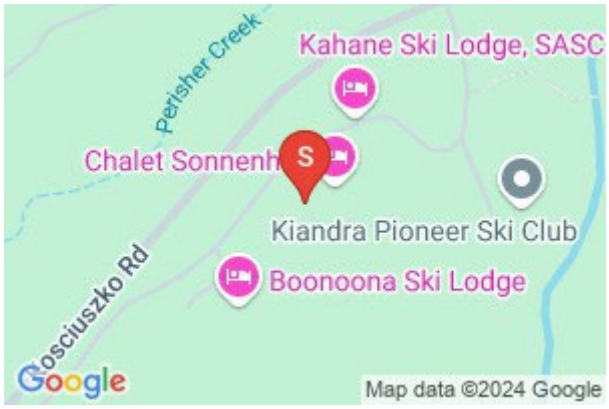
M&A PROJECTS
DESIGN & CONSTRUCT

STRUCTURAL INSPECTION BUILDING REPORT

Client Details - Project: A.A.C - **Perisher Huette**

Date: **17/09/2024, 11:38 AM | Australia/Sydney (+10:00)**

Meeting Address: **35 Wheatley Rd, Perisher Valley NSW 2624, Australia**



PREPARED BY : **Mitch Sutcliffe**

Who Is In Attendance: **Mitch Sutcliffe, Roland Everingham**

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SCOPE OF THE REPORT

This report is produced as a result of a visual semi-disruptive inspection of the above premises. I have not inspected any other inaccessible parts of the structure, which are covered, or unexposed, and I am therefore unable to confirm that these parts of the building are free from defects.

INTRODUCTION

Verbal instructions were received to carry out a survey of the property, and report on the findings.

GENERAL DESCRIPTION

The property is a fully operational ski lodge

The building is constructed as follows -

Main walls - Masonry basement, timber external frame with oregon and steel cladding

Roof - Hardwood pitched, colorbond orb steel sheeting, no gutters

Floors - Combination of suspended concrete and timber joists.

Survey

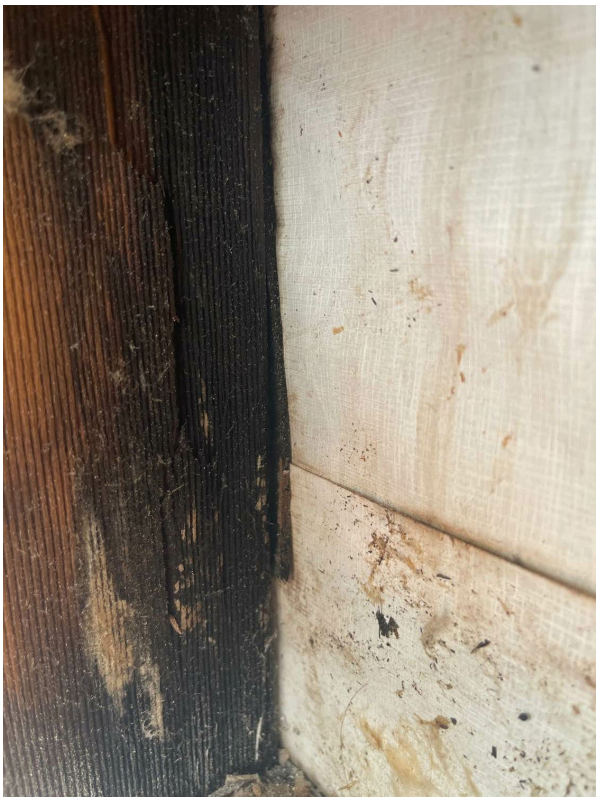
The property is a 13 bedroomed ski Lodge, which is representative of the type of construction commonly found in the alpine region. The lodge has common lounge area, activities room, drying room, commercial kitchen, store room, and a dining room with a large void. facing north west.

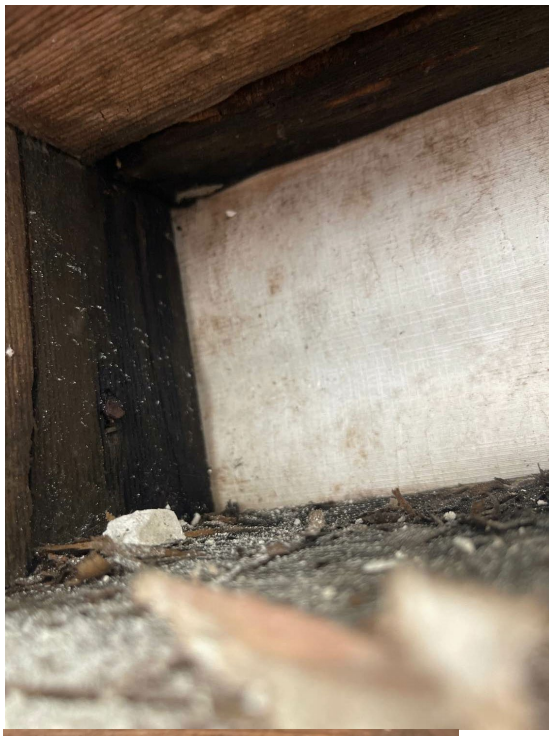
Concerns of the dining rooms north-western wall's structural integraty have been risen due to the extreme movement visably noticed during high winds. Structural and cladding works have been completed in some area's in the past 2 years.

