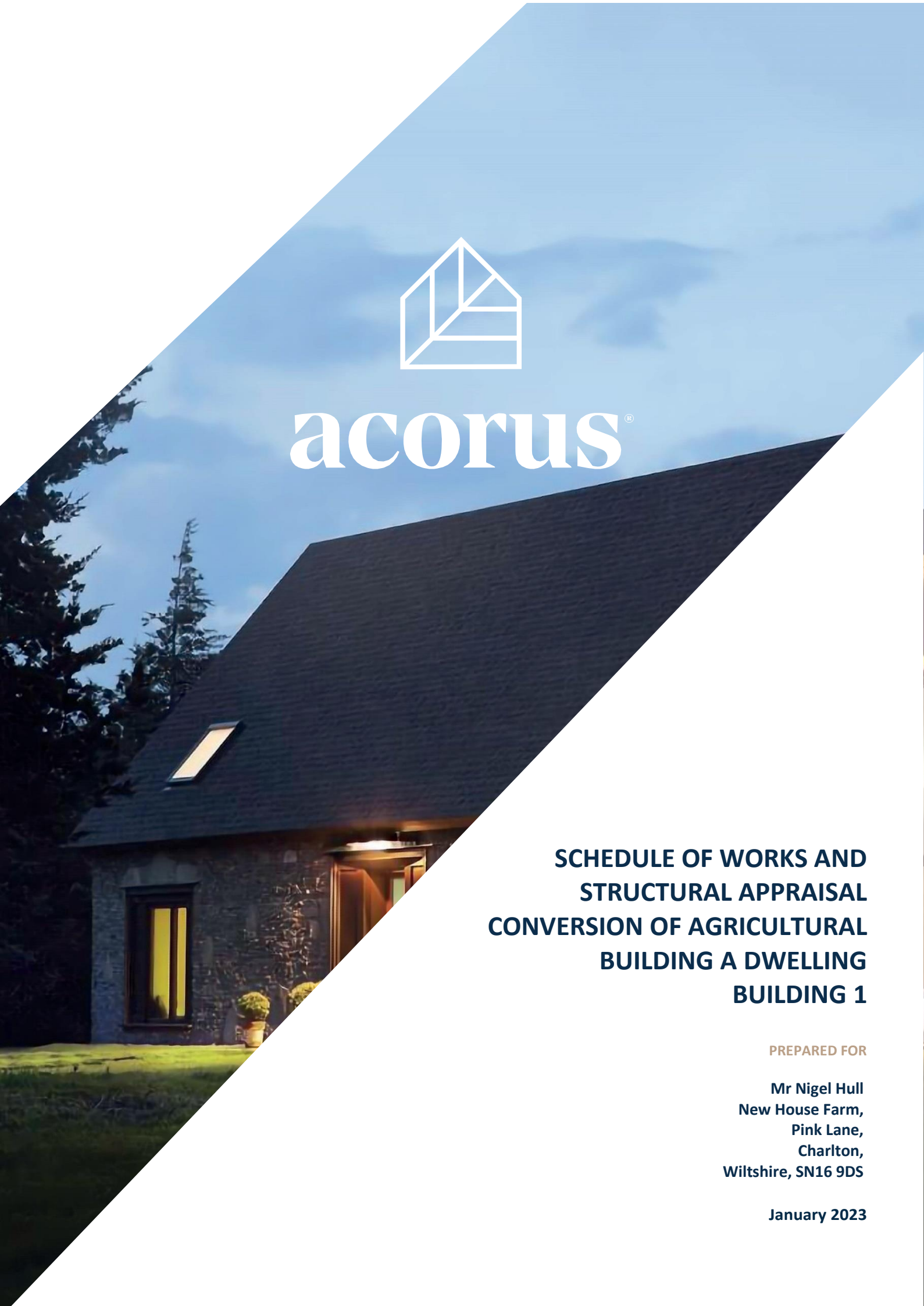


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SCHEDULE OF WORKS AND STRUCTURAL APPRAISAL CONVERSION OF AGRICULTURAL BUILDING A DWELLING BUILDING 1

PREPARED FOR

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New House Farm,
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January 2023

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1. INTRODUCTION

1.1 We act on behalf of Mr N Hull in respect of a prior determination notification under Class Q Part (a and b) made to Wiltshire Council in relation to the potential change of use of an agricultural building (building 1) on land at New House Farm, Charlton into a residential dwelling.

