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## **OLD GRANARY, NORTON**

**REPORT OF STRUCTURAL SURVEY  
FOR  
PLANNING PERMISSION**

**for**

**ROGER WATKINS**

25 June 2020

This report has been produced for the sole use of Roger Watkins and the architect applying for planning permission on the above property. It is not to be shown to any third party without the written consent of the writer. Any third party uses this report at their own risk.

## **1.0 INTRODUCTION**

1.1 I was instructed by Roger Watkins via James Spreckley on 4<sup>th</sup> October 2021 to carry out a structural survey to timber framed barn at the Old Granary, Norton.

1.2 Roger Watkins is the owner of barn and has engaged James Spreckley to advise him on the conversion of the timber framed barn for change of use. It is the policy of the County Council to request a structural survey for the conversion of redundant structures.

1.3 This report covers the main structural elements ie roof and walls with regard to their overall stability and the degree of any repair or rebuilding that will be required.

1.4 The property was surveyed on 20<sup>th</sup> October 2021.

## **2.0 LIMITATIONS OF SURVEY**

2.1 The purpose of this survey is to identify the condition of the structure and to recommend any necessary remedial work or further investigations.

2.2 The survey was limited to a visual examination of the structure. No rendering or fixed decoration was removed and no excavation was undertaken to expose any concealed element.

2.3 The general condition of the loadbearing elements has been made for the planning submission, but a detailed check to ensure compliance with the Building Regulations has NOT been made.

## **3.0 THE PROPERTY**

3.1 The building is a mainly two storey timber frame barn with timber roof that was probably a former granary with a threshing type thoroughfare in the middle.

## **4.0 ROOF**

The roof covering over most of the barn has been replaced at some time relatively recently and generally the roof is watertight. There are some slipped slates on the south side and a down pipe is missing.

The timber roof is standard and consists of common rafters which are supported mid span by two timber purlins per slope and the purlins are supported in turn by timber trusses of which there are two types. A strutted A frame and a Queen post type frame. I have attached to this report the position of the two types of trusses and two trusses where members are missing. The trusses are supported by 200 mm square posts at each end.

The timbers all appear to be in a good condition from the first-floor level inspection, truss T11 could not be inspected closely. Some of the purlins between these two trusses appear to be undersize and will need to be strengthened by the addition of timbers.

## **5.0 WALLS**

The walls are timber framed with 200 mm square posts supporting the trusses and 200x100 mm posts in between with timber board external cladding. The posts all sit on a stone or brick dwarf walls and thus the bases of all of the posts are kept relatively dry. There are a few posts where there is no support at the base and this is supposed to be due to the masonry support being lost. It is a simple case for this to be built up again.

## **6.0 FLOOR**

- 6.1 The ground floor will need to be replaced with a concrete floor to meet current thermal and moisture requirements.
- 6.2 The existing first floor has a combination of different support and spans. The attached marked up survey plan shows the floor bays marked nos 1 to 11. Bays 1,2 and 5 have no floor and new timbers will need to be installed. Bays 3 and 4 have suitable timber joists and support beams as long as the steel beam in bay 4 has a mid span lateral restraint (this can be achieved by a positive connection from two floor joists to the top flange at mid span). In bays 6 to 9, 150x112 floor joists span across the bays but in bays 6,7 and 9 the span is too great for the joists and they will need to be strengthened by additional joists or replaced. The joists and supporting beams in bays 10 and 11 are adequate.

## **7.0 CONCLUSION**

The barn is considered suitable for conversion to a domestic dwelling with some minimal repair/strengthening work. This includes strengthening a few purlins, adding some roof truss members, reinstating support to timber post ends and replacing or strengthening some floor joists.

