



REPORT

For and on behalf of XXXX

Property surveyed XXXX,
London XXXX

This report is for the sole use of XXXX for whom the survey was undertaken and can only be relied upon for 90 days from the survey date. Unless expressly stated otherwise in this report, nothing in this report confers or is intended to confer any rights on any third party pursuant to the Contracts (Rights of Third Parties) Act 1999.

Dear XXXX,

Thank you for instructing us to carry out a damp survey of XXXX. We understand that you have concerns about damp on the exterior walls and steel beam and so you wish to have an opinion from an independent expert damp surveyor. Please inform us if we have misunderstanding your instructions.

OVERALL OPINION

Overall the flats are a great examples of modern urban dwellings, with a few risks of mould and condensation. Every property suffers from dampness to some degree. You will mitigate the risk of damp if you follow all our recommendations. This report is intended to be read in full. Observations and opinions must not be taken in isolation.

Like any building, you need to be aware of the risks of damp arising in the future and plan a programme of prevention and maintenance accordingly.

We recommend you spend time understanding our advice in this report, which we would be happy to discuss in person. We would also be delighted to revisit at any time for a modest survey update fee and likewise before you eventually decide to sell the property.

INDEPENDENCE AND METHODOLOGY

Our only income is through damp survey fees. Our motivation is integrity and practical, durable solutions. There is no conflict of interest as we are independent of contractors and never profit from remedial work. We use chemical analysis to identify damp within walls.

SURVEYOR'S DECLARATION

I confirm that I inspected XXXX on 26 March 2018. I conclude that the main damp issue results from excessive humidity and condensation.

Simon Hichens

*Simon Hichens, BSc (Chemistry), AISSE (Institute of Specialist Surveyors & Engineers)
Property Care Association qualified (CSDB), Member of Property Mark (ARLA)
Specialist Surveyor*

Report completed on 9 April 2018



CONTENTS

	Page
The Property	4
About damp surveys ltd	3
Understanding damp	4
Conditions during the survey	4
Illustrations	6
Conclusion	6
Recommendations	8
Limitations	9
Ongoing Maintenance	10
Health and safety considerations	10
Tracing source of dampness	10
Appendix – Terms, Insurance, Quotations	11

ABOUT DAMP SURVEYS LTD

Damp Surveys Ltd is an independent specialist damp surveying company incorporated following the development of analytical technology employed to rapidly and accurately differentiate types of damp. Our confidence in our analytical equipment allows us to categorically state whether or not there is a risk of rising damp. If we are satisfied that there is minimal risk of rising damp, we can offer a warrantee subject to application and conditions.

Independence is key to understanding how we operate and why we provide a unique service quite different to any other company. Many contractors, looking for chemical damp work, offer low cost, or sometimes “free” surveys. We do not and never will benefit financially from any recommended remediation. We are motivated to recommend optimal treatment to protect the property now and into the future.

Your peace of mind is our goal, for you to be satisfied that the property will be properly protected against damp and for you to recommend us in person, or by social media.

THE PROPERTY

The two flats are neighbouring properties in a modern building, built about 20 years ago. The front door to faces North West. All references to location are taken as if standing facing the front door.

The walls are constructed of cavity brickwork. The first-floor flats are set back with a balcony to the front and external walls supported by large steel joists. The floors are solid. The elevation on the ground floor level is 27M above sea level, in a low flood risk area of London.

Changes to the property's original design

Flats 12 and 13 has been modified by conversion from offices into residential flats.

UNDERSTANDING DAMP

Excess damp found in properties is largely as a result of changes from the original design, location or use. Properties are built to absorb rain and evaporate moisture without excessive damp inside. Lifestyles have changed over the years, such as taking showers more often. The resultant raised humidity means most properties are at increased risks of condensation. Damp is not inherently dangerous. However, it can spoil decoration and encourage rot, mould and insect infestation. Rot is omnipresent and starts when wood cells rupture above 28% moisture content with a constant source of water. Brown rots, such as dry rot proliferates in unvented damp voids. Wood boring beetles are attracted to humid wood. Mould requires humidity on the surface of over 85% relative humidity (RH) to grow. Rising damp can spoil decorative surfaces. However, there is insufficient moisture to cause rot. Ground water contains nitrates, that inhibit mould growth. Rising damp needs a constant source of water, such as a high water-table within a meter of the ground. Stop the source of water and rising damp will dissipate. According to Thames Water, London's water-table is low, below the lowest tube-line. Rising damp results from the high relative force of attraction of silicone (found in sand, bricks, glass etc.), a phenomenon unhelpfully described as capillarity. The attractive force of silicone spreads water through connected pores in all directions. Plaster can be particularly absorbent. Water spreads downwards first through the additional force of gravity, until lower pores become saturated.

Condensation is caused by moist air condensing on cold surfaces, condensation starts when a wall's temperature falls below the "dew point". The dew point increases as humidity rises. There is often a line within a wall where the temperature is below the dew point, this is called the dew point line. Walls are designed to absorb and evaporate moisture daily.

