08/0831 ... APR 2008 ...

Northern Structural Services

Civil & Structural Engineers

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Your ref: Our ref: C6432/TMB/HAP

Mr J Hacker
42 Moss Road
Alderley Edge
Cheshire
SK9 7HZ

5th November 2007

Dear Sir

C6432 – Dovehouse Farm Barns, Caverswall

Following your recent instructions we re-visited the above property on 19th October 2007 to carry out a structural inspection and our comments are given below.

For the purpose of this report, all directions referred to are as when viewed from the front of the property. This survey is for your exclusive use and your professional advisers to whom liability in respect of the contents of this work would be limited. The report is based upon a visual inspection of the super structure as it stands, no openings have been formed in the super structure, nor have we checked for dampness.

EXTERNAL

South Elevation

This elevation was brickwork. The roof was pitched and undulating, reflecting the purlin, truss and internal wall arrangement. To the east end, a section of newer brickwork was in place up to the small step in this elevation. The older brickwork to the west end was leaning inwards in small areas at regular centres, giving an undulating line to the brickwork. The brickwork bonding was a course of header stretcher every fourth, with stretcher bonded masonry between. Just to the west of this step in this elevation was some poor masonry and the pointing particularly to this area was poor. To the east end there was a section of roof where the slates were largely off and the lower brickwork was badly undulating. To the base of the main brickwork was stone. At the west end a further section of brickwork was bonded into the older section.

West Elevation

The brickwork to the south end of this elevation was new. There was a crack over the concrete lintel. There was a tie bar at 1/3rd point and also to the north end. There was undulation to the line of the roof.

North Elevation

This elevation was brickwork. There was stonework to the east and lower parts. There were three tie bar details to the gable at the east end. There were ties to secure the stonework section. To the very east of the east corner there was a tie bar detail.

East Elevation

This elevation was brickwork and partly stonework with brickwork to the first floor. There was a gable to the north side. There were bulges on the return area. The brickwork was again the same pattern as the south elevation. There was a crack to the brickwork to the side of the double door opening with a steel beam over. This was similar over the single door. There was a tie bar detail to this elevation. There was some weathering to the stonework. There was some loose brickwork in the return to this elevation.

INTERNAL

The roof system was generally timber rafters supported by purlins, which were themselves supported on trusses of varying arrangements and internal walls. In some areas first flooring was present, which was timber and again supported by combinations of internal walls, timber and steel beams and trusses.

There were areas where the trusses had been repaired but there were no signs of structural failure to the repairs or the purlins and rafters. Insect infestation and rot had affected some areas and these should be checked by a timber and damp specialist. Due to the tall areas where no first floor was present, particularly in the southeast corner area, there were slender walls creating the requirement for tie bars as noted externally.

The returning walls to the northwest elevation (churchyard) appear to be performing satisfactorily and were of reasonable thickness. The flooring was generally concrete but there were some stone section areas.

Where internal walls met external walls there were some signs of separation, although these were generally old.

CONCLUSIONS AND RECOMMENDATIONS

From the above, we would comment that there were signs of structural movement to the property. This is to be expected in a property of this type and age and was generally historic.

To the southeast area particularly on the courtyard side, there was some evidence of collapse, where the timber beam over the openings had split from extensive rot and rebuilding will be required in this area. Stabilization work will be required to the bulged area adjacent, in the form of strapping at first floor level, but generally this will be required throughout to ensure the stability of the external elevations. There are a number of lintels, which require replacing and this will be examined with the proposed alterations.

There were no signs of recent foundation movement and therefore we see no requirement to recommend remedial works of a structural nature, but we would again note a small area of rebuilding work to masonry to the northwest area of the barns.

The weathered stonework outside the rebuilt area requires replacing.

Internal alteration to the trusses will be necessary for the proposed scheme when, in particular, headroom is required. We enclose indicative drawings of possible alterations, which would be in keeping with the structure.

We enclose copies of our photographs taken at our visit and would comment that the structure is suitable for the proposed alterations.

We have not inspected woodwork, or other parts of the structure, which are covered, unexposed or inaccessible and we are, therefore, unable to report that any such part of the property is free from defect.

Should there be any further information you may require, please do not hesitate to contact us.

