# RETIREMENT VILLAGES

VISUAL APPRAISAL SURVEY MBA CONSULTING LIMITED SEPTEMBER 2023

1 COMPANY





## VISUAL APPRAISAL SURVEY

PENLEE HOUSE, ROSELAND COURT, TREGONY CORNWALL JULY 2023 | PROJECT REF: 22323

REV A



### DOCUMENT CONTROL SHEET

To ensure this is the latest issue, a control table is included below to identify updates.

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Version	Date	Description	Prepared By	Checked By
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### 1.0 INTRODUCTION & CLIENT BRIEF

- **1.1** MBA's client is Retirement Villages. This report is private and confidential to our client and their appointed advisors.
- **1.2** At the request of our Client, MBA carried out a visual inspection of the building referred to in the title of this report, to identify, where possible, within the confines of a purely visual inspection.
  - The condition of the principal structural elements.
  - Any areas and the nature of any obvious structural distress.
  - Whether any perceived movement could potentially be progressive.
  - The outline nature of any remedial works required.
- **1.3** Our investigation was conducted with the benefit of some limited opening-up works.

We have not however inspected woodwork or other parts of the structure, fabric or finishes which, at the time of our inspection, were covered, unexposed or not readily accessible and are therefore unable to report that any such part of the property is free from defects.

- 1.4 Our inspection was conducted on 5<sup>th</sup> July 2023. The weather at the time of our inspection was warm and dry.
- 1.5 The building is a Grade II listed building (1141034) and is to be converted for residential use as sheltered accommodation. This report has been prepared on that basis. We have not inspected any ancillary buildings or structures other than those described on the MBA sketches attached as Appendix A. It should be noted that access was not possible to some areas of the building which are noted in the relevant sketches or elsewhere within this report.

The development proposals involve the removal of the single-storey buildings to the north and the construction of two new extensions.



- 1.6 A timber treatment report has also been prepared by SMT Associates, Truro. Reference should be made to their report for matters related to the condition of the existing timber elements.
- 1.7 There are no archive drawings for the building and so this report has been produced solely based on our visual inspection. The as-existing architectural drawings prepared by KWL Architects Ltd have been used as the basis for the sketches attached in Appendix A.



### 2.0 OBSERVATIONS & COMMENTS

#### 2.1 <u>General</u>

2.1.1 The building is in Tregony, Cornwall and forms part of the Roseland Court development. The main building was constructed as a private dwelling in the 1820's.

A modern, two-storey extension was added to the eastern end of the building approximately 20 years ago.

There are a group of single storey structures along the northern side of the building, connecting it to an adjacent area of accommodation.

2.1.2 The original building is a two-storey structure, with an additional basement area.

The loadbearing walls are formed in an altered shale stonework, with granite quoins. The first floor is formed in traditional cut-timber joists supported on the ground floor walls. The roof structure is a traditional cut-timber roof, with principal timber trusses, supporting purlins and common rafters.

The area of the ground floor above the basement is formed in timber joists. The basement walls are formed in exposed stonework.

- 2.1.3 The modern two-storey extension to the east appears to be formed in loadbearing masonry. The ground and first floors feel solid underfoot and it is considered likely that they are formed in precast concrete. Opening-up works will be required to confirm this.
- 2.1.4 The single storey buildings to the north of the original building appear to be masonry structures with timber roofs. These are to be removed as part of the development proposals and so have not been inspected, in detail, as part of this appraisal.



- 2.1.3 The orientation of the building is indicated on the key plan attached as MBA sketch 22323/SK/05 in Appendix A. The building is roughly orientated east-west as shown.
- **2.1.4** The terms 'left' and 'right' when referring to individual elevations, assume that the reader is viewing the relevant wall from outside the building.
- 2.1.5 The ground immediately around the building is relatively flat and there are no significant level differences across the external elevations. There is, however, a general drop in the wider ground levels to the south and east. The plateau on which the building is sited may therefore have been formed by a cut and fill operation with a thickness of fill being present along the southern and eastern boundaries.

#### 2.2 Internal Inspection

#### 2.2.1 Ground Floor (See MBA Sketch 22323/SK/50)

.1 The ground floor to the original building is largely timber where it lies above the basement area (see 2.2.4). The timber floors are flexible under footfall.

The ground floor to the modern extension is solid underfoot. There are external sub-floor vents visible, and it is therefore considered likely that the floor is formed in precast concrete (planks or beam-and-block).

The ground floors to the northern buildings are all solid underfoot and are thought to be a mixture of in-situ concrete and suspended precast flooring.

- .2 The internal partitions are a mixture of masonry and timber studwork as indicated on the above sketch. The partition type is based on a hand tap alone and any critical areas must be confirmed by opening up works.
- .3 There is a significant slope in the floor to bedroom 6 as indicated on the sketch. There is another, similar, sloping area in bedroom 5. It is considered that the associated high spots relate to the position of the internal and perimeter walls to the basement.

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- .4 There is cracking to the ceiling in Bedroom 6. There is also mould growth on the inside faces of the external walls. There is also some distortion to the timber lintel over the bay window. This should be commented on by the timber treatment surveyor.
- .5 There is extensive damp and mould growth in bedroom 7 against the northern wall.
- .6 The staircase within the original building is heavily affected by dry rot. This is extensive and the stairs have been closed off for safety reasons. The extent of the dry rot is being established by the timber surveyor. We are aware that there will be a zone beyond the known extent of the dry rot where all timber will need to be removed and all masonry will need to be treated to prevent a reoccurrence. Reference should be made to the SMT Associates report in this respect.
- There is a diagonal crack over the fireplace in the assisted bathroom (RG32). The fireplace lintel should be opened up and inspected.
  Allowance should be made at this stage for the possible replacement of this lintel.
- .8 There is hairline cracking within the masonry wall to the store RG23. This is to be demolished and will not form a risk for the demolition contractor. No further work is therefore required.
- .9 We note that the external garden wall indicated on the layout intersects the kitchen, RG27, which is to be demolished. The end of the garden wall is currently restrained by the building and so additional restraint will be required in the form of a return wall or pier to preserve the stability of the boundary wall.

