

Graham Askew MRICS, Chartered Building Surveyor

STRUCTURAL APPRAISAL

OF

SEPARATE TWO STOREY STORAGE FACILITY, PART OF AN EXISTING
STEEL FRAMED BUILDING

AT

NORTH OF MUNTHAM HOME FARM

BARNS GREEN

WEST SUSSEX

RH13 0NH

26th January 2026

Steel Framed Barn at Muntham Home Farm, Barns Green.

SITE ADDRESS: Muntham Home Farm
Barns Green
Horsham
West Sussex

CARRIED OUT ON BEHALF OF: Mr Durwin Banks

DATE OF INSPECTION: 10th April 2025

WEATHER CONDITIONS: Dry, with sunny spells

PERSONS PRESENT: Mr G Askew MRICS
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Steel Framed Barn at Muntham Home Farm, Barns Green.

Following your instruction, I attended Muntham Home Farm, Barns Green, Horsham, on the 10th April 2025, with the sole purpose of undertaking a structural appraisal of the two storey blockwork and timber/steel-framed storage area, within the existing work-shop/storage building, sited to the north of the main farmhouse.

The following report is for the private and confidential use of the Client, Mr D Banks, for whom the structural appraisal has been prepared. Whilst this report may be shown to other professional advisors, acting for Mr Banks, the contents are not to be discussed with nor made use of in part or full by any third party without the express written authority of Mr G Askew MRICS. Without such consent I accept no responsibility to any third party.

This survey consists of a structural appraisal of relevant building fabric of the main structure, to be developed. No account has been made of the cosmetic finishes, decorations, services, etc. found on site and no tests were carried out on any of the services. Any parts of the building that were covered or unexposed at the time of this survey have not been commented upon; I am therefore unable to guarantee any such parts are free from defect.

1.0 SITE & GENERAL

The site is located within Horsham District and in the village of Barns Green. The steel-frame building surveyed is part of a collection of farm-type buildings / work-shops, all of which now have a variety of uses.

A portion of the 1970/80s, steel-frame building has been used as a two storey storage area. This area of the building is no longer required; however, the remainder of the building is being currently used for open storage purposes.

The main steel frame takes the form of regularly spaced bays. The enclosed storage area occupies the ground and first floor, in the southern-most bay. In the second bay there is a further, two storey, open store.

The area inspected will be the subject of a planning application for conversion to a domestic residence. Overall, at the time of my inspection, I found this part of the building to be structurally sound, secure and watertight.

2.0 BUILDING

2.1 Roof

The steel-framed building is covered with a 15°, double pitched roof, clad with corrugated, fibre-cement sheeting. The roof sheeting is secured to a series of evenly spaced, 152 x 76mm 'I' section steel frame purlins on both east and west roof slopes. The sheeting is in good condition, with only a few, minor fixing repairs required. This is general maintenance type work. At the time of my inspection, I found no evidence of water ingress via the roof sheeting.

The roof ridge runs north to south through the building, enjoying a gable end on the front elevation.

2.2 **External Walls**

The ground floor walls are 215mm thick, solid, fair-face concrete blockwork. External walls have been lined internally, with plasterboard, in the two storey, enclosed storage bay. Minimal insulation is thought to be present within this timber-frame portion of building fabric.

Walls, in the second bay, open store, have been left as fair-face concrete blockwork internally and externally.

The upper / first floor walls, throughout both of the steel frame bays, are formed as a timber frame studwork, externally clad with horizontal, dark stained, softwood boarding.

Walls were all found to be plumb and upright, with no sign of any structural movement, etc. at the time of this inspection.

Supporting steel portals are 178 x 102mm in section and run parallel to the adjacent, larger work-shop/store building. The adjacent larger portal steels are 254 x 146mm in section. Note: The larger, steel frame building buttresses the areas to be considered for conversion.

2.3 **Foundations**

Foundations were not exposed at the time of my inspection. In the knowledge that the super-structure is plumb and upright and not showing any signs of structural movement, exposure of the foundations was not felt to be necessary. Historically, the adjacent buildings are known to have mass fill concrete foundations, bearing on a clay sub-soil.

Where inspected, I found no sign of any structural movement in the super-structure and I am therefore of the opinion that the below ground level structure support can be justified as suitable to support domestic type loadings. If of any concern, the foundations can be exposed for inspection, once work commences on site.

2.4 **Ground Floor**

There is a masonry floor in both the two bays under consideration. It is possible that a screed has been applied to the first bay floor. The floor in the second bay store is the original concrete, now a little cracked, but it does appear to be of sound construction.

2.5 **First Floor Construction**

2.5.1 **First bay storage area:** The first bay storage area is being used for storage purposes. The floor is covered with close-boarded floorboards, with timber joists as support below. The floorboards and their supporting joists are held in place using the external walls and a series of good sized, plasterboard boxed, internal steel beams.