Yours faithfully,



T. M. Barratt
B.Sc(Hons) C.Eng. M.I.Struct.E.

For and on behalf of Northern Structural Services Ltd

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List of Photographs

1. West elevation.
2. Part south elevation.
3. North elevation.
4. Part south elevation.
5. Part east elevation.
6. Part east elevation.
7. Part east elevation.
8. Part east elevation.
9. Part east elevation.
10. Part east elevation.
11. Part east elevation.
12. Retaining wall exposed.

13-14. Internal roof and trusses.

15-16. Internal roof and trusses.

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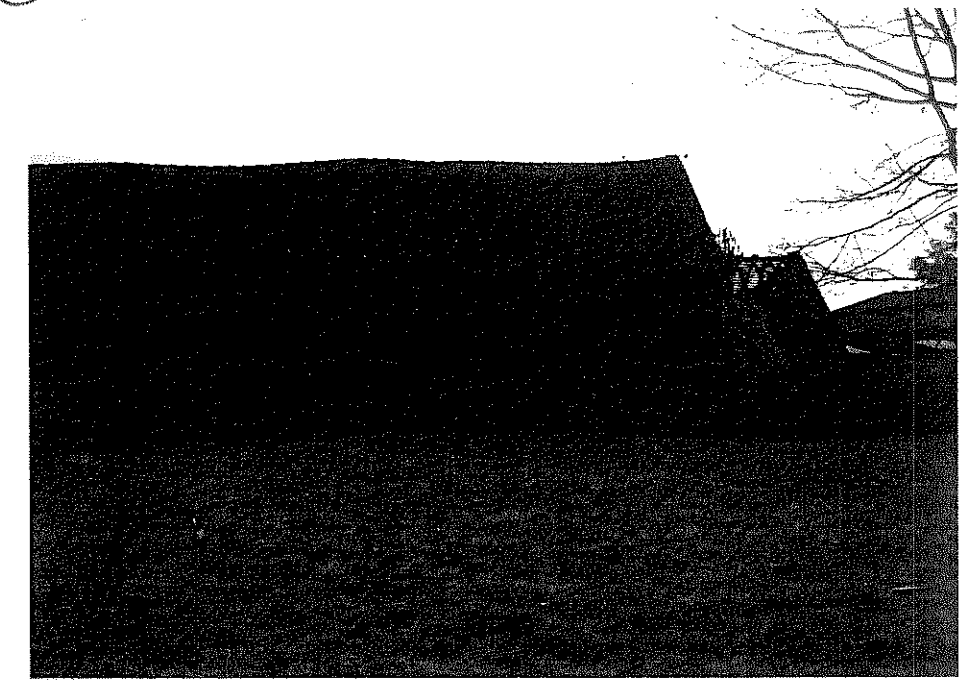

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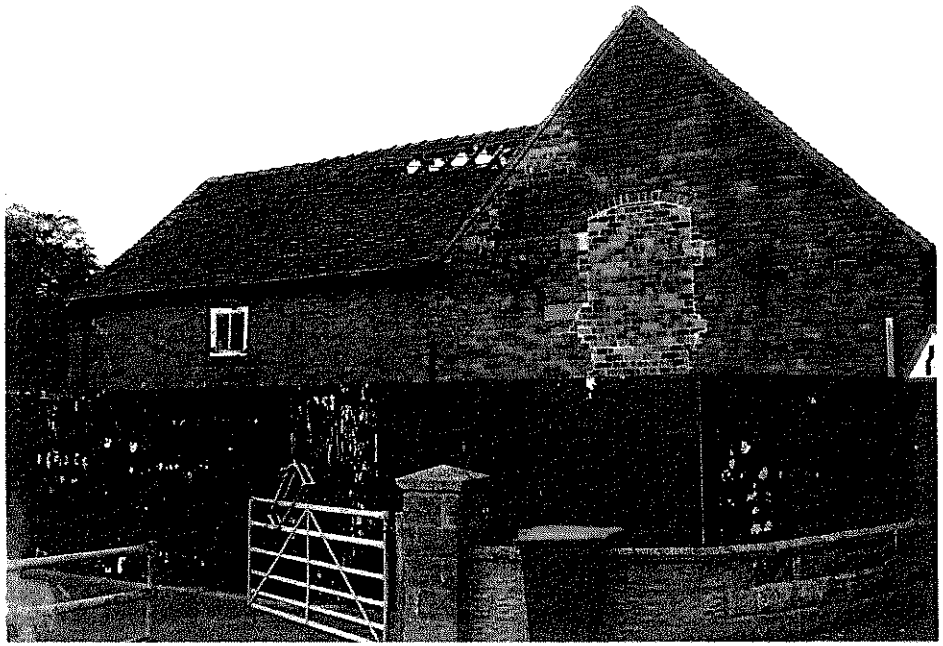