#### 2.2.2 First Floor (See MBA Sketch 22323/SK/60)

.1 The first floor of the original building is formed in timber. The joists have been exposed in five locations as indicated on MBA sketch 22323/SK/OU/50 attached in Appendix A.

In several of these locations, the joists were seen to have been repaired in the past following extensive decay. The repairs appear to have been



carried out in a rather ad-hoc manner and we suspect that the various splices will not be able to be confirmed as adequate by calculation. These will therefore have to be upgraded as part of the proposed works.

In one location (1), the joists have not been repaired and were seen to be totally decayed at the face of the supporting external wall.

There is a significant drop in the floor level around location 4. The joists in this area were found to have been supplemented with new joists. However, these are then trimmed out at the face of the wall and supported back on the original joists (fig 14).

It appears that all existing timber embedded within, in contact with, or close to, the external walls is at risk of decay. Reference should be made to the timber treatment report for further information.

- .2 MBA have carried out a preliminary calculation check on the existing joist sizes under the weight of the proposed first floor construction indicated by the Architect. This indicates that the existing joists, even where they are in good condition, will need to be doubled-up to carry the new loads. As such, all the existing joists will need to be doubled up as part of the proposed works. It should be noted that the existing joists are bowed in some locations and so a decision needs to be made whether to level up the floor surface or to shape the new joists to match the existing profile. In addition, the gaps between the joists will be reduced by the additional timbers and service holes may therefore need to be pre-drilled prior to the installation of the new sections.
- .3 The bases of the timber balcony columns should be exposed and inspected. Allowance should be made for possible repair.
- .4 All new and existing timbers must be treated against decay and woodboring beetle attack.

#### 2.2.3 <u>Roof Structure</u>

.1 The roof of the original house was inspected from the loft hatch indicated on MBA sketch 22323/SK/20. There is a significant thickness of insultation in the roof space which prevented a clear view of the ceiling



level timbers. Access to the roof space was not therefore considered safe and our comments are therefore based on our view from the hatch.

.2 The roof structure is formed in traditional cut-timber roof trusses spanning across the full width of the building. These support timber purlins and common rafters. The roof covering has been replaced in the past as there is a formal sarking felt. The common rafters also appear to be a later addition.

The trusses and purlins, however, appear to be older and might be original.

- .3 Our inspection revealed that the trusses close to the access hatch are affected by woodboring beetle attack. These should be commented on by the timber treatment specialist. At this stage, allowance should be made for possible repairs to the trusses where the infestation is advanced. All new and existing roof timbers must be treated against decay and wood-boring beetle attack.
- .4 The supports to the timber trusses and the common rafter ends could not be seen. It would be normal for the trusses to be at least partially embedded in the perimeter walls. The common rafters are also likely to be supported on a timber wall plate. We would suggest that allowance is made for the following works.
  - Expose the truss ends to confirm their condition. Make provisional allowance for splice repairs to any decayed timber.
  - Expose the perimeter timber wall plate and the common rafter ends. Allow for, say, replacement of 50% of the rafters up to the level of the first internal purlin.
  - In addition, allow for a new wall plate for the perimeter of the building.
- .5 There are occasional holes in the roof where daylight can be seen. There is also evidence of water leaks at the chimney positions. Whilst not a structural matter, we would suggest that this is investigated further and



dealt with as part of the works in order to prevent damage to the timber elements.

.6 The chimneys to the original building are relatively slender. They also incorporate tall chimney pots. As such, consideration should be given to the provision of metal chimney stays connecting the chimneys to the adjacent roof structure. The chimneys have been repointed in the past. However, in light of their slenderness these should be inspected once the building is scaffolded. A general allowance should be made for possible repointing and isolated repairs.

#### 2.2.4 <u>Basement</u>

- .1 The basement covers the very approximate area indicated on MBA sketch 22323/SK/10 and is contained solely within the plan area of the existing building. This should be confirmed by a detailed topographical survey as it is not covered by the existing layout currently in our possession.
- .2 The walls to the basement are formed in random shale stonework. A trial excavation alongside one wall revealed its founding level to be only fractionally below the existing floor level. The floor itself was seen to be merely a thin layer of sand/cement overlying the weathered shale rockhead below (fig 19).
- .3 Four holes were made through the basement ceiling to inspect the ground floor joists above (figs 20). These were found to be 140-150x75mm joists at 440-590mm centres. Some of the joists have previously decayed and have then been repaired in the past with new sections having been spliced in.
- .4 The basement is very damp indeed and there are no signs of any effective damp-proofing having been installed in the past.
- .5 The existing access stair to the basement is unsuitable and should be improved as part of the works.



#### 2.3 <u>External Inspection</u>

#### 2.3.1 <u>General</u>

- .1 The external faces of the original building are either painted or rendered and painted.
- .2 The rainwater goods to the building are generally in a poor condition. The buried drainage connections are also blocked. The above ground drainage system must be either replaced or completely overhauled as part of the works in order to effectively remove surface water from the structural elements including the building foundations. A CCTV survey of the buried drainage has been completed and is commented on elsewhere.
- .3 The external timberwork is generally in a poor condition requiring widespread repair and possible replacement.

