

Greatham Barns

The Granary

Greatham

West Sussex

**Method Statement and Record of Work Completed
Revision E**

January 2021

Shire Barns Developments LLP

The Granary

Current Condition

The existing structure is recorded on drawings prior to Repair works is contained in Method Statement dated June 2017.

The Granary is a oak framed building utilizing traditional joints. Originally the barn was built as a threshing barn with 9 bays. Considerable alterations have taken place over the years. A raised floor has been introduced in 6 bays at the south end around 1900 to convert the threshing barn to a granary. Threshing bay door openings have been infilled. New openings formed and old openings filled. 2 wall panels at the south end have been rebuilt in softwood.

Repairs carried out since June 2017.

The Granary Frame has been extensively repaired and is ready for the conversion to a dwelling all as shown on dRMM Planning submission.

A record of the works and openings are shown on drawings dated August 2020 previously submitted to David Boyson and are attached.

Record Photographs

Original Photographs recording the state of the barn (bay by bay) are attached to June 2017 Method Statement.

Strip out

Any non structural farmers additions have been removed to fully reveal the oak structure. Timbers that have been removed are shown on drawings MS 2 to MS 9 marked up in pink

The structure has been cleaned using gentle air pressure attached to an air compressor to remove any dirt and debris.

Roof tiles have been stripped and Replaced with new hand made roof tiles. timber cladding has been removed to reduce the load on the oak frame.

The existing timber floor in the 6 bays at the south end of the barn has been removed. A new floor has been constructed to the same level.

Existing piers and saddle stone supports have been reused.

Structural Review and Works

Structural repairs were all carried out in accordance with Beers letter dated 15th March 2017 and structural analysis. A copy is contained in the Method Statement dated June 2017

Architectural Adviser for Historic Buildings

SDNPA Conservation Officer for Historic Buildings viewed the structural repairs and openings in August 2020 and was satisfied.

North Wall

The repairs to the North Wall have all been completed in accordance with the June 2017 Method Statement

Timber Treatment

Timber treatment has been treated with Triton Lignum PRO D165, (Data sheet is enclosed in the June 2017 Method Statement.

Brick, Stone and Rubble Walls

Make a careful photographic record of the brick, stone and rubble walls in Bay 7 to east and west elevations to allow faithful reproduction in Bay 8

Carefully dismantle Brick, stone and rubble walls in Bay 7 to east and west elevations. All brick and stone to be retained for reuse.

Support oak frame and remove any concrete and concrete blocks and make good with brick and/or stone to match existing.

Rebuild brick, stone and rubble walls in Bay 8 (where missing) to match existing. Reuse materials retained from Bay 7

New walls to be built and pointed (Flush or slightly recessed pointing) with lime mortar comprising hydraulic lime NHL 3.5 and sharp sand/crushed brick (1:3) and shall be carried out in accordance with The Building Conservation Directory information sheets 'Pointing with Lime' and 'Flint and the Conservation of flint buildings'

Chemical damp proof course injected into brick and stone walls from the inside face of wall.

Roof Coverings

New roof coverings have been completed using hand made plain clay tiles made by Sahtas –Multi mix Brockhurst range. Ridge, hip and valley tiles to match.

Conversion to Residential Use

Having repaired the existing structure, the second phase of the project is to convert the building to a residential use whilst retaining as much of the historic character and fabric as possible.

Ground Slab and foundations (Bays 6 to 9-North End)

Provide 7 days notice of intention to start the excavation work to Chris Butler Archaeological Services

Carefully remove existing concrete ground bearing slab. Take care to minimise disturbance of the ground surface below the slab.

Allow a suitable qualified archaeologist to inspect the surface revealed.

Excavate to a depth of 600mm below existing slab level, this work all to be undertaken under the supervision of the archaeologist. Allow suitable provision for adequate investigation and recording of any archaeologist deposits in accordance with paragraphs 4.3 and 4.4 of the Archaeologist WSI

Allow inspection of the spoil from the excavations by the archaeologist.

Cast new 100mm concrete (C20) slab on 100mm hardcore bed, Dpm and 100mm Celotex insulation incorporating under-floor heating installation.

Insulation of Existing Timber Framed External Walls

The wall construction will comprise painted plasterboard fixed to the outside of the oak frame, OSB board, Cellotex insulation, breather felt, counter battens, battens and stained feather edge boarding.

The aim is to insulate the structure from the outside in order that the oak frame is fully exposed and is kept within a dry and controlled environment.

South Elevation

The existing South Elevation is 230mm thick Dark stock bricks laid in English bond

Insulation will comprise 50mm celotex fixed between 50x50mm battens plugged and screwed to brickwork and finished with vapour barrier and plasterboard and skim coat of plaster.

The outer face of brickwork to be repointed as necessary in lime mortar 1:3.

Insulation of Existing Timber Framed Roof

The completed roof construction comprises painted plasterboard fixed to top of rafters, OSB Board, 120mm Cellotex insulation, counter battens, breather felt, battens and roof tiles.

The introduction of OSB board in the roof and wall construction will provide bracing and will improve the structural stability of the barn

Internal Walls and Doors

New stud partitions in positions shown finished with plasterboard and skim coat plaster with sound insulation within.

New timber internal doors in positions shown. Door frames will comprise 120x100mm green oak door frames with ledged framed and braced doors hung on handmade strap hinges with hand made latches.

Finishes

Finishes suitable for a high quality building.

