



P. J. Davies Associates Ltd
CHARTERED STRUCTURAL ENGINEERS

**BAIRD'S FARM SHOP
CLIMPING
LITTLEHAMPTON**

**Structural Appraisal
of Existing Brick Pig Sty Block**

For: Mr James Baird
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The Street
Climping
Littlehampton
BN17 5RQ

Date : October 2007



6 October 2007

**Structural Appraisal of Existing Brick Pig Sty Building
behind Bairds Farm Shop, Climping, Littlehampton**

Introduction

P. J. Davies Associates Ltd was appointed to carry out an inspection and provide a structural appraisal of the existing pig sty building to assist with a planning application for the conversion of the buildings and change of use into offices.

The inspection was carried out on the afternoon of 4th October 2007, the weather was fine and sunny. Several bays of the building were not accessible due to storage of materials, or vegetation growth. Dampness was not tested, and is outside the scope of this report.

Description

The main building is approximately 56 metres long, and 3.5 metres wide, originally comprising 16 similar sized enclosed pig stys in a single row, now all redundant, except some in use as stores. The walls to the building are 215mm solid brickwork, rendered part height internally. The dividing walls between bays are also constructed of 215mm brickwork, some are full height and some half height, see typical section A-A attached.

The doorways into each sty bay are 1.9m high and the brickwork each side of the doors has curved reveals. There are concrete lintels spanning over the 900mm door openings which measure 225mm x 225mm in section.

The roof structure to a typical sty bay comprises timber purlins at approximately 800mm centres spanning longitudinally from dividing wall to dividing wall, supporting profiled asbestos cement roofing sheets. On the half height dividing walls, the purlins are supported via timber studs.

The ground floors are solid insitu concrete.

Each sty bay has an outer enclosure, as shown on the plan. The outer enclosures are separated by 1.3m high 215mm brickwork fin walls, rendered part height. The floors in these outer bays are again insitu concrete.

Inspections/Discussion

Roof

The timber roof purlins could not be inspected, being fully covered by the fibreboard soffit. The wall plates, particularly to the low eaves, were found to be rotten requiring replacement. It is assumed all the roofs would be removed as part of the conversion works. The existing asbestos cement roofing sheets would require controlled removal to a licensed tip.

Walls

The walls were inspected where access was possible, and generally found to be in fair condition for their age. There is a slate damp proof course all round. The walls had occasional cracking, possibly some being caused due to there being no movement joints being included in the original construction. The walls are generally robust, and the building has plenty of cross walls providing lateral wind stability. On the outside of the building, the walls have suffered some loss of mortar pointing and cracked bricks in places, which would require repair. In particular, this loss of pointing is apparent at low level below the damp proof course on the North elevation. This will require some brickwork repairs.

The concrete lintels were again in fair condition for their age, and most would not require replacement. It may be appropriate to cut in new movement joints into the long brickwork elevations as part of the conversion works to prevent future cracking to the elevations.

The main inside walls would require drylining as part of the conversion works.

The outside fin walls were generally in poorer condition, some having suffered from differential foundation movement resulting in vertical cracking to the wall close to its junction with the main block (see photographs). Some of these fin walls would require repair/replacement.

Floor/Foundations

The existing concrete ground bearing floor slabs appear in fair condition, although further investigation may be required to determine their thickness, and suitability for inclusion in the new proposals.

Trial holes will also be required to expose the existing foundations to determine their suitability for any increase in loading as a result of the conversion proposals.

Summary

It is considered that subject to further investigation work resolving any outstanding structural issues, the pig sty building could be converted to office use without major demolition or rebuilding. The existing brick structure is robust and is suitable for conversion.

It is assumed that all works to the structure will be carried out insitu, in phases, without general demolition and in accordance with planning conditions.