#### 2.3.2 South Elevation (See MBA Sketch 23121/SK/10)

- .1 The stonework to the original elevation is altered random altered shale with granite quoins and lintels. All the stonework is painted (fig 1).
- .2 An external metal canopy is present for the full length of the original elevation. The paint is peeling from the metal sections, and there is some corrosion particularly to the roof members. However, there is little loss of section. The metal should be cleaned, and the previous paint removed. A new anti-corrosion paint system should then be applied before applying the decorative finishes. The bases of the uprights are not visible and so should be exposed (fig 6). A general allowance should be made for possible repairs.
- .3 The shallow stone arches appear to have performed adequately to date. However, an allowance should be made for repointing of these arches where required in order to preserve their stability.
- .4 The elevation to the modern extension is rendered and painted. There are no visible structural defects.



#### 2.3.3 <u>West Elevation (See MBA Sketch 22323/SK/20)</u>

- .1 A large tree is present alongside this elevation (fig 3). We would suggest that this is commented on by the consultant arboriculturist as this will have the potential to affect the foundations to the building and the adjacent basement walls.
- .2 The outer lintels to the original building are formed as shallow granite arches. As with the south elevation, allowance should be made for detailed inspection and repointing of these arches.
- .3 There is a light well/coal hole to the basement at the southern end of the elevation. This is currently covered with a plastic cover. Allowance should be made for the inspection of the void below and for the repair or replacement of any metal or timber elements.
- .4 The doorway in the elevation exhibits a significant drop from north to south. There is no recent cracking around this door and so the movement is considered to be historic. However, the adjacent drainage should be inspected, and allowance made for its possible repair. The comments made above in relation to the tree should also be reviewed.
- .5 The return to the original building visible at the northern end of the elevation incorporates two exposed timber lintels. Whilst there are no signs of distress in these lintels, allowance should be made at this stage for their replacement with seasoned oak sections.

#### 2.2.4 East Elevation (See MBA Sketch 22323/SK/30)

- .1 The east extension of the modern extension has several sub-floor vents indicating that the ground floor is of suspended construction.
- .2 There is cracking to the render in the exposed section of the east elevation of the original building. The cause of this is unclear. The render should be removed to see if the cracking penetrates the stonework beneath. At this stage, a provisional allowance should be made for localized Helifix type repairs and possible underpinning for this length of wall.



- .3 There are loose and damaged slates on the roof pitch to the original building. These should be made good.
- .4 The chimneys visible in this elevation are formed in brick and have been repointed in the past. However, as there are visible leaks within the building at several chimney locations, we would recommend that these are inspected once a scaffold is erected, and allowance made for repairs and repointing (see 2.2.3.6).

#### 2.2.5 North Elevation (See MBA Sketch 22323/SK/40)

- .1 This elevation is partially obscured by the adjacent single-storey buildings (see sketch and fig 2). The single window opening in the original building is formed with a shallow stone arch formed from vertical shale stone rather than granite. As this form of construction relies fully on the stone-to-stone bearing, the arch should be inspected and repointed where necessary.
- .2 The rear elevation of the modern extension is free from visible defects. Sub-floor vents are also visible.



### 3.0 CONCLUSIONS AND RECOMMENDATIONS

- 3.1 The building has been empty for a period and there are several defects that need to be considered and allowed for in the construction budget. Reference should be made to section 2 for all details. In addition, the principal defects and actions are listed below.
  - The external stonework walls are damp and there is decay to all the timber elements in contact or embedded within the masonry.
  - The ground floor joists are in a poor condition where present over the basement. The existing ceilings should be removed to allow a full inspection. Until then, allowance should be made for the strengthening of the floor and for the possible replacement of 75% of the existing joists.
  - The basement is very damp. We understand that it is to be dry lined as part of the work. If this requires the installation of a new floor slab, with modern construction thicknesses, then underpinning of the existing walls will be required as the founding level is only fractionally below the existing screed level.
  - The first-floor joists have been subject to widespread repair in the past. Since then, further decay has occurred. The increased loading required to meet modern acoustic requirements means that the joists will need to be upgraded significantly. An allowance should be made for the doubling up of the existing joists and for the replacement of, say, 50% of the existing joists if found to be decayed.
  - Any retained timber partitions should be inspected by the timber treatment specialist and any remedial works identified.
  - Repair and strengthening works will be required for the roof structure as described in section 2.2.3. The truss ends should be exposed, and any repairs completed.
  - All new and retained timber should be treated against decay and woodboring beetle attack.
  - The stability of the external garden wall should be considered once the existing single-storey buildings are demolished. Additional work will be required as outlined in 2.2.1.9.
  - All rainwater goods require clearing, repair or replacement, and connection to the positive drainage system. As a first measure, the discharge point for the current drainage should be determined. A suitable position for any new soakaways and a route to get there will be required.