1.2 This report is written with due regard to the published guidance notes relating to buildings operations allowed under the change to residential use:

1.3 Class Q part (b) covers the design and exterior of the building, therefore this report does not cover the internal works. These are all deemed to be covered within the legislation, which allows necessary works in order for the building to function as a dwelling. The updated guidance, issued in February 2018 confirms that some structural works are allowable and that internal works are not generally development. To quote:

"It is not the intention of the permitted development right to allow rebuilding work which would go beyond what is reasonably necessary for the conversion of the building to residential use. Therefore it is only where the existing building is already suitable for conversion to residential use that the building would be considered to have the permitted development right. In addition, the guidance now confirms that 'internal works are not generally development. For the building to function as a dwelling it may be appropriate to undertake internal structural works, including to allow for a floor, the insertion of a mezzanine or upper floors within the overall residential floor space permitted, or internal walls, which are not prohibited by Class Q".

1.4 Acorus Rural Property Services Ltd has been commissioned to prepare a structural assessment of the building and its potential for conversion in accordance with guidance for permitted Development. The objective of the report is to record the condition of the existing building and to make observations on the suitability of the building for conversion. The inspection was carried out on 22nd July 2022.

1.5 The inspection has not dealt with electrical or concealed services or other elements of the premises not visible. It is assumed that no hazardous materials or contamination is present. The report is limited to commenting upon suitability for conversion only. The barn is considered to be structurally sound and capable for conversion without significant rebuilding works as identified in detail within this report.

2. DISCLAIMER

2.1 This report is for the sole use of the named client. While it may be shown to other professionals acting for them, the contents are not to be disclosed to nor made use of by any third party without our express prior written consent. Without such consent we can accept no responsibility to any third party.

Signed ..... [redacted] .....

I HOPKINS
on behalf of Acorus Rural Property Services Limited

Dated 25th January 2023

The author is a Senior Architectural Technician with over 30 years of experience in the building industry.

3. GENERAL DESCRIPTION

3.1 The subject building is a modern steel framed barn constructed with 178 x 102mm columns forming an open frame construction, with a duo pitch roof and lean to building . Externally the building has timber cladding (full height) to North and West Elevations, part of the East elevation and the South Elevation is open. The barn is split into a total of 3 bays, with access via the North and East Sides. The roofs are clad with profiled metal roof sheets. The change of use proposal includes the conversion of the barn to provide a dwelling. This will be achieved within the existing external dimensions of the building.

4. CONSTRUCTION

4.1 The subject building is constructed with a steel frame consisting of columns and rafters supporting timber purlins, divided into 3 bays at 4.575m centres,. The buildings take the form of a typical general purpose building. Externally the walls are clad with timber cladding (full height) under corrugated metal roof sheets. The building is on 1 level (earth floor throughout). The proposed dwelling ground floor will be at 1 level with a proposed first floor with in the duo pitch section of the existing building.

4.2 This is a substantial building and structure that is considered to be in very good condition and is suitable for a change of use to form a new dwelling in accordance with the Class Q legislation. This report comments on the suitability of conversion and compliance in accordance with the current legislation and guidance.

4.3 This building is typical of many agricultural buildings forming a functional structure. It is generally in very good order, structurally sound and adequate for its current purpose. In order to assess the suitability of the structural stability and load bearing capacity of the building with respect to its future use, the design of the proposals are fully assessed as considered below with due reference to the proposal planning drawings and the schedule of proposed works.

5. PROPOSED WORKS

Design Criteria

5.1 The following section of this report determines the condition of the existing building and comments on the suitability for conversion to a dwelling. It also provides a schedule of the proposed building operations.

5.2 The proposed full method of construction and specification will be detailed at the Building Regulations stage of the project, therefore this report concentrates on the current nature of the building and its suitability for conversion with regards to the legislation.

5.3 The design proposals are considered to be in accordance with the legislation, which specifically restricts new building works other than those which are considered reasonably necessary to convert the building into a dwelling. The existing building and structure is considered to be strong enough to take the loadings associated with the change to a residential use. In order to achieve the conversion into a dwelling, it is proposed to take down the smaller duo pitched building. This will enable suitable position of windows and doors within the proposal and limit the design in accordance with the overall floor allowances.

