



**MELVICH VILLAGE HALL
118 PORTSKERRA ROAD
MELVICH
SUTHERLAND
KW14 7YL**

STRUCTURAL CONDITION REPORT

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1 INTRODUCTION

In January 2021, Arch Henderson LLP were instructed by Melvich Village Hall Association, to undertake an inspection of Melvich Village Hall and to provide a summary statement on the general structural condition of the building.

The extent of the investigation was to comprise a visual inspection only of the building fabric, taking advantage where possible, of any previously formed openings in cladding and/or finishes. There was to be no exposure of hidden elements or physical testing of materials. The assessment of electrical and plumbing installations would also not form part of this investigation.

This report presents the findings of this investigation.

2 GENERAL DESCRIPTION

Note that all dimensions stated in the following description are approximate.

The building was inspected on 16th February 2021, during fine weather conditions. The Hall is located in the village of Melvich, adjacent to the westbound lane of the A836.

It is understood that the building was constructed as a Drill Hall, during the early years of the 20th Century. It is a single storey, timber framed building, situated on an approximate north-south alignment. The building measures 18.4m x 9.2m x 2.7m high to eaves, with a pitched roof. A projecting porch measuring 2.1m x 1.8m at the south gable, provides the main entrance to the building.

The main hall measures 6.9m wide internally, with a central ceiling height of 3.2m. Internal timber partitions at the northern end of the main hall define the kitchen and toilet areas. The form of construction of the main hall comprises raised-tie timber roof trusses, supported on timber stud walls. The external walls are supported on stone wall foundations. The floor is of a conventional timber floor board and joist construction, spanning between the main foundations and intermediate solid masonry dwarf walls.

The western elevation of the building features a 1.8m wide 'lean-to' extension which abuts the full length of the main hall. The lean-to section comprises timber roof joists, supported on timber stud walls, and a conventional timber floor board and joist floor. The northern end wall of the lean-to section is of solid masonry construction.

The roof structure is clad with timber sarking boards and profiled (corrugated) cement sheeting panels. An asbestos survey report issued in November 2020, confirms that the roof sheeting is an Asbestos Containing Material (Chrysotile).

The walls are externally clad with profiled (corrugated) painted galvanised steel sheeting panels and internally lined with timber boarding. The wall cavity contains a nominal thickness of felt insulation material.

All doors, windows and fascia boards are of timber construction.

It is understood that the building drainage is served by an adjacent public sewer.

3 EXISTING CONDITION

The physical appearance of the building is generally poor.

The condition of the profiled roof cladding panels and associated flashings is poor. The roof cladding is sagging in places and it does not provide a waterproof enclosure. This is evidenced by a notable water leak above the main hall.

Where inspection was possible via an opening in the ceiling adjacent to the toilets, the timber roof truss members and sarking boards appear to be in good condition. However, the sagging roof panels at other locations above the main hall suggest there is some structural distress and/or undesirable deformations to the roof structure, which could not be seen from the ceiling hatch. There is also a significant possibility of roof timber damage where roof leakages are present.

The condition of the profiled wall cladding panels is poor. The galvanising protection system has broken down extensively and the cladding is holed in places, due to severe corrosion.

Where inspection was possible via one small opening in the internal lining, the timber wall studs appear to be in a good condition. However, the walls of the main hall are out of plumb. The outward movement of the wall head would again be symptomatic of a structural issue at roof level.

Where inspection was possible via one small opening in the floor of the main hall, the timber floor joists and supporting dwarf walls appear to be in good condition, with no indication of any floor settlement.

The condition of the floor within the western lean-to section is poor. It is evident that the floor cavity has become invaded by soils from the adjacent raised ground and this has caused extensive dampness and rot to the floor timbers.

Whilst the condition of the building foundations could not be established within the terms of this investigation, there are no apparent signs of any significant wall settlement.

Other building related defects include an absence of sub-floor ventilation, defective and/or missing sections of rainwater gutter, rotten windows and door frames, rotten fascia boards, loose flashings, flaking paintwork and corroded cladding fixings.

The condition of the foul and rainwater drainage systems could not be established within the terms of this investigation.

4 STRUCTURAL APPRAISAL AND RECOMMENDATIONS

It is not known how much of the current building dates to the original construction and how much is the product of later renovations. It is suspected however, that much of the building superstructure has been replaced during its life of over 100 years.

Although a rigorous structural assessment does not form part of this investigation, it is apparent from a visual inspection that the building is in a poor physical condition and it suffers from the following structural defects:

- Ineffective/damaged roof cladding
- Ineffective/damaged wall cladding
- Excessive local settlement/movement to roof trusses
- Main load-bearing walls out of plumb
- Ingress of soils along western elevation
- Rotted floor construction to lean-to section
- Damaged/ineffective rainwater goods
- Rotted doors, windows & fascia boards
- Negligible provision of thermal insulation

It is additionally noted that the building does not satisfy current Building Standards in respect of accessibility.

Despite its generally poor condition, it is believed that the building does not possess any critical structural conditions which present an immediate threat to stability. It is therefore considered that there is no risk of collapse at present, and the building may remain in service for the time being.

In order to restore the building to an acceptable condition and level of performance however, it will be necessary to undertake extensive refurbishments. The extent of the required works shall include, but not necessarily be limited to, the following tasks:

- Strip all wall cladding
- Strip all roof cladding
- Remove all windows & doors
- Inspect and replace defective roof timbers
- Inspect and replace defective wall timbers
- Restore walls to a vertical alignment
- Excavate ground to the west elevation and provide suitable maintenance strip along the north & west elevations between the building & adjacent raised ground
- Introduce sub-floor ventilation to main hall & lean-to section
- Strip out and replace rotten flooring to lean-to section
- Install new wall insulation
- Install new wall cladding
- Install new roof insulation
- Install new roof cladding & associated flashings
- Install new windows & doors
- Install new fascia boards
- Install new rainwater goods
- Provide internal & external accessibility measures

5 CONCLUSIONS

A structural inspection has been carried out on Melvich Village Hall.

The building is in a poor physical condition and it requires an extensive scheme of refurbishments to restore the building to modern acceptable building standards.

Given the significant age of the building and the considerable extent of the defects, consideration should be given to a new-build rather than a refurbishment. The existing building footprint may not be most conducive to a modern layout and it is believed that there may be significant advantages to be gained from a new site location, including an improved internal layout and an increased set-back from the A836.

APPENDIX 1 – PHOTOGRAPHS

A selection of photographs taken on 16th February.



Photo 1: South Gable, Entrance Porch & East Elevation



Photo 2: North Gable & Ground West of 'Lean-to' Elevation



Photo 3: North Gable Cladding



Photo 4: Roof Cladding



Photo 5: Main Hall, Looking South



Photo 6: Main Hall, Looking North



Photo 7: Rotted Floor, West 'Lean-to' Section



Photo 8: Roof Trusses