5 Elm Row, Hampstead
Level 3Plus Condition Report

JANUS
Conservation Architecture,
Historic Building Surveys
& Heritage Consultancy

Ref: 0598

Level 3Plus Condition Report

5 Elm Row
Hampstead
London
NW3 1AA

Report Prepared for:

Mrs Isabelle Wyndham-Walsh

Written by:

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RICS & CIOB Conservation
Accredited Surveyor
MCIOB, MScCHE, BA(Hons)

&

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Historic Building Surveyor
MSc, BA(Hons)

19th May 2021

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Job No.	Location	Issue No.	Issue Date	Written	Proof	QA
0598	5 Elm Row, Hampstead	1	19.05.2021	OS/RH	RH	RH

Table of Contents

1 The Report

The Client:

1.1 Mrs Isabelle Wyndham-Walsh
Lower Flat
15 St Mark's Crescent
London
NW1 7TS

The Subject Building/Asset:

1.2 5 Elm Row
Hampstead
London
NW3 1AA

Instruction(s):

1.3 Level 3Plus condition report in line with the Janus Conservation domestic condition survey terms and conditions.

Date of Inspection:

1.4 The inspection was undertaken by Rupert Hilton RICS Conservation Accredited Professional, CIOB Conservation Certified Specialist, MCIOB, MScCHE, BA (Hons) and Oliver Sharpin MSc, BA(Hons) on 07th May 2021.

Weather:

1.5 Dry/Bright.

Adopted Approach:

1.6 The recommendations rely upon constructional methods of repair and intervention using materials compatible and consistent with the historic fabric, and, wherever possible, repair techniques that are reversible and that maximise the retention of the surviving historic fabric.

Limitations of the Inspection:

1.7 Condition survey has been undertaken from ground level and at high level with a UAV. It is non-destructive in nature.

1.8 This report is the initial assessment of the condition of the asset. Without further investigation and 'opening-up' of parts of the fabric, the full extent of the issues cannot be fully ascertained.

1.9 The age of the building suggests that asbestos may have been used in past phases of renovation. We do not, however, carry out an asbestos inspection or act as asbestos surveyors when inspecting properties that may fall within the Control of Asbestos Regulations 2012. Where possible asbestos containing materials (ACMs) are noticed, their locations will be identified.

Photographs:

1.10 All photographs taken during the inspection, which constitute an excellent record for your file, can be viewed and downloaded at the following link:

https://drive.google.com/drive/folders/1QpZ9Lcpos-8MXkoyz4YvGDXow4VJsssU?usp=sharing

Report Methodology:

1.11 The findings of the inspection have been elementally itemised, and each noted defect has been given a condition rating as described below:

Category	Description
A	Defects which are serious and need to be repaired, replaced, or investigated further urgently. There is a high possibility that these defects will lead to significant decay or failure of the fabric if they are not addressed immediately or pose a significant risk to health and safety.
B	Defects which require repairing or replacing but are not considered to be either serious or urgent. It is possible however that if these defects are not addressed within the next 12 months, they will deteriorate rapidly.
C	Items requiring attention within the next 3 - 5 years to prevent further decay.
D	Items requiring attention within the next 10 years to prevent further decay.
M	Matters of routine maintenance that do not require any further professional input or supervision.

2 Executive Summary

2.1 Structurally speaking the property is fundamentally in a good state of repair. The walls are generally plumb within acceptable tolerances, the foundations appear to be sound and although minor movement exists, it does not undermine the structure.

2.2 The tile and slate covered elements of the roof are in generally good state of repair, though the asphalt covered flat roofs are in declining health and will soon require recovering. There are also issues with lead flashing which should be addressed in conjunction with works to the roof.

2.3 It was not possible to inspect the roof structures and more invasive investigation would be required to ascertain their condition, though there is nothing to suggest that they are decayed.

2.4 The brickwork of the external walls are in a good overall condition but have for the most part been pointed in cement which can have a deleterious effect on the fabric. They would therefore greatly benefit from a full rake out and re-point.

2.5 The rainwater system is fairly haphazard, possibly undersized and includes elements in an inappropriate material which us unlikely to have achieved listed building consent.

2.6 It is important to understand that buildings such as this require constant upkeep and cyclical maintenance to ensure their long-term performance, which can be time consuming and expensive.

2.7 The ability to undertake this from both a financial and time/lifestyle perspective should therefore be carefully considered.

2.8 Going forward, the use of traditional materials such as lime mortars, plasters and renders is highly recommended. These are compatible with the existing fabric and the technology the building employs. Any deviation from this is likely to cause future repair issues and the premature degradation of the fabric.

2.9 It is always advisable to seek advice from an independent conservation professional if you are unsure and we are happy to discuss this with you.

3 General Information

4 Comment on Thermal Efficiency

4.1 As the building is listed, the production of an Energy Performance Certificate (EPC) is not a legal requirement. In its current condition however it would likely score quite badly due to draughty and single glazed windows, probable minimal insulation to the roof and what is highly likely to be an uninsulated ground floor**. You should be aware therefore, that it is likely to be cold in winter and difficult to heat.**

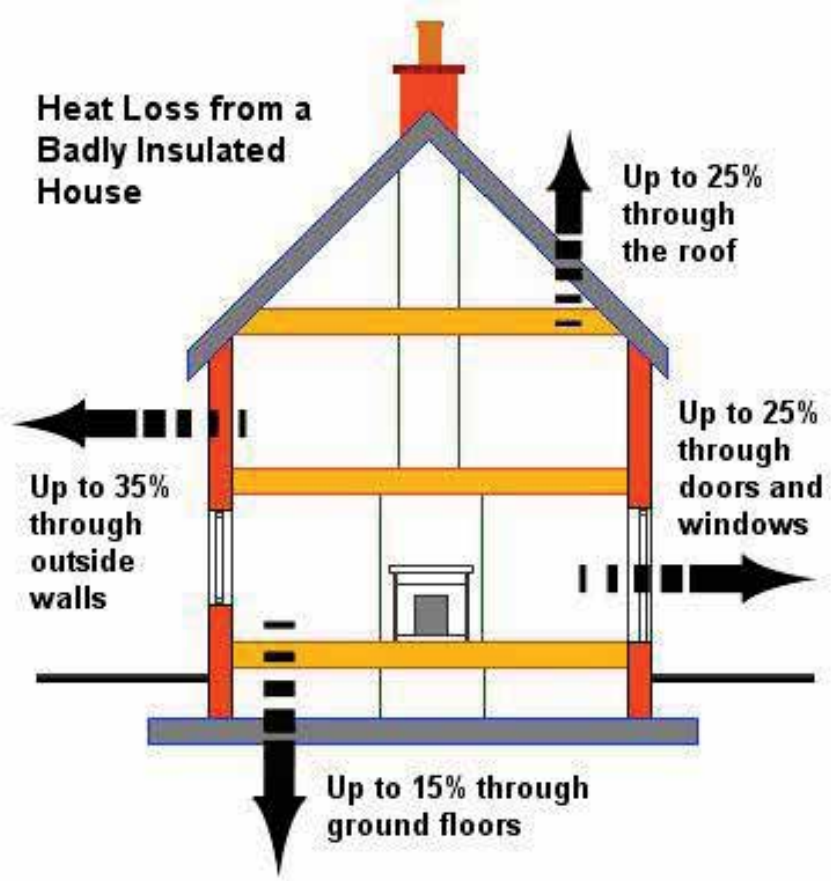


Diagram 1: Estimated Potential Heat Loss in Older Buildings

4.2 There is a significant opportunity and indeed an ever-increasing legal obligation to improve the building's thermal efficiency through a well-conceived scheme of repair and the possible retrofitting of insulation and other energy efficiency measures. Though, importantly, to prevent possible future issues such as damp and internal condensation, an informed and balanced 'whole building' approach is required.

