

STRUCTURAL ENGINEER'S REPORT

at

Barn Building
adjacent to
46 Glossop Road, Charlesworth

Ref. 12918.002

Date: 06 July 2010

1. INTRODUCTION

1.1 Client

Mr Tim Parsons, 23 Glossop Road, Charlesworth, Glossop SK13 5HB

1.2 Location of Property

Barn building adjacent to 46 Glossop Road, Charlesworth, Glossop SK13 5HB

1.3 Purpose of Report

To inspect the property with reference to the structural feasibility of converting the existing building into habitable accommodation (to be detailed in drawings by John McCall Architects Ltd), and to provide a Structural Engineer's Report.

1.4 Scope of Report

The inspection carried out was visual only and did not include any exploratory investigation of the property. Woodwork and other parts of the structure which were covered or inaccessible were not inspected and we are therefore unable to report that any such part of the property is free from defect. All crack widths are approximate.

All directions given in this report are as viewed from the front of the property. (South-West)

1.5 Date of Inspection

06 July 2010

1.6 Description of property

The property is a two storey, rectangular, stone-built farm building. The building is constructed on a hillside with retaining walls to the south-east and north-east elevations. The walls are generally about 640mm thick with a random rubble stone infill. Window and door openings generally have stone exterior lintels and timber inner lintels. The dual-pitched stone roof is supported on two lines of purlins on each slope and two timber trusses.

2. INTERNAL GROUND FLOOR INSPECTION

Ground slab comprises a mixture of stone flags and cobbles with concrete plinths at the left side.

Open stonework joints and vertical cracking visible in the corners generally.

Stonework at left end of rear wall bulges inwards.

Chimney breast appears to have been removed on the rear wall.

Area of crumbling stonework in the rear retaining wall at the right-hand end.

Embedded timber lintels over blocked-up windows are visibly decayed.

Evidence of woodworm in timber generally.

3. INTERNAL FIRST FLOOR INSPECTION

First floor structure comprises timber joists supported on a variety of reclaimed timber beams.

Significant cracking in stonework below front window in right-hand wall.

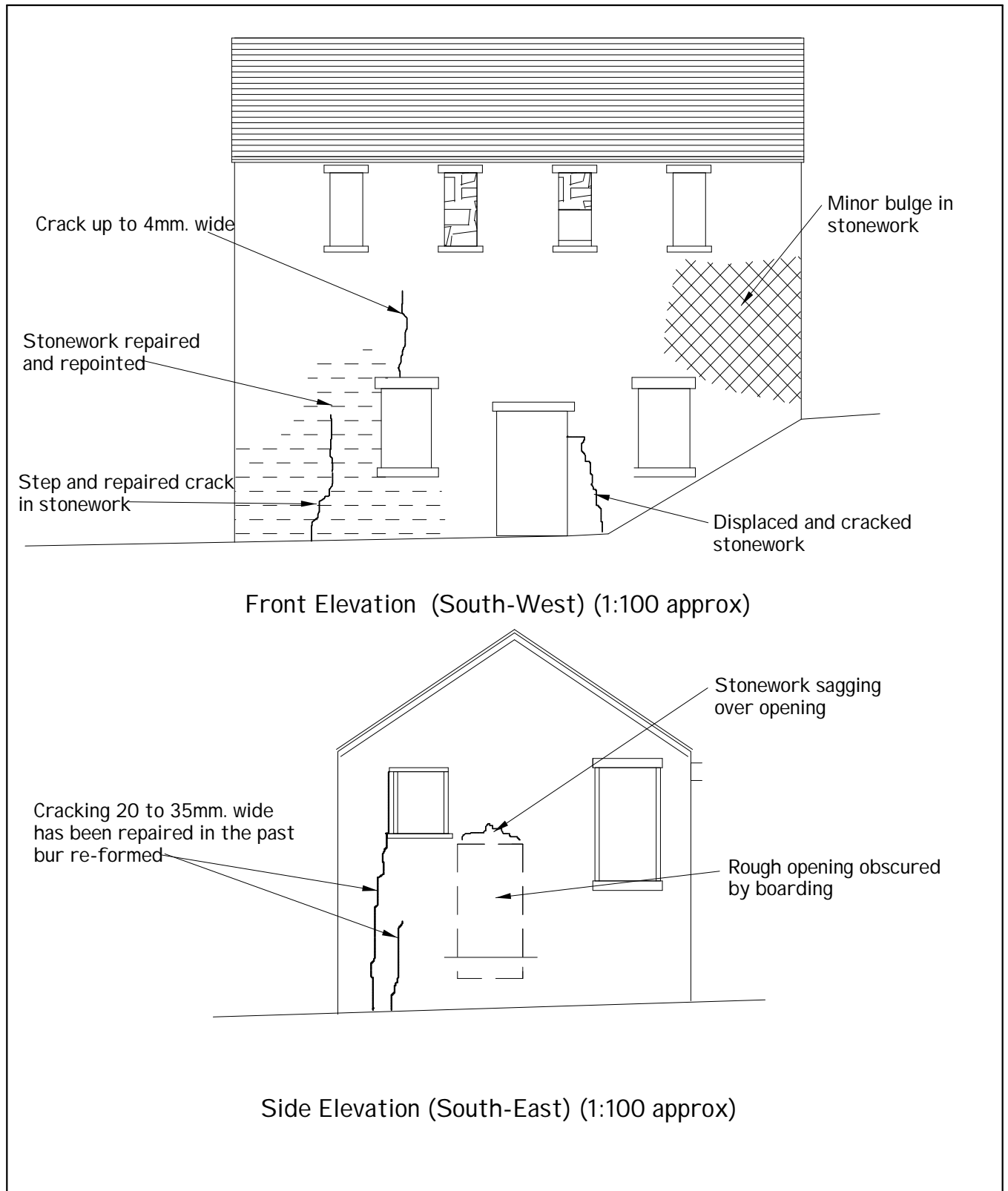
Opening in right wall has been roughly formed and is crumbling around the perimeter.

