Construction Method Statement

Conversion of an existing granary and workshop into residential accommodation

AT

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INTRODUCTION

This Construction Method Statement (CMS) is prepared on behalf of Mr P Walker.
The CMS is produced in the interest of ensuring that the '*construction process is undertaken in a safe and convenient manner that limits impact on local roads and the amenities of nearby occupiers, the area generally and in the interests of highway safety*'.

SCOPE OF WORKS

The existing granary and neighbouring workshop is to be converted and linked with a new glass link in order to provide residential accommodation while respecting and enhancing the characteristics of the existing structures.
The conversion will require works on the following areas in order to ensure that the building meets with the current edition of the Building Regulations mainly in terms of insulation and energy performance. This will be done in a way that will have minimal impact to the existing structure and would allow it to be returned to its original state if required.

The proposal is essentially split into 2 distinctive structures; Workshop and the Granary which are to be connected by a new 'link. The conversion will affect the following elements of each structure:

Ground floors
First floors
Walls
Roof
Windows, doors & openings

Each element has its own characteristic and vary in construction significantly which need to be viewed individually to ensure the correct approach is instigated.

The following method statement is therefore split into 3 sections each dealing with one of the 3 elements which form the overall design proposal.

THE WORKSHOP

GROUND FLOOR
The existing floor of the workshop is an exposed concrete slab which will be removed and replaced with a new insulated concrete slab with screeded finish to the same level as the existing slab. Ideally, we would retain the existing slab and insulated over the top, however, in this case it would mean needing to raise the door & window openings to suit the new FFL and this would be detrimental to the character of the workshop. As the existing slab is likely to be quite thin with no sub-base removal is the best option.

This work will be done using a pneumatic drill to break up the slab which can then be loaded into wheelbarrows and carted off site.

A new ground bearing slab will then be installed, consisting of a type 1 compacted hardcore base, re-enforced concrete slab, DPM, 100mm rigid insulation and a screeded finish with 20mm perimeter insulation. The new FFL will match that of the existing slab.

WALLS
The external walls of the workshop vary in thickness depending on the elevation in question however in it acceptable to assume that none are of cavity construction or are indeed insulated. Therefore, in order to make the space habitable we need to line the walls appropriately. Prior to any new construction all existing plasterboard/plaster finish is to be removed to ensure the walls are well ventilation and can breathe. In is then recommended to fix a Wykamol membrane to the walls which will overlap the new floor DPM and allow any moisture within the existing walls to dissipate.

Once this is done a new metal framed studwork will be constructed internally on top of the new slab. This will cover the perimeter of the building and will be offset by a minimum of 25mm from the internal face of the external walls to ensure adequate air can circulate behind and ensure they existing walls can breathe.
A rigid insulation with be installed between the metal studwork with an insulated plasterboard and integrated VCL fixed over the studwork with a skim finish ready for painting.

All internal partitions with be new timber studwork packed with insulation quilt and finished with plasterboard and a skim finish. These will be fixed into the new floor slab and new joists forming the flat ceilings described below.

ROOF
The existing roof structure appears in acceptable condition and therefore requires no structural alteration. Over the main living spaces the ceiling will be fully vaulted and therefore rigid insulation will be placed between and underneath the rafters. The latter will be bonded to plasterboard with an integral vapour control layer and appropriate ventilation will be provided in accordance with best practice and manufacturers guidelines.

Over Bedroom 2, Corridor and Shower a false ceiling with be created with new timber joists, plasterboard & skim finish.

WINDOWS, DOORS & OPENINGS
The design has been implemented in a way which achieves as much natural light as possible by utilising the existing openings but also creating new to suit the design.
Where new openings are to be formed this will be done by hand, using hand tools to ensure the existing fabric is respected and all removed materials with be stored carefully to be made use of if required.
As the floor level will be raised the existing door thresholds will also need to be raised accordingly. This will be done using reclaimed bricks from the formation of new openings.

THE GRANARY

GROUND FLOOR
The current floor is of a suspended timber floor construction. The existing floorboards will be carefully removed. The joists can then be assessed and where necessary repaired or if required replaced on a ‘like for like’ basis. Between the joists a rigid insulation can be laid in trays with a VCL over the top of the joists. The existing floorboards will be assessed and

where possible re-used. A section of the floor has collapsed and new floorboards to match the existing will be used to infill this area and any other gaps as required.

FIRST FLOOR
The original timber structure has collapsed with only the main beams in-situ. New C24 floor joists will be inserted @400mm ctrs between the existing timber frame with 22mm T&G floorboards fixed over to form a new first floor deck.

The Existing staircase has partially collapsed. It is proposed the damage timbers are replaced with new timber elements which will reflect the proportions and finish of the original timbers and installed using traditional joining techniques.

WALLS
The existing cladding is to be completely removed and replaced with new timber cladding stained to match.

On removal of the cladding a breather felt can be applied to the outside face of the existing main timber structural frame, before the cladding is fixed back into place.

Internally the timber frame will be repaired as necessary and a new secondary timber frame, independent of the original structure will be erected with insulation between studs and an insulated plasterboard over to provide the finished surface.

The existing internal studwork will be retained are repaired as required with insulation quilt and plasterboard finish applied. All new timber studwork packed with insulation quilt and finished with plasterboard and a skim finish. These will be fixed into the floor joists and new first floor structure.

ROOF
The existing roof structure appears in acceptable condition and therefore requires no structural alteration. At first floor level will be fully vaulted and therefore rigid insulation will be placed between and underneath the rafters. The latter will be bonded to plasterboard with an integral vapour control layer and appropriate ventilation will be provided in accordance with best practice and manufacturers guidelines.
The main timber structure will still be expressed.

WINDOWS, DOORS & OPENINGS
All existing external openings are to be retained with new glazing fitted to them. On the East gable the existing timber door will be fixed open to allow light into the internal space while retaining the original feature.
On the north elevation a section of the timber frame is to be left exposed to allow for the connection of a new structurally glazed link.

Internally a section of the first-floor partition is to be removed to allow for the fully first floor area to be accessible.

THE LINK

In order to respect the character of the grade II listed Granary while connecting to the Workshop it is proposed that a structural glass link is implemented. The floor will be of a suspended timber construction with a lead/zinc finish externally. Upon this the structural glass walls and roof can be formed and this will be fixed and sealed the brick wall of the Workshop and timber frame of the Granary.

DETAILS OF START AND FINISH TIMES AND DAYS OF WORK

All works relating to the construction of the development, including works of demolition, site preparation, internal works, fitting out etc. shall take place between the hours of 0800 – 1800 Monday to Friday.
No works shall take place on Saturdays nor on Sundays or recognised public holidays.

DETAILS OF CONSTRUCTION STAFF PARKING

The site is to be access via the existing vehicle access point from Lane to the North of the site.

It is proposed that the area to the north of the barn, above the proposed gravel area is used for staff parking and any areas of damaged grass can be made good at the end of the build.

DETAILS OF ON-SITE STORAGE OF MATERIALS

As part of the new design a gravel parking/turning area is proposed. It is suggested that this area be suitably levelled and sub-bases formed from type 1 hardcore to establish a level surface for the storage of materials.
Once the works to the barn have been completed, the area can be cleared and made good in preparation to receive the gravel finish.

PUBLICATION OF THIS DOCUMENT

This Construction Method Statement forms part of the tender package to be provided to each potential contractor working on the site. A copy will also be kept in the site office, along with other health and safety files relating to the construction of the replacement house and associated works.

IMPLEMENTATION OF THIS METHOD STATEMENT

It will be the responsibility of the Contracts Manager to ensure that the Method Statement is implemented.