**John Cranna BSc CENG MICE**



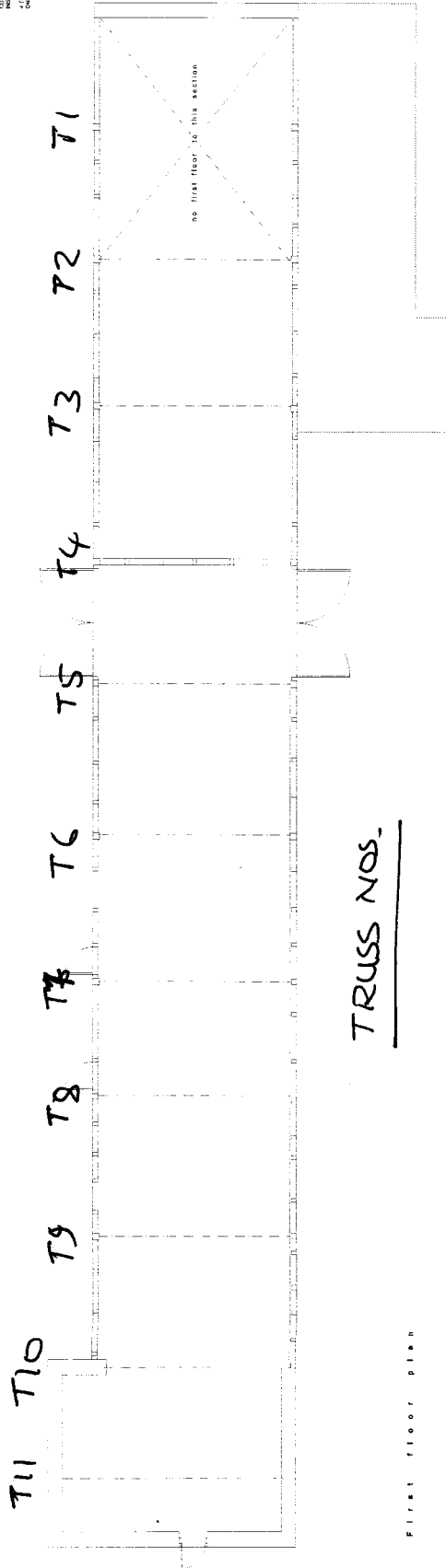
**TYPICAL PHOTO WHERE SUPPORT LOST AT POST BASE**

**General Notes**

1. THIS DRAWING WAS PREPARED USING BASIC SURVEY  
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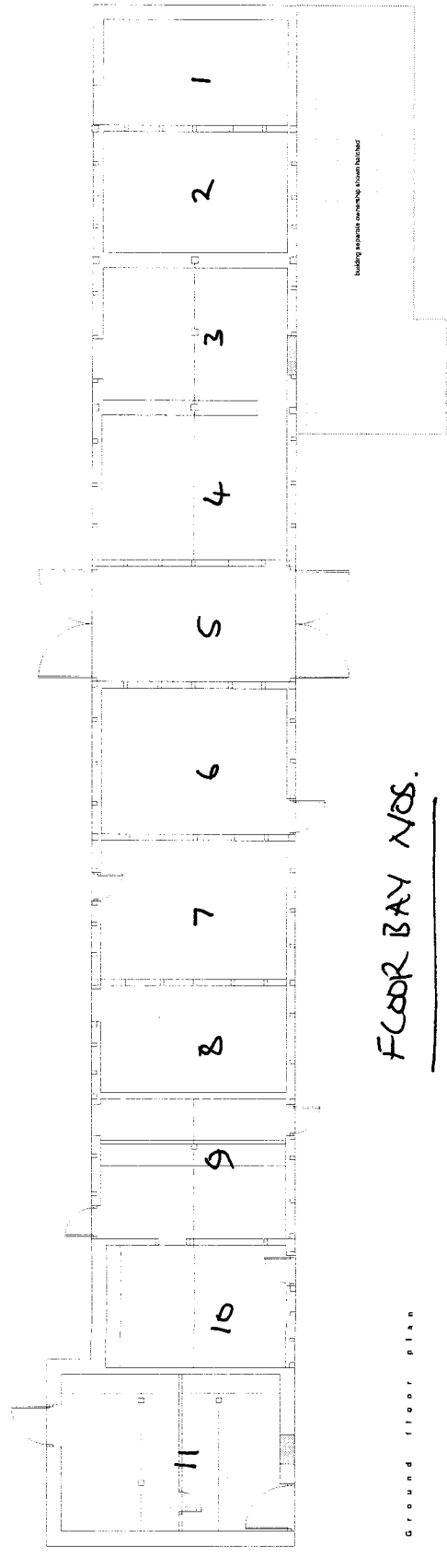
**Project Notes**

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TRUSS NOS.