4.3 Before major interventions are considered however, it is paramount that basic repair works are undertaken and an appropriate palette of materials is restored, which will allow the building to dry out naturally and function as intended on a technical level.

4.4 Much can be achieved by changing behaviour, avoiding waste, using energy efficient controls and equipment, and managing the building to its optimum performance.

4.5 See also Appendix F.

5 Environmental Conditions

Exposure to Wind Driven Rain

5.1 The property lies in an area of 'sheltered' exposure, meaning it is likely to receive less than 33 litres/m2 per spell of wind driven rain. The palette of materials utilised, and level of detailing installed - including, importantly, any possible retrofitting of insulation- should be designed to meet these requirements.

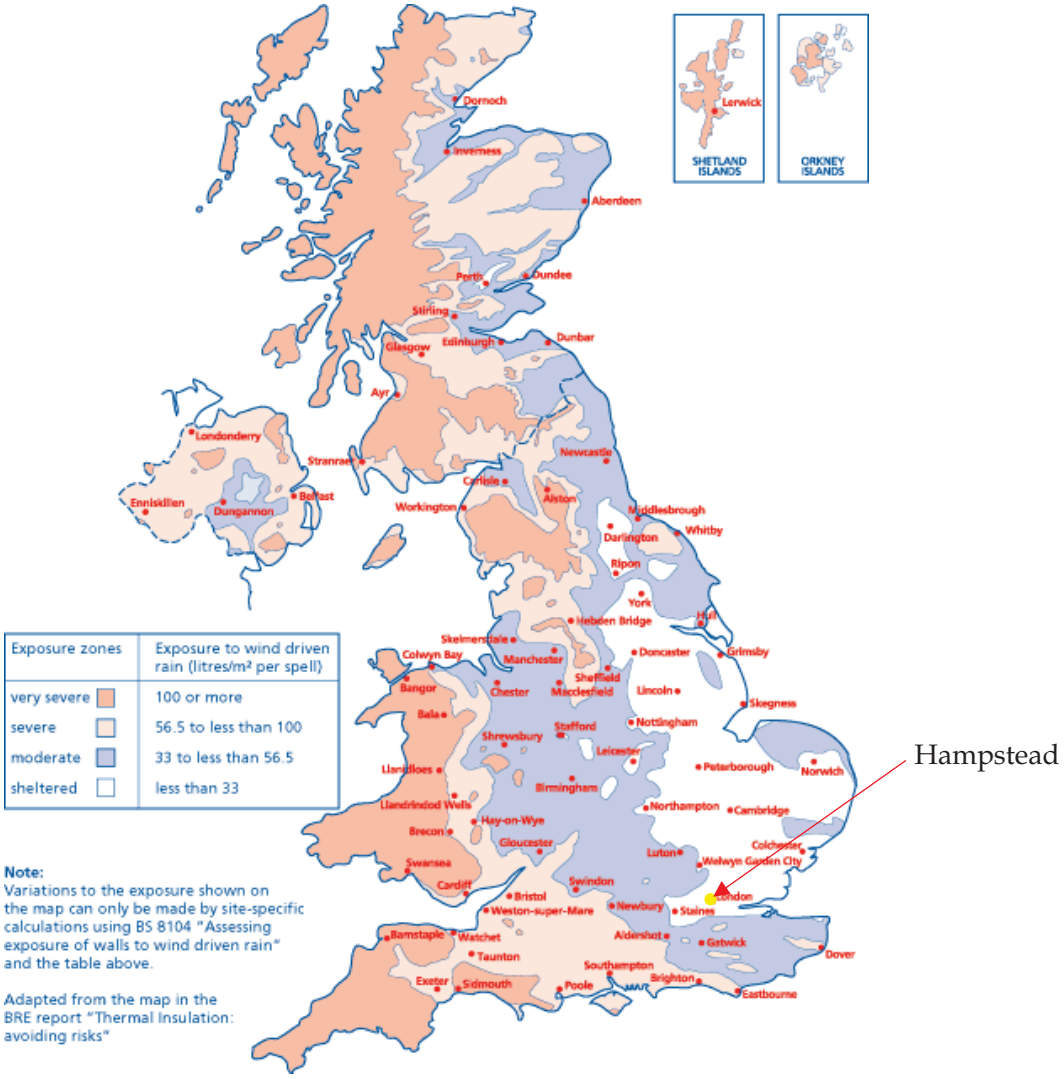


Diagram 2: Map Showing Categories of Wind Driven Rain
Taken from the National House Building Council Standards 2010

Risk of Severe Frost Attack

5.2 Hampstead does not fall within an area in which the three criteria for severe exposure to frost attack are met.

5.3 You should be aware going forward that the environmental conditions should be considered when specifying materials for future interventions, and especially if any retrofitting of insulation or thermal upgrades are proposed.

Radon Gas

5.4 The property is in an area of 'very low' radon, with there being less than 1% chance (or more) of the house having a radon concentration at or above the Action Level of 200 Bq m-3.

Note: Information taken from Public Health England:
https://www.ukradon.org/information/ukmaps

6 Statutory Protection

6.1 5 Elm Row is **grade II listed**. This is the lowest category of protection meaning that the building is of 'special interest'. 91.7% of all listed buildings are in this class.

- 5 Elm Row - List Entry: 1078278 - See Appendix A
- Date of Listing: **11th August 1950**.

6.2 The listing means that there will be extra control over what changes can be made to a building's interior and exterior. Owners will need to apply for Listed Building Consent for most types of work that affect the 'special architectural or historic interest' of their property.

6.3 To define what constitutes the 'special architectural or historic interest' (sometimes defined as 'cultural significance' or 'heritage value'), we would need to produce a Heritage Statement, which includes an above ground archaeological assessment of the asset along with analysis of historic maps and archival data both locally and nationally.

6.4 You should be aware that:

- A listing is not a preservation order preventing change. In fact, the only reason many of these buildings have survived is because they have been able to adapt to social and economic changes.

- Listed status does not freeze a building in time, it simply means that listed building consent must be applied for in order to make any changes to that building which might affect its special interest.

6.5 The property also forms part of the Hampstead Conservation Area meaning there are extra planning controls and considerations in place to protect the historic and architectural elements that make the place special. The restrictions relating to this however will generally be superseded by the building's listed status. See Appendix A - Conservation Area Map.