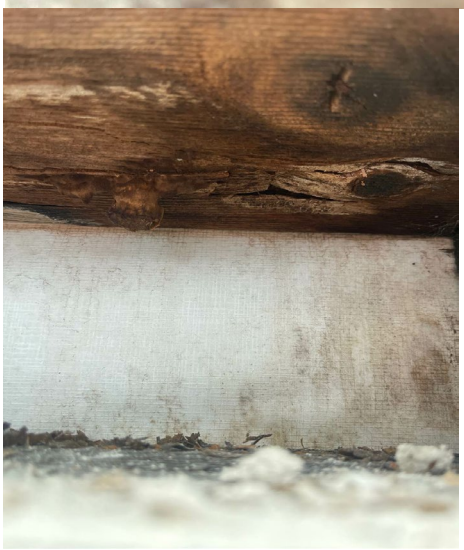
Investigation

Upon first visual inspection, the plasterboard was seen to have major cracks in the area of concern.

A portion of plasterboard approximatly 1m x 500mm was removed in an already damaged area. Inspection of the timber frame reveiled severe rot, and was slighty damp to the touch. A screwdriver was easily pushed through the external side of the framing member. The sarking was also damp.







There was also no insulation in some area's. Insulation in another area had set hard from being in contact with moisure. White mould was also noticed on the timber.

The frame to the wall has no lateral bracing due to no full length studs, the wall is built in 2 separate sections above the lintil height.

The timber frame is 140 x 45 pine and the lvl lintil above the large window is possibly undersized.
The cladding is constructed from hardboard fixed directly to the timber frame with membrane but no cavity or batten. There are 2 apron flashings at sheet heights, see photo. There is no internal vapour membrane or internal batten. The plasterboard appeared to be a single layer of 13mm 'Fyrchek'.

The Hardwood cladding is deteriorated.

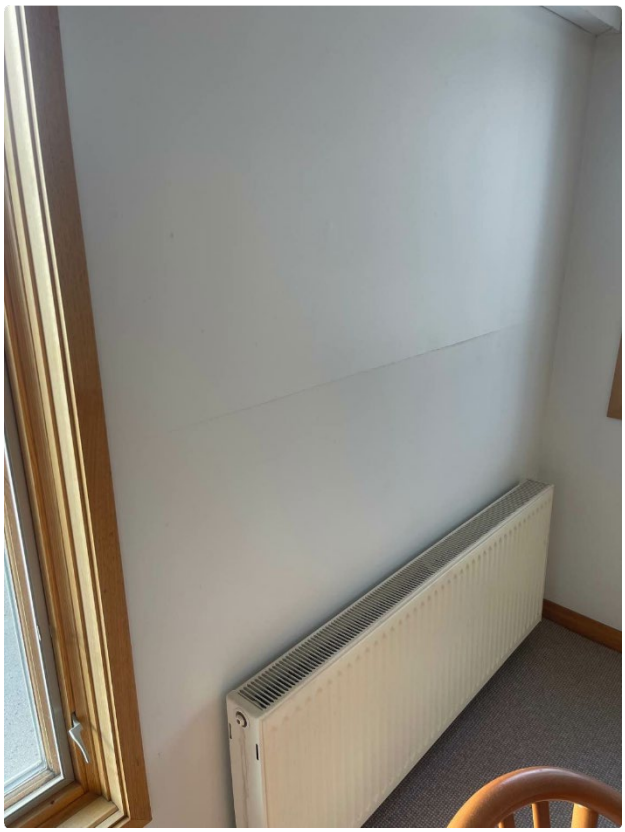
SUMMERY

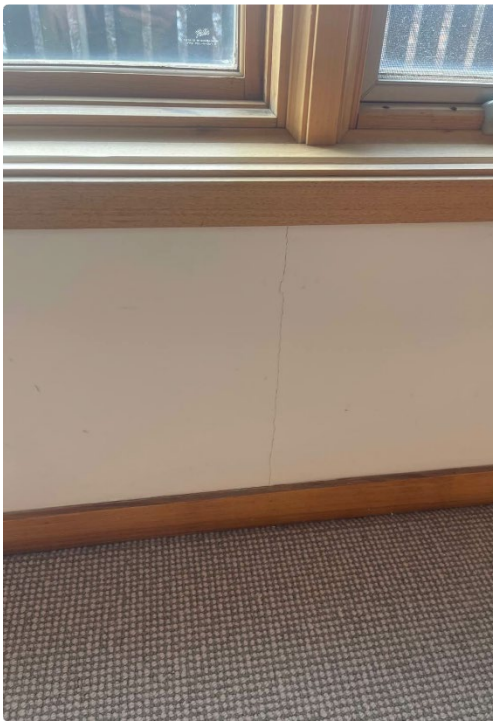
Having inspected the site and witnessed the movement, This area is of great concern due to its load bearing nature.

The structural integrity of the wall has been greatly comprimised by water ingress and consistant moisture causing the timber to rot and deteriorate.

In my opinion, the movement of the wall during high winds is caused by the 2 sections of wall 'kinking' at the lintil height due to no lateral strength.

Recommendation
The north west face of the building receives winds of over 120km/h, the deterioration of the structural members will possibly not withhold these forces. It is recommended to replace the structural members and install moister barries with a cavity to reduce the chance of water ingress.
This should be taken as an immediate action.
A simple engineered steel portal frame that extends above the windows to the underside of the centre window would be suffice. Basic timber framing can be installed between the portal steel beam and existing structural members for the roof.





M & A Projects Signiture:

Mitch Sutcliffe