Damp is often cumulative. For example, condensation is more likely to form near a wall that is damp from penetrating rainwater. Likewise, rain will not evaporate as quickly if the wall surface is already humid through condensation. Furthermore, wet external walls are poor thermal insulators. North, North-Eastern and North-Western walls receive minimal warmth from the winter sun. Some damp only occurs infrequently, once every few years, resulting from persistent rain and wind. Damp detection depends on conditions during the survey.

OBSERVATIONS

Conditions during the survey

Weather	Dry
The previous 24 hours	Recent snow, when damp reported

Flat 12

Occupancy	Unoccupied, unfurnished, door open being cleaned
Internal relative humidity	44.7%RH
Internal temperature	15.9°C
Mould point (temperature at risk)	6.2°
Dew point (condensation temperature)	3.9°C

Flat 13

Occupancy	Occupied, furnished, door closed
Internal relative humidity	57.8%RH
Internal temperature	20.8°C
Mould point (temperature at risk)	14.5°C
Dew point (condensation temperature)	12.3°C

External

- Rainwater goods looked to be in good order, however it was not raining.
- The brickwork, appeared to be in reasonable order, with no obvious signs of ingress.
- There were no obvious signs of the damp proof course (DPC) being bridged.
- The balconies above both flats were visited, and extensively observed and photographed. There were no obvious signs of ingress. But it is hard to tell from above.

ILLUSTRATIONS

1 Condensation



The primary cause of dampness in flats 12 & 13 is high humidity resulting from insufficient air flow into the properties.



Both flats had sufficient ventilation out of the property, but unless the window is opened, the extracted air will not be replaced, causing a negative pressure difference, rendering extractor fans inefficient at extracting humid air.



Both flats have windows that can be locked open, kept ajar, by about 1cm safely at night. Both flats had heating systems with no thermostat – the boiler uses the temperature of water from the return pipe to self-regulate heating.

In addition



Flat 12 had a humidistat by the front door. This appeared to make very little difference to extracting the moisture at source, bathroom, kitchen and bedrooms.

2 Interstitial condensation

Condensation that forms within building material, is known as interstitial condensation. In this case condensation from humidity generated within the flat forms around the cold metal joists holding up the external wall of the first-floor flats.

In a sense it is irrelevant whether it is interstitial or surface condensation, as the method of treating it is the same - reduce humidity, by keeping windows ajar, even when it is cold outside.



We cannot be 100% sure there is no leak without using a dye. But it is high likely that condensation is cause, given that it only occurred along the beam when there was snow outside and very cold. Furthermore it occurred in both properties at the same time and there was extensive mould, which is evidence of high humidity.

3 upstairs balconies



There are signs of water being in continual contact with the balconies upstairs, such as the greenery on the patio area, and water in the drain. Given the water to the joist only occurred to flat 12 during the snow, it seems unlikely that there is a leak from upstairs – otherwise it would have happened during rainstorms at other times of the year.

CONCLUSIONS

There is no evidence of rising damp. It is unlikely that there is a leak. The probable cause of dampness is high humidity caused by lack of air replacing humid air.

RECOMMENDATIONS

Our recommendations address items identified in our survey as areas of sufficient concern that they must be undertaken to mitigate the risk of damp. In line with every property, we recommend ongoing observation, repair and a periodic programme of maintenance, including annual clearing of gutters, repainting, repointing and noting of perimeter ground level and water-table fluctuations. We are happy to return and update the survey.

Action plan

- 1) Mould – fungicidal paint lasts for many years and is the “silver bullet” against mould.
 - a) Kill mould with soda bicarbonate or bleach (but not a mixture of the two), vinegar can also work. Then wash, scrub and wipe away mould.
 - b) When dry, sand the area with coarse grain sandpaper.
 - c) Paint on fungicidal emulsion (readily available from DIY stores) - e.g. Ronseal AMPWM750 Anti Mould Paint White Matt 750ml. You only need it on the top coat.
- 2) Keep windows ajar on the safety catch, especially when humid or the extractor fans are in use.
- 3) Reduce the production of humidity by keeping tops on pots and pans in the kitchen.

- 4) Ideally buy a washer dryer, if not use a bedroom with the door closed and window open (ajar), or a bathroom with the extractor fan on.
- 5) Use a humidity meter and mouldpoint.co.uk to become more humidity aware.
- 6) The windows can be kept open safely at night, locked on the safety latch (kept ajar safely by about 1cm).
- 7) There is no thermostat. It has become a building regulations requirement to have a thermostat. One of the key issues is keeping the temperature above the mould point typically about 12°C mouldpoint.co.uk at all times of day and night. This is best achieved with a modern thermostat, such as a Hive, Nest, Tado etc. as they allow for multiple time and temperature settings. For instance at night you may want a minimum temperature of 12°C, but 20°C during the day when occupants are up and about. Currently the heating is either on for many hours, or off. It's off for most of the night when the external wall is at its coolest.
Ideally the thermostat should be placed somewhere with a similar heat to the inside of the external walls - probably in the corridor by the front door.