Services

Underfloor Heating

Water based under floor heating zoned and thermostatically controlled to each room all to comply with the Building Regulations. Underfloor heating to Bays 1 to 6 will be installed within the new raised floor

Underfloor heating in Bays 6-9, the Link and the outbuildings will be laid on celotex insulation on 100mm concrete slab and will be covered with a cement and sand screed

Plumbing Installation

Pressurised hot and cold water system to supply all sanitary ware and appliances all to comply with the Building Regulations. Where possible all pipework will be concealed under floors or within partitions

Electrical Installation

Electrical installation comprising power, lighting, smoke detectors, etc all to comply with the Building Regulations .Where possible all wiring will be concealed under floors, within the external wall insulation or within partitions
Telephone supply. Where possible all wiring will be concealed under floors, within the external wall insulation or within partitions

NB Gas services are not available in this area.

Heating and hot water will be provided by air source heat pumps suitably positioned to the west of the Dairy Building

Drainage

Foul Drainage

New foul drainage comprising 110mm drainage pipes and manholes all laid to falls draining to 12 person package sewage plant with effluent draining to the River Arun

Surface Water Drainage

Surface water drainage comprising 110mm drainage pipes, gullies, manholes draining into surface water drain all laid to falls draining to the River Arun

Mains Services

Install new water, electricity and telephone supplies

External Works

Soft and hard landscaping have been dealt with in dRMM's planning submission

Building Regulations.

All works are to comply with the Building Regulation

Outbuildings and Cart Sheds

Current Condition

The Outbuildings are brick buildings with a pitched roofs covered with plain clay tiles.

The building at the south end has collapsed but can be rebuilt to match the remaining buildings.

The existing buildings are suitable for the new proposed dwelling.

Restoration Procedures

Strip out

Strip out any redundant fixtures and fittings

Fill all redundant openings with brickwork to match (including bond) and cut new openings as required.

Strip existing tiles from the roof. Roof tiles are to be sorted and set aside in a safe and secure place.

Carry out structural repairs required by the Structural Engineer. Details and extent of repairs to be agreed in writing with the Local Planning Authority before execution and marked on existing survey drawings.

Ground Slab and Foundations

Carefully remove existing concrete ground bearing slab. Take care to minimize disturbance of the ground surface below the slab.

Cast new 100mm concrete (C20) slab on 100mm hardcore bed, Dpm and 100mm Celotex insulation incorporating under-floor heating installation.

Chemical damp proof course injected into brick walls from inside face of external walls.

Excavate and cast new concrete slab and strip foundations for link extension.

Provide 7 days notice of intention to start the excavation work to Chris Butler Archaeological Services

Carefully remove existing concrete ground bearing slab. Take care to minimize disturbance of the ground surface below the slab.

Allow a suitable qualified archaeologist to inspect the surface revealed.

Work to be undertaken under the supervision of the archaeologist. Allow suitable provision for adequate investigation and recording of any archaeologist deposits in accordance with paragraphs 4.3 and 4.4 of the Archaeologist WSI

Allow inspection of the spoil from the excavations by the archaeologist.

Cast new 100mm concrete (C20) slab on 100mm hardcore bed, Dpm and 100mm Celotex insulation incorporating under-floor heating installation.

Retain all spoil for inspection by the Archaeologist.

External Walls

Repair existing walls with suitable bricks and flint to match existing. Details and extent of repairs to be agreed in writing with the Local Planning Authority before execution and marked on existing survey drawings.

Rebuild brick external walls where necessary with outer skin to match existing, insulated cavity and block inner skin.

Install new windows and doors in retained existing openings and new openings.

Fix closed cell insulation to inner face of existing external walls finished with plasterboard and skim coat plaster.

Roof Coverings

New roof coverings have been provided using hand made plain clay tiles made by Sahtas –Old English Red Brockhurst range. Ridge, hip and valley tiles to match.

Roof

Strengthening and replacement of existing roof timbers as required by the Structural Engineer has been completed

The roof construction has been completed and comprises painted plasterboard fixed to top of rafters, OSB Board, 120mm Cellotex insulation, counter battens, breather felt, battens and roof tiles

Internal Walls and Doors

New stud partitions in positions shown finished with plasterboard and skim coat plaster with sound insulation within.

New timber internal doors in positions shown. Door frames will comprise 120x100mm green oak door frames with ledged framed and braced doors hung on handmade strap hinges with hand made latches.

Finishes

Finishes suitable for a high quality building.

Services

Under floor heating, pressurised hot and cold water system.

Electrical installation comprising power, lighting, smoke detectors, etc

Telephone supply.

Note: Gas services are not available in this area.

Drainage

As barn

Mains Services

As barn

External Works

As barn

Building Regulations.

All works are to comply with the Building Regulations

Method Statement– Supporting Documents

List of drawings, Photographs and Documents

Drawing List

- MS 1 (Part 1) Reference plan for Method Statement 1:100
- MS 2 Survey Drawing Bays 1-6 looking East NTS
- MS 3 Survey Drawing Bays 1-6 looking West NTS
- MS 4 Survey Drawing Bays 7-9 looking East and West NTS
- MS 5 Survey Drawing Bays 1 & 9 looking North and South NTS
- MS 6 Survey Drawing Frame Bays 1/2 & 2/3 NTS
- MS 7 Survey Drawing Frame Bays 3/4 & 4/5 NTS
- MS 8 Survey Drawing Frame Bays 5/6 & 6/7 NTS
- MS 9 Survey Drawing Frame Bays 7/8 & 8/9 NTS

Documents

Documents not enclosed

- Flint and the Conservation of Flint Buildings -The Building Conservation Directory 2005
- Pointing with Lime - The Building Conservation Directory 2007
- Gauging Lime Mortars -The Building Conservation Directory 2001