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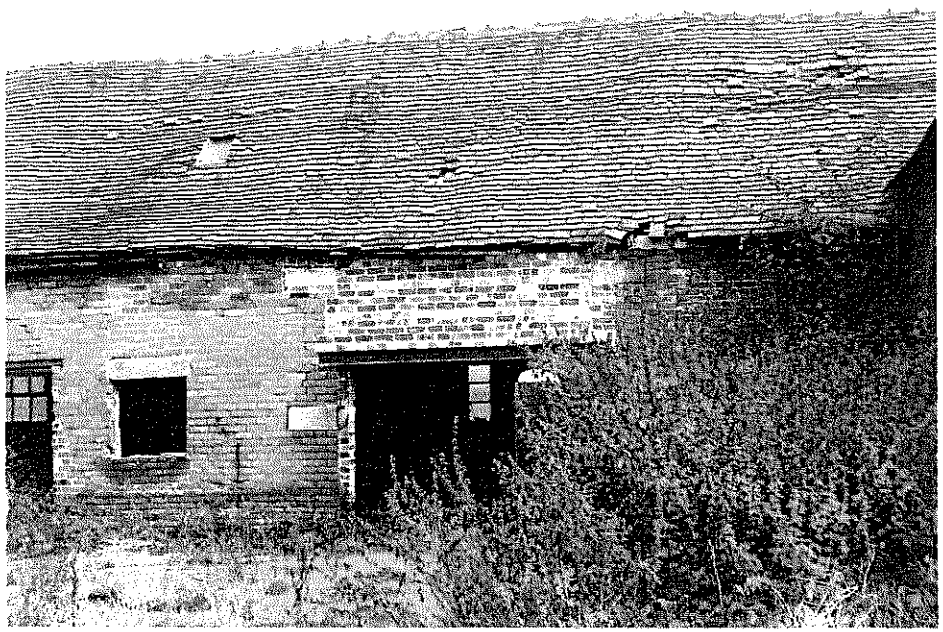

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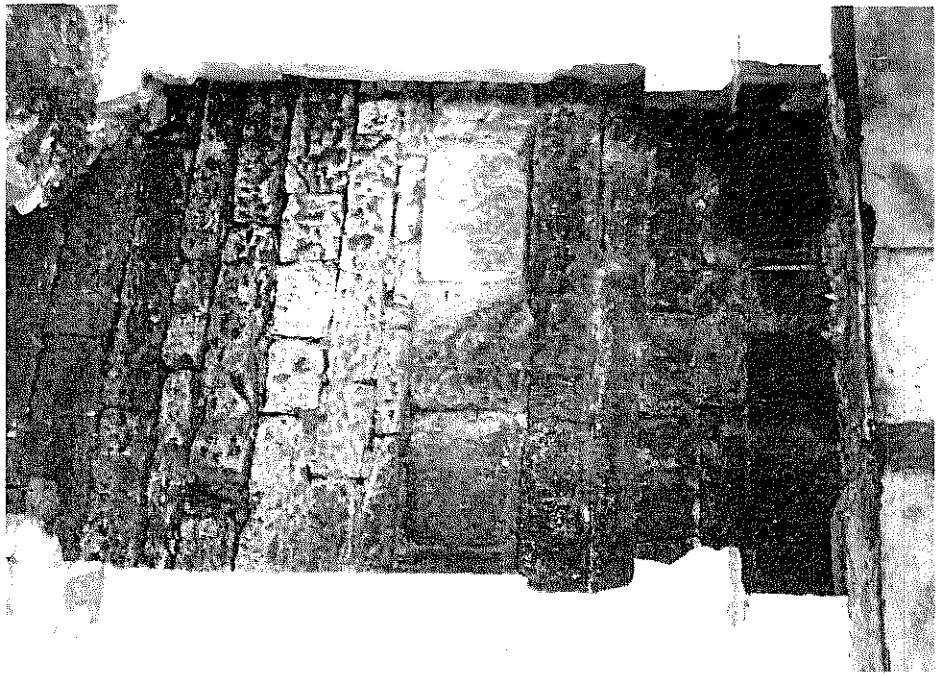