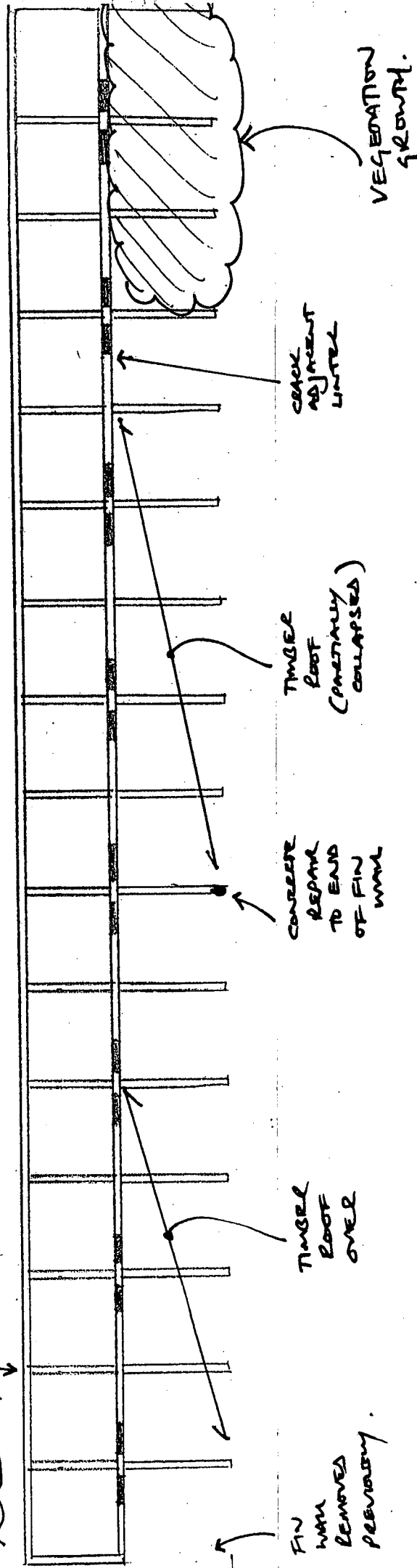
Peter Davies BEng CEng MStructE

This report is confidential and expressly for the benefit of our client John L Baird (Home Farm) Ltd and should not be used by any third party. We accept no liability for losses suffered by a third party as a result of reliance on this report. Our liability is also limited to a total amount equal to ten times the fee rendered.

FIELD
(N ↑)

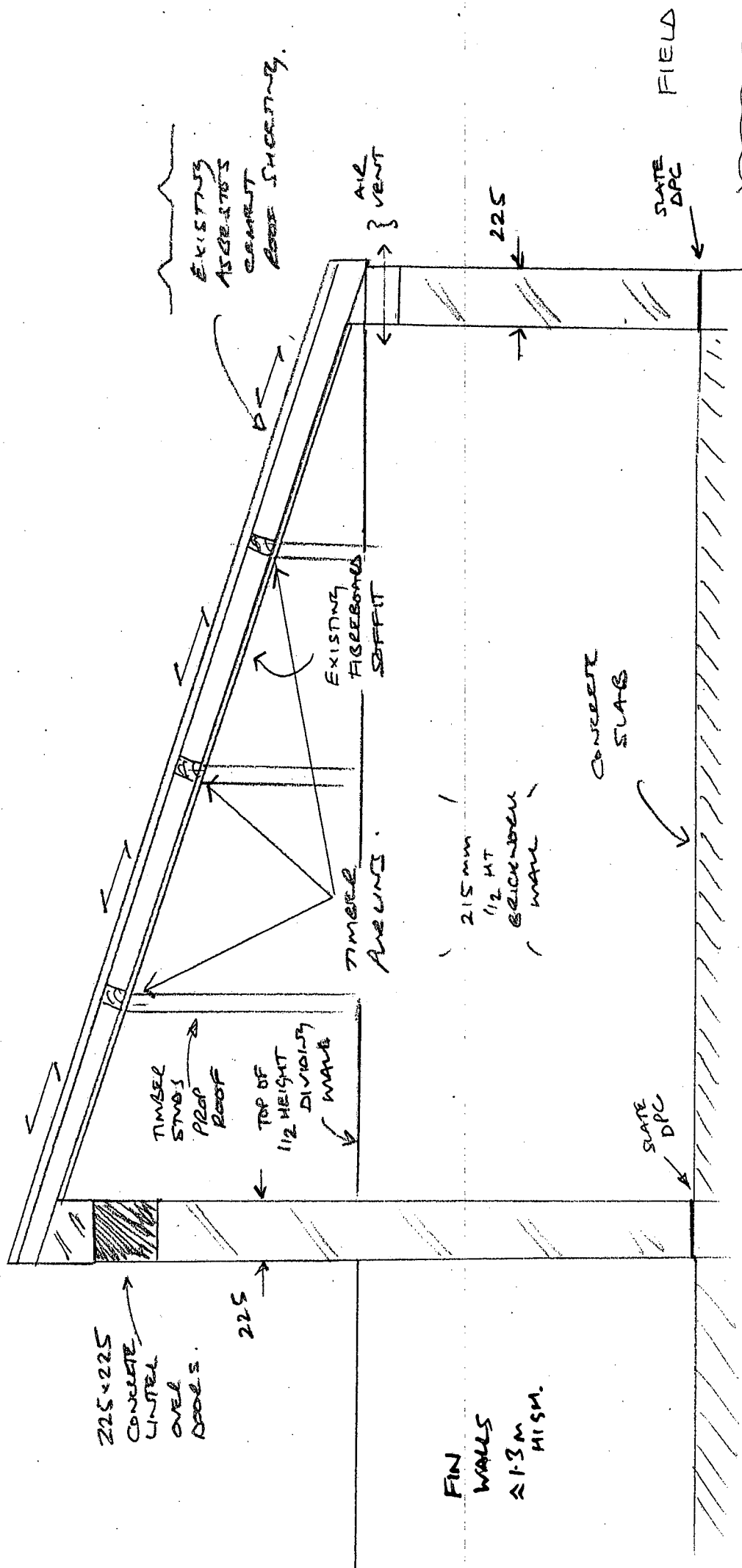
← FARM SHOP

VERTICAL CRACK
Some mid hgt
non-patched
cracking to block



FIELD

PLAN (1:200)



A-A (1:20)
(TYPICAL SECTION)