Beams were inspected, as far as practical. They looked to be satisfactory, with no disturbance to the structure at bearing points, etc.

A straight flight stair-case has been cut into the first floor. Although a little steep the stair-case was found to be satisfactory. The stair-case enjoys a single hand-rail.

The ceiling, in the first bay, has been plaster-boarded over and emulsion painted.

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- 2.5.2 **Second bay storage area:** Additional steel frame supports can be seen at first floor level, including a 203 x 102mm x 23kg steel beam across the open storage platform. This beam supports the first floor joists, aided by a series of 90 x 90mm SHS steel posts. The steel posts are placed within the overall wall thickness

Floor joists see 195 x 75mm softwood timbers placed at 370mm centres, with a close-boarded flooring over. There is no ceiling. This construction is adequate for the storage loadings in this part of the building, which are greater than domestic loads.

2.6 **Internal Walls**

Internal partitions are limited to the first floor store, in the first bay. Here a timber-framed construction separates the stair-well and a small bathroom area from the main storage area.

At ground and first floor a separating wall is found between the first and second bay storage areas.

2.7 **Fenestrations**

Fenestrations are all timber, with single glazed panes. Refer to the elevation drawing.

There is a timber, pedestrian door and a pair of large, double doors, providing access into the first bay, ground floor storage area.

2.8 **Services**

A 3 phase electrical supply has been run into the building from the adjacent electricity poles.

Mains cold water is available at both ground and first floor level.

Foul water and surface water drains are present. The final out-fall of the surface water discharge was undetermined by inspection. A soil and vent pipe is present on the west elevation, discharging foul water to an existing, small sewage treatment plant.

Boxed eaves and matching rainwater goods are seen on both the east and west elevations. These gutters and down-pipes would benefit from being replaced.

3.0 **CONCLUSION**

I understand that Mr Banks is seeking permission to convert part of this steel frame building into domestic accommodation. Structurally, I found the first and second storage bays to be very suitable for conversion. No major structural alterations will be necessary, at this end of the unit.

The main steel frame, roof and wall cladding is in good condition and can therefore be retained. Note: The timber wall cladding can be re-stained as part of the building's ongoing maintenance work.

As stated, roof and wall coverings could remain in place, with any new fenestrations/openings being cut through the existing block / timber frame walls, with suitable lintels placed over. The roof/walls seen at the time of my inspection could comfortably be insulated and dry-lined from within the building itself, to meet current Building Regulations.

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Other works can also be undertaken, to comply fully with current Building Regulations, i.e. fire protection, plumbing, services, etc.

The main portal stanchions and their foundations appear to be more than adequate to support main building fabric loadings. Work to up-grade the building to domestic use can be carried out from within the unit, without disturbing the external appearance of the unit.

Structurally, the building is suitable for conversion, as the main steel portal frame, together with its sheeting rails/purlins are in good condition. Consequently, my 'Recommendations' will be limited to necessary conversion works, in keeping with current Building Regulation legislation, leaving the building in a stable, secure and watertight condition.

4.0 RECOMMENDATIONS

The following recommendations are to be read in conjunction with the attached structural appraisal, in the knowledge that part of this building is to be converted into residential accommodation.

The items listed below have not been written in any order of priority, but should be considered in order to provide a secure, dry, insulated and water-proof property.

1. No work is currently required to the roof or the wall cladding; however, fixings should be checked regularly to ensure they remain in good order. Building Regulation restraint straps can be added internally, if necessary, particularly if the first floor area is to be converted.
2. Roof, floor and wall insulation should be added when the building is converted to residential use, to meet current Thermal Regulations. Note: A minimum of 60 minutes fire resistance will be required between any new domestic dwelling and the remainder of the storage building. SAP ratings and an EPC are also required as part of the Building Regulation criteria.
3. Sound-proofing can also be applied to the existing building fabric, i.e. to the party wall between any new residential dwelling and storage areas, as well as between habitable rooms.
4. Fenestrations can be replaced with double glazed, sealed units, on a 'like for like' basis, to suit the future use of the building. Additional door/window openings may be required to suit any change of use, to comply with planning legislation, fire and thermal regulations, etc.
5. Gutters and down-pipes are to be replaced with deep-flow components, to ensure that rainwater discharges away efficiently to either an existing surface water drain/outlet or a new rainwater harvesting unit. This will allow rainwater to be collected and reused in the dwelling, if required.
6. The existing small sewage treatment plant should be site checked and its out-fall is to be confirmed. This unit is currently in use and is therefore assumed to be acceptable. Note: If found to have insufficient capacity the plant will be replaced with a more suitable unit.
7. Electricity and water are already available on site.

Please contact me should you require any further advice.

Graham Askew MRICS.
26th January 2026