



CONSULTING ENGINEERS LTD

**STRUCTURAL ASSESSMENT
OF
PROPOSED WORKS AT THE OLD VICARAGE
HIGH STREET SEVENOAKS
KENT TN13 1JD**

CLIENT: MR & MRS GODDARD

PLANNING CONSULTANT: WILLOW PLANNING

DATE: JULY 2021



CONSULTING ENGINEERS LTD

1.0 BRIEF

We have been requested by the Client to assist the architect in relation to proposed alterations being considered to the structure of the building. Drawings and a general specification have been made available for our use and the site has been visited on two occasions to assess the structural make up of the building. We have for the purpose of this report concentrated our attention to specific areas relating to the architect's plans and have not carried out a full survey of the complete environs.

2.0 DESCRIPTION

The building is a two-storey masonry structure, externally rendered, under a pitched, tiled roof and dates from the eighteenth century. The roof and floors are of oak construction and there is a mixture of suspended/solid floors throughout the ground floor. Detailed information is available from SDC's pre-app document.

3.0 FINDINGS

Each area being considered for modification will be considered in turn and salient points made in relation to the existing structure and impact of the works.

3.1 ROOF BEDROOMS 3(SFO3) and 4(SFO5)

It is proposed to remove the horizontal ceiling finish and supporting softwood joists to reveal the main oak framing and revert back to the existing formation. As this work would only affect the latter-day installation and not the main fabric of the roof we do not foresee any structural ramifications with this element of the work (see plates 1, 2, and 6).

3.2 SHOWER ROOM (SFO4)

The works, as for SFO3 and SFO5, purely relate to the removal of latter-day fixtures and fittings and have no effect on the original fabric of the building.



3.3 LANDING AREA (SFO₂)

The original roof construction was vaulted and at some point a ceiling at standard wall plate level has been installed. From a limited access position the original oak roof structure is intact and appears in good order especially considering its age. The proposal is to remove the ceiling and expose the original roof line accordingly. We do not foresee any major structural issues with this work, but, once exposed, a close inspection will be required to ensure the original construction is still viable and able to support the heavy clay tiles without upgrading (see plates 3 and 4).

3.4 SHOWER ROOM OFF BATHROOM (FFO₂)

Drawing 20021-P-700 indicates the modification works to this small area with the introduction of cat-slide rafters, wall extension, and the introduction of new floor level joists together with an access stair and opening to the main bathroom (FFO₂). The existing opening to the main stair well will be locked shut.

Undoubtedly there are some minor modifications to the wall between the shower room and bathroom and the walls and roof to the enclosures but none is considered to have any major structural implications for the existing fabric (see plates 5 and 6).

3.5 PANTRY

With reference to dwg 20021-P-320 it is proposed to install a new heritage roof light within the flat roof. This will require trimming of the existing roof joist and doubling up to suit. This is not a major structural issue and can be achieved with little impact (see plate 7).

4.0 APPENDIX

See attached plates.

