James Hardie

The information in this supplement and James Hardie's technical literature is ony intended for use in relation to the relevant James Hardie products

Linea™ Weatherboard
Fixing to Brick Veneer Framing
Technical Supplement – MARCH 2016

GENERAL

Before starting with any repair work on a building damaged by the earthquake, check with your local council the various building code requirements which need to be complied with. Refer to a guide published by Ministry of Business, Innovation and Employment (MBIE), 'Guidance On House Repairs And Reconstruction Following The Canterbury Earthquake' available on their web site under http://www.building.govt.nz regarding information on how to carry repairs to fix the structure.

This technical supplement is developed for the installation of Linea™ Weatherboard to the framing where the existing brick or stone veneer has fallen due to recent earthquakes or is damaged in Canterbury region and it is proposed to replace this heavy weight cladding with light weight construction material - Linea Weatherboard. This technical supplement must be read in conjunction with the current Linea Weatherboard Technical Specification manual.

The specifier or other party responsible for the project must ensure that the details in this technical supplement is appropriate for the intended application and additional detailing is carried where needed to ensure the details is fit for purpose. For further information, Ask James Hardie™ on 0800 808 868.

FRAMING

The existing timber framing must be checked for correct sizes, stud and nog spacing, straightness/flatness. Any damage to the wall framing members will need to be repaired to bring it up to current building framing standards. A significant damage to the framing is possible if there has been a substantial settlement or displacement of the ground. Any fractured timber framing must be replaced to ensure it's structural integrity. Joints between the studs and top and bottom plates or nogs etc. that have been pulled apart must be reinstated and re-fixed. Ensure that the foundation on which the framing is resting has not displaced or shows any signs of deformation. If there is, then these must be addressed as per the guidance published by MBIE.

In general it must be ensured that the framing complies with the current requirements of the New Zealand Building Code (NZBC). Refer to Linea Weatherboard technical specification for further information required on framing.

ENERGY EFFICIENCY

Before re-cladding the wall insulation must be checked to ensure it complies with the Energy Efficiency - H1 clause of the NZBC. It is a lot easier to change the insulatiion at this stage and bring it up to the new requirements of current standards. Refer to NZS 4218 and Section 2.10 of Linea Weatherboard Technical Specification for further guidance.

RAB™ Board

Most likely the wall bracing elements would have suffered significant damage due to the deformation associated with foundation and framing (superstructure). This will result in significant reduction in the structure's ability to resist any future earthquake and wind pressures. It must be ensured that the building is re-braced to achieve the bracing demand required by NZS 3604.

The most practical way to achieve the new bracing demand is using RAB Board by James Hardie. Fix RAB Board bracing elements as per the James Hardie Bracing Design Manual and the remaining wall sections are covered by RAB Board fixed as per its normal installation method. The entire framing covered by RAB Board will increase the overall rigidity of the entire building thus making it more suitable to resist future earthquakes.

RAB Board will also enhance the wall insulation, acoustic and weathertightness performance of the structure. RAB Board must be installed as per the James Hardie Rigid Air Barriers installation manual.

FLASHINGS

All penetrations and window/door opening must be flashed to be in accordance with the James Hardie Rigid Air Barriers installation manual and Linea Weatherboard technical specification.

CAVITY BATTENS

Scenario - 1

Brick or Stone veneer allows for a 50mm minimum cavity depth as compared to 18mm minimum cavity depth required for light weight cladding materials as per the requirements of E2/AS1. When the brick/stone veneer cladding is removed, it is assumed that the existing doors and windows are still intact and Linea Weatherboards cladding will have to be fixed to suit the existing doors and windows. In this case the cavity depth is addressed by fixing a thicker i.e. 35mm deep H3.1 treated structural timber cavity batten to the framing over RAB Board. Refer to Figure 1, 2, 3 and 4. The battens are fixed to the studs using a 90 x 4.0mm RounDrive nail at 300mm centres.