Condition Report

7 Roof Coverings

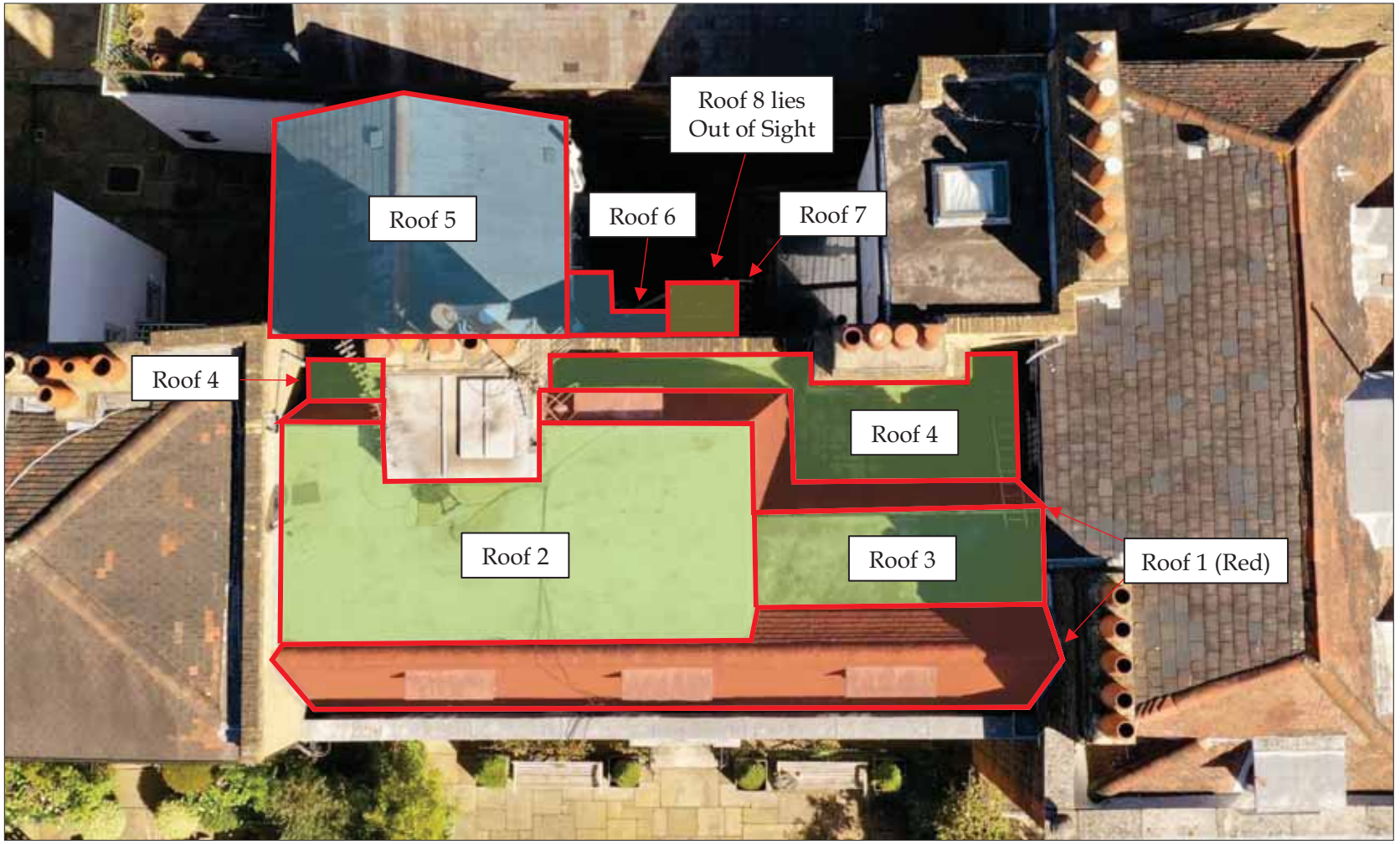


Image 1: Roof Covering Locations.

Element: Roof Coverings – Roof 1 – Machine-made Plain Clay Tiles	**Category:** B

Defect or Significant Observations:

7.1 Roof 1 comprises the front and back pitches of the mansard roof and is covered with machine-made plain clay tiles. Generally speaking, it is in a good condition and is performing its basic task of shedding rainwater.

7.2 The roof structure and underside of the roof covering, which often holds clues as to the age of a roof, was inaccessible, however, the tiles are exhibiting no evidence of spalling or broken tiles indicating that they are unlikely to be of great age.

7.3 Though several slipped tiles exist, this is within expected tolerances, especially on a roof with a near vertical pitch, happily though, as you would expect from a (likely) relatively recently laid covering, there is no evidence of widespread slipping or missing tiles which would indicate nail fatigue - which is where the metal fixings holding the tiles to the battens corrode and fail – and is essentially terminal.

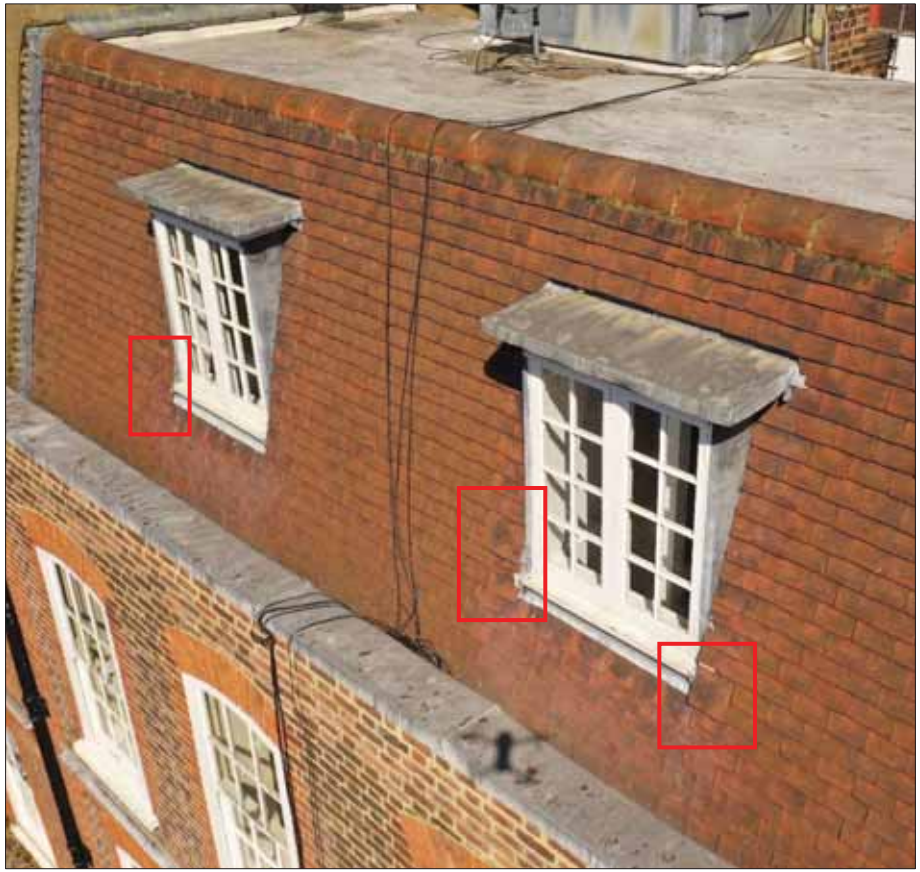
7.4 Clay ridge tiles to the front of the building are well affixed to the roof and are also in good condition.

Recommendations:

7.5 Undertake maintenance where tiles have slipped to the front pitch.

7.6 See also Weather Flashings & Abutments.

Images:



Images 2 & 3: Roof 1 – Front Pitch Showing Handful of Slipped Tiles.

Image 4 -5: Rear Pitches of Roof 1 In Generally Good Condition.

Element: Roof Coverings – Roofs 2 & 3 – Poured Mastic Asphalt	**Category:** B/D

Defect or Significant Observations:

7.7 Roofs 2 & 3 are flat roofs atop the mansard roof structure. Generally speaking, they appear to be performing their principal task of shedding water and there is no evidence that they are allowing water ingress. They are very slightly angled so as to drain towards the rear of the property.