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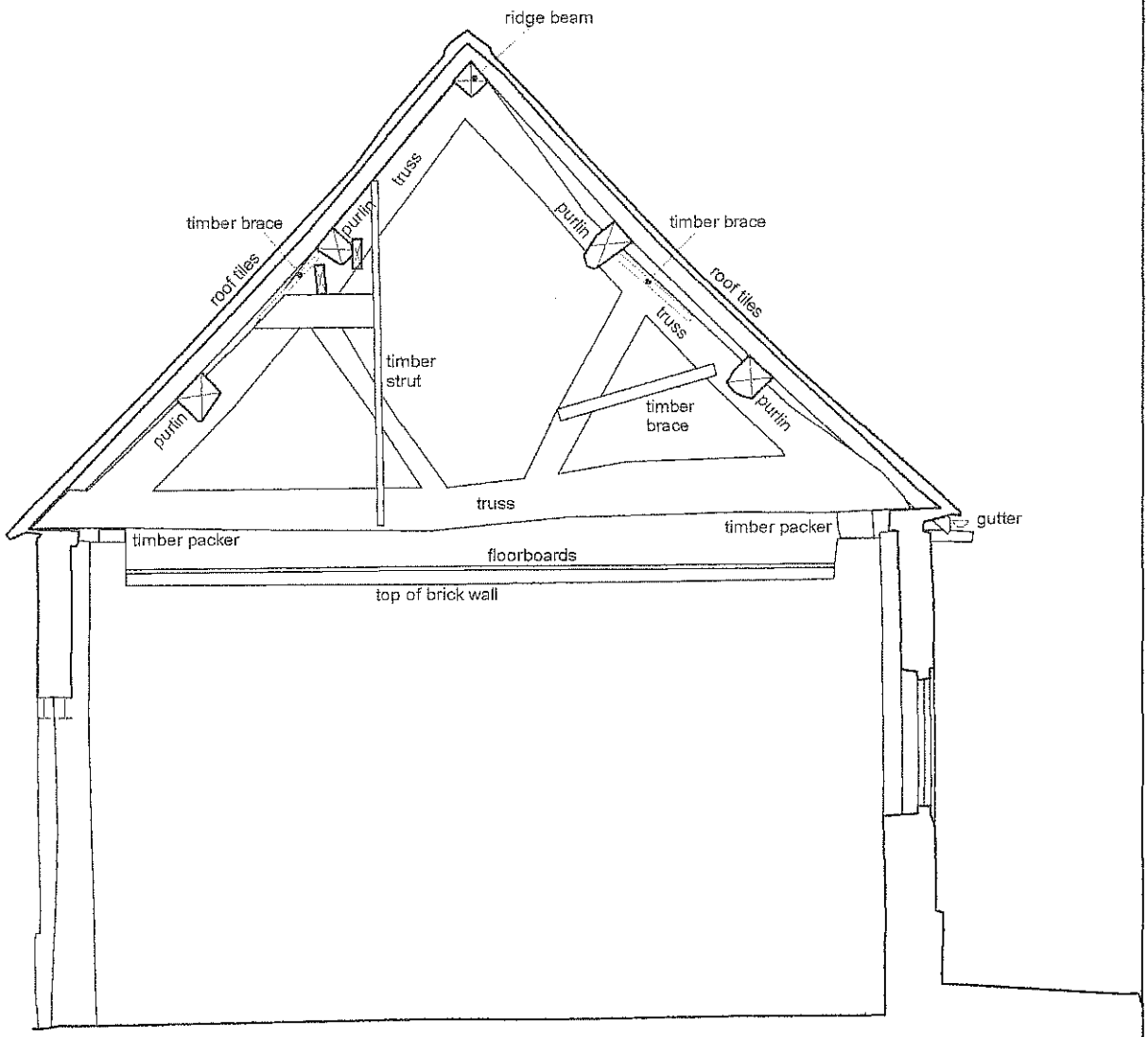

