Martyn. W. Sagar
Chartered Civil Engineer
B.Sc. C.Eng. M.I.C.E. M.C.I.M. D.M.S. M.B.A. M.I.I.T.

Croft End,
Cooper Lane
Hoylandswaine
Sheffield, South Yorkshire S36 7JE

Telephone (01226) 792957
Mobile 07836 546449
Fax (01226) 792957

STRUCTURAL INSPECTION	:	Proposed Change of Use of Former Ale House / Barn to Residential Building, Well House Lane, Penistone, Sheffield. S36 7EY.
CLIENTS	:	Mr. Idris Jones.
ADDRESS	:	Quarry House Farm, High Flatts, Huddersfield. HD8 8XY.
TELEPHONE NUMBER	:	01484 606731
DATES OF INSPECTION	:	21st / 22nd January, 2011
WEATHER	:	Fine

Note: The enclosed report relates to the findings of a general structural appraisal of the condition of the units intended for conversion to form residential accommodation. It is understood that, due to the existing nature and condition of the building, comments are restricted to the main structural components, accepting that refurbishment works and a degree of reconstruction may be required.

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Other matters which are visibly obvious, without specific investigations being required, may be mentioned. Otherwise no in-depth investigations on matters structural or otherwise have been undertaken.

No destructive testing was undertaken and the foundations were not exposed. Except where the contrary is stated, parts of the structure and fabric which were covered, unexposed or inaccessible will not have been inspected.

No inspection of the units other than visual inspection immediately local to the features was undertaken, and the client should be aware that other faults may exist within the units for which the Engineer has not been commissioned to comment upon. As such, this report does not constitute a full structural survey nor a building survey.

Save as hereinafter provided, the Engineer will carry out such work as is reasonable in his professional judgement, bearing in mind the limitations of the inspection. The Engineer will not accept any responsibility or liability for the fitness for purpose or suitability of materials provided unless specifically stated by him.

The report is for the sole use of the named client. The Engineer accepts responsibility to the client alone for the stated purposes of the report, subject to receipt from the client of the agreed remuneration

The report will be prepared with the skill, care and diligence reasonably to be expected of a competent Engineer, but the Engineer accepts no responsibility whatsoever to any person other than the client. Third parties acting upon the contents of this report do so at their own risk and liability.

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GENERALLY

The proposed unit comprises three existing single storey structures. The original two stores to the centre and left hand side are mainly rubble-filled type walled structures with construction joints across both front and rear elevations. The potato store unit is blockwork and abuts the two earlier constructed units.

Towards the rear, the side walls become slightly retaining and the formation level of the front wall also has varying founding levels.

The structures under consideration are of standard orientation and typically of a construction type which is historically suitable for consideration to conversion to single-storey domestic structures.

The walls of the two original structures vary in thickness and quality, and the main rear wall is typically between 19" to 24" thick solid sandstone-type. The end gable and other sections of the various structures appear to be constructed of 'walling stones' which should be taken down and replaced with more substantial units to match the remainder of the structure. It is suspected that various elements of the walls of the building sections may be founded directly to the sub-strata at varying depths below the existing ground level.

The evident timbers which remain are suffering from a combination of dry rot and beetle infestation and it is advised that all timbers bedded within the mass body of the walls should be taken out and replaced with more appropriate provisions.

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The suspected variation in foundation depths of various elements, together with roof spread, are considered to be the most probable causes of evident differential movement. Such movement is evidenced by displacement at the juncture of the various sections of the structures and by slight vertical displacement of mortar fillets at buttress joint locations.

The original stone roof coverings to the original structures have been removed and replaced with a lightweight corrugated provision. It will be necessary to undertake the replacement or renovation and treatment of all timber seatings for structural reasons if any timbers are to be retained as structural elements or for aesthetic reasons.

Additional cross ties may be required between flank elevations of the structures to prevent lateral movement at wall plate levels. The provision of an appropriate tie or movement joint to the

right hand lounge / garage to the rear section as part of the proposed conversion works should also adequately provide tie at the intermediate level. Tie at wall plate level can be achieved via specifically positioned restraint straps and the keying in of buttressing walls where they meet flank walls.

The external ground levels to the rear rise away from the existing structure. As such, the existing rear sections of the side walls and rear wall may be slightly retaining in part. It may be the case that localised underpinning and tanking of sections of these elevations could be required as part of any proposed conversion works.

Various building sections are subject to some distortion, notably the free end gables which will require some degree of reconstruction. The distortion is believed to be the result of a combination of the effect of the buttressing of other units within the development, thrust from the unrestrained roof timbers, a lack of tie, and wind loading, amongst other effects.

The apexes of the gables will require some reconstruction and the opportunity should be taken to re-build any distorted gable returns, as is found to be necessary.

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It is suspected that a variation in foundation depths may be present within the units across the existing front and rear elevations where construction joints are present with what appear to be minor signs of differential settlement evident. Such movement is evidenced by displacement at the juncture of the various sections of the structure by slight vertical displacement of mortar fillets at buttress joint locations and distortion around openings.

CONCLUSION

It is generally thought that the main structures of all the sections of the building, subject to the upgrading of individual elements as part of any remedial scheme, are suitable for restoration and conversion purposes.

Some major structural issues have been outlined for consideration and the extent of these and their required works may only become fully apparent as the works themselves progress. It is advised that the structural repairs be undertaken under the guidance of, and certified by, an appropriately qualified structural consultant.

I trust the above is suitable for your purposes. Should you require any further assistance, please do not hesitate to contact me.

Yours sincerely,

[redacted]

M. W. SAGAR.
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