Trevor Cossey BSc (Hons) C Eng. MStructE

PLATE N°1

LATER DAY CEILING

JOISTS REMOVED



PLATE N: 2

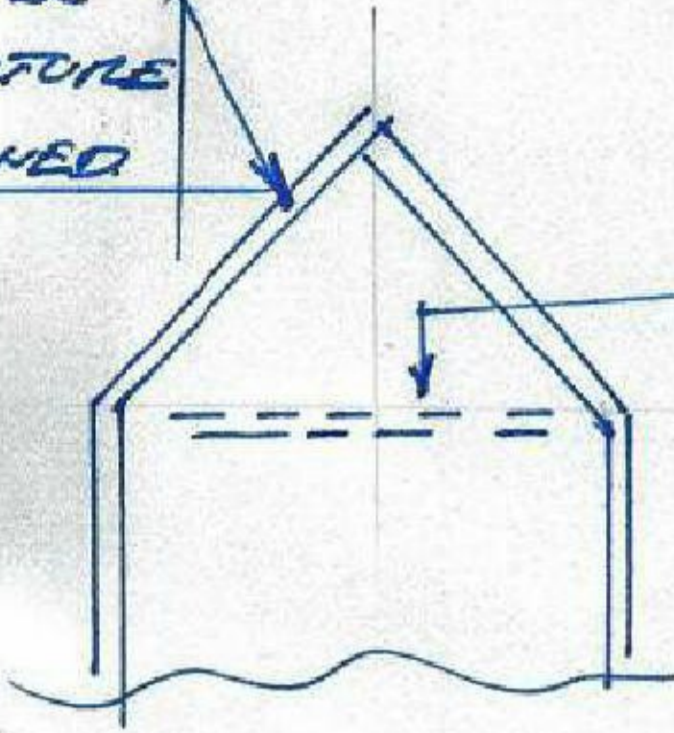
LATTER DAY CEILING

