



Disused Agricultural Building at Penyworld  
Farm, Penhow, Caldicot NP26 3AJ

Structural Inspection Report

QPM-R-S-500

Revision A | 11 June 2024

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### APPENDIX A

PHOTOGRAPHS

## 1. Brief

Quorum have been instructed by Spence Gadsby on behalf of Sarah Pitman to visit the aforementioned property and undertake a structural inspection. Specifically, Quorum have been asked to comment upon the suitability of the structure for conversion to domestic accommodation.

Our inspection took place on 26<sup>th</sup> October 2022.

The inspection was undertaken from ground level externally and internally on ground floor level.

## 2. Description of the Structure

The subject structure is a derelict agricultural building constructed from solid semi-coursed stonework, measuring approx. 4m x 9m. The roof is currently formed with profiled metal sheeting supported from timber purlins which are in turn supported from the gable walls and central timber truss.

## 3. Adjacent Vegetation

There is no adjacent vegetation which in our view is having a material effect on the performance of the structure.

## 4. Drainage

Being a historic agricultural building, there is no apparent surface or foul water infrastructure serving or close to the building.

## 5. External Observations

During our inspections we noted:

- The land to the rear and gable of the structure is higher than the internal floor level (up to 1m).
- Variation current and dead vegetation (ivy etc) growing up and into the walls.
- Deflection in the front elevation external lintels.
- Slight outward 'lean' of the rear wall.
- Various areas of masonry requiring repointing.

## 6. Internal Observations

During our inspections we noted:

- Possible wood-boring insect attack to bressummer beam over fireplace and windows.
- A lack of structural connectivity between the front elevation, rear elevation and gable walls.
- A fracture through the centre of the left hand gable wall below the picture window.
- Damp staining and moisture ingress to the rear wall.
- Loss of original mortar in bed joints and replacement with ingress of fines from the adjacent soil.
- Various areas of loose masonry requiring repointing.

## 7. Development Proposals

We understand it is the applicants' intention to re-submit a planning application to construct a small side extension to the barn, as highlighted in red on the below plan. There will be no increases in height to the existing building. A small opening will be formed in the rear of the building, as will an opening which gives access to the proposed extension, to facilitate a conversion to residential usage.

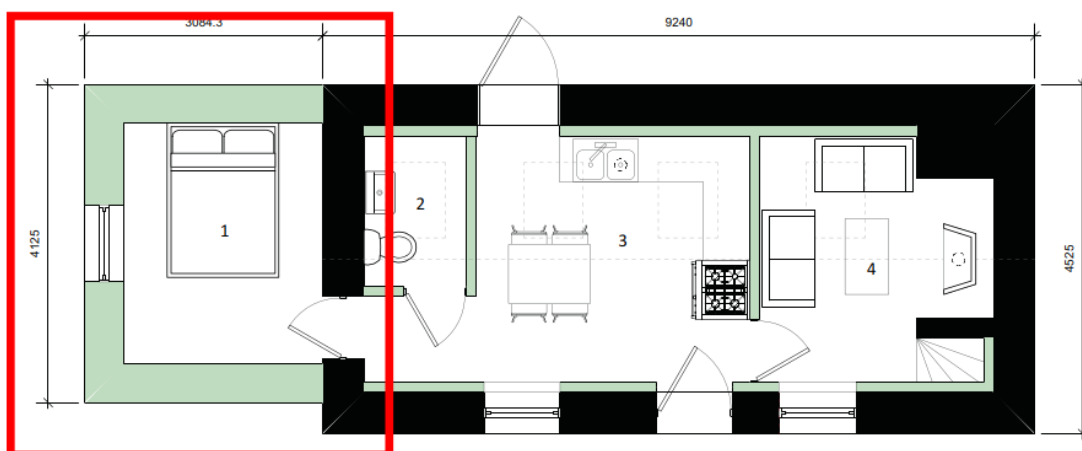


Fig1 – Architect drawing – small side extension

## 8. Discussion

The fracture in the left hand gable is consistent with some minor foundation movement to the front left corner of the building. This may normally necessitate the need for some underpinning and stonework repairs. However, the revised proposals call for new superstructure walls to be constructed adjacent, which will of course require foundations.

The foundation concrete can be extended locally under the existing masonry to form a single localised underpin.

The defect will then be cut out by virtue of the introduction of an opening along this face and any residual fracturing can be repaired by a competent specialist stonemason.

In any well executed conversion of this nature, we would expect the wall to be repointed in a lime based mortar by a specialist, therefore the above work would not be considered in excess of what would normally be undertaken in such a project, regardless of the presence of defect.

This confirms our view that the proposals should be thought of favorably in reference to LDP Policy H10 which requires that the building to be capable of conversion without adversely affecting the structure or requiring substantial reconstruction of the external walls.

Our inspection has noted a lack of structural connectivity between the front and rear elevations with the gable walls, however this can be easily addressed with relatively un-intrusive propriety repairs systems without the need for substantial rebuilding.

To the rear wall, we would recommend that the land is reprofiled locally to prevent the wall from retaining the adjacent land. A specialist stonemason should also be consulted for advice on repointing where the original mortar has been washed out.

It should be noted that to ensure the new roof is compliant with current building regulations which will assist in providing long term stability to the existing envelope walls.

Effective lateral restraint to be provided at roof level by newly formed roof structure.

We can confirm our view that the building can be returned to a structurally sound condition with very modest interventions.

# Appendix A

## Photographs