- The extent of the dry rot identified within the original building should be established. As described in section 2.2.1.6, the extent of the timber to be cut out will be greater than the visible extent of the outbreak in order to prevent a reoccurrence.
- Chimney stays should be added to the slender chimneys to the original building.
- The proposed alterations to the modern extension involve the removal and repositioning of all the internal partitions. The ground floor masonry walls are highly likely to support the precast concrete first floor. As such, allowance should be made for additional temporary and permanent works to support the first floor prior to and post-demolition. This could be a substantial undertaking and consideration should be given to the possible replanning of the internal spaces to simplify the works. The original drawings for the extension should be retrieved from the client's archives if at all possible.
- The external canopy to the original building will require treatment to improve its longevity as described in 2.3.2.2.
- The distortion not the doorway in the west elevation should be investigated as 2.3.3.4.
- **3.2** The areas of further investigative work described in section 2 above should be completed and due allowance made at this stage for possible further defects uncovered as part of that work.
- **3.3** There are several general items which will also require consideration as part of the proposed development. These are outlined below.
  - An asbestos survey should be completed for the building prior to commencing any investigative, demolition or refurbishment work.
  - All timber to be retained within the proposed scheme should be inspected by the timber treatment specialist and treated against decay and wood-boring beetle attack. This must include the inner timber lintels to the external walls which have not been inspected as part of this report.
  - There is widespread damp in the building. This should be remedied as part of the proposed architectural scheme to prevent future damage to the structural elements.



- As the building is listed, the methods of repair or replacement should be agreed with the relevant conservation authorities. There will be significant cost premiums associated with these works.
- 3.4 It should be noted that our inspection of the buildings to be demolished has been restricted to items that could potentially affect their demolition. If the scheme were to change to retain any of these areas, further inspection will be required to identify any building defects that would need to be rectified.

Signed..... .....Dated: 25<sup>th</sup> July 2023

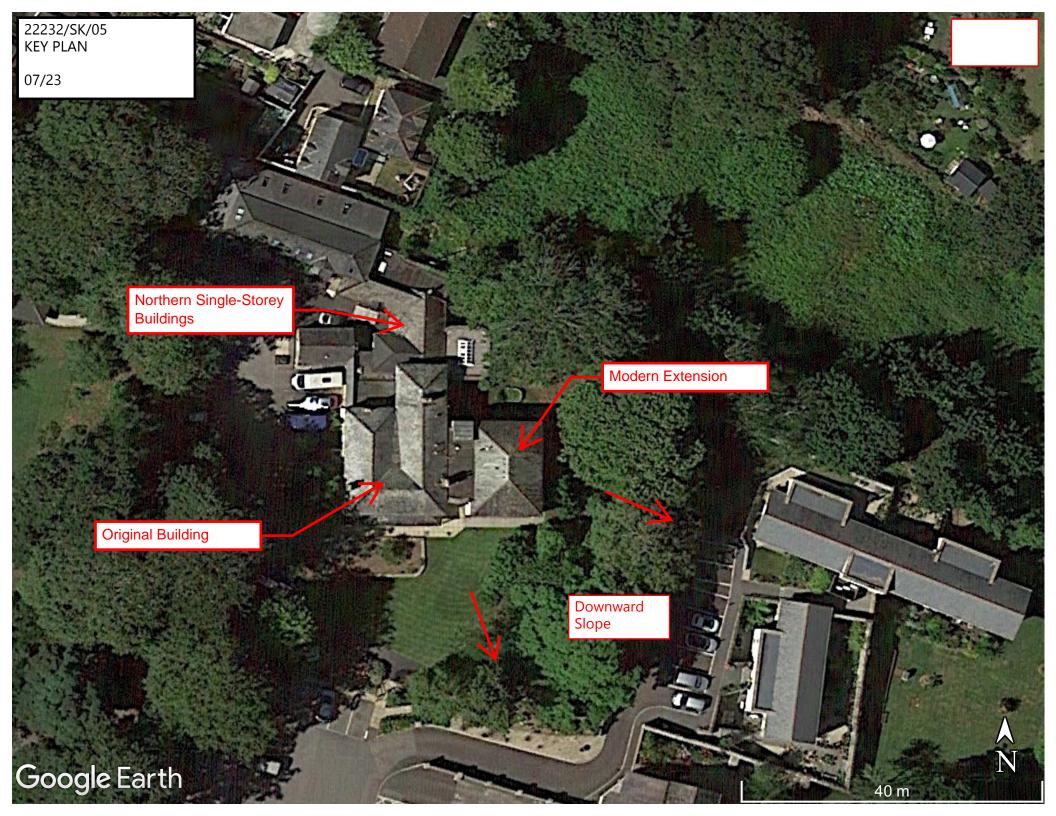
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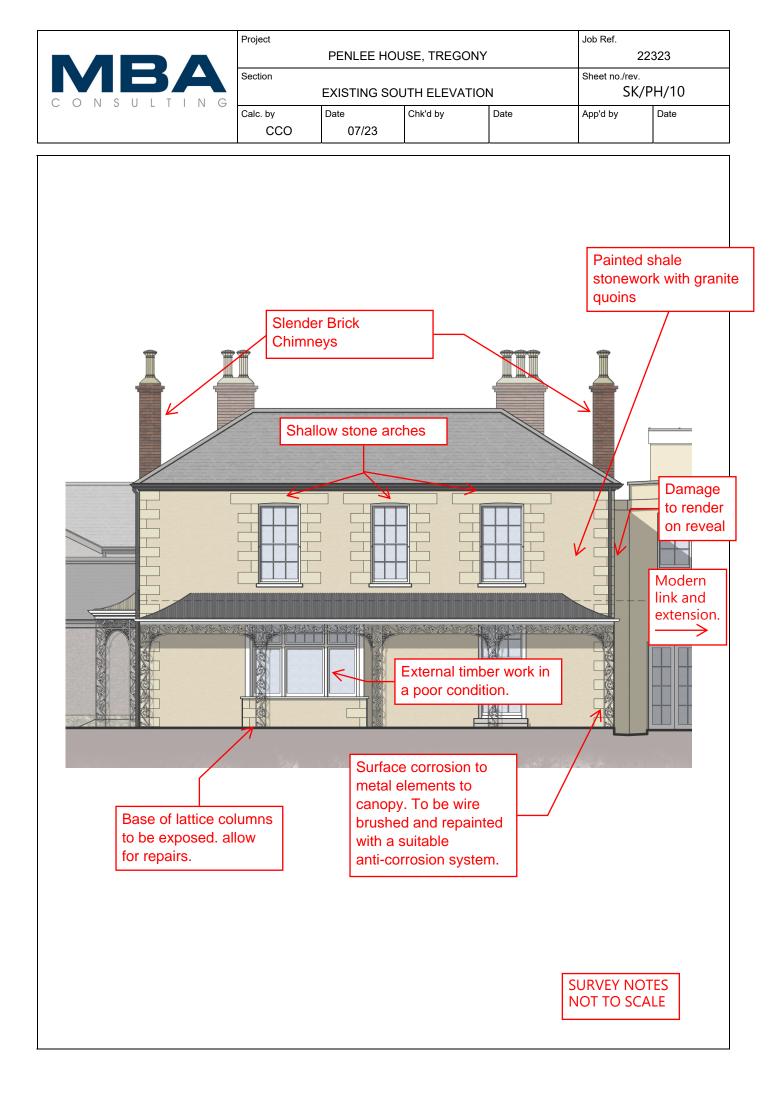
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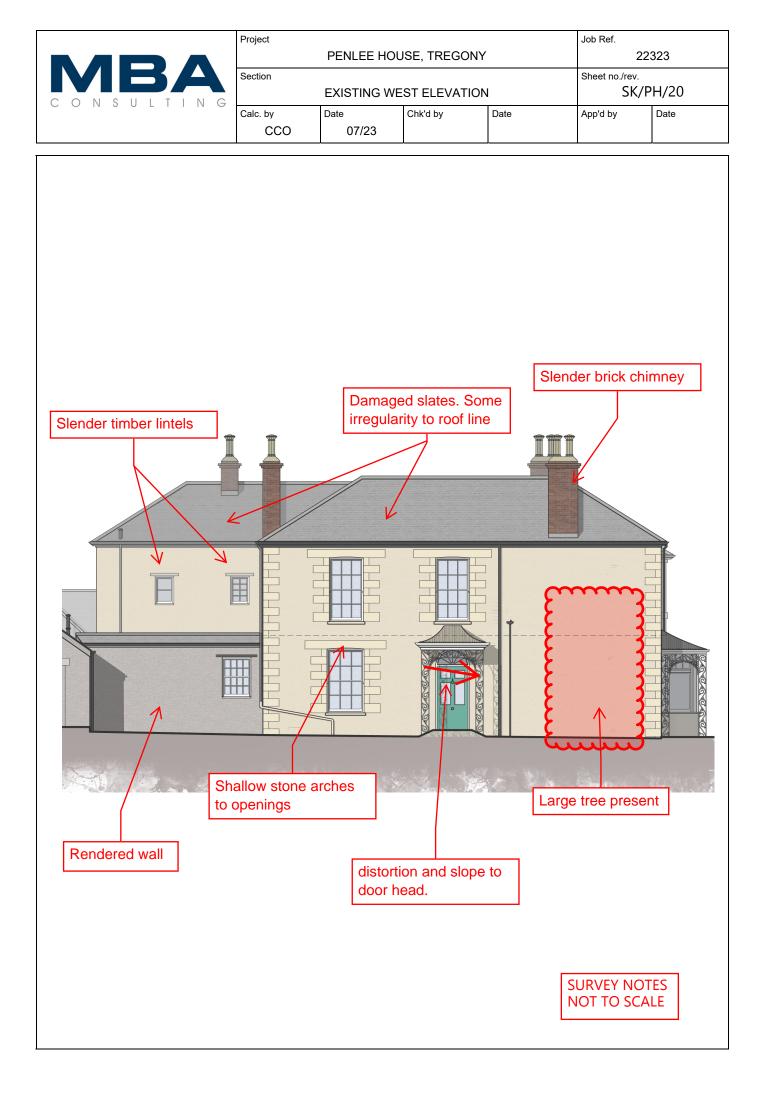