FIRST FLOOR PLAN



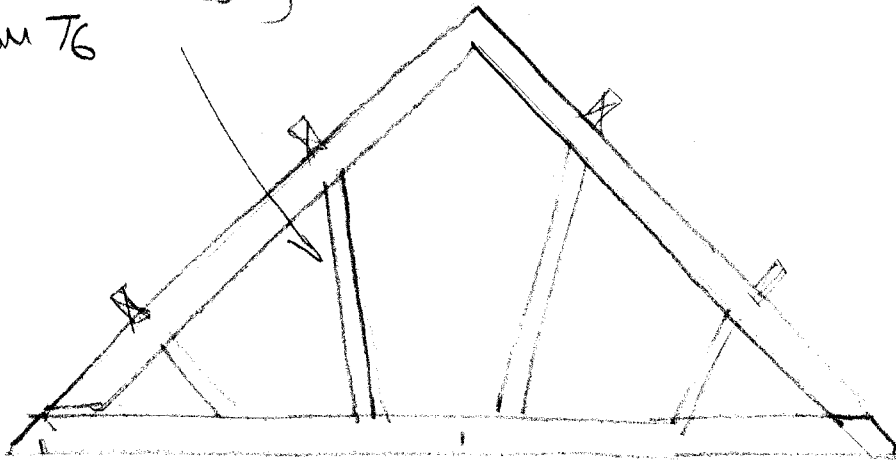
FLOOR BAY NOS.

GROUND FLOOR PLAN

JAMES SPECTEL ARCHITECTS 1000 14th Street, N.E. Atlanta, GA 30309 Phone: 404.525.1234 Fax: 404.525.1235		1000 14th Street, N.E. Atlanta, GA 30309 Phone: 404.525.1234 Fax: 404.525.1235
Project No. 1837.01	Date 10/15/01	Scale 1/8" = 1'-0"

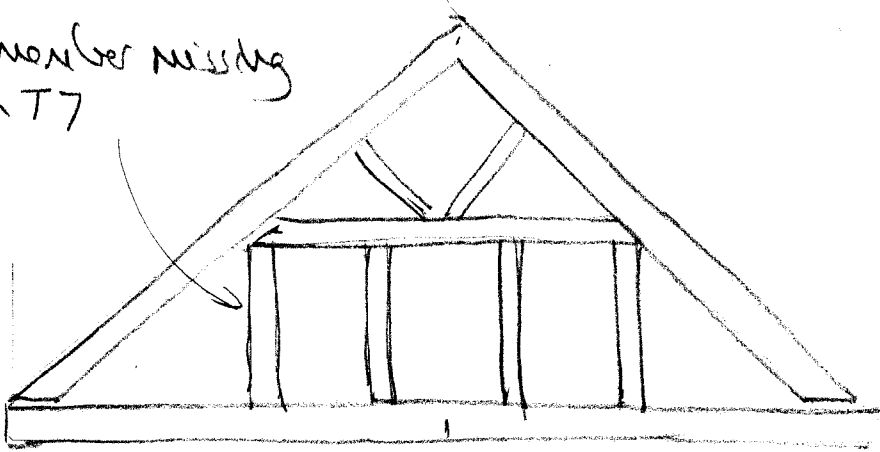
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Job Title OLD GRANARY, NORTON				
Client ROGER WATKINS		By jrc	Date 10/21	

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from T6



TRUSSES T1,3,4,5,6,9

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from T7



TRUSSES T2,7,8,10