7.8 However, from a condition perspective, evidence of previous repairs and of blistering, rippling and cracking (often called aligatoring) – both of which are common indicators of old age – suggest that the coverings are likely to far closer to the end of their serviceable lives than the beginning.

7.9 The surface of Roof 2 also appears to have been punctured by something, leaving a number of square shaped holes in the surface.

7.10 Solar reflective paint coverings look tired and are unlikely to have been renewed/maintained within the past 5 years, as is recommended. The paint is intended to slow decay of the roof surface caused by direct sunlight and the absorption of ultraviolet light.

Recommendations:

7.11 In the short term – and to provide confidence -the roof would benefit from a scheme of repair/maintenance by a roofer which may also include patching the square shaped holes, and closer inspection of the cracking and crazing, which can be relatively easily achieved using a range proprietary products.

7.12 The roof should also be decorated using a solar reflective paint.

7.13 Whilst repair is possible, you should be aware that this element of the roof is showing signs of advanced age and regardless of repair is likely to require full replacement in the next 7 – 10 years. Investing in the repair – along with the scaffolding required for access – may therefore represent a false economy depending on your perspective and intentions for the property.

Images:

Images 6 & 7: Rippling/Cracking to Roofs 2 & 3, Respectively.

Image 8: Series of Square Puncture Holes to Roof 2.

Element: Roof Coverings – Roof 4 – Poured Mastic Asphalt	**Category:** C

Defect or Significant Observations:

7.14 Roof 4 is a section of flat roof at the rear of the property. It too, seems to be covered with poured mastic asphalt, though this is largely obscured by the presence of non-slip tiles as Roof 4 also serves as an access route to the rest of the high-level roofs.

7.15 A downpipe serving a large catchment area discharges directly onto Roof 4, meaning it also essentially forms a large parapet gutter. This may prove to be a point of weakness going forward but there is no evidence currently of water ingress and areas not covered with tiles seem to be in generally good condition. See also Rainwater Goods.

7.16 A corresponding section of Roof 4/parapet gutter exists to the west side of Stack 1 but was inaccessible.

Recommendations:

7.17 Further, more invasive investigations would be required to accurately ascertain the remaining lifespan of the asphalt beneath the tiles of Roof 4.

7.18 However, as the other asphalt flat roofs will soon require replacement, and with the economies of scale, it may be prudent to be proactive and recover Roof 4 at the same time.

Images:

Image 9: Roof 4 Covered with Non-slip Tiles.

Images 10 & 11: Flat Roof 4 to the West & East, Respectively.

Element: Roof Coverings – Roofs 5 & 6 – Natural Slate	**Category:** D

Defect or Significant Observations:

7.19 Roofs 5 & 6 are covered with natural slate. Both are in generally good condition with no evidence of broken slates and only a single slipped slate, which has been previously repaired with a lead tingle, to Roof 6.

7.20 Roof timbers were not accessible, but happily the roof structure of Roof 5 is presumably well ventilated as it has been fitted with proprietary vent slates and there was no visual evidence of structural defect to either Roof 5 or 6.

Recommendations:

7.21 No specific works currently required.

Images:

Images 12 & 13: East & West Pitches of Roof 5, Respectively.

Image 14: Slate Covering of Roof 6 with Single Previous Lead Tingle Repair.

Element: Roof Coverings – Roofs 7 & 8 – Lead	**Category:** D

Defect or Significant Observations:

7.22 Roofs 7 & 8 are covered with sheet lead. The surface of both is largely obscured by dirt and algal growth, however where the patina is visible, it suggests that these coverings are of some age. This is corroborated by evidence of a previous repair to Roof 7.

7.23 Despite this, there is no evidence of associated water ingress internally.

Recommendations:

7.24 No works currently required; however, you should be aware that these coverings are likely to require some repair/maintenance within the next 10 – 15 years.

7.25 Any new leadwork should be executed in accordance with the codes and details as set out by the Lead Sheet Training Academy. https://leadsheet.co.uk/service/rolled-lead-sheet-the-complete-manual/

Images:

Images 15 & 16: Lead Roofs 7 & 8, Respectively.

8 Weather Flashings & Abutments

Element: Weather Flashings – Lead Flashings & Abutments	**Category:** C

Defect or Significant Observations:

8.1 Based on condition and observed level of patina, leadwork appears to differ in age which is indicative of a piecemeal approach to maintenance which is quite common and is generally an economically led decision. However, there was no evidence internally of water ingress attributable to failed flashings and abutments.

8.2 Lead flashings associated with the flat top of the mansard roof as well as the party wall to the east appear to be of significant age, whereas other areas of leadwork is in a better overall condition.

8.3 For example, the surface patina to leadwork associated with the west party wall, Roof 5, and Roof 6 suggests that the lead is no more than around 30 years old. For reference, the life expectancy of lead roofing material in the UK is around 80 – 100 years.

8.4 However, the detailing is often fairly clumsy and is beginning to show its age in places. A number of clips have also become loose.

Recommendations:

8.5 The leadwork would benefit at this juncture from some routine maintenance from a lead worker. Clips should be returned to their former positions and any loose detailing re-bossed.

8.6 It would be prudent to replace the older leadwork to the top of the mansard at the same time as its recovering. See Roof Coverings.

8.7 For information, all new leadwork should follow the codes and details as set out by the Lead Sheet Training Academy.

8.8 See also Lead Roofs above.

Images:

Images 17 & 18: Example Areas of Older Leadwork to the East Party Wall & Top of the Mansard, Note the Newer Leadwork to Stack 1 Adjacent.

Images 19 & 20: Newer Leadwork Elements to the West Party Wall & Roof 5.

9 Roof Structure & Voids

Element: Timber Roof Structure	**Category:** -

Defect or Significant Observations:

9.1 There was no access to any of the roof structures, so inspection was not possible. There was however no visual evidence or telltale signs of widespread decay or structural issues pertaining to the same.

9.2 Insulation type and the makeup of the mansard roof conversion generally would require further investigation to ascertain with any certainty. However, its age and construction type suggests that it would be poor in relation to modern standards, and it is highly likely that a significant improvement of the thermal efficiency of this element could be realised.

Recommendations:

9.3 No specific works currently required.

9.4 Further, more invasive investigation would be required to definitively ascertain the condition of inaccessible timbers, which may require the removal of part of the ceiling. Though as there is not currently any evidence of defect this is not strictly necessary.

10 Chimney Stacks

Image 21: Chimney Stacks Location

Element: Stacks 1 & 2 - Brick	**Category:** D

Defect or Significant Observation:

10.1 Stacks 1 & 2 are both in a good overall condition with no evidence of significant lean or structural deficiency. They have, however, been repointed to a greater or lesser extent in a cementitious mortar (see Masonry & Mortar), which has resulted in spalling of the brickwork in some instances, though this is not yet severe.

10.2 The flaunching to both stacks - which performs an important role of holding the pots in place - is cracked, particularly to Stack 1.

10.3 The pots themselves are in good condition. The vast majority are fitted with cowls (to prevent water ingress), although one pot to each of the stacks has been left open to the elements.

