, builders, engineers, building consent authorities
- provides an effective means of compliance and practical guidance for designing and building to meet NZBC requirements, without the need for specific engineering design (gives you the most commonly used solutions without having to do complicated calculations)
- this version has been updated and reviewed by DBH to bring it in line with current NZBC requirements (constant review process to keep up to date with latest building methods, materials & practices, including current review of earthquake related issues such as liquefaction and whether it should be addressed in definition of 'good ground')
- referenced as an Acceptable Solution, meeting relevant performance requirements of Building Code clauses:
 - o B1 'Structure'
 - o B2 'Durability'
 - o E2 'External Moisture'
 - o E3 'Internal Moisture'
 - o H1 'Energy Efficiency'

How to access NZS 3604

- Massey Library has bought online access
- Link on Stream takes you to Massey Library web portal
- Click 'connect to Standards NZ'
- Search '3604' (on right of page)
- Two documents – full Standard and SNZ Handbook (excerpts and latest updates). You want full doc NZS 3604:2011 (fourth one down)
- Recommend saving as a PDF – easier to navigate

What is kPa?

The **pascal** (symbol: **Pa**) is a unit measure of **pressure** or stress, being **force** per unit area, defined as one **newton** per **square metre**.

SG (Stress Graded) Timber* - SG6, SG8, SG10, SG12

The SG grade is a consolidation of both MSG and VSG grading. Machine Stress Graded (MSG) timber involves passing each piece of timber to measure its stiffness properties. Each piece is given a grade which corresponds to its stiffness. A visual grading also occurs to ensure excessive knots/defects are not included. Sample pieces are tested by an external audit process to ensure the grade is adhered to. Visual Stress Graded (VSG) timber is graded by a slightly different process. The main difference is that not every piece of timber will be stress graded. This only happens to a pre-determined sample size. Because not every piece is tested the visual grade required is much higher. The process only allows for a VSG8 grade to be targeted as any lower grade is classified as NLB (non load bearing)