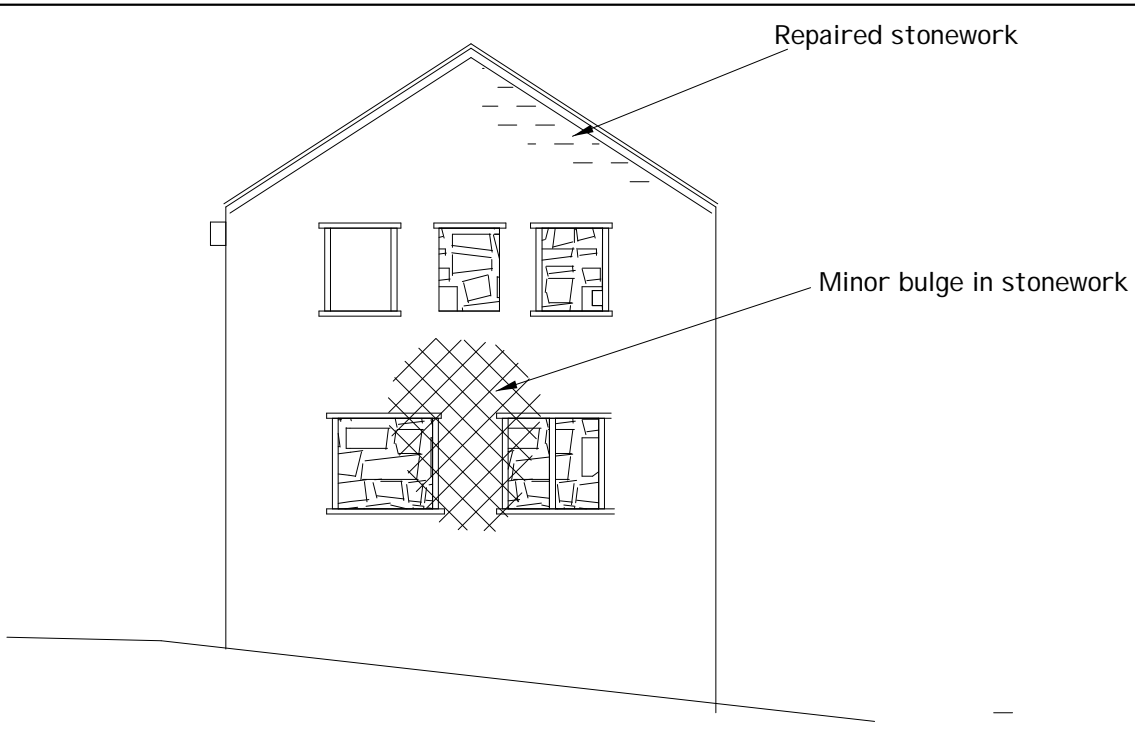
Chimney breast has been partially removed on the rear wall. Evidence of former chimney breasts also on each gable.

