

**PROPOSED INTERNAL ALTERATIONS  
TO ATTICS  
TO CREATE  
ADDITIONAL HOTEL ACCOMMODATION  
AT WORTLEY HALL, WORTLEY,  
SHEFFIELD S35 7DB**

**FOR**

**WORTLEY HALL LTD.**

## **Revised Fire Compartmentation and Separation Strategy**

### **1.00 BACKGROUND**

1.01 Wortley Hall was originally constructed in 1586, but the present building originates from 1742-6. It was the seat of the Montague family. Subsequent phases of development occurred in 1784-88 and 1867-73.

1.02 In the original range, to the South of the present house, there was a Second floor range of cellars. These have effectively been unused since the United States Air Force's requisition of the house ended in 1945.

After that, the Wharnccliffe Estate sold the building, including the detached stable block, to the Workers Educational Trust Ltd.

This organisation, supported from that day to this by various trades unions, restored the majority of the house to holiday accommodation.

My first appointment to that organisation was in 1989, and it is fair to say that a fantastic operation of upgrading and improvement of the fabric has taken place since, and the accommodation of the present Wortley Hall Hotel, operated by Wortley Hall Ltd. is of a very high standard, well meriting the AA Four Star rating.

1.03 The management of the Hotel instructed me to design proposals to bring the attic spaces back into beneficial use. Listed Building Consent was obtained from Barnsley Metropolitan Borough Council (Ref: B/99/0417/WO/LB).

1.04 An application for full plans Building Regulations approval was submitted to JHAI Ltd. (Ref: 236873/WK/17). After validation of the application it was informally agreed with their representatives, Mick Clarke and Bilal Altaf, that full consent could not be granted (conditional consent was granted on 22/07/2017) until there had been some opening up of the existing fabric, principally to expose the existing nature and construction of floors and walls, so as to establish details for the required fire and acoustic separation and compartmentation.

1.05 After the partial opening up by the Hotel's selected Contractor, it became apparent that due to the complexity of the existing structure, the designed system could not be guaranteed to be installed sufficiently comprehensively to create a continuous barrier to

the spread of fire and noise.

As any changes from that would require a variation to the scheme previously granted Listed Building Consent, a site meeting with the Barnsley Conservation Officer, Mr. Wiles, was arranged for 20th November 2017.

- 1.06 Mr. Wiles understood the position, and accepted that there would have to be a revised scheme to allow for the space to be brought back into beneficial use.

That would require a further application for a revised consent, and that would need to include a Statement of Justification, as well as a full recording of the existing fabric material that would need to be removed. It is intimated that the application would be received sympathetically.

- 1.07 Following that meeting, a further detailed inspection and measured survey of the fabric as opened up was carried out, and a revised design to attempt to achieve Building Regulations compliance was prepared.

- 1.08 Those proposals were considered by JHAI Ltd. as the Building Control body for the works and were found not to be adequate to prove the adequacy of the designed proposals which attempted to retain existing areas of lime ash screeding over the timber floor construction.

As designers we drew attention to the comprehensive literature search which we had conducted which included test results/observations on similar eighteenth and nineteenth century floor constructions, mostly in residential properties. (Appendix B). This was satisfactory in our view, but the Building control body was adamant that inferring performance from similar construction was not acceptable to them in support of the application for Building Regulations approval, in the absence of actual test certificates for the actual construction exposed at this building.

As experienced architects with many successful historic building projects over the past 50 years this is unusual in our experience and very disappointing as it will lead inevitably to the loss of historic fabric to achieve this interpretation of an acceptable construction methodology. So be it.

- 1.09 A site meeting was convened, also attended by a representative of the South Yorkshire Fire and Rescue Service. We were advised that their historic buildings specialist would consider the proposals and make contact. That has not happened.

- 1.10 JHAI Ltd. suggested that an accredited Fire Consultant be appointed to review the Architect's submission and to advise whether, in his or her expert opinion, the designed proposals would achieve the required fire compartmentation/separation in addition to the required acoustic separation.

- 1.11 In view of the desire for the works proceeding on site to continue, it was suggested that the two remaining lime ash floors at that time (Bedrooms 1 and 3) be taken up to allow for the proven construction system specified and agreed for the floors where the lime ash was too damaged to be retained, to be constructed. (As Appendix A).

- 1.12 Following the clearance of those rooms, it could also be seen that there were significant areas of the lime ash flooring (and its substrates) that were defective. Limited access to the floor voids below showed a number of different structural arrangements of beams/joists. All of this added to a lack of certainty about the new adaptive construction as required by the Building Control body.

- 1.13 The Architects contacted the Conservation Officer of Barnsley Metropolitan Borough Council to explain this. After discussion it was agreed that the loss of the historic floor finishes in these two further rooms, so effectively in all of the proposed new hotel accommodation, would be acceptable in view of the public benefit of bringing back into beneficial use of previously abandoned accommodation within the Grade II\* heritage asset.

## **2.00 PROPOSALS**

- 2.01 Further to item 1.07 above, Appendix A records that survey and the fabric as found/as existing.
- 2.02 As described above, following consideration of that information about the dimensions and spacing of the structural floor members, a substantial literature review was undertaken. (See Appendix B).
- 2.03 The initial proposals for each room differed, because of the differing structural arrangements, and the differing extents of the amount of historic soundproofing and fireproofing remaining.

Following the negotiations with the Building Control body, it became apparent that they were unable to agree that the proposals would meet the requirements of the Approved Documents to the Building Regulations.

- 2.04 As a result of that, it was agreed that the only way that certainty of the revised structure/construction could be achieved was by the removal of all existing flooring to allow for the insertion of the fireproofing system agreed for the floors of those rooms found to be so damaged that they could not be retained.
- 2.05 After the discussions with Conservation Officer of Barnsley Metropolitan Borough council described above at 1.13, it was agreed that the two remaining floors should be taken up to allow for the insertions of the accepted system as described above.

However, in view of the special interest of the floors, he invited the applicant to arrange for the floors to be archaeologically recorded before that destruction.

- 2.06 The Architects and Ed Dennison Archaeological Services of Beverley have a long established happy working relationship and they rapidly prepared a Written Scheme of Investigation for that recording, that was equally promptly approved by both the Sough Yorkshire Archaeological Service and Barnsley Metropolitan Borough council.

That recording was carried out on 10th May 2018, and is attached as Appendix C.

## **3.00 CONCLUSIONS**

- 3.01 The opening up of the fabric of the affected parts of the building showed that the designed scheme necessary to achieve fire compartmentation and acoustic separation of the new bedrooms from that existing on the First floor below was unachievable.

- 3.02 The proposals are shown on the drawings attached. (P/06: Plan and D/02:Section).
- 3.03 Consent is sought for these proposals as a variation to the previous Listed Building Consent (ref. 2017/ ) and conditional Building Regulations approval.

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