

Recommended bracing of domestic timber framing

Introduction

It is a requirement under the Work Health Safety Act (WHS Act,) as developed by Safe Work Australia to protect the health, safety, and welfare of all workers and of other people who might be affected by the works.

This document has been prepared as a guide to contractors and subcontractors for the safe installation of Gyprock[®] plasterboard linings to timber framing, including to single and double stud framed walls, as commonly used in domestic construction throughout Australia. It is the shared duty of all persons at the workplace or work site, whether they are actively involved in the works or not (such as customers or visitors), to take reasonable care of their own health and safety and of others who may be affected by their actions or omissions.

This document should be read in conjunction with the following codes and standards:

- Work Health Safety Act and Codes of Practice
- The Building Code of Australia.
- AS1684 – Residential Timber Framed Construction.
- AS1720.1 – Timber Structures.
- AS/NZS2589 – Gypsum Linings, Application and Finishing.

CSR Gyprock recommends that contractors and sub-contractors undertaking the work must be appropriately qualified in the construction of both timber framing and the installation of plasterboard linings and be supervised by an experienced person. Prior to construction both those undertaking the work and their supervisors should familiarise themselves with the relevant CSR Gyprock Installation Manuals.

In addition there may be need to consider external factors, such as current weather forecasts including wind speed and the potential for inclement weather, prior to commencement of the works to determine if the work can be completed in a safe manner. Where there is concern that the works cannot be completed safely then the contractors and sub-contractors must take measures including, but not limited to, either delaying the work or by providing additional training to ensure the safety of all concerned.

Structural advice including the requirement for bracing of structures under construction must be provided by a qualified Structural Engineer. A full range of systems this guide refers to can be found in the CSR Gyprock Red Book[™].

Safety during construction

You can improve the safety of timber framed walls during construction work with good planning and preparation, risk management and the use of temporary supports. Temporary supports such as diagonal braces are often required until the wall is incorporated into the completed structure.

Plan and Prepare

Contractors and sub-contractors are jointly responsible for the work on site and as part of your preparation you should consider:

- Advice about who is responsible for installing, inspecting and removing any temporary supports.
- Designs and materials for temporary supports, (seek engineering advice if necessary).
- Materials to identify no-go zones, eg. fencing, tape or signage.
- Instruction for workers, including site induction and supervision.

Identify and Assess the Risks

Sub-contractors must prepare a safe work method statement in consultation with workers and have it reviewed by the builder before you start work. Ensure that you use any relevant information from the manufacturer, supplier and site management contractors and subcontractors are jointly responsible for the risk assessment, which should identify any walls that may need temporary supports during construction work. Include in your assessment:

- Walls previously identified on the design drawings as needing temporary supports.
- Any features of the wall that may affect its strength, eg. control joints, lintels, or openings.
- Worker walkways or access paths.
- Plant, equipment and material movement, including delivery and storage areas.
- The proposed sequence for the wall construction, including whether the use of cross walls at the same time as the wall so that they support each other.
- Walls adjacent to another property or a public area.
- The proposed height, width and layout of walls.

In addition to your risk assessment, establish an ongoing inspection program at the start of each day and after adverse weather conditions, inspect the walls and any temporary supports for damage. If repairs are required, maintain no-go zones until it is safe to approach.

