

# STRUCTURAL APPRAISAL

OCTOBER 2023

**PROPOSED CONVERSION AND RE-USE OF REDUNDANT  
AGRICULTURAL BUILDINGS TO PROVIDE A SINGLE RESIDENTIAL  
DWELLING, ANCILLARY/ANNEX UNIT, GARAGE, PARKING AND  
ASSOCIATED SERVICES ETC.**

**BICTON MANOR BARN, BICTON ROAD, PENSILVA, LISKEARD  
CORNWALL, PL14 5RF.**

**PA**  
pollardarchitectural

First Floor  
5 Barras Street  
Liskeard  
Cornwall  
PL14 6AD

tel : 01579 347361

email : [info@pollardarchitectural.co.uk](mailto:info@pollardarchitectural.co.uk)

web : [www.pollardarchitectural.co.uk](http://www.pollardarchitectural.co.uk)

## Contents

1. Introduction
2. Relevant Information, Observations and Recommendations
3. Conclusion



Image 1. Redundant Barn, Bicton Manor, Bicton Road, Pensilva, PL14 5RF

## **1.0 INTRODUCTION.**

- |                |   |
|----------------|---|
| 1.1 Property   | Redundant Barn/s<br>Bicton Manor<br>Bicton Road<br>Pensilva<br>Liskeard<br>Cornwall<br>PL14 5RF |
| 1.2 Brief      | To inspect and report on the Structural aspects of the premises                                 |
| 1.3 Inspection | The property was inspected 19 <sup>th</sup> June 2023   |

During the inspection visit a condition survey was carried out and photographs taken. This report is based on notes taken from this visit without benefit of monitoring or previous knowledge of the building.

All external observations were made from ground level unless noted otherwise. Parts of the structure, which were covered, unexposed or inaccessible, could not be visually inspected and therefore cannot be reported upon.

This inspection relates to the main structural elements, i.e. roofs, walls and floors.

Trial pit excavations were not carried out.

Underground drains were not examined.

## 2.0 RELEVANT INFORMATION, OBSERVATIONS AND RECOMMENDATIONS.

2.1 The report was conducted on the single storey barn at the above address.

The principal elevation of the building "E" is considered to face west, with the northern elevation looking across the redundant yard (image 1) to a further redundant building "G" of similar construction.

2.2 The building/s subject to survey lie within the now redundant yard, formerly serving Bicton Manor. The site is formed of several buildings with a mixture of construction methods. The building/s that are rectangular on plan, with an approximate length of 25m and a width of 7.5m consists approximately 600mm thick mass rubble stone walls. Such walls are typically formed from two skins of lain stone, with a rubble core centre. Larger stones form the quoins of the building. It appears that over time walls have been repaired with poor-form concrete block and these repairs will require further assessment as they are uncovered as part of the re-development/conversion.

Walls appear sound, although some localised damage is evident, particularly through-out the south elevation, no doubt caused by alteration and adaptation over the years. It is unknown if the eastern walls are retaining ground up their height, however if the walls are found to retain ground, consideration for reinforcement, tanking and drainage of the walls will also be required.

2.3 The pointing to the external envelope consists a mix of original coarse slaked lime mortar and later cement. The mortar is in a fair condition; however, some areas will require repointing. It is suggested, once access is available to the whole envelope of the building, the walls are generally ranged over and where required the bedding joints of the stonework should be raked out and repointed using a suitable natural hydraulic lime (NHL) mortar throughout. Further advice in respect to any repointing work should be sought from a suitably experienced stone mason or lime mortar specialist.

2.4 The roof structure consists of both single lean-to and 'A' frame trusses comprising approximately 250mm deep x 75mm wide timber principal supports. The trusses support purlins to each pitch, with rafters and corrugated sheet steel roof finish over. The trusses appear to remain serviceable under their current use, however they are considered to be undersized; principally due to the height of the current collar tie.

It is considered a new suitably designed roof structure is required throughout. The existing trusses would not adhere to current standards if subject to formal calculation, especially if supporting the loadings typically applied during conversion (insulation, plasterboard, services etc). Consideration could be given to adopting a new suitably complementary structure, that would allow the existing trusses to remain as a non-structural feature.

Although not immediately necessary, consideration for installation of a reinforced concrete ring beam could be given to provide a level bearing for a new roof structure and benefiting the external envelope of the building with additional lateral restraint to the heads of the walls.

- 2.5 Generally, the ground floor consists of a mixture of concrete and bare earth. Upon conversion a new suitably designed ground bearing insulated floor slab will be required. The depth of the existing walls below ground is unknown. Depending on the proposed level of the new floor, it should be considered underpinning may be required.

### **3.0 CONCLUSION.**

- 3.1 The building/s remain a fair example of a well-built agricultural outbuildings. It is apparent they have suffered from some structural and weathering problems, which has caused deterioration in their fabric.

Left unchecked the building/s will inevitably decay further and fall into greater disrepair. However, the masonry walls and roof structure stand in relatively good condition. In conclusion it is our opinion and recommendation that the barn buildings "E" and "G" (as identified on drawings 2230-21 and 2230-23 are structurally suitable for retention / renovation / conversion and partial rebuilding, subject to the above points and the competent implementation of a sympathetic and compatible scheme of repair, refurbishment works, new works etc as applicable, and should then result in attractive domestic accommodation.

It is considered the building, whilst not without defect is worthy of restoration and conversion to provide accommodation such that it may continue to be a valuable asset to the historic context in which it is set.