JOISTS REMOVED



PLATE N°3

ORIGINAL
STRUCTURE
RETAINED



LATTER DAY CEILING
TIES REMOVED

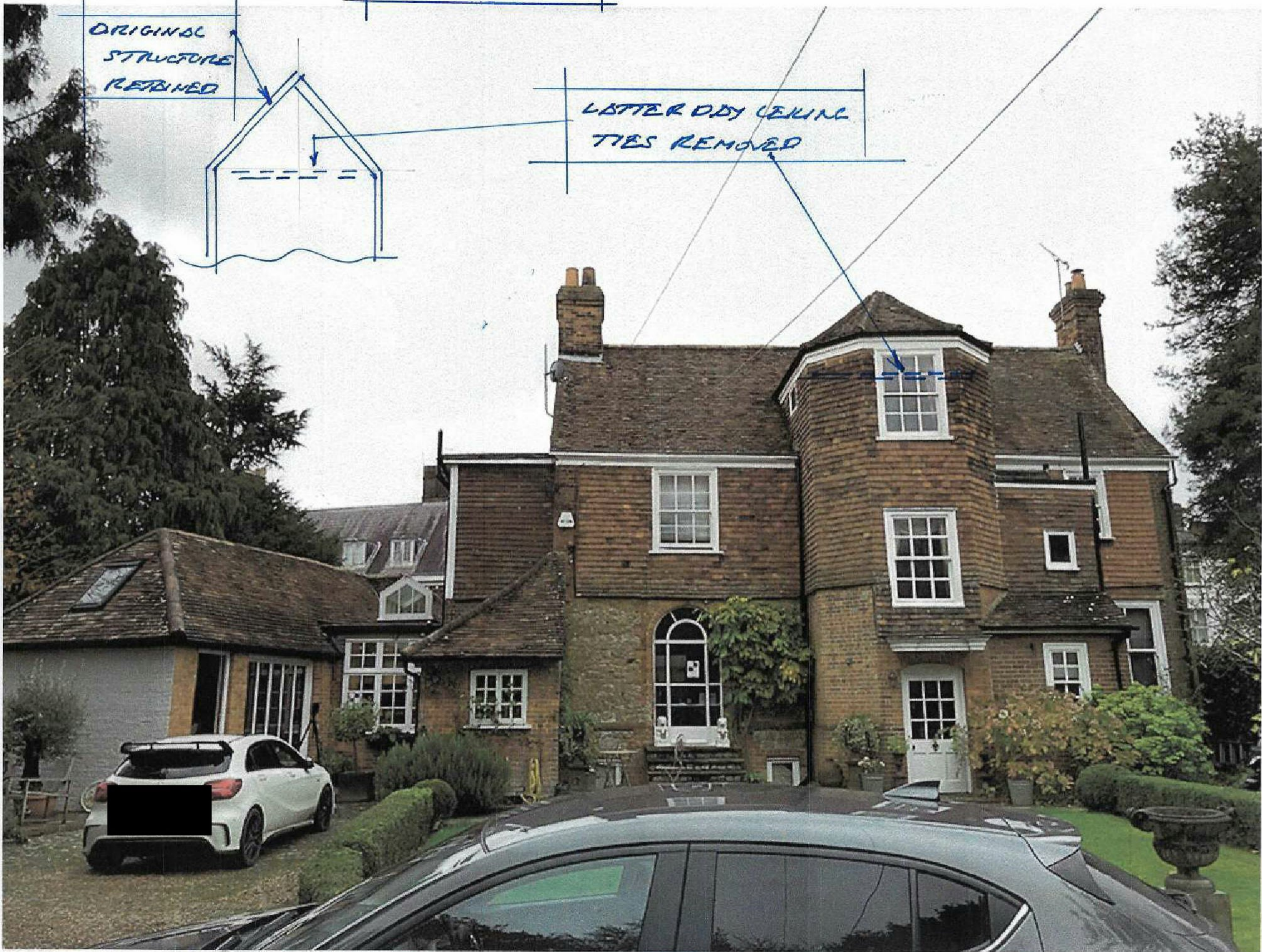
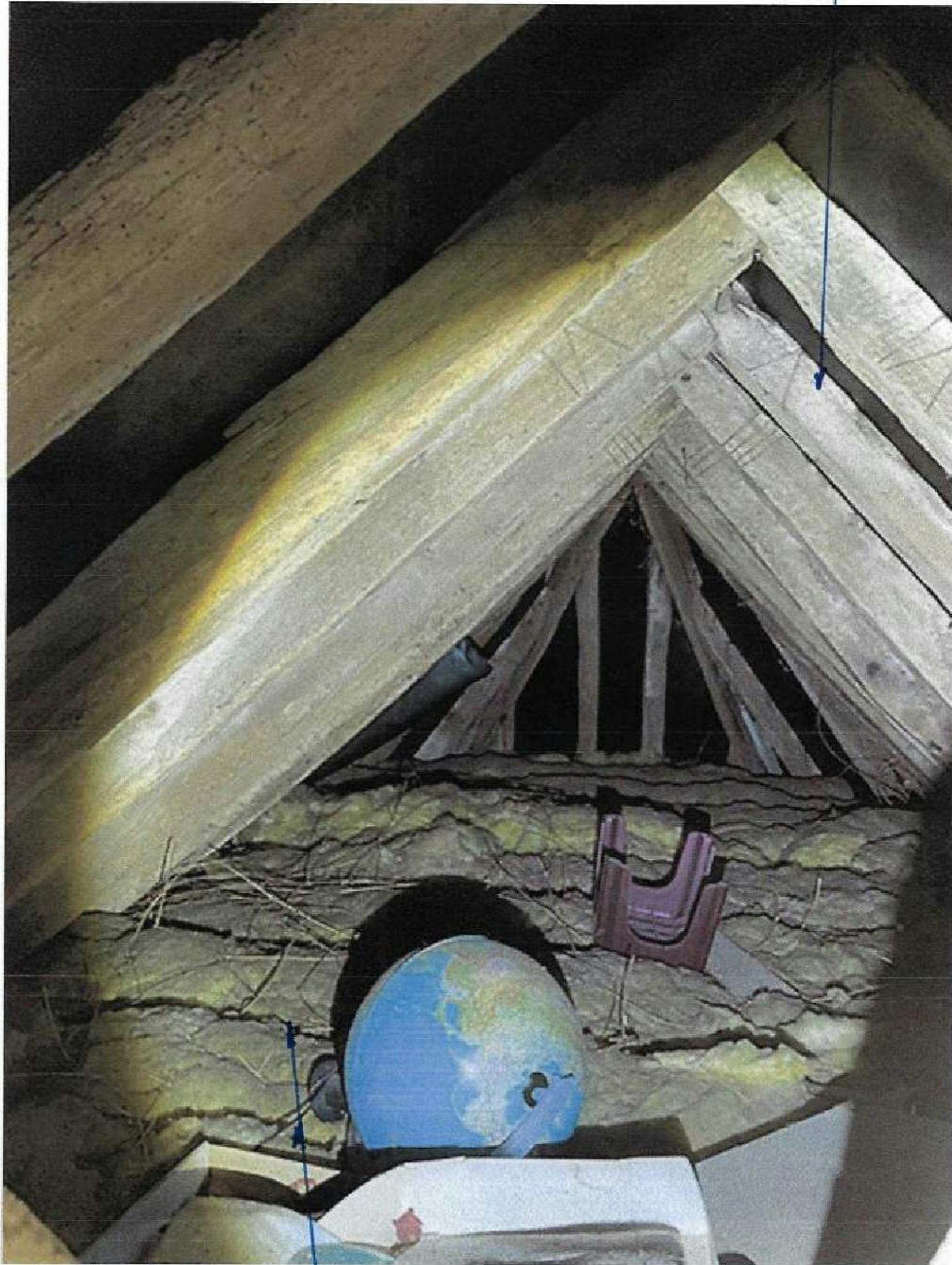