Scenario - 2

Where the window and doors have been damaged and need to be removed or it has been decided to upgrade the joinery, in this case the window and door joinery should be manufactured and installed as per the details published in Linea Weatherboard technical specification. A nominal 20mm deep cavity batten can be used in this case for the installation of Linea Weatherboard and the details for the installation will be similar to Linea Weatherboard technical specification.

INSTALLATION

When fixing Linea Weatherboard over 35mm deep structural cavity battens, weatherboards can be fixed into the batten only. For this installation refer to Table 3 of Linea Weatherboard technical specification and select the nails sizes specified for 'Direct to Stud Fixing' option.

When fixing Linea Weatherboard over a nominal 20mm cavity batten, select the nails sizes specified 'Cavity Fixing' option of Table 3.

All other information regarding installation, construction details, accessories etc. should refer to Linea Weatherboard technical specification.

In case you have any specific queries related to Linea Weatherboard installation, Ask James Hardie™ 0800 808 868.

Figure 1: Foundation Detail

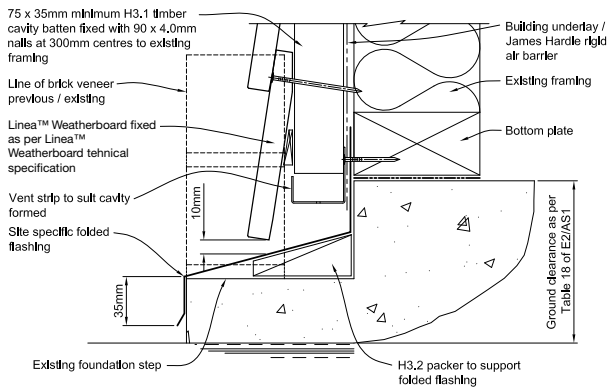


Figure 2: One piece head flashing without facings

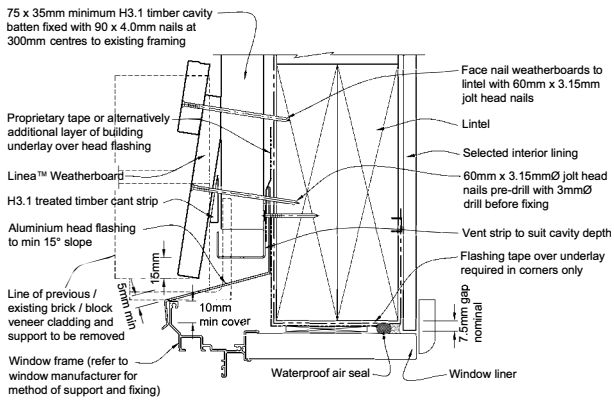
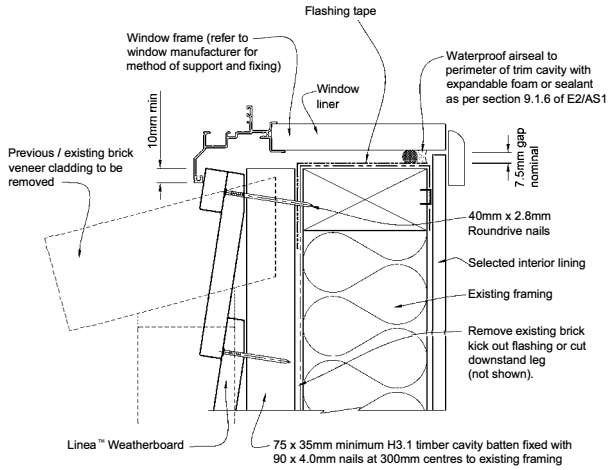


Figure 3: Sill flashing without facings



General notes for materials selection

1. Flashing materials must be selected based on environmental exposure, refer to NZS 3604 and Table 20 of NZBC clause E2/AS1.
2. Flashing tape must have proven compatibility with the selected building materials with which it comes into contact as per Table 21 of NZBC clause E2/AS1.

Refer to the manufacturer or supplier for technical information for these materials .

Figure 4: Jamb flashing without facings