Recommendations:

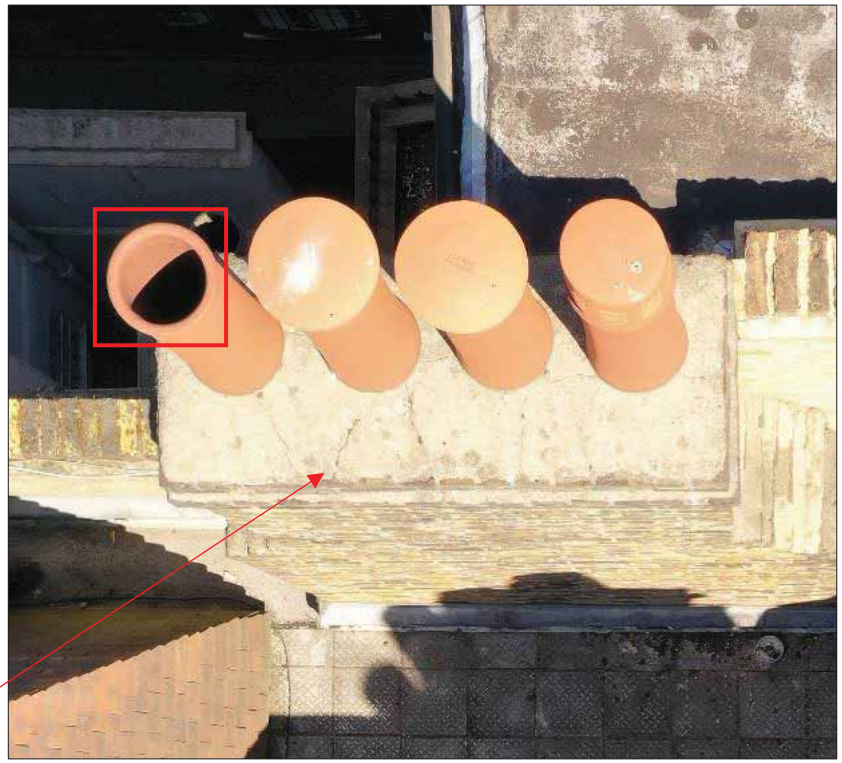
10.4 Both stacks would greatly benefit from a full rake out and repoint in an appropriately specified lime mortar, as part of an overarching scheme of masonry works. Any badly spalled bricks should be replaced with new (not salved) bricks, to match the technical and aesthetic characteristics of the originals as closely as possible.

10.5 Although the flaunching is far worse to Stack 1 than to Stack 2, it would be prudent to have the flaunching of both renewed to ensure confidence in the stability of all pots.

10.6 Consideration should also be given to installing clay cowls to the two pots where they are currently absent.

Images:

Images 22 & 23: Stacks 1 & 2, Respectively. Note the Spalling Brickwork.



Images 24 & 25: Showing Cracking to Flaunching & Two Pots Without Cowls.

11 Rainwater Goods

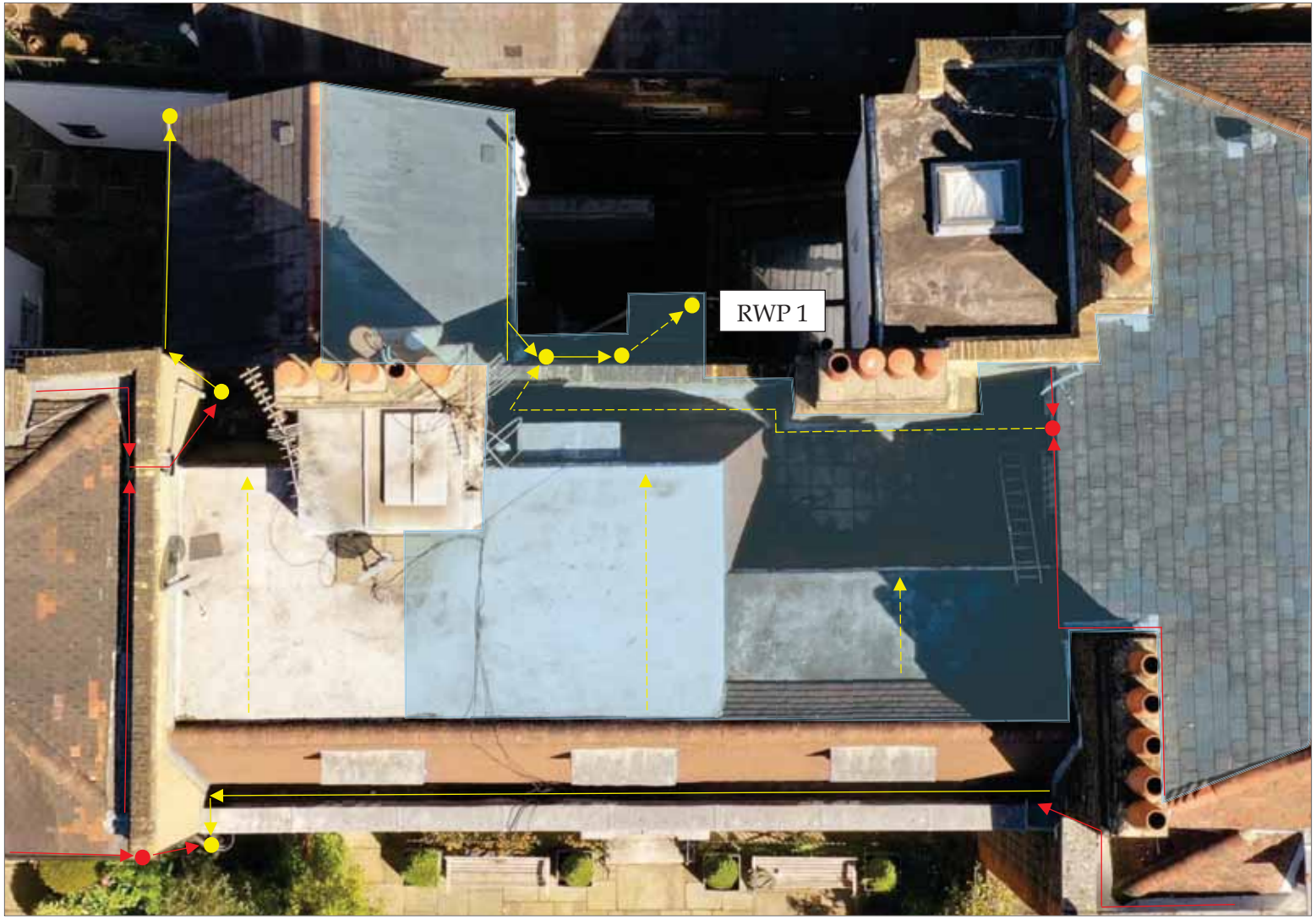


Image 26: Rainwater Goods (RWG) System. Note Very Large Catchment Area (Blue) Served by RWP 1.
Parts of the System in Red Show Where Systems of the Neighbouring Properties Flow into the System of 5 Elm Row.

Element: Rainwater Goods – Cast Iron, PVCu & Lead	**Category:** B/C

Defect or Significant Observation:

11.1 The above ground rainwater system is a combination of materials and is fairly chaotic due to the growth of the building over the years. You should be aware that the rainwater system of 5 Elm Row seems also to be responsible for a large amount of rainwater from each of its neighbours – see above. The majority of the rainwater system drains to the rear of the building and is principally PVCu, although some cast iron elements also exist.

11.2 You should be aware that the use of PVCu rainwater goods generally isn't permitted on listed buildings and it is unlikely to have gained listed building consent. Though it is relatively low risk, you should be aware that the liability for any works undertaken without consent is passed on with the ownership of the property. See also Statutory Consents.