EXISTING SECTION

Drawing No.:
CC6432

DOVEHOUSE FARM BARNS
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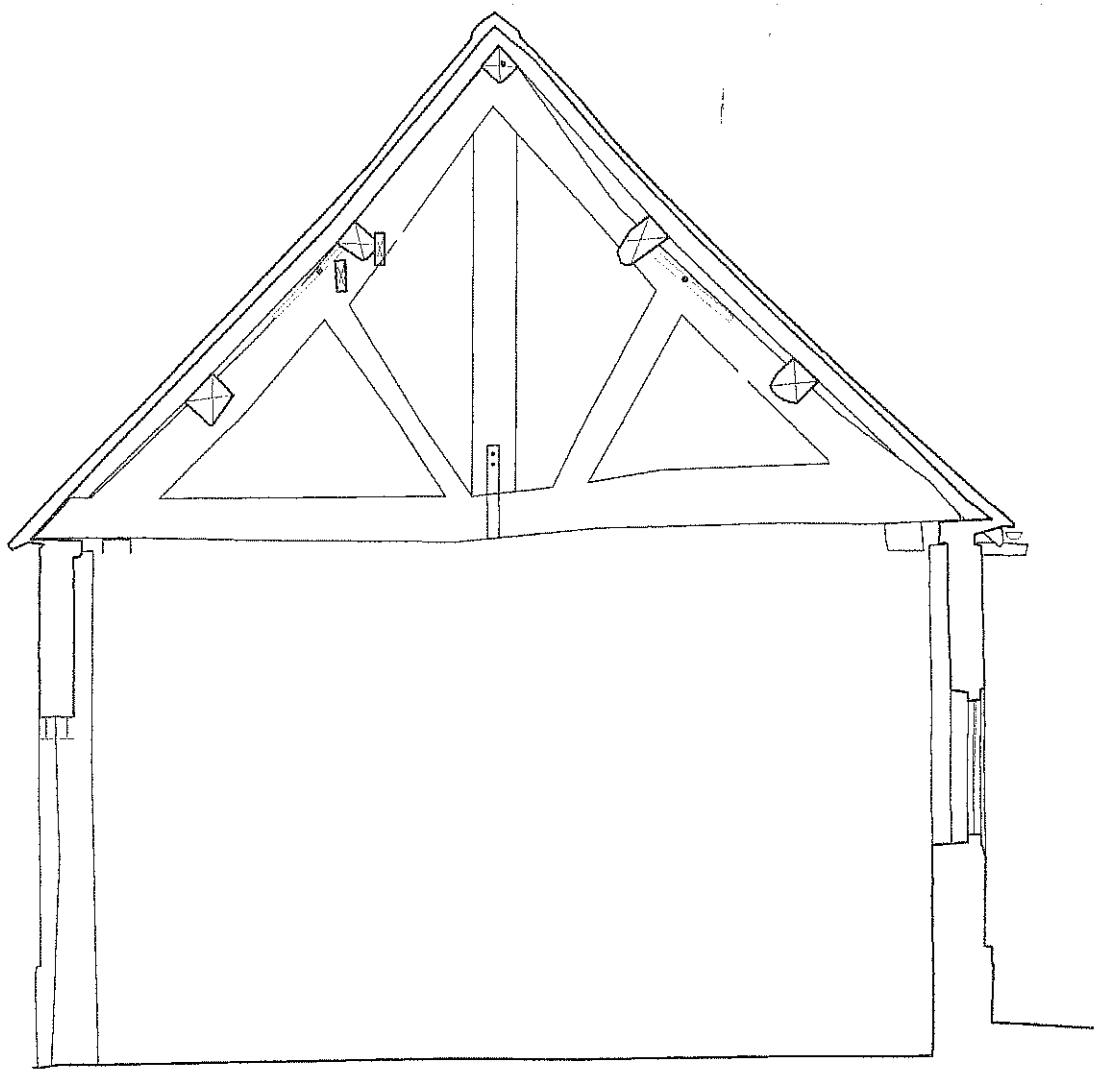