Timber lintels are visibly decayed. Although there is evidence of woodworm in timbers generally, the roof purlins and trusses appear to be in a satisfactory condition.

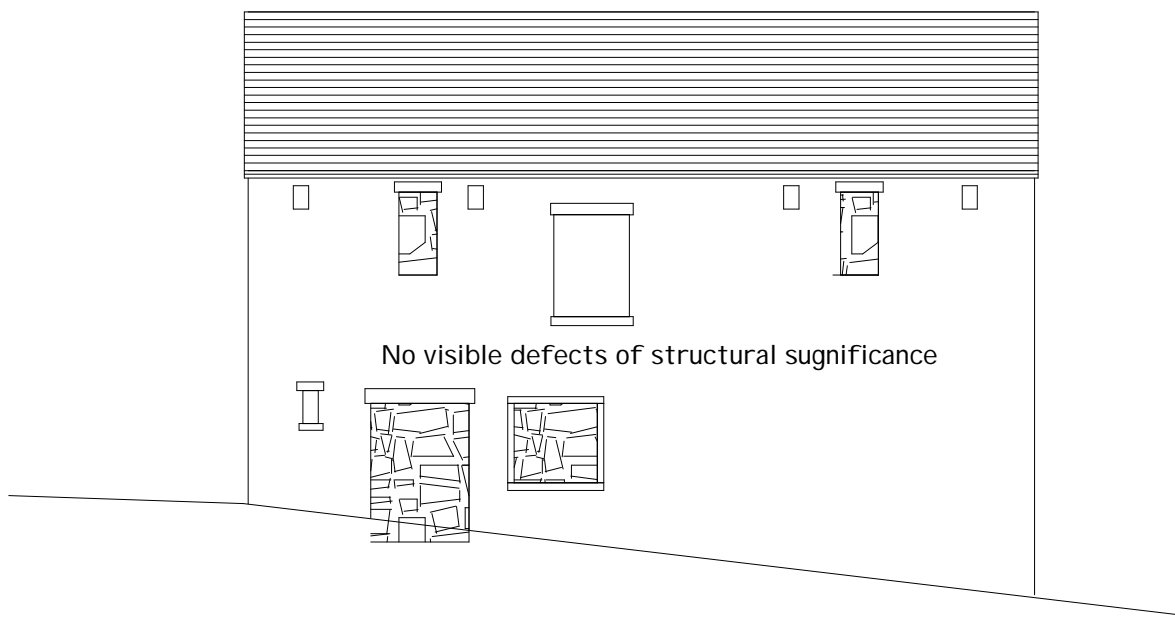
4. EXTERNAL INSPECTION

External Observations of structural significance are noted on the following elevation sketches:-





Side Elevation (North-West) (1:100 approx)



Rear Elevation (North-East)(1:100 approx)

5. CONCLUSIONS

- 5.1 There is no visible evidence of any long term or progressive movement in the property due to differential foundation movement. It is possible that the 650mm thick stone walls may partly be founded directly on outcropping rock.
- 5.2 There is some significant cracking of the stonework at the front of the right hand gable, and this has resulted in bulging of the stonework on the adjacent front elevation. The cause of this cracking is not clear, but it is suspected that it is a combination of delamination of the stonework layers combined with differential thermal movement between soil retaining and exposed areas of stonework.
- 5.3 Apart from the aforementioned cracking, and some areas of crumbling stonework, the defects noted are generally of minor significance structurally, and to be expected for a building of this type and age.
- 5.4 Subject to appropriate repairs, such as crack stitching, we consider that the stonework and roof timbers of the building can be incorporated in any proposed conversion works without significant rebuilding. It is unlikely, however, that the first floor timbers can be upgraded to modern Building Standards, without substantial strengthening works.

6 RECOMMENDATIONS

- 6.1 We recommend that the proposed conversion works include crack stitching and stainless steel ties to a new suspended floor, to enhance the lateral stability of the stone walls. Additionally, an inner leaf of blockwork constructed on an internal concrete raft slab should be constructed and tied to the stonework.
- 6.2 In areas where the exterior of the stonework is delaminating away from the inner skin of stone, stainless steel ties can be inserted internally to prevent any further separation
- 6.3 It is recommended that the property is inspected by a damp and timber decay specialist in order to assess the extent of damp penetration, rot and infestation in the timbers, and to recommend the necessary treatments. We can provide details of appropriate companies who could undertake this work, if required
- 6.4 We recommend that guttering is introduced on the front and back eaves to prevent further damage from water and dampness in the walls.
- 6.5 We draw the Client's attention to the distortions referred to in the Report. Although this report concludes that the distortions are mainly long-standing in nature, it is possible that as with all properties, they could affect the future sale or valuation of the property if they are not repaired.