11.3 The system as a whole is haphazard in its design with several instances of poorly conceived detailing, which could easily give rise to blockages and failure. Evidence internally of water ingress, indicates that the single lead rainwater pipe to the front of the building has been damaged or blocked approximately half way down its length, however, this area is now dry. It is also clearly blocked at parapet gutter level, which if not addressed, makes the chances of future ingress practically a certainty.

11.4 There are also concerns that some of the downpipes may be undersized. Rainwater pipe (RWP) 1 in particular, is serving a very large catchment area highlighted in blue above.

Recommendations:

11.5 Ascertain ownership and responsibility of the rainwater goods.

11.6 To provide absolute long-term confidence, the system would require full rationalization, and consideration should be given to increasing the diameter of the downpipe at the rear of the building to cater for predicted future weather events.

11.7 Should the above not be feasible, we highly recommend that all gutters, downpipes, and grates are cleaned out (jetted) on entering the property – the importance of this cannot be overstated.

11.8 Rub down, mend and redecorate where necessary the cast iron and lead elements of the rainwater system.

Images:

Images 27 & 28: Example Areas Where Rainwater from Neighbouring Properties Flows into the System of 5 Elm Row.

Images 29 – 31: Lead Downpipe to Front Elevation, Corresponding Water Damage Internally & Blockage at its Head.

12 External Walls/Envelope

Element: External Walls – Structural Stability, Masonry & Mortar.	**Category:** C

Defect or Significant Observation:

12.1 Generally speaking, the property is in relatively good structural repair, with no evidence of significant deficiency or imminent collapse.

12.2 Cracking was seen around one of the windows to the front of the property. This is a relatively common defect likely to be caused by a lack of compressive strength in these areas and is not a major cause for concern.

12.3 It was however apparent that the brickwork has been repointed, probably relatively recently, in a cementitious mortar, which is generally regarded as being inappropriate for use on historic solid walled structures and can lead to the degradation of the masonry through 'spalling'- though happily the brickwork itself is still in generally good condition and the number of spalled/damaged bricks is still very small. Most examples can be found to the Chimneys.

12.4 You should be aware that buildings such as this, which are solid and therefore do not have a cavity, act like a sponge, and absorb water during periods of precipitation and rely on their wide cross-sectional thickness to prevent the water from coming through the internal face. When the rain stops, they go through a drying process aided by the sun and wind, where the retained moisture is evaporated back into the environment (See Appendix B & Appendix C).

12.5 Traditionally this drying out process occurs mainly through the mortar joints, and mortars were specified to be more absorbent and porous with higher capillarity than the surrounding masonry. The mortar therefore is constantly working to protect the masonry and essentially sucks the water out of the bricks, which then evaporates in the atmosphere. This is the basic concept of the breathing building which you may have heard about.

12.6 In modern times, however, builders have adopted the use of cement or until very recently Naturally Hydraulic Lime (NHL), both of which – in many situations – can be considered inappropriate for the use of historic buildings. Cement is a one size fits all material which can be used by anyone in any circumstance and should be avoided. However, you should also be aware that there is a spectrum of lime mortars with different characteristics. The skill of the specifier – which would have been second nature to the masons of the past but has now generally been lost – is to choose the correct mortar for the building in question. This takes account of substrate type, aspect, environment/exposure etc.

12.7 When the incorrect mortar is specified – one that is denser and less porous and absorbent than the surrounding masonry - it effectively blocks up the joints, which act like the pores of a building, and prevents moisture from escaping through them. For trapped moisture, the path of least resistance is then through the face of the masonry itself. In certain conditions, this leads to 'spalling'.

12.8 As the masonry under these conditions is also permanently damp, the high moisture content can precipitate rot and wood boring insect infestation within timber in contact with the walls, such as joist ends and lintels, along with internal damp and decreases the building's thermal mass making it more difficult to heat. Indeed, research shows that wet walls are up to 40% less thermally efficient than dry walls.

Recommendations:

12.9 Though the level of spalling is by no means severe, due to the other concerns surrounding wet masonry the building would benefit from the removal/repair of any spalled bricks and the careful raking out of cement mortar and replacement with an appropriately specified lime mortar. The lime mortar should be 'sacrificial', being softer and more permeable than the masonry around it meaning that it should fail before the masonry fails, extending the life of the brickwork.

12.10 Where localized structural movement exists, it is recommended in the first instance that the cracks are filled with in a lime mortar and monitored to ascertain if the movement is current – which seems unlikely. Should current movement exist the cracks can be stabilized with the introduction of stepped stainless steel bed joints reinforcement.

Images:

Images 32 & 33: Cracking to One of the Window Openings of the Front Elevation.

Image 34: Brickwork of the Front Elevation, Relatively Recently Repointed in Cementitious Mortar.

Element: External Walls – Render	**Category:** C

Defect or Significant Observation:

12.11 The western party wall at high level and the internal faces of the parapet walls have been coated in, what is likely to be, a cementitious render.

12.12 Cement based materials, or incorrectly specified limes, have a low modulus elasticity and therefore cannot flex and bend to accommodate the natural movement of old structures. This is turn inevitably leads them to crack, which presents a direct path for rainwater to penetrate behind the render layer, which, due to the low permeability coefficient of the material traps it in the substrate, leading to permanently damp conditions.

12.13 In the worst cases, these permanently damp conditions can precipitate rot and wood boring insect infestation in any timber elements in contact with the walls, such as the joust ends associated with the mansard roof. Although these timbers could not be visibly inspected, there was no indication that they are decayed at this juncture.

Recommendations:

12.14 The cementitious render poses a risk to the fabric due to its ability to trap moisture, therefore, building would therefore benefit from its removal as part of an overarching scheme of masonry works.

12.15 You should be aware that the decision to render in the first place may have been because the brickwork was in poor condition. However, due to the strength of bond between cement and masonry, removing the render may cause damage to the brick faces, leaving no option but to re-render in an appropriately specified lime.

12.16 The reapplication of a render should therefore form part of your project budgeting.

Images:

Images 35 & 36: Cracking Render to Western Party Wall at High Level.

13 External Ground Levels

Element: External Ground Levels & Damp	**Category:** C

Defect or Significant Observation:

13.1 When considering ground levels and damp, to the lower ground floor, it should be remembered that it was never designed to be a habitable space in the same terms as it is now, being purely the domain of staff or storage etc.

13.2 That said, where tested with the masonry moisture meter, the moisture content of the masonry at lower ground floor level was acceptable – generally between 34 and 41. For reference, around 40 on a scale of 200 is considered normal and anything below this is good.

13.3 Along the front elevation, a series of holes in the masonry indicate that Doulton Tubes have been installed. These ceramic tubes were installed most commonly between the 1930s and 1970s to draw moisture away from the surrounding masonry. However, as in this case, they are usually surrounded by cement, which renders them useless.

13.4 To the north west corner of the floor above (ground floor), the external ground levels, forming part of the neighbours back yard, are very high. This has resulted in only slightly elevated moisture contents and no damage to internal finishes, but it should be born in mind that this is a potential area of weakness going forward.

Recommendations:

13.5 No works currently required, but the area beneath the north west ground floor window should be monitored for damp.

Images:

Images 37 - 39: Range of Acceptable Masonry Moisture Meter Readings to the Lower Ground Floor.

Image 40: Doulton Tubes to the Front Elevation.

Images 41 & 42: High External Ground Levels to North West Corner of the House & Corresponding Elevated Masonry Moisture Reading.

