Visual Structural Inspection

of

Steele House Extension, Sandwith

For

Mr & Mrs Regan

Reference	-	2025.356 rep001 Rev -
Date	-	08/04/2025
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1.0 BRIEF

1.1 Redstone Consulted Engineers Ltd were commissioned in March 2025 to carry out a structural inspection of the existing attached barn at Steele House. The survey will examine if the building is structurally sound and capable of conversion as required by Cumberland Council's Validation Checklist.

1.2 The inspection was limited to a visual, non-destructive inspection to those areas where it was safe to access.

2.0 INSPECTION NOTES

2.1 The inspection was carried out on the morning of 28th March 2025. The inspection was limited to those areas safely accessible and was restricted externally to elements visual from the ground floor.

2.2 Examination of foundations was not possible.

2.2 The age of the original building structure is not known but is understood to be pre-1900.

2.3 Record drawings/information for the building structure were not available.

2.4 The building is a 2 storey attached barn between 2 existing residences. It is not known if these were originally residential units or have been converted at some point.

2.5 The roof to the barn consists of concrete roof tiles on battens between timber rafters. These rafters are supported by timber purlins spanning between timber trusses.

2.6 The external walls are built in solid 500 mm thk mortared random stone. The walls have been rendered externally and lime-washed internally.

2.7 There is a single 370 thk cross wall built in mortared random stone.

2.8 Lintels to windows are generally timber.

2.9 A reinforced concrete beam with brickwork pillars have been installed to the front elevation to form a garage opening

3.0 OBSERVATIONS

3.1 Front Elevation

Cracking is visible to the front wall above the garage opening where the building adjoins its neighbour. Cracking in this area is visible internally on the party wall (see photos 3.1a and 3.2a)

photo 3.1a

photo 3.1b

3.2 Rear Elevation.

The rear wall is fully rendered externally. No movement or defects were visible. (see photo 3.2a).

photo 3.2a

Deflection of the timber lintels to the windows and door is visible, although this is to be expected of a building of this age (see photo 3.2b)

photo 3.2b

3.3 Internal walls

Cracking is visible where the cross wall meets the rear external wall (see photo 3.3a).

photo 3.3a

3.4 Floors

The first floor timber floorboards are in poor/unsafe condition. The timber floor beams are suffering from woodworm (see photos 3.4a & 3.4b)

photo 3.4a

photo 3.4b

3.5 Roof

Due to the poor condition of the first floor examination of the roof was from a distance. Considering the building age the roof timbers are generally in reasonable condition although a number do appear to be beginning to deteriorate (see photos 3.5a to 3.5c)

photo 3.5a

photo 3.5b

photo 3.5c

4.0 DISCUSSION

4.1 The building overall appears to be structurally stable and structurally capable of conversion to residential use.

4.2 Remedial works will be required to remedy the defects highlighted during the inspection.