Sheila MacLaren MA. B Sc. C Eng. MICE MWES

For and on behalf of R Rhodes & Partners (Consulting) Ltd

Appended:

Instruction To Proceed
Client's Guide to a Structural Engineer's Report

SER.004

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SMM/12918.001/aj

05 May 2010

Mr Tim Parsons
c/o Carl Grannell
John McCall Architects
No.1 Arts Village,
Henry Street,
LIVERPOOL, L1 5BS

Dear Mr Parsons,

Structural Engineer's Inspection and Report at Barn Building, near 46 Glossop Road, Charlesworth

We confirm that our fee for a Structural Engineer's Inspection and Report on the above property would be £450 plus VAT (total £528.75), based on our understanding of your requirements. Please read our Client's Guide on the next page which explains how we go about our work and what we would provide you with in the Report. We carry out several of these inspections and reports each week.

The scope of the Report will be with reference to structural defects in the load-bearing elements of the property, in relation to obtaining Planning Permission for your proposed development, detailed on drawings received from your Architects, John McCall. After receipt of Planning Permission, further structural engineering services from us, such as the supply of structural calculations and drawings/details to Building Regulations standards, would be the subject of a separate fee agreement.

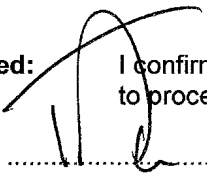
Please do not hesitate to telephone us if you would like any further explanation. If you would like us to carry out the work, please either countersign and return a copy of this letter or email us with an instruction to proceed. We will invoice you for payment of our fee when the Report is issued, for payment within 14 days.

Yours sincerely



S MacLaren
For and on behalf of R Rhodes & Partners (Consulting) Ltd.

Instruction To Proceed: I confirm that R Rhodes & Partners (Consulting) Ltd are to proceed with the Report on our behalf as detailed above:

Signature of Client:  Date of signature 4/7/10

Print name TIM PARSONS (contd.)

**CLIENT'S GUIDE TO A STRUCTURAL ENGINEER'S REPORT
BY
R. RHODES & PARTNERS (CONSULTING) LTD**

'The Client'	The person signing the Instruction To Proceed.
'The Company'	R Rhodes & Partners (Consulting) Ltd.
'The Property'	The house which the Client has instructed the Company to inspect and report on.

The Report is a written document which describes the results of an inspection of the Property carried out by a Chartered Structural Engineer working for the Company. The Report is prepared on the instructions of the Client and is solely for the use of the Client and their professional advisors (e.g. solicitor, chartered surveyor or estate agent). Liability to third parties for all or any part of the Report is specifically excluded.

The inspection will be visual and will cover only the load-bearing elements of the Property and only those which are reasonably accessible. Woodwork and roof coverings will not be inspected and neither will any parts of the Property which are inaccessible or in the ground. Services (such as drains, gas, water and electricity etc.) are not included in the inspection.

The Company will not inspect every square inch of the Property otherwise the fee payable by the Client would have to be substantially bigger. When instructed by the Client, the scope of the inspection will be limited to faults identified by the Client or identified in a previous chartered surveyor's survey, in which case the remainder of the Property will only be briefly inspected and reported on by the Company.

It is not always possible to discover defects which are concealed, the Company's Chartered Structural Engineer will use intuition and experience regarding inaccessible areas but does not possess X-ray vision!

No tests or exploratory investigations will be carried out but an informed opinion will be given in the Report as to whether faults may exist and whether tests should subsequently be carried out to obtain further information. The detailed design of remedial works is not included in the fee.

When the Company is inspecting a Property which is not owned by the Client, the Company must exercise a degree of care to the occupier. If the occupier of the Property refuses to move obstructions or refuses access to any part of the Property, then the Company must abide by his decision and will record the occupier's refusal in the Report.

The Report will be set out in sections: Introduction, Internal Ground Floor, Internal First Floor, Other Floors, Roof Space, External Elevations, Outbuildings (only where particularly requested), Conclusions, Recommendations.

The Report is not an Insurance or a Warranty regarding the condition of the Property; it is a considered professional opinion given by the Company using reasonable skill, care and diligence, based on their experience in such matters.