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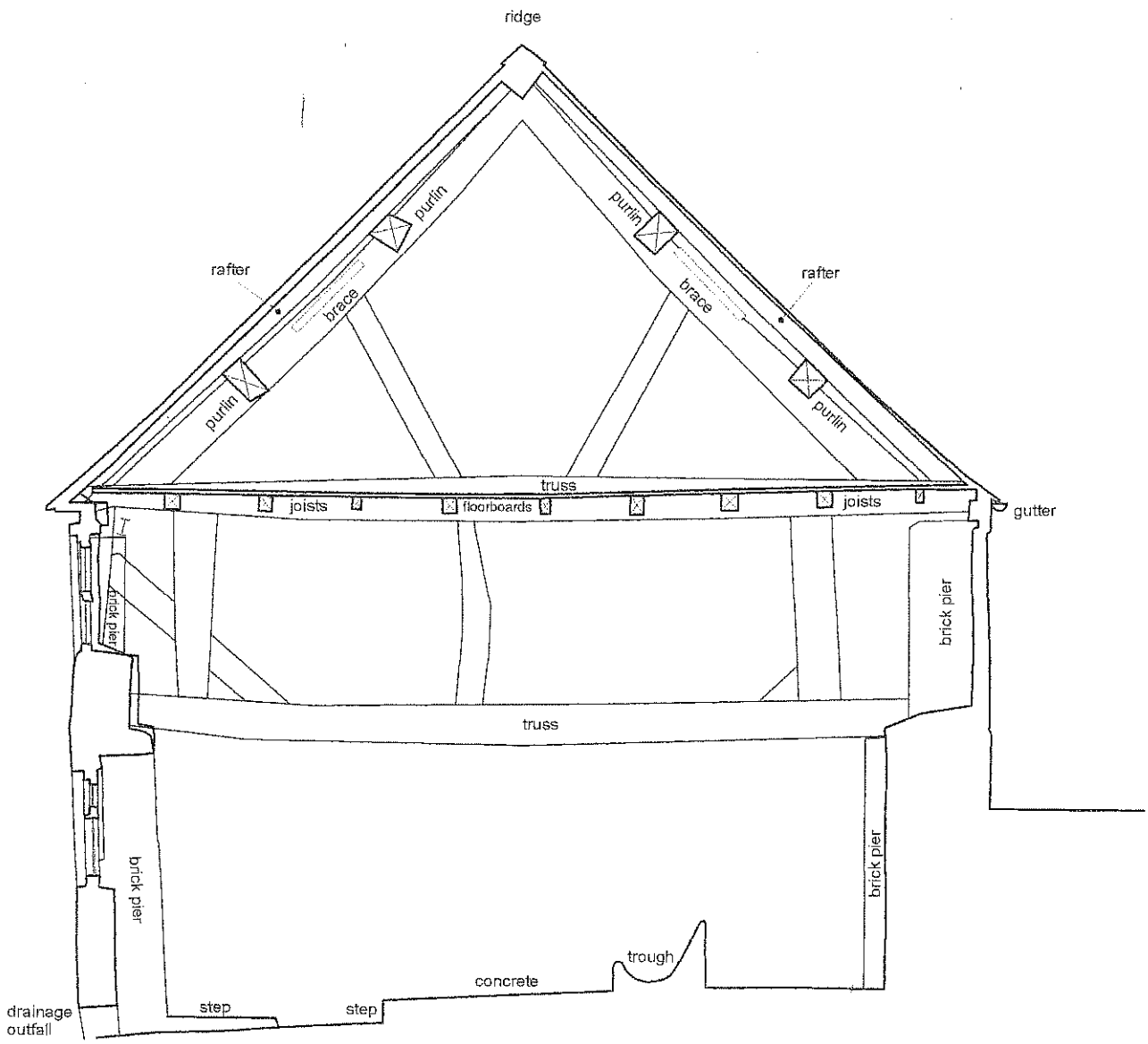

