

# Building Condition Report and Schedule of Works

## 1. Instruction

1.1. We are instructed to provide a report on the current structural condition of the red brick building and courtyard located within the red line of the plan attached. To achieve the purpose for which it is intended, the survey has been conducted with particular regard to the main elements of construction and their structural integrity. Therefore, in the interests of clarity and determining the suitability of the property for refurbishment or rebuilding, matters of a relatively minor detail have been omitted.

1.2 No investigation has been made of the subsoils or footings and therefore no opinion can be expressed regarding the ability of the foundations to continue to support the buildings. However, any suspicion of foundation weakness or failure would be reported upon together with recommendations for further investigative action to determine any problems. The inspection has been visual only and no practical tests have been carried out. The report summarises the state of repair and condition seen at the time of inspection; defects that have developed since that time are not covered. The inspection was carried out on 9<sup>th</sup> October. This report has been prepared to accompany a planning application for conversion and is for the sole use of the applicants and his professional advisers and liability does not extend to any third parties.

1.3. We have been instructed to undertake a structural condition survey of the barn and courtyard. The purpose is to inspect the key structural elements, to ascertain whether the building is of a permanent and substantial construction, and the building is in a structurally sound condition and is capable of conversion without significant rebuild or alteration.

1.4. We visited the property on the 9<sup>th</sup> October 2023, and the weather at the time was dry and sunny.

## 2. Subject Site

2.1. Red brick barn and courtyard off Hall Lane, Odstone, Nuneaton, CV13 0QS

2.2. The site comprises a red brick single storey building with a pitched roof and earthen floor. The roof has a timber frame clad with slate tiles. Internally the walls are double skin brick and do not appear to have a cavity.

2.3 The wider site includes a red brick courtyard.

2.4 The barn and courtyard do not appear to be served by water and electricity utilities connections currently.

## 3.0 INSPECTION OBSERVATIONS

3.1. CONSTRUCTION PRINCIPALS - The site comprises a barn constructed from red brick, with a pitched roof, that is supported off timber trusses and rafters. The building has an earthen floor also comprising hardcore and crushed stone. The building currently has no doors or window but is open to the elevation facing into the courtyard. The roof on the open elevation is supported by metal column's set on red brick plinths. A courtyard enclosed by a red brick wall is set off the open elevation with two existing openings. A red brick outbuilding no longer benefiting from a roof is also attached to the

buildings north-west elevation. The building and courtyard are accessed of an access track surfaced in crushed stone and hardcore from Hall Lane.



*Figure 1 - Main building*



*Figure 2 - Courtyard*

3.2. BUILDING WALLS - constructed from red brick and are 240mm thick, with the exception of the doorway and columns which the roof trusses sit on, which are circa 350mm x 350mm. Given the thickness of the walls and the original use of the building it is not anticipated there is a cavity, and no insulation is present. The walls of the building are in a satisfactory condition including at low level. There were no signs of structural movement, or deterioration to the structure, beyond a few isolated locations where spalling bricks on the north-east and north-west elevations would ideally need to be replaced. These can simply be cut out and replaced with matching red bricks and is considered peripheral damage only. There were no signs of any settlement or distortion to any of the walls.



*Figure 3 - Evidence of minor spalling*



*Figure 4 - Evidence of minor spalling*

3.3. ROOF STRUCTURE – The timber framed roof structure utilises king post trusses (210mm x 70mm) with timber rafters (230mm x 45mm). In between the trusses - two steel rafter ties are used per spacing. A fabric membrane is fitted between the roof structure and the main roof covering which the slate tiles are attached to. The roof structure is attached to the walls via timber wall plates and steel wall ties. No signs of movement to the roof were evident, with structural elements in good condition, weatherproof and suitable for conversion.



*Figure 5- Roof Truss*



*Figure 6- Rafters and membrane*

3.4. FLOOR – The building has an earth floor with a mix of hardcore and crushed stone, with the ground predominantly appearing to be clay based. A concrete floor will need to be installed for the conversion to take place. Please see earthen floor on image Figure 7.

3.5 OUTBUILDING – The outbuilding attached to the main buildings north western elevation currently does not benefit from a roof. There are notable cracks to the north eastern elevation and will require localised rebuilding to that aspect. There is also minor cracking to the north-western elevation, but no significant movement is noted. See section to be repaired/localised rebuilding in Figure 8.



*Figure 7- Earthen Floor*



*Figure 8 - Section of outbuilding wall requiring repair/localised rebuilding.*

3.6 COURTYARD WALLS – The courtyard walls range in height but are circa 2.3m from the ground. The walls to the north-east and south-west elevations are in good condition and little or no evidence of spalling or movement. Elements of the south-eastern wall including the corner element require localised rebuilding due to being out of plumb, notable cracks and movement being evident.



Figure 9- Courtyard wall in good condition



Figure 10- Are of courtyard wall that requires repair/localised rebuilding.

## 4.0 Schedule of Works

4.1 Please see the following schedule of works required for the conversion:

1. Inspection of existing brickwork and tiles and repair/replace where necessary with matching materials. Minimal if any works expected.
2. Install new surface water and foul drains leading to new septic tank and soakaway respectively.
3. Dig out and lay concrete floor and strip foundations in locations of proposed south-western wall of extension and south-western wall of existing building to be bricked up. All other existing walls to remain in situ.
4. Localised repair work to be carried out to existing walls highlighted in section 3.
5. Erection of two above mentioned cavity walls, externally finished with matching red brick of same colour, size and weathering. Internal concrete block walls with rockwool insulation to current Building Control Specification.
6. Laying of damp-proof membrane. Celotex or similar insulation to be laid over with upstands to perimeter and with sand cement screed over.
7. Under draw ceiling and provide insulation in between purlins to Building Control Specification.
8. Provide window openings to existing walls.
9. Install insulation in between battens to existing walls to Building Control Specification
10. Build up internal stud walls.
11. Fix glazing units to window and door openings.
12. Install vapour barrier.
13. Build up stud partition internal walls off floor.
14. Install first fix electrical and plumbing services.
15. Fix insulated plasterboard to battens and skim over
16. First fix joinery
17. Second fix electrical and plumbing services
18. Second fix joinery
19. Internal decoration

## 5. CONCLUSIONS / RECOMMENDATIONS

5.1. The building's walls are stable, and in purely structural terms, minimal building operations would be required for the conversion to a dwelling.

5.2 The south-eastern courtyard wall and outbuilding will require some localised rebuilding and repair work, but the north-eastern and south-western courtyard walls are in good condition.

5.3. The existing buildings walls would be capable of supporting any loads imposed for residential use, and for the thermal improvements necessary for compliance with building regulations.

5.4 The existing structure will largely remain in place as part of the conversion and is of a permanent and substantial construction. The building is in a structurally sound condition and is capable of conversion without significant rebuild or alteration.