Control the Risks

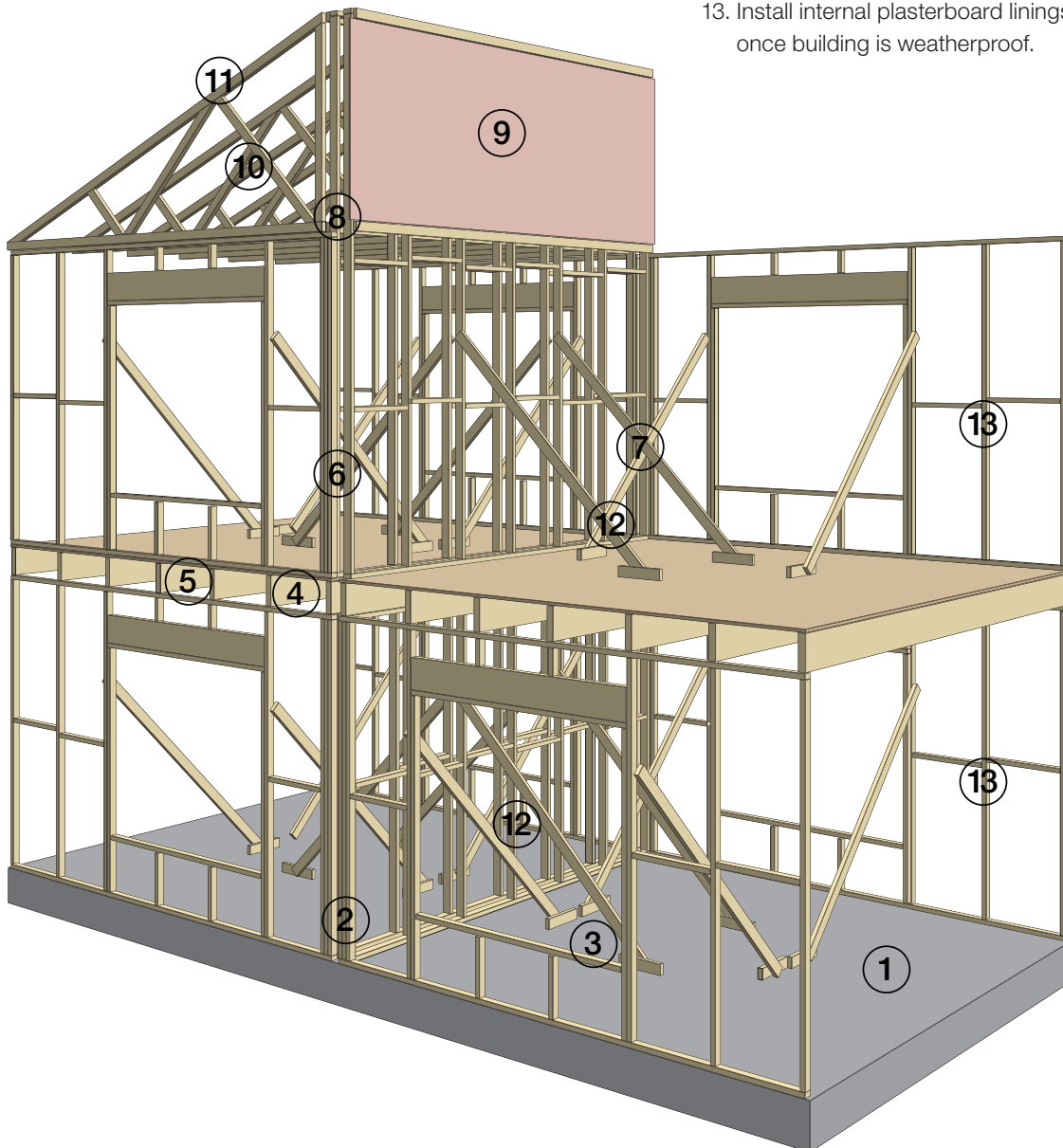
Your risk assessment may identify a range of control measures including:

- Building walls at the same time as cross walls so that they support each other.
- Installing temporary supports.
- Stacking materials away from unsupported masonry walls, ie. no leaning materials against walls.
- Preventing inadvertent impact on walls by plant such as wheelbarrows, cranes or pallet trolleys, eg. using dedicated travel paths and storage areas.
- Monitoring weather conditions, eg. wind, extreme temperatures and heavy rain – and amending work practices to suit.
- Installing no-go zones, identified by barricades or other physical identifiers, to keep people outside of potential collapse zones.

Communicate the adopted risk control measures to all relevant people on site via site-specific induction training, and communicate any changes to the controls via toolbox talks.

Domestic timber framing overview

1. Concrete slab or other suitable ground floor structure.
2. Complete ground floor timber wall framing to AS1684.
3. Install temporary bracing to adequately brace the wall framing.
4. Complete the first floor timber floor framing to AS1684.
5. Lay the first floor lining to provide a safe working platform.
6. Complete first floor timber wall framing to AS1684.
7. Install temporary bracing to adequately brace the wall framing.
8. Install solid timber blocking to pick up roof framing members to AS1684.
9. Install Gyprock Fyrchek MR to AS/NZS2589 in roof space and caulk between blocking with CSR fire mastic and protect from exposure to weather.
10. Install roof framing supported adjacent the party wall on solid timber blocking to AS1684.
11. Install sarking, roof battens, rockwool and roofing.
12. On completion of the building structure to AS1684 remove temporary bracing.
13. Install internal plasterboard linings to AS/NZS2589 once building is weatherproof.



Note: Prior to demolition of domestic timber construction it may be required to install temporary bracing once the internal plasterboard linings have been removed to ensure the safety of the contractors and sub-contractors during demolition. CSR Gyprock recommends consultation with a qualified Structural Engineer to develop a demolition plan prior to commencement of the works.

Health & Safety

Information on any known health risks of our products and how to handle them safely is on their package and/or the documentation accompanying them.

Additional information is listed in the Safety Data sheet. To obtain a copy, telephone 1300 306 556 or visit www.gyprock.com.au.

Warranty

Gyprock products are designed to achieve optimal performance when part of a CSR integrated system.

CSR Building Products Limited warrants its Australian made Gyprock products to remain free of defects in material and manufacture for the usual lifetime of the product (25 years).

CSR warrants its International Alliance Gyprock products to remain free of defects in material and manufacture for 7 years.

For details on our product warranty, please visit www.gyprock.com.au, or contact us on 1300 306 556.

Disclaimer

The information provided in this document is intended as a broad overview of the recommended bracings for domestic timber framing and is prepared for use by the contractor, subcontractor and anyone involved in the construction of a CSR Gyprock timber framed wall system. It is not an exhaustive guide and does not take into account the particular circumstances of any particular job. Notably, during construction work, walls can fail due to wind loads, as a result of inadvertent impact from walls or materials that may be leant against them as well as other factors. It is the responsibility of the contractor, subcontractor or anyone involved in the construction of a CSR Gyprock timber framed wall system to review this guide and apply it to the particular circumstances of the job.

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