PLATE NO 4

EXISTING RAFTERS RETAINED



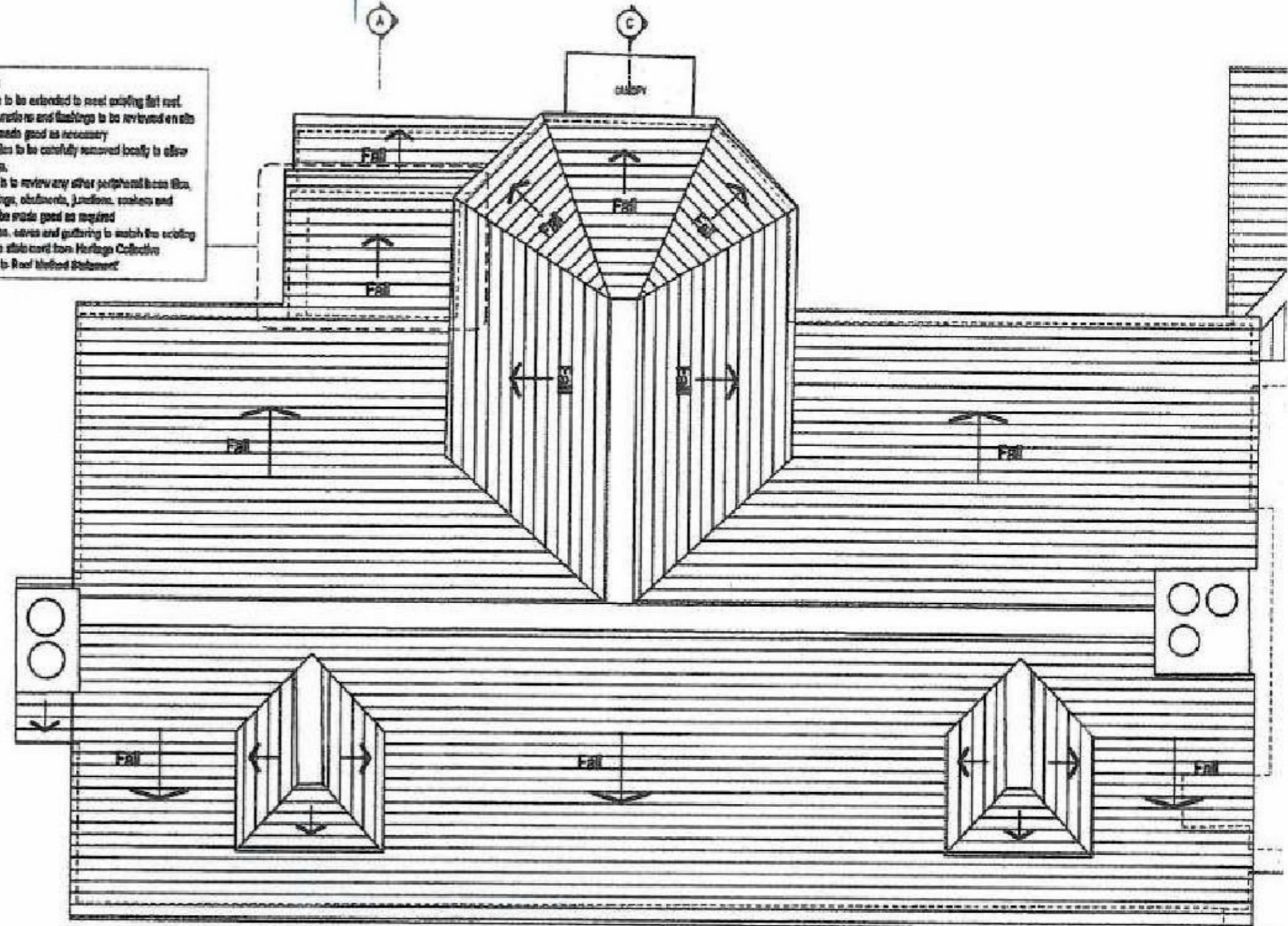
LATTER DAY CEILING
JOINTS REMOVED TO
EXPOSE ORIGINAL
RAFTERS

PLATE 5



PLATE 6

- Extended Roof Eaves**
- Existing rafters to be extended to meet existing flat roof.
 - Roof finishes, junctions and flashings to be reviewed on site by builder and made good as necessary.
 - Structural wall ties to be carefully removed locally to allow for roof flashings.
 - The Contractor is to review any other peripheral areas (i.e. leadwork, flashings, ornaments, junctions, eaves) and penetrations to be made good as required.
 - All materials, fix, eaves and gutters to match the existing.
 - Refer to heritage statement from Heritage Collective.
 - Refer to Works to Roof Method Statement.