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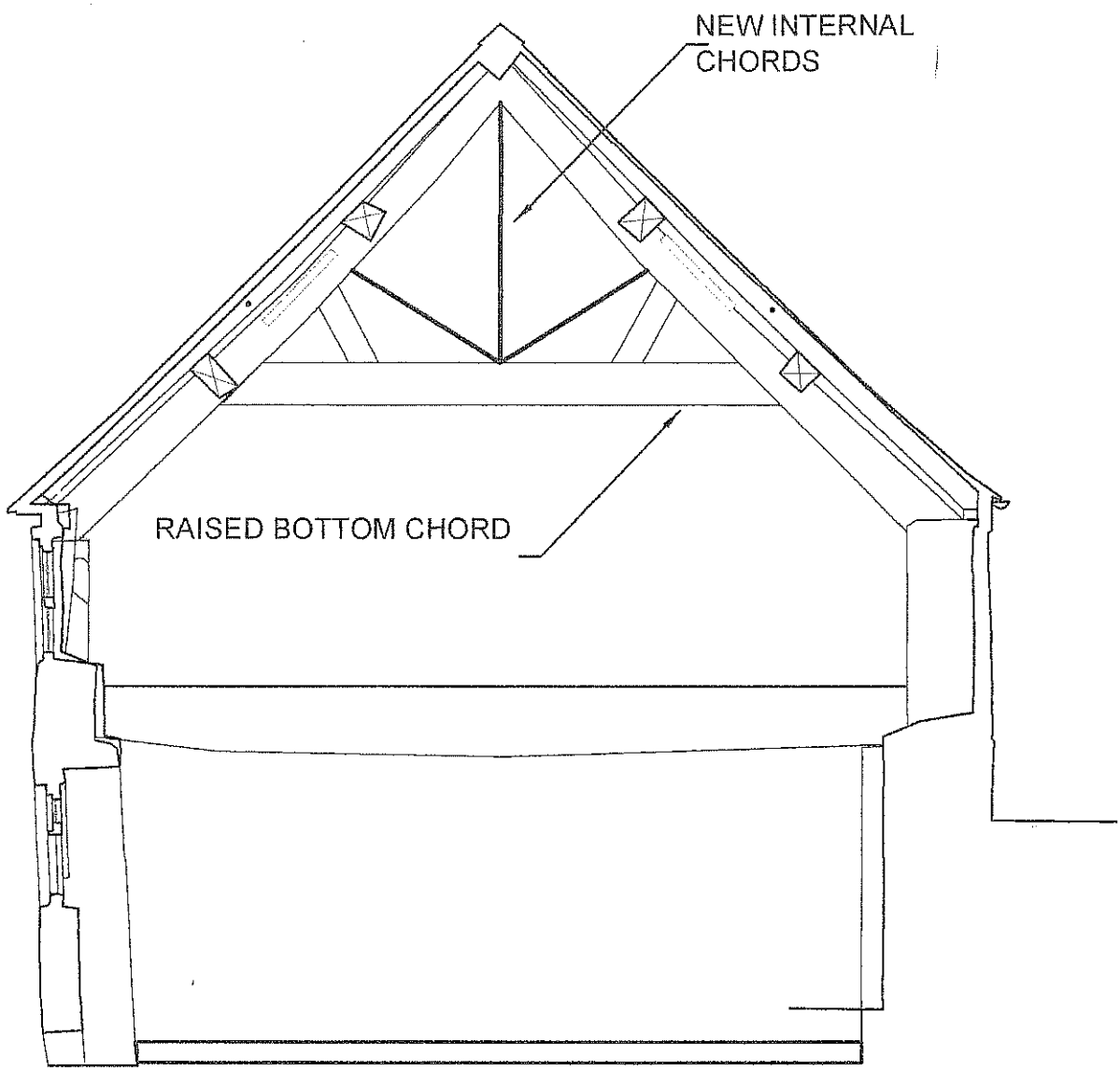