5.4 Class Q part (b) covers the design and exterior of the building, therefore this report does not cover the internal works. These are all deemed to be covered within the legislation which allows necessary works in order for the building to function as a dwelling.

5.5 The new elements of the construction will be integrated into the existing building frame in order to form a homogenous structure incorporating necessary alterations in order for the building to function as a dwelling house as defined under the current GPDO guidance notes.

Design Philosophy

5.6 The proposals are to utilise the existing building frame, fabric and existing external materials and therefore ensure that the building is a conversion and not a new build. The existing structural steel frames will remain in place and provide the main loadbearing element, which will form an integral part of the change of use proposals. The existing timber cladding will also remain as a rain screen in front of new internal watertight insulated walls and so retain the character and appearance of an agricultural building. The proposals aim to provide a modern design utilising a mixture of the existing materials and new glazing. New internal walls will be formed together with internal partitions within the envelope of the dwelling. The existing external cladding materials are more than suitable to be retained and are generally in good condition.

Walls

5.7 The existing timber clad walls will be upgraded to provide an insulated and watertight structure. This will be achieved by constructing a new insulated watertight timber frame to the internal face of the existing structural frame retained timber cladding. The external elevations will retain the

existing timber cladding (full height). The inner walls will incorporate insulation and an airtight membrane where they form the external walls to comply with the requirements of Building Regulations and interventions to include window and door openings as indicated on the submitted drawings.

5.8 New interventions in the form of windows and doors will be incorporated into the external elevations. Infill walling will also be provided in place where existing openings are. These works are considered permissible with reference to the allowable and necessary works. It is considered that these are reasonably necessary works in order to convert the building. New walls are allowed under the legislation, although no maximum allowance is quoted.

5.9 It is considered that the proposed design and required works comply with the legislation which actually allows for the replacement of external walls and incorporation of windows and doors to an extent reasonably necessary for the building to function as a dwelling. The majority of the external cladding will be retained and it is not proposed to incorporate any new structural elements. New walls will be self-supporting infill panels only and therefore support their own weight and are not intended or required to provide additional structural support to the building. The existing cladding may require some minor repairs and painting however this is considered as being reasonably necessary works in order to provide an aesthetically pleasing exterior.

Roof

5.10 It is proposed to retain the roof structure and the profiled metal roof covering. Insulation will be incorporated beneath the roof covering with rigid PIR insulation between and under the existing frame to create a warm roof.

Windows and Doors

5.11 Windows will be inserted into new interventions on all sides of the buildings. These will be in high thermal efficient PPC aluminium frames with double glazed argon filled units.

Structure

5.12 The existing steel framed structure will continue to be the main structural elements and will take the loadings associated with the conversion of the barn into a single dwelling which will include the roof and new internal dead and live loads.

The building would appear to have been designed to British Standard BS 5502 which covers the design and construction of agricultural buildings. The existing roof covering has a weight in the

region of 17 kg/m2 . The frame and roof construction is suitably designed to support a roof covering of this nature. This is a substantial and robust structure and as there will be no significant increase in loading, the existing roof structure would be deemed to satisfy Part A of current building regulations.

5.13 The existing earth floor will be replaced with a new concrete floor slab and will be overlaid with a damp proof membrane, minimum 150mm rigid insulation and floor screed to meet the requirements of the Building Regulations.

5.14 All internal walls will be constructed in non-loadbearing timber studwork which will be constructed directly off blockwork off the floor slab.

5.15 Rainwater goods are to be new galvanized steel gutters and downpipes.

6. CONCLUSION

6.1 The design of the dwelling ensures that the form and structure of the existing building has been utilised in order to create a change of use and a conversion with due regard to the adequacy of the existing structure. It is considered that the building is structurally sound and capable of conversion into a dwelling and that the proposals seek to integrate the new materials and method of construction to form a harmonised building. Certain works are required in order to comply with the current Building Regulations and to provide air and weather tightness and insulation values which will need to be detailed in full prior to commencing works on site.