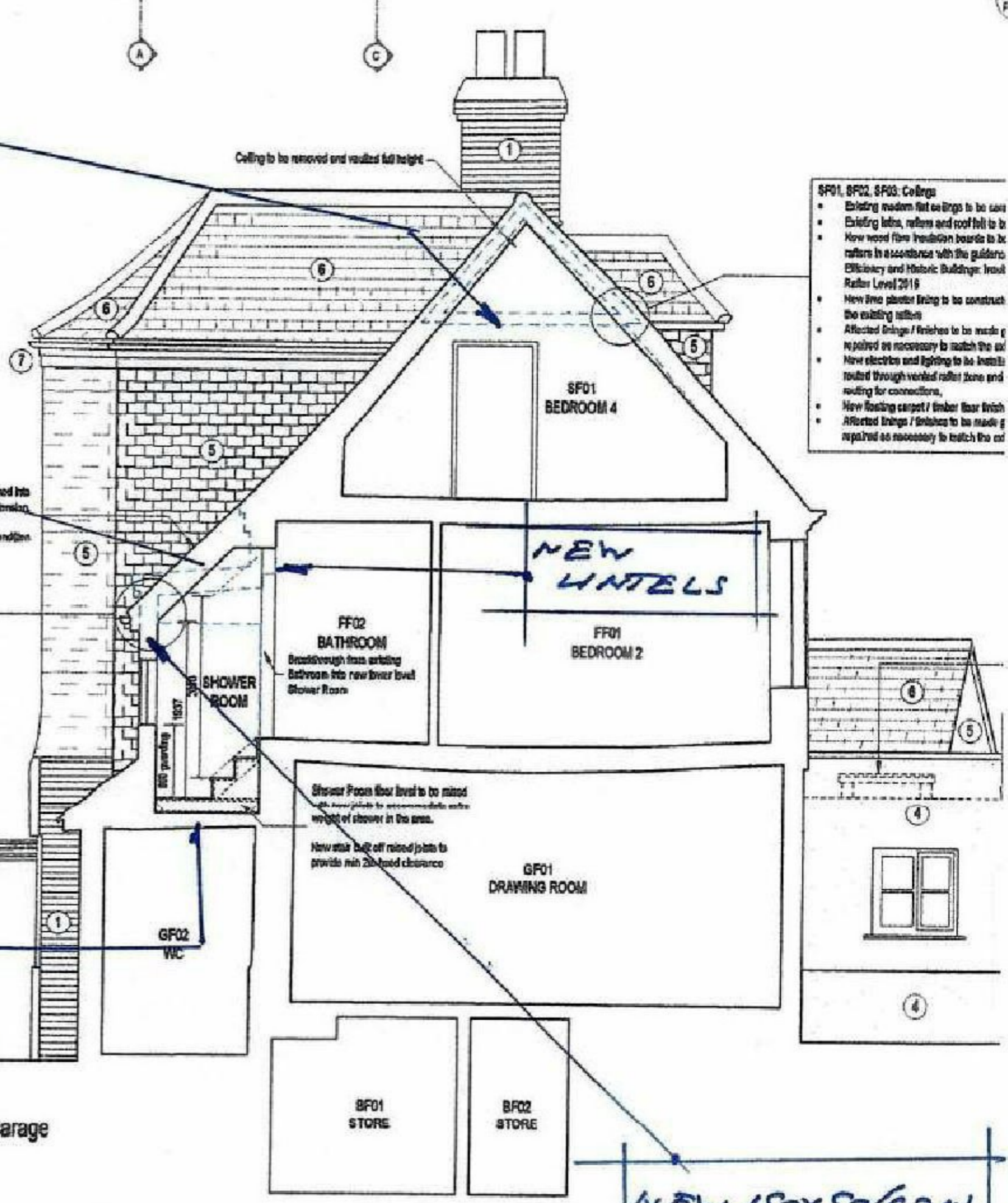
- New Flat Rooflight**
- New 600x1200mm (Barnes) Kwik (Dimension) Fixed flat rooflight from Glazing Works. Refer to product information submitted in support of the application.
 - The new rooflight is proposed to be a low profile, flat unit and concealed by existing parapet wall, so not visible from the street scene.
 - Existing modern flat roof finishes, substructure, joist, ceiling and finishes to be locally adapted to suit new aperture.
 - All related affected finishes, junctions and flashings to be reviewed on site by builder and made good to match the existing finishes.
 - Refer to heritage statement from Heritage Collective.
 - Refer to Works to Roof Method Statement.

1 PLAN Proposed Roof Plan SCALE 1:50

LOTTER DAY CEILING JOISTS REMOVED

NEW 150x50(C24) AT 400mm CENTRES EXTENSION RAFTERS

ADDITIONAL 150x50(C24) AT 400mm% FLOOR JOISTS



- SF01, BF02, GF01: Ceilings**
- Existing modern flat ceilings to be sawn.
 - Existing rafters, rafters and roof felt to be removed.
 - New wood fibre insulation boards to be fitted in accordance with the guidance Efficiency and Historic Buildings: Level Refurb Level 2019.
 - New lime plaster lining to be constructed to the existing rafters.
 - Affected finishes / finishes to be made good as necessary to match the existing.
 - New electric and lighting to be installed routed through vented rafter zone and ceiling for connections.
 - New flooring carpet / timber floor finish.
 - Affected finishes / finishes to be made good as necessary to match the existing.

AA SECTION Proposed Section AA SCALE 1:50

NEW 150x50(C24) STUDS TO FORM WALL.

PLATE 7.