LIMITATIONS

Damp Surveys Ltd reports are designed to provide you with an informed independent expert opinion as to the condition of the property together with any recommendations for further investigation or remedial work. We do not warrantee any findings in this report unless we enter into a separate warrantee agreement with you.

The survey was conducted during daylight hours. Damp will be more noticeable at night and when the weather is colder and more humid. Gutters are more likely to fail when full of leaves and during periods of prolonged rain and adverse wind. We make best endeavours but cannot guarantee being able to identify all forms of damp, rot and insect infestation affecting the property. The survey represents a snapshot in time. Damp is often progressive only becoming visible after the survey. We are happy to return and update our observations and advice at any time.

We carried out a careful and thorough inspection of as much of the property as was accessible. However, when it is not possible to make a full inspection, we make a professional judgement about the likelihood of a defect being present. In certain circumstances, this may lead to a recommendation for further action to open up an area for further investigation. We are unable to see the whole roof, all the guttering and some of the drains. We were unable to inspect woodwork or other parts of the structure which are covered, unexposed or inaccessible, and are therefore unable to report that such parts of the property are free from defect. There were no obvious signs of damp resulting from these limitations.

ONGOING MAINTENANCE

- Keep gutters clear, especially when leaves collect in them.
- Check flow of water from the roof and down the gutter during heavy rain.
- Reduce risk of condensation by extracting damp air from humid rooms such as a kitchen or bathroom.
- Mould and damp should be washed away daily.
- There is no magic bullet for condensation in a bathroom. It's very common. Improving the ventilation out, heat and use of tiles and bathroom paints help.
- If the bathroom is updated in the future be aware when a bath or shower is taken out, there is likely to be evidence of damp left behind it. This is normal and should dry easily.
- We advise clients that they need to be vigilant in ensuring that drains and guttering on the building are cleared and functioning at all times.
- Skirting boards were carefully examined. There was no evidence of dampness found except where noted. This is significant as fixing skirting boards to rendered masonry walls requires pre-drilled pilot holes to fit the plastic plugs and screws or nails. These holes can often be up to 100mm deep. If damp is present in the walls, it will rust iron nails or screws, and visibly "bleed" out into the skirting board.
- We examined the plaster and decorating. There were no signs of penetrating dampness nor rising dampness. Here was evidence of mild condensation.
- We also carefully examined the walls inside the kitchen cabinets, and closets, and took damp readings there – no dampness was detected.
- Electrical points: There was no evidence of dampness or moisture around any electrical points except where noted. Again, bearing in mind that all electrical points are set with screws drilled into the masonry wall, if plaster or render was damp there would be evidence of this where the screws were drilled into the wall.

HEALTH AND SAFETY CONSIDERATIONS

There are currently no health and safety issues resulting from defects. Read the manufacturers label on the fungicidal paint.

APPENDIX - STANDARD TERMS OF ENGAGEMENT

Terms of Engagement

1) You may cancel this contract with Damp Surveys Ltd at any time 24 hours before the time and day of the pre-arranged inspection.

2) We may cancel this contract at any time including the day of the inspection if we determine after arriving on site, that it is unsafe or that we do not have sufficient skills to complete the exercise for you. In such a case, we will refund full payment less our travel expenses.

3) You are engaging Damp Surveys Ltd, to undertake an inspection of the property in question at a pre-arranged time and the production of a report in a timely fashion thereafter. We will carefully and thoroughly inspect both the inside and outside of the property but NOT any outbuildings unless specifically requested to do so in writing.

4) Before the inspection, but after the appointment has been made, we will undertake a desk top analysis of the property by checking various different websites and other information sources for details about the property and its location.

5) Terms of Payment – we only accept instructions after advance payment.

6) Liability – our report is provided for your use only and may only be relied upon for 90 days from the survey date. Unless expressly stated otherwise in this report, nothing in this report confers or is intended to confer any rights on any third party pursuant to the Contracts (Rights of Third Parties) Act 1999.

7) We are unable to inspect parts of the structure which are covered, unexposed or inaccessible, including lofts, without written permission to do so, and are therefore unable to report that such parts are free from defect. We may express a professional opinion as to the likelihood of damp.

8) No disruptions will be made to the building's fabric save for a few pin sized holes, left by a measuring device. Access hatches and inspection chamber lids will only be lifted where it is easily possible to do so. Floor coverings and furniture cannot be moved, unless we have the prior written consent of the property owner. Floor voids will only be inspected if access panels permit. If there is a covered area you particularly wish us to investigate, please ensure that the owner of the property gives us prior written permission to uncover it.



9) We sometimes publish damp related images on websites to inform the public of damp, rot and the causes of damp and rot. We make every effort to ensure individual and corporate privacy is protected.

Insurance

For peace of mind, Damp Surveys Ltd have Public Liability insurance of £1,000,000 and Professional Indemnity insurance of £250,000 (annual aggregate) both through Hiscox.

Quotations

We recommend obtaining three quotes for any significant remedial work. We are happy to review your quotes, but always remain independent of contractors.