14 Floors

Element: Internal Floors – Ground Floor - Solid Floor	**Category:** C

Defect or Significant Observation:

14.1 The lower ground floor is solid throughout and is covered largely in a modern floor tile. It is difficult to say for certain without undertaking further, more intrusive investigation what the makeup of the floor is – it could, for instance, be that the floor consists of a relatively modern concrete slab, alternatively the tiles may be laid over the original flag stones.

14.2 Certain types of solid floor can cause damp issues in historic buildings, as ground water and vapour is unable to migrate through the floor surface and so is forced up the walls due to hydrostatic pressure – there seems to be only one small area of this beside the fridge. There is also evidence that moisture trapped beneath the floor is resulting in elevated moisture contents to the timbers at the base of the staircase, putting them at risk from decay mechanisms.

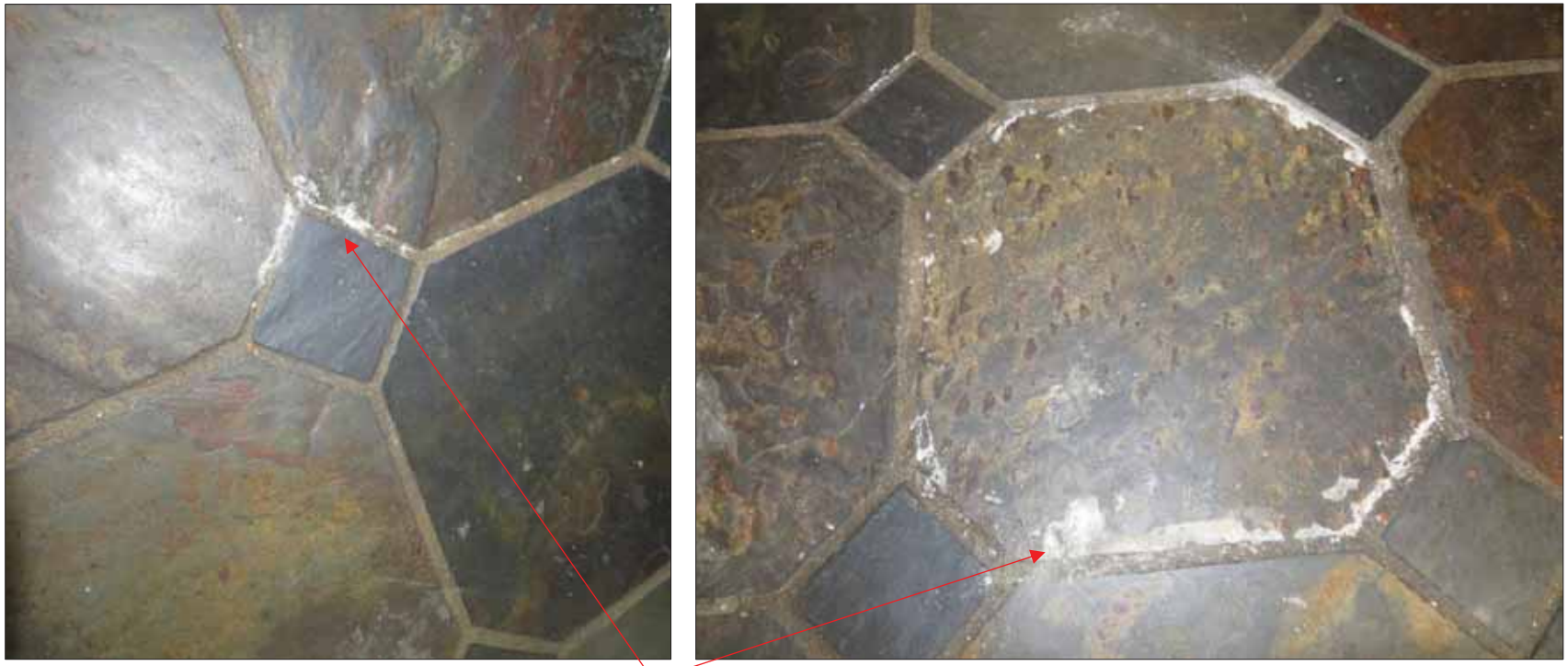
14.3 Interestingly, there is also evidence of efflorescence – the movement of naturally occurring salts) around a number of the floor tiles which indicates a high moisture content.

Recommendations:

14.4 Further investigation would be required to definitively ascertain the makeup of the solid floor.

14.5 Consideration should be given to its removal of impermeable materials and the installation of an insulated vapour permeable flooring system which can also incorporate underfloor heating.

Images:



Images 43 & 44: Evidence of Efflorescence (Salts), Around Floor Tiles at Lower Ground Floor Level.

Image 45: Elevated Moisture Contents to the Timbers at the Base of the Staircase.