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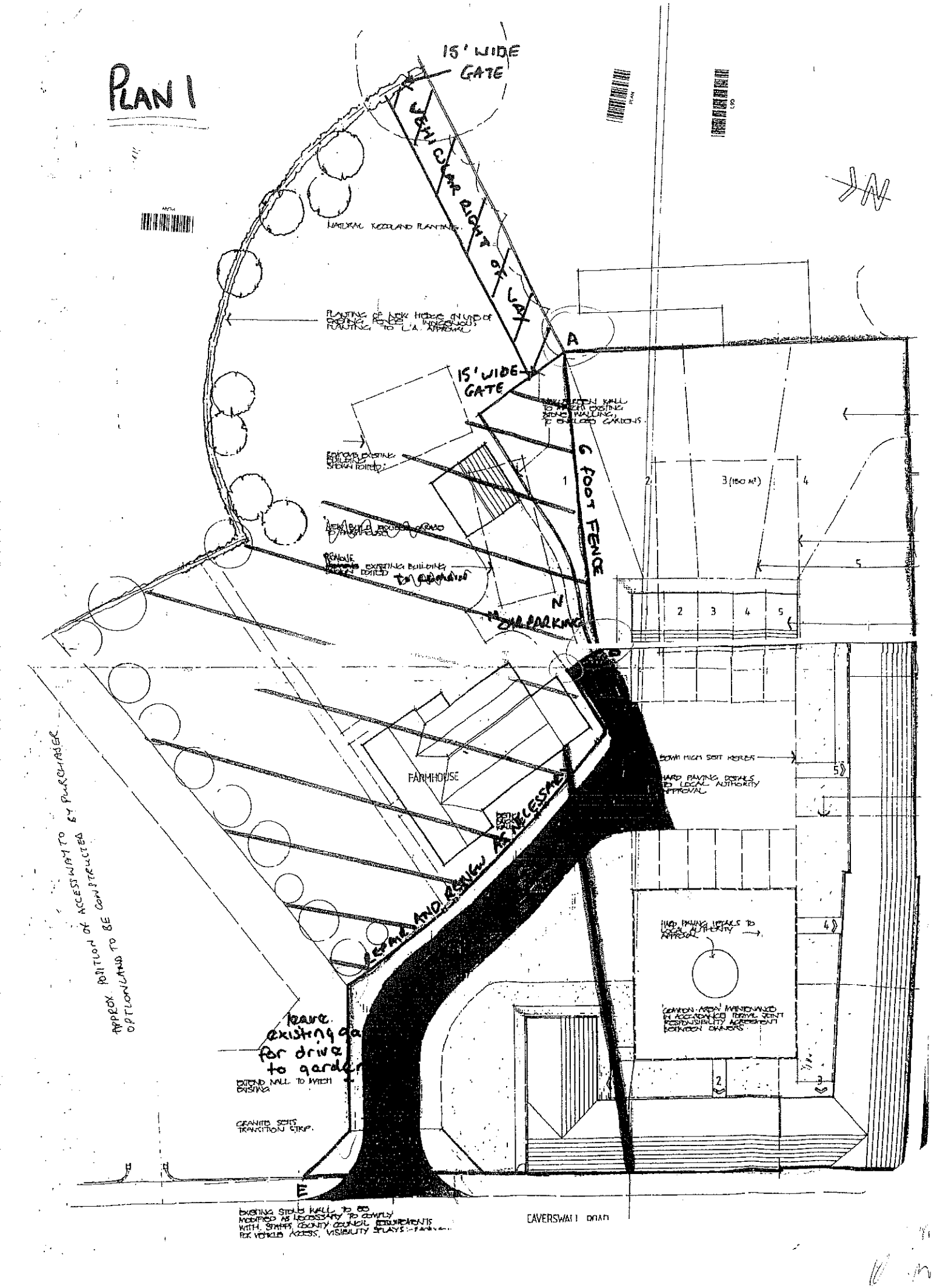
PLAN 1
15' WIDE GATE
VEHICULAR RIGHT OF WAY
NATURAL WOODLAND PLANTING
PLANTING OF NEW HEDGE IN LINE OF EXISTING FENCE. INDIGENOUS PLANTING TO L.A. APPROVAL
A
15' WIDE GATE
6 FOOT FENCE
1
2
3 (150 M²)
4
5
N
OIL PARKING
FARMHOUSE
REPAIR AND RENEW AS NECESSARY
HARD PAVING DETAILS TO LOCAL AUTHORITY APPROVAL
HARD PAVING DETAILS TO LOCAL AUTHORITY APPROVAL
COMMON AREA MAINTENANCE IN ACCORDANCE FORMAL JOINT RESPONSIBILITY AGREEMENT BETWEEN OWNERS
APPROX. POSITION OF ACCESSWAY TO OPTIONLAND TO BE CONSTRUCTED BY PURCHASER
leave existing ga for drive to garden
EXTEND WALL TO MATCH EXISTING
GRANITE SETS TRANSITION STRIP.
E
EXISTING STONE WALL TO BE MODIFIED AS NECESSARY TO COMPLY WITH STAFFS COUNTY COUNCIL REQUIREMENTS FOR VEHICLE ACCESS, VISIBILITY SPLAYS
CAVERSWALL ROAD