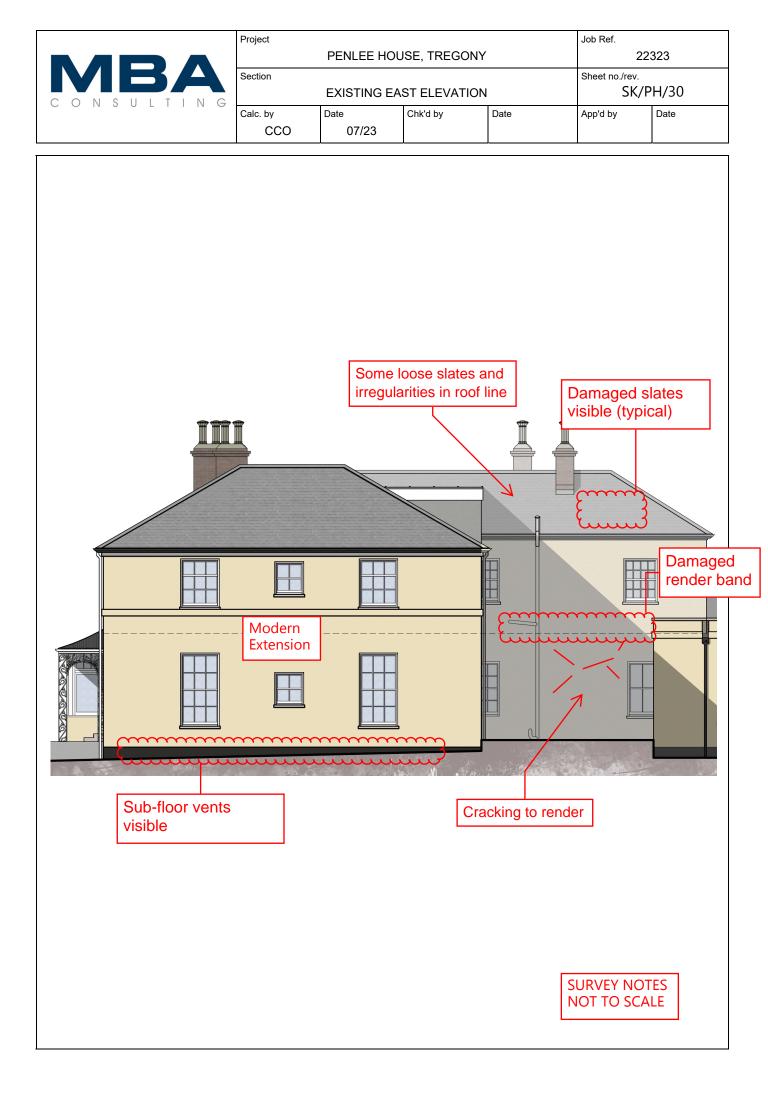
#### APPENDIX A

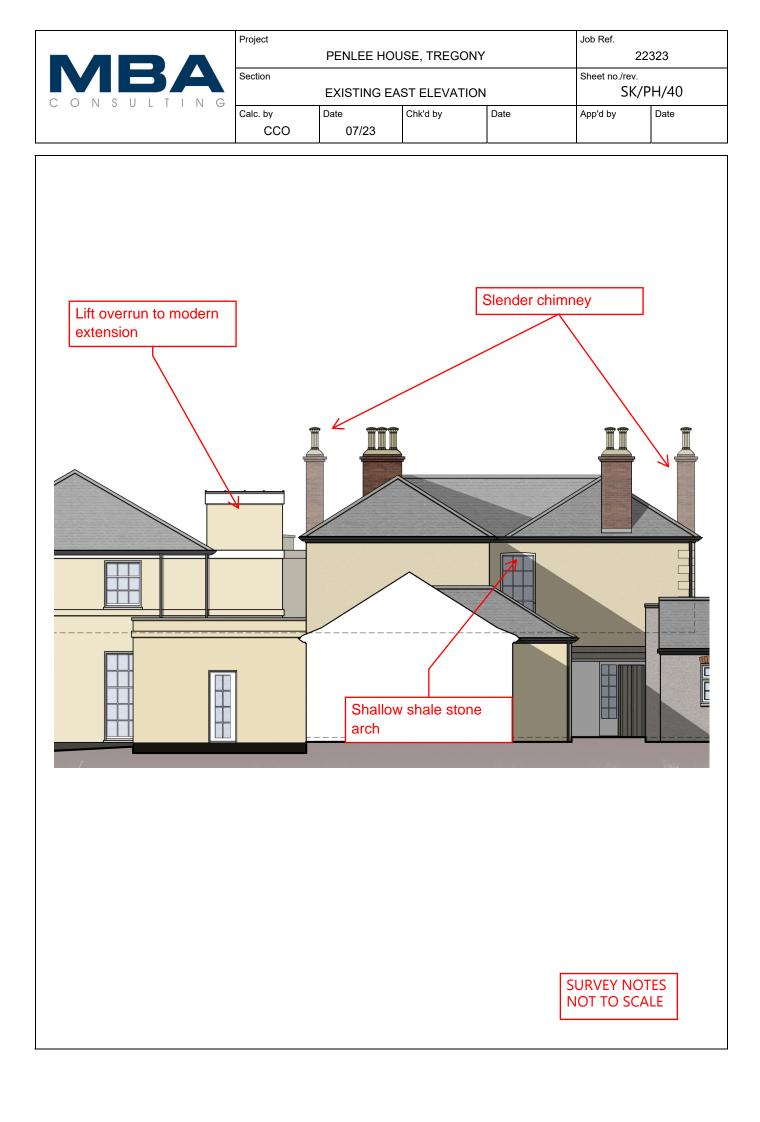
MBA Sketch Plans

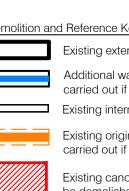


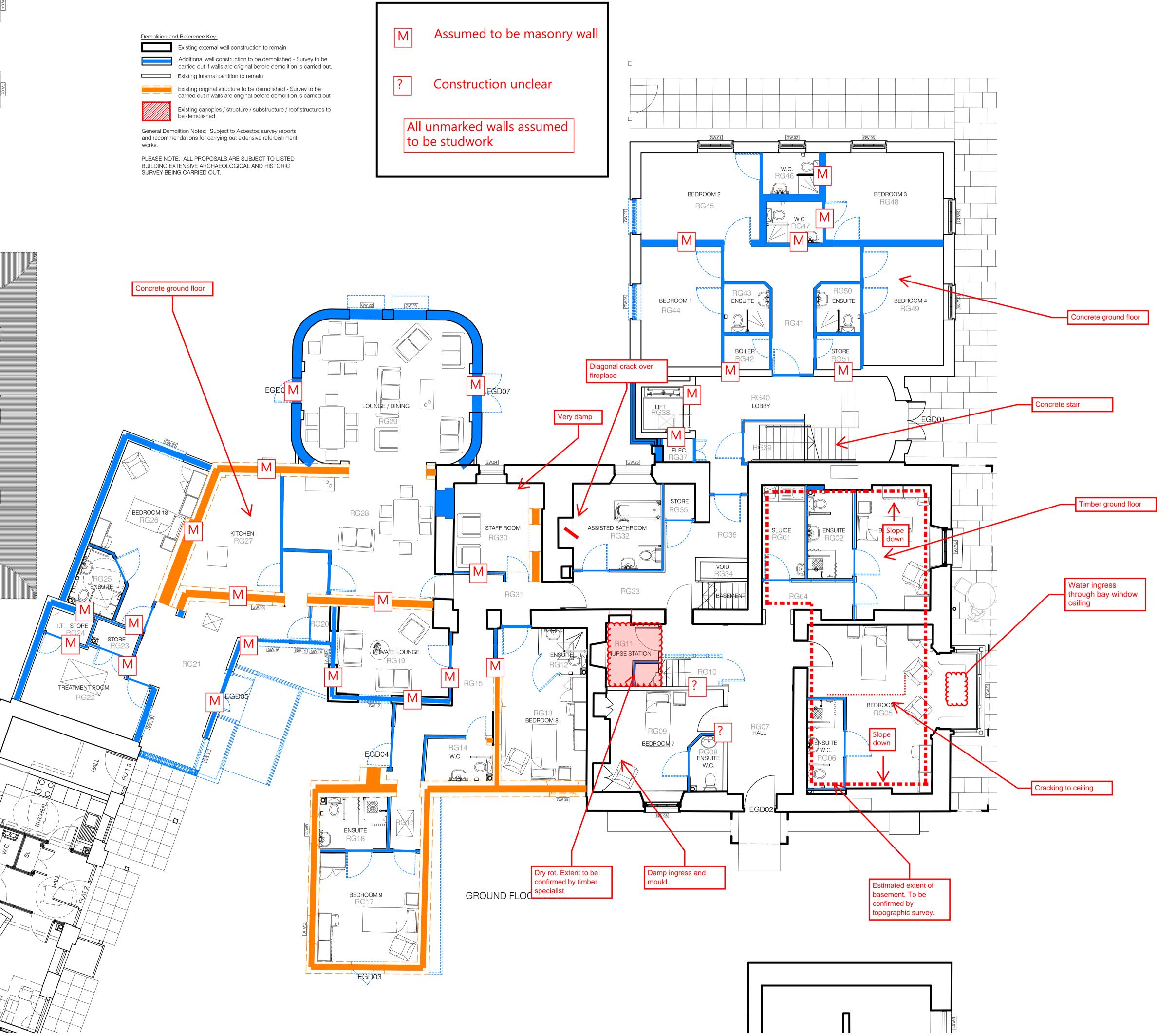














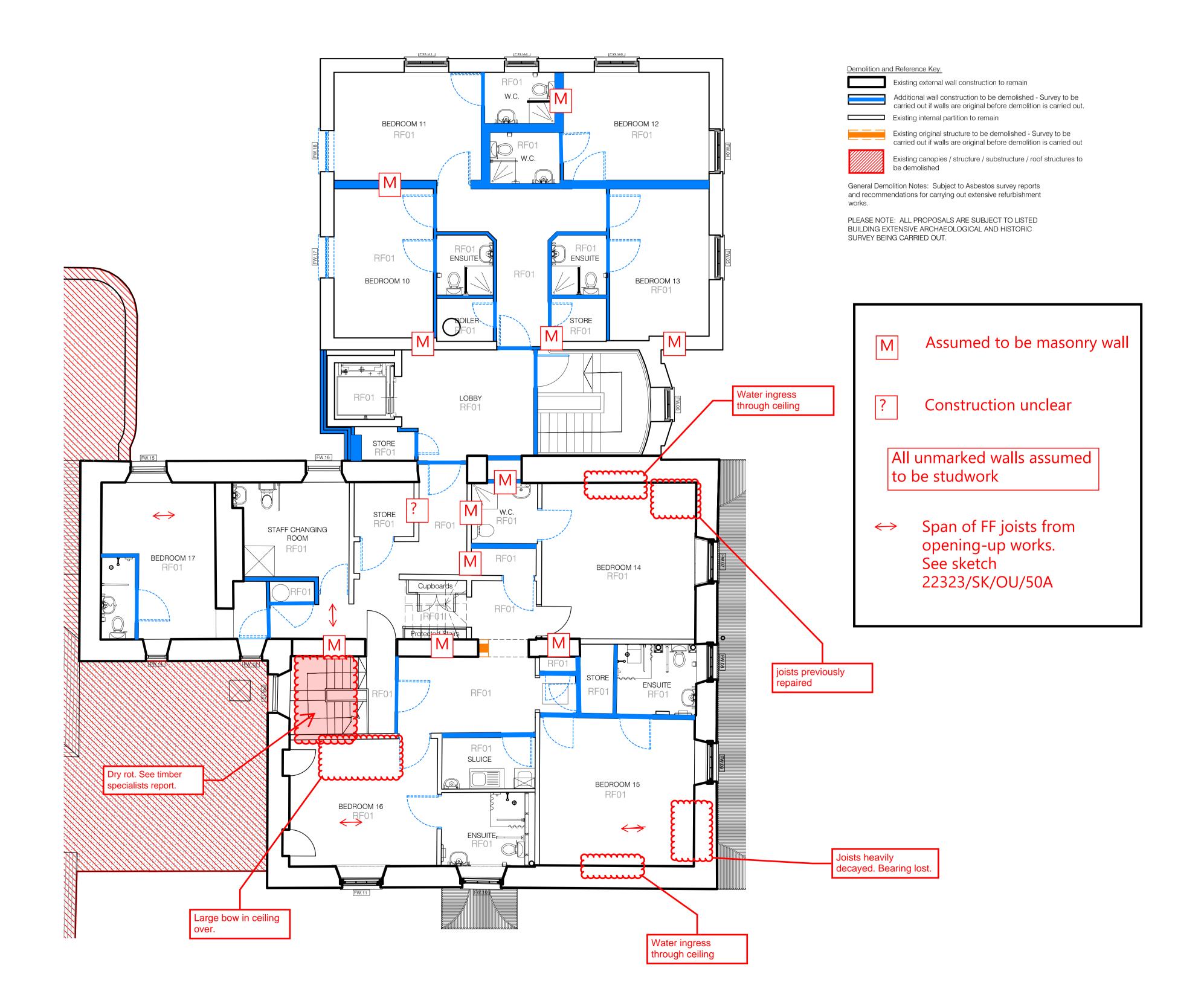
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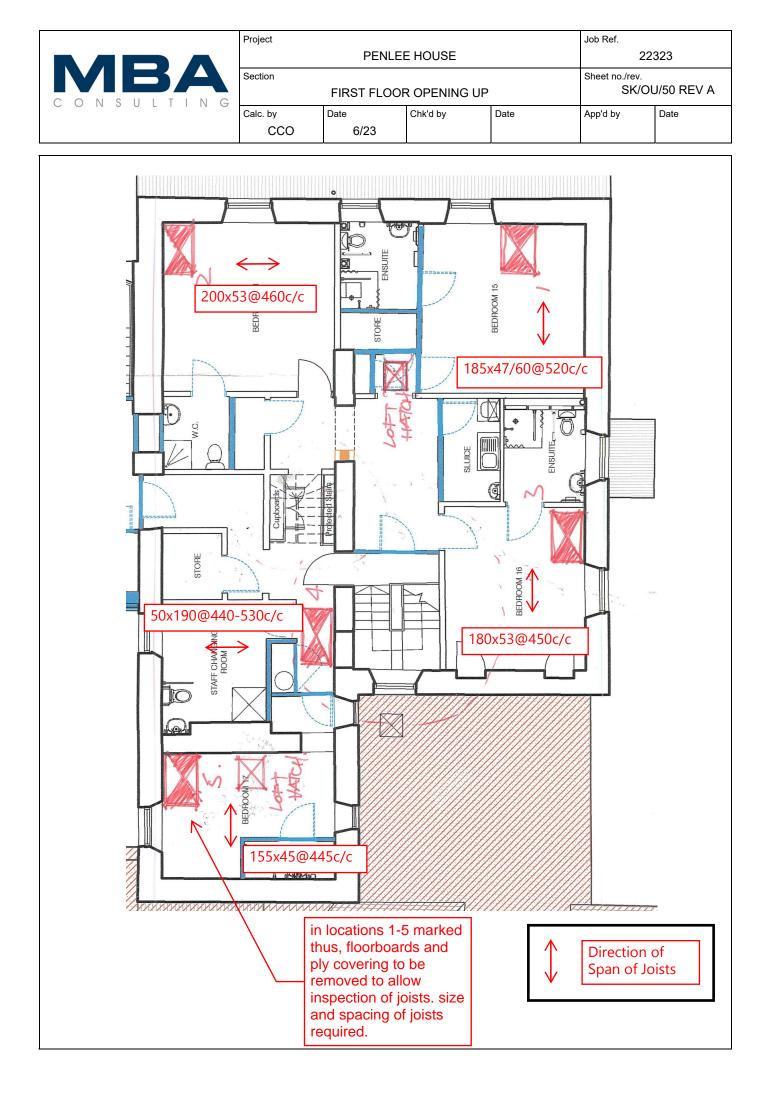
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DETAIL: FIRST FLOOR SURVEY NOTES				
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DATE: JULY '23 SCALE: NTS				
JO	в NO: 22	323 SK/60	<u>.</u> Р1	