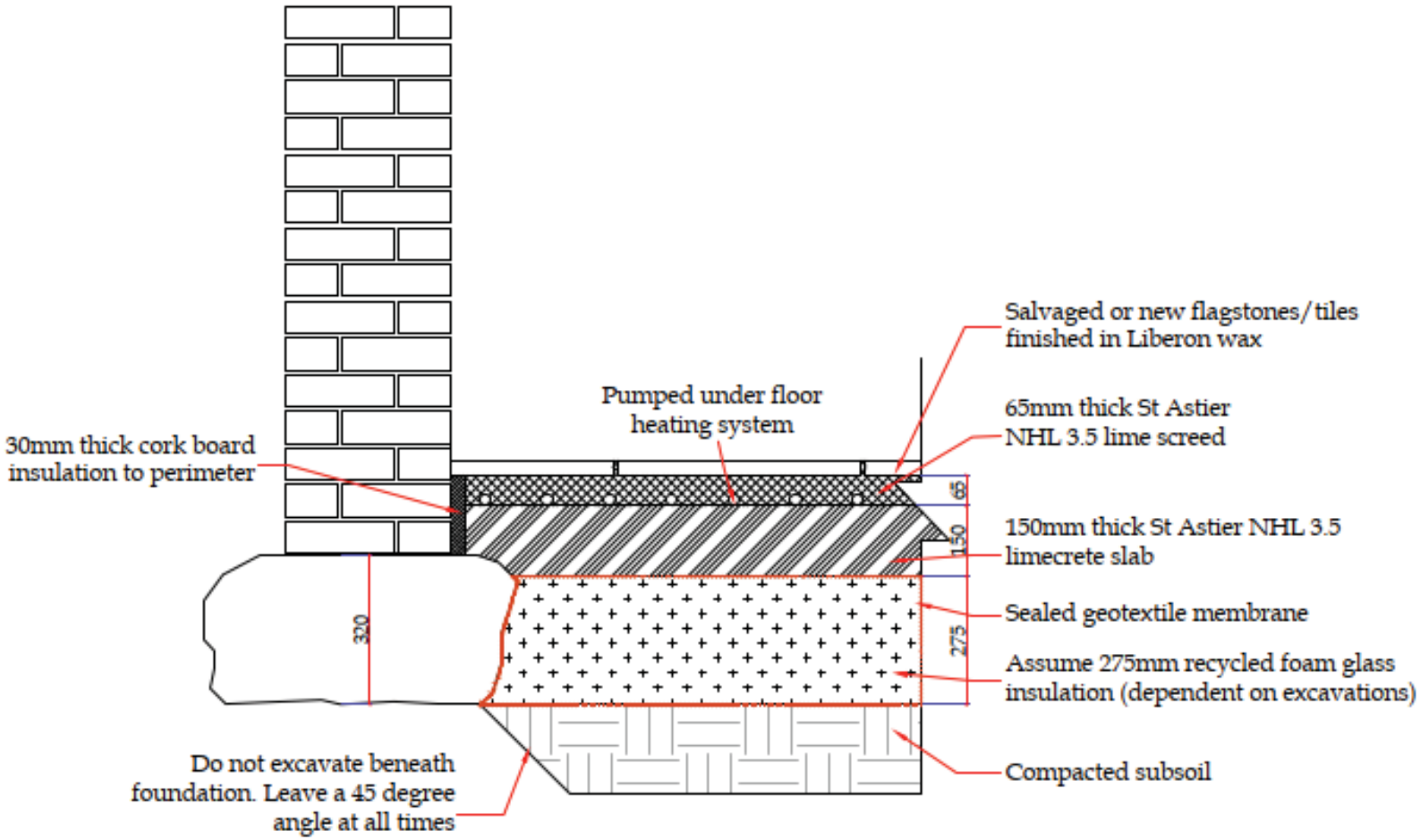


Diagram 3: Typical 'Breathable' Limecrete Floor Detail with Underfloor Heating

Element: Internal – Upper Floors – Suspended Timber	**Category:** M

Defect or Significant Observation:

14.6 The other floors of the property are suspended timber. The perimeters were bounce tested and no evidence of defect was noted.

14.7 Finishes are a combination of bare floorboards and carpet. Where lifted, beneath the carpets, modern fiberboard has been laid over the floorboards. This is a common response to deflection to timber floors which in itself is an expected part of the aging process of old floors and not a cause for concern.

Recommendations:

14.8 No current works required.

Images:

Image 46: Evidence of Floorboards Beneath Fiberboard Under Carpets.

15 Windows & Doors

Element: Windows & Doors	**Category:** B

Defect or Significant Observation:

15.1 Windows are a mixture of timber sashes and timber casements. They are generally in a fair condition, although where tested not all were operational, as in some instances they have been painted shut, and in one instance the sash cords have been cut.

15.2 There are areas of decay in several of the windows, but it is not yet endemic.

15.3 Doors are all timber and where inspected were free from decay.

15.4 Both windows and doors are at the end of their decorative cycle.

Recommendations:

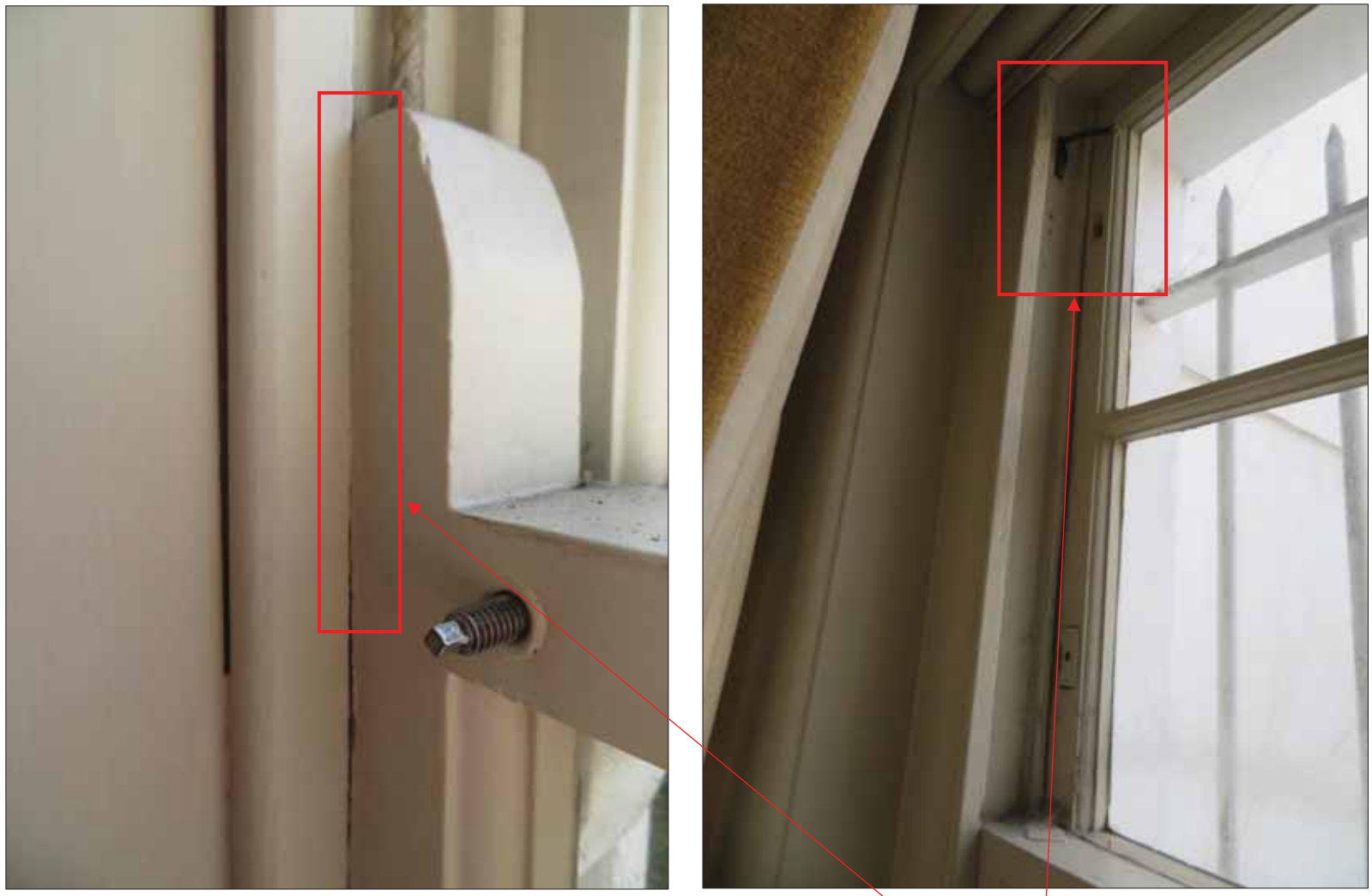
15.5 A full window survey and schedule would be required to fully understand the extent of decay/repair. Based on the inspection and the obvious neglect the building has experienced generally, whilst some repair is obviously required, more should be anticipated, and the impact/cost of this element alone should not be overlooked.

15.6 Subsequently, all windows require a full rub down and redecoration.

15.7 The installation of secondary glazing to the windows and draughtproofing to both windows and doors would have a significant positive impact on the building's thermal efficiency.

Images:

Images 47 & 48: Examples of Decay & Failed Decoration of Sash Windows of the Front Elevation.



Images 49 & 50: Examples of Inoperable Windows that have been Painted Shut & Cords Cut, Respectively.

16 Internal

Preface

16.1 We do not comment on cosmetic or stylistic elements which are considered ephemeral and subjective. Comment will be made only on elements thought significant to the condition and upkeep of the structure.

Element: Internal	**Category:** -
Defect or Significant Observation: 16.2 Whilst we don't comment on cosmetic elements, internally, finishes are often below the standard one might expect from a building of this calibre and to a certain extent, detract from the building's aesthetic significance as a heritage asset. 16.3 There is evidence to suggest there have been a number of plumbing leaks which have resulted in staining to plasterwork/panelling, however, where tested, no elevated moisture contents were recorded.	
Recommendations: 16.4 See Services Report – further inspection of the plumbing is likely to be required and associated works should be anticipated.	

Images:



Images 51 – 53: Example Evidence of Plumbing Leaks.