6.2 It is the opinion of the author, who has over 30 years in the building industry, that the existing steel frames, rafters and purlins are considered to be structurally sound and capable of taking the roof loadings all of which will be transferred through the existing structure. The existing wall cladding will be retained to all sides of the building with a new weathertight insulated structure built between the retained building frame. The roof covering will also be retained.

6.3 The introduction of internal walls will merely divide the living space and as such are not development. For the avoidance of doubt, they will not be load bearing or necessary to provide structural stability, although they will naturally provide some additional strength to the building.

6.4 There are no proposed external works which can be considered as being structural or not reasonably necessary; therefore the proposals to convert this building into a single dwelling are in

accordance with the Planning Practice Guidance with reference to Class Q.

6.5 The proposals represent a conversion of an existing agricultural building.

6.6 With reference to Hibbitt v. SSCLG [2016] EWHC 2853 (Admin) case outlined often referred to by planning authorities, there are three components of significance when considering Class Q permitted development. The first is the assumption that the building must be capable of functioning as a dwelling. Second, that the development include no new structural elements. Third, that the existing building must be sufficiently structurally strong to bear the loading from the external work.

6.7 Components 2 and 3 have largely been superseded by the revised 2018 guidance;

"It is not the intention of the permitted development right to allow rebuilding work which would go beyond what is reasonably necessary for the conversion of the building to residential use. Therefore it is only where the existing building is already suitable for conversion to residential use that the building would be considered to have the permitted development right.

Internal works are not generally development. For the building to function as a dwelling it may be appropriate to undertake internal structural works, including to allow for a floor, the insertion of a mezzanine or upper floors within the overall residential floor space permitted, or internal walls, which are not prohibited by Class Q".

6.8 The Hibbitt case did not seek to prescribe an exact threshold after which the nature of the work changes. This remains a matter of judgment based on the available evidence.

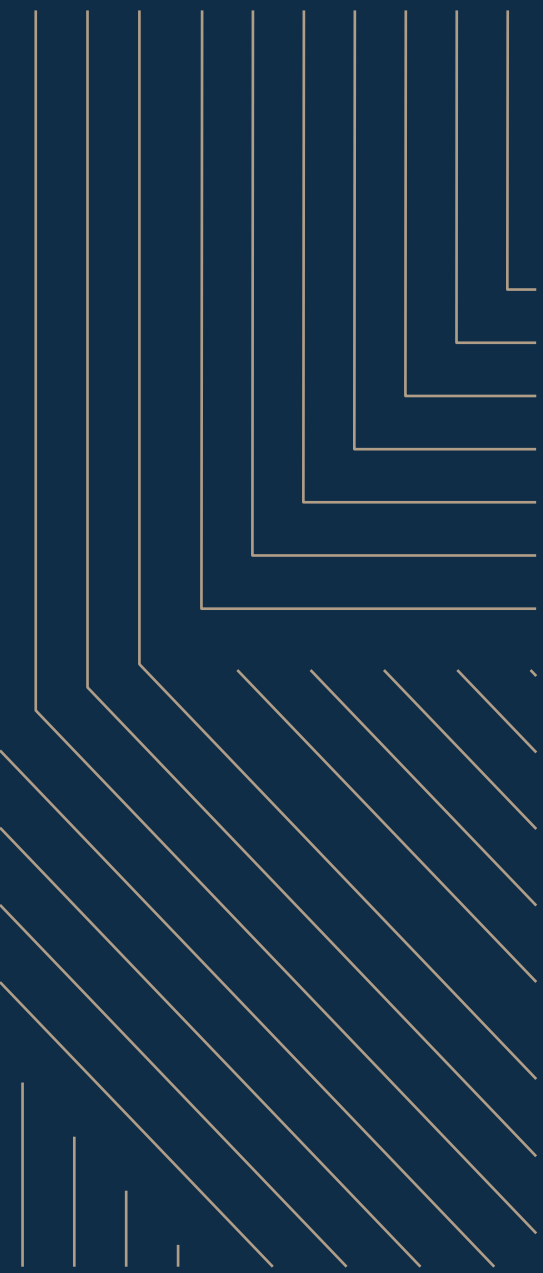
6.9 Sufficient evidence in the form of the design drawings, schedule of works and structural assessment conclude that the proposals accord with the legislation.

7. PHOTOGRAPHS

North Elevation



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