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#### APPENDIX B

MBA Photographs





#### Fig 1 South elevation



Fig 2 North elevation





Fig 3 West elevation



Fig 4 East elevation (1 of 2)





Fig 5 East elevation (2 of 2)



Fig 6 Typical base of lattice column to canopy





Fig 7 Cracking to east elevation of original building



Fig 8 Sub-floor vents in modern extension.





Fig 9 Typical chimney

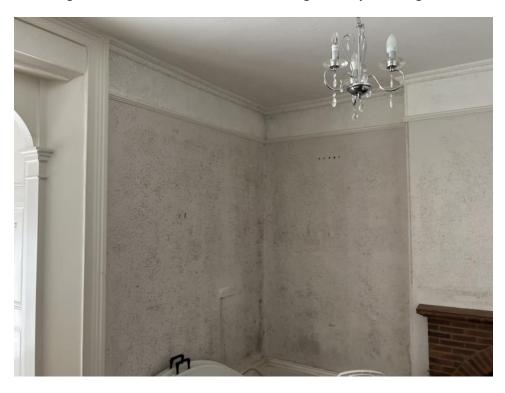


Fig 10 Distortion in doorway to west elevation.





Fig 11 External garden wall and intersection with single storey building to north of house.



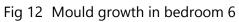






Fig 13 Dry rot under main staircase in original building.



Fig 14 Trimmed first floor joists in location 4





Fig 15 Typical roof structure



Fig 16 Previously repaired first floor joists.





Fig 17 Typical roof structure showing hip end.



Fig 18 Wood-boring beetle attack to truss member adjacent to roof hatch.





Fig 19 Excavation to underside of basement wall.



Fig 